

# APPENDIX A State and Federal Permits for 2016 Biota Collection

	STATE OF MAIN				Page 1 of 2		
	DEPARTMENT OF INLAND FISHER	RIES AND WIL	DLIFE				
BMAINE	Wildlife Division						
Fachi	650 State Street	OI	d License #:				
Central Centra	Bangor, Maine 0440 Bhono (207) 941 4466 Eax (20		AMENDED				
VISWERI	Phone (207) 941-4466 Fax (207) 941-4450				ermit #:		
	WILDLIFE SCIENTIFIC COLL	ECTION PE	RMII		<u> 2016 - 494</u>		
ISSUED TO: A	mec Foster Wheeler Environment & Infrastruct			DAT	ES:		
10	075 Big Shanty Road NW		EFFECTIV	VE EXPIRATION			
к	ennesaw, GA 30189		7/1/2016		1/31/2017		
	NUMBER(S) OF PRINCIPAL OFFICER: Rani R. Parks (770) 421-3400						
	Rani R. Parks (770) 421-3400		Banding	broc	atened Species		
	E AUTHORIZED ACTIVITY MAY BE CONDUCTE or Old Town to the southern tip of Verona Island, and at Ple		Charles and the second s		ion(s):		
Frenchman's Bay.	an ord rown to the southern up or verona Island, and at Ple	asant river near Auu	noon, anu		ХДВХС		
1			2		) 🗆 E 🗆 F		
					3		
CONDITIONS OF PI	ERMIT: ES NOT COVER SCIENTIFIC COLLECTION OF ANY FISH	SPECIES					
	eparate permit for inland fish scientific collections can be for						
http	://www.maine.gov/ifw/pdf/scientificcollectorspermit06.pdf ar	d faxed to the Fisher	ies Division at (2	207) 2	287-6395; or		
	more information, contact the Fisheries Division at (207) 28						
Atlantic Salmon:	If you are working on a watershed where Atlantic salmon a to acquire an additional permit from either National Marine Wildlife Service at (207) 827-5938.						
Permittee shall	comply with all applicable State and Federal law	s, rules and regu	lations. Perr	nitte	e is not		
authorized to ta	ake Federal trust species without the appropriate	Federal permit.					
	by the State of Maine as state endangered or three						
	ine.gov/ifw/wildlife/species/endangered_species //www.maine.gov/ifw/wildlife/species/endangered						
specifically per			concern.nun	, an	000		
	capture Nelson's sparrows, Red-winged blackbi	rds. and Virginia	rails in July to		ain blood		
	nets, net gun array, and wire traps may be used						
	capture 15 Black Ducks per location in Decemb						
	bcation), will be sacrificed for breast muscle tissu be used. Ducks will be banded. Please conta						
wire traps tridy				an			
			Se	e Pa	ge 2 for Continuation		
SUBPERMITTEE(S)	) UNDER THIS PERMIT:						
	, e, Stephen Myers, John Green, Emily Mastrelli, I	(endra Ravor Ve	sta Mvers				
					1		
REPORTING REQU	REPORTING REQUIREMENTS:						
Annually by Jar	nuary 31 on forms provided by the Commissione						
SIGNATURE OF AU	JTHORIZED AGENCY REPRESENTATIVE:	NAME AND TI		1	DATE:		
$\Lambda$	Obl And	Shawn P.	Haskell		6/27/2016		
1 Jun	m r frague	Wildlife Researc	ch Superviso	r			
V							

		STATE OF MAIN	E		Page 2 of 2		
	DEPARTMENT OF INLAND FISHERIES AND WILDLIFE						
EMAINEE		Wildlife Division		_			
		Old License #:					
		1		AMENDED			
WE SHERE	Phone	(207) 941-4466 Fax (20			Permit #:		
$\sim$	WILDLIFE SCIENTIFIC COLLECTION PERMIT						
					<u>2016 - 494</u>		
	mec Foster Wheeler Env				ATES:		
1	075 Big Shanty Road NV	V		EFFECTIVE	E EXPIRATION		
к	Cennesaw, GA 30189			7/1/2016	1/31/2017		
			THIC PROT				
	NUMBER(S) OF PRINC		THIS PERMIT				
F	Rani R. Parks	(770) 421-3400		Banding			
			End	angered or Th	reatened Species		
CONDITIONS OF P	ERMIT, CONTINUED:						
- Spiders and te	errestrial nvertebrates are	e permitted for monitoring	a for the nurnose	s of this plan			
				ο σι απο ριαπ.			
	nust report the finding of	any State threatened or	endangered spec	cies within two	business		
work days from	capture. 207-941-4463						
SURPERMITTEE(S	) UNDER THIS PERMIT	, CONTINUED:					
1							

This permit is not valid unless signed by an authorized agency representative on page 1 attached.

STATE OF MAINE DEPARTMENT OF INLAND FISHERIES AND V	WILDIF	E				
PERMIT		AM	ENDE	ED 8/19/16		
Amec Foster Wheeler Env. & Infrastructure 285 Davidson Avenue Suite 405	Dat Effective 06/24/2016		Expiration 10/31/2016			
Somerset, NJ 08873	Renewable	9	Fee			
		Yes 🗆	No 🗆	N/A		
Name of Principal Officer (If business) Daniel Cooke		f Permit IENTIFIC	C FISH C	OLLECTORS		
Location where authorized activity may be conducted Penobscot River from Orono, Penobscot County to Turner Point, Hancock County, and in Mendall Marsh, Waldo County. Reference sampling will occur in Frenchman Bay in Hancock County (Figure 1) Permittee must notify the Regional Fishery Biologist prior to conducting any type of fish collections. Trapnets and gillnets are not to be used without prior written notification to the District Warden. This permit must be carried on the person of the permittee while exercising the privileges granted herein. This permit is non-transferable and permitted activities can only be conducted by those individuals listed on this permit. Condition(s) of the permit: to comply with a US District Court Order requiring sampling for mercury contamination to be conducted in the Penobscot River and Bay. Table 1 and Figure 1 describe the biota						
monitoring. Gear: eel pots, minnow traps, cast nets, seine nets, sh	ovels and	l hand collec	tion			
Species and Numbers: See Table 1 attached						
Disposition: The specimens will be sacrificed for lab	oratory a	nalysis of wh	ole body tis	sue		
Subpermittees: Only the following subpermittees car	n engage	in the permit	tted activitie	S,		
Louise Venne, Kendra Bavor, Mike Lounsbury, Dani Tierney & Ian Desjarlais.	elle Lern	er, Julie Pallo	ozzi, Matt M	fartin, Lauren		
***Please note: All sampling in tidal wate Marine Resources***	r shoul	d be vettee	d through	Dept. of		
All applicants must provide and follow a written d include policies and procedures for removal of aqu equipment between collection sites, as well as repo (287-5263).	iatic plai	its, cleaning	and disinfe	ection of field		
Work on DPS salmon rivers should be cleared Habitat.	l with th	ne DMR, So	ea Run Fis	heries and		
When working on tribal lands please contact Reporting requirements: Copies of any data forms a Fisheries Division in our Augusta Office 284 State St	and assoc	iated reports	must be sub	mitted to the		
year. Signature of authorized agency representative	Di	rector of Fis	heries	Date		
The Bo				8/19/2016		

#### TABLE 1 APPLICATION FOR SCIENTIFIC COLLECTOR'S PERMIT MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE NUMBER OF FISH, SHELLFISH, AND AQUATIC INVERTEBRATE SPECIMENS REQUIRED FOR THE PROPOSED PENOBSCOT RIVER MONITORING PLAN

			Spec	ies		
	American Eel (Anguila rostrata)	Atlantic Tomcod ( <i>Microgadus</i> <i>tomcod</i> )	Rainbow Smelt (Osmerus mordax)	Mummichog ( <i>Fundulus</i> <i>heteroclitus</i> )	Blue Mussel ( <i>Mytilus edulis</i> ) <u>OR</u> if no mussels present, soft shell clam ( <i>Mya</i> <i>arenaria</i> )	Polychaetes
	baited eel pots	trawl, beach	trawl, beach seine	minnow trap	hand	shovel/clam rake
		$\sim$	Sample			
Sample Location	July/August	September	September	July/ August/ September	September	September
Penobscot River and Bay Locations			7			
OV4/near Orono	20					
BO4/south of Bangor/Brewer	20	20	20	20	20	15
OB5/Winterport	20	20	20	20	20	15
OB1/River outside of Mendall Marsh	20	20	20	20	20	15
ES15/near Odom Ledge					20	
Odom Ledge	20					
ES13/South Verona		20	20		20	15
ES03					20	
ESFP/Fort Point	······································	20	20		20	15
Mendall Marsh Location		r	• ···		r	
Mendall Marsh	No. 1997			20	<u> </u>	15
Reference Location			20	20	1	45
Frenchman Bay		20	20			15
Total Number of Specimens	100	100	100	80	140	90

Notes:

Locations are arranged in north-to-south order within the Penobscot River and Bay Locations group.

Prepared by: <u>RRP 05/24/2016</u> Checked by: <u>TAN 06/22/2016</u>



PAUL R.

## STATE OF MAINE DEPARTMENT OF MARINE RESOURCES 21 STATE HOUSE STATION AUGUSTA, MAINE 04333-0021

PATRICK C. KELIHER

LEPAGE

## December 14, 2015 SPECIAL LICENSE NUMBER ME 2016-02-00

COMMISSIONER

Acting under the authority vested in the Commissioner of Marine Resources (DMR) by virtue of 12 M.R.S. Section 6074(8)(D), I hereby issue subject to renewal, a Special License to **DANIEL WILLIAM COOKE**, of AMEC and the other individuals listed below. This Special License exempts said License holders in the course of sampling from the sections of DMR regulations listed below under Exemptions. This Special License is issued subject to the following conditions:

## 1. Who:

Primary license holder Name *(first, middle, last)*: Daniel William Cooke Marine Resources violation in the past 7 years: None [X] If yes [] attach copy of waiver Date of birth (required): 10/04/61 Phone(s)/Fax, email address: (732) 302-9500 x131, daniel.cooke@amecfw.com Residential Address: 247 Nagle St. City, State, Zip: Bound Brook, NJ 08805 Business Address: 285 Davidson Avenue, Suite 405 City, State, Zip: Somerset, New Jersey 08873

Secondary license holder Name *(first, middle, last)*: Travis McCulough Kilpatrick Otis Marine Resources violation in the past 7 years: None [X] If yes [] attach copy of waiver Date of birth (required): 07/20/81 Phone(s)/Fax, email address (not mandatory): (207) 548-6362, travis@otisenterprisesmarine.com Residential Address: 85 Prospect St. City, State, Zip: Searsport, ME 04974 Business Address: 85 Prospect St. City, State, Zip: Searsport, ME 04974

Secondary license holder Name (*first, middle, last*): Kendra C Bavor Marine Resources violation in the past 7 years: None [] X If yes [] attach copy of waiver Date of birth (required): 05/29/1966 Phone(s)/Fax, email address (not mandatory): Residential Address: 310 Pinkham Brook Rd City, State, Zip: Durham Me 04222 Business Address: 511 Congress st ste200 City, State, Zip:Portland Me 04101

Secondary license holder Name *(first, middle, last):* Matthew Ken Martin Marine Resources violation in the past 7 years: None [X] If yes [] attach copy of waiver Date of birth (required): 12-31-1992 Phone(s)/Fax, email address (not mandatory): D (919)-765-9979 Residential Address: 4708 Delta Ridge Court City, State, Zip: Raleigh, NC, 27612 Business Address: 4021 Stirrup Creek Drive City, State, Zip: Durham, NC, 27703 Secondary license holder Name (*first, middle, last*): David Robert Young Marine Resources violation in the past 7 years: None [X] If yes [] attach copy of waiver Date of birth (required): 11/8/87 Phone(s)/Fax, email address (not mandatory): (330) 312-0324, david.young2@amecfw.com Residential Address: 533 Discovery Way, Durham, NC 27703 City, State, Zip: Durham, NC 27703 Business Address: 4021 Stirrup Creek Drive Suite 100. City, State, Zip: Durham, NC 27703

Secondary license holder Name (*first, middle, last*): Julie Paige Pallozzi Marine Resources violation in the past 7 years: None [X] If yes [] attach copy of waiver Date of birth (required): 7/3/1992 Phone(s)/Fax, email address (not mandatory): Desk: 207-828-2628 Cell: 207-899-9720 email: julie.pallozzi@amecfw.com Residential Address: 200 Chute Rd City, State, Zip: Windham, ME, 04062 Business Address: 511 Congress St City, State, Zip: Portland, ME, 04101

Secondary license holder Name *(first, middle, last)*: Lauren Myers Tierney Marine Resources violation in the past 7 years: None [X] Date of birth (required): 9/26/1993 Phone(s)/Fax, email address (not mandatory): (207) 828-3418 Lauren.Tierney@amecfw.com Residential Address: 57 Melbourne Street City, State, Zip: Portland, ME, 04101 Business Address: 511 Congress Street City, State, Zip: Portland, ME, 04101

Secondary license holder Name (*first, middle, last*): Michael Howard Lounsbury Marine Resources violation in the past 7 years: None [X] If yes [] attach copy of waiver Date of birth (required): 6/24/1960 Phone(s)/Fax, email address (not mandatory): 1-207-553-0645 Residential Address: 91 McKinley Street City, State, Zip: South Portland, Maine 04106 Business Address: 511 Congress Street City, State, Zip: Portland, Maine 04101

Secondary license holder Name (*first, middle, last*): Ian Cody Desjarlais Marine Resources violation in the past 7 years: None [X] If yes [] attach copy of waiver Date of birth (required): 06/14/1982 Phone(s)/Fax, email address (not mandatory): (207) 828 2664, ian.desjarlais@amecfw.com Residential Address: 17 Pilot Point Road City, State, Zip: Cape Elizabeth, ME 04107 Business Address: 511 Congress St Ste 200 City, State, Zip: Portland, ME 04101

Secondary license holder Name *(first, middle, last)*: Danielle Sophia Lerner Marine Resources violation in the past 7 years: None [X] If yes [] attach copy of waiver Date of birth (required): 6/20/1989 Phone(s)/Fax, email address (not mandatory): 1-207-828-3535 Residential Address: 244 Ridge Road City, State, Zip: Lisbon, Falls Maine 04252 Business Address: 511 Congress Street City, State, Zip: Portland, Maine 04101

## Vessels:

Maine Registration and or Federal Documentation number: 1187977 Vessel Name: First Team Owner: Travis Otis Issuance date: June 2, 2016

2. What: The purpose of the Proposed Penobscot River Monitoring is the further characterization of current conditions in the Penobscot River and Bay. Collection of fish and invertebrates for tissue sampling as ordered by the US District Court. Table 1 describes the biota monitoring, including the list of species and estimated number of specimens per species.

**Protected Species**: Applicant has corresponded with NOAA representatives regarding potential interactions with listed Atlantic salmon, Atlantic sturgeon, and shortnose sturgeon, and has been advised to avoid seining between sites OB4 and OB5 (See Figure 1) as there are sturgeon in that region throughout the summer. Beyond this caveat, NOAA has advised that it is unlikely that the proposed sampling will interfere with any of the protected species listed above. However, NOAA advised that should the applicant encounter any listed species during sampling, that they contact NOAA as soon as possible and also coordinate sampling with NOAA representatives if possible.

- **3. Where: Figure 1** shows the sample locations on the Penobscot River and Bay, and Frenchman Bay. Specimens will not be housed; all specimens to be dispatched for muscle tissue collection and whole body sampling analysis. Individuals collected and not required for analysis will be released unharmed at the location of capture.
- **4.** When: July 2016 through December 2016, however, sampling will not occur during the Atlantic salmon spawning season for the Penobscot River.
- 5. How: Collection will be performed using a variety of techniques, including baited eel pots, minnow traps, hand capture, shovel, seine nets, cast nets, trawling, and commercial traps. Hand capture will be used exclusively for blue mussels, and commercial traps will be used exclusively for lobster (See Table 1 for form of capture used for other species). For biosecurity, please refer to the attached Biosecurity and Disinfection Plan. Specimens will be temporarily stored in live well. Per discussions with DMR, specimens not required for tissue samples will be released the same day in the vicinity of capture; specimens used for tissue sampling will be stored on dry ice and transported to the laboratory for analysis. The laboratory will be responsible for final disposition of the specimens
- 6. Conditions:
  - Marine Patrol Division I office (west of Port Clyde), Tel: 633-9595; or the Division II office (east of Port Clyde), Tel: 667-3373, *shall* be contacted prior to the start up of collecting activities each semester to make arrangements as to the necessary frequency when to contact Marine Patrol to provide the Special License (SL) number, dates, location(s) of activities, name of special license holder, other persons in the field, and if transporting of specimens will occur who will be transporting specimens, etc.
  - Notification Requirements: Should applicant encounter any listed Atlantic salmon, Atlantic sturgeon, and shortnose sturgeon, applicant will cease activities and contact NOAA Federal representative Jeff Murphy as soon as possible (jeff.murphy@noaa.gov).

- A report on research results or status (electronic format) shall be provided to the Department at the end of each year and prior to renewal. Research personnel of the DMR shall have access to all biological data.
- •\* SL's are contingent upon all vessels holding current USCG commercial fishing safety inspections [USCG CFVS]. This Special License does not use a vessel therefore one is not listed.
- No marine organism authorized under this SL shall be used for human consumption.
- Any infraction of these conditions or any violation of any Marine Resources laws shall be grounds for the immediate revocation of this Special License.
- Additional conditions may be added at the discretion of the Commissioner.

This Special License *expires on December 31, 2016* and has *four* renewals.

Hannah M. Dean

Hannah M. Dean For Commissioner Patrick C. Keliher

cc: Marine Patrol Divisions I & II

## TABLE OF EXEMPTIONS

Exempted Species	12 M.R.S. and DMR Regulation Chapters, exemptions:
Lobster	Chapter 25.65 (Exempting collection of Lobster on Penobscot River north of closure line).
Smelt	Chapter 40.12 (Exempting collection of smelt on Penobscot River using trawl).
Marine Worms	Chatper 28.01 (Exempting collection of Marine Worms on all days of the week).
Blue Mussels	Chapter 95/96 (Exempting collection of blue mussels in closed areas).

## TABLE 1 APPLICATION FOR SPECIAL LICENSE MAINE DEPARTMENT OF MARINE RESOURCES

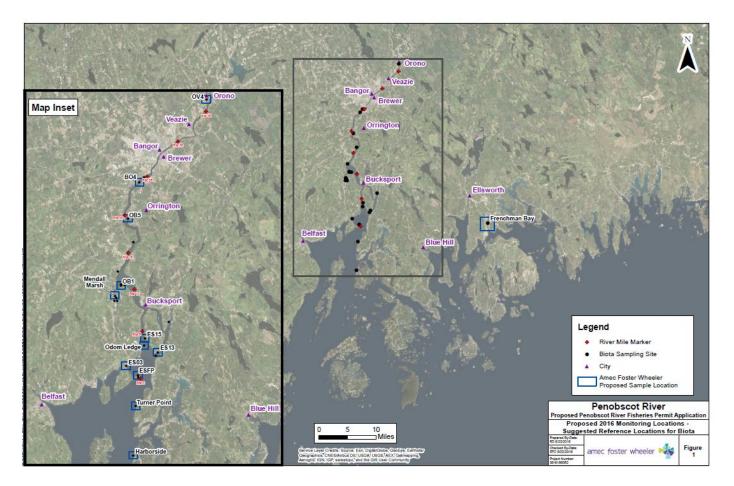
#### NUMBER OF FISH, SHELLFISH, AND AQUATIC INVERTEBRATE SPECIMENS REQUIRED FOR THE PROPOSED PENOBSCOT RIVER MONITORING PLAN

		Species						
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				Collection Metho	ds			
	baited eel pots	trawl	trawl	minnow trap	hand	commercial traps	shovel	
				Sample Month	1	r	Γ	
Sample Location	July/August	September	September	July/August/September	September	September	September	
Penobscot River and Bay	Locations							
OV4/near Orono	20							
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OB1/River outside of Mendall Marsh	20	20	20	20	20		15	
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ES13/South Verona		20	20		20	20	15	
ES03					20			
ESFP/Fort Point		20	20		20		15	
Turner Point						20		
Harborside						20		
Mendall Marsh Location				1			1	
Mendall Marsh				20			15	
Reference Location								
Frenchman Bay		20	20	20			15	
Total Number of Specimens	100	100	100	80	140	80	90	

#### Notes:

Locations are arranged in north-to-south order within the Penobscot River and Bay Locations group.

Prepared by: <u>RRP</u> <u>05/24/2016</u> Checked by: <u>TAN</u> <u>06/22/2016</u> FIGURE 1





PAUL R.

## STATE OF MAINE DEPARTMENT OF MARINE RESOURCES 21 STATE HOUSE STATION AUGUSTA, MAINE 04333-0021

PATRICK C. KELIHER

LEPAGE

## July 12, 2016 SPECIAL LICENSE NUMBER ME 2016-02-00

COMMISSIONER

Acting under the authority vested in the Commissioner of Marine Resources (DMR) by virtue of 12 M.R.S. Section 6074(8)(D), I hereby issue subject to renewal, a Special License to **DANIEL WILLIAM COOKE**, of AMEC and the other individuals listed below. This Special License exempts said License holders in the course of sampling from the sections of DMR regulations listed below under Exemptions. This Special License is issued subject to the following conditions:

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2. What: The purpose of the Proposed Penobscot River Monitoring is the further characterization of current conditions in the Penobscot River and Bay. Collection of fish and invertebrates for tissue sampling as ordered by the US District Court. Table 1 describes the biota monitoring, including the list of species and estimated number of specimens per species.

**Protected Species**: Applicant has corresponded with NOAA representatives regarding potential interactions with listed Atlantic salmon, Atlantic sturgeon, and shortnose sturgeon, and has been advised to avoid seining between sites OB4 and OB5 (See Figure 1) as there are sturgeon in that region throughout the summer. Beyond this caveat, NOAA has advised that it is unlikely that the proposed sampling will interfere with any of the protected species listed above. However, NOAA advised that should the applicant encounter any listed species during sampling, that they contact NOAA as soon as possible and also coordinate sampling with NOAA representatives if possible.

- **3. Where: Figure 1** shows the sample locations on the Penobscot River and Bay, and Frenchman Bay. Specimens will not be housed; all specimens to be dispatched for muscle tissue collection and whole body sampling analysis. Individuals collected and not required for analysis will be released unharmed at the location of capture.
- **4.** When: July 2016 through December 2016, however, sampling will not occur during the Atlantic salmon spawning season for the Penobscot River.
- 5. How: Collection will be performed using a variety of techniques, including baited eel pots, minnow traps, hand capture, shovel, seine nets, cast nets, trawling, and commercial traps. Hand capture will be used exclusively for blue mussels, and commercial traps will be used exclusively for lobster (See Table 1 for form of capture used for other species). For biosecurity, please refer to the attached Biosecurity and Disinfection Plan. Specimens will be temporarily stored in live well. Per discussions with DMR, specimens not required for tissue samples will be released the same day in the vicinity of capture; specimens used for tissue sampling will be stored on dry ice and transported to the laboratory for analysis. The laboratory will be responsible for final disposition of the specimens
- 6. Conditions:
  - Marine Patrol Division I office (west of Port Clyde), Tel: 633-9595; or the Division II office (east of Port Clyde), Tel: 667-3373, *shall* be contacted prior to the start up of collecting activities each semester to make arrangements as to the necessary frequency when to contact Marine Patrol to provide the Special License (SL) number, dates, location(s) of activities, name of special license holder, other persons in the field, and if transporting of specimens will occur who will be transporting specimens, etc.
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- No marine organism authorized under this SL shall be used for human consumption.
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- Additional conditions may be added at the discretion of the Commissioner.

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Hannah M. Dean

Hannah M. Dean For Commissioner Patrick C. Keliher

cc: Marine Patrol Divisions I & II

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Smelt	Chapter 40.12 (Exempting collection of smelt on Penobscot River using trawl).
Marine Worms	Chatper 28.01 (Exempting collection of Marine Worms on all days of the week).
Blue Mussels	Chapter 95/96 (Exempting collection of blue mussels in closed areas).

## TABLE 1 APPLICATION FOR SPECIAL LICENSE MAINE DEPARTMENT OF MARINE RESOURCES

#### NUMBER OF FISH, SHELLFISH, AND AQUATIC INVERTEBRATE SPECIMENS REQUIRED FOR THE PROPOSED PENOBSCOT RIVER MONITORING PLAN

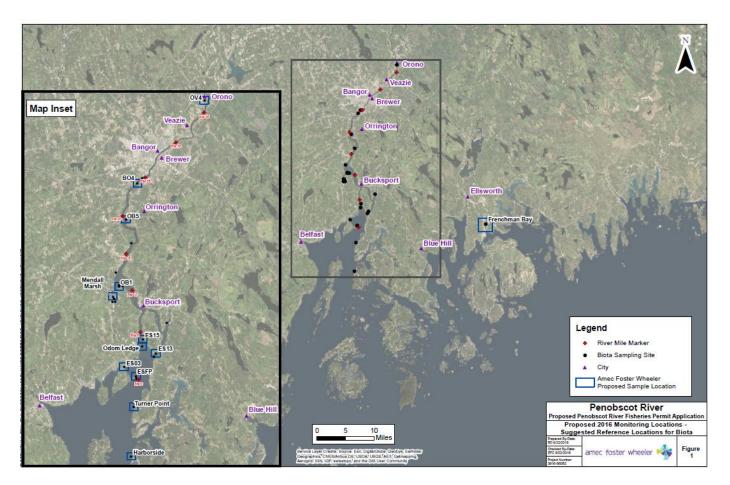
				Species			
	American Eel (Anguila rostrata)	Atlantic Tomcod ( <i>Microgadus</i> <i>tomcod</i> )	Rainbow Smelt (Osmerus mordax)	Mummichog (Fundulus heteroclitus)	Blue Mussel (Mytilus edulis) <u>OR</u> if no Mussels Present, soft Shell Clam (mya arenaria)	Lobster (Homarus americanus)	Polychaetes
				Collection Metho	ds		
	baited eel pots	trawl	trawl	minnow trap	hand	commercial traps	shovel
				Sample Month			
Sample Location	July/August	September	September	July/August/September	September	September	September
Penobscot River and Bay	Locations				-		
OV4/near Orono	20						
BO4/south of Bangor/Brewer	20	20	20	20	20		15
OB5/Winterport	20	20	20	20	20		15
OB1/River outside of Mendall Marsh	20	20	20	20	20		15
ES15/near Odom Ledge					20		
Odom Ledge	20					20	
ES13/South Verona		20	20		20	20	15
ES03					20		
ESFP/Fort Point		20	20		20		15
Turner Point						20	
Harborside						20	
Mendall Marsh Location			1	1	1		
Mendall Marsh				20			15
Reference Location			1	1	1	,,	
Frenchman Bay		20	20	20			15
Total Number of Specimens	100	100	100	80	140	80	90

Notes:

Locations are arranged in north-to-south order within the Penobscot River and Bay Locations group.

## <u>05/24/2016</u> Checked by: <u>TAN</u> <u>06/22/2016</u>

FIGURE 1





## **United States Department of the Interior**

U.S. GEOLOGICAL SURVEY PATUXENT WILDLIFE RESEARCH CENTER BIRD BANDING LABORATORY 12100 BEECH FOREST ROAD STE-4037 LAUREL, MD 20708-4037 301-497-5790

## FEDERAL BIRD BANDING PERMIT

Permittee: Personal	Permit Number:	Action:	Action Date:	Issue Date:	Valid Until:
MR STEPHEN J MYERS	23035	Revise	06/01/16	04/03/00	07/31/18
15598 TURNBERRY STREET	Signature of Iss Chief, Bird Band	uing Official, ling Laborato	ry Brue	e Pet	Erjol
MORENO VALLEY, CA 92555	Signature of Per	mittee			

# Permittee agrees to band in accordance with the general conditions of this permit and with the specific authorization/s listed below:

#### Permittee is Authorized To Band:

All Species Except Waterfowl and Eagles Hummingbirds \* Threatened and Endangered species are not included in groups unless specified.

California Gnatcatcher California Least Tern Least Bell's Vireo Snowy Plover

#### In the States of:

CA \* ME \* NM \*

#### With Special Authorization to:

Use USGS Bands On Above Listed North American Migrants in \* Bahamas, The \* Upon Host Country Approval Band Take, possess and transport blood samples-not to exceed 1% body mass Take, possess and transport feather samples Hand capture Use Bow nets Use Drop nets Use Mist nets Trap

Comments: Snowy Plover and California Least Tern banding to be conducted Only by Matthew L Amalong

# And Additionally Authorized to Use The Following Auxiliary Marking Authorization/s:

Marker Type	Species	Colors of marker	Locations	Seg #
Plastic Color Leg Band (01A)	Lark Sparrow	Black, Blue, Green, Orange, Pink, Purple, Red, Yellow	Riverside, CA San Diego, CA San Bernardino, CA	2
	omments I COOPERATION WITH MCK	ERNAN, 21005		

Permittee: Personal	Permit Number:	Action:	Action Date:	Issue Date:	Valid Until:
MR STEPHEN J MYERS	23035	Revise	06/01/16	04/03/00	07/31/18
15598 TURNBERRY STREET	Signature of Iss Chief, Bird Banc	uing Official, ling Laborato	ry Brie	e Pet	Erjol
MORENO VALLEY, CA 92555	Signature of Per	mittee			

Permittee agrees to band in accordance with the general conditions of this permit and with the specific authorization/s listed below:

Marker Type	Species	Colors of marker	Locations	Seg #
	omments I COOPERATION WITH MCKERI	NAN, 21005		
Plastic Color Leg Band (01A)	Cactus Wren Le Conte's Thrasher	Black, Blue, Green, Pink, Purple, Red, Yellow	San Bernardino, CA Riverside, CA	4
	omments COORDINATION WITH MCKEI	RNAN		
Plastic Color Leg Band (01A)	Horned Lark	Dark Blue, Green, Light Blue, Light Green, Purple, Red, White, Yellow	Kern, CA San Bernardino, CA Los Angeles, CA	5
	omments I COOPERATION WITH #22997			
Plastic Color Leg Band (01A)	Western Scrub-Jay	Black, Dark Blue, Green, Light Blue, Orange, Purple, Red, Yellow	Riverside, CA	6
Plastic Color Leg Band (01A)	Black-cowled Oriole Shiny Cowbird	Black, Light Blue, Light Green, Orange, Purple, Red, White, Yellow	Bahamas, The	7
	omments k-cowled = Icteris dominicensis			
Plastic Color Leg Band (01A)	Least Bell's Vireo	Black, Dark Blue, Dark Green, Hot Pink, Light Blue, Light Green, Light Pink, Orange, Purple, Red, White, Yellow	San Diego, CA	8
Plastic Color Leg Band (01A)	Song Sparrow Yellow Warbler	Black, Blue, Green, Mauve, Orange, Pink, Red,	Mono, CA	9

Permittee: Personal	Permit Number:	Action:	Action Date:	Issue Date:	Valid Until:
MR STEPHEN J MYERS	23035	Revise	06/01/16	04/03/00	07/31/18
15598 TURNBERRY STREET	Signature of Issu Chief, Bird Band	uing Official, ling Laborato	ry Brue	e Pet	Erjol
MORENO VALLEY, CA 92555	Signature of Per	mittee			

Permittee agrees to band in accordance with the general conditions of this permit and with the specific authorization/s listed below:

Marker Type	Species	Colors of marker	Locations	Seg #
		White		9

The following Subpermittee/s are authorized to band under the direction of the above permittee, in accordance with the same general conditions, and the subpermittee specific authorizations listed below:

23035	5 - A	EDWARDS	J	MR	23777	VALLEY VIEW	I APPLE	VALLEY, CA	92308
	Is Authorized 1	۲o Band:							
	-	Except Waterfowl h and Endangered s f:		-	inclu	ded in group	s unless	specified.	
	CA *								
	With Special A Band Use Mist net Trap	uthorization to:							
23035	5 - B	DEPPE	ΒR	MR	9076	MESA VISTA	APPLE V	ALLEY, CA 9	2308
	Is Authorized 1	۲o Band:							
	-	Except Waterfowl and Endangered s		-	inclu	ded in group	s unless	specified.	

## In the States Of:

CA \*

#### With Special Authorization to:

Band Auxiliary mark Use Mist nets Trap

Page 4 of 6

Permittee: Perso	nal	Permit Numb	er: Action:	Action Date:	Issue Date:	Valid Until:					
MR STEPHEN J MYERS	5	23035	23035 Revise <u>06/01/16</u> 04/03/00 0								
15598 TURNBERRY STI	REET	Signature of Chief, Bird B	Signature of Issuing Official, Chief, Bird Banding Laboratory Bruce Petergoe								
MORENO VALLEY, CA	.92555	Signature of	Permittee								
Permittee agrees to ban sted below:	nd in accordance with	the general condition	s of this permi	t and with the sp	pecific authori	ization/s					
-	nd in accordance with	the general condition	COLLEGE OF	THE DESERT 4							
sted below: 23035 - C				THE DESERT 4							

CA \*

#### With Special Authorization to:

Band Auxiliary mark Use Mist nets Trap

**23035 - D** GREEN J F MR 3120 MT VERNON AVE RIVERSIDE, CA 92507

#### Is Authorized To Band:

All Species Except Waterfowl and Eagles \* Threatened and Endangered species are not included in groups unless specified.

## In the States Of:

CA \* NM \*

#### With Special Authorization to:

Band Use Mist nets Trap

#### 23035 - E MS MELISSA R PRICE

25842 LOMAS VERDES ST REDLANDS, CA 92373

#### Is Authorized To Band:

Passerines and Near-passerines \* Threatened and Endangered species are not included in groups unless specified. In the States Of:

CA \*

#### With Special Authorization to:

Use USGS Bands On Above Listed North American Migrants in \* Bahamas, The \* Upon Host Country Approval Band Auxiliary mark Take, possess and transport blood samples-not to exceed 1% body mass Use Mist nets Trap

Page 5 of 6

Permittee: Personal	Permit Number:	Action:	Action Date:	Issue Date:	Valid Until:
MR STEPHEN J MYERS	23035	Revise	06/01/16	04/03/00	07/31/18
15598 TURNBERRY STREET	Signature of Iss Chief, Bird Band	uing Official, ling Laborato	ry Brue	e Pet	erjol
MORENO VALLEY, CA 92555	Signature of Per	mittee			

Permittee agrees to band in accordance with the general conditions of this permit and with the specific authorization/s listed below:

23035 - H MATTHEW L AMALONG

18578 BROOKHURST STREET FOUNTAIN VALLEY, CA 92708

California Least Tern Snowy Plover

Is Authorized To Band:

In the States Of:

CA \*

With Special Authorization to:

Band Hand capture Use Bow nets Use Drop nets Use Mist nets

#### 23035 - I EMILY MASTRELLI

3188 SALMON STREET SAN DIEGO, CA 92124

## Is Authorized To Band:

Passerines and Near-passerines

\* Threatened and Endangered species are not included in groups unless specified. In the States Of:

CA \*

With Special Authorization to: Band

Use Mist nets

## FEDERAL BIRD BANDING PERMIT

Under the provisions of Regulations issued under the Migratory Bird Treaty Act of July 3, 1918 (40 Stat. 755) as amended, or the Bald Eagle Act of June 8, 1940 (54 Stat. 250) as amended, the person named hereon is authorized to capture, for scientific banding or marking purposes, those migratory birds described hereon and to salvage birds accidentally killed during normal banding activities.

This permit is subject to the terms, exceptions and restrictions expressed herein or on the reverse side hereof and is further subject to any applicable Territorial, State, Tribal or Federal Regulations.

This permit is invalid unless accompanied by any required State permits or licenses.

## **GENERAL CONDITIONS**

1. The Permittee is not authorized to capture or possess migratory birds for any reason other than banding, marking or salvage of banding mortalities for scientific purposes. NOR IS THE PERMITTEE ALLOWED TO HOLD MIGRATORY BIRDS FOR A PERIOD OF MORE THAN 24 HOURS. Live birds shall be released as soon as practical after capture.

2. You may donate dead migratory birds or any parts thereof (except bald eagles and golden eagles, and species listed as threatened and endangered) without additional authorization from the migratory bird permit issuing office to public institutions (as specified in 50 CFR 10.12) or individuals or entities authorized by permit to acquire and possess migratory bird specimens for educational purposes. All dead specimens that you do not transfer to another authorized party must be disposed of by such means as are necessary to ensure that they are not exposed to animals in the wild.

3. You may not salvage and must immediately report to the USFWS Office of Law Enforcement any dead or injured migratory birds that you encounter that appear to have been poisoned, shot, electrocuted, have collided with industrial power generation equipment, or were otherwise killed or injured as the result of potential criminal activity. Please contact BBL for more information.

4. All eagle feathers and/or whole eagle carcasses must be shipped to the National Eagle Repository. Contact: U.S. Fish and Wildlife Service, National Eagle and Wildlife Repository, 5650 Havana St., RMA, Building 128, Commerce City, Colorado 80022, (303) 287-2110.

5. The Permittee shall keep RECORDS accounting for the use of all bands received. Periodic RECORDS COVERING THE USE OF THESE BANDS shall be submitted to the Bird Banding Laboratory in accordance with the instructions received there from. Failure to provide data in accordance with the instructions received from the Bird Banding Laboratory is sufficient justification for the revocation of this permit. The Permittee shall keep records of disposition of salvaged banding mortalities for a period of five years and shall be reported to the Bird Banding Laboratory upon request.

6. The holder of this permit shall not sell, exchange, or transfer bands to unauthorized banders or to the general public. All transfers to authorized banders must be communicated to the Bird Banding Laboratory prior to the transfer of bands. Any unused bands remaining when this permit is voluntarily returned, revoked, or expired must be returned to the Bird Banding Laboratory.

7. The Permittee shall, at all reasonable hours, allow any authorized representative of the U.S. Geological Survey or the U.S. Fish and Wildlife Service to ENTER and INSPECT the premises where operations authorized by this permit are being conducted and shall allow such representative to inspect the records relating to such operations.

8. This permit may be SUSPENDED or REVOKED by the Director of the U.S. Geological Survey or authorized representative, if the Permittee violates any of the provisions in the regulations under which this permit is issued or if the Permittee fails to render promptly any reports required. This permit is, at all times, subject to suspension or revocation at the discretion of the Director or representative.

9. This permit is not transferable and must be in possession of the Permittee when exercising the authorizations granted herein.

**10.** All traps, nets or other capture devices shall bear a TAG or LABEL showing the name, address and permit number of the Permittee; alternatively the trapping area shall be adequately marked with POSTERS provided by the Bird Banding Laboratory. The Permittee's name, address and permit number shall be legibly displayed on such posters.

11. This permit DOES NOT authorize the capture of any birds on any property, public or private without the CONSENT OF THE OWNER OR CUSTODIAN THEREOF.

**12.** All Banding under this permit is in accordance with the principles, spirit, and intent of the Animal Welfare Act of 1970 and the most recent revision of The Ornithological Council's Guidelines in the Use of Wild Birds in Research.

13. Unless specifically noted on the reverse, the following ARE NOT AUTHORIZED:

a. The taking of blood or feather sampling from any bird.

**b.** The use of ANY BAND, clip, paint, dye, signal-sending device or any marking device other than the official numbered leg bands issued by the Bird Banding Laboratory.

c. The use of MIST NETS or other nets for the capturing of birds.

d. The use of TRANQUILIZING DRUGS OR OTHER CHEMICALS for the purpose of capturing birds.

e. Trapping or disturbing the nests or nestlings, for the purpose of banding or marking, of species designated by the Secretary of Interior as "ENDANGERED "or "THREATENED."

f. The handling of any PREVIOUSLY BANDED BIRD in any manner which may bias data on file in the Bird Banding Laboratory which pertain to that bird or which may alter that bird's survival potential, behavior or other normal characteristics. This specifically includes adding markers to or removing markers from previously banded birds.

Form 9-475 (April 2011)

OMB Control #1018-0022 Expires: 05/31/2017

Page 1 of 2 SCIENTIFIC COLLECTING

Permit Number: MB13304C-0

Effective: 12/13/2016 Expires: 03/31/2019

Issuing Office: Department of the Interior U.S. FISH AND WILDLIFE SERVICE Migratory Bird Permit Office P.O. Box 779 Hadley, MA 01035-0779 Tel: 413-253-8643 Fax: 413-253-8424 Email: permitsR5MB@fws.gov

Jonothen B. Rate

CHIEF, MIGRATORY BIRD PERMIT OFFICE - REGION 5

Permittee:

AMEC FOSTER WHEELER ENVIORMENT & INFRASTRUCTURE INC 1075 BIG SHANTY NW SUITE 100 KENNESAW, GA 30144 U.S.A.

Name and Title of Principal Officer: DANIEL R. GROGAN - VICE PRESIDENT

Authority: Statutes and Regulations: 16 USC 703-712, 16 USC 668(a); 50 CFR Part 13, 50 CFR 21.23, 50 CFR 22.21.

#### Location where authorized activity may be conducted:

Throughout ME with corresponding State authority

#### **Reporting requirements:**

ANNUAL REPORT DUE: 01/31 You must submit an annual report to your Regional Migratory Bird Permit Office each year, even if you had no activity. Form at www.fws.gov/forms/3-202-1.pdf.

## **Conditions and Authorizations:**

A. General conditions set out in Subpart B of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local tribal, or other federal law.

C. Valid for use by permittee named above.

D. You are authorized to take (using same methods as specified on the state permit for this activity), transport, and possess the following migratory birds for scientific purposes: 45 American Black Ducks (15 lethal take, 30 trap and release for blood sampling).

E. You are authorized to salvage dead migratory birds (except species listed as threatened or endangered under the Endangered Species Act). Any dead bald eagle or golden eagle salvaged must be reported within 48 hours to the National Eagle Repository at (303) 287-2110 and to the migratory bird permit issuing office at 413-253-8643 or fax 413-253-8424. The Repository will provide directions for shipment of these specimens.

For a list of threatened and endangered species in your state, visit the U.S. Fish and Wildlife Service's Threatened and Endangered Species System (TESS) at: <u>http://www.fws.gov/endangered/</u>.

F. You are authorized to salvage abandoned (unoccupied) migratory bird nests and nonviable eggs outside the nesting season, except for nests and eggs of bald eagles or golden eagles, or species listed as threatened or endangered under the Endangered Species Act.

G. You may not salvage and must immediately report to the USFWS Office of Law Enforcement any dead or injured migratory birds that you encounter that appear to have been poisoned, shot, electrocuted, have collided with industrial power generation equipment, or were otherwise killed or injured as the result of potential criminal activity. See FWS OLE contact information below.

H. Any person who is



OMB Control #1018-0022 Expires: 05/31/2017



Page 2 of 2 SCIENTIFIC COLLECTING

Effective: 12/13/2016 Expires: 03/31/2019

(1) employed by or under contract to you for the activities specified in this permit, or
 (2) otherwise designated a subpermittee by you in writing, may exercise the authority of this permit.

I. You and any subpermittees must comply with the attached Standard Conditions for Federal Migratory Bird Scientific Collecting Permits. These standard conditions are a continuation of your permit conditions and must remain with your permit.

For suspected illegal activity, immediately contact USFWS Office of Law Enforcement at: East Orland, ME 207-469-6642



## Standard Conditions Migratory Bird Scientific Collecting Permits 50 CFR 21.23

All of the provisions and conditions of the governing regulations at 50 CFR part 13 and 50 CFR part 21.23 are are conditions of your permit. Failure to comply with the conditions of your permit could be cause for suspension of the permit. The standard conditions below are a continuation of your permit conditions and must remain with your permit. If you have questions regarding these conditions, refer to the regulations or, if necessary, contact your migratory bird permit issuing office. For copies of the regulations and forms, or to obtain contact information for your issuing office, visit: <a href="http://www.fws.gov/migratorybirds/mbpermits.html">http://www.fws.gov/migratorybirds/mbpermits.html</a>.

- 1. Live migratory birds you take and retain alive must be released at the capture site unless otherwise authorized on the face of the permit.
- 2. You must tag each migratory bird specimen you collect or salvage. Each tag must include the information below. The permit number under which the specimen was collected or salvaged must be recorded in the permanent accession record.
  - (a) Date and location where the specimen was collected or salvaged, and
  - (b) Name of the person who collected or salvaged the specimen.
- 3. If you encounter a migratory bird with a Federal band issued by the U.S. Geological Survey **Bird Banding** Laboratory, Laurel, MD, report the band number to 1-800-327-BAND (2263) or www.reportband.gov.
- 4. Nontoxic shot must be used with the following exceptions:
  (a) You may use lead shot when nontoxic shot is not produced in the small sizes needed to preserve the integrity of the specimens;
  (b) You may use lead shot in habitats where its use is allowed for sport hunting purposes.
- 5. Unless otherwise authorized on your permit, all migratory game birds taken during open hunting season must be in compliance with all applicable Federal and State hunting regulations.
- 6. This permit does not authorize the take or live trapping and release of bald eagles or golden eagles or species listed as endangered or threatened.
- 7. This permit does not authorize the take or release of migratory birds on Federal lands without additional prior written authorization from the applicable Federal agency, or on State lands or other public or private property without prior written permission or permits from landowner or custodian.
- 8. You may donate dead migratory birds or any parts thereof (except bald eagles and golden eagles, and species listed as threatened and endangered) without additional authorization from the migratory bird permit issuing office to public institutions (as specified in 50 CFR 10.12) or individuals or entities authorized by permit to acquire and possess migratory bird specimens for educational purposes.

All dead specimens that you do not transfer to another authorized party must be disposed of by such means as are necessary to ensure that they are not exposed to animals in the wild.

All eagle feathers and/or whole eagle carcasses must be shipped to the National Eagle Repository. Contact: U.S. Fish and Wildlife Service, National Eagle and Wildlife Repository, RMA, Building 128, 6550 Gateway Rd., Commerce City, Colorado 80022, (303) 287-2110.

(page 1 of 2)

- 9. A subpermittee is an individual to whom you have provided written authorization to conduct some or all of the permitted activities in your absence. Subpermittees must be at least 18 years of age. As the permittee, you are legally responsible for ensuring that your subpermittees are adequately trained and adhere to the terms of your permit. You are responsible for maintaining current records of who you have designated as a subpermittee, including copies of designation letters you have provided.
- 10. You and any subpermittees must carry a legible copy of this permit and display it upon request whenever you are exercising its authority. Subpermittees must also carry your written subpermittee designation letter.
- 11. Your annual report may include final reports, publications, or other documentation describing the results of the project.
- 12. You must maintain records as required by 50 CFR 13.46 and 50 CFR 21.23(c)(4). All records relating to the permitted activities must be kept at the location identified in writing by you to the migratory bird permit issuing office.
- 13. Acceptance of this permit authorizes the Fish and Wildlife Service to inspect any wildlife held, and to audit or copy any permits, books, or records required to be kept by the permit and governing regulations.
- 14. You may not conduct the activities authorized by this permit if doing so would violate the laws of the applicable State, county, municipal or tribal government or any other applicable law.

(SCCL - 12/3/2011)



# APPENDIX B Field Data Records



# APPENDIX B-1 2016 Biota Collection Forms



USDC P	enobscot Riv	er		Project Number:		36161	66052.04.05	
	071816			Location ID:			1MSW-C	
	LT, ML				-68.8609			
Who	le Body (WB)			Weather:				
Terrest	rial Insect (TI	N)		<b>Collection Method:</b>	White Sheet and Lights at Night, butterfly nets during the day			
				Number of	Weight of			
Sample ID			Time	Individuals per	Composite	Photo Number	Notes	
				Composite	(grams)			
071816	_TIN_WB_	02	06:32	NR	2.5			
071816	_TIN_WB_	03	06:33	NR	2.3			
071816	_TIN_WB_	04	07:16	NR	2.4			
071816	_TIN_WB_	05	07:52	NR	2.5			
	Total Hg,	Total M	eHg, Total	Lipids	Note: Spider and	terrestrial insect same	ling was conducted according to the following	
			-				ded in the QAPP;	
					SOP S-11 Spider and Insect Sampling			
•	NR = Not Re	ecorded						
ed:	No			If yes, MS sample ID:		NA		
	NA					NA		
?	Yes		•					
	Who Terrest Sample ID 071816 071816 071816 071816 071816 	071816 LT, ML Whole Body (WB) Terrestrial Insect (TI Sample ID 071816 _TIN_WB_ 071816 _TIN_WB_	LT, ML Whole Body (WB) Terrestrial Insect (TIN) Sample ID 071816 _TIN_WB_ 02 071816 _TIN_WB_ 03 071816 _TIN_WB_ 04 071816 _TIN_WB_ 05 Total Hg, Total Ma 1631e, 1630, 1 2 oz polyet NR = Not Recorded ed:No 	071816         I.T., ML           Whole Body (WB)         Terrestrial Insect (TIN)           Sample ID         Time           071816         _TIN_WB_         02         06:32           071816         _TIN_WB_         03         06:33           071816         _TIN_WB_         04         07:16           071816         _TIN_WB_         04         07:16           071816         _TIN_WB_         05         07:52           0         0         0         0           0         0         0         0           0         0         0         0         0           071816         _TIN_WB_         05         07:52         0           0         0         0         0         0           0         0         0         0         0           0         0         0         0         0         0           0 <td< td=""><td>071816       Location ID:         LT, ML       Lat/Long:         Whole Body (WB)       Weather:         Terrestrial Insect (TIN)       Collection Method:         Sample ID       Time         071816       TIN_WB_ 02       06:32         071816       TIN_WB_ 03       06:33       NR         071816       TIN_WB_ 04       07:16       NR         071816       TIN_WB_ 05       07:52       NR         0       Individuals per       Individuals per         0       Individuals       Individuals</td><td>071816         Location ID:           LT, ML         Lat/Long:         44           Whole Body (WB)         Collection Method:         White S           Terrestrial Insect (TIN)         Time         Number of Individuals per Composite         Weight of Composite           071816         TIN_WB_02         06:32         NR         2.5           071816         TIN_WB_03         06:33         NR         2.3           071816         TIN_WB_04         07:16         NR         2.4           071816         TIN_WB_05         07:52         NR         2.5           0               0               0               0               071816         TIN_WB_0         0             071816         TIN_WB_0          </td></td<> <td>071816         Location ID:         N           LT, ML         Lat/Long:         44.5801           Whole Body (WB)         Weather:         65 degre           Terrestrial Insect (TIN)         Time         Number of         White Sheet and Lights at N           Sample ID         Time         Individuals per         Collection Method:         Photo Number           071816         _TIN_WB_ 02         06:32         NR         2.5         071816           071816         _TIN_WB_ 03         06:33         NR         2.3         071816         TIN_WB_ 04         07:16         NR         2.4         071816         TIN_WB_ 05         07:52         NR         2.5         071816         Units of the second sec</td>	071816       Location ID:         LT, ML       Lat/Long:         Whole Body (WB)       Weather:         Terrestrial Insect (TIN)       Collection Method:         Sample ID       Time         071816       TIN_WB_ 02       06:32         071816       TIN_WB_ 03       06:33       NR         071816       TIN_WB_ 04       07:16       NR         071816       TIN_WB_ 05       07:52       NR         0       Individuals per       Individuals per         0       Individuals       Individuals	071816         Location ID:           LT, ML         Lat/Long:         44           Whole Body (WB)         Collection Method:         White S           Terrestrial Insect (TIN)         Time         Number of Individuals per Composite         Weight of Composite           071816         TIN_WB_02         06:32         NR         2.5           071816         TIN_WB_03         06:33         NR         2.3           071816         TIN_WB_04         07:16         NR         2.4           071816         TIN_WB_05         07:52         NR         2.5           0               0               0               0               071816         TIN_WB_0         0             071816         TIN_WB_0	071816         Location ID:         N           LT, ML         Lat/Long:         44.5801           Whole Body (WB)         Weather:         65 degre           Terrestrial Insect (TIN)         Time         Number of         White Sheet and Lights at N           Sample ID         Time         Individuals per         Collection Method:         Photo Number           071816         _TIN_WB_ 02         06:32         NR         2.5         071816           071816         _TIN_WB_ 03         06:33         NR         2.3         071816         TIN_WB_ 04         07:16         NR         2.4         071816         TIN_WB_ 05         07:52         NR         2.5         071816         Units of the second sec	

Sampler Signature:

Yull & per

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_ Lauren Tierney 12/29/2016



wheeler								
Project Name:	USDC F	enobscot Riv	/er		Project Number:		3616	5166052.04.05
Date:		071916		_	Location ID:			W17-N
Collectors:		ML, LT		_	Lat/Long:	44	4.6234	-68.8553
Media:	Who	le Body (WB)	)	-	Weather:			70s clear
Species:	Terrest	rial Insect (T	IN)	_	<b>Collection Method:</b>		White Shee	et and Lights at Night
					Number of	Weight of		
	Sample ID			Time	Individuals per	Composite	Photo Number	Notes
					Composite	(grams)		
W17-N _	071916	_TIN_WB_	01	19:18	31	2.0		
W17-N _	071916	_TIN_WB_	02	19:30	26	2.0		
W17-N _	071916	_TIN_WB_	03	20:20	42	2.0		
W17-N _	071916	_TIN_WB_	04	20:22	27	2.0		
W17-N _	071916	_TIN_WB_	05	20:56	13	2.0		
_								
_								
_								
_								
_								
_								
_								
Requested Analyses:								
Analytes:		Total Hg,	Total M	eHg, Total	Lipids	Note: Spider and	terrestrial insect sar	npling was conducted according to the followi
Methods:		1631e	e, 1630,	NOAA 199	3a		SOP inc	luded in the QAPP;
Container:		2 0	z polyet	hylene jar			SOP S-11 Spi	der and Insect Sampling
Additional Questions:								
Additional QC Collecte	ed:	Yes			If yes, MS sample ID:	W17-N	_ 112296	_TIN_WB_MS_ 01
QC Samples Types:		MS,M	SD	If	yes, MSD sample ID:	W17-N	_ 112296	_TIN_WB_MMD_01
Were samples frozen?	p	Yes						
			$\sim$			Deviewedlew		

Sampler Signature:

Julit Alazo)

Reviewed by: \_\_\_\_\_ Date: Lauren Tierney 12/29/2016



wheeler										
Project Name:	USDC P	enobscot Riv	/er		Project Number:		36161	.66052.04.05		
Date:		072016			Location ID:			MMSE-1		
Collectors:		LT, ML		_	Lat/Long:					
Media:		le Body (WB)		_	Weather:					
Species:	Terrest	rial Insect (T	IN)	_	Collection Method:	Butterfly nets				
				1						
	~ L ID				Number of	Weight of		<b>a</b>		
	Sample ID			Time	Individuals per Composite	Composite (grams)	Photo Number	Notes		
MMSE-1	072016	_TIN_WB_	01	11:34	NR	2.9				
MMSE-1	072016	_TIN_WB_	02	12:02	NR	2.4				
MMSE-1	072016	_TIN_WB_	03	12:31	NR	2.6				
MMSE-1	072016	_TIN_WB_	04	13:01	NR	3.2				
MMSE-1 _	072016	_TIN_WB_	05	14:10	NR	3.1				
_										
_										
_										
_										
				-						
-										
 Requested Analyses:										
Analytes:		Total Hg,	Total N	leHg, Total	Lipids	Note: Spider and t	terrestrial insect same	oling was conducted according to the following		
Methods:		16316	e, 1630,	NOAA 1993	3a	SOP S-11 Spider and Insect Sampling was conducted according to SOP S-11 Spider and Insect Sampling				
Container:		2 o	z polye	thylene jar						
Additional Questions	•	NR = Not R	ecordeo	b						
Additional QC Collecte	ed:	No			If yes, MS sample ID:		NA			
QC Samples Types:		NA		-	yes, MSD sample ID:		NA			
Were samples frozen?	?	Yes		-						
			10	- 25						
Sample	er Signature:	:	f.L.	eit pa		Reviewed by:		Lauren Tierney		
<b>-</b>			V			Date:		12/29/2016		



wheeler									
Project Name:	USDC	Penobscot Ri	ver	_	Project Number:		361616	6052.04.05	
Date:		072116		_	Location ID:	ADD-01			
Collectors:		DL, ML		_	Lat/Long:	44.	44.643517 -67.718950		
Media:	Whe	ole Body (WB	)	-	Weather:		70°F, sun	ny, clear skies	
Species:	Terres	strial Insect (T	IN)	Collection Method:			Butte	erfly Nets	
_									
					Number of	Weight of			
	Sample ID			Time	Individuals per	Composite	Photo Number	Notes	
					Composite	(grams)			
ADD-01 _	072116	_TIN_WB_	01	09:50	NR	2.2			
ADD-01 _	072116	_TIN_WB_	02	10:30	NR	2.2			
ADD-01 _	072116	_TIN_WB_	03	12:15	NR	2.2			
ADD-01 _	072116	_TIN_WB_	04	12:30	NR	2.2			
ADD-01 _	072116	_TIN_WB_	05	14:48	NR	2.4			
_									
_									
_									
_									
_									
_									
_									
_									
_									
_									
<b>Requested Analyses:</b>							•		
Analytes:		Total Hg,	Total M	eHg, Total I	ipids	Note: Spider	and terrestrial insect s	ampling was conducted according to the	
Methods:				a		following SOP ir	ncluded in the QAPP;		
Container:				hylene jar			SOP S-11 Spider	and Insect Sampling	
Additional Questions	5:	NR = Not Re	ecorded						
Additional QC Collect	ed:	No			If yes, MS sample ID:		NA		
QC Samples Types:		NA			yes, MSD sample ID:		NA		
Were samples frozen	?	Yes		-	· · · ·				

Sampler Signature:

And It for

Reviewed by: Lauren Tierney
Date: 12/29/2016



## SAMPLE COLLECTION LOG SPIDER WHOLE BODY

wheeler										
Project Name:	USDC F	Penobscot Ri	ver		Project Number:		361616605	2.04.05		
Date:		071216		-	Location ID:		MMSV	V-C		
Collectors:	Mike Louns	buryLauren 1	ierney		Lat/Long:	-68	.5678	44.2354		
Media:		le Body (WB	)		Weather:		Sunny o	lear		
Species:	S	pider (SPI)		_	Collection Method:		Tweezers, Broom			
			Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo Number	Notes			
MMSW-C	071216	_SPI_WB_	1	18:37	12	36.0	3			
MMSW-C	071216	_SPI_WB_	2	18:39	1	18.0	3			
MMSW-C	071216	_SPI_WB_	7	08:46	9	10.0	5			
MMSW-C	071216	_SPI_WB_	9	08:47	50	13.0	5			
				-						
_										
_										
_										
Requested Analys	es:									
Analytes:		Total Hg,	Total N	1eHg, Total	Lipids					
Methods:		1631	e, 1630,	NOAA 199	3a					
Container:		2 (	oz polye	thylene Jar						
Additional Question	ons:									
Additional QC Coll		Ye			If yes, MS sample ID:	MMSW-C	071216	_SPI_WB_MS 07		
QC Samples Types		MS,N	1SD	_	f yes, MSD sample ID:	MMSW-C	071216	_SPI_WB_MD 07		
Were samples froz	zen?	Ye	S							
Samp	oler Signature	::	l./_	0		Reviewed by:	Lauren	Tierney		

Date: 5/12/2017



### SAMPLE COLLECTION LOG SPIDER WHOLE BODY

Project Name:		enobscot Ri	ver	_	Project Number:		3616	166052.04.05	
Date:		072116		_	Location ID:			ADD-01	
Collectors:		DL, ML		-	Lat/Long:	44.6435	517	-67.71895	
Media:	Who	le Body (WB	)	-	Weather:				
Species:	S	oider (SPI)		-	<b>Collection Method:</b>	Tweezers			
					Number of	Weight of			
5	Sample ID			Time	Individuals per Composite	Composite (grams)	Photo Number	Notes	
ADD-01 _	072116	_SPI_WB_	01	14:53	NR	2.3			
ADD-01 _	072116	_SPI_WB_	02	14:55	NR	2.1			
ADD-01 _	072116	_SPI_WB_	03	14:56	NR	2.4			
ADD-01 _	072116	_SPI_WB_	04	15:14	NR	2.3			
ADD-01 _	072116	_SPI_WB_	05	15:46	NR	2.4			
-									
_									
_									
_									
_									
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-									
-									
equested Analyses:									
alytes:				eHg, Total		Note: Spider and ter		pling was conducted according to the follow	
ethods:				NOAA 199	За			uded in the QAPP;	
ontainer:		2 (	oz polyet	thylene jar			SOP S-11 Spic	der and Insect Sampling	
ditional Questions:		NR = Not F	Recorded	1					
ditional QC Collecte	d:	No	)		If yes, MS sample ID:		NA		
C Samples Types:		NA			yes, MSD sample ID:		NA		
ere samples frozen?		Ye		-	, ,				

Sampler Signature:

mult for

Reviewed by: Lauren Tierney
Date: 12/29/2016



## SAMPLE COLLECTION LOG SPIDER WHOLE BODY

wheeler								
Project Name:		Penobscot R	iver	_	Project Number:		36	16166052.04.05
Date:		072216		_	Location ID:			MMSE-1
Collectors:		DL, ML		-	Lat/Long:	44.590		-68.85956
Media:	Who	le Body (Wi	B)	_	Weather:	65°F,	, overcast and	windy; thunderstorms expected
Species:		pider (SPI)		_	<b>Collection Method:</b>			Tweezers
S	Sample ID			Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo Number	Notes
MMSE-1 _	072216	_SPI_WB_	01	08:30	75	2.5		
MMSE-1 _	072216	_SPI_WB_	02	09:00	30	2.2		
-								
-								
-								
-								
-								
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_								
_								
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-								
Requested Analyses:								
Analytes:				leHg, Total		Note: Spider and te		ampling was conducted according to the following
Methods:				NOAA 199				ncluded in the QAPP;
Container:		2	oz polyet	thylene jar			SOP S-11 S	pider and Insect Sampling
Additional Questions:								
Additional QC Collected	d:	N	0		If yes, MS sample ID:		NA	
QC Samples Types:		N	A	- 1	f yes, MSD sample ID:		NA	
Were samples frozen?		Ye	es	-				

Sampler Signature:

Reviewed by: Lauren Tierney Date: 12/29/2016

amec foster

### SAMPLE COLLECTION LOG SPIDER WHOLE BODY

wheeler Project Name:	USDC F	enobscot Ri	ver		Project Number:		3616	5166052.04.05
Date:		072316		-	Location ID:			MMSE-1
Collectors:		И, JFG, LSV		-	Lat/Long:	44.590	689	-68.85956
Media:		le Body (WB	5)	_	Weather:			d warming, partly cloudy
Species:		oider (SPI)		-	<b>Collection Method:</b>	-		Tweezers
	Sample ID			Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo Number	Notes
MMSE-1 _	072316	_SPI_WB_	03	15:15	over 50	2.02		
-								
-								
_								
-								
_								
_								
_								
_								
_								
_								
_								
_								
equested Analyses:								
nalytes:		Total Hg	Total M	leHg, Total	Lipids	Note: Snider and te	rrestrial insect san	npling was conducted according to the following
/ethods:				NOAA 199		Note: Splace and te		luded in the QAPP;
ontainer:				thylene jar				der and Insect Sampling
dditional Questions	5:		1 - 7 - 7	- <b>/ /</b> -				· -
dditional QC Collect		No	)		If yes, MS sample ID:		NA	
C Samples Types:		N/		- ,	f yes, MSD sample ID:		NA	
Vere samples frozen	?	Ye		- '	. , co, mob sumple iD.			
Sampl	er Signature	:	Juis	.Ven.		Reviewed by: Date:		Lauren Tierney 12/29/2016

amec foste

### SAMPLE COLLECTION LOG SPIDER WHOLE BODY

wheeler		Ionobcest Di	ior				204	6166052.04.05
Project Name:		Penobscot Riv	ver	-	Project Number:		361	6166052.04.05
Date:		072616		_	Location ID:		<u></u>	MMSE-1
Collectors:		JP		-	Lat/Long:	44.590		-68.85956
Media:		le Body (WB)		-	Weather:			80 F sunny
Species:	Sp	oider (SPI)			Collection Method:			Tweezers
	Sample ID			Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo Number	Notes
MMSE-1 _	072616	_SPI_WB_	04	13:32	30	0.7	1 photo taken	composited from multiple MMSE jars
-								
-								
-								
-								
_								
_								
-								
_								
_								
_								
_								
_								
equested Analyses:								
		Tet-10	Total	alla Tet 1	Linida			
nalytes:				eHg, Total		Note: Spider and ter		mpling was conducted according to the following
Aethods: Container:				NOAA 199 thylene jar	bC			cluded in the QAPP; ider and Insect Sampling
dditional Questions:		20	z poryet	Inviene Jar			30r 3-11 3p	act and insect sampling
dditional QC Collecte	ed:	No		_	If yes, MS sample ID:		NA	
C Samples Types:		NA		I	f yes, MSD sample ID:		NA	
Vere samples frozen?	2	Yes						
Sample	er Signature	:	Juli	. (-huys'		Reviewed by: Date:		Lauren Tierney 12/29/2016

 ved by:
 Lauren Tierney

 Date:
 12/29/2016

amec foste

### SAMPLE COLLECTION LOG SPIDER WHOLE BODY

wheeler								
Project Name:	USDC	Penobscot Ri	ver	_	Project Number:		361	16166052.04.05
Date:		072616		_	Location ID:			MMSW-C
Collectors:		JP		_	Lat/Long:	44.58	01	-68.8609
Media:		ole Body (WB	)	_	Weather:			80 F sunny
Species:	S	pider (SPI)			Collection Method:			Tweezers
	Sample ID			Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo Number	Notes
MMSW-C	072616	_SPI_WB_	03	13:50	30	1.7	1 photo taken	composited from multiple MMSW jars
_							tuken	
_								
_								
_								
_								
-								
-								
-								
-								
_								
Requested Analyses	:							
Analytes:		Total Hg,	Total M	eHg, Total	Lipids	Note: Spider and ter		ampling was conducted according to the following
Methods:				NOAA 199				included in the QAPP;
Container:		2 (	oz polyet	thylene jar			SOP S-11 Sp	pider and Insect Sampling
Additional Question	s:							
Additional QC Collec	ted:	No		_	If yes, MS sample ID:		NA	
QC Samples Types:		NA		I	f yes, MSD sample ID:		NA	
Were samples frozer	1?	Ye	S					
Samp	ler Signature	2:	Gu <b>i</b>	Ques		Reviewed by: Date:		Lauren Tierney 12/29/2016

amec foste

### SAMPLE COLLECTION LOG SPIDER WHOLE BODY

wheeler								
Project Name:	USDC Pe	enobscot Riv	ver		Project Number:		36	16166052.04.05
Date:		072616		-	Location ID:			W17-N
Collectors:		JP		-	Lat/Long:	44.623	34	-68.8553
Media:		e Body (WB	)	-	Weather:			80 F Sunny
Species:	Sp	ider (SPI)			Collection Method:			Tweezers
					Number of	Weight of	Photo	
	Sample ID			Time	Individuals per	Composite	Number	Notes
					Composite	(grams)	Number	
W17-N _	072616	_SPI_WB_	01	13:30	20	2.8	1 photo	Sample composited from multiple W17-N jars to reach target weight
-								
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_								
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_								
_								
_								
_								
_								
_								
Requested Analyses	•							
Analytes:		Total Hø	Total M	eHg, Total	Lipids	Note: Spider and ter	restrial insect s	ampling was conducted according to the following
Methods:				NOAA 199		Note: Spider and ter		ncluded in the QAPP;
Container:				thylene jar				pider and Insect Sampling
Additional Question	ns:							
Additional QC Collec		No			If yes, MS sample ID:		NA	
QC Samples Types:		NA		- 1	f yes, MSD sample ID:		NA	
Were samples froze	n?	Yes			, ,			
Samp	oler Signature:		Guer	~(Feleber)		Reviewed by: Date:		Lauren Tierney 12/29/2016
			25			Date.		12/23/2010



wheeler												
Project Name:	USD	C Penobsco	t River						Pr	oject Number:		
Starting Band Number:		251145014	4	-					Banders name	s) and initials:		
Band Size:				_						Page:		
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Lengt (mm)
251145014	NESP	071916	MMSW-C	10:10	1 = AHY	S = Skull	F = Female	B = Brood Patch	0 = None	0 = None	56.0	48.0
251145015	NESP	071916	MMSW-C	13:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	50.0
239177009	NESP	071916	MMSW-C	14:52	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	47.0
				1						1		

NOTES:											
AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
= AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
= HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
= Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
= SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
= ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
= ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
= Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

			3616166	5052.04.05
			LSV	/, JFG
			1	of 2
h )	Weight (g)	Bander Initials	Net #	Notes
	16.6	JFG	4	
	16.9	JFG	9	
	17.2		8	Recap; right silver, left red over blue color banded

amec 🔼
foster
wheeler

wheeler														
Project Name:		USE	C Penobscot	t River								Project Numbe	r:	
Starting Band Number:			251145014	Ļ	-						Banders na	ame(s) and initial	s:	
Band Size:					_							Pag	e:	
Band N (9 digits - if band has 8 ( begir		Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Сог
2511	45014	NESP	071916	MMSW-C	10:10	6 = Complete	4 = Wrinkled							
25114	45015	NESP	071916	MMSW-C	13:30			3 = Large						
2391	77009	NESP	071916	MMSW-C	14:52			3 = Large						
														_
														_
														_
														-
														-
														_
			I	<u> </u>	I	<u>                                     </u>						<u> </u>		
NOTES: AGE <sup>1</sup> HOW AG			SEX <sup>3</sup>			HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MC		SKULL <sup>7</sup>		BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT
	t Plumage nal Plumage		M = Male F = Female			1 = Adult Plumage 2 = Juvenal Plumage	0 = None 1 = Trace	0 = None 1 = Trace		0 = None 1 = Trace		0 = None 1 = Smooth	0 = None 1 = Small	N = None
	ling in nest, no flight feat	hers	F = Female U = Unknov			3 = Eye Color	2 = Light	2 = Light		2 = < 1/3		2 = Vascular	2 = Medium	A = Adve S = Symr
	ling in nest, flight feather			xed subsequent	v	B = Brood Patch	3 = half	3 = Mediu	ım	3 = Half		3 = Heavy	3 = Large	J = Juv G
	ling fledged, incapable of			sexed subsequent		C = Cloacal Protuberance		4 = Heavy		4 = > 2/3		4 = Wrinkled	J - Laige	1 – JUV G

AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feat	her	X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

	36161660	52 04 05	
	LSV, .		
	2 of		
ondition <sup>12</sup>	Bander Initials	Net #	Notes
	JFG	4	
	JFG	9	
		8	Recap; right silver, left red over blue color banded
	ļ		
	ļ		

amec foster wheeler			MIST NET LOG GPS COORDINATES						
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.05					
		071916		MMSW-C					
Collectors:		LSV, JFG		Weather:         Sunny, breezy to windy, 70s					
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed				
1	12	06:28	44.5814	68.86083	12:25				
2	12	06:31	44.58144	68.86066	12:50				
3	9	06:40	44.58162	68.86058	14:30				
4	6	06:44	44.58162	68.86058	14:35				
5	9	06:50	44.58059	68.86001	11:25				
6	6	06:57	44.58056	68.86021	14:40				
7	9	11:30	44.58048	68.8621	14:43				
8	12	12:30	44.58172	68.85902	14:50				
9	12	12:58	44.58168	68.85886	14:55				

Jours Verma

Reviewed by: Lauren Tierney

amec									LE COLLECTION	LOG		
foster									BIND BLOOD			
wheeler Project Name:			Penobsco	ot River				P	roject Number:			3616166052.04.05
Date:	-		071916			-		•	Location ID:			MMSW-C
Collectors:			LSV, JFC			-		SPC (	X/Y); Lat/Long:		44.58162	
Media:		E	Blood (Bl			-			Weather:			Sunny, breezy to windy, 70s
Species:		Nelson	's Sparro	w (NSS)		-		Colle	ection Method:			Mist Net
						-				1	T T	
	Sample	ID			Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
MMSW-C _	071916	_ NSS	_BL_	01	10:10	251145014	NESP	16.6	2	4	JFG	LSV bleed
MMSW-C	071916	_ NSS	_BL_	02	13:30	251145015	NESP	16.9	2	9	JFG	LSV bleed
MMSW-C _	071916	_ NSS	_BL_	03	15:17	239177009	NESP	17.2	3	8		LSV bleed, recap from others, single silver right, left red over blue
		_										
		-										
		-										
_		_										
		_										
		_										
		-										
		_										
		-										
		-										
Requested Analyse	s:											
Analytes:					Mercury					NOTE: B	ird sampling v	vas conducted according to the following SOPs included in the QAPP;
Methods:					.631e							SOP S-8 Bird Mist Netting
Container:				Capil	lary Tube							SOP S-9 Songbird Sampling
Additional Questio												
Additional QC Colle	cted:		Yes			MS sample ID:		_ 071916	_ NSS _BL_	103		
QC Sample Types:			MS		If yes, N	ASD sample ID:		NA				
Were samples froze	en?		Yes									
Samp	ler Signature:			Jourse .	V.e.m.a_			Reviewed Da	by: te:		uren Tierne 5/12/2017	у



Project Name:	Proie	ect N	lame:
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amec foster wheeler							Bir	d Banding Data Form	I							
oject Name:	USD	C Penobscot	River						Р	roject Number:					361616	6052.04.05
arting Band Number:		185140310	)	•					Banders name	e(s) and initials:					EM, V	И, МКМ
nd Size:										Page:					1	of 2
Band Number 9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Bander Initials	Net #	Notes
185140310	NESP	071916	W17-N	09:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	48.0	17.5	EM	6	Band size 1
185140311	NESP	071916	W17-N	09:50	2 = HY	S = Skull	U = Unknown	X = Not attempted	2 = Light	0 = None	55.0	48.0	15.1	EM	2	Band size 1
185140312	NESP	071916	W17-N	10:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	47.0	17.8	SJM	5	Band size 1
185140313	NESP	071916	W17-N	10:20	1 = AHY	N = Molt Limits Absent	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	51.0	17.4	EM	6	Band size 1
274146530	NESP	071916	W17-N	08:50	2 = HY	S = Skull	U = Unknown	X = Not attempted	0 = None	1 = Trace	57.0	46.0	17.2	SJM	3	Band size 1B
274146533	NESP	071916	W17-N	13:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	59.0	52.0	18.3	EM	2	Band size 1B
99177931	RWBL	071916	W17-N	11:30	1 = AHY	1 = Adult Plumage	F = Female	1 = Adult Plumage	0 = None	0 = None	97.0	77.0	37.3	SJM	4	Band size 1A, leading zero on band #
251118716	NESP	071916	W17-N	06:50	1 = AHY	N = Molt Limits Absent	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	49.0	17.3	SJM	2	Already banded, recap

NOTES:											
AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										



wneeler												
roject Name:	USD	C Penobsco	t River								Project Number:	
tarting Band Number:		185140310	)	-						Banders na	me(s) and initials:	
and Size:				-							Page:	
Band Number 9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>
185140310	NESP	071916	W17-N	09:20			3 = Large					
185140311	NESP	071916	W17-N	09:50	1 = Trace							
185140312	NESP	071916	W17-N	10:20			3 = Large					
185140313	NESP	071916	W17-N	10:20			3 = Large					
274146530	NESP	071916	W17-N	08:50	1 = Trace							
274146533	NESP	071916	W17-N	13:00			3 = Large					
99177931	RWBL	071916	W17-N	11:30		3 = Heavy						
251118716	NESP	071916	W17-N	06:50			3 = Large					

NOTES:		0-7-13		5		leven v <sup>7</sup>		a. a. a			20117 - 1011 <sup>12</sup>
GE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
= AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
= HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
= Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
= ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
= ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging	g	6 = Complete					W = Wing Injury
= Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feat	her	X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

	36161660	52.04.05	
	EM, VM	, MKM	
	2 of	2	
Condition <sup>12</sup>	Bander Initials	Net #	Notes
	EM	6	Band size 1
	EM	2	Band size 1
	SJM	5	Band size 1
	EM	6	Band size 1
	SJM	3	Band size 1B
	EM	2	Band size 1B
	SJM	4	Band size 1A, leading zero on band #
	SJM	2	Already banded, recap
	Condition <sup>12</sup>	2 of Condition <sup>12</sup> Bander Initials EM EM SJM EM SJM EM SJM EM SJM	ConditionInitialsNet #EMEM6EM2SJM5EM6SJM3EM2EM2SJM3SJM4

mec oster heeler			MIST NET LOG GPS COORDINATES		
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.	05
Date:		071916		W17-N	
Collectors:		EM, VM, MKM	Weather:	Partly cloudy, slight bre	eze, 70s
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed
1	9	06:20	44.624601	68.885277	14:00
2	12	06:30	44.624601	68.852773	14:00
3	12	06:40	44.624168	68.85303	14:00
4	6	06:50	44.623974	68.853187	14:00
5	9	07:00	44.623978	68.854985	14:00
6	6	06:40	44.623499	68.854959	14:00
					<u> </u>
					<u> </u>
					<u> </u>

Reviewed by: Lauren Tierney

amec foster wheeler								OLLECTION LOG D BLOOD			
Project Name:		USDC Penobsco	ot River					Project Number:			3616166052.04.05
Date:		071916			_			Location ID:			W17-N
Collectors:		EM, VM, M	КМ		_		SPC	(X/Y); Lat/Long:		68.85337	8 44.623652
Media:		Blood (BL	.)		_			Weather:			Partly cloudy, slight breeze, 70s
Species:		Nelson's Sparro	w (NSS)		_		Col	llection Method:			Mist Net
	Sample	ID		Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
W17-N _	071916	_ NSS _BL_	01	06:50	251118716	NESP	17.3	1	2	SJM	Already had band
W17-N _	071916	_ NSS _BL_	02	08:50	274146530	NESP	17.2	1	3	SJM	
W17-N _	071916	_ NSS _BL_	03	09:20	185140310	NESP	17.5	1	6	EM	
W17-N _	071916	_ NSS _BL_	04	09:50	185140311	NESP	15.1	2	2	EM	Capillary tubes partially full - used 2 due to clotting
W17-N _	071916	_ NSS _BL_	05	10:20	185140312	NESP	17.8	1	5	SJM	
W17-N _	071916	_ NSS _BL_	08	10:20	185140313	NESP	17.4	1	6	EM	
W17-N _	071916	_ NSS _BL_	11	13:00	274146533	NESP	18.3	2	2	EM	MS/MSD collected
_		_									
_		_									
_		_									
_		_									
_		_									
_		_									
		_									
 Requested Analyses:		_									
Analytes:			Tota	I Mercury				N	OTE: Bird sa	nnling was c	onducted according to the following SOPs included in the QAPP;
Methods:				1631e			_		01210110.00		SOP S-8 Bird Mist Netting
Container:				llary Tube							SOP S-9 Songbird Sampling
Additional Questions:											
Additional QC Collecte	d:	Yes		If ye	s, MS sample ID:	W17-N	071916	NSS BL	MS_	11	
QC Sample Types:		MS,MSI	)	_	MSD sample ID:		071916	NSSBL_	MD_	11	
Were samples frozen?		Yes			·		_		_		
were samples hozen?		res	Patrick	111111-11							

Juli Fallasis

 Reviewed by:
 Lauren Tierney

 Date:
 5/12/2017

amec foster wheeler								OLLECTION LOG D BLOOD			
Project Name:		USDC Pen	nobscot River					Project Number:			3616166052.04.05
Date:		07	71916		-			Location ID:			W17-N
Collectors:		EM, V	/M, MKM		_		SPC	(X/Y); Lat/Long:		68.85337	78 44.623652
Media:		Blog	od (BL)		_			Weather:			Partly cloudy, slight breeze, 70s
Species:	Re	d-Winged	Blackbird (R)	NB)	_		Col	lection Method:			Mist Net
	Sample ID	)		Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
W17-N	071916	_ RWB _	BL_ 01	11:30	99177931	RWBL	37.3	1	4	SJM	Leading zero on band #
											-
_		_									
_		_									
_		_									
_		_									
		_									
_		_									
		_									
		_									
_		_									
_		_									
		_									
		_									
_		_									
Requested Analyses:											
Analytes:			То	tal Mercury				N	IOTE: Bird sai	mpling was	conducted according to the following SOPs included in the QAPP;
Methods:				1631e							SOP S-8 Bird Mist Netting
Container:			Ca	pillary Tube							SOP S-9 Songbird Sampling
Additional Questions											
Additional QC Collecte	ed:		No		s, MS sample ID:		NA			_	
QC Sample Types:			NA	If yes,	MSD sample ID:		NA				
Were samples frozen	?		Yes								
Sampl	er Signature:		94	ht Felmes			Reviewed Da	by:		uren Tiern 5/12/2017	

Reviewed by: Lauren Tierney 5/12/2017 Date:



oster vheeler							Bi	rd Banding Data Form	1							
oject Name:	USD	C Penobscot	River						I	Project Number:					361616	6052.04.05
arting Band Number:		251145016	i	-					Banders nam	e(s) and initials:					LSV,	JFG, EM
nd Size:				_						Page:					1	of 2
Band Number digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Bander Initials	Net #	Notes
251145016	NESP	072016	MMSW-C	07:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	17.1	EM	3	EMM bleed, 2 quarter vials
251145017	NESP	072016	MMSW-C	07:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	55.0	48.0	17.5	EM	1	LSV bleed
251145018	NESP	072016	MMSW-C	07:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	58.0	50.0	17.3	JFG	4	LSV bleed
251145019	NESP	072016	MMSW-C	08:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	50.0		JFG	5	LSV bleed, bird escaped when trying to weigh

NOTES:											
AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
= AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
= HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
= Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
= SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
= ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
= ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
= Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feat	her	X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										



wheeler														
Project Name:		USE	C Penobscot	River								Project Numbe	r:	
Starting Band	Number:		251145016	5	_						Banders na	ame(s) and initial	s:	
Band Size:					-							Pag	e:	
(9 digits - if ba	Band Number and has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Co
	251145016	NESP	072016	MMSW-C	07:00			3 = Large						
	251145017	NESP	072016	MMSW-C	07:30			3 = Large						
	251145018	NESP	072016	MMSW-C	07:30			3 = Large						
	251145019	NESP	072016	MMSW-C	08:30			3 = Large						
NOTES				1	•		1		1		1		•	
<b>NOTES:</b> <b>AGE<sup>1</sup></b> 1 = AHY	HOW AGED <sup>2</sup> 1 = Adult Plumage		SEX <sup>3</sup> M = Male			HOW SEXED <sup>4</sup> 1 = Adult Plumage	<b>FAT⁵</b> 0 = None	BODY M 0 = None		<b>SKULL<sup>7</sup></b> 0 = None		<b>BR PATCH<sup>8</sup></b> 0 = None	CLOACAL PROTUBERANCE <sup>9</sup> 0 = None	FF MOL N = Nor

AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
1 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
s = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
) = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

	361616605	52.04.05	
	LSV, JF	G, EM	
	2 of	2	
ondition <sup>12</sup>	Bander Initials	Net #	Notes
	EM	3	EMM bleed, 2 quarter vials
	EM	1	LSV bleed
	JFG	4	LSV bleed
	JFG	5	LSV bleed, bird escaped when trying to weigh

	USDC Penobscot River 072016	Proiect Number:						
	072016		3616166052.04.0	05				
	012010		MMSW-C					
	LSV, JFG, EM	Weather:	Sunny, light breeze, warming from 60s					
et Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed				
9	06:20	44.58163	68.86057	12:25				
6	06:23	44.58163	68.86057	12:25				
12	06:30	44.58173	68.85901	12:20				
12	06:35	44.58168	68.85885	12:15				
9	06:42	44.88199	68.85941	12:13				
6	06:44	44.58215	68.85981	12:10				
				<u> </u>				
				<u> </u>				
				<u> </u>				
			Image: Sector of the sector	Image: Section of the section of th				

Reviewed by: Lauren Tierney

amec foster wheeler									LE COLLECTION BIRD BLOOD	LOG		
Project Name	e:	USDC I	Penobsc	ot River				P	roject Number:			3616166052.04.05
Date	e:		072016			_			Location ID:			MMSW-C
Collectors	s:	LS	SV, JFG, I	EM		_		SPC	(X/Y); Lat/Long:		68.8622	0 44.58080
Media	a:	E	Blood (B	L)		_			Weather:			Sunny, light breeze, warming from 60s
Species	s:	Nelson	's Sparro	w (NSS)		_		Coll	ection Method:			Mist Net
						_						
	Sample	e ID			Time	Band Number	4 Digit Alpha Species Code	Weight (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
MMSW-C	_ 072016	_ NSS	_BL_	04	07:00	251145016	NESP	17.1	2	3	EM	
MMSW-C	_ 072016	_ NSS	_BL_	07	07:30	251145017	NESP	17.5	1	1	EM	
MMSW-C	_ 072016	_ NSS	_BL_	05	07:30	251145018	NESP	17.3	2	4	JFG	
MMSW-C	_ 072016	_ NSS	_BL_	06	08:57	251145019	NESP		2	5	JFG	Bird escaped while attempting to weigh
	_	_										
	_	-										
	_	-										
	_	-										
		_										
	_	-										
	-	-										
	_	_										
Requested Analyse	es:											
Analytes:				Tota	Mercury					NOTE: B	ird sampling	was conducted according to the following SOPs included in the QAPP;
Methods:					1631e							SOP S-8 Bird Mist Netting
Container:				Capi	llary Tube							SOP S-9 Songbird Sampling
Additional Questio	ons:											
Additional QC Colle	ected:		No		If ye	s, MS sample ID:		NA				
QC Sample Types:			NA		If yes,	MSD sample ID:		NA				
Were samples froze	en?		Yes									
Sam	npler Signature	e:		Inner	. Varn-			Reviewed Da	by: ite:		uren Tiern 5/12/2017	



Proi	iect	Name:	

amec foster wheeler roject Name:		)C Penobscot	River				Bir	d Banding Data Form		Project Number:					3616166	6052.04.05
				-						•						
tarting Band Number:		274146534	ł	_					Banders name	e(s) and initials:					EIVI, V	/M, MKM
and Size:										Page:					1	of 2
Band Number 9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Bander Initials	Net #	Notes
274146534	NESP	072016	W17-N	07:10	2 = HY	2 = Juvenal Plumage	U = Unknown	2 = Juvenal Plumage	0 = None	1 = Trace	57.0	46.0	15.9	SJM	2	Band size 1B
274146535	NESP	072016	W17-N	07:10	2 = HY	2 = Juvenal Plumage	U = Unknown	2 = Juvenal Plumage	0 = None	1 = Trace	56.0	48.0	15.3	SJM	2	Band size 1B
274146536	NESP	072016	W17-N	07:10	2 = HY	2 = Juvenal Plumage	U = Unknown	2 = Juvenal Plumage	0 = None	1 = Trace	56.0	48.0	15.8	SJM	2	Band size 1B
185140319	NESP	072016	W17-N	11:15	2 = HY	2 = Juvenal Plumage	U = Unknown	2 = Juvenal Plumage	0 = None	0 = None	55.0	45.0	14.9	SJM	3	Band size 1
99177932	RWBL	072016	W17-N	11:37	2 = HY	S = Skull	F = Female	1 = Adult Plumage	0 = None	0 = None	111.0	78.0	50.5	SJM	9	Band size 1A
92222668	RWBL	072016	W17-N	11:48	1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	1 = Trace	0 = None	118.0	91.0	66.0	SJM	9	Band size 2
185140320	NESP	072016	W17-N	13:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	59.0	51.0	18.2	SJM	9	Band size 1
												1		1		

NOTES:											
AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										



WIEElei													
Project Name:	USD	C Penobscot	River								Project Number:		
Starting Band Number:		274146534	ļ.	-						Banders na	me(s) and initials:		
Band Size:				-							Page:		
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Сог
274146534	NESP	072016	W17-N	07:10									
274146535	NESP	072016	W17-N	07:10									
274146536	NESP	072016	W17-N	07:10									
185140319	NESP	072016	W17-N	11:15									
99177932	RWBL	072016	W17-N	11:37	2 =								
92222668	RWBL	072016	W17-N	11:48									
185140320	NESP	072016	W17-N	13:00									
				1									

GE <sup>1</sup> HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
= AHY 1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
= HY 2 = Juvenal Plumag	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
= Local A = Nestling in nest	o flight feathers U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
= SY B = Nestling in nest	ght feathers in pin 6 = Male sexed su	bsequently B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
= ASY C = Nestling fledge	ncapable of flight 7 = Female sexed	subsequently C = Cloacal Protuberat	nce 4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
= ATY F = Flight Feather V	r	W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
= Unknown S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
L = Molt Limits Pre	t	Y = Culmen								L = Leg Injury
N = Molt Limits Ab	t i i i i i i i i i i i i i i i i i i i	Z = Multiple Measurer	ments							P = Predation
P = Primary covert	pe and/or primary feather	X = Not attempted								D = Dead
shape/wear										
T = Tail Shape and	ar									
X = Not Attempted										

SJM2BSJM2BSJM3ESJM9BSJM9E	Notes and size 1B and size 1B and size 1B and size 1 and size 1 and size 2
Bander InitialsNet #SJM2SJM2SJM2SJM2SJM3SJM9SJM9	and size 18 and size 18 and size 18 and size 18 and size 1 and size 1A
Initials     Net #       SJM     2       SJM     2       SJM     2       SJM     2       SJM     3       SJM     9       SJM     9	and size 18 and size 18 and size 18 and size 18 and size 1 and size 1A
SJM2BSJM2BSJM3ESJM9BSJM9E	and size 18 and size 18 and size 1 and size 1
SJM2BSJM3ESJM9BSJM9E	and size 1B and size 1 and size 1A
SJM         3         E           SJM         9         B           SJM         9         E	and size 1 and size 1A
SJM         9         B           SJM         9         6	and size 1A
SJM 9	
	and size 2
SJM 9 E	
	and size 1

amec foster wheeler			MIST NET LOG GPS COORDINATES						
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.05					
		072016		W17-N					
			Weather:	Sunny, 80s					
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed				
7	12	06:45	44.623255	68.853624	14:00				
8	6	06:50	44.622675	68.854097	14:00				
9	9	07:00	44.624405	68.85425	14:00				
2	12	07:05	44.624601	68.852773	14:00				
3	12	07:10	44.624168	68.85303	14:00				

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Reviewed by: Lauren Tierney

amec foster wheeler									OLLECTION LOG D BLOOD						
Project Name:		USDC P	enobsco	t River					Project Number:			3616166052.04.05			
Date:			072016			_			Location ID:			W17-N			
Collectors:		EM,	, VM, M	KM				SPC	(X/Y); Lat/Long:		68.8533	44.623652			
Media:		B	lood (BL	)					Weather:			Sunny, 80s			
Species:		Nelson's	s Sparro	w (NSS)				Co	llection Method:			Mist Net			
	Sample II	D			Time	Band Number	Species Code	Weight (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes			
W17-N	072016	NSS	BL	07	07:10	274146534	NESP	15.9	2	2	SJM				
W17-N	072016	NSS	BL	14	07:10	274146535	NESP	15.3	2	2	SJM				
W17-N	072016	NSS	BL	06	07:10	274146536	NESP	15.8	1	2	SJM				
W17-N	072016	NSS	BL	09	11:15	185140319	NESP	14.9	3	3	SJM				
_		_													
_		_													
_		_													
_		_													
_		_													
_		_													
_		_													
_		_													
_		_													
_		_													
_		_													
<b>Requested Analyses:</b>															
Analytes: Methods: Container:				1	l Mercury L631e llary Tube				N	OTE: Bird sar	npling was	conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling			
Additional Questions				capi	any rube							5 r 0			
Additional QC Collecto			No		lf ve	es, MS sample ID:		NA							
QC Sample Types:			NA			, MSD sample ID:		NA				-			
Were samples frozen	>		Yes			, mob sumple ib.						-			
D	er Signature:			G-h- s=z J> L#	Finler Bis 3		Reviewed by: Date:				uren Tiern 5/12/2017				

amec foster wheeler							OLLECTION LOG D BLOOD					
Project Name:		USDC Penobscot Rive	r				Project Number:			3616166052.04.05		
Date:		072016		_			Location ID:			W17-N		
Collectors:		EM, VM, MKM		_		SPC	(X/Y); Lat/Long:		68.8533	78 44.623652		
Media:		Blood (BL)		_			Weather:			Sunny, 80s		
Species:	Re	ed-Winged Blackbird (R	WB)			Col	llection Method:			Mist Net		
	Sample II	D	Time	Band Number	4 Digit Alpha Species Code	Weight (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes		
W17-N _	072016	_ RWB _BL_ 02	11:37	99177932	RWBL	50.5	4	9	SJM	Band size 1A		
W17-N _	072016	_ RWB _BL_ 03	11:48	92222668	RWBL	66.0	3	9	SJM	Band size 2		
		_										
		_										
		_										
		_										
		_										
		_										
		_										
		_										
		_										
		_										
		_										
		_										
Requested Analyses:												
Analytes:		Т	otal Mercury				N	OTE: Bird sa	npling was	conducted according to the following SOPs included in the QAPP;		
Methods:			1631e							SOP S-8 Bird Mist Netting		
Container:		Ca	apillary Tube							SOP S-9 Songbird Sampling		
Additional Questions:												
Additional QC Collecte	ed:	No		s, MS sample ID:		NA						
QC Sample Types:			If yes,	MSD sample ID:		NA				_		
Were samples frozen?	2	Yes										
Sample	er Signature:	er er	n (Enlarge) star Lerner	≫ Reviewed by: Date:				·				



6 = ASY

7 = TY

8 = ATY

0 = Unknown

C = Nestling fledged, incapable of flight

P = Primary covert shape and/or primary feather

E = Eye color

shape/wear

S = Skull

F = Flight Feather Wear

L = Molt Limits Present N = Molt Limits Absent

T = Tail Shape and Wear X = Not Attempted

7 = Female sexed subsequently

C = Cloacal Protuberance

Z = Multiple Measurements

E = Egg in Oviduct

X = Not attempted

W = Wing Chord

T = Tail Length Y = Culmen

4 = Filled

5 = Bulging

6 = Greatly Bulging 7 = Very Excessive

4 = Heavy

4 = Wrinkled

5 = Molting

amec foster wheeler										Birc	d Banding Data Forr	m							
Project Nam	e:	US	DC Penobsco	t River								Ρ	roject Number	:				36161(	56052.04.05
Starting Ban	d Number:		25114502	3								Banders name	e(s) and initials	:				LSV	, JFG, EM
Band Size:					_								Page	:					1 of 2
(9 digits - if	Band Number band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>		How Aged <sup>2</sup>	s	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Bander Initials		Notes
	251145023	NESP	072116	ADD-01	09:00	1 = AHY		Adult Plumage	M :	= Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	47.0	16.4	EM	7	
	251145024	NESP	072116	ADD-01	11:00	1 = AHY	1 =	Adult Plumage	M :	= Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	47.0	18.1	EM	5	
						<u> </u>												+	
							<u> </u>										+	+	
						<u> </u>												+	
							<u> </u>											+	
							<u> </u>											+	
																	-	1	
						<u> </u>													
NOTES:																			
<b>AGE<sup>1</sup></b> 1 = AHY 2 = HY	HOW AGED <sup>2</sup> 1 = Adult Plumage 2 = Juvenal Plumage		SEX <sup>3</sup> M = Male F = Female			HOW SEXED <sup>4</sup> 1 = Adult Plur 2 = Juvenal P	mage	<b>FAT</b> <sup>5</sup> 0 = None 1 = Trace	BODY MOLT <sup>6</sup> 0 = None 1 = Trace	<b>SKULL<sup>7</sup></b> 0 = None 1 = Trace	<b>BR PATCH<sup>8</sup></b> 0 = None 1 = Smooth	CLOACAL PROTUE 0 = None 1 = Small	BERANCE <sup>9</sup>	FF MOL N = Nor A = Adv			FF WEAR 0 = None 1 = Slight	5	CONDITION <sup>12</sup> M = Malformed O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feat		U = Unkno		-h. <i>c</i>	3 = Eye Color		2 = Light 3 = half	2 = Light	2 = < 1/3 3 = Half	2 = Vascular	2 = Medium		S = Sym			2 = Light		I = Illness/Disease
5 = SY	B = Nestling in nest, flight feather	s in pin	b = iviale se	exed subsequent	.iy	B = Brood Pat	.cn	3 = nair	3 = Medium	5 = Hall	3 = Heavy	3 = Large		J = Juv C	orowth		3 = Mode	erate	S = Stress/Shock

4 = > 2/3

6 = Complete 7 = Invisible

5 = Almost Complete

FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
0 = None	M = Malformed
1 = Slight	O = Old (healed) Injury
2 = Light	I = Illness/Disease
3 = Moderate	S = Stress/Shock
4 = Heavy	E = Eye Injury
5 = Excessive	T = Tongue Injury
	W = Wing Injury
	B = Body Injury
	L = Leg Injury
	P = Predation
	D = Dead

amec 🔼
foster
wheeler

amec foster wheeler								Bird Band	ding Data Fo	rm				
Project Name:	USE	OC Penobscot	t River							Project Number:		36161660	52.04.05	
Starting Band Number:		251145023	3	_					Banders nar	me(s) and initials:		LSV, JF	G, EM	
Band Size:				_						Page:		2 of	f 2	
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Condition <sup>12</sup> Bander Initials	Net #	Notes
251145023	NESP	072116	ADD-01	09:00			3 = Large					EM	7	
251145024	NESP	072116	ADD-01	11:00			3 = Large					EM	5	
			-											
						ļ								
													1	

GE <sup>1</sup> HC	OW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
AHY 1 :	= Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
HY 2 =	= Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
Local A	= Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
= SY B :	= Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
= ASY C =	= Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY E =	= Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
= ATY F =	= Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging	5	6 = Complete					W = Wing Injury
Unknown S =	= Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
L =	= Molt Limits Present		Y = Culmen								L = Leg Injury
N	= Molt Limits Absent		Z = Multiple Measurements								P = Predation
P :	= Primary covert shape and/or primary feat	ner	X = Not attempted								D = Dead
sh	ape/wear										
T :	= Tail Shape and Wear										
Χ :	= Not Attempted										

amec foster wheeler			MIST NET LOG GPS COORDINATES		
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.	05
Date:		072116		ADD-01	
Collectors:		LSV, JFG, EM		Sunny, clear, warn	ning
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed
1	12	06:15	44.64347	67.71768	09:25
2	12	06:22	44.64326	67.71844	08:10
3	9	06:30	44.64444	67.71777	09:50
4	6	06:42	44.64392	67.71872	12:40
5	9	06:59	44.64436	67.72019	13:00
6	9	07:08	44.64417	67.72047	12:55
7	12	08:20	44.64365	67.72062	12:40
8	12	09:40	44.64331	67.71922	12:35
9	9	10:05	44.64482	67.72035	12:30

Home Venne

Reviewed by: Lauren Tierney

amec foster wheeler									DLLECTION LOG D BLOOD					
Project Name:		USDC P	enobsco	t River				P	roject Number:			3616166052.04.05		
Date:			072116	c naver		-			Location ID:			ADD-01		
Collectors:		15	V, JFG, E	М		-		SPC (	X/Y); Lat/Long:		67.7190	44.64350		
Media:			lood (BL			-		5. 5 (	Weather:		0/1/200	Sunny, clear, warming		
Species:		Nelson'				-		Colle	ection Method:			Mist Net		
	Sample	ID			Time	Band Number	4 Digit Alpha Species Code	Weight (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes		
ADD-01 _	072116	_ NSS	_BL_	01	09:19	251145023	NESP	16.4	2	7	EM	LSV bleed, left wing would not bleed but got an eighth of a capillary, 1 tube from right wing		
ADD-01	072116	NSS	BL	02	11:15	251145024	NESP	18.1	2	5	EM	LSV bleed		
_		_												
_		_												
_		_												
		_												
_		_												
_		_												
_		_												
		_												
		_												
		_												
_														
_		_												
quested Analyses		_				I			1			1		
alytes:				Total	Mercury				NO	TE: Bird sam	pling was c	conducted according to the following SOPs included in the QAPP;		
ethods:				16	631e			_				SOP S-8 Bird Mist Netting		
ntainer:				Capilla	ary Tube							SOP S-9 Songbird Sampling		
ditional Question	5:													
ditional QC Collect	ed:		No		If yes,	MS sample ID:		NA						
Sample Types:	-		NA		If yes, N	ISD sample ID:		NA						
ere samples frozen	?		Yes											

House Venne

 Reviewed by:
 Lauren Tierney

 Date:
 5/12/2017



amec oster wheeler oject Name:	USD	C Penobscot	River							Project Number:					361616	6052.04.05
arting Band Number:		192024124		_					Banders nam	e(s) and initials:					JFG, K	СВ, МКМ
and Size:				_						Page:					1	of 2
Band Number 9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Bander Initials	Net #	Notes
192024124	Coye	072116	MMSE-1	08:00	1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	1 = Trace	0 = None	56.0	51.0	10.8	SJM	2	
185140321	NESP	072116	MMSE-1	07:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	1 = Trace	58.0	48.0	18.3	SJM	3	
185140322	NESP	072116	MMSE-1	07:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	51.0	16.9	SJM	3	
185140323	NESP	072116	MMSE-1	07:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	16.2	SJM	3	
185140324	Savs	072116	MMSE-1	07:20	2 = HY	S = Skull	U = Unknown	X = Not attempted	0 = None	1 = Trace	70.0	53.0	17.4	SJM	3	
185140325	NESP	072116	MMSE-1	08:00	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	55.0	46.0	17.4	SJM	1	
274146545	Sosp	072116	MMSE-1	08:00	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	0 = None	0 = None	67.0	68.0	21.0	SJM	3	
274146546	Sosp	072116	MMSE-1	08:20	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	0 = None	0 = None	64.0	65.0	20.9	SJM	2	
185140326	NESP	072116	MMSE-1	10:40	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	54.0	45.0	17.9	SJM	2	
				+												
									ļ							

NOTES:											
AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										



wheeler												
Project Name:	USE	OC Penobsco	t River								Project Number:	
Starting Band Number:		192024124	ţ	-						Banders na	ame(s) and initials:	
Band Size:				-							Page:	
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>
192024124	Coye	072116	MMSE-1	08:00								
185140321	NESP	072116	MMSE-1	07:20			3 = Large					
185140322	NESP	072116	MMSE-1	07:20			3 = Large					
185140323	NESP	072116	MMSE-1	07:20			3 = Large					
185140324	Savs	072116	MMSE-1	07:20	3 = Half							
185140325	NESP	072116	MMSE-1	08:00		4 = Wrinkled						
274146545	Sosp	072116	MMSE-1	08:00								
274146546	Sosp	072116	MMSE-1	08:20								
185140326	NESP	072116	MMSE-1	10:40		4 = Wrinkled						

NOTES:											
AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE9	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
1 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
i = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
= ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulg	ing	6 = Complete					W = Wing Injury
= Unknown	S = Skull		T = Tail Length	7 = Very Excessi	ve	7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

	36161660	52.04.05	
	JFG, KCB	, MKM	
	2 of	2	
Condition <sup>12</sup>	Bander Initials	Net #	Notes
	SJM	2	
	SJM	3	
	SJM	1	
	SJM	3	
	SJM	2	
	SJM	2	
	1		

amec foster wheeler								OLLECTION LOG D BLOOD			
Project Name:		USDC Penobsco	ot River					Project Number:			3616166052.04.05
Date:		072116			_			Location ID:			MMSE-1
Collectors:		JFG, KCB, M	KM		_			Lat/Long:		44.59068	-68.85956
Media:		Blood (BL	)					Weather:			Sunny, 80
Species:		Nelson's Sparrov	w (NSS)		_		Co	llection Method:			Mist Net
	Sample	ID		Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
MMSE-1	072116	_ NSS _BL_	01	07:30	185140321	NESP	18.3	3	3	SJM	
MMSE-1	072116	NSS _BL_	02	07:35	185140322	NESP	16.9	2	3	SJM	
MMSE-1	072116	NSS BL	05	07:45	185140323	NESP	16.2	2	3	SJM	
MMSE-1	072116	NSS _BL_	03	08:05	185140325	NESP	17.4	3	1	SJM	
MMSE-1	072116	NSS BL	04	10:40	185140326	NESP	17.9	2	3	SJM	
MMSE-1	072116	NSSBL	08	11:30	185140327	NESP	16.3	2	6	SJM	
MMSE-1	072116	_ NSS _BL_	06	11:15	185140328	NESP	18.2	2	6	SJM	
MMSE-1	072116	_ NSS _BL_	07	11:20	185140329	NESP	17.5	2	6	SJM	
_		_									
_		_									
_		_									
_		_									
_		_									
_		_									
I		_									
Requested Analyses:											
Analytes:			Tota	Mercury				N	OTE: Bird sar	npling was	conducted according to the following SOPs included in the QAPP;
Methods:	hods: 1631e			l631e							SOP S-8 Bird Mist Netting
Container:			Capil	lary Tube							SOP S-9 Songbird Sampling
Additional Questions:											
Additional QC Collecte	ed:	No		If ye	s, MS sample ID:		NA				
QC Sample Types:		NA		If yes,	MSD sample ID:		NA				-
Were samples frozen	þ	Yes		-							-

I Trange

 ved by:
 Lauren Tierney

 Date:
 12/29/2016



WIREfer												
Project Name:	USD	C Penobscot	River						Pi	oject Number:		
Starting Band Number:		251145027	,	-					Banders name	(s) and initials:		
Band Size:				-						Page:		
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>₄</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	
251145027	NESP	072216	ADD-01	08:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	
251145030	NESP	072216	ADD-01	09:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	48.0
251145031	NESP	072216	ADD-01	10:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	46.0
											<u> </u>	
											1	
											ł	
											1	
NOTES:												

HOW A	AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
HY 1 = Adu	lult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
HY 2 = Juv	venal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
ocal A = Nes	estling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
SY B = Nes	estling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
ASY C = Nes	estling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
TY E = Eye	e color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
ATY F = Flig	ght Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
Jnknown S = Sku	ull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
L = Mol	olt Limits Present		Y = Culmen								L = Leg Injury
N = Mo	olt Limits Absent		Z = Multiple Measurements								P = Predation
P = Prir	imary covert shape and/or primary feathe	r	X = Not attempted								D = Dead
shape/	/wear										
T = Tail	il Shape and Wear										
X = Not	ot Attempted										

			361616	6052.04.05
			LSV,	JFG, VM
		of 2		
h )	Weight (g)	Bander Initials	Net #	Notes
,	17.1	JFG	4	LSV bled
	17.1	JFG	3	LSV bled
	16.7	JFG	4	LSV bled
		1		

amec 🔼
foster
wheeler

WIEElei													
Project Name:	USD	C Penobscot	t River								Project Number:		
Starting Band Number:		251145027	7	-						Banders na	me(s) and initials:		
Band Size:				-							Page:		
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	c
251145027	NESP	072216	ADD-01	08:30			3 = Large						
251145030	NESP	072216	ADD-01	09:30			3 = Large						
251145031	NESP	072216	ADD-01	10:00			3 = Large						

6E <sup>1</sup> HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
AHY 1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
= HY 2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
Local A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
= SY B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
ASY C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
ATY F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
Unknown S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
L = Molt Limits Present		Y = Culmen								L = Leg Injury
N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
P = Primary covert shape and/or primary fe	ather	X = Not attempted								D = Dead
shape/wear										
T = Tail Shape and Wear										
X = Not Attempted										

	36161660	52.04.05	
	LSV, JF	G, VM	
	2 of	2	
Condition <sup>12</sup>	Bander Initials	Net #	Notes
	JFG	4	LSV bled
	JFG	3	LSV bled
	JFG	4	LSV bled

amec foster wheeler		MIST NET LOG GPS COORDINATES											
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.05									
Date:		072216		ADD-01									
Collectors:		LSV, JFG, VM	Weather:	Mostly cloudy, cool, damp, faint breeze									
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed								
1	12	06:12	44.64331	67.71917	13:13								
2	6	06:26	44.64351	67.72033	13:10								
3	12	06:14	44.64374	67.72069	13:05								
4	9	06:17	44.64416	67.72049	12:58								
5	6	06:25	44.64436	67.7202	12:55								
6	9	06:27	44.64482	67.72035	16:12								

Louise Verme

Reviewed by: Lauren Tierney

amec foster wheeler									LLECTION LOG BLOOD			
Project Name:		USDC F	Penobsco	ot River				Pr	oject Number:			3616166052.04.05
Date:			072216			-			Location ID:			ADD-01
Collectors:		LS	SV, JFG, N	/M		-		SPC ()	X/Y); Lat/Long:		67.71903	3 44.64351
Media:		E	Blood (Bl	_)		_			Weather:			Mostly cloudy, cool, damp, faint breeze
Species:	Nelson's Sparrow (NSS)					-		Colle	ection Method:			Mist Net
	Sample	ID			Time	Band Number	4 Digit Alpha Species Code	Weight (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
ADD-01	072216	_ NSS	_BL_	03	08:45	251145027	NESP	17.1	2	4	JFG	782 LSV bled
ADD-01	072216	NSS	BL	04	09:42	251445030	NESP	17.1	4	3	JFG	783 LSV bled
ADD-01	072216	NSS	BL	05	10:20	251145031	NESP	16.7	2	4	JFG	784 LSV bled
		_										
		_										
_		_										
_		_										
_		_										
_		_										
_		_										
_		_										
_		_										
_		_										
<b>Requested Analyses</b>												
Analytes:				Total	Mercury				Ν	IOTE: Bird sar	npling was co	conducted according to the following SOPs included in the QAPP;
Methods:				1	.631e			_				SOP S-8 Bird Mist Netting
Container:				Capil	lary Tube			_				SOP S-9 Songbird Sampling
Additional Question	s:								-			
Additional QC Collec			Yes		lf yes,	MS sample ID:	ADD-01	072216	NSS BL	MS	04	
QC Sample Types:	-		MS,MS	D		ASD sample ID:		072216	NSS BL		04	
Were samples frozer	י. ו?		Yes			·		_				
	er Signature:			Lowie	Verme			Reviewed b Dat			uren Tierne 5/12/2017	



wheeler	S														
Project Nam	ject Name: USDC Penobscot River										P	oject Number	:		
Starting Ban	d Number:	235107562			-							Banders name	(s) and initials	:	
Band Size:					_								Page	:	
(9 digits - if	Band Number band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	Hov	w Aged <sup>2</sup>	5	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Length (mm)
	235107562	NESP	072216	MMSE-1	09:23	1 = AHY	1 = Adu	ult Plumage	M	= Male	C = Cloacal Protuberance	1 = Trace	0 = None	57.0	50.0
	251118707	NESP	072216	MMSE-1	10:24	1 = AHY	1 = Adu	ult Plumage	M	= Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	44.0
NOTES:															
<b>AGE<sup>1</sup></b> 1 = AHY	HOW AGED <sup>2</sup> 1 = Adult Plumage		SEX <sup>3</sup> M = Male			HOW SEXED <sup>4</sup> 1 = Adult Plun	nage	<b>FAT⁵</b> 0 = None	BODY MOLT <sup>6</sup> 0 = None	<b>SKULL<sup>7</sup></b> 0 = None	<b>BR PATCH<sup>8</sup></b> 0 = None	CLOACAL PROTUE 0 = None	ERANCE <sup>9</sup>	FF MOLT N = None	2
2 = HY	2 = Juvenal Plumage		F = Female			2 = Juvenal Pl	umage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small		A = Adve	ntitous

1	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
= HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
= Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
= SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
= ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
= ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
= Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feat	her	X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

			361616	6052.04.05
			SJ	M, EM
			1	of 2
h )	Weight (g)	Bander Initials	Net #	Notes
	18.3	SJM	4	Band size 1
	18.3	SJM	1	Band size 1; foreign recap

amec 🔼
foster
wheeler

wheeler													
Project Name:	USDC Penobscot River 235107562										Project Number:		
Starting Band Number:				-						Banders na	me(s) and initials:		
Band Size:				-							Page:		
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	с
235107562	NESP	072216	MMSE-1	09:23			3 = Large						
251118707	NESP	072216	MMSE-1	10:24			3 = Large						
		1											
		1											

GE <sup>1</sup> HOW AGED <sup>2</sup>		SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE9	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
= AHY 1 = Adult Pluma	ige	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
= HY 2 = Juvenal Plu	nage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
= Local A = Nestling in	nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
= SY B = Nestling in	nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
= ASY C = Nestling fle	lged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY E = Eye color			E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
= ATY F = Flight Feath	er Wear		W = Wing Chord	6 = Greatly Bulging	3	6 = Complete					W = Wing Injury
= Unknown S = Skull			T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
L = Molt Limits	Present		Y = Culmen								L = Leg Injury
N = Molt Limits	Absent		Z = Multiple Measurements								P = Predation
P = Primary cov	ert shape and/or primary feather		X = Not attempted								D = Dead
shape/wear											
T = Tail Shape a	nd Wear										
X = Not Attemp	ted										

3616166052.04.05											
	SJM,	EM									
	2 of	2									
Condition <sup>12</sup>	Bander Initials	Net #	Notes								
	SJM	4	Band size 1								
	SJM	1	Band size 1; foreign recap								
	-										

amec foster wheeler		MIST NET LOG GPS COORDINATES										
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.	05							
Date:		072216	Location ID:	MMSE-1								
Collectors:		SJM, EM	Weather:	65°F, overcast and windy, thunderstorms expected later								
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed							
1	12	05:45	44.590331	68.858502	13:30							
2	9	05:45	44.59006	68.85791	13:31							
3	12	05:45	44.589962	68.857921	13:30							
4	6	05:45	44.589672	68.858995	13:32							
5	9	05:44	44.589617	68.859437	13:38							
6	6	05:45	44.590662	68.859098	13:33							

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Reviewed by: Lauren Tierney

amec foster wheeler Project Name:		USDC Penobso	ot River				BIR	OLLECTION LOG D BLOOD Project Number:			3616166052.04.05
Date:		072216			_			Location ID:			MMSE-1
Collectors:		SJM, El			_		SPC	(X/Y); Lat/Long:		68.85956	
Media:		Blood (B			_			Weather:			, overcast and windy, thunderstorms expected later
Species:	١	Nelson's Sparro	ow (NSS)		_		Co	llection Method:			Mist Net
	Sample ID			Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
MMSE-1	072216	NSS _BL_	09	09:23	235107562	NESP	18.3	2	4	SJM	
MMSE-1	072216	NSS _BL_	10	10:24	251118707	NESP	18.3	1	1	SJM	
	_	_									
	_	_									
_	_	_									
_	_	_									
_	_	_									
	_	_									
_	_	_									
_	_	_									
_	_	_									
_	_	_									
_	_	_									
_	_	_									
Requested Analyses:											
Analytes:			Tota	I Mercury				N	OTE: Bird sar	npling was o	conducted according to the following SOPs included in the QAPP;
Methods:				1631e							SOP S-8 Bird Mist Netting
Container:			Capi	llary Tube							SOP S-9 Songbird Sampling
Additional Questions:								-			
Additional QC Collecte		No		lf ve	s, MS sample ID:		NA				
QC Sample Types:	·	NA			MSD sample ID:		NA				
Were samples frozen?		Yes									
were sumples nozen:		163									

Reviewed by: Lauren Tierney
Date: 5/12/2016



Proi	iect	Name:	

amec foster wheeler							Bird	Banding Data Form	I							
Project Name:	USD	C Penobsco	t River						Р	roject Number:	:				3616166	5052.04.05
Starting Band Number:		251145034	ļ	_					Banders name	e(s) and initials:	:				LSV, J	JFG, VM
Band Size:				-						Page:					1	of 2
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing	Tail Length (mm)	Weight (g)	Bander Initials	Net #	Notes
251145034	NESP	072316	MMSE-1	07:00	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	0 = None	0 = None	53.0	47.0	16.6	JFG	5	LSV bled
235107507	NESP	072316	MMSE-1	07:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	59.0	49.0	18.2		6	LSV bled
251145036	NESP	072316	MMSE-1	08:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	60.0	51.0	17.0	JFG	2	LSV bled
251145037	NESP	072316	MMSE-1	08:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	59.0	47.0	18.5	JFG	6	LSV bled
251145039	NESP	072316	MMSE-1	09:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	47.0	17.6	LSV	6	LSV bled
251145040	NESP	072316	MMSE-1	12:00	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	54.0	45.0	17.6	JFG	5	LSV bled
185140326	NESP	072316	MMSE-1	12:00	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	2 = Light	0 = None	54.0	47.0	18.4		6	no sample associated with this band

NOTES:											
AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										



Project	Name:
iiojeet	Nume.

								Bird Band	ding Data Fo	rm							
USD	OC Penobscot	River								Project Number:			36161660	52.04.05			
	251145034		_						Banders nar	me(s) and initials:		LSV, JFG, VM					
			_							Page:			2 0	f 2			
Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Condition <sup>12</sup>	Bander Initials	Net #	Notes		
NESP	072316	MMSE-1	07:00	NA	NA								JFG	5	LSV bled		
NESP	072316	MMSE-1	07:20	NA	NA	3 = Large								6	LSV bled		
NESP	072316	MMSE-1	08:30	NA	NA	3 = Large							JFG	2	LSV bled		
NESP	072316	MMSE-1	08:30	NA	NA	3 = Large							JFG	6	LSV bled		
NESP	072316	MMSE-1	09:00	NA	NA	3 = Large							LSV	6	LSV bled		
NESP	072316	MMSE-1	12:00	NA	4 = Wrinkled	NA							JFG	5	LSV bled		
NESP	072316	MMSE-1	12:00	NA	1 = Smooth	NA							_	6	LSV bled		
	Alpha Code (4 digits) NESP NESP NESP NESP NESP NESP	Alpha Code (4 digits)         Date MMDDYY           NESP         072316           NESP         072316	(4 digits)         MMDDYY         Location D           NESP         072316         MMSE-1           NESP         072316         MMSE-1	Alpha Code (4 digits)         Date MMDDYY         Location ID         Time (24hr)           NESP         072316         MMSE-1         07:00           NESP         072316         MMSE-1         07:20           NESP         072316         MMSE-1         08:30           NESP         072316         MMSE-1         08:30           NESP         072316         MMSE-1         09:00           NESP         072316         MMSE-1         12:00	Alpha Code (4 digits)         Date MMDDYY         Location ID         Time (24hr)         Skull <sup>7</sup> NESP         072316         MMSE-1         07:00         NA           NESP         072316         MMSE-1         07:20         NA           NESP         072316         MMSE-1         08:30         NA           NESP         072316         MMSE-1         08:30         NA           NESP         072316         MMSE-1         08:30         NA           NESP         072316         MMSE-1         09:00         NA           NESP         072316         MMSE-1         12:00         NA	Alpha Code (4 digits)Date MMDDYYLocation IDTime (24hr)Skull7Brood Patch8NESP072316MMSE-107:00NANANESP072316MMSE-107:20NANANESP072316MMSE-108:30NANANESP072316MMSE-108:30NANANESP072316MMSE-108:30NANANESP072316MMSE-109:00NANANESP072316MMSE-112:00NA4 = Wrinkled	Z51145034Alpha Code (4 digits)Date MMDDYYLocation IDTime (24hr)Skull <sup>7</sup> Brood Patch <sup>8</sup> Cloacal Prot <sup>9</sup> NESP072316MMSE-107:00NANANANESP072316MMSE-107:20NANA3 = LargeNESP072316MMSE-108:30NANA3 = LargeNESP072316MMSE-108:30NANA3 = LargeNESP072316MMSE-109:00NANA3 = LargeNESP072316MMSE-112:00NAA4 = WrinkledNA	Z51145034Alpha Code (4 digits)Date MMDDYYLocation IDTime (24hr)Skull <sup>7</sup> Brood Patch <sup>8</sup> Cloacal Prot <sup>9</sup> Crown PatchNESP072316MMSE-107:00NANANANESP072316MMSE-107:20NANA3 = LargeNESP072316MMSE-108:30NANA3 = LargeNESP072316MMSE-108:30NANA3 = LargeNESP072316MMSE-109:00NANA3 = LargeNESP072316MMSE-112:00NAA4 = WrinkledNA	USDC Penobscot River         251145034         Alpha Code (4 digits)       Date MMDDYY       Location ID       Time (24hr)       Skull <sup>7</sup> Brood Patch <sup>8</sup> Cloacal Prot <sup>9</sup> Crown Patch       Culmen Length         NESP       072316       MMSE-1       07:00       NA       NA       3 = Large       0       0         NESP       072316       MMSE-1       08:30       NA       NA       3 = Large       0       0         NESP       072316       MMSE-1       08:30       NA       NA       3 = Large       0       0         NESP       072316       MMSE-1       09:00       NA       NA       3 = Large       0       0         NESP       072316       MMSE-1       09:00       NA       NA       3 = Large       0       0         NESP       072316       MMSE-1       09:00       NA       NA       3 = Large       0       0         NESP       072316       MMSE-1       12:00       NA       4 = Wrinkled       NA       0       0       0	USDC Penobscot River         Banders nar         Statistical Statis	Banders name(s) and initials:         Banders name(s) and initials:         Page         Alpha Code (4 digits)       Date MMDDry       Location ID       Time (24hr)       Skull?       Brood Patch <sup>8</sup> Cloacal Prot <sup>9</sup> Crown Patch       Culmen Length       Culmen Width       FF Molt <sup>10</sup> FF Molt <sup>10</sup> NESP       072316       MMSE-1       07:00       NA       NA       3 = Large       Image: Colored and Color	VSDC Penobscot River       Project Number:         Status Sta	$\frac{\text{USDC Penobsort River}}{52114503}$ $\frac{25114503}{\text{Versure}}$ $\frac{25114503}{\text{Versure}}$ $\frac{\text{Project Number}}{\text{Banders number}}$ $\frac{\text{Project Number}}{\text{Banders number}}$ $\frac{\text{Project Number}}{\text{Banders number}}$ $\frac{1}{10000000000000000000000000000000000$	$\frac{\text{USD } \text{Pendsot River}}{\text{Sc114503}}$ $\frac{1}{\text{Sc114503}}$ $\frac$	$\frac{\text{USD C Pendsect River}}{25114504}$ $\frac{1}{25114504}$ $\frac{1}{26114504}$		

HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE9	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
AHY 1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
= HY 2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
- Local A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
= SY B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
ASY C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
ATY F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
Unknown S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
L = Molt Limits Present		Y = Culmen								L = Leg Injury
N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
P = Primary covert shape and/or primary	feather	X = Not attempted								D = Dead
shape/wear										
T = Tail Shape and Wear										
X = Not Attempted										

amec foster wheeler		MIST NET LOG GPS COORDINATES												
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.05										
Date:		072316		MMSE-1										
Collectors:		LSV, JFG, VM		Clearing, damp, 70F										
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed									
1	6	05:40	44.58951	68.85957	12:50									
2	9	05:50	44.58967	68.85884	12:40									
3	12	05:55	44.58839	68.85841	12:00									
4	6	06:05	44.58884	68.85795	11:10									
5	9	06:19	44.58883	68.85714	13:00									
6	12	06:18	44.58918	68.85675	12:10									
7	6	11:22	44.58967	68.85838	12:30									

Reviewed by: Lauren Tierney

amec foster wheeler							BIR	OLLECTION LOG D BLOOD						
Project Name:		USDC Penobsco			_			Project Number:			3616166052.04.05			
Date:		072316			_			Location ID:			MMSE-1			
Collectors:		LSV, JFG, V			_		SPC	(X/Y); Lat/Long:		-68.8583				
Media:		Blood (BL			_			Weather:			Clearing, damp, 70F			
Species:		Nelson's Sparro	w (NSS)		_		Col	llection Method:	Mist Net					
	Sample	ID		Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes			
MMSE-1	072316	NSS BL	11	07:21	251145034	NESP	16.6	2	5	JFG	LSV bled			
MMSE-1	072316	NSS BL	12	07:45	235107507	NESP	18.2	3	6	JFG	LSV bled			
MMSE-1	072316	NSS BL	13	08:30	251145036	NESP	17.0	3	2	JFG	LSV bled			
MMSE-1	072316	NSS BL	14	08:45	251145037	NESP	18.5	2	6	JFG	LSV bled, one-eighth of tube for each of two			
MMSE-1	072316	NSS BL	15	09:20	251145039	NESP	17.6	3	6	LSV	LSV bled			
MMSE-1	072316	NSSBL	16	12:29	251145040	NESP	17.6	2	5	JFG	LSV bled			
		_												
		_												
equested Analyses:		_												
nalytes:			Tota	I Mercury				N	OTE: Bird sar	npling was c	conducted according to the following SOPs included in the QAPP;			
ethods:				L631e						-	SOP S-8 Bird Mist Netting			
ontainer:				lary Tube							SOP S-9 Songbird Sampling			
dditional Questions:														
dditional QC Collecte		No		If ye	s, MS sample ID:		NA							
C Sample Types:		NA			MSD sample ID:		NA							
Vere samples frozen?	)	Yes			•									

Lawsolana.

Reviewed by: 5/12/2017 Date:



wheeler												
Project Name:	USD	OC Penobsco	t River						Pro	oject Number:		
Starting Band Number:		185140339	9	-					Banders name(	s) and initials:		
Band Size:				-						Page:		
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>₄</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Lengt (mm)
185140339	NESP	072316	MMSW-C	08:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	68.0	47.0
185140340	NESP	072316	MMSW-C	11:30	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	2 = Light	0 = None	53.0	44.0
												1

AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
5 = ASY		7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	C C		4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather	r	X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

			361616	6052.04.05
			SJ	M, EM
			1	of 2
h )	Weight (g)	Bander Initials	Net #	Notes
	17.8	EM	1	Blood sample taken
	15.5	SJM	5	Blood sample taken



wheeler													
Project Name:	USE	C Penobsco	t River								Project Numbe	er:	
Starting Band Number:		185140339	)	-						Banders na	ame(s) and initial	s:	
Band Size:				-							Pag	e:	
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Co
185140339	NESP	072316	MMSW-C	08:30			3 = Large						
185140340	NESP	072316	MMSW-C	11:30		4 = Wrinkled							
													_
													_
													_
													_
													_
NOTES:													
AGE <sup>1</sup> HOW AGED <sup>2</sup> 1 = AHY         1 = Adult Plumage           2 = HY         2 = Juvenal Plumage           4 = Local         A = Nestling in nest, no flight feat	thers	<b>SEX<sup>3</sup></b> M = Male F = Female U = Unknov			HOW SEXED <sup>4</sup> 1 = Adult Plumage 2 = Juvenal Plumage 3 = Eye Color	<b>FAT<sup>5</sup></b> 0 = None 1 = Trace 2 = Light	<b>BODY MC</b> 0 = None 1 = Trace 2 = Light		<b>SKULL<sup>7</sup></b> 0 = None 1 = Trace 2 = < 1/3		BR PATCH <sup>8</sup> 0 = None 1 = Smooth 2 = Vascular	CLOACAL PROTUBERANCE <sup>9</sup> 0 = None 1 = Small 2 = Medium	FF MOLT N = None A = Adve S = Symr

AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE9	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
= Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
= ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
= ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
= Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

	36161660	52 04 05									
3616166052.04.05 SJM, EM											
	2 of										
ondition <sup>12</sup>	Bander Initials	Net #	Notes								
	EM	1	Blood sample taken								
	SJM	5	Blood sample taken								
	_										
	_										
	_										
	_										
	_										
	_										

amec foster wheeler		MIST NET LOG GPS COORDINATES											
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.0	05								
Date:		072316	Location ID:	MMSW-C									
Collectors:		SJM, EM	Weather:	Sunny, breezy, no clouds, also Dave Lovejoy on crew									
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed								
1	6	07:30	44.582323	68.858887	10:00								
7	6	10:10	44.583084	68.859383	13:12								
2	9	07:35	44.582363	68.860088	13:12								
3	9	07:40	44.582159	68.86082	13:12								
4	12	07:45	44.582559	68.861189	13:12								
5	6	07:50	44.582543	68.860659	13:12								
6	12	07:55	44.582702	68.859822	13:12								

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Reviewed by: Lauren Tierney

amec foster wheeler									LE COLLECTION I BIRD BLOOD	LOG						
Project Name:		USDC I	Penobsco	ot River				P	Project Number:			3616166052.04.05				
Date:			072316			_			Location ID:			MMSW-C				
Collectors:			SJM, EN	1		_	SPC (X/Y); Lat/Long: 68.859283 44.58283									
Media:		E	Blood (Bl	L)		_	Weather: Sunny, breezy, no clouds, also Dave Lovejoy on crew									
Species:		Nelson	's Sparro	w (NSS)		_	Collection Method: Mist Net									
-						_										
	Sample	ID			Time	Band Number	4 Digit Alpha Species Code	Weight (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes				
MMSW-C	072316	NSS	BL	08	08:20	185140339	NESP	17.8	2	1	EM					
MMSW-C	072316	_ NSS	_BL_	10	11:49	185140340	NESP	15.5	2	5	SJM					
_		_														
_		_														
_		-														
		-														
		-														
		-														
		-														
_		-														
_		_														
_		_														
		-														
		_														
Requested Analyses:																
Analytes:					I Mercury					NOTE: BI	rd sampling	g was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting				
Methods:					1631e							SOP S-8 Bird Wist Netting				
Container: Additional Questions				Capi	llary Tube											
Additional QC Collect			No		lfuo	s, MS sample ID:		NA								
QC Sample Types:	eu:	·	No NA			MSD sample ID:		NA			-					
Were samples frozen	2		Yes		ii yes,	NISD sample ID.		INA			-					
	r er Signature	:	165	°v-	~~~~~			Reviewed Da	by: ite:		uren Tiern 5/12/2017					



wneeler												
Project Name:	USE	OC Penobsco	t River						Pro	oject Number:		
Starting Band Number:		274146547	7	_					Banders name(	s) and initials:		
Band Size:				_						Page:		
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Lengt (mm)
274146547	NESP	072416	MMSW-C	07:00	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	0 = None	1 = Trace	58.0	51.0
185140342	NESP	072416	MMSW-C	10:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	

AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
= AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
1 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
5 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
3 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
) = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

			361616	6052.04.05								
	SJM, EM, MKM											
			1	of 2								
il <b>;th</b> n)	Weight (g)	Bander Initials	Net #	Notes								
n) 0	16.2	EM	7	Too stressed to bleed								
	16.1	SJM	8	Blod sample taken								

amec
foster
wheeler

wheeler													
Project Name:	USD	C Penobscot	t River								Project Numbe	r:	
Starting Band Number:		274146547	1	_						Banders na	ame(s) and initial	5:	
Band Size:				-							Page	2:	
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Co
274146547	NESP	072416	MMSW-C	07:00									
185140342	NESP	072416	MMSW-C	10:00			3 = Large						
													_
													-
													-
													_
	L	<u> </u>	1	1	1	<u> </u>	<u> </u>	1	<u>I</u>	1	1		
NOTES:													
AGE1HOW AGED21 = AHY1 = Adult Plumage		SEX <sup>3</sup> M = Male			HOW SEXED <sup>4</sup> 1 = Adult Plumage	<b>FAT⁵</b> 0 = None	<b>BODY MO</b> 0 = None		<b>SKULL<sup>7</sup></b> 0 = None		<b>BR PATCH<sup>8</sup></b> 0 = None	CLOACAL PROTUBERANCE <sup>9</sup> 0 = None	FF MOL N = Non
2 LIV 2 Inversel Diverses		E Esmals			2 Income Discovere	1 T	1 7		1 - Trace		1 Case a ship	1 Cmall	A A.J

AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE9	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feath	ner	X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

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3616166052.04.05 SJM, EM, MKM											
	2 of	2									
ondition <sup>12</sup>	Bander Initials	Net #	Notes								
	EM	7	Too stressed to bleed								
	SJM	8	Blod sample taken								

amec foster wheeler			MIST NET LOG GPS COORDINATES						
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.0	05				
Date:		072416		MMSW-C					
Collectors:		SJM, EM, MKM		Clear, breezy cloudless					
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed				
2	9	05:20	44.582363	68.860088	12:58				
3	9	05:20	44.582159	68.86082	12:58				
4	6	05:25	44.582559	68.861189	12:58				
5	12	05:30	44.582543	68.860659	12:58				
6	12	05:35	44.582702	68.856822	12:58				
7	6	05:40	44.583084	68.859383	12:58				
8	12	08:45	44.582955	68.860069	12:58				
9	6	09:35	44.583135	68.859591	12:58				
10	9	10:35	44.582526	68.858997	12:58				

61

Reviewed by: Lauren Tierney

amec									LE COLLECTION	LOG		
wheeler												
Project Name:		USDC	Penobsc			_		P	Project Number:			3616166052.04.05
Date:			072416			_			Location ID:		CO 05030	MMSW-C
Collectors:			M, EM, N			_		SPC	(X/Y); Lat/Long:		68.85928	
Media:			Blood (B			_			Weather:			Clear, breezy cloudless
Species:		Nelsor	n's Sparro	ow (NSS)		_		Coll	ection Method:			Mist Net
	Sample	e ID			Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
MMSW-C	072416	_ NSS	S _BL_	09	08:48	251145015	NESP	16.8	2	2	SJM	Foreign recapture
MMSW-C	072416	_ NSS	S _BL_	11	10:12	185140342	NESP	16.1	2	8	SJM	
		_										
		_					-					
		-										
		-										
		-									SJM	
-		-										
_		_										
_		_										
		_										
		_										
_		_										
Requested Analyses:												
Analytes:					l Mercury					NOTE: Bi	ird sampling	was conducted according to the following SOPs included in the QAPP;
Methods:					1631e							SOP S-8 Bird Mist Netting
Container:				Capi	llary Tube							SOP S-9 Songbird Sampling
Additional Questions	::											
Additional QC Collect	ed:		No			s, MS sample ID:		NA				
QC Sample Types:			NA		If yes,	MSD sample ID:		NA				
Were samples frozen	?		Yes									
Sampl	er Signatur	e:		6	· ^_			Reviewed Da	by:		uren Tiern 5/12/2017	



nec ister heeler							Bir	d Banding Data Form	ı							
ect Name:	USD	C Penobscot	River						I	Project Number:					361616	6052.04.05
ting Band Number:		251145043	}	_					Banders nam	ne(s) and initials:					LSV,	JFG, VM
d Size:				_						Page:					1	of 2
Band Number digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Bander Initials	Net #	Notes
251145043	NESP	072416	W17-N	09:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	58.0	48.0	16.1	LSV	7	LSV bled
185140313	NESP	072416	W17-N	10:00	1 = AHY	1 = Adult Plumage	U = Unknown	X = Not attempted	1 = Trace	0 = None	58.0	49.0	17.4	LSV	10	Previously bled
274146534	NESP	072416	W17-N	10:00	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	2 = Light	1 = Trace	57.0	44.0	16.3	LSV	10	Previously bled
251118716	NESP	072416	W17-N	11:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	17.9	JFG	11	Previously bled
251145044	NESP	072416	W17-N	13:00	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	0 = None	0 = None	54.0	48.0	15.8	LSV	7	Did not bleed much
				+												
				+												
				+												
<u>.</u>																

AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
5 = ASY		7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	C C		4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather	r	X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										



wheeler													
Project Name:	USE	C Penobscot	River								Project Numbe	r:	
Starting Band Number:		251145043		-						Banders na	ame(s) and initial	s:	
Band Size:				-							Pag	e:	
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Co
251145043	NESP	072416	W17-N	09:30			2 = Medium						
185140313	NESP	072416	W17-N	10:00									
274146534	NESP	072416	W17-N	10:00									
251118716	NESP	072416	W17-N	11:00			3 = Large						
251145044	NESP	072416	W17-N	13:00									
NOTES:	1	1				1	1			1			
AGE <sup>1</sup> HOW AGED <sup>2</sup> 1 = AHY     1 = Adult Plumage       2 = HY     2 = Juvenal Plumage		<b>SEX<sup>3</sup></b> M = Male F = Female			HOW SEXED <sup>4</sup> 1 = Adult Plumage 2 = Juvenal Plumage	<b>FAT</b> ⁵ 0 = None 1 = Trace	<b>BODY MO</b> 0 = None 1 = Trace	LT <sup>6</sup>	SKULL <sup>7</sup> 0 = None 1 = Trace		<b>BR PATCH<sup>8</sup></b> 0 = None 1 = Smooth	CLOACAL PROTUBERANCE <sup>9</sup> 0 = None 1 = Small	FF MOL N = Non A = Adve

AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
) = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

	361616605	52.04.05	
	LSV, JFC	G, VM	
	2 of	2	
ondition <sup>12</sup>	Bander Initials	Net #	Notes
	LSV	7	LSV bled
	LSV	10	Previously bled
	LSV	10	Previously bled
	JFG	11	Previously bled
	LSV	7	Did not bleed much
	_		
	_		
	_		

oster wheeler			MIST NET LOG GPS COORDINATES					
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.	05			
Date:		072416		W17-N				
Collectors:		LSV, JFG, VM	Weather:	Sunny, 70s and warming, breeze picking up				
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed			
1	12	05:40	44.62249	68.8541	12:30			
2	9	05:20	44.62158	68.85458	08:15			
3	12	05:17	44.6221	68.8547	07:30			
4	9	05:25	44.62254	68.85539	08:50			
5	6	05:30	44.62257	68.85476	09:45			
6	6	05:40	44.62358	68.85496	08:00			
7	12	07:45	44.62313	68.85419	13:20			
8	6	08:10	44.62389	68.85435	13:00			
9	9	08:45	44.62439	68.85426	13:20			
10	9	09:15	44.62385	68.85373	13:10			
11	6	10:00	44.62459	68.85461	13:10			

San Vanna

Reviewed by: Lauren Tierney

amec foster wheeler								SAMP	LE COLLECTION I BIRD BLOOD	LOG		
Project Name:		USDC I	Penobsc	ot River				P	Project Number:			3616166052.04.05
Date:			072416	5		_			Location ID:			W17-N
Collectors:		LS	SV, JFG, '	VM		_		SPC	(X/Y); Lat/Long:		68.8538	2 44.62288
Media:			Blood (B			_			Weather:			Sunny, 70s and warming, breeze picking up
Species:		Nelson	's Sparro	ow (NSS)				Coll	ection Method:			Mist Net
	Sample I	D			Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
W17-N _	072416	_ NSS	_BL_	12	09:40	251145043	NESP	16.1	3	7	LSV	859 One cap tube has very little blood, other two have good volume
W17-N _	072416	_ NSS	_BL_	13	13:20	251145044	NESP	15.8	2	7	LSV	Bird did not bleed, one-third capillary from left wing, tiny amount from right wing, not enough volume for analysis
_		_										
		-										
-		-										
		-										
		-										
		_										
_		_										
_		_										
_		_										
		_										
		-										
Requested Analyses:				<b></b>						NOTE D		
Analytes:					l Mercury					NOTE: BI	ird sampling	was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting
Methods:					1631e llary Tube							SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Container: Additional Questions				Сари	liary rube							Sor 5 5 Songoird Sampling
					16							
Additional QC Collecte	ed:		No			s, MS sample ID:		NA			-	
QC Sample Types: Were samples frozen	þ		NA Yes		If yes,	MSD sample ID:		NA			-	
Sample	er Signature:			<u>&gt;&gt;&gt;-</u> )	Va			Reviewed Da	by:		uren Tiern 5/12/2017	



amec foster wheeler							Bir	d Banding Data Form	ו							
Project Name:	USD	C Penobsco	River						Р	Project Number:					3616166052.04.05	
Starting Band Number:		185140343	}						Banders name	e(s) and initials:					SJM, VM, MKM	
Band Size:				_						Page:					1 of 2	
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Bander Initials	Net # Not	es
185140343	Swsp	072516	ADD-09	07:30	5 = SY	L = Molt Limits Present	M = Male	C = Cloacal Protuberance	0 = None	0 = None	60.0	59.0	17.6	SJM	9 -week 2 data. Nets 5-6 from we	
185140344	NESP	072516	ADD-05	09:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	48.0	18.7			
345	Swspadd	072516	ADD-10	09:00	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	0 = None	0 = None	56.0	55.0	13.5			
346	NESP	072516	ADD-10	12:00	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	1 = Trace	0 = None	53.0	44.0	15.5			
192024123	COYE	072516	ADD-09	13:00	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	0 = None	1 = Trace	58.0	45.0	9.7			
185140347	SWSP	072516	ADD-09	13:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	59.0	58.0	17.0			
		072516														

<sup>1</sup> HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
AHY 1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
HY 2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
Local A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
SY B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
ASY C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
TY E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
ATY F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
Unknown S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
L = Molt Limits Present		Y = Culmen								L = Leg Injury
N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
P = Primary covert shape and/or primary feat	ner	X = Not attempted								D = Dead
shape/wear										
T = Tail Shape and Wear										
X = Not Attempted										



wheeler														
Project Nam	e:	USD	C Penobscot	River								Project Numbe	er:	
Starting Ban	d Number:		185140343		-						Banders na	ame(s) and initial	s:	
Band Size:					-							Pag	e:	
(9 digits - if	Band Number band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Сог
	185140343	Swsp	072516	ADD-09	07:30	3 = Half	0 = None	3 = Large						
	185140344	NESP	072516	ADD-05	09:00	3 = Half	0 = None	3 = Large						
	345	Swspadd	072516	ADD-10	09:00									
	346	NESP	072516	ADD-10	12:00		4 = Wrinkled							
	192024123	COYE	072516	ADD-09	13:00									
	185140347	SWSP	072516	ADD-09	13:00									
			072516											
NOTES			•											
NOTES: AGE <sup>1</sup> 1 = AHY 2 = HY 4 = Local 5 = SY	HOW AGED <sup>2</sup> 1 = Adult Plumage 2 = Juvenal Plumage A = Nestling in nest, no flight featl B = Nestling in nest, flight feather:	hers	<b>SEX<sup>3</sup></b> M = Male F = Female U = Unknov 6 = Male se			HOW SEXED <sup>4</sup> 1 = Adult Plumage 2 = Juvenal Plumage 3 = Eye Color B = Brood Patch	FAT <sup>5</sup> 0 = None 1 = Trace 2 = Light 3 = half	<b>BODY M</b> ( 0 = None 1 = Trace 2 = Light 3 = Media		<b>SKULL<sup>7</sup></b> 0 = None 1 = Trace 2 = < 1/3 3 = Half		BR PATCH <sup>8</sup> 0 = None 1 = Smooth 2 = Vascular 3 = Heavy	CLOACAL PROTUBERANCE <sup>9</sup> 0 = None 1 = Small 2 = Medium 3 = Large	<b>FF MOLT</b> N = None A = Adve S = Symn J = Juv Gr

AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
) = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										

	3616166052.04.05												
	SJM, VM, MKM												
	2 of	2											
ondition <sup>12</sup>	Bander Initials	Net #	Notes										
	SJM	9	-week 2 data. Nets 5-6 from week1 sites, nets after number in order										

amec foster wheeler		MIST NET LOG GPS COORDINATES										
Project Name:		USDC Penobscot River	Pro	oject Number:	3616166052.04.05							
		072516		Location ID:	ADD-01							
Collectors:	·	SJM, VM, MKM			Not Recorded							
Net Number	Net Length (m)	Time Opened	SPC X Coordinate		SPC Y Coordinate	Time Closed						
5	12		44.643668		67.720662							
6	6		44.644116		67.720539							
7	9		44.644314		67.721387							
8	12		44.644626		67.721518							
9	9		44.644851		67.721321							
10	6		44.644811		67.720695							
	I											

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Reviewed by: Lauren Tierney

amec foster wheeler		SAMPLE COLLECTION LOG BIRD BLOOD												
Project Name:			enobsco	ot River				P	roject Number:			3616166052.04.05		
Date:			072516						Location ID:	ADD-01				
Collectors:			1, VM, N					SPC (	X/Y); Lat/Long:		44.64366			
Media:			, Blood (BI				Weather: Not recorded							
Species:			s Sparro					Colle	ection Method:			Mist Net		
	Sample II	D			Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes		
ADD-01 _	072516	NSS	_BL_	06	09:17	1850344	NESP	18.7	2	5	SJM	785		
ADD-01 _	072516	NSS	_BL_	07	12:20	1850346	NESP	15.5	2	10	SJM	786		
_	_													
_	_													
_														
_	_	-												
					-									
_		-												
_		-												
_	-	-												
-														
_														
_	_													
_	_													
Requested Analyses	s:													
Analytes:					Mercury			_		NOTE: Bir	d sampling	was conducted according to the following SOPs included in the QAPP;		
Methods:		_			631e							SOP S-8 Bird Mist Netting		
Container:				Capill	ary Tube							SOP S-9 Songbird Sampling		
Additional Question	ns:													
Additional QC Collect						MS sample ID:		NA						
QC Sample Types: NA If yes, Vere samples frozen? Yes				If yes, N	ISD sample ID:		NA							
·	er Signature:			N	- Man			Reviewed	by:	La	uren Tiern	ey		

Date:

Sampler Signature:

Lauren Tierney 5/12/2017



6 = ASY

7 = TY

8 = ATY

0 = Unknown

C = Nestling fledged, incapable of flight

P = Primary covert shape and/or primary feather

E = Eye color

shape/wear

S = Skull

F = Flight Feather Wear

L = Molt Limits Present N = Molt Limits Absent

T = Tail Shape and Wear X = Not Attempted

## Bird Banding Data Form

4 = Wrinkled

5 = Molting

wheeler	8															
Project Nam	ie:	USE	OC Penobsco	t River								I	Project Number	:		
Starting Ban	d Number:		25114505	1	-							Banders nam	e(s) and initials			
Band Size:					-								Page	:		
(9 digits - if	Band Number band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>		How Aged <sup>2</sup>		Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Length (mm)	
	251145051	NESP	072516	MMSE-1	10:10	1 = AHY	1	= Adult Plumage	М	= Male	C = Cloacal Protuberance	0 = None	0 = None	52.0	50.0	
	251145052	NESP	072516	MMSE-1	11:00	1 = AHY	1	= Adult Plumage	F =	Female	B = Brood Patch	0 = None	0 = None	56.0	47.0	
														J	└───	
															<u> </u>	
														+ +		
														!		
												_		!	L	
														!	L	
														<u> </u>	<b> </b>	
				-										J	──	
														l	<b> </b>	
															<u> </u>	
														++		
														1		
NOTES:																
AGE <sup>1</sup>	HOW AGED <sup>2</sup>		SEX <sup>3</sup>			HOW SEXED <sup>4</sup>		FAT <sup>5</sup>	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTU	IBERANCE <sup>9</sup>	FF MOLT	10	
1 = AHY	1 = Adult Plumage					1 = Adult Pluma		0 = None	0 = None	0 = None	0 = None	0 = None		N = None		
2 = HY	2 = Juvenal Plumage		F = Female			2 = Juvenal Plu	mage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small		A = Adve		
4 = Local	A = Nestling in nest, no flight feat		U = Unknov		h.,	3 = Eye Color	L	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium		S = Symn		
5 = SY	B = Nestling in nest, flight feathers in pin		ь = Male se	exed subsequent	iy	B = Brood Patch		3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large		J = Juv Growth		

4 = Filled

5 = Bulging

6 = Greatly Bulging 7 = Very Excessive

4 = Heavy

4 = > 2/3

6 = Complete 7 = Invisible

5 = Almost Complete

C = Cloacal Protuberance

Z = Multiple Measurements

E = Egg in Oviduct

X = Not attempted

W = Wing Chord

T = Tail Length Y = Culmen

7 = Female sexed subsequently

	3616166052.04.05												
	LSV, JFG, EM												
	1 of 2												
:h )	Weight (g)	Bander Initials	Net #	Notes									
	16.7	JFG	1	EMM bleed									
		JFG	3	EMM bleed									

FF WEAR <sup>11</sup> 0 = None 1 = Slight 2 = Light 3 = Moderate 4 = Heavy 5 = Excessive	CONDITION <sup>12</sup> M = Malformed O = Old (healed) Injury I = Illness/Disease S = Stress/Shock E = Eye Injury T = Tongue Injury W = Wing Injury B = Body Injury L = Leg Injury P = Predation D = Deced

amec 🔼
foster
wheeler

amec foster wheeler									Bird Band	ling Data Fo	rm							
Project Name:	USD	C Penobscot	River	<b>Project Number:</b> 3616166052.04.05														
Starting Band Number:		251145051		-				Banders name(s) and initials:							LSV, JFG, EM			
Band Size:				-	– Page:								2 of 2					
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Condition <sup>12</sup>	Bander Initials	Net #	Notes		
251145051	NESP	072516	MMSE-1	10:10	NA	NA	3 = Large							JFG	1	EMM bleed		
251145052	NESP	072516	MMSE-1	11:00	NA	4 = Wrinkled	NA							JFG	3	EMM bleed		
								_										
														1				

AGE <sup>1</sup> HOW AGED	D <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE9	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
= AHY 1 = Adult P	Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
= HY 2 = Juvenal	l Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
= Local A = Nestling	ng in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
= SY B = Nestling	ng in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
= ASY C = Nestling	ng fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
= TY E = Eye colo	lor		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
S = ATY F = Flight Fe	eather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
) = Unknown S = Skull			T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
L = Molt Lin	mits Present		Y = Culmen								L = Leg Injury
N = Molt Li	imits Absent		Z = Multiple Measurements								P = Predation
P = Primary	y covert shape and/or primary feather		X = Not attempted								D = Dead
shape/wea	ar										
T = Tail Sha	ape and Wear										
X = Not Att	tempted										

amec foster wheeler		MIST NET LOG GPS COORDINATES											
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.05									
		072516		MMSE-1									
		LSV, JFG, EM		Sunny, warm, some breeze									
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed								
1	6	10:10	44.59314	68.85944	11:20								
2	12	09:53	44.59295	68.85993	11:25								
3	6	10:30	44.59288	68.85978	11:22								
4	9	10:00	44.59242	68.8597	11:30								
5	12	10:05	44.59227	68.86007	11:34								
6	9	10:15	44.59291	68.86031	11:30								

Suries Venue

Reviewed by: Lauren Tierney

amec foster wheeler Project Name:		USDC P	enobsc	ot River				BIR	OLLECTION LOG D BLOOD Project Number:			3616166052.04.05		
Date:			072516				Location ID: MMSE-1							
Collectors:			V, JFG, I					SPC	(X/Y); Lat/Long:		68.8602			
Media:			lood (B			_		51 0	Weather:		00.0002	Sunny, warm, some breeze		
Species:		Nelson's				_		Co	llection Method:			Mist Net		
						_								
	Sample I	D			Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes		
MMSE-1	072516	_ NSS	_BL_	17	10:30	251145051	NESP	16.7	3	1	JFG	1599		
MMSE-1	072516	_ NSS	_BL_	18	11:18	251145052	NESP		2	3	JFG	Second capillary tube has very little blood in it, bird not weighed		
		_												
		_			_									
		_												
		_												
		_									-			
		-									-			
-		_												
		-												
		_												
		-												
_		_												
Requested Analyses:														
Analytes:				Tota	I Mercury				N	IOTE: Bird sa	mpling was	conducted according to the following SOPs included in the QAPP;		
Methods:				1	1631e							SOP S-8 Bird Mist Netting		
Container:				Capi	llary Tube							SOP S-9 Songbird Sampling		
Additional Questions:														
Additional QC Collecte	ed:		No		If ye	s, MS sample ID:		NA						
QC Sample Types: Were samples frozen?			NA Yes		If yes,	MSD sample ID:		NA				- -		
	er Signature:			Suchs	e. V.emi	٢		Reviewed	by:		uren Tiern	еу		

1.10

Date:



oject	Name:	

amec foster wheeler							Bird	Banding Data Forr	n								
oject Name:	USD	C Penobsco	t River					Project Number:						3616166052.04.05			
arting Band Number:		251145045	5					Banders name(s) and initials:						LSV, JFG, EM			
ind Size:				_						Page:					1 0	of 2	
Band Number 9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits) NESP	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing		Weight (g)	Bander Initials	Net #	Notes	
251145045		072516	W17-N	05:20	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	0 = None	0 = None	54.0	46.0	14.6	JFG	4	LSV bleed	
185140313	NESP	072516	W17-N	05:50											1	Recap, previously banded and bled	
185140310	NESP	072516	W17-N	06:30											3	Recap, previously banded and bled	
2511187	NESP	072516	W17-N	07:30	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	53.0	48.0	16.0	JFG	1	LSV bled	
251145049	NESP	072516	W17-N	08:00	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	2 = Light	1 = Trace	56.0	50.0	15.6	EM	3	LSV bled	
251145050	NESP	072516	W17-N	08:20	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	1 = Trace	0 = None	54.0	42.0	17.2	JFG	2		

NOTES:											
AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										



Name:			

Project Name:	USE	C Penobscot	River								Project Number:	:	
Starting Band Number:		251145045	i	-						Banders na	ame(s) and initials:		
Band Size:				_							Page		
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Cone
251145045	NESP	072516	W17-N	05:20	1 = Trace	NA	NA						
185140313	NESP	072516	W17-N	05:50									
185140310	NESP	072516	W17-N	06:30									
2511187	NESP	072516	W17-N	07:30	NA	4 = Wrinkled	NA						
251145049	NESP	072516	W17-N	08:00	NA	NA	NA						
251145050	NESP	072516	W17-N	08:20	NA	4 = Wrinkled	NA						
													1

HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
AHY 1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
IY 2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
ocal A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
SY B = Nestling in nest, flight feathers in pir	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
ASY C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
TY E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
ATY F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulgin	g	6 = Complete					W = Wing Injury
Unknown S = Skull		T = Tail Length	7 = Very Excessive	9	7 = Invisible					B = Body Injury
L = Molt Limits Present		Y = Culmen								L = Leg Injury
N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
P = Primary covert shape and/or primary	y feather	X = Not attempted								D = Dead
shape/wear										
T = Tail Shape and Wear										
X = Not Attempted										

	361616605	52.04.05	
	LSV, JF	G, EM	
	2 of	2	
ondition <sup>12</sup>	Bander Initials	Net #	Notes
	JFG	4	LSV bleed
		1	Recap, previously banded and bled
		3	Recap, previously banded and bled
	JFG	1	LSV bled
	EM	3	LSV bled
	JFG	2	
	_		
	_		

amec foster wheeler			MIST NET LOG GPS COORDINATES					
Project Name:		USDC Penobscot River	Project Number:	3616166052.04.0	)5			
		072516		W17-N				
Collectors:		LSV, JFG, EM	Weather:	Mostly cloudy, cool				
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed			
1	12	05:02	44.62315	68.85417	08:15			
2	9	05:01	44.62384	68.85373	08:20			
3	6	05:07	44.62394	68.85438	08:25			
4	12	05:06	44.6244	68.85502	08:30			
5	6	05:12	44.62457	68.8546	08:35			
6	9	05:15	44.62438	68.85425	08:40			

Tomise Ver.

Reviewed by: Lauren Tierney

amec foster wheeler								OLLECTION LOG D BLOOD			
Project Name:		USDC Penobsco	ot River					Project Number:			3616166052.04.05
Date:		072516			_			Location ID:			W17-N
Collectors:		LSV, JFG, I	EM		_		SPC	(X/Y); Lat/Long:		68.85386	44.62288
Media:		Blood (Bl	L)		_			Weather:			Mostly cloudy, cool
Species:		Nelson's Sparro	w (NSS)		-		Co	llection Method:			Mist Net
	Sample II	D		Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
W17-N _	072516	_ NSS _BL_	10	05:30	251145045	NESP	14.6	2	4	JFG	LSV bled
W17-N _	072516	_ NSS _BL_	15	07:48	251118783	NESP	16.0	2	1	JFG	LSV bled
W17-N _	072516	_ NSS _BL_	16	08:19	251145050	NESP	17.2	2	3	JFG	LSV bled
_		_									
_		_									
-		_									
-		_									
l		_									
_		_									
_		_									
_		_									
_		_									
_		_									
_		_									
_		_									
Requested Analyses:											
Analytes:				Mercury				N	OTE: Bird sar	npling was co	onducted according to the following SOPs included in the QAPP;
Methods:				.631e							SOP S-8 Bird Mist Netting
Container:			Capil	lary Tube							SOP S-9 Songbird Sampling
Additional Questions:											
Additional QC Collecte	d:	No			s, MS sample ID:		NA				
QC Sample Types:		NA		If yes,	MSD sample ID:		NA				
Were samples frozen?		Yes									

Traise Vera.

 Reviewed by:
 Lauren Tierney

 Date:
 5/12/2017



Project Name:	USD	OC Penobsco	t River							Project Number:	:				361616605	2.04.05
itarting Band Number:		251145024	1	_					Banders nam	:		LSV, SJM, JFG, EM, VM, MKM				
and Size:				-					Page	1 of 2						
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age <sup>1</sup>	How Aged <sup>2</sup>	Sex <sup>3</sup>	How Sexed <sup>4</sup>	Fat⁵	Body Molt <sup>6</sup>	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Bander Initials	Net #	Notes
251145024	NESP	072616	ADD-01	08:30		X = Not Attempted					56.0	48.0	18.4	SJM	1	Recapture not bleed
251118754	NESP	072616	ADD-01	10:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	52.0	17.3	LSV	1	
185140353	NESP	072616	ADD-01	11:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	51.0	18.1	JFG	3	
185140354	NESP	072616	ADD-01	11:30	2 = HY	2 = Juvenal Plumage	U = Unknown	X = Not attempted	3 = half	1 = Trace	54.0		14.2	EM	5	Tail missing
185140356	NESP	072616	ADD-01	12:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	47.0	17.3	SJM	1	
				-												
												1				
											1	1	1	1		
														1		
		1					1			-		1				

NOTES:

AGE <sup>1</sup>	HOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
= ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
= Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
	L = Molt Limits Present		Y = Culmen								L = Leg Injury
	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
	shape/wear										
	T = Tail Shape and Wear										
	X = Not Attempted										



wheeler														
Project Name:	USE	DC Penobscot River Project Number:												
Starting Band Number:		251145024		_		Banders name(s) and initials:								
Band Size:				-							Pag	e:		
Band Number (9 digits - if band has 8 digits, place leading 0 at beginning)	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Skull <sup>7</sup>	Brood Patch <sup>8</sup>	Cloacal Prot <sup>9</sup>	Crown Patch	Culmen Length	Culmen Width	FF Molt <sup>10</sup>	FF Wear <sup>11</sup>	Со	
251145024	NESP	072616	ADD-01	08:30										
251118754	NESP	072616	ADD-01	10:00			3 = Large							
185140353	NESP	072616	ADD-01	11:00			3 = Large							
185140354	NESP	072616	ADD-01	11:30			3 = Large							
185140356	NESP	072616	ADD-01	12:30			3 = Large							
NOTES:	•	÷		•					-				<u>.</u>	
NOTES: AGE <sup>1</sup> HOW AGED <sup>2</sup>		SEX <sup>3</sup>			HOW SEXED <sup>4</sup>	FAT⁵	BODY MO		SKULL <sup>7</sup>		BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT	
1 = AHY 1 = Adult Plumage		M = Male			1 = Adult Plumage	0 = None	0 = None		0 = None		0 = None	0 = None	N = None	
2 = HY 2 = Juvenal Plumage		F = Female			2 = Juvenal Plumage	1 = Trace	1 = Trace		1 = Trace		1 = Smooth	1 = Small	A = Adve	

AGE <sup>1</sup>	IOW AGED <sup>2</sup>	SEX <sup>3</sup>	HOW SEXED <sup>4</sup>	FAT⁵	BODY MOLT <sup>6</sup>	SKULL <sup>7</sup>	BR PATCH <sup>8</sup>	CLOACAL PROTUBERANCE <sup>9</sup>	FF MOLT <sup>10</sup>	FF WEAR <sup>11</sup>	CONDITION <sup>12</sup>
1 = AHY 1	L = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None	N = None	0 = None	M = Malformed
2 = HY 2	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small	A = Adventitous	1 = Slight	O = Old (healed) Injury
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium	S = Symmetric	2 = Light	I = Illness/Disease
5 = SY	3 = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large	J = Juv Growth	3 = Moderate	S = Stress/Shock
6 = ASY 0	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled			4 = Heavy	E = Eye Injury
7 = TY E	= Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting			5 = Excessive	T = Tongue Injury
8 = ATY	= Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete					W = Wing Injury
0 = Unknown	5 = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible					B = Body Injury
L	. = Molt Limits Present		Y = Culmen								L = Leg Injury
1	N = Molt Limits Absent		Z = Multiple Measurements								P = Predation
F	P = Primary covert shape and/or primary feather		X = Not attempted								D = Dead
5	hape/wear										
F	T = Tail Shape and Wear										
>	<pre>&lt; = Not Attempted</pre>										

	26464662	2 04 05	
	361616605		
LSV	V, SJM, JFG, E		ЛКМ
	2 of	2	
ondition <sup>12</sup>	Bander Initials	Net #	Notes
	SJM	1	Recapture not bleed
	LSV	1	
	JFG	3	
	EM	5	Tail missing
	SJM	1	
	1		

amec foster wheeler	MIST NET LOG GPS COORDINATES											
Project Name:		USDC Penobscot River	Project Number:	Project Number: 3616166052.04.05								
Date:		072616		ADD-01								
Collectors:	LS	V, SJM, JFG, EM, VM, MKM	Weather:	Foggy till 0915 sun comes out after								
Net Number	Net Length (m)	Time Opened	SPC X Coordinate	SPC Y Coordinate	Time Closed							
1	6	06:25	44.64331	67.71921								
2	12	06:30	44.64333	67.71977								
3	12	06:32	44.64374	67.72066								
4	6	06:34	44.64434	67.72142								
5	9		44.64434	67.72142								
6	12		44.64465	67.72147								
7	9		44.64489	67.72117								
8	6		44.64482	67.72067								
9	12		44.64434	67.72142								
10	9		44.64556	67.72005								
11	6		44.64489	67.72028								
12			44.64451	67.72028								

N= t-m

Reviewed by: Lauren Tierney

amec foster wheeler								OLLECTION LOG D BLOOD			
Project Name:		USDC Penobsco	ot River					Project Number:			3616166052.04.05
Date:		072616			_			Location ID:			ADD-01
Collectors:	LSV, SJM, JFG, EM, VM, MKM Blood (BL)			Ν	_		SPC	(X/Y); Lat/Long:		44.64333	67.71977
Media:					_			Weather:		Foggy till 0915 sun comes out after	
Species:		Nelson's Sparro	w (NSS)		_		Col	llection Method:			Mist Net
	Sample	ID		Time	Band Number	4 Digit Alpha Species Code	<b>Weight</b> (grams)	Number of Hg Capillary Tubes	Mist Net Number	Bander Initials	Notes
ADD-01 _	072616	_ NSS _BL_	08	10:18	251118754	NESP	17.3	3	1	LSV	Third tube only partial full
ADD-01	072616	_ NSS _BL_	10	11:10	185140353	NESP	18.1	3	3	LSV	
ADD-01	072616	_ NSS _BL_	09	11:53	185140354	NESP	14.2	2	5	EM	
ADD-01	072616	_ NSS _BL_	11	12:45	185140356	NESP	17.3	2	1	SJM	Both only partial bird stressed
_		_									
_		_									
		_									
l		_									
I		_									
		_									
I		_									
_		_									
_		_									
_		_									
_		_									
Requested Analyses:											
Analytes:				l Mercury				N	OTE: Bird sar	npling was co	onducted according to the following SOPs included in the QAPP;
Methods:				L631e							SOP S-8 Bird Mist Netting
Container:			Capil	lary Tube							SOP S-9 Songbird Sampling
Additional Questions:											
Additional QC Collecte	ed:	No			s, MS sample ID:		NA				
QC Sample Types:		NA		If yes,	MSD sample ID:		NA				
Were samples frozen?		Yes									

N= tran

 Reviewed by:
 Lauren Tierney

 Date:
 5/12/2017

					CAMPI	E COLLECTIO	NLOC				
amec						N BLACK DUC					
foster wheeler											
Project Name:	USDC Penobscot Riv	er			Project Number	r:		36:	6166052.04.05		
Date:	012217		_		Location ID	D:			MMBKD-01		
Collectors:	LSV, KCB		_		Lat/Long	g:	44.5985620		-68.8604457		
Media:	Blood (BL)		_		Weather	r:		Overca	ast, 25-35, 3-5 mph		
Species:	American Black Duck (A	American Black Duck (ABD)     Collection Method:     Rocket Net							Rocket Net		
		I						- [			
				Weight			Number of				
	Sample ID	Time	Band Number	(grams)	Sex	Age	Hg Capillary		Notes		
				(8. 2			Tubes				
MMBKD-01 _	012217 _ ABD_ 01 _BL	17:00	N/A	1154	F	2	8	SY (2	in age);8 tubes, not all full, 2 full; sacrificed; 1154g, MS/MSD		
MMBKD-01 _	012217 _ ABD_ 02 _BL	17:15	N/A	1216	М	3	5		ASY (3 in age column); 2 full tubes; sacrificed 1216g		
_	_										
	_								Captured by IFW at Treat Point-Franfurt Maine.		
	_							Coord	dinants NAD_1983_StatePlane_Maine_East_FIPS_1801_Feet		
-									X: 890371.080169823		
	-								Y: 339895.791874744		
	_										
	_										
	-										
	-										
_	_										
_	_										
	-										
	_										
Requested Analyses:											
A stark starks	Tatal Ma					N			g to the following SOPs included in the QAPP;		
Analytes:	Total Me 1631							SOP S-21 American B	slack Duck Sampling		
Methods: Container:	70 uL Capillary Tube					Tra	ans were baited by The M	laine Denartment of	Fisheries & Wildlife with corn or similar grain.		
						110	ips were balled by file w	taine Department of			
MS/MSD QC Tracking	5										
		If yes, MS s	ample ID:	MMBKD-01	_ 012217 _	ABD_	01	_BL_MS			
		If yes, MSD s	sample ID:	MMBKD-01	_ 012217 _	ABD	01	BL MD			
		-			- 012217 -						
		Analy				10	otal Mercury				
		Metho	ods:				1631e				
		Contai	iner:			70 µL Capilla	ry Tube - Instant Free	ze			
Additional Comment	s:										
					N/A = Not Ap	plicable					
		25		0.1/001			5514				
Teo	ch Signature:	The Vanna		QA/QC L			BPW				
				Da	te:		3/6/2017				



### SAMPLE COLLECTION LOG AMERICAN BLACK DUCK BLOOD

wheeler													
Project Name:		USDC P	enobscot	t River				Project Number	:		36	16166052.04.05	
Date:			012417			_		Location ID				FRB-01	
Collectors:			LSV, KCB			_		Lat/Long		44.4634		-68.357533	
Media:			lood (BL)			_		Weather		25-35f. 25-3	35knts. NE. 3-7 ft	waves. Overcast. Freezing rain. Sleet. Rain	
Species:		American	Black Du	ck (ABD)		-	c	ollection Method	:			Тгар	
						1							
	Sample	ID			Time	Band Number	<b>Weight</b> (grams)	Sex	Age	Number of Hg Capillary Tubes		Notes	
FRB-01 _	012417	_ ABD_	01 _	BL	14:00	211730622	1600	Μ	3	5		ASY(3). 1.60kg	
FRB-01 _	012417	_ ABD_	02 _	BL	14:15	210705527	1540	Μ	3	5		ASY(3). 1.54 kg one broken cap tube	
FRB-01 _	012417	_ ABD_	03 _	BL	14:30	211730627	1370	Μ	3	5		ASY(3). 1.37kg. One broken cap tube	
FRB-01 _	012417	_ ABD_	04 _	BL	14:45	211731196	1380	Μ	2	5		SY(2). 1.38kg	
FRB-01 _	012417	_ ABD_	05 _	BL	15:00	211731202	1380	Μ	3	5		ASY(3) 1.38 kg	
FRB-01 _	012417	_ ABD_	06 _	BL	15:15	N/A	1420	Μ	2	5		SY(2) 1.42kg. MS/MD, Sacrifice	
FRB-01 _	012417	_ ABD_		BL	15:30	N/A	1540	Μ	2	5		SY(2) 1.54kg, Sacrifice	
FRB-01 _	012417	_ ABD_	_	BL	15:45	N/A	1340	F	2	5		SY(2). 1.34kg, Sacrifice	
FRB-01 _	012417	_ ABD_		BL	16:00	N/A	1460	Μ	3	5	1	ASY(3). 1.46 kg. Additional tube =6 w 1 broken, Sacrifice	
FRB-01 _	012417	_ ABD_	10 _	BL	16:15	N/A	1320	F	2	5		SY (2) 1.32kg, Sacrifice	
_		_											
_		_											
_		_											
_		_											
_		_											
Requested Analyses:													
									NC		-	to the following SOPs included in the QAPP;	
Analytes:				I Mercury			SOP S-21 American Black Duck Sampling						
Methods:		70 1 0		1631e		Traps were baited by The Maine Department of Fisheries & Wildlife with corn or similar grain.							
Container:		70 μL C	apillary	l ube - Inst	tant Freeze				Tra	ps were baited by The Ma	line Department of I	isheries & wildlife with corn or similar grain.	
MS/MSD QC Tracking	5												
				ľ	f yes, MS sa	mple ID:	FRB-01	_ 012417 _	ABD_	06	_BL_MS		
				If	yes, MSD s	ample ID:	FRB-01	_ 012417 _	ABD	06	BL MD		
					Analyt	es:			 To	otal Mercury			
					Metho					1631e			
					Contair			-	Out Capilla	ry Tube - Instant Freeze			
Additional Comments					Contair	101.		/	υ με Capillal	iy iube - ilistalit rfeeze	:		
Additional Comments	<b>.</b>												
								N/A = Not App	licable				
				22	252553								
Teo	ch Signature	:			~~		QA/QC b			BPW			
	0						Dat	te:		3/6/2017			

						<b>SAMPI</b>							
amec foster							BLACK DUCK						
wheeler													
Project Name:	USD	C Penobscot F	River			Project Number	516166052.04.05	166052.04.05					
Date:		012417				Location ID	D:			ES-13			
Collectors:		LSV, KCB				Lat/Long	g:	44.505666		-68.771133			
Media:		Blood (BL)				Weather	r:	25-35f 25-3	0knots NE. 5-9 fe	et seas. Overcast sleet, freezing rain, snow			
Species:	Ameri	can Black Duck	ck Duck (ABD) Collection Method: Traj							Тгар			
						<u>.</u>							
					Maight			Number of					
	Sample ID		Time	Band Number	Weight (grams)	Sex	Age	Hg Capillary Tubes		Notes			
ES-13	012417 AB	D 01 B	L 18:00	N/A	1540	Μ	3	4		ASY(3). 1.54kg, Sacrifice			
ES-13	012417 AB	D 02 B	L 18:15	N/A	1510	Μ	3	5		ASY(3). 1.51kg, Sacrifice			
	_												
_	_												
_	_												
_	_												
_	_												
_	_												
_	_												
_	_												
_	_												
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_	_												
_	_												
_	_												
Requested Analyses:													
							NC	DTE: Duck sampling was co	onducted according	g to the following SOPs included in the QAPP;			
Analytes:			Mercury			SOP S-21 American Black Duck Sampling							
Methods:			i31e										
Container:	70	μL Capillary Tι	ibe - Instant Free	ze			Trap	ps were baited by The Ma	ine Department of	Fisheries & Wildlife with corn or similar grain.			
MS/MSD QC Tracking													
			If ves. MS	sample ID:	ES-13	_ 012817 _	ABD	04	_BL_MS				
			-	) sample ID:	ES-13		ABD_	04	BL MD				
					E3-15	_ 012817 _							
			Ana	lytes:			То	tal Mercury					
		Met	hods:				1631e						
			Con	ainer:			70 µL Capillar	y Tube - Instant Freeze					
Additional Comments	:		-				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
						N/A = Not App	plicable						
To	ch Signature:		75-2		QA/QC	· · · · · · · · · · · · · · · · · · ·		BPW 3/6/2017					
			and an and the second sec		Da	ate:							

amec foster					SAMPLE ( AMERICAN E	COLLECTION BLACK DUCK		
wheeler								
Project Name:	USDC Penobscot Rive	r	_	F	Project Number:			3616166052.04.05
Date:	012417		_		Location ID:			MMBKD-01
Collectors:	LSV, KCB		_		Lat/Long:		44.584716	-68.862066
Media:	Blood (BL)		_		Weather:		25-35f , 15-	-20knts, NE, 3-5 ft waves, overcast snow,sleet,freezing rain.
Species:	American Black Duck (A	BD)	_	Coll	lection Method:			Тгар
	Sample ID	Time	Band Number	<b>Weight</b> (grams)	Sex	Age	Number of Hg Capillary Tubes	Notes
MMBKD-01 _	012417 _ ABD_ 03 _BL	10:00	N/A	1570	М	2	3	SY(2)
MMBKD-01	012417 _ ABD_ 04 _BL	10:20	N/A	1400	М	2	5	SY(2)
MMBKD-01 _	012417 _ ABD_ 05 _BL	10:35	N/A	1280	F	2	5	SY(2)
MMBKD-01 _	012417 _ ABD_ 06 _BL	10:50	210706201	N/C	М	2	5	SY(2) one partial tube
MMBKD-01 _	012417 _ ABD_ 07 _BL	11:05	210706211	N/C	М	2	4	SY(2)
MMBKD-01 _	012417 _ ABD_ 08 _BL	11:20	210706212	N/C	М	2	4	SY(2)
MMBKD-01 _	012417 _ ABD_ 09 _BL	11:40	210706218	1530	M	2	3	SY(2) 1.53kg
MMBKD-01	012417 _ ABD_ 10 _BL 012417 ABD 11 BL	12:00	210706221	1470 1370	M F	2	4	SY(2). 1.47kg. One broken
MMBKD-01	012417 _ ABD_ 11 _BL 012417 ABD 12 BL	12:15 12:30	210706231 210706234	1370	F	2	3	SY(2) 1.37 kg SY(2).1.20kg
MMBKD-01 _	012417 _ ABD_ 12 _BL 012417 _ ABD_ 13 _BL	12:30	210706234	1200	F	2	5	SY(2).1.20kg SY(2). 1.31kg
MMBKD-01	012417 ABD 14 BL	12:40	210706235	1510	M	3	4	ASY(3). 1.53 kg
MMBKD-01	012417 ABD 15 BL	13:00	182785912	1610	M	3	3	ASY(3). 1.61kg
						-		
	_							
Requested Analyses: Analytes: Methods: Container:	Total Mer 1631ε 70 μL Capillary Tube		2				S	conducted according to the following SOPs included in the QAPP; SOP S-21 American Black Duck Sampling laine Department of Fisheries & Wildlife with corn or similar grain.
/IS/MSD QC Tracking	5							
		If yes, MS s	ample ID:	MMBKD-01	_ 012217 _	ABD_	01	_BL_MS
		If yes, MSD s	sample ID:	MMBKD-01	_ '012217 _	ABD_	01	_BL_MD
		Analy	tes:			To	tal Mercury	
		Meth		-			1631e	
		Conta		-	70	ul Canillar	y Tube - Instant Freez	70
Additional Comments	s:			N/C = Not	Collected N/A			
Tec	ch Signature:			QA/QC by Date	y:		BPW 3/6/2017	

amec								SAMPLE ( AMERICAN E					
foster wheeler													
Project Name:		USDC Pe	enobsco	ot River				Project Number:			36	616166052.04.05	
Date:			012817			-		Location ID:				ES-13	
Collectors:		L	SV, KC	3		_		Lat/Long:		44.505666			-68.771133
Media:		Bl	ood (Bl	_)		-		Weather:		25-35 f. 7-12knot	s. Westerly wind	d. Choppy sea. Sheltered co	ove. Scattered clouds
Species:	Ar	nerican l	Black D	uck (ABD)		_	c	ollection Method:				Rocket Net	
-						_							
	Sample ID				Time	Band Number	<b>Weight</b> (grams)	Sex	Age	Number of Hg Capillary Tubes		Note	25
ES-13 _	012817 _	ABD_	03	_BL	13:20	183756307	1430	Μ	3	4		1.49 kg weigh	nt; ASY(3);
ES-13 _	012817 _	ABD_	04	_BL	13:25	N/A	1540	М	3	5		1.54 kg; ASY (3); 6 tubes blood	extra for ms/md, sacrifice
	_												
_						↓↓							
-	_										-		
-													
	-												
_	_												
Requested Analyses: Analytes: Methods: Container:		70 µL C		al Mercury 1631e / Tube - Ins	y stant Freeze					SO	P S-21 American B	g to the following SOPs include Black Duck Sampling f Fisheries & Wildlife with corn	
MS/MSD QC Tracking													
					If yes, MS sa	ample ID:	ES-13	_ 012817 _	ABD_	04	_BL_MS	-	
				1	lf yes, MSD s	ample ID:	ES-13	_ 012817 _	ABD_	04	_BL_MD		
					Analy	tes:			То	otal Mercury		-	
					, Metho					, 1631e		-	
												-	
Additional Comments					Contai	ner:		/(	με Capiliar	ry Tube - Instant Freeze			
Additional Comments							Birds colled	ct by rocket net, N/	A = Not Ap	plicable			
Teo	ch Signature:						QA/QC Da	by: te:		BPW 3/6/2017			

amec foster wheeler								SAMPLE AMERICAN	COLLECTIC BLACK DU				
Project Name:		USDC P	enobscot I	River			P	Project Number:			36161	66052.04.05	
Date:			020217	inver		-		Location ID:				FRB-01	
Collectors:			КСВ			_		Lat/Long:		44.4634 N		-068.357533 W	
Media:		В	Blood (BL)			-		Weather:			15 deg F calm. Calm	sea. Overcast to partly cloudy.	
Species:			Black Duc	k (ABD)		-	Coll	ection Method:				Тгар	
· -				. ,		-		-				•	
	Sample	ID			Time	Band Number	Weight (grams)	Sex	Age	Number of Hg Capillary Tubes		Notes	
FRB-01 _	020217	_ ABD_	11 _B		09:20	211730805	1740	М	3	5		Weight 1740g, ASY(3)	
FRB-01 _	020217	_ ABD_	12 _B		09:25	211703806	1190	М	3	4		1190g ASY (3)	
FRB-01 _	020217	_ ABD_	13 _B		09:33	211703807	1300	М	2	5		1300g SY(2)	
FRB-01 _	020217	_ ABD_		BL	09:40	211703808	1350	F	2	5		1350g SY(2) F	
FRB-01 _	020217	_ ABD_	15 _B	3L	09:51	211703809	1430	М	3	6		ASY(3) 1430g	
_		-											
		-											
		_								-			
		-											
-		-											
		-											
		-				-							
		-											
		-											
Requested Analyses: Analytes: Methods: Container:		 70 μL (		Mercury 631e ube - Insta	ant Freeze					9	SOP S-21 American Blac	the following SOPs included in the QAPP; k Duck Sampling heries & Wildlife with corn or similar grain.	
MS/MSD QC Tracking	7												
	•			If	yes, MS sa	imple ID:	FRB-01	_ 020217 _	ABD_	06	_BL_MS		
				lf y	yes, MSD s	ample ID:	FRB-01	_ 020217 _	ABD_	06	_BL_MD		
					Analyt					Total Mercury			
						Methods:     1631e       pontainer:     70 μL Capillary Tube - Instant Freeze							
					Contai	ner:		7					
Additional Comment:	s: ch Signature:	·		×.		All ne	QA/QC		to French	mans Bay by IFW BPW 3/6/2017			



#### SAMPLE COLLECTION LOG AMERICAN BLACK DUCK BLOOD

wheeler					
Project Name:	USDC Penobscot River	Project Number:	361	16166052.04.05	
Date:	020517	Location ID:		ES-13	
Collectors:	LSV, KCB	Lat/Long:	44.505666	-068.771133	
Media:	Blood (BL)	Weather:	30-35 deg F.	10-20 knots SSW. Cloudy.	
Species:	American Black Duck (ABD)	Collection Method:		Rocket Net	

Sample ID	Time	Band Number	<b>Weight</b> (grams)	Sex	Age	Number of Hg Capillary Tubes	Notes
ES-13 _ 030356 _ ABD_ 05 _BL	15:15	182785012	1540	Μ	3	5	1540g, ASY
ES-13 _ 020517 _ ABD_ 06 _BL	15:25	204792070	1230	Μ	3	6	1360 g ASY(3) 6 tubes
ES-13 _ 020517 _ ABD_ 07 _BL	15:30	204731343	1240	F	3	5	ASY(3) 1230 g.
ES-13 _ 020517 _ ABD_ 08 _BL	15:35	207431344	1420	F	2	5	SY (2) 1420g
ES-13 _ 020517 _ ABD_ 09 _BL	15:40	207431345	1240	F	2	6	Sy(2) 1240g. 6 tubes
ES-13 _ 020517 _ ABD_ 10 _BL	15:55	207431346	1170	F	3	5	ASY(3) 1170 g.
ES-13 _ 020517 _ ABD_ 11 _BL	16:05	207431347	1540	Μ	3	5	1540g ASY(3)
ES-13 _ 020517 _ ABD_ 12 _BL	16:15	207431348	1380	Μ	3	5	1380g. ASY (3)
ES-13 _ 020517 _ ABD_ 13 _BL	16:25	207431349	1570	М	3	6	1570g ASY(3) 6 tubes
ES-13 _ 020517 _ ABD_ 14 _BL	16:35	207431350	1260	F	2	5	1260 g SY(2)
ES-13 _ 020517 _ ABD_ 15 _BL	16:40	N/A	1180	F	2	5	1180 gSY(2) sacrifice for MU sample 221 g

### **Requested Analyses:**

Analytes:	Total Mercury	NOTE: Duck sampling was conducted according to the following SOPs included in the QAPP; SOP S-21 American Black Duck Sampling							
Methods: Container:	1631e 70 μL Capillary Tube - Instant Freeze			Traps were baited by Th	e Maine Department of F	Fisheries & Wildlife with corn or similar grain.			
MS/MSD QC Tracking	To pe capinary rube - instant receze								
	If yes, MS sample ID:	ES-13	_ 012817 _ ABD_	4	_BL_MS				
	If yes, MSD sample ID:	ES-13	_ 012817 _ ABD_	4	_BL_MD				
	Analytes:			Total Mercury					
	Methods:			1631e					
	Container:		70 μL Ca	oillary Tube - Instant Fi	reeze				
Additional Comments:									
1									

X - - -

Birds collect by rocket net, N/A = Not Applicable

QA/QC by:

Tech Signature:

Lauren Tierney 5/12/2017 Date:

amec foster wheeler									APLE COLLECTIC CAN BLACK DUC						
Project Name:		USDC F	enobs	cot River				l	Project Number				3616166052.04	1.05	
Date:			012217	7		_			Location ID				MMBKD-01		
Collectors:			LSV, KC			_			Lat/Long		44.59	85620		3604457	
Media:			luscle (N			_			Weather			Ove	rcast, 25-35, 3	-5 mph	
Species:		Americar	I Black [	Duck (ABD	)	_		Col	lection Method				Rocket Net		
	Sample	e ID			Time	Band Number		<b>tal Weight</b> (grams)	Breast Weight (grams)	Sex	Age			Notes	
MMBKD-01	012217	_ ABD_	01	_MU	17:00	N/A		1154	216	F	2	SY		); 1154g; 216 g bi	
MMBKD-01 _	012217	_ ABD_	02	_MU	17:15	N/A		1216	191	М	3		ASY,1216	g, 191 g breast we	igh
_		_				N/A									
		_			_	N/A						Captured by IFV	V at Treat Point-F	Franfurt Maine.	
-						N/A						X.	Coordinants 890371.0801698	10	
		_				N/A N/A							339895.7918747		
		_				N/A N/A							333633.7318747		
-		_				N/A									
						N/A									
						N/A									
_		_				N/A									
		_				N/A									
		_			_	N/A									
Requested Analyses		_				N/A									
Analytes: Methods: Container: QC Tracking:			163 Ziplo	al Mercury 1e, NOAA ck - Instan SD QC Trac	1993a t freeze							ras conducted accor SOP S-21 America e Maine Departmen <b>Rinsate C</b>	an Black Duck Sar	npling	
														Date	Time
									0 EB-Knife	012317	ABD	M00	_MU_QC	012317	0640
									1 EB-Knife	012317	 ABD	M01	QC	012317	0720
			-												
If yes, MS sam		MMBKD-	0:	012417	-	ABD_	04	_MU_MS	2 EB-Knife_	012317	_ABD_	M02	_MU_QC	012317	1445
If yes, MSD san	nple ID:	MMBKD-	0:	012417	_	ABD_	04	_MU_MD	3						
									4						
			_						5						
									-						
Analytes:		To	tal Mer	cury		_			Analytes:		Total N	/lercury			
Methods:			1631e	2		_			Methods:		16	31e			
Container:		Ziploc	- Instar	nt freeze					Container:		250 ml I	Poly - 4°C			
						_			Vater Sour	Euro	ofins Front	tier Laboratory			
Additional Comment	te.											,			
						) 0640h. Eq-01 0	720h.			1C, N/A = N	Not Applic	able			
To	ch Signature	<b>.</b>		danne.	Vame -			QA/QC				PW		_	
								D	ate:		3/6,	/2017		_	

amec foster wheeler							A	SAMPLE COLLE MERICAN BLACK							
Project Name:		USDC P	enobso	cot River				Project Nun	ber:				3616166052.04	4.05	
Date:			012417					Locatio					ES-13		
Collectors:			LSV, KC			_		Lat/I				05666		-68.7711	
Media:			uscle (N			_		Wea	_		25-35f 25	-30knots NE. 5-9		rcast sleet, freezin	ng rain, snow
Species:		American	Black L	Duck (ABD	)	_		Collection Met	hod:				Trap		
	Sample	ID			Time	Band Number	Total We (grams	-		Sex	Age			Notes	
ES-13 _	012417	_ ABD_	01	_MU	18:30	N/A	1540	248		М	3			dy wt. MS/MD. 248	
ES-13 _	012417	_ ABD_	02	_MU	18:45	N/A	1510	238		М	3	ASY	. (3).1.51kg whol	e body wt. 238g bre	ast tissue wt
		_				N/A						-			
		-				N/A N/A									
		-				N/A N/A									
						N/A									
_		_				N/A									
_		_				N/A									
		_				N/A									
		_				N/A N/A									
		_				N/A N/A									
		_				N/A									
_		_				N/A									
Requested Analyses: Analytes: Methods: Container:			163	al Mercury 1e, NOAA ck - Instan	1993a							SOP S-21 Americ	an Black Duck Sa	wing SOPs included mpling Wildlife with corn or	
QC Tracking:		r	MS/MS	SD QC Trac	king							Rinsate	QC Tracking		
								0 EB-Kn	ife_ C	012317	_ABD_	00	_MU_QC	Date 012317	<b>Time</b> 0650
								1 EB-Kn	ife_ 0	)12417	_ABD_	01	_MU_QC	012417	1835
If yes, MS sam	nle ID:	FS-13		012417		ABD_	01 _MU_	MS 2 EB-Kn	ife (	012417	ABD	02	MU QC	012417	1850
If yes, MSD sam		ES-13				ABD	01 MU			/12/11/	_///	01		012117	1000
ii yes, wisd sain	ipie ib.	L3-13		012417	-	ADD_									
			-					4							
								5							
Analytes:		Tot	tal Mer	cury				Analytes:			Total N	Aercury			
Methods:			1631e	s		_		Methods:	_		16	31e			
Container:		Ziplos		t Freeze		—		Container	-			Poly - 4°C			
container.		Zipioc -	IIIStall	It Fleeze		_			-	Euro					
								Vater Sou		Euro	offins From	tier Laboratory			
Additional Comment	s:					FB-00_0650br	-B-01 1835	hr. EB-02. 1850hı	N/A =	= Not An	nlicable				
<u> </u>						22 00. 0030m.			, . <b>.</b> , A -		P				
Тес	ch Signature:	:		257			Q	A/QC by:			B	PW			

Date: 3/6/2017

Project Name:         USDC Penobscot River         3361566052.04.05           Date:         0.21417         -         366156052.04.05           Media:         Mascle (MU)         -	
List, KCB	
Media:         Muscle (MU)         Weather:         25-35f, 15-20knts, Nf, 9-5 ft waves, overast snow, sleet, fre           Species:         American Black Duck (ABD)         Time         Band Number         Total Weight (grams)         See A ge         Notes           MMBKD-01         012417         ABD         03         MU         0000         N/A         1370         254         M         2         5Y(2).157g whole body, 264g breast           MMBKD-01         012417         ABD         03         MU         1773         N/A         1300         250         M         2         5Y(2).157g whole body, 264g breast         Staue           MMBKD-01         012417         ABD         05         MU         1715         N/A         1200         260         F         2         5Y(2).157g whole body, 264g breast         Staue           MMBKD-01         012417         ABD         05         MU         1715         N/A         1200         260         F         2         5Y(2).150g breast tissue w           MMBKD-01         012417         ABD         05         MU         1715         N/A         1200         57(2).140g whole body, 202g breast tissue w           MBKD-01         012417         ABD         04         04	
Species:         American Black Duck (ABD)         Collection Method:         Trap           Image: Sample ID         Time         Band Number         Total Weight (grams)         Breast Weight (grams)         Sex         Age         Notes           Image: MMBRC001         012417         ABD         03         MU         0000         N/A         1570         254         M         2         SY(2).1.57g whole hody.263 g breast to MMBRC001         012417         ABD         04         MU         1570         254         M         2         SY(2).1.57g whole hody.263 g breast to MMBRC001         012417         ABD         04         MU         1570         254         M         2         SY(2).202 g breast tow SY(2).202 g breast tow SY(2).2	
Sample ID         Time         Band Number         Total Weight (grams)         Breast Weight (grams)         Sex         Age         Notes           MMBKD-01         012417         ABD         03         MU         1725         N/A         1400         250         M         2         5Y(2).157g whole body. 264g breast (grams)         5Y(2).157g whole body. 264g breast SV(2).140g whole body. 254g breast SV(2).140g whole body. 254g breast SV(2).140g whole body. 254g breast SV(2).140g whole body. 254g breast SV(2).202         F         2         SY(2).140g whole body. 254g breast SV(2).202 breast weight.128g whole SV(2).202 breast weight.202 breast SV(2).202 breast weight.202 breast SV(2).202 breast	zing rain.
Sample ID         Time         Band Number (grams)         (grams)         Sex         Age         Notes           IMMBRO-01         012417         ABD         03         MU         0000         N/A         1570         254         M         2         SY(2).157g whee body.254g breast tissue MMBRO-01         012417         ABD         04         MU         1725         N/A         1400         200         7         2         SY(2).10g whee body.250g breast tissue MMBRO-01         012417         ABD         05         MU         1725         N/A         1400         200         202         r         2         SY(2).20g breast tissue MMBRO-01         0 </th <th></th>	
MMBRD-01         012417         ABD         04         MU         1725         N/A         1400         250         M         2         SY(2)         1.0 g whele body. 250g breast tissue w           MMBRD-01         012417         ABD         05         MU         1715         N/A         1200         202         F         2         SY (2)         20 g breast weight: 1.28 g whol           MMBRD-01         012417         ABD         05         MU         1715         N/A         1200         202         F         2         SY (2)         20 g breast weight: 1.28 g whol           MIDE         Image: Comparison of the second of	
MMBKD-01       012417       ABD       05       MU       17:15       N/A       1200       202       F       2       SY (2) 202 g breast weight 128 g who         Image: Contract of the second	eight
Image: Second	
Requested Analyses:       Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP S-21 American Black Duck Sampling         Analytes:       1631e, NOAA 1993a       SOP S-21 American Black Duck Sampling         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       MS/MSD QC Tracking       Rinsate QC Tracking         If yes, MS sample ID:       MMBKD-01          If yes, MSD sample ID:       MMBKD-01           Analytes:          Analytes:       Total Mercury       Analytes:	body
Requested Analyses:       Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP S-21 American Black Duck Sampling         Analytes:       1631e, NOAA 1993a       SOP S-21 American Black Duck Sampling         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       MS/MSD QC Tracking       Rinsate QC Tracking         If yes, MS sample ID:       MMBKD-01          If yes, MSD sample ID:       MMBKD-01           Analytes:          Analytes:       Total Mercury       Analytes:	
Requested Analyses:       Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP S-21 American Black Duck Sampling         Analytes:       1631e, NOAA 1993a       SOP S-21 American Black Duck Sampling         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       MS/MSD QC Tracking       Rinsate QC Tracking         If yes, MS sample ID:       MMBKD-01          If yes, MSD sample ID:       MMBKD-01           Analytes:          Analytes:       Total Mercury       Analytes:	
Requested Analyses:       Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP S-21 American Black Duck Sampling         Methods:       1631e, NOAA 1993a       SOP S-21 American Black Duck Sampling         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       MS/MSD QC Tracking       Rinsate QC Tracking         If yes, MS sample ID:       MMBKD-01          If yes, MSD sample ID:       MMBKD-01            2         If yes, MSD sample ID:       MMBKD-01              Analytes:       Total Mercury         Analytes:       Total Mercury	
Requested Analyses:       Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP S-21 American Black Duck Sampling         Analytes:       1631e, NOAA 1993a       SOP S-21 American Black Duck Sampling         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       MS/MSD QC Tracking       Rinsate QC Tracking         If yes, MS sample ID:       MMBKD-01          If yes, MSD sample ID:       MMBKD-01           Analytes:          Analytes:       Total Mercury       Analytes:	
Requested Analyses:       Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP S-21 American Black Duck Sampling         Methods:       1631e, NOAA 1993a       SOP S-21 American Black Duck Sampling         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       MS/MSD QC Tracking       Rinsate QC Tracking         If yes, MS sample ID:       MMBKD-01          If yes, MSD sample ID:       MMBKD-01            2         If yes, MSD sample ID:       MMBKD-01              Analytes:       Total Mercury         Analytes:       Total Mercury	
Requested Analyses:       Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP S-21 American Black Duck Sampling         Methods:       1631e, NOAA 1993a       SOP S-21 American Black Duck Sampling         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       MS/MSD QC Tracking       Rinsate QC Tracking         If yes, MS sample ID:       MMBKD-01          If yes, MSD sample ID:       MMBKD-01            2         If yes, MSD sample ID:       MMBKD-01              Analytes:       Total Mercury         Analytes:       Total Mercury	
Requested Analyses:       Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP S-21 American Black Duck Sampling         Methods:       1631e, NOAA 1993a       SOP S-21 American Black Duck Sampling         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       MS/MSD QC Tracking       Rinsate QC Tracking         If yes, MS sample ID:       MMBKD-01          If yes, MSD sample ID:       MMBKD-01            2         If yes, MSD sample ID:       MMBKD-01              Analytes:       Total Mercury         Analytes:       Total Mercury	
Requested Analyses:       Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP S-21 American Black Duck Sampling         Methods:       1631e, NOAA 1993a       SOP S-21 American Black Duck Sampling         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       MS/MSD QC Tracking       Rinsate QC Tracking         If yes, MS sample ID:       MMBKD-01          If yes, MSD sample ID:       MMBKD-01            2         If yes, MSD sample ID:       MMBKD-01              Analytes:       Total Mercury         Analytes:       Total Mercury	
Requested Analyses:       Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP S-21 American Black Duck Sampling         Methods:       1631e, NOAA 1993a       SOP S-21 American Black Duck Sampling         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       MS/MSD QC Tracking       Rinsate QC Tracking         If yes, MS sample ID:       MMBKD-01          If yes, MSD sample ID:       MMBKD-01            2         If yes, MSD sample ID:       MMBKD-01              Analytes:       Total Mercury         Analytes:       Total Mercury	
Analytes:       Total Mercury, Lipids       NOTE: Duck sampling was conducted according to the following SOPs included in SOP 5-21 American Black Duck Sampling         Methods:       1631e, NOAA 1993a       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         Container:       Ziplock - Instant freeze       Traps were baited by The Maine Department of Fisheries & Wildlife with corn or si         QC Tracking:       Rinsate QC Tracking       Date         If yes, MS sample ID:       MIMBKD-01       012417       ABD       04       MU_MS       2         If yes, MSD sample ID:       MIMBKD-01       012417       ABD       04       MU_MD       3       EB-Knife       012317       ABD       M04       MU_QC       012417         Analytes:       Total Mercury       Total Mercury       Analytes:       Total Mercury       5       EB-Knife       012317       ABD       M04       MU_QC       012417	
If yes, MS sample ID:       MMBKD-01	
If yes, MS sample ID:       MMBKD-01       012417       ABD_       04       MU_MS       2         If yes, MSD sample ID:       MMBKD-01       012417       ABD_       04       MU_MD       3       EB-Knife_       012317       _ABD_       M03       _MU_QC       012417	Time
If yes, MSD sample ID:       MMBKD-01        012417      ABDO4      ABD       M03      OC       012417	
Analytes:         Total Mercury         Total Mercury         Analytes:         Total Mercury	1730
Analytes:         Total Mercury           Analytes:         Total Mercury	1730
Analytes: Total Mercury Analytes: Total Mercury	
	1805
Methods: 1631e Methods: 1631e	
Container: Ziploc - Instant freeze Container: 250 ml Poly - 4°C	
Vater Soul Eurofins Frontier Laboratory	
Additional Comments:	
EB-00. 0640hr. EB-01. 0720hr. EB-02. 1445hr. EB-03. 1730hr. EB-04. 1745hr. EB-05. 1805hr. N/A = Not Applicable	
Tech Signature: QA/QC by: BPW Date: 3/6/2017	

amec foster wheeler									IPLE COLLECTIO CAN BLACK DUC						
Project Name:		USDC P	enobso	cot River					Project Number:				3616166052.04	.05	
Date:			01251			_			Location ID:				FRB-01		
Collectors:		l	LSV, KC	CB		_			Lat/Long:		44.4	4634		-68.3575	33
Media:			iscle (N			_			Weather:			30-35f 10-15knt	ts NNW, 1-2 ft w	vaves, overcast ra	in
Species:		American	Black [	Duck (ABD)		_		Col	lection Method:				Trap		
	Sample	ID			Time	Band Number		<b>al Weight</b> grams)	Breast Weight (grams)	Sex	Age			Notes	
FRB-01 _	012517	_ ABD_	06	_MU	14:50	N/A		1420	220	М	2			wt. 229g breast wt.	
FRB-01	012517	_ ABD_	07	_MU	15:15	N/A		1540	241	Μ	2			le body wt. 241g br	
FRB-01 _	012517	_ ABD_	08	_MU	16:15	N/A		1340	208	F	2		SY(2). 1.34kg who	ble body wt. 208g bi	east wt
_		_				N/A N/A									
		-				N/A N/A									
-		-				N/A N/A			1		-	1			
		-				N/A									
						N/A									
_		_				N/A									
_		_				N/A									
		_				N/A									
		_				N/A									
		-				N/A N/A									
Requested Analyses		-				N/A									
Analytes: Methods: Container: QC Tracking:			163 Ziplo	il Mercury, 1 1e, NOAA 1 ck - Instant	993a freeze							SOP S-21 Americ e Maine Departmer	an Black Duck San	ving SOPs included i npling /ildlife with corn or	
			10,110	D QC HUCK								initiate (	de maching		
														Date	Time
									<b>0</b> EB-Knife_	012317	_ABD_	F00	_MU_QC	012317	0645
									1 EB-Knife_	12517	_ABD_	F01	_MU_QC	12517	1500
If yes, MS sam	ple ID:	FRB-01	_	012517	_	ABD	06	MU MS	2 EB-Knife	012517	ABD	F02	MU QC	012517	1520
If yes, MSD san		FRB-01		012517		ABD	06	MU MD	3 EB-Knife_	012517	ABD	F03		012517	1620
II yes, IVISD sail	ilpie ib.	FKD-U1		012517		ABD_	06			012517	_ABD_	FU3	_MU_QC	012517	1620
			-						4						
									5						
Analytes:		Tota	al Mer	curv					Analytes:		Total N	Aercury			
Methods:			1631e			_			Methods:			31e			
•						_									
Container:		Ziploc -	Instan	t Freeze		_			Container:		250 ml F	Poly - 4°C			
									Vater Sour	Euro	ofins Front	tier Laboratory			
Additional Commen	ts:					5D 04 4500 hr			the Jordan Rive						
						EB-01 1500 hr.	CB-02	1520Nr. EB	-03 1620hr, N/A	= NOT APP	nicable				
Те	ch Signature:			i senti v	×3	QA/QC by: BPW Date: 3/6/2017									

amec foster wheeler									IPLE COLLECTIO CAN BLACK DUC						
Project Name:		USDC Pe		ot River				I	Project Number:			361	6166052.04	1.05	
Date:			012617			=			Location ID:	-			FRB-01		
Collectors:			SV, KCB			_			Lat/Long:		44.4			-68.35753	33
Media:			scle (M			_			Weather	-		30-45 F. Caln		5. Mostly sun	
Species:	A	American I	Black Di	uck (ABD)		_		Col	lection Method:				Trap		
	Sample I	D			Time	Band Number		<b>al Weight</b> grams)	Breast Weight (grams)	Sex	Age			Notes	
FRB-01 _	012617	_ ABD_		MU	15:15	N/A		1460	235	М	3	ASY(	3). 1.46 kg wh	nole body wt. 235g b	reast wt
FRB-01	012617	_ ABD_	10	MU	15:35	N/A		1320	223	F	2	SY(2). 1.32kg whole	bodywt. 223g	breast tissue. Note	white parasite in muscle
		_				N/A									
_		_				N/A									
		-				N/A									
						N/A									
						N/A N/A									
		-				N/A N/A									
		-				N/A									
		-				N/A									
		_				N/A									
_		_				N/A									
_		_				N/A									
Requested Analyses:		_				N/A									
Analytes: Methods:			16316	Mercury, I e, NOAA 1 k - Instant	993a				т	raps were ba	ited by The	SOP S-21 American B Maine Department of			
Container: QC Tracking:		N		O QC Track								Rinsate QC	Tracking		imilar grain.
		N							0			Rinsate QC	Tracking	Date	imilar grain. Time
	ple ID:		/IS/MSD			ABD	06	MU MS	o			Rinsate QC	Tracking		
QC Tracking: If yes, MS samp		FRB-01	ns/msd	0 QC Track					0 1 2			Rinsate QC	Tracking		
QC Tracking:			ns/msd	OQC Track		ABD_ ABD_	06 06	_MU_MS _MU_MD	0 1 2 3		ABD	Rinsate QC		Date	Time
QC Tracking: If yes, MS samp		FRB-01	ns/msd	0 QC Track					0 1 2	012617	_ABD_		Tracking MU_QC MU_QC		
<b>QC Tracking:</b> If yes, MS samp If yes, MSD sam		FRB-01 FRB-01	/IS/MSD 	012517 012517					0 1 2 3 4 <u>EB-Knife</u> 5 <u>EB-Knife</u>	012617	_ABD_	04 05	_MU_QC	Date 012617	<b>Time</b> 1520
QC Tracking: If yes, MS samp If yes, MSD sam Analytes:		FRB-01 FRB-01 Tota		012517 012517					0 1 2 3 4 <u>EB-Knife</u> 5 <u>EB-Knife</u> Analytes:	012617	_ABD_ Total M	04 05 lercury	_MU_QC	Date 012617	<b>Time</b> 1520
QC Tracking: If yes, MS samp If yes, MSD sam Analytes: Methods:		FRB-01 FRB-01 Tota		012517 012517 012517					0 1 2 3 4 <u>EB-Knife</u> 5 <u>EB-Knife</u> Analytes: Methods:	012617	ABD Total M 163	04 05 lercury 11e	_MU_QC	Date 012617	<b>Time</b> 1520
QC Tracking: If yes, MS samp If yes, MSD sam Analytes:		FRB-01 FRB-01 Tota		012517 012517 012517					0 1 2 3 4 <u>EB-Knife</u> 5 <u>EB-Knife</u> Analytes: Methods: Container:	012617 012617	_ABD_ Total M 163 250 ml P	04 05 lercury i1e oly - 4°C	_MU_QC	Date 012617	Time 1520
QC Tracking: If yes, MS samp If yes, MSD sam Analytes: Methods: Container:	nple ID:	FRB-01 FRB-01 Tota		012517 012517 012517					0 1 2 3 4 EB-Knife_ 5 EB-Knife_ Analytes: Methods:	012617 012617	_ABD_ Total M 163 250 ml P	04 05 lercury 11e	_MU_QC	Date 012617	Time 1520
QC Tracking: If yes, MS samp If yes, MSD sam Analytes: Methods:	nple ID:	FRB-01 FRB-01 Tota		012517 012517 012517		ABD	06	MUMD	0 1 2 3 4 <u>EB-Knife</u> 5 <u>EB-Knife</u> Analytes: Methods: Container:	012617 012617 	_ABD_ Total M 163 250 ml P	04 05 lercury i1e oly - 4°C	_MU_QC	Date 012617	Time 1520
QC Tracking: If yes, MS samp If yes, MSD sam Analytes: Methods: Container:	nple ID:	FRB-01 FRB-01 Tota	- - al Mercu 1631e Instant	0 QC Track 012517 012517 ury Freeze		ABD	06	MUMD	0 1 2 3 4 <u>EB-Knife</u> 5 <u>EB-Knife</u> Analytes: Methods: Container: Water Sour	012617 012617 	_ABD_ Total M 163 250 ml P	04 05 lercury 81e oly - 4°C ier Laboratory	_MU_QC	Date 012617	Time 1520

amec foster wheeler								AMPLE COLLECTION RICAN BLACK DUCK						
Project Name:		USDC P	enobscot River					Project Number	:		3	616166052.04	1.05	
Date:			012817		_			Location ID				ES-13		
Collectors:			LSV, KCB		_			Lat/Long	-		)5666		-68.7711	
Media:			iscle (MU)		_			Weather		5 f. 7-12	nots. Westerly wir			Scattered clouds
Species:		American	Black Duck (ABD)		_			Collection Method				Rocket Net		
	Sample	D		Time	Band Number	(#	<b>al Weight</b> grams)	Breast Weight (grams)	Sex	Age			Notes	
ES-13 _	012817	_ ABD_	03 _MU	15:25	183756307		1490	273	М	3				apture. 273g breast wt
ES-13 _	012817	_ ABD_	04 _MU	15:35	N/A		1540	267	М	3	AS	SY(3). 1.54kg. To	otal body wt. 267g b	reast wt.
_		-			N/A N/A									
_		-			N/A N/A									
-		-			N/A				1		1			
		<u> </u>		İ	N/A					1				
_		_			N/A									
		_			N/A									
		-			N/A N/A									
-		-			N/A N/A						-			
-		-			N/A									
		_			N/A									
_		_			N/A									
Methods: Container: <b>QC Tracking:</b>		r	1631e, NOAA : Ziplock - Instant MS/MSD QC Trac	freeze				Tra	aps were bait	ed by The	Maine Department of Rinsate QC		ldlife with corn or sin	nilar grain. Time
								0 1						
If yes, MS sam	ple ID:	ES-13	_ 012417		ABD_	01	MU_MS	2						
If yes, MSD sam		ES-13	_ 012417	_	ABD	-	MU MD	3 EB-Knife_	012817	ABD	E03	MU QC	012817	1530
, ,		-			-			4 EB-Knife	012817	ABD	E04	MU QC	012817	1540
									012017		204	_1010_00	012017	1340
								5						
Analytes:		Tot	al Mercury		_			Analytes:		Total N	lercury			
Methods:			1631e		_			Methods:		16	31e			
Container:		Ziploc -	Instant Freeze					Container:		250 ml I	oly - 4°C			
-					_			I Water Source	Euro	fins Fron	ier Laboratory			
Additional Comment	s:		Bait for ducks wa	ıs corn. San	•	RN_01	2817_DUC	r. EB-04. 1540hr. K_BAIT (sample tim et net, N/A = Not A	e 1600 012			ag 4deg c		
Te	ch Signature:		7.	e. –			QA/QC			BP\ 3/6/2			_	

amec foster wheeler									IPLE COLLECTION CAN BLACK DUCK						
Project Name:				ot River				I	Project Number:		3616166052.04.05				
Date:			020517			_			Location ID:				ES-13		
Collectors:			LSV, KC			_			Lat/Long:		44.505			-068.771	133
Media:			uscle (N			_			Weather:			30-35 deg F.		SSW. Cloudy.	
Species:		American	васк і	Duck (ABD)		_		Col	lection Method:				Rocket Net		
	Sample	ID			Time	Band Number		<b>l Weight</b> rams)	Breast Weight (grams)	Sex	Age			Notes	
ES-13 _	020517	_ ABD_	15	_MU	17:25	N/A		1180	221	F	2		1180 g total.	SY(2) 221 g breast t	issue
						N/A									
						N/A									
						N/A									
						N/A N/A					-				
						N/A									
						N/A									
						N/A									
						N/A									
						N/A									
		_				N/A									
		-				N/A									
		_				N/A N/A									
Analytes: Methods: Container:			163	l Mercury, 1e, NOAA 1 ck - Instant	L993a				Tra	aps were bai		SOP S-21 American Maine Department c			similar grain.
QC Tracking:		I	MS/MS	D QC Tracl	king				0			Rinsate QC	Tracking	Date	Time
									1						
If yes, MS sam	ple ID:	ES-13		012417	-	ABD_	01 _	MU_MS	2						
If yes, MSD san	nple ID:	ES-13		012417	-	ABD_	01 _	MU_MD	3						
1			-						4						
Arrah dara		<b>T</b> - 4							5 EB-Knife	20517	ABD_		_MU_QC	020517	1735
Analytes: Methods:		Tot	al Mer			_			Analytes: Methods:		Total Me 1631		-		
Container:		Ziploc -		t Freeze		_			Container:		250 ml Po		-		
container.		Zipioc	motum	circeze		_			Vater Sour			er Laboratory	-		
Additional Comment	ts:					50.05 -+ 1725	<b>D</b> iada			Al-+ A!!					
<u> </u>						EB-05 at 1735	. Biras a	collect by i	ocket net, N/A =	NOT Applie	cable				
Te	ch Signature	:		×	_ حملانته			QA/QC Da	by: ate:		Lauren T 5/12/2			_	



wheeler										
Project Name:	USDC F	Penobscot Riv	er		Project Number:	3616166052.04.05				
Date:		072616			Location ID:			BO-04		
Collectors:		DRY, DOL			Lat/Long:	44.75	53412	-68.811941		
Media:	Who	le Body (WB)			Weather:		grees, sunny			
Species:	Poly	chaetes (POL)			Collection Method:	Shovel				
	Sample ID			Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo Number	Notes		
BO-04	072616	_POL_WB_	01	10:15		4.0				
BO-04	072616	_POL_WB_	02	10:15		4.0				
BO-04 _	072616	_POL_WB_	03	10:15		4.0				
BO-04 _	072616	_POL_WB_	04	10:15		4.0				
BO-04 _	072616	_POL_WB_	05	10:15		5.0				
_										
_										
-										
_										
_										
Requested Analyses										
Analytes:				Hg, Total L		Note: Polychaet		onducted according to the following SOP		
Methods:				IOAA 1993	а			ed in the QAPP; olychaete Sampling		
Container:		2 02	z polyetr	iylene jar			30F 3-13 F			
Additional Question										
Additional QC Collect	ted:	Yes			f yes, MS sample ID:	BO-04	072616	_POL_WB_MS		
QC Samples Types:	2	MS,M		. It	yes, MSD sample ID:	BO-04	072616	_POL_WB_MD		
Were samples frozer	1?	Yes								
					Sediment/Soil Samp	le				
			-					<b>N</b> - 4		
BO-04	mple ID 072616	_SED_03	<b>Time</b> 10:15		Odor, Co No odor, Brown, Silt,		Ire	Notes		
Requested Analyses		_020_00	10.13			,	-			
Analytes:		Total Hg, To	tal Moli		in Sizo					
						Note: Sediment		onducted according to the following SOP ed in the QAPP;		
Methods:		1631e, 1630			1 0422			-7, Sediment Sampling		
Container:		4	oz. AG, 8	8 oz. AG			501 5 0, 501 5			
Additional Question										
Additional	QC Collected	Yes			If yes, Duplicate ID:	BO-04	072616	_SED_03_DUP		
QC Sa	QC Samples Types: Duplicate, MS, M		/IS,MSD		f yes, MS sample ID:	BO-04	072616	_SED_03_MS		
				It	yes, MSD sample ID:	BO-04	_ 072616	_SED_03_MD		
Sampler Signature:						Reviewed by:		Lauren Tierney		
Janip		•	いスノ			Date:		12/29/2016		



wheeler									
Project Name:	USDC F	Penobscot Riv	ver	_	Project Number:		36161	66052.04.05	
Date:		072616		•	Location ID:			OB-05	
Collectors:		DRY, DOL		•	Lat/Long:	44.7	7055	-68.8379	
Media:		le Body (WB)		•	Weather:			grees, sunny	
Species:		chaetes (POL)		-	<b>Collection Method:</b>			Shovel	
					Number of	Weight of	Dh		
	Sample ID			Time	Individuals per	Composite	Photo Numerican	Notes	
					Composite	(grams)	Number		
OB-05	072616	_POL_WB_	01	12:00		4.0			
OB-05	072616	POLWB	02	12:00		4.0			
OB-05	072616	_POL_WB_	03	12:00		4.0			
OB-05 _	072616	_POL_WB_	04	12:00		4.0			
OB-05 _	072616	_POL_WB_	05	12:00		4.0			
_									
_									
_									
Requested Analyses:					•				
Analytes:		Total Hg,	Total Me	Hg, Total L	ipids	Note: Polychaet	e sampling was c	onducted according to the following SOP	
Methods:		1631e	, 1630, N	IOAA 1993	а	included in the QAPP;			
Container:		2 03	z polyetł	nylene jar			SOP S-15 Po	olychaete Sampling	
Additional Questions	s:								
Additional QC Collect	ed:	No		I	f yes, MS sample ID:		NA		
QC Samples Types:		NA		If	yes, MSD sample ID:	D: NA			
Were samples frozen	?	Yes							
			-		Sediment/Soil Samp	le			
Sa	mple ID		Time		Odor, Co	lor, Type		Notes	
OB-05 _	072616	_SED_03	12:00		No odor, Brown, Silt,	. ML, 100% moistu	ıre		
Requested Analyses:								1	
Analytes:		Total Hg, To	ital MoH	g TOC Gra	in Size	Note: Sediment	sampling was co	onducted according to the following SOP	
Methods:		1631e, 1630						ed in the QAPP;	
Container:			oz. AG, 8		0122			-7, Sediment Sampling	
Additional Question	5:								
	QC Collected	No			If yes, Duplicate ID:		NA		
				I	f yes, MS sample ID:				
QC Sa	mples Types:	: NA			yes, MSD sample ID:		NA		
					-				
Samp	er Signature:	:	l Q	18-		Reviewed by:		Lauren Tierney	
Samp		-	0.01	U D		Date:		12/29/2016	



wheeler									
Project Name:	USDC P	enobscot Ri	ver		Project Number:		36161	66052.04.05	
Date:		072716		-	Location ID:			ES-13	
Collectors:	[	DRY, DOL		-	Lat/Long:	44.5	5049	-68.7717	
Media:	Who	le Body (WB	3)	•	Weather:		80 de	grees, sunny	
Species:	Polyc	chaetes (POL	_)	•	<b>Collection Method:</b>			Shovel	
					Number of	Weight of	Photo		
	Sample ID			Time	Individuals per	Composite	Number	Notes	
					Composite	(grams)	Number		
ES-13	072716	POL WB	01	11:30		3.42			
ES-13	072716	POL WB	02	11:30		3.37			
ES-13	072716	POL_WB	03	11:30		3.35			
ES-13	072716	POL_WB	04	11:30		4.27			
ES-13	072716	_POL_WB	05	11:30		4.17			
_									
I									
I									
I									
_									
_									
_									
	-								
Requested Analyses		Tatal Us	Tatal Ma	Lie Total I	tetala	Nata: Daluahaat			
Analytes: Methods:				Hg, Total L NOAA 1993		Note: Polychaet		onducted according to the following SOP d in the QAPP;	
Container:				ivlene jar	d			blychaete Sampling	
Additional Question		2 (	iz polyeti	iyielle jai			00.010.0	Silonacce camping	
Additional QC Collect	ted:	Ye			f yes, MS sample ID:	ES-13	_ 072716	_POL_WB_MS	
QC Samples Types:	2	MS,N		. It	yes, MSD sample ID:	D: ES-13 _ 072716 _POL_WB_MD			
Were samples frozer	1?	Ye	S						
						1.			
			1	1	Sediment/Soil Samp	le			
Sa	mple ID		Time		Odor, Co			Notes	
ES-13 _	072716	_SED_03	11:30	No odor, I	Dark gray, Silt with trace few live		woodchips, ML,		
Requested Analyses									
Analytes:		Total Hg, T	otal MeH	g, TOC, Gra	in Size	Note: Sediment		nducted according to the following SOP	
Methods:		1631e, 163						d in the QAPP;	
Container:			oz. AG, 8				SOP S-6, SOP S	-7, Sediment Sampling	
Additional Question	s:					-			
Additional	QC Collected:	No	)		If yes, Duplicate ID:		NA		
				· .	f yes, MS sample ID:				
QC Sa	mples Types:	NA	A		yes, MSD sample ID:		NA		
Samp	ler Signature:		.P.	har	2	Reviewed by:		Lauren Tierney	

Date: 12/29/2016



wheeler										
Project Name:	USDC I	Penobscot Riv	ver		Project Number:	3616166052.04.05				
Date:		092816		-	Location ID:			FRB-01		
Collectors:	Μ	M, JB, DL		•	Lat/Long:	44.47	2375	-68.355096		
Media:		ble Body (WB)		-	Weather:			lm, sunny		
Species:		chaetes (POL)		-	Collection Method:			Shovel		
					Number of	Weight of	Dhata			
	Sample ID			Time	Individuals per	Composite	Photo Number	Notes		
					Composite	(grams)	Number			
FRB-01	092816	_POL_WB_	01	13:40	7	5.0				
FRB-01	092816	POL_WB_	02	13:40	3	3.2				
FRB-01	092816	_POL_WB_	03	13:40	5	3.5				
FRB-01 _	092816	_POL_WB_	04	13:40	7	2.7				
FRB-01 _	092816	_POL_WB_	05	13:40	3	3.1				
_										
_										
_										
_										
_										
_										
	-									
Requested Analyses										
Analytes:				Hg, Total L		Note: Polychaet		onducted according to the following SOP d in the QAPP;		
Methods: Container:				NOAA 1993	a			blychaete Sampling		
Additional Question		2 0.	z polyeti	nylene jar			501 5 1510	Nychaete Sumpling		
Additional QC Collect	ted:	No			f yes, MS sample ID:					
QC Samples Types:	-	NA		- It	yes, MSD sample ID:	NA NA				
Were samples frozer	12	Yes								
			1		Sediment/Soil Samp					
Sa	mple ID		Time		Odor, Co	lor, Type		Notes		
FRB-01 _	092816	_SED_03	12:35	S	ulfur, Black, Coarse sand	d, some leaves an	d grass	Sample homogenized		
Poguested Analyses										
Requested Analyses	•									
Analytes:		Total Hg, To				Note: Sediment		nducted according to the following SOP		
Methods:		1631e, 1630			1 D422			d in the QAPP;		
Container:		4	oz. AG, 8	3 oz. AG			304 2-6, 204 2-	-7, Sediment Sampling		
Additional Question										
Additional	Additional QC Collected: No			-	If yes, Duplicate ID:			NA		
QC Sa	mples Types	: NA			f yes, MS sample ID:					
	, , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			lf	yes, MSD sample ID:					
						Destant 11		<b>T</b>		
Sampler Signature:						Reviewed by:		Lauren Tierney		
	-		21	1 /		Date:		12/29/2016		



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# SAMPLE COLLECTION LOG POLYCHAETES WHOLE BODY

USDC P	enobs	cot Riv	er		Project Number:	3616166052.04.05			
	07281	6			Location ID:		E	ES-FP	
C	DRY, D	OL			Lat/Long:	44.4	4719	-68.8169	
Who	le Bod	y (WB)			Weather:		85 deg	rees, sunny	
Polyc	haete	s (POL)			Collection Method:		S	hovel	
Sample ID				Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo Number	Notes	
072816	POL	WB	01	14:30		5.56			
072816	_POL	WB_	02	14:30		3.78			
072816	_POL	_WB_	03	14:30		3.84			
072816	_POL	_WB_	04	14:30		4.96			
072816	_POL	_WB_	05	14:30		5.01			
5:									
						Note: Polychaet		nducted according to the following SOP	
					a			in the QAPP;	
		2 oz	polyeth	ylene jar		SOP S-15 Polychaete Sampling			
ns:									
ted:		No					NA		
		NA		lf	yes, MSD sample ID:	NA			
n?		Yes							
					Sediment/Soil Samp	le			
ample ID			Time		Odor, Co	lor, Type		Notes	
072816	_SED_	03	14:30	No odor, D			l trace fines, SM,	Live clams at this location	
5:									
	Total	Hg, To	tal MeH	g, TOC. Gra	in Size	Sedin	ment sampling was	conducted according to the	
								ncluded in the QAPP;	
						SOP S-6, SOP S-7, Sediment Sampling			
ns:									
QC Collected:		Yes			If yes, Duplicate ID:	ES-FP	_ 072816	_SED_03_DUP	
	s: Duplicate,MS,MSD		If yes, MS sample ID:						
	Duri	ionte t		ľ	f yes, MS sample ID:	ES-FP	_ 072816	_SED_03_MS	
	C C C C C C C C C C C C C C C C C C C	O7281 DRY, D Whole Bod Polychaete: Sample ID 072816 _POL 072816 _POL 072816 _POL 072816 _POL 072816 _POL 072816 _POL 072816 _POL 072816 _SED 072816 _SED 072816 _SED 072816 _SED	072816         DRY, DOL         Whole Body (WB)         Polychaetes (POL)         Sample ID         072816       _POL_WB_         072816       _NA         n?       Yes         ample ID	072816           DRY, DOL           Whole Body (WB)           Polychaetes (POL)           Sample ID           072816         POL_WB_           05         0           072816         POL_WB_           05         0           072816         Score polyeth           072816         Score polyeth           072816         SED_03           14:30         Score polyeth           163	O72816           DRY, DOL           Whole Body (WB)           Polychaetes (POL)           Sample ID         Time           072816         POL_WB         01         14:30           072816         POL_WB         02         14:30           072816         POL_WB         03         14:30           072816         POL_WB         04         14:30           072816         POL_WB         04         14:30           072816         POL_WB         04         14:30           072816         POL_WB         05         14:30           072816         POL_WB         05         14:30           072816         POL_WB         05         14:30           072816         Secondary         Image: Condary         Image: Condary           072816         Secondary         Image: Condary         Image: Condary           1631e, 1630, NOAA 1993a         2 oz polyethylene jar         Secondary           1631e, 1630, NOAA 1993a         2 oz polyethylene jar         Secondary           1631e, 1630, NOAA 1993a         2 oz polyethylene jar         Secondary           1631e, 1630, Lloyd-Khan, ASTM         Mo odor, D         Secondary           1631	072816         Location ID:           DRY, DOL         Lat/Long:           Whole Body (WB)         Weather:           Polychaetes (POL)         Collection Method:           Sample ID         Time         Number of Individuals per Composite           072816         POL_WB         02         14:30           072816         POL_WB         02         14:30           072816         POL_WB         03         14:30           072816         POL_WB         04         14:30           072816         POL_WB         05         14:30           1         1         1         1           1         1         1         1           1         1         1         1           1         1         1         1 <td< td=""><td>O72816         Location ID:           DRY, DOL         Lat/Long:         44.4           Whole Body (WB)         Collection Method:         Setting:         44.4           Sample ID         Time         Individuals per Collection Method:         Composite         <td< td=""><td>O72816         Location ID:         I           DRY, DOL         Location ID:         44.4719           Whole Body (WB)         Weather:         85 deg           Polychaetes (POL)         Collection Method:         S           Sample ID         Time         Individuals per Composite         Polychaetes (grams)           072816         POL_WB         01         14:30         3.78           072816         POL_WB         02         14:30         3.84         0           072816         POL_WB         03         14:30         3.84         0         0           072816         POL_WB         05         14:30         4.96         0         0         0           072816         POL_WB         05         14:30         4.96         0         0         0           072816         POL_WB         05         14:30         4.96         0</td></td<></td></td<>	O72816         Location ID:           DRY, DOL         Lat/Long:         44.4           Whole Body (WB)         Collection Method:         Setting:         44.4           Sample ID         Time         Individuals per Collection Method:         Composite         Composite <td< td=""><td>O72816         Location ID:         I           DRY, DOL         Location ID:         44.4719           Whole Body (WB)         Weather:         85 deg           Polychaetes (POL)         Collection Method:         S           Sample ID         Time         Individuals per Composite         Polychaetes (grams)           072816         POL_WB         01         14:30         3.78           072816         POL_WB         02         14:30         3.84         0           072816         POL_WB         03         14:30         3.84         0         0           072816         POL_WB         05         14:30         4.96         0         0         0           072816         POL_WB         05         14:30         4.96         0         0         0           072816         POL_WB         05         14:30         4.96         0</td></td<>	O72816         Location ID:         I           DRY, DOL         Location ID:         44.4719           Whole Body (WB)         Weather:         85 deg           Polychaetes (POL)         Collection Method:         S           Sample ID         Time         Individuals per Composite         Polychaetes (grams)           072816         POL_WB         01         14:30         3.78           072816         POL_WB         02         14:30         3.84         0           072816         POL_WB         03         14:30         3.84         0         0           072816         POL_WB         05         14:30         4.96         0         0         0           072816         POL_WB         05         14:30         4.96         0         0         0           072816         POL_WB         05         14:30         4.96         0	

Sampler Signature:

-10,0	103-
WYX	VOX-

Reviewed by:	
Date:	



Total Hg, Total MeHg, Total Lipids       Note: Polychaete sampling was conducted according to the following SOP included in the QAPP;         Methods:       1631e, 1630, NOAA 1993a       included in the QAPP;         Container:       2 oz polyethylene jar       SOP S-15 Polychaete Sampling         Additional Questions:       If yes, MS sample ID:       NA	wheeler										
Collectors:         DIY, DQL Whole Body (WB)         Lat/Long:         44.6044         -68.8555           Service:         Polythetes (PQL)         Collection Method:         Showel         Number of Composite         Showel         Number of Showel         Number of Number         Number of Number         Number of Number         Notes         Number of Number         Number<	Project Name:	USDC I	Penobscot Riv	ver	-	Project Number:		36161	66052.04.05		
Media:         Whole Body (WB)         Weather         85 degrees, summy           Species:         Polychaetes (POL)         Number of Individuals per variable         Weight of Individuals per variable         Photo (organs)         Notes           MMPOLY 01         072916         POL WB_02         14.30         5.37         Number         Notes           MMPOLY 01         072916         POL WB_02         14.30         5.37         Image: State of the st	Date:		072916		-	Location ID:		MN	MPOLY-01		
Species:         Polychaetes (POL)         Collection Method:         Shore!           Sample ID         Time         Individuals per Composite         Photo (grans)         Photo Number of Size         Number Photo         Notes           MMPOLY:01         072916         POL_WB_0         14:30         5.77             MMPOLY:01         072916         POL_WB_0         14:30         5.77             MMPOLY:01         072916         POL_WB_0         14:30         4.46             MMPOLY:01         072916         POL_WB_0         14:30              MMPOLY:01         072916         POL_WB_0         14:30               MMPOLY:01         Total Hg_Total Metg_	Collectors:		DRY, DOL		-	Lat/Long:	44.6	5044	-68.8555		
Sample ID         Time         Number of Individuals per Composite         Weight of Composite         Photo Number         Notes           MMPCLY-01         072916         POL_WB_001         14.30         5.34	Media:	Who	ole Body (WB)		•	Weather:	85 degrees, sunny				
Sample ID         Time         Individuals per Composite         Composite (grams)         PNUOD Number         Notes           MMPOLV-01         072916         POL WB         01         14:30         5.01                   S.14	Species:	Poly	chaetes (POL)			<b>Collection Method:</b>					
Sample ID         Time         Individuals per Composite (grams)         Number         Notes           MMPOLV-01         072916         POL_WB         02         14/30         5.07						Number of	Weight of	Photo			
Composite         (grans)           MMPOLV-01         072916         POL WB         02         14:30         5:07		Sample ID			Time	Individuals per	Composite		Notes		
MAPOLY-01         072916         POL_WB         02         14:30         5.07           MMPOLY-01         072916         POL_WB         03         14:30         5.23           MMPOLY-01         072916         POL_WB         03         14:30         4.46           MMPOLY-01         072916         POL_WB         05         14:30         4.46           MMPOLY-01         16310, 1630, NDAA 1993a         Included in the QAPP;         SOP 5-15 Polychaete sampling           Maktrost         16316, 1630, NDAA 1993a         Included in the QAPP;         SOP 5-15 Polychaete sampling           Additional Questions:         Additional Questions:         NA						Composite	(grams)	Number			
MMPOLV-01         072916         POL_W8         03         14:30         5.23           MMPOLV-01         072916         POL_W8         04         14:30         4.45         Image: Construction of the second of the sec	MMPOLY-01 _	072916	_POL_WB_	01	14:30		5.14				
MMPOLV-01         072916         POL_W8         04         14:30         4.46           MMPOLV-01         072916         POL_W8         05         14:30         5.09           Image: Standard Standa	MMPOLY-01 _	072916	_POL_WB_	02	14:30		5.07				
MMPOLV-01         072916         POL WB         05         14:30         5.09	_			03							
Analytes:     Total Hg, Total MeHg, Total Lipids     Note: Polychaete sampling was conducted according to the following SOP included in the QAPP;       Requested Analyses:     Total Hg, Total MeHg, Total Lipids     Note: Polychaete sampling was conducted according to the following SOP included in the QAPP;       Sample ID     Time     If yes, MSD sample ID:     NA       MMPOLY-01     0.72916     5E0_03     14:30     Nodor, Black, Sit Whit race fine sand, ML, no plasticity, 100% moistre       Requested Analyses:     Analytes:     Total Hg, Total MeHg, Total MeHg, TOC, Grain Size     Note: Sediment / Soil Sample       MADUL-01     0.72916     5E0_03     14:30     No odor, Black, Sit Whit race fine sand, ML, no plasticity, 100% moistre       Requested Analyses:     Analytes:     Total Hg, Total MeHg, TOC, Grain Size     Note: Sediment sampling was conducted according to the following SOP included in the QAPP; SOP 5-6, SOP 5-7, Sediment Sampling       Additional QC Collected:     No     If yes, Duplicate ID:     NA       Additional QC Collected:     No     If yes, Duplicate ID:     NA       Additional QC Collected:     No     If yes, Duplicate ID:     NA       Additional QC Collected:     No     If yes, MSD sample ID:     NA       Additional QC Collected:     No     If yes, MSD sample ID:     NA       Additional QC Collected:     No     If yes, MSD sample ID:     NA       Q	MMPOLY-01 _	072916	_POL_WB_	04	14:30		4.46				
Analytes:       Total Hg, Total MeHg, Total Lipids       Note: Polychaete sampling was conducted according to the following SOP included in the QAPP;         Container:       2 oz polyethylene jar       SOP S-15 Polychaete Sampling         Additional Questions:       If yes, MS sample ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         Were samples frozen?       Yes       Sediment/Soil Sample       NA         MMPOLY-01       O72916       SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture       Note: Sediment sampling was conducted according to the following SOP included in the QAPP;         Analytes:       Total Hg, Total MeHg, TOC, Grain Size       No edor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture       Note: Sediment sampling was conducted according to the following SOP included in the QAPP;         Container:       4 oz. AG, 8 oz. AG       AG       SoP S-6, SOP S-7, Sediment sampling         Additional Questions:       If yes, Duplicate ID:       NA       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         Sampler Signature:       V/V/X       Reviewed by:       Lauren Tierney <td>MMPOLY-01 _</td> <td>072916</td> <td>_POL_WB_</td> <td>05</td> <td>14:30</td> <td></td> <td>5.09</td> <td></td> <td></td>	MMPOLY-01 _	072916	_POL_WB_	05	14:30		5.09				
Analytes:       Total Hg, Total MeHg, Total Lipids       Note: Polychaete sampling was conducted according to the following SOP included in the QAPP;         Container:       2 oz polyethylene jar       SOP S-15 Polychaete Sampling         Additional Questions:       If yes, MS sample ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         Were samples frozen?       Yes       Sediment/Soil Sample       NA         MMPOLY-01       O72916       SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture       Note: Sediment sampling was conducted according to the following SOP included in the QAPP;         Analytes:       Total Hg, Total MeHg, TOC, Grain Size       No edor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture       Note: Sediment sampling was conducted according to the following SOP included in the QAPP;         Container:       4 oz. AG, 8 oz. AG       AG       SoP S-6, SOP S-7, Sediment sampling         Additional Questions:       If yes, Duplicate ID:       NA       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         Sampler Signature:       V/V/X       Reviewed by:       Lauren Tierney <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	_										
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Methods:       1631e, 1630, NOAA 1993a       included in the QAPP;         Container:       2 oz polyethylene jar       SOP S-15 Polychaete Sampling         Additional Questions:       Additional QC Collected:       No       If yes, MS sample ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA       Ma         Were samples frozen?       Yes       Sediment/Soil Sample       NA         Sample ID       Time       Odor, Color, Type       Notes         MMPOLY-01       072916       _SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture         MMPOLY-01       072916       _SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture         Methods:       1631e, 1630, Lloyd-Khan, ASTM D422       Note: Sediment sampling was conducted according to the following SOP included in the QAPP;         Container:       4 oz. AG, 8 oz. AG       Note: Sediment sampling was conducted according to the following SOP S-6, SOP S-7, Sediment Sampling         Additional QC Collected:       No       If yes, MS sample ID:       NA         QC Samples Types:       NA       If yes, MS sample ID:       NA         If yes, MSD sample ID:       NA       If yes, MSD sample ID:       NA         QC Samples Types:	Requested Analyses										
Container:       2 oz polyethylene jar       SOP S-15 Polychaete Sampling         Additional Questions:       Additional QC Collected:       No       If yes, MS sample ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         Were samples frozen?       Yes       Sediment/Soil Sample       NA         Sediment/Soil Sample         Sample ID       Time       Odor, Color, Type       Notes         MMPOLY-01       072916       _SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture         Requested Analyses:       Malytes:       Total Hg, Total MeHg, TOC, Grain Size       Note: Sediment sampling was conducted according to the following SOP included in the QAPP; SOP S-6, SOP S-7, Sediment Sampling         Additional QC collected:       No       If yes, MS sample ID:       NA         QC Samples Types:       NA       If yes, MS sample ID:       NA         QC Samples Types:       NA       If yes, MS sample ID:       NA         QC Samples Types:       NA       If yes, MS sample ID:       NA         If yes, MS sample ID:       NA       If yes, MS sample ID:       NA         QC Samples Types:       NA       If yes, MS sample ID:       NA         If yes, MSD sample ID:       NA </td <td>Analytes:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Note: Polychaet</td> <td></td> <td></td>	Analytes:						Note: Polychaet				
Additional Questions:       No       If yes, MS sample ID:       NA         Additional QC Collected:       No       If yes, MSD sample ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         Were samples frozen?       Yes       Yes       Notes         Sediment/Soil Sample         Memory Service Sediment/Soil Sample         Memory Service Sediment/Soil Sample         Sediment/Soil Sample         Memory Service Service Sediment/Soil Sample         Memory Service Servic	Methods:					а			-		
Additional QC Collected:       No       If yes, MS sample ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         Were samples frozen?       Yes       Na       If yes, MSD sample ID:       NA         Sediment/Soil Sample         Sediment/Soil Sample         Sediment/Soil Sample         Methods:       No         MMPOLY-01       O72916       SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture         Requested Analyses:         Analytes:       Total Hg, Total MeHg, TOC, Grain Size       Note: Sediment sampling was conducted according to the following SOP included in the QAPP; SOP S-6, SOP S-7, Sediment Sampling         Additional Questions:       If yes, Duplicate ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         If yes, MSD sample ID:       NA       NA       NA         Sampler Signature:       NO W Max       Reviewed by:       Lauren Tierney			2 03	z polyetł	nylene jar			SOP S-15 Pc	blychaete Sampling		
NA       If yes, MSD sample ID:       NA         Were samples frozen?       Yes       Sediment/Soil Sample         Sample ID       Time       Odor, Color, Type       Notes         MMPOLY-01       072916       _SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture         Requested Analyses:       Total Hg, Total MeHg, TOC, Grain Size       Note: Sediment sampling was conducted according to the following SOP included in the QAPP; SOP S-6, SOP S-7, Sediment Sampling         Additional Questions:       Additional QC Collected:       No       If yes, MSD sample ID:       NA         Additional QC Collected:       No       If yes, MSD sample ID:       NA       NA         Sampler Signature:       WW Strees       Reviewed by:       Lauren Tierney	Additional Question	s:									
Were samples frozen?       Yes         Sediment/Soil Sample         Sample ID       Time       Odor, Color, Type       Notes         MMPOLY-01       072916       _SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture         Requested Analyses:       Notal Hg, Total MeHg, TOC, Grain Size       Note: Sediment sampling was conducted according to the following SOP included in the QAPP;         Methods:       1631e, 1630, Lloyd-Khan, ASTM D422       Note: Sediment sampling was conducted according to the following SOP included in the QAPP;         Container:       4 oz. AG, 8 oz. AG       SOP S-6, SOP S-7, Sediment Sampling         Additional Questions:       If yes, Duplicate ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         Sampler Signature:       If yes, MSD sample ID:       NA	Additional QC Collect	ed:	No					NA			
Sediment/Soil Sample         Sample ID       Time       Odor, Color, Type       Notes         MMPOLY-01       072916       SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture         Requested Analyses:       Notal Hg, Total Hg, Total MeHg, TOC, Grain Size       Note: Sediment sampling was conducted according to the following SOP included in the QAPP;         Analytes:	QC Samples Types:		NA		lf	yes, MSD sample ID:	: NA				
Sample ID       Time       Odor, Color, Type       Notes         MMPOLY-01       072916       _SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture         Requested Analyses:	Were samples frozen	!?	Yes								
Sample ID       Time       Odor, Color, Type       Notes         MMPOLY-01       072916       _SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture         Requested Analyses:							-				
MMPOLY-01       072916       SED_03       14:30       No odor, Black, Silt with trace fine sand, ML, no plasticity, 100% moisture         Requested Analyses:       Total Hg, Total MeHg, TOC, Grain Size       Note: Sediment sampling was conducted according to the following SOP included in the QAPP; SOP S-6, SOP S-7, Sediment Sampling         Methods:       1631e, 1630, Lloyd-Khan, ASTM D422       Note: Sediment sampling was conducted according to the following SOP included in the QAPP; SOP S-6, SOP S-7, Sediment Sampling         Additional Questions:       If yes, Duplicate ID:       NA         QC Samples Types:       NA       If yes, MSS sample ID:       NA         Sampler Signature:       MA       Reviewed by:       Lauren Tierney					1	Sediment/Soil Samp	le				
MMPOLY-01       072916       _SED_03       14:30       moisture         Requested Analyses:       Note: Sediment sampling was conducted according to the following SOP included in the QAPP; SOP S-6, SOP S-7, Sediment Sampling         Methods:       1631e, 1630, Lloyd-Khan, ASTM D422       Note: Sediment sampling was conducted according to the following SOP included in the QAPP; SOP S-6, SOP S-7, Sediment Sampling         Additional Questions:       4 oz. AG, 8 oz. AG       If yes, Duplicate ID:       NA         QC Samples Types:       NA       If yes, MSD sample ID:       NA         If yes, MSD sample ID:       NA       Reviewed by:       Lauren Tierney	Sa	mple ID		Time		Odor, Co	lor, Type		Notes		
Requested Analyses:         Analytes:       Total Hg, Total MeHg, TOC, Grain Size       Note: Sediment sampling was conducted according to the following SOP included in the QAPP;         Methods:       1631e, 1630, Lloyd-Khan, ASTM D422       Note: Sediment sampling was conducted according to the following SOP included in the QAPP;         Container:       4 oz. AG, 8 oz. AG       SOP S-6, SOP S-7, Sediment Sampling         Additional Questions:       If yes, Duplicate ID:       NA         QC Samples Types:       NA       If yes, MS sample ID:       NA         If yes, MSD sample ID:       NA       NA       If yes, MSD sample ID:         Sampler Signature:       Image: Color Section Sec	MMPOLY-01 _	072916	_SED_03	14:30	No odor,	· · · · ·	· · · · ·	lasticity, 100%			
Analytes:       Total Hg, Total MeHg, TOC, Grain Size       Note: Sediment sampling was conducted according to the following SOP included in the QAPP; SOP S-6, SOP S-7, Sediment Sampling         Methods:       1631e, 1630, Lloyd-Khan, ASTM D422       SOP S-6, SOP S-7, Sediment Sampling         Container:       4 oz. AG, 8 oz. AG       Note: Sediment sampling was conducted according to the following SOP S-6, SOP S-7, Sediment Sampling         Additional Questions:       If yes, Duplicate ID:       NA         QC Samples Types:       NA       If yes, MS sample ID:       NA         If yes, MSD sample ID:       NA       NA       Reviewed by:       Lauren Tierney	Requested Analyses										
Methods:       1631e, 1630, Lloyd-Khan, ASTM D422         Container:       4 oz. AG, 8 oz. AG         Additional Questions:       SOP S-6, SOP S-7, Sediment Sampling         Additional QC Collected:       No         If yes, Duplicate ID:       NA         QC Samples Types:       NA         If yes, MSD sample ID:       NA         Sampler Signature:       If yes, MSD sample ID:			Total Hg. To			in Sizo	Note: Sediment	t sampling was co	inducted according to the following SOP		
Container:     4 oz. AG, 8 oz. AG       Additional Questions:     Additional QC Collected:     No       Additional QC Collected:     No     If yes, Duplicate ID:       QC Samples Types:     NA     If yes, MS sample ID:       Sampler Signature:     If yes, MSD sample ID:     NA			_		-		Note. Sediment				
Additional Questions:     No     If yes, Duplicate ID:     NA       QC Samples Types:     NA     If yes, MSD sample ID:     NA       Sampler Signature:     Sampler Signature:     Sampler Signature:     Sampler Signature:						1 0422			-		
Additional QC Collected:       No       If yes, Duplicate ID:       NA         QC Samples Types:       NA       If yes, MS sample ID:       NA         Sampler Signature:       If yes, MSD sample ID:       NA		ç.		02. AG, 0	J 02. AQ			,			
QC Samples Types:     NA     If yes, MS sample ID:     NA       If yes, MSD sample ID:     NA	-		• No			If ves Dunlicate ID.		NΔ			
QC Samples Types:     NA     If yes, MSD sample ID:     NA       Sampler Signature:     If yes, MSD sample ID:     NA				I							
Sampler Signature: Reviewed by: Lauren Tierney	QC Sa	mples Types	: NA								
Sampler Signature:						,,					
Sampler Signature: ASLA 1078 Date: 12/29/2016	<u> </u>			$\partial_{i}$	10		Reviewed by:		Lauren Tierney		
	Samp	ier signature	•	(NS -	20°						



Project Name:		USDC Penob	scot River			Project Number:		3616166052.04.05	
Date:		0926	16			Location ID:		ES-FP	
Collectors:		MMD	L			Lat/Long:	44	4.4719 -68.8169	
Media:		Whole Boo	ly (WB)			Weather:		Super calm	
Species:		Blue Musse	el (BLM)			Collection Method:		Hand Collection - Intertidal R	ocks
						, , , , , , , , , , , , , , , , , , , ,		1	
	Sample II	D		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes	
ES-FP _	092616	_BLM_WB_	01	15:00	65.0	39.0			
ES-FP _	092616	_BLM_WB_	02	15:00	61.0	36.0			
ES-FP _	092616	_BLM_WB_	03	15:00	66.0	41.0			
ES-FP _	092616	_BLM_WB_	04	15:00	68.0	49.0			
ES-FP _	092616	_BLM_WB_	05	15:00	61.0	35.0			
ES-FP _	092616	_BLM_WB_	06	15:00	69.0	52.0			
ES-FP _	092616	_BLM_WB_	07	15:00	64.0	39.0			
ES-FP _	092616	_BLM_WB_	08	15:00	70.0	43.0			
ES-FP _	092616	_BLM_WB_	09	15:00	62.0	37.0			
ES-FP _	092616	_BLM_WB_	10	15:00	61.0	37.0			
ES-FP _	092616	_BLM_WB_	11	15:00	65.0	40.0			
ES-FP _	092616	_BLM_WB_	12	15:00	60.0	33.0			
ES-FP _	092616	_BLM_WB_	13	15:00	75.0	60.0			
ES-FP _	092616	_BLM_WB_	14	15:00	65.0	48.0			
ES-FP _	092616	_BLM_WB_	15	15:00	65.0	44.0			
ES-FP _	092616	_BLM_WB_	16	15:00	70.0	40.0			
ES-FP _	092616	_BLM_WB_	17	15:00	62.0	40.0			
ES-FP _	092616	_BLM_WB_	18	15:00	65.0	62.0			
ES-FP _	092616	_BLM_WB_	19	15:00	60.0	29.0			
ES-FP _	092616	_BLM_WB_	20	15:00	62.0	32.0			
Requested Analyses:									
Analytes:			otal Hg, To			Note: Messel Sampli	ng was conduc	ted according to the following	g SOPs included in
Methods:		1	631e, NO	AA 1993a				the QAPP;	
Container:			Ziplo	ock			SOP S-1	4 Shellfish Sampling	
Additional Questions									
Additional QC Collect	ed:	Ye			f yes, MS sample ID:		_ 092616	_BLM_WB_MS 01	
QC Samples Types:	QC Samples Types: MS,MSD If					ES-FP	_ 092616	_BLM_WB_MD 01	
General observations	of habitat,	abundance an	d diversity						
Were samples f	rozen?	Ye	s				Not very	r, abundant seaweed	
Sample	er Signature	:	M	F.M. MY			y: Lauren Tier		
Sumple			1 1.0	4076 A )		Dat	e: 1/3/2017	7	

Date: 1/3/2017



WIEElei									
Project Name:		USDC Penobs	scot River			Project Number:		3616166052.04.05	
Date:		09261	16		_	Location ID:		ES-FP	
Collectors:		MMD	L		_	Lat/Long:	44	-68.8169	
Media:		Whole Bod	ly (WB)			Weather:		Calm	
Species:		Blue Musse	el (BLM)			Collection Method:		Hand Collection - Intertidal Rocks	
	Sample ID			Time	Length (mm)	Weight (grams)	Photo Number	Notes	
ES-FP _	092616	_BLM_WB_	MD	15:00	63.0	33.0			
ES-FP _	092616	_BLM_WB_	MS	15:00	60.0	35.0			
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Requested Analyses:		-		LICE ST.		Nata Massal Canadi		ted encoding to the following CODe in a	u da dita
Analytes: Methods:			otal Hg, Tota .631e, NOAA			Note: Messel Sampli	ng was conduc	ted according to the following SOPs incl the QAPP;	uded in
Container:		1	Ziplock					4 Shellfish Sampling	
Additional Questions	•		Zipioci				30F 3-1	4 Sheilinsh Sampling	
Additional QC Collect		Ye	c		If yes, MS sample ID:	ES-FP	092616	BLM WB MS 01	
QC Samples Types:	<u>-</u>	MS,N			If yes, MSD sample ID:		092616	BLM WB MD 01	
General observations	of habitat				, 23,	2011			
								Low	
Were samples f	rozen?	Ye	s						
	<i>.</i>		MASI	~~~		Reviewed b	y: Lauren Tieri	nev	
Sample	er Signature:		1. <i>V</i> r. 1	L.			e: 1/3/2017		



Project Name:		USDC Penob	scot River			Project Number:		361616605	52.04.05
Date:		0927	L6			Location ID:		ES-0	3
Collectors:		MMD	L			Lat/Long:	44	1.4833	-68.8337
Media:		Whole Boo	ly (WB)			Weather:		Calm, cl	
Species:		Blue Musse	el (BLM)			Collection Method:		Hand Collection - I	Intertidal Rocks
								•	
	Sample II	D		Time	Length (mm)	Weight (grams)	Photo Number		Notes
ES-03	092716	BLM WB	01	13:00	62.0	43.7			
ES-03	092716	BLM WB	02	13:00	56.0	28.9			
ES-03	092716	BLM WB	03	13:00	51.0	23.7			
ES-03	092716	BLM WB	04	13:00	50.0	21.2			
 ES-03	092716	BLM WB	05	13:00	51.0	25.6			
ES-03	092716	BLM_WB	06	13:00	62.0	43.4			
ES-03	092716	BLM_WB	07	13:00	62.0	34.8			
ES-03	092716	BLM WB	08	13:00	63.0	46.5			
ES-03	092716	_BLM_WB_	09	13:00	58.0	32.5			
ES-03 _	092716	_BLM_WB_	10	13:00	57.0	39.1			
ES-03 _	092716	_BLM_WB_	11	13:00	67.0	44.3			
ES-03 _	092716	_BLM_WB_	12	13:00	61.0	34.0			
ES-03 _	092716	_BLM_WB_	13	13:00	55.0	26.8			
ES-03 _	092716	_BLM_WB_	14	13:00	54.0	26.6			
ES-03 _	092716	_BLM_WB_	15	13:00	62.0	43.5			
ES-03 _	092716	_BLM_WB_	16	13:00	65.0	46.9			
ES-03 _	092716	_BLM_WB_	17	13:00	64.0	39.6			
ES-03 _	092716	_BLM_WB_	18	13:00	62.0	37.5			
ES-03 _	092716	_BLM_WB_	19	13:00	62.0	38.0			
ES-03 _	092716	_BLM_WB_	20	13:00	52.0	24.2			
Requested Analyses:									
Analytes:		Т	otal Hg, To	tal Lipids		Note: Messel Sampli	ing was conduc	ted according to th	ne following SOPs included in
Methods:		1	.631e, NOA	A 1993a				the QAPP;	
Container:			Ziplo	ck			SOP S-1	4 Shellfish Samplin	Ig
Additional Questions	:								
Additional QC Collecte	ed:	Ye	S		If yes, MS sample ID:	ES-03	_ 092716	_BLM_WB_MS	01
QC Samples Types:		MS,N	/ISD	If	yes, MSD sample ID:	ES-03	_ 092716	_BLM_WB_MD	01
General observations	of habitat, a	abundance an	d diversity:	:					
Were samples f	Ye	S							
Sample	er Signature:	:	VY Just F	F > 1			y: Lauren tierr	1	
Sample			K*Ixtx			Dat	te: 1/3/2017		



Wheeler									
Project Name:		USDC Penob	scot River			Project Number:		3616166052.04.05	
Date:		0927	16			Location ID:		ES-03	
Collectors:		MMD				Lat/Long:	44.4	4833 -68.8337	
Media:		Whole Boo				Weather:		Calm, cloudy	
Species:		Blue Musse	el (BLM)			Collection Method:	Н	and Collection - Intertidal Rocks	
	Sample ID	)		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes	
ES-03 _	092716	_BLM_WB_	MD	15:00	54.0	31.9			
ES-03 _	092716	_BLM_WB_	MS	15:00	57.0	29.7			
I									
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Requested Analyses:									
Analytes:			otal Hg, To			Note: Messel Sampl		ed according to the following SOPs	included in
Methods:		1	.631e, NOA					he QAPP;	
Container: Additional Questions			Ziplo	CK			SOP S-14	Shellfish Sampling	
Additional QC Collecto		Vo			If yes, MS sample ID:	FC 02	092716		
QC Samples Types:	eu.	Ye MS,N			yes, MSD sample ID:		092716	BLM_WB_MS 01 BLM WB MD 01	
General observations	of habitatia				yes, wise sample ie.	E3-05	092710		
General Observations	o of Habilal, a	buildance an	u uiveisity						
Were samples f	rozen?	Ye	S						
						Reviewed	oy: Lauren Tierne	N/	
Sample	er Signature:		广大注义	5777			te: 1/3/2017	ÿ	



Project Name:		USDC Penob	scot River			Project Number:		3616166052.04.05
Date:		0927	16		_	Location ID:		ES-15
Collectors:		MM D	L			Lat/Long:	44	4.5049 -68.7717
Media:		Whole Boo	ly (WB)			Weather:		Calm, cloudy
Species:		Blue Musse	el (BLM)			Collection Method:		Hand Collection - Intertidal Rocks
	Sample I	D		Time	Length (mm)	Weight (grams)	Photo Number	Notes
ES-15	092716	BLM_WB_	01	15:00	60.0	39.8		
ES-15	092716	_BLM_WB_	02	15:00	59.0	33.9		
ES-15 _	092716	_BLM_WB_	03	15:00	61.0	41.5		
ES-15 _	092716	_BLM_WB_	04	15:00	63.0	43.3		
ES-15 _	092716	_BLM_WB_	05	15:00	56.0	38.0		
ES-15 _	092716	_BLM_WB_	06	15:00	54.0	26.2		
ES-15 _	092716	_BLM_WB_	07	15:00	58.0	31.7		
ES-15 _	092716	_BLM_WB_	08	15:00	54.0	28.0		
ES-15 _	092716	_BLM_WB_	09	15:00	50.0	25.9		
ES-15 _	092716	_BLM_WB_	10	15:00	52.0	25.4		
ES-15 _	092716	_BLM_WB_	11	15:00	57.0	36.6		
ES-15 _	092716	_BLM_WB_	12	15:00	49.0	19.7		
ES-15 _	092716	_BLM_WB_	13	15:00	51.0	23.2		
ES-15 _	092716	_BLM_WB_	14	15:00	50.0	19.3		
ES-15 _	092716	_BLM_WB_	15	15:00	49.5	22.2		
ES-15 _	092716	_BLM_WB_	16	15:00	46.0	18.6		
ES-15 _	092716	_BLM_WB_	17	15:00	47.0	20.9		
ES-15 _	092716	_BLM_WB_	18	15:00	50.0	18.2		
ES-15 _	092716	_BLM_WB_	19	15:00	46.0	14.3		
ES-15 _	092716	_BLM_WB_	20	15:00	37.0	10.6		
Requested Analyses:								
Analytes:		Т	otal Hg, To	tal Lipids		Note: Messel Sampli	ng was conduc	ted according to the following SOPs include
Methods:		1	631e, NOA	A 1993a				the QAPP;
Container:			Ziplo	ck			SOP S-1	4 Shellfish Sampling
Additional Questions	:							
Additional QC Collected	ed:	Ye	S		If yes, MS sample ID:	ES-15	092716	_BLM_WB_MS 01
QC Samples Types:		MS,N		-	If yes, MSD sample ID:	ES-15	_ 092716	_BLM_WB_MD 01
General observations	of habitat,	abundance an	d diversity:	-				
Were samples f	frozen?	Ye	IC .				Low, lots of w	oodchip on intertidal zone
Were sumples r		TC .						
<b>_</b> .						Reviewed b	y: Lauren Tier	nev
Sampler Signature:						e: 1/3/2016		
			25	104			, .,	



Project Name:		USDC Penobs	cot Divor			Project Number:		3616166052.04.05
Date:		03DC Periods				Location ID:		ES-15
Collectors:		MMD				Location ID: Lat/Long:		4.5251 -68.7982
		Whole Bod				Weather:		Calm, cloudy
Species:		Blue Musse				Collection Method:		Hand Collection - Intertidal Rocks
species.		Dide Widsse				conection method.		Hand Collection - Intertidal Rocks
	Sample II	D		Time	Length (mm)	Weight (grams)	Photo Number	Notes
ES-15	092716	BLM_WB	MD	15:00	39.0	12.6		
ES-15	092716	_BLM_WB_	MS	15:00	38.0	10.3		
_								
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l								
-								
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_				-				
_								
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Requested Analyses:								
Analytes:			otal Hg, To			Note: Messel Sampl	ing was conduc	ted according to the following SOPs included in
Methods:		1	631e, NOA	A 1993a				the QAPP;
Container:			Ziplo	ck			SOP S-1	4 Shellfish Sampling
Additional Questions	:							
Additional QC Collect	ed:	Ye			If yes, MS sample ID:	ES-15	_ 092716	_BLM_WB_MS 01
QC Samples Types:		MS,N			yes, MSD sample ID:	ES-15	_ 092716	_BLM_WB_MD 01
General observations	of habitat,	abundance an	d diversity	:			Low, lots of w	oodchip on intertidal zone
Were samples f	frozen?	Ye	S				,	
			20 54	-1947-14 (1921)		Reviewed	ov: Lauren Tieri	nev

Sampler Signature:

MARTPY



Wieelei									
Project Name:		USDC Penobs	scot River			Project Number	:	3616166052.04.05	
Date:		1001:	16		_	Location ID:		ES-13	
Collectors:		MKMI	CD			Lat/Long	44.	503858 -68.7742	240
Media:		Whole Boo	ly (WB)			Weather	:	Calm, sunny	
Species:		Blue Musse	el (BLM)			Collection Method	:	Hand Collection - Intertidal	Rocks
				-			-		
	Sample ID	•		Time	Length (mm)	Weight (grams)	Photo Number	Notes	
ES-13 _	100116	_BLM_WB_	MD	16:00	47.0	20.61			
ES-13 _	100116	_BLM_WB_	MS	16:00	54.0	19.2			
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l									
-									
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				-					
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Requested Analyses:						Į.		Į.	
Analytes:		Т	otal Hg, To	tal Lipids		Note: Messel Samp	ling was conduc	ted according to the followi	ng SOPs included in
Methods:			.631e, NOA					the QAPP;	
Container:			Ziplo	ck			SOP S-1	4 Shellfish Sampling	
Additional Questions	:								
Additional QC Collecte	ed:	Ye	S		If yes, MS sample ID:	ES-13	_ 100116	_BLM_WB_MS 01	
QC Samples Types:		MS,N	/ISD	_	If yes, MSD sample ID:	ES-13	_ 100116	_BLM_WB_MD 01	
General observations	of habitat, a	bundance an	d diversity						
<b>Mana and 1</b> - 5			_				Low, lots o	of seaweed hard to find	
Were samples f	rozen?	Ye	5						
			Allow			Reviewed	by: Lauren Tier	nev	
Sample	er Signature:		T AND				ate: 1/3/2017		
			255	10 A			2, 3, 201,		



Project Name:		USDC Penobs	scot River			Project Number:		3616166052.04.05	
Date:		10013	16			Location ID:		ES-13	
Collectors:		MKM I	CD			Lat/Long:	44.50	-68.774240	
Media:		Whole Boo	ly (WB)			Weather:		Not recorded	
Species:		Blue Musse	el (BLM)			Collection Method:	Ha	and Collection - Intertidal Rock	S
	Sample ID	)		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes	
ES-13 _	100116	_BLM_WB_	01	16:00	60.0	43.9			
ES-13 _	100116	_BLM_WB_	02	16:00	59.0	25.25			
ES-13 _	100116	_BLM_WB_	03	16:00	59.0	40.28			
ES-13 _	100116	_BLM_WB_	04	16:00	57.0	23.37			
ES-13 _	100116	_BLM_WB_	05	16:00	49.0	26.25			
ES-13 _	100116	_BLM_WB_	06	16:00	70.0	49.44			
ES-13 _	100116	_BLM_WB_	07	16:00	52.0	21.38			
ES-13 _	100116	_BLM_WB_	08	16:00	60.0	34.7			
ES-13 _	100116	_BLM_WB_	09	16:00	53.0	25.44			
ES-13 _	100116	_BLM_WB_	10	16:00	56.0	30.62			
ES-13 _	100116	_BLM_WB_	11	16:00	57.0	30.72			
ES-13 _	100116	_BLM_WB_	12	16:00	56.0	24.87			
ES-13 _	100116	_BLM_WB_	13	16:00	55.0	25.1			
ES-13 _	100116	_BLM_WB_	14	16:00	59.0	34.12			
ES-13 _	100116	_BLM_WB_	15	16:00	51.0	23.34			
ES-13 _	100116	_BLM_WB_	16	16:00	50.0	22.0			
ES-13 _	100116	_BLM_WB_	17	16:00	52.0	20.0			
ES-13 _	100116	_BLM_WB_	18	16:00	52.0	23.77			
ES-13 _	100116	_BLM_WB_	19	16:00	49.0	20.63			
ES-13 _	100116	_BLM_WB_	20	16:00	61.0	43.77			
Requested Analyses:									
Analytes:		Т	otal Hg, To	tal Lipids		Note: Messel Sampli	ng was conducte	d according to the following SC	OPs included in
Methods:		1	.631e, NOA	A 1993a			tl	he QAPP;	
Container:			Ziplo	ck			SOP S-14 S	Shellfish Sampling	
Additional Questions	:								
Additional QC Collecte	ed:	Ye	S		If yes, MS sample ID:	ES-13	_ 100116 _	BLM_WB_MS 01	
QC Samples Types:		MS,N	/ISD	If	yes, MSD sample ID:	ES-13	_ 100116 _	BLM_WB_MD 01	
General observations	of habitat, a	bundance an	d diversity	:					
Were samples f	rozen?	Ye	S						
Sample	er Signature:		(~\~ <del>\</del> _	- -			y: Lauren tierne	¥	
	Sampler Signature:					Dat	e: 1/3/2017		



wrieelei		Development Dive		<u> </u>				2010	100052 04 05		
Project Name:	-	Penobscot River	Project Number								
Date	-	092416	Location ID:				CPJL (Cape Jellison)				
Collectors		JAB/ICD	-	Lat/Long:	-	44.445403 -68.838995					
Media	-	Tails (TA)	-	Weather:				oudy/rainy, cool			
Species	Lo	bster (LOB)	-	Collectio	on Method:			Lo	bster trap		
	Sample II	ה	Time	Length	Weight	Sex	Legal/	Photo	Notes:		
	Sample I	5	Time	(mm)	(grams)	F/M	Sublegal	Number	(deformities, lesions, etc.)		
CPJL _	092416	_LOB_TA_01	1016	92	600	Μ	Legal		MS/MSD		
CPJL _	092416	_LOB_TA_02	1016	84	510	Μ	Legal				
CPJL _	092416	_LOB_TA_03	1016	92	570	Μ	Legal				
CPJL _	092416	_LOB_TA_04	1016	85	470	F	Legal				
CPJL _	092416	_LOB_TA_05	1016	88	560	Μ	Legal				
CPJL _	092416	_LOB_TA_06	1016	93	700	Μ	Legal				
CPJL _	092416	_LOB_TA_07	1016	84	510	Μ	Legal				
CPJL _	092416	_LOB_TA_08	1016	89	560	Μ	Legal				
CPJL _	092416	_LOB_TA_09	1016	93	630	Μ	Legal				
CPJL _	092416	_LOB_TA_10	1035	83	510	F	Legal				
CPJL _	092416	_LOB_TA_11	1035	87	500	Μ	Legal				
CPJL _	092416	_LOB_TA_12	1035	87	550	Μ	Legal				
CPJL _	092416	_LOB_TA_13	1035	93	650	F	Legal				
CPJL _	092416	_LOB_TA_14	1042	111	1160	Μ	Legal				
CPJL _	092416	_LOB_TA_15	1042	98	760	F	Legal				
CPJL _	092416	_LOB_TA_16	1042	104	960	Μ	Legal				
CPJL _	092416	_LOB_TA_17	1042	86	540	Μ	Legal				
CPJL _	092416	_LOB_TA_18	1042	83	520	Μ	Legal				
CPJL _	092416	_LOB_TA_19	1042	96	640	Μ	Legal				
CPJL _	092416	_LOB_TA_20	1042	95	720	Μ	Legal				
Requested Anal	yses:										
Analytes:	Total Hg,	Total Lipids		Note: Lobster	Sampling w	as con	ducted acco	ording to th	e following SOPs included in the		
Methods:	1631e	NOAA 1993a	-				QA	PP;			
Container:	Ziplock		-			SC	P S-14 Shell	lfish Sampli	ing		
Additional Ques	stions:										
MS/MSD Co	ollected:	yes	lf ye	es, MS sample ID:	CPJL	_	092416	_LOB_TA_	_MS 01		
			If yes	, MSD sample ID:	CPJL	_	092416	_LOB_TA_	MD 01		
General observa	tions of hat	oitat, abundance ar	nd diversity:								
Were sample	es frozen?	yes									
		٢١	AP.C		Review	ed hv:	Lauren Tier	nev			

Sampler Signature:

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wrieeler										
Project Name:		Penobscot River			ct Number:	3616166052.04.05				
Date:		092416		I	Location ID:				L (Harborside)	
Collectors:		JAB/ICD			Lat/Long:		44.3548		-68.822312	
Media:		Tails (TA)			Weather:	-			oudy/rainy, cool	
Species:	Lo	bster (LOB)		Collection	on Method:			Lo	bster trap	
	Sample II	n	Time	Length	Weight	Sex	Legal/	Photo	Notes:	
	Sample II		Time	(mm)	(grams)	F/M	Sublegal	Number	(deformities, lesions, etc.)	
HBI-01 _	092416	_LOB_TA_01	0755	97	830	F	Legal		MS/MSD	
HBI-01 _	092416	_LOB_TA_02	0755	91	630	Μ	Legal			
HBI-01 _	092416	_LOB_TA_03	0755	84	510	Μ	Legal			
HBI-01 _	092416	_LOB_TA_04	0810	85	460	F	Legal			
HBI-01 _	092416	_LOB_TA_05	0810	87	440	F	Legal			
HBI-01 _	092416	_LOB_TA_06	0812	96	670	Μ	Legal			
HBI-01 _	092416	_LOB_TA_07	0815	95	610	Μ	Legal			
HBI-01 _	092416	_LOB_TA_08	0821	83	430	F	Legal			
I										
-										
1										
-										
I										
I										
I										
-										
-										
-										
-										
1										
Requested Anal	yses:									
Analytes:	Total Hg,	Total Lipids		Note: Lobster	Sampling w	as con	ducted acco	ording to th	e following SOPs included in the	
Methods:	1631e	NOAA 1993a					QA	PP;		
Container:	Ziplock					SC	P S-14 Shell	lfish Sampli	ng	
Additional Ques	tions:			•						
MS/MSD Co		yes	lf ye	es, MS sample ID:	HBI-01	_	092416	LOB_TA	MS 01	
				, MSD sample ID:	HBI-01		092416	LOB TA	MD 01	
General observa	tions of hat	bitat, abundance an		• •					-	
		-								
Were sample	es frozen?	yes								
		-								
		~	AC.C		Roviow	od hv:	Lauron Tio	nov		

Sampler Signature:

Joseffician .



wneeler									
Project Name:	-	Penobscot River	_	Pro	ject Number:				
Date:		092416	_		Location ID:				(Odom Ledge)
Collectors:		JAB/ICD	-		Lat/Long:		44.5059		-68.800532
Media:		Tails (TA)	-		Weather:				oudy/rainy, cool
Species:	Lo	bster (LOB)	_	Collec	tion Method:			Lo	bster trap
	Sample II	<b>`</b>	Time	Length	Weight	Sex	Legal/	Photo	Notes:
	Sample IL	5	Time	(mm)	(grams)	F/M	Sublegal	Number	(deformities, lesions, etc.)
L10-52 _	092416	_LOB_TA_01	1114	87	570	Μ	Legal		MS/MSD
L10-52 _	092416	_LOB_TA_02	1114	89	540	Μ	Legal		
L10-52 _	092416	_LOB_TA_03	1114	85	480	Μ	Legal		
L10-52 _	092416	_LOB_TA_04	1114	101	860	Μ	Legal		
L10-52 _	092416	_LOB_TA_05	1114	86	540	Μ	Legal		
L10-52 _	092416	_LOB_TA_06	1125	84	450	Μ	Legal		
L10-52 _	092416	_LOB_TA_07	1125	84	460	F	Legal		
L10-52 _	092416	_LOB_TA_08	1125	114	1250	Μ	Legal		
L10-52 _	092416	_LOB_TA_09	1125	88	530	F	Legal		
L10-52	092416	_LOB_TA_10	1125	91	660	Μ	Legal		
L10-52	092416	_LOB_TA_11	1125	93	570	Μ	Legal		
L10-52 _	092416	_LOB_TA_12	1125	110	1150	Μ	Legal		
L10-52 _	092416	_LOB_TA_13	1138	94	600	Μ	Legal		
L10-52 _	092416	_LOB_TA_14	1138	109	1180	Μ	Legal		
L10-52 _	092416	_LOB_TA_15	1138	89	640	Μ	Legal		
L10-52	092416	_LOB_TA_16	1138	94	600	Μ	Legal		
L10-52 _	092416	_LOB_TA_17	1138	93	710	Μ	Legal		
L10-52 _	092416	_LOB_TA_18	1138	101	750	Μ	Legal		
L10-52 _	092416	_LOB_TA_19	1138	89	630	Μ	Legal		
L10-52 _	092416	_LOB_TA_20	1138	103	1030	Μ	Legal		
Requested Anal	yses:								
Analytes:	Total Hg,	Total Lipids		Note: Lobste	er Sampling w	as con	ducted acco	ording to th	e following SOPs included in the
Methods:	1631e	NOAA 1993a					QA	PP;	
Container:	Ziplock					SC	P S-14 Shell	lfish Sampli	ng
Additional Ques	stions:								
MS/MSD Co	ollected:	yes	lf ye	es, MS sample ID	: L10-52	_	092416	_LOB_TA_	MS 01
			If yes	, MSD sample ID	: L10-52	_	092416	_LOB_TA_	MD 01
General observa	tions of hat	oitat, abundance ar	nd diversity:						
Were sample	es frozen?	yes							
		٢١	AP.C.		Review	ed by:	Lauren Tier	rnev	

Sampler Signature:

Jost teach.



wheeler											
Project Name:		Penobscot River	_	-	ect Number:	3616166052.04.05					
Date:		092416	_	I	Location ID:	-			SVE-01		
Collectors:		JAB/ICD	_		Lat/Long:		44.5003	-	-68.775454		
Media:		Tails (TA)	_		Weather:			Partly cl	oudy/rainy, cool		
Species:	Lo	bster (LOB)	_	Collecti	Collection Method:		Lobster trap				
	C	<u> </u>		Length	Weight	Sex	Legal/	Photo	Notes:		
	Sample II		Time	(mm)	(grams)	F/M	Sublegal	Number	(deformities, lesions, etc.)		
SVE-01 _	092416	_LOB_TA_01	12:17	102	970	Μ	Legal				
SVE-01	092416	LOB_TA_02	12:17	90	670	Μ	Legal				
SVE-01	092416	_LOB_TA_03	12:17	104	1060	Μ	Legal				
SVE-01 _	092416	_LOB_TA_04	12:17	83	500	Μ	Legal				
SVE-01 _	092416	_LOB_TA_05	12:17	112	1100	Μ	Legal				
SVE-01 _	092416	_LOB_TA_06	12:17	109	1360	Μ	Legal				
SVE-01 _	092416	_LOB_TA_07	12:17	83	490	Μ	Legal				
SVE-01 _	092416	_LOB_TA_08	12:17	83	480	Μ	Legal				
SVE-01	092416	_LOB_TA_09	12:17	116	1290	Μ	Legal				
SVE-01 _	092416	_LOB_TA_10	12:38	107	1010	Μ	Legal				
SVE-01 _	092416	_LOB_TA_11	12:38	84	430	Μ	Legal				
SVE-01 _	092416	_LOB_TA_12	12:38	85	500	Μ	Legal				
SVE-01 _	092416	_LOB_TA_13	12:38	91	630	F	Legal		Not egging		
SVE-01 _	092416	_LOB_TA_14	12:38	105	1040	Μ	Legal				
SVE-01 _	092416	_LOB_TA_15	12:38	123	1840	Μ	Legal				
SVE-01 _	092416	_LOB_TA_16	12:52	124	1380	Μ	Legal				
SVE-01 _	092416	_LOB_TA_17	12:57	99	840	Μ	Legal				
SVE-01 _	092416	_LOB_TA_18	12:57	102	820	Μ	Legal				
SVE-01 _	092416	_LOB_TA_19	12:57	138	2120	Μ	Legal				
SVE-01	092416	_LOB_TA_20	12:57	130	1910	Μ	Legal				
Requested Analy	yses:										
Analytes:	Total Hg,	Total Lipids		Note: Lobster	Sampling w	as con	ducted acco	ording to th	e following SOPs included in the		
Methods:	1631e	NOAA 1993a					QA	PP;			
Container:	Ziplock					SC	P S-14 Shel	lfish Sampl	ing		
Additional Ques	tions:										
MS/MSD Co	ollected:	yes	lf ye	es, MS sample ID:	SVE-01	_	092416	_LOB_TA_	_MS 09		
			If yes	, MSD sample ID:	SVE-01	_	092416	_LOB_TA_	_MD 09		
General observa	tions of hat	oitat, abundance ar	nd diversity:								
				Large s	pecimens up	o to 20	0kg were al	oundant at	SVE vicinity		
Were sample	s frozen?	yes									
Sample	or Cignoture	. 0	march.		Review	ed by:	Lauren Tie	rney			

Sampler Signature:

Hozz tester

Date: 1/3/2017



wheeler										
Project Name:	USDC I	Penobscot River	_	•	ct Number:	-			.66052.04.05	
Date:		092416	_	I	Location ID:				Turner Point)	
Collectors:		JAB/ICD	_		Lat/Long:		44.4289		-68.820645	
Media:		Tails (TA)	_		Weather:	-			oudy/rainy, cool	
Species:	Lo	bster (LOB)	_	Collectio	on Method:		Lobster trap			
	Commissio	<b>D</b>		Length	Weight	Sex	Legal/	Photo	Notes:	
	Sample II		Time	(mm)	(grams)	F/M	Sublegal	Number	(deformities, lesions, etc.)	
L9-45 _	092416	_LOB_TA_01	0905	87	480	F	Legal			
L9-45 _	092416	_LOB_TA_02	0905	88	530	Μ	Legal			
L9-45 _	092416	_LOB_TA_03	0905	101	890	Μ	Legal			
L9-45 _	092416	_LOB_TA_04	0905	86	520	F	Legal			
L9-45 _	092416	_LOB_TA_05	0905	86	440	Ν	Legal		MS/MSD	
L9-45 _	092416	_LOB_TA_06	0905	94	690	Μ	Legal			
L9-45 _	092416	_LOB_TA_07	0905	85	480	Μ	Legal			
L9-45 _	092416	_LOB_TA_08	0905	97	620	Μ	Legal			
L9-45 _	092416	_LOB_TA_09	0905	92	670	Μ	Legal			
L9-45 _	092416	_LOB_TA_10	0905	84	450	F	Legal	P1090490		
L9-45 _	092416	_LOB_TA_11	0905	85	530	F	Legal			
L9-45 _	092416	_LOB_TA_12	0930	88	520	F	Legal			
L9-45 _	092416	_LOB_TA_13	0930	93	690	F	Legal			
L9-45 _	092416	_LOB_TA_14	0930	96	710	F	Legal			
L9-45 _	092416	_LOB_TA_15	0930	85	530	Μ	Legal			
L9-45 _	092416	_LOB_TA_16	0930	93	630	Μ	Legal			
L9-45 _	092416	_LOB_TA_17	0930	85	530	Μ	Legal			
L9-45 _	092416	_LOB_TA_18	0930	96	700	Μ	Legal			
L9-45 _	092416	_LOB_TA_19	0930	85	450	Μ	Legal			
L9-45 _	092416	_LOB_TA_20	0952	86	550	Μ	Legal			
Requested Analy	yses:									
Analytes:	Total Hg,	Total Lipids								
Methods:	1631e	NOAA 1993a	_	Note: Lobster Sar	mpling was	condu	cted accord	ing to the fo	llowing SOPs included in the QAPP;	
Container:	Ziplock		_			SC	OP S-14 Shel	lfish Sampli	ng	
Additional Ques	tions:									
MS/MSD Co	llected:	yes	lf y	ves, MS sample ID:	L9-45	_	092416	_LOB_TA_N	VIS 05	
			If ye	s, MSD sample ID:	L9-45	_	092416	_LOB_TA_N	VID 05	
General observat	tions of hal	bitat, abundance ar	nd diversity:	-						
Were sample	s frozen?	yes								
	<u>.</u>	C	DE A		Review	ed by:	Lauren Tier	rney		

Sampler Signature:

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wheeler								-				
Project Name:		Penobscot River			ect Number:				66052.04.05			
Date		092616			Location ID:	-			(Harborside)			
Collectors		JAB	<u>.</u>		Lat/Long:		44.3560		-68.822976			
Media		Tails (TA)			Weather:			Sun	nny, cold			
Species	Lo	bster (LOB)		Collecti	Collection Method:			Lobster trap				
				Length	Weight	Sex	Legal/	Photo	Notes:			
	Sample II		Time	(mm)	(grams)	F/M	-	Number	(deformities, lesions, etc.)			
HBI-01	092616	LOB TA 09	0835	83	480	F	Legal					
HBI-01	092616	LOB_TA_10	0839	89	590	F	Legal					
HBI-01	092616	LOB TA 11	0847	102	890	Μ	Legal					
HBI-01	092616	LOB_TA_12	0901	92	640	Μ	Legal					
HBI-01	092616	LOB_TA_13	0835	81	330	Μ	Sublegal					
HBI-01	092616	LOB_TA_14	0843	79	460	F	Sublegal					
HBI-01	092616	LOB TA 15	0843	80	450	Μ	Sublegal					
HBI-01	092616	LOB TA 16	0843	79	420	М	Sublegal					
HBI-01	092616	LOB_TA_17	0847	80	470	F	Sublegal					
HBI-01	092616	LOB_TA_18	0914	81	460	Μ	Sublegal					
HBI-01	092616	LOB_TA_19	0914	81	410	F	Sublegal					
HBI-01	092616	LOB_TA_20	0914	75	330	Μ	Sublegal					
_												
_												
_												
_												
_												
-												
_												
-												
Requested Anal	yses:											
Analytes:	Total Hg,	Total Lipids										
Methods:	1631e	NOAA 1993a		Note: Lobster Sa	mpling was o	condu	cted accordi	ng to the foll	lowing SOPs included in the QAPP;			
Container:	Ziplock		-			SC	OP S-14 Shell	lfish Samplin	g			
Additional Ques	stions:											
MS/MSD Co	ollected:	no	lf	yes, MS sample ID:		NA						
			lf ye	es, MSD sample ID:		NA						
General observa	tions of hat	oitat, abundance an	d diversity:									
Were sample	es frozen?	yes										
		()	AP.O		Review	ed hv:	Lauren Tier	nev				

Sampler Signature:

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Project Name:	USDC Penobsco	ot River	Project Number: 3616166052.04.05							
Date:	092316		Location ID:		Mendall N	larsh				
Collectors:	JB, ICD		Lat/Long:	44.	588756	-68.862448				
Media:	Whole Body		Weather:		Partly cloudy, cool,gue					
Species:	Mummichog (	MUM)	Collection Method:		Minnow	trap				
	Sample ID	Time	Length (mm)	Weight (grams)	Photo Number	Notes				
Mendall Marsh	092316 _MUM_WB			5						
Mendall Marsh	092316 _MUM_WB			6.9						
Mendall Marsh	092316 _MUM_WB			4						
Mendall Marsh	092316 _MUM_WB			1.1						
Mendall Marsh	092316 _MUM_WB	_ 04 15:47	' 73	5						
_										
_										
_										
_										
quested Analyses:										
alytes:	Total Hg,	Fotal Lipids	Note: Fish/Eel Sa	ampling was condu	icted according to the follow	ving SOPs included in the QAPP;				
ethods:	1631e, N	DAA 1993a			S-12 Fish Sampling Procedur					
ontainer: Ziplock				SOP S-13 Fish Sa	mple Processing and Handlin	ng Procedures				
dditional Questions:										
Additional QC Coll	lected: No	If yes, MS sample	ID:	Na						
QC Sam	ple Types: Na	If yes, MSD sample	ID:							
eneral observations of habitat, abundance and diversity:										
Were samples frozen? Yes				Hi abur	idance of shrimp, low kil	li fish				

Sampler Signature:

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wheeler											
Project Name:	U	ISDC Penobscot	River		Project Number:         3616166052.04.05			5052.04.05			
Date:		092516		_	Location ID			OB-01			
Collectors:		MM		_	Lat/Long		6033	-68.8478			
Media:		Whole Body (\		_	Weather			ecorded			
Species:		Mummichog (N	IUM)		Collection Method		Minn	ow Trap			
	Samp	le ID		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes			
OB-01 _	092516	_MUM_WB_	01	13:29	69	3.7					
OB-01 _	092516	_MUM_WB_	02	13:31	48	1.3					
Requested Analyses:											
Analytes:		Total Hg, To	otal Lipids		Note: Fish/Eel	Sampling was conduc	ted according to the fo	ollowing SOPs included in the QAPP;			
Methods:	1631e, NOAA 1993a		SOP S-12 Fish Sampling Procedures								
Container:		Ziplo	ock			SOP S-13 Fish Sample Processing and Handling Procedures					
Additional Question	s:										
Additional QC Col	lected:	No	lf ves, M	S sample ID:		NA					
QC Sample Types: NA If yes, MSD sample ID:											
General observation				· _							
Were samples fr	ozen?	Yes									

Sampler Signature:



Project Name: USDC Penobscot River		River	Project Number	:	3616166052.04.05 OB-05 44.7055 -68.8379 Partly Cloudy/cool low 50s, gusty wind			
Date:	092516		Location ID: Lat/Long: Weather:					
Collectors:	MM, DL							
Media:	Whole Body (W							
Species:	Mummichog (M	UM) Co	ollection Method	:	Minnow Tra	Minnow Trap		
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
OB-05 _	092516 _MUM_WB_	01 11:31	61	2.5				
OB-05 _	092516 _MUM_WB_	01 11:30	42	0.8				
OB-05	092516 _MUM_WB_ (	01 11:30	42	0.8				
OB-05		02 11:30	56	1.9				
OB-05	092516 _MUM_WB_	02 11:30	49	1.2				
OB-05		02 11:30	58	2.2				
OB-05	092516 _MUM_WB_ (		54	1.6				
OB-05	092516 _MUM_WB_ (		50	1.3				
OB-05	092516 _MUM_WB_ (	03 11:30	59	2.2				
OB-05		04 11:30	51	1.4				
OB-05		04 11:30	55	1.7				
OB-05	092516 _MUM_WB_	04 11:30	57	1.9				
OB-05	092516 _MUM_WB_		53	1.4				
OB-05		05 11:30	51	1.6				
OB-05	092516 _MUM_WB_	05 11:30	54	1.6				
OB-05		05 11:30	50	1.4				
OB-05	092516 _MUM_WB_		57	1.9				
OB-05	092516 _MUM_WB_	06 11:30	56	1.8				
OB-05	092516 _MUM_WB_ (	06 11:30	50	1.3				
equested Analyses	:							
nalytes:	Total Hg, To	tal Lipids	Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP; SOP S-12 Fish Sampling Procedures					
1ethods:	1631e, NOA	AA 1993a						
container:	Ziplo	ck	SOP S-13 Fish Sample Processing and Handling Procedures					
dditional Question	s:							
	Additional QC Collected: No If yes, MS samp							
		If yes, MSD sample ID:	NA					
eneral observation	s of habitat, abundance a	nd diversity:						
Were samples fr	rozen? Yes							

Sampler Signature:



9/28/2016 MKM, JB, DL Whole Body (WB) Mummichog (MUM) mple ID 16 _MUM_WB_ 01 16 _MUM_WB_ 01 16 _MUM_WB_ 01	C	Location ID: Lat/Long: Weather: collection Method: Length (mm) 40.0	44.4	FRB-01 465131 Sunny caln Seine net Photo Number				
Whole Body (WB) Mummichog (MUM) ample ID 16 _MUM_WB_ 01 16 _MUM_WB_ 01		Weather: ollection Method: Length (mm) 40.0	Weight (grams)	Sunny caln Seine net	n			
Mummichog (MUM) mple ID 16 _MUM_WB_ 01 16 _MUM_WB_ 01		Collection Method: Length (mm) 40.0	: Weight (grams)	Seine net				
ample ID 16 _MUM_WB_ 01 16 _MUM_WB_ 01		Length (mm) 40.0	Weight (grams)					
16 _MUM_WB_ 01 16 _MUM_WB_ 01	Time	(mm) 40.0	(grams)	Photo Number	Notes			
16 _MUM_WB_ 01			0.7					
			0.17					
16 _MUM_WB_ 01		39.0	0.4					
		39.0	0.6					
16 _MUM_WB_ 01		50.0	1.5					
16 _MUM_WB_ 01		50.0	1.2					
		46.0	1.0					
		40.0	0.7					
		41.0	0.8					
		37.0						
		53.0						
		38.0						
			-					
		42.0						
			-					
16 _MUM_WB_ 05		50.0	1.3					
Total Hg, Total Lipids			Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;					
		SOP S-12 Fish Sampling Procedures						
· · · · · · · · · · · · · · · · · · ·			SOP S-13 Fish Sample Processing and Handling Procedures					
ZIPIOCK								
	316	316	316	316       _MUM_WB_02       40.0       0.7         316       _MUM_WB_02       41.0       0.8         316       _MUM_WB_02       37.0       0.5         316       _MUM_WB_03       53.0       1.7         316       _MUM_WB_03       38.0       0.6         316       _MUM_WB_03       42.0       0.8         316       _MUM_WB_03       44.0       0.9         316       _MUM_WB_04       59.0       2.3         316       _MUM_WB_04       42.0       0.7         316       _MUM_WB_04       44.0       0.8         316       _MUM_WB_04       44.0       0.8         316       _MUM_WB_04       37.0       0.5         316       _MUM_WB_05       49.0       1.4         316       _MUM_WB_05       37.0       0.4         316       _MUM_WB_05       50.0       1.3	316			



Project Name:	USDC Penobscot R	iver	Project Number:		3616166052.0	4.05		
Date: 092816		-	Location ID:			FRB-01		
Collectors:	MKM, JB, DL		Lat/Long:					
Media:	Whole Body (W	3)	Weather:		Calm			
Species:	Mummichog (MU	M)	Collection Method:		Seine net			
Sample ID Time			<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
FRB-01 _	092816 _MUM_WB_ 0	5	48.0	1.3				
FRB-01 _	092816 _MUM_WB_ 0	6	49.0	1.2				
FRB-01 _	092816 _MUM_WB_ 0	6	53.0	1.7				
FRB-01 _	092816 _MUM_WB_ 0	6	45.0	1.0				
FRB-01 _	092816 _MUM_WB_ 0	6	41.0	0.6				
FRB-01 _	092816 _MUM_WB_ 0	7	42.0	0.7				
FRB-01 _	092816 _MUM_WB_ 0	7	43.0	0.7				
FRB-01 _	092816 _MUM_WB_ 0	7	37.0	0.5				
FRB-01 _	092816 _MUM_WB_ 0	7	47.0	1.1				
FRB-01 _	092816 _MUM_WB_ 0	7	42.0	0.7				
FRB-01 _	092816 _MUM_WB_ 0	8	50.0	1.4				
FRB-01 _	092816 _MUM_WB_ 0	8	42.0	0.8				
FRB-01 _	092816 _MUM_WB_ 0	8	41.0	0.7				
FRB-01 _	092816 _MUM_WB_ 0	8	41.0	0.8				
FRB-01 _	092816 _MUM_WB_ 0	9	57.0	2.5				
FRB-01 _	092816 _MUM_WB_ 0	9	52.0	1.4				
FRB-01 _	092816 _MUM_WB_ 1	-	40.0	0.6				
FRB-01 _	092816 _MUM_WB_ 1	0	41.0	0.6				
FRB-01 _	092816 _MUM_WB_ 1		40.0	0.8				
FRB-01 _	092816 _MUM_WB_ 1	0	41.0	0.8				
equested Analyses	:							
nalytes:			Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;					
lethods:			SOP S-12 Fish Sampling Procedures					
ontainer:	Ziploc	k		SOP S-13 Fish Sar	mple Processing and Handling	Procedures		
dditional Question								
Additional QC Col	lected: Yes	If yes, MS sample ID:	FRB-01	092816	MUM WB MS 01			
-	ole Types: MS,MSD	If yes, MSD sample ID:	FRB-01	092816	MUM WB MD 01			
	s of habitat, abundance ar	· · · · · · · · · · · · · · · · · · ·						
	,	/						
Were samples fr	ozen? Yes							
	1 / 1		Reviewed h	y: Lauren Tierney	J			
	Signature: Mar	/	Date: 1/3/2016					



Date: Collectors: Media: Species:	092816 MKM, JB, DL Whole Body (W		Location ID: Lat/Long:		FRB-01			
Media:			/.					
	Whole Body (W	Whole Body (WB)		44	44.4729 -68.3565			
Species:	1.		Weather:		Calm			
	Mummichog (M	UM) C	Collection Method:		Seine			
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
FRB-01	092816 MUM WB	10	40.0	0.6				
FRB-01 (	092816 _MUM_WB_	11	73.0	4.8				
FRB-01	092816 MUM_WB	12	50.0	1.5				
FRB-01	092816 MUM_WB	12	51.0	1.6				
FRB-01	092816 _MUM_WB_ :	12	50.0	1.5				
FRB-01 _ (	092816 _MUM_WB_ :	13	45.0	0.9	1			
FRB-01 _ (	092816 _MUM_WB_ :	13	45.0	1.0				
FRB-01 _ 0	092816 _MUM_WB_ :	13	46.0	1.0				
FRB-01 _ 0	092816 _MUM_WB_ :	13	44.0	0.9				
FRB-01 _ 0	092816 _MUM_WB_ :	14	54.0	1.7				
FRB-01 _ (	092816 _MUM_WB_ :	14	55.0	2.0				
FRB-01 _ (	092816 _MUM_WB_ :	14	51.0	1.6				
FRB-01 _ 0	092816 _MUM_WB_ :	15	37.0	0.6				
FRB-01 _ 0	092816 _MUM_WB_ :	15	39.0	0.5				
FRB-01 _ 0	092816 _MUM_WB_ :		40.0	0.7				
FRB-01 _ 0	092816 _MUM_WB_ :	15	40.0	0.6				
FRB-01 _ 0	092816 _MUM_WB_ :		41.0	0.7				
FRB-01 _ 0	092816 _MUM_WB_ :	15	40.0	0.7				
	092816 _MUM_WB_ :		56.0	2.2				
FRB-01 _ 0	092816 _MUM_WB_ :	16	55.0	2.0				
uested Analyses:								
alytes:	Total Hg, To	tal Lipids	Note: Fish/Eel	Sampling was condu	icted according to the following	SOPs included in the QAPP;		
thods:	1631e, NOA	A 1993a			5-12 Fish Sampling Procedures			
ntainer:	Ziplo	ck		SOP S-13 Fish Sar	nple Processing and Handling Pi	rocedures		
ditional Questions								
Additional QC Colle	ected: Yes	If yes, MS sample ID:	FRB-01	_ 092816	_MUM_WB_MS_01			
	le Types: MS,MSD	If yes, MSD sample ID:	FRB-01	_ 092816	_MUM_WB_MD 01			
ntainer: ditional Questions Additional QC Colle QC Sampl	Ziplo :: ected: Yes	ck If yes, MS sample ID: If yes, MSD sample ID:	-	SOP S-13 Fish Sar 092816	mple Processing and Handling P	rocedures		

Sampler Signature:

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Project Name:	USDC Penobscot	River	Project Number:		3616166052.04	.05	
Date:	092816		Location ID:		FRB-01		
Collectors:	MKM, JB, DL		Lat/Long:		44.4729 -68.3565		
Media:	Whole Body (W	<u>,                                     </u>	Weather:		Sunny, calm		
Species:	Mummichog (M	UM) C	ollection Method:		Seine		
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes	
FRB-01 _	092816 _MUM_WB_ 1	16	52.0	1.5			
FRB-01 _	092816 _MUM_WB_ :	17	42.0	0.7			
FRB-01 _	092816 _MUM_WB_ :	17	41.0	0.8			
FRB-01 _	092816 _MUM_WB_ :	17	40.0	0.7			
FRB-01 _	092816 _MUM_WB_ 3	17	40.0	0.7			
FRB-01 _	092816 _MUM_WB_ 3	17	40.0	0.7			
FRB-01 _	092816 _MUM_WB_ 2	18	55.0	1.8			
FRB-01 _	092816 _MUM_WB_ 3	18	54.0	2.0			
FRB-01 _	092816 _MUM_WB_ 2	19	41.0	0.7			
FRB-01 _	092816 _MUM_WB_ 2	19	42.0	0.8			
FRB-01 _	092816 _MUM_WB_ 2	19	44.0	0.9			
FRB-01 _	092816 _MUM_WB_ 2	19	44.0	0.7			
FRB-01 _	092816 _MUM_WB_ :	19	45.0	1.0			
FRB-01 _	092816 _MUM_WB_2	20	37.0	0.6			
FRB-01 _	092816 _MUM_WB_ 2	20	39.0	0.6			
FRB-01 _	092816 _MUM_WB_2	20	39.0	0.5			
FRB-01 _	092816 _MUM_WB_ 2	20	39.0	0.6			
FRB-01 _	092816 _MUM_WB_ 2	20	37.0	0.5			
FRB-01 _	092816 _MUM_WB_ 2	20	37.0	0.5			
equested Analyses	5:						
nalytes:	Total Hg, To	tal Lipids	Note: Fish/Eel	Sampling was condu	icted according to the following	SOPs included in the QAPP;	
/lethods:	1631e, NOA	A 1993a			5-12 Fish Sampling Procedures		
Container:	Ziplo	ck		SOP S-13 Fish Sa	mple Processing and Handling P	rocedures	
Additional Question	ns:						
Additional QC Co	llected: Yes	If yes, MS sample ID:	FRB-01	_ 092816	_MUM_WB_MS_01		
QC Sam	QC Sample Types: MS,MSD If yes, MSD sample ID:		FRB-01	_ 092816	_MUM_WB_MD 01		
General observation	ns of habitat, abundance a	nd diversity:		_			
Were samples f	rozen? Yes						

Sampler Signature:

(MAT----M



	092816 MKM, JB, DL Whole Body (WB) Mummichog (MUM) ple ID 	Time	Location ID: Lat/Long: Weather: Collection Method: Length (mm) 40.0 37.0 40.0 40.0 40.0 40.0 40.0 35.0 35.0 35.0 36.0 36.0 36.0 37.0 39.0 35.0	44 Weight (grams) 0.7 0.5 0.7 0.7 0.7 0.5 0.4 0.5 0.5 0.5 0.6 0.6	FRB-01 4.4729 -68.35 Sunny calm Seine Photo Number	
Media:           Species:           Species:           Samp           FRB-01         092816           FRB-01         092816	Whole Body (WB) Mummichog (MUM) ple ID MUM_WBMS MUM_WBMS MUM_WBMS MUM_WBMS MUM_WBMD MUM_WBMD MUM_WBMD MUM_WBMD MUM_WBMD MUM_WBMD MUM_WBMD		Weather: Collection Method: Length (mm) 40.0 37.0 40.0 40.0 40.0 41.0 35.0 35.0 35.0 36.0 36.0 36.0 37.0 39.0	Weight (grams) 0.7 0.5 0.7 0.7 0.7 0.7 0.5 0.4 0.5 0.5 0.5 0.6 0.6	Sunny calm Seine	
Species:           FRB-01         092816	Mummichog (MUM) ple ID MUM_WBMS MUM_WBMS MUM_WBMS MUM_WBMS MUM_WBMD MUM_WBMD MUM_WBMD MUM_WBMD MUM_WBMD MUM_WBMD MUM_WBMD		Collection Method: Length (mm) 40.0 37.0 40.0 40.0 40.0 41.0 35.0 35.0 35.0 36.0 36.0 36.0 37.0 39.0	Weight (grams) 0.7 0.5 0.7 0.7 0.7 0.7 0.5 0.4 0.5 0.5 0.5 0.6 0.6	Seine	
FRB-01         092816	PIE ID MUM_WB_ MS MUM_WB_ MS MUM_WB_ MS MUM_WB_ MS MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD		Length (mm) 40.0 37.0 40.0 40.0 41.0 35.0 35.0 35.0 36.0 36.0 36.0 37.0 39.0	Weight (grams) 0.7 0.5 0.7 0.7 0.7 0.5 0.4 0.5 0.5 0.5 0.6 0.6		Notes
FRB-01       092816	MUM_WB_ MS MUM_WB_ MS MUM_WB_ MS MUM_WB_ MS MUM_WB_ MS MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD	Time	(mm) 40.0 37.0 40.0 40.0 41.0 35.0 35.0 36.0 36.0 36.0 37.0 39.0	(grams) 0.7 0.5 0.7 0.7 0.7 0.7 0.5 0.4 0.5 0.5 0.6 0.6	Photo Number	Notes
FRB-01       092816	MUM_WBMS WBMS WBMS WBMS WBMD WBMD WBMD WBMD WM_WBMD WM_WBMD WUM_WBMD		37.0 40.0 41.0 35.0 35.0 36.0 36.0 37.0 39.0	0.5 0.7 0.7 0.5 0.4 0.5 0.5 0.6 0.6		
FRB-01       092816	MUM_WB_ MS MUM_WB_ MS MUM_WB_ MS MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD		40.0 40.0 41.0 35.0 35.0 36.0 36.0 37.0 39.0	0.7 0.7 0.5 0.4 0.5 0.5 0.6 0.6		
FRB-01       092816	MUM_WB_ MS MUM_WB_ MS MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD		40.0 41.0 35.0 35.0 36.0 36.0 37.0 39.0	0.7 0.7 0.5 0.4 0.5 0.5 0.6 0.6		
FRB-01       092816	MUM_WB_MS MUM_WB_MD MUM_WB_MD MUM_WB_MD MUM_WB_MD MUM_WB_MD MUM_WB_MD		41.0 35.0 35.0 36.0 36.0 37.0 39.0	0.7 0.5 0.4 0.5 0.5 0.6 0.6		
FRB-01      092816         FRB-01      092816         FRB-01      092816         FRB-01      092816         FRB-01      092816         FRB-01      092816	WBMD MUM_WBMD MUM_WBMD MUM_WBMD MUM_WBMD MUM_WBMD		35.0 35.0 36.0 36.0 37.0 39.0	0.5 0.4 0.5 0.5 0.6 0.6		
FRB-01         _         092816	MUM_WB_ MD _MUM_WB_ MD _MUM_WB_ MD _MUM_WB_ MD _MUM_WB_ MD		35.0 36.0 36.0 37.0 39.0	0.4 0.5 0.5 0.6 0.6		
FRB-01         092816           FRB-01         092816           FRB-01         092816           FRB-01         092816	MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD		36.0 36.0 37.0 39.0	0.5 0.5 0.6 0.6		
FRB-01         092816           FRB-01         092816           FRB-01         092816	MUM_WB_ MD MUM_WB_ MD MUM_WB_ MD		36.0 37.0 39.0	0.5 0.6 0.6		
FRB-01         092816           FRB-01         092816	MUM_WB_ MD MUM_WB_ MD		37.0 39.0	0.6 0.6		
FRB-01 _ 092816	_MUM_WB_ MD		39.0	0.6		
-						
FRB-01 _ 092816 	_MUM_WB_ MD		35.0			
				0.4		
_						
equested Analyses:						
nalytes:	Total Hg, Total Li	ipids	Note: Fish/Eel	Sampling was condu	cted according to the following	SOPs included in the OAPP:
lethods:	1631e, NOAA 19	93a		SOP S	-12 Fish Sampling Procedures	
ontainer:	Ziplock			SOP S-13 Fish Sar	nple Processing and Handling P	rocedures
dditional Questions:						
Additional QC Collected:		If yes, MS sample ID:	FRB-01	_ 092816	_MUM_WB_MS_01	
QC Sample Types	: MS,MSD If	f yes, MSD sample ID:	FRB-01	_ 092816	_MUM_WB_MD 01	
eneral observations of habit	tat, abundance and d	iversity:				
Were samples frozen?	Yes					

Sampler Signature:

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Project Name:	USDC Penobscot River		Project Number:		3616166052.0	4.05
Date:	100316		Location ID:		OB-05	
Collectors:	MKM,		Lat/Long:	44.	697961	-68.840565
Media:	Whole Body (WB)		Weather:		Calm, sunn	•
Species:	Mummichog (MUM)	C	ollection Method:		Seine net	
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes
OB-05 _	100316 _MUM_WB_ 07	09:30	55.0	2.5		
OB-05 _	100316 _MUM_WB_ 08	09:30	64.0	2.6		
OB-05 _	100316 _MUM_WB_ 09	09:30	65.0	3.1		
OB-05 _	100316 _MUM_WB_ 10	09:30	61.0	3.1		
OB-05 _	100316 _MUM_WB_ 11	09:30	56.0	1.5		
OB-05 _	100316 _MUM_WB_ 11	09:30	50.0	1.0		
OB-05 _	100316 _MUM_WB_ 12	09:30	57.0	2.3		
OB-05 _	100316 _MUM_WB_ 13	09:30	58.0	2.0		
OB-05 _	100316 _MUM_WB_ 13	09:30	55.0	1.5		
OB-05 _	100316 _MUM_WB_ 14	09:30	56.0	1.9		
OB-05 _	100316 _MUM_WB_ 14	09:30	45.0	1.0		
OB-05 _	100316 _MUM_WB_ 15	09:30	55.0	2.0		
OB-05 _	100316 _MUM_WB_ 15	09:30	45.0	0.6		
OB-05 _	100316 _MUM_WB_ 16	09:30	55.0	1.8		
OB-05 _	100316 _MUM_WB_ 16	09:30	50.0	0.9		
OB-05 _	100316 _MUM_WB_ 17	09:30	50.0	1.3		
OB-05 _	100316 _MUM_WB_ 17	09:30	50.0	1.5		
OB-05 _	100316 _MUM_WB_ 18	09:30	55.0	2.2		
OB-05 _	100316 _MUM_WB_ 19	09:30	50.0	1.3		
OB-05 _	100316 _MUM_WB_ 19	09:30	55.0	2.0		
equested Analyses	:					
nalytes:	Total Hg, Total Lipids		Note: Fish/Eel	Sampling was condu	ucted according to the followin	g SOPs included in the QAPP;
1ethods:	1631e, NOAA 1993a			SOP	S-12 Fish Sampling Procedures	
ontainer:	Ziplock			SOP S-13 Fish Sa	mple Processing and Handling	Procedures
dditional Question						
Additional QC Col		, MS sample ID:	OB-05	100316	MUM WB MS 20	
-	/	MSD sample ID:	OB-05	100316	MUM WB MD 20	
	is of habitat, abundance and diversi	· · · ·	00 00	_ 100010		
Were samples fr	ozen? Yes					
Sampler	Signature:		Reviewed	by: Lauren Tierne	У	
Sampler	Signature.		Da	te: 1/3/201	7	



Project Name:	USDC Penobsco	t River	Project Number:		3616166052.0	04.05	
Date:	100316		Location ID:		OB-05		
Collectors:	MKM, ID		Lat/Long:	44.6	697961	-68.840565	
Media:	Whole Body (		Weather:	Calm, sunny			
Species:	Mummichog (N	NUM)	Collection Method:		Seine net		
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes	
OB-05 _	100316 _MUM_WB_	20 09:30	51.0	1.5		MS/MSD	
OB-05 _	100316 _MUM_WB_	20 09:30	55.0	1.9		MS/MSD	
OB-05 _	100316 _MUM_WB_	20 09:30	50.0	1.0		MS/MSD	
_							
_							
quested Analyses							
alytes:	Total Hg, T		Note: Fish/Eel S			ng SOPs included in the QAPP;	
thods:	1631e, NC				5-12 Fish Sampling Procedures nple Processing and Handling		
ntainer:	Zipl	ock		501 5 15 1151 50	The concessing and nationing		
ditional Questior							
Additional QC Co		If yes, MS sample ID:	OB-05	_ 100316	_MUM_WB_MS 20		
	ple Types: <u>MS,MSD</u> ns of habitat, abundance	If yes, MSD sample ID:	OB-05	_ 100316	_MUM_WB_MD 20		
	is of nabilal, abundance	and diversity:					
Were samples f	rozen? Yes						
Complete	C:	4-1-	Reviewed b	y: Lauren Tierney	/		
Sampler	Signature:	1-17	Dat				



Project Name:	USDC Penobscot	River	Project Number		3616166052.04	4.05		
Date:	100316		Location ID		BO-04			
Collectors:	MKMID		Lat/Long	-	44.7628 -68.8014			
Media:	Whole Body (W		Weather		Calm, 50s			
Species:	Mummichog (M	UM)	Collection Method		Seine Net			
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
BO-04 _	100316 _MUM_WB_ (	01 10:35	90.0	7.1		MS/MSD		
BO-04 _	100316 _MUM_WB_ (	02 10:35	66.0	3.2				
BO-04 _	100316 _MUM_WB_ (	03 10:35	81.0	5.3				
BO-04 _	100316 _MUM_WB_ (	04 10:35	68.0	3.6				
BO-04 _		05 10:35	79.0	4.5				
BO-04 _		06 10:35	69.0	3.8				
BO-04 _	100316 _MUM_WB_ (		69.0	3.4				
BO-04 _		08 10:35	71.0	4.1				
BO-04 _	100316 _MUM_WB_ (		64.0	3.5				
BO-04 _		10 10:35	61.0	2.4				
BO-04 _		10 10:35	46.0	1.1				
BO-04 _		11 10:35	61.0	2.6				
BO-04 _	100316 _MUM_WB_ :		70.0	4.5				
BO-04 _		13 10:35	65.0	3.5				
BO-04 _	100316 _MUM_WB_ :		64.0	2.6				
BO-04 _		15 10:35	66.0	2.5				
BO-04 _	100316 _MUM_WB_ :		60.0	2.0				
BO-04 _	100316 _MUM_WB_ :		51.0	1.8				
BO-04 _	100316 _MUM_WB_ :		64.0	2.3				
BO-04	100316 _MUM_WB_ :	18 10:35	61.0	2.5				
equested Analyses	S:							
nalytes:	Total Hg, To	tal Lipids	Note: Fish/Eel	Sampling was condu	cted according to the following	sOPs included in the QAPP;		
1ethods:	1631e, NOA	AA 1993a			-12 Fish Sampling Procedures			
ontainer:	Ziplo	ck		SOP S-13 Fish Sar	mple Processing and Handling F	Procedures		
dditional Question								
Additional QC Co	ollected: Yes	If yes, MS sample ID:	BO-04	100316	MUM WB MS 01			
	ple Types: MS,MSD	If yes, MSD sample ID:	BO-04	100316	MUM WB MD 01			
	ns of habitat, abundance a	· · · · <u> </u>						
Were samples f	rozen? Yes							

Sampler Signature:

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Project Name:	USDC Penobscot	River	Project Number:			3616166052.04.05 BO-04		
 Collectors:	100316		Location ID:					
	MKM, ID Whole Body (V		Lat/Long: Weather:	44.7628 -68.8014				
Species:	Mummichog (M		Collection Method:	Calm, sunny Seine Net				
species.	wummenog (w	0101)		Mainha	Seille N	let		
	Sample ID	Time	<b>Length</b> (mm)	<b>Weight</b> (grams)	Photo Number	Notes		
BO-04 _	100316 _MUM_WB_		59.0	2.0				
BO-04 _		19	60.0	2.0				
BO-04 _		20	58.0	2.4				
BO-04 _	100316 _MUM_WB_	20	46.0	0.5				
_								
_								
_								
_								
_								
_								
_								
uested Analyses								
lytes:	Total Hg, To	otal Lipids	Note: Fish/Eel Sa			wing SOPs included in the QAPP;		
thods:	1631e, NO/	AA 1993a			-12 Fish Sampling Procedur			
ntainer:	Ziplo	ck		SOP S-13 Fish Sar	nple Processing and Handli	ng Procedures		
ditional Questior	ns:							
Additional QC Co	llected: Yes	If yes, MS sample ID:	BO-04 _	100316	_MUM_WB_MS 01			
	ple Types: MS,MSD	If yes, MSD sample ID:	BO-04	100316	_MUM_WB_MD 01			
neral observatior	ns of habitat, abundance a	and diversity:						
	2							
Were samples fi	rozen? Yes							

Sampler Signature:



wheeler									
Project Name:	US	SDC Penobscot	River	_	Project Number:		361616	6052.04.05	
Date:		092116		_	Location ID:			B-05	
Collectors:		JB/MM		_	Lat/Long:	44	.6663	-68.8177	
Media:		Whole Body (\		_	Weather:	Clear, hot			
Species:	Ra	ainbow Smelt	(RAS)		Collection Method:		Т	rawl	
	Sample	e ID		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes	
OB-05 _	092116	_RAS_WB_	01	15:00	202	45		Collected by NOAA	
				ļ					
				ļ					
De sus etc el Ascel									
Requested Analyses:									
Analytes:		Total Hg, To	otal Lipids						
Methods:		1631e, NO	AA 1993a		Note	: Fish Sampling wa	as conducted by NOAA	scientist Christine Lipsky	
Container:		Ziplo	ock						
Additional Questions	5:								
Additional QC Col	lected:	No	If yes, N	IS sample ID:		NA			
	ple Types:			D sample ID:		NA			
General observations				-					
Were samples fr	ozen?	Yes							
•									

Sampler Signature:

Joutton-



wheeler						
Project Name:	USDC Penobscot	River	Project Number:		361616	6052.04.05
Date:	092516		Location ID:			S-13
Collectors:	JB/MM		Lat/Long:	44.	.4973	-68.7833
Media:	Whole Body (W		Weather:			ar, hot
Species:	Rainbow Smelt (I	RAS)	Collection Method:		Т	rawl
	Sample ID	Time	Length (mm)	Weight (grams)	Photo Number	Notes
ES-13 _	092516 _RAS_WB_ (	12:04	190	35		Collected by NOAA trawl station 5
_						
_						
_						
_						
_						
_						
Requested Analyses:						
Analytes:	Total Hg, To	tal Lipids				
Methods:	1631e, NOA	A 1993a		Note: Fish	Sampling was conduct	ed by NOAA
Container:	Ziplo	ck				
Additional Question	s:					
Additional QC Col	llected: No	If yes, MS sample ID:		NA		
	ple Types: NA	If yes, MSD sample ID:		NA		
	s of habitat, abundance ar	nd diversity:				
Were samples fr	ozen? Yes					

Sampler Signature:

Jon Barn-



Project Name:	USDO	C Penobscot	River	_	Project Number	:	3616166052.04.05 OB-01		
Date:		092216		_	Location ID:				
Collectors:		JB/MM		_	Lat/Long: 44.6135			-68.8413	
Media:		nole Body (V		_	Weather		Clear, h		
Species:	Rain	Rainbow Smelt (RAS)		C	ollection Method		Trawl		
	Sample II	D		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes	
OB-01 _	092216 _	RAS_WB_	01	13:34	202	45		Collected by NOAA	
OB-01 _	092216 _	RAS_WB_	02	13:34	150	18			
OB-01 _			03	13:34	195	45			
OB-01 _			04	13:34	105	5			
OB-01			05	13:34	229	71.5			
OB-01			06	12:54	190	38			
OB-01			70	12:54	211	54			
OB-01			08	12:54	185	34			
OB-01			09	12:54	182	34			
OB-01			10	12:54	212	54			
OB-01			11	12:54	212	51			
OB-01			12	12:54	189	36			
OB-01			13	12:54	145	16			
OB-01			14	12:54	196	43			
OB-01			15	12:54	177	31			
OB-01			16	12:54	201	47			
OB-01			17	12:54	181	33			
OB-01			18	12:54	184	33			
OB-01			19	12:54	160	23			
OB-01		RAS_WB_	20	12:54	193	40			
equested Analyses									
nalytes:		Total Hg, To	tal Lipids						
lethods:		1631e, NOA	A 1993a		No	te: Fish Sampling was	s conducted by NOAA scien	tist Christine Lipsky	
ontainer:		Ziplo	ck						
dditional Question	s:								
Additional QC Co	llected:	Yes	If yes, N	1S sample ID:	OB-01	_ 092216	_RAS_WB_MS 01		
QC Sam	ple Types:	MS,MSD	If yes, MS	D sample ID:	OB-01	092216	RAS_WB_MD 01		
eneral observation			, ,	·					
Were samples fi	rozen?	Yes							

Sampler Signature:

Joutton-



Project Name:	USDC Penobscot River		Project Numbe	r:	36161	66052.04.05		
Date:	092716		Location IE	):		ES-FP		
Collectors:	MM, DL		Lat/Long	g: <u>4</u> 4	4.4719	-68.8169		
Media:	Whole Body (WB)		Weathe	r:	Cal	m,cloudy		
Species:	Rainbow Smelt (RAS)	0	Collection Method		Seine net			
	Sample ID	Time	Length (mm)	Weight (grams)	Photo Number	Notes		
ES-FP _	092716 _RAS_WB_ 01	11:30	120.0	12.0		QC sample		
ES-FP _	092716 _RAS_WB_ 02	11:30	122.0	9.0				
ES-FP _	092716 _RAS_WB_ 03	11:30	107.0	7.0				
ES-FP _	092716 _RAS_WB_ 04	11:30	134.0	12.0				
ES-FP _	092716 _RAS_WB_ 05	11:30	95.0	5.0				
ES-FP _	092716 _RAS_WB_ 06	11:30	107.0	6.0				
ES-FP _	092716 _RAS_WB_ 07	11:30	107.0	6.0				
ES-FP _	092716 _RAS_WB_ 08	11:30	124.0	10.0				
ES-FP _	092716 _RAS_WB_ 09	11:30	132.0	12.0				
ES-FP _	092716 _RAS_WB_ 10	11:30	101.0	5.0				
ES-FP _	092716 _RAS_WB_ 11	11:30	127.0	11.0				
ES-FP _	092716 _RAS_WB_ 12	11:30	150.0	7.5				
ES-FP _	092716 _RAS_WB_ 13	11:30	115.0	8.0				
ES-FP _	092716 _RAS_WB_ 14	11:30	112.0	7.0				
ES-FP _	092716 _RAS_WB_ 15	11:30	101.0	5.5				
ES-FP _	092716 _RAS_WB_ 16	11:30	106.0	5.0				
ES-FP _	092716 _RAS_WB_ 17	11:30	100.0	5.0				
ES-FP _	092716 _RAS_WB_ 18	11:30	100.0	5.1				
ES-FP _	092716 _RAS_WB_ 19	11:30	97.0	4.7				
ES-FP _	092716 _RAS_WB_ 19	11:30	85.0	3.2				
equested Analyses:								
nalytes:	Total Hg, Total Lipi	ds	Note: Fish/Eel S	ampling was condu	pling was conducted according to the following SOPs included in the QA			
ethods:	1631e, NOAA 1993	la			5-12 Fish Sampling Pro			
ontainer:	Ziplock			SOP S-13 Fish Sar	mple Processing and I	Handling Procedures		
ditional Questions								
•		vec MC comple ID:		00274.0		01		
Additional QC Co		yes, MS sample ID: es, MSD sample ID:	ES-FP ES-FP	092716 092716	RAS_WB_MS RAS_WB_MD	01 01		
		· · · · ·	E3-FF	092716		01		
eneral observations	s of habitat, abundance and diver	Sity.						
Were samples fr	rozen? Yes							
Sampler	Signature: MJS. (*	1		by: Lauren Tierr	,			
Janipier	Signature. Plak		_	ate: 12/30/201	-			



Project Name:	USDC Penobscot Ri	ver	Project Number:		36161	66052.04.05		
Date:	092716		Location ID:			ES-FP		
Collectors:	MM, DL		Lat/Long:	44.4719 -68.8169				
Media:	Whole Body (WE		Weather:					
Species:	Rainbow Smelt (R/	AS)	Collection Method:		Seine net			
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
ES-FP _	092716 _RAS_WB_ 20		101.0	4.8				
ES-FP _	092716 _RAS_WB_ 20	)	99.0	4.8				
_								
_								
_								
_								
_								
_								
uested Analyses:								
lytes:	Total Hg, Tota	Il Lipids	Note: Fish/Eel Sa			e following SOPs included in the QAPP;		
thods:	1631e, NOAA	1993a			-12 Fish Sampling Pr			
itainer:	Ziplock	(		SOP S-13 Fish Sar	nple Processing and	Handling Procedures		
litional Questions								
Additional QC Coll	lected: Yes	If yes, MS sample ID:	ES-FP	092716	RAS WB MS	01		
	ple Types: MS,MSD	If yes, MSD sample ID:	ES-FP	092716	RAS_WB_MD	01		
	of habitat, abundance and			_				
Were samples fro	ozen? Yes							
Sampler	Signature: M/L	Y- F2,		by: Lauren Tierr		_		
proi		1 [ *]	Da	te: 12/30/201	5			



Project Name:	USDC	Penobscot	River	Project Number	r:	361616605	2.04.05			
Date:		092816		Location ID	):	FRB-C	)1			
Collectors:	N	/M, DL, JB		Lat/Long	g: 44	4.4729 -68.	3565			
Media:		ole Body (W		Weather		Calm				
Species:	Raint	bow Smelt (I	(AS)	Collection Method		Seine Net				
	Sample ID		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes			
FRB-01 _	092816 _F	RAS_WB_ (	1	82.0	2.7					
FRB-01 _	092816 _F	RAS_WB_ (	1	70.0	1.7					
FRB-01 _	092816 _F	RAS_WB_ (	2	81.0	2.4					
FRB-01 _			2	69.0	1.3					
FRB-01 _	092816 _F	RAS_WB_ (	3	70.0	1.8					
FRB-01 _			3	78.0	2.5					
FRB-01 _			4	72.0	1.8					
FRB-01 _			4	73.0	1.9					
FRB-01 _			5	85.0	3.2					
FRB-01 _			5	70.0	1.4					
FRB-01 _			6	91.0	3.4					
FRB-01 _	-		6	71.0	1.8					
FRB-01 _	092816 _F	RAS_WB_ (	7	86.0	2.6					
FRB-01 _			7	78.0	2.1					
FRB-01 _			8	70.0	1.7					
FRB-01 _	092816 _F		8	80.0	2.8					
FRB-01 _			9	81.0	2.4					
FRB-01 _			9	73.0	1.9					
FRB-01 _			0	77.0	2.3					
FRB-01 _		RAS_WB_ 1	0	74.0	2.0					
equested Analyses:										
nalytes:		Total Hg, To	al Lipids	Note: Fish/Eel S	ampling was condu	cted according to the follo	wing SOPs included in the QAPP;			
1ethods:		1631e, NOA	A 1993a			i-12 Fish Sampling Procedu				
ontainer:		Ziplo		•	SOP S-13 Fish Sar	mple Processing and Handl	ing Procedures			
dditional Question	s:	Zipio	,K							
Additional QC Co		No	If yes, MS sample ID:	FRB-01	092816	RAS WB MS 20				
-	nple Types:	NA	If yes, MSD sample ID:		092816	RAS WB MD 20				
eneral observations				TIND-OT	_ 052010					
			anversity.							
Were samples fi	rozen?	Yes								
				Reviewed	by: Lauren Tierr	nev				
	· Signature:	1 1 -	6			·~,				



Project Name:	USDC Penobscot	River	Project Number:		3616166052.0	04.05
Date:	092816		Location ID:		FRB-01	
Collectors:	MM, DL, JB		Lat/Long:	44	1.4729 -68.35	65
Media:	Whole Body (		Weather:		Calm	
Species:	Rainbow Smelt	(RAS)	Collection Method:		Seine Ne	t
	Sample ID	Time	Length (mm)	Weight (grams)	Photo Number	Notes
FRB-01 _	092816 _RAS_WB_	11	80.0	2.2		
FRB-01 _	092816 _RAS_WB_	11	67.0	1.3		
FRB-01 _	092816 _RAS_WB_	11	70.0	1.9		
FRB-01 _	092816 _RAS_WB_	12	83.0	2.6		
FRB-01 _	092816 _RAS_WB_	12	67.0	1.3		
FRB-01 _	092816 _RAS_WB_	13	71.0	1.6		
FRB-01 _	092816 _RAS_WB_	13	75.0	2.3		
FRB-01 _	092816 _RAS_WB_	14	80.0	2.4		
FRB-01 _	092816 _RAS_WB_	14	75.0	1.9		
FRB-01 _	092816 _RAS_WB_	15	87.0	3.1		
FRB-01 _	092816 _RAS_WB_	15	60.0	1.1		
FRB-01 _	092816 _RAS_WB_	16	76.0	2.3		
FRB-01 _	092816 _RAS_WB_	16	64.0	1.1		
FRB-01 _	092816 _RAS_WB_	17	85.0	3.0		
FRB-01 _	092816 _RAS_WB_	17	50.0	0.6		
FRB-01 _	092816 _RAS_WB_	18	91.0	3.5		
FRB-01 _	092816 _RAS_WB_	19	55.0	0.8		
FRB-01 _	092816 _RAS_WB_	19	69.0	1.6		
FRB-01 _	092816 _RAS_WB_	19	69.0	1.4		
equested Analyses:						
nalytes:	Total Hg, T	otal Lipids	Note: Fish/Eel Sar	npling was condu	cted according to the followi	ng SOPs included in the QAPP;
1ethods:	1631e, NO	AA 1993a		SOP S	-12 Fish Sampling Procedure	S
ontainer:	Zipl	ock		SOP S-13 Fish Sar	mple Processing and Handling	g Procedures
dditional Question						
Additional QC Co	llected: No	If yes, MS sample ID:	FRB-01	092816	RAS_WB_MS_20	
	nple Types: NA	If yes, MSD sample ID:	FRB-01	092816	RAS WB MD 20	
	s of habitat, abundance a		-		^	
Were samples fi	rozen? Yes					
	C		Reviewed b	y: Lauren Tierr	iey	
Sampler	· Signature: トーヘー	1-, A		te: 1/3/201		



wheeler Project Name:	USDC Penobscot R	iver	Project Number:		3616166	5052.04.05
Date:	092816		Location ID:		FR	B-01
Collectors:	MM, DL, JB		Lat/Long:	4	4.4729 -	68.3565
Media:	Whole Body (WI	3)	Weather:			alm
Species:	Rainbow Smelt (R	AS)	Collection Method:		Sein	ne Net
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes
FRB-01 _	092816 _RAS_WB_ 20	)	82.0	2.4		QC
FRB-01 _	092816 _RAS_WB_ 20	)	75.0	1.8		
FRB-01 _	092816 _RAS_WB_ 20	)	75.0	1.8		
_						
_						
_						
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_						
equested Analyses:						
nalytes:	Total Hg, Tota	al Lipids	Note: Fish/Eel Sam	npling was condu	icted according to the fo	ollowing SOPs included in the QAPP;
Aethods:	1631e, NOAA	1993a	,,		5-12 Fish Sampling Proce	-
Container:	Ziploc			SOP S-13 Fish Sa	mple Processing and Ha	indling Procedures
Additional Questions						
Additional QC Coll		If yes, MS sample ID:	FRB-01	092816	RAS WB MS 2	0
-	ple Types: MS,MSD	If yes, MSD sample ID:		092816		
	of habitat, abundance and		TIND-01	052010		0
	and a manual a bandance and					
Were samples fro	ozen? Yes					
Com. I.	C		Reviewed b	y: Lauren Tier	ney	
Sampler	Signature:	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Dat			



wheeler										
Project Name:	USDC P	enobscot River		Project Number:			3616166052.04.0	)5		
Date:		080216	-	Location ID:			OB-01			
Collectors:		DL, DC	-	Lat/Long:	44.36.376 68.50.713					
Media:		le Body (WB)	_	Weather:	Fair					
Species:	Amer	ican Eel (EEL)	_	Collection Method:	Eels Traps - Horseshoe Crabs					
	Sample ID		Time	Length (mm)	Weight (grams)	Sex F/M	Photo Number	Notes		
OB-01 _	080216	_EEL_WB_ 01	09:15	390	140.0					
_										
_										
							-			
			1							
			1							
						-				
Requested Analyses	s:									
Analytes:		Total Hg, To	otal Lipids		Note: Fish/E	el Sampling was cond	ucted according to the	following SOPs included in the QAPP;		
Methods:		1631e, NO				SOP	S-12 Fish Sampling Pro	cedures		
Container:		Ziplo				SOP S-13 Fish Sa	mple Processing and H	andling Procedures		
Additional Question	ns:									
Additional QC Colled	cted:	No		If yes, MS sample ID:			NA			
QC Samples Types:		NA	-	f yes, MSD sample ID:			NA			
Otolith?	No	1.47.5	- '	., ee, mob sample 10.			1973			
Were samples froze		Yes								
•		abundance and dive	rsitv:							
				full of chips. Also caught n	umerous green o	crabs. Out of 12 tra	ps, only one eel was	s caught, indicating low abundance.		
Samnl	ler Signature:	L X	- all a		Reviewed b			n Tierney		
2011p		£** —	2863		Da	te:	12/2	29/2016		



#### SAMPLE COLLECTION LOG EEL WHOLE BODY

wheeler										
Project Name:	USDC P	enobscot Riv	ver		Project Number:			3616166052.04.05		
Date:		080316			Location ID:			OB-05		
Collectors:		DC, DL			Lat/Long:	44.	.7055		-68.8379	
Media:		e Body (WB)			Weather:			Fair, 70's		
Species:	Amer	ican Eel (EEL	.)		Collection Method:	Eels Traps - Salted Herring/Catfood Bait				
	Sample ID			Time	Length	Weight	Sex	Photo Number	Notes	
	Sample ID			Time	(mm)	(grams)	F/M	Photo Number	Notes	
OB-05 _	080316	_EEL_WB_	01	08:16	380	120.0				
OB-05 _	080316	_EEL_WB_	02	08:30	390	150.0				
OB-05 _	080316	_EEL_WB_	03	08:40	370	100.0				
OB-05 _	080316	_EEL_WB_	04	08:44	340	90.0				
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Requested Analyses:										
Analytes:				tal Lipids		Note: Fish/Ee		lucted according to the foll 9 S-12 Fish Sampling Proced	lowing SOPs included in the QAPP;	
Methods:		16		AA 1993a				ample Processing and Hand		
Container:			Ziplo	ck			501 5 15 151 5	ample i roccosing and nam		
Additional Question	s:									
Additional QC Collec	ted:	No			If yes, MS sample ID:			NA		
QC Samples Types:		NA		II	yes, MSD sample ID:			NA		
Otolith?	No				_					
Were samples frozer	ו?	Yes	5							
General observation	s of habitat,	abundance a	and dive	rsity:						
					المحجما ومنتقف والمراجع	ou divortitu				
					Low abundance I	ow diversity				
Sample	er Signature:		LY.	- apple s		Reviewed b	oy:	Lauren 1		
Sample	. Jignature.		$\nu \sim$			Da	te:	12/29/	/2016	



wheeler										
Project Name:	USDC P	enobscot River		Project Number:			3616166052.04.0	5		
Date:		080516	_	Location ID:			BO-04			
Collectors:		DC, DL	-	Lat/Long:	44.	7553		-68.8149		
Media:	Whol	e Body (WB)	-	Weather:			Fair, 70's			
Species:	Ameri	ican Eel (EEL)	-	Collection Method:	Eels Traps - Salted Herring/Catfood Bait					
			-	—						
	Sample ID		Time	Length (mm)	Weight (grams)	Sex F/M	Photo Number	Notes		
BO-04 _	080516	_EEL_WB_ 01	08:45	400	140.0					
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Requested Analyses	:									
Analytes:		Total Hg, T			Note: Fish/Ee			ollowing SOPs included in the QAPP;		
Methods:		1631e, NO					S-12 Fish Sampling Proc ample Processing and Ha			
Container:		Zipl	ock			301 3-13 FISH 3	ample i rocessing dilu ild	maning rocedures		
Additional Question	s:									
Additional QC Collec	ted:	No		If yes, MS sample ID:			NA			
QC Samples Types:		NA		yes, MSD sample ID:			NA			
Otolith?	No		_	· _						
Were samples frozer		Yes								
General observation		abundance and dive	ersity:							
				Low abundance an	d low diversity					
		<i>1</i> 12	~1 J		Reviewed b		Lauror	Tierpoy		
Sample	er Signature:	ě. Ľ	Jungal S		Dat			n Tierney 9/2016		
					Dat	.c.	12/2	5/2010		



wheeler										
Project Name:	USDC Pe	enobscot River		Project Number:			3616166052.04.0	5		
Date:		080516	-	Location ID:			OB-05			
Collectors:		DL, MM	-	Lat/Long:	44.7	7055		-68.8379		
Media:		e Body (WB)	_	Weather:			Fair, 70's			
Species:	Ameri	ican Eel (EEL)	_	Collection Method:	Eels Traps - Salted Herring/Catfood Bait					
-				_						
	Sample ID		Time	Length (mm)	Weight (grams)	Sex F/M	Photo Number	Notes		
OB-05 _	080516	_EEL_WB_ 05	09:23	380	120.0					
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Poquested Applyces	•									
Requested Analyses	•	Total Ha T	otallinida		Note: Fish/Eo	Sampling was con	lucted according to the f	ollowing SOPs included in the QAPP;		
Analytes: Methods:		Total Hg, T			Note. FISH/EE		S-12 Fish Sampling Proc			
Container:		Ziple					ample Processing and Ha			
Additional Question	s:	Zipi								
-		No		If yes, MS sample ID:			ΝΔ			
Additional QC Collec	led:	No NA		yes, MSD sample ID:			NA			
QC Samples Types: Otolith?	No	NA	<u> </u>	yes, wiso sample iD:			NA			
Were samples frozei	No n2	Yes								
General observation			reity							
General observation	is of nabital, a	abundance and dive	isity.							
				Low abundance I	ow diversity					
		520 Annes			Dovious d b		10	Tiornov		
Sample	er Signature:	M	t May		Reviewed b			n Tierney 9/2016		
		1 15.	VVI MVI		Dat	e:	12/2	9/2010		



OB-01         099	092416 MM, DL Whole Body (WB) Atlantic Tomcod (TON Sample ID 2416 _TOM_WB_ 01 2416 _TOM_WB_ 02 2416 _TOM_WB_ 03 2416 _TOM_WB_ 04 2416 _TOM_WB_ 05	Time           12:00           12:00           12:00           12:00           12:00	Location ID Lat/Long Weather ollection Method Length (mm) 202 150 195	44.6	OB-01 03238 Fair, windy Hoop Trap Photo Number	
Media:	Whole Body (WB)           Atlantic Tomcod (TON           Sample ID           2416         _TOM_WB01           2416         _TOM_WB02           2416         _TOM_WB03           2416         _TOM_WB04	Time           12:00           12:00           12:00           12:00	Weather ollection Method Length (mm) 202 150	Weight (grams) 45	Fair, windy Hoop Trap	)
OB-01         093           OB-01         093	Atlantic Tomcod (TON           Sample ID           2416         _TOM_WB01           2416         _TOM_WB02           2416         _TOM_WB03           2416         _TOM_WB04	Time           12:00           12:00           12:00           12:00	ollection Method Length (mm) 202 150	Weight (grams) 45	Hoop Trap	
OB-01         093	Sample ID           2416         _TOM_WB01           2416         _TOM_WB02           2416         _TOM_WB03           2416         _TOM_WB04	Time           12:00           12:00           12:00           12:00	Length (mm) 202 150	Weight (grams) 45		
OB-01         099	2416     _TOM_WB_ 01       2416     _TOM_WB_ 02       2416     _TOM_WB_ 03       2416     _TOM_WB_ 04	12:00 12:00 12:00	(mm) 202 150	(grams) 45	Photo Number	Notes
OB-01         093	Z416         TOM_WB_         02           2416         TOM_WB_         03           2416         TOM_WB_         04	12:00 12:00	150	-		
OB-01         092           OB-01         093           OB-01         093           OB-01         093           OB-01         093           OB-01         093           OB-01         093	2416         _TOM_WB_ 03           2416         _TOM_WB_ 04	12:00		10		
OB-01         093           OB-01         093           OB-01         093           OB-01         093	2416 _TOM_WB_ 04		105	10		
OB-01 092 OB-01 092		12.00	190	45		
OB-01 092	2416 _TOM_WB_ 05	12:00	105	5		
		12:00	229	71.5		
00.01	2416 _TOM_WB_ 06	12:00	190	38		
	2416 _TOM_WB_ 07	12:00	211	54		
OB-01 092	2416 _TOM_WB_ 08	12:00	185	34		
OB-01 092	2416 _TOM_WB_ 09	12:00	182	34		
OB-01 092	2416 _TOM_WB_ 10	12:00	212	54		
OB-01 092	2416 _TOM_WB_ 11	12:00	212	51		
OB-01 092	2416 _TOM_WB_ 12	12:00	189	36		
OB-01 092	2416 _TOM_WB_ 13	12:00	145	16		
OB-01 092	2416 _TOM_WB_ 14	12:00	196	43		
OB-01 092	2416 _TOM_WB_ 15	12:00	177	31		
OB-01 092	2416 _TOM_WB_ 16	12:00	201	47		
OB-01 092	2416 _TOM_WB_ 17	12:00	181	33		
	2416 _TOM_WB_ 18	12:00	184	33		
OB-01 092	2416 _TOM_WB_ 19	12:00	160	23		
OB-01 092	2416 _TOM_WB_ 20	12:00	193	40		
equested Analyses:						
nalytes:	Total Hg, Total I	ipids	Note: Fish/Eel	Sampling was conduc	ted according to the following	g SOPs included in the QAPP;
/lethods:	1631e, NOAA 1	993a			12 Fish Sampling Procedures	
Container:	Ziplock			SOP S-13 Fish Sam	ple Processing and Handling	Procedures
Additional Questions:						
Additional QC Collect		If yes, MS sample ID:	OB-01	_ 092416	_TOM_WB_MS 04	
QC Sample	Types: MS,MSD	If yes, MSD sample ID:	OB-01	_ 092416	_TOM_WB_MD 04	
ieneral observations of l	habitat, abundance and d	iversity:				
Were samples frozer	n? Yes					

Sampler Signature:



Project Name:	US	DC Penobsco	t River	_	Project Number:		3616166052.	04.05		
Date:		092516			Location ID:		BO-04			
Collectors:		JB, ICD		_	Lat/Long:	44.	7553	-68.8149		
Media:		Nhole Body (		_	Weather:		Partly cloudy, cool,gust	y wind. Low 50s		
Species:	Atla	antic Tomcod	(TOM)	C	ollection Method:	Eel trap				
	Sample	e ID		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
BO-04 _	092516	_TOM_WB_	01	10:26	186	41				
BO-04 _	092516		02	10:26	144	14				
BO-04 _	092516		03	11:00	116	11				
BO-04 _	092516	_TOM_WB_	04	10:10	143	20				
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quested Analyses:				· · · · · · · · · · · · · · · · · · ·			· ·			
alytes:		Total Hg, T	otal Lipids		Note: Fish/Eel Sa	impling was conduc	ted according to the followi	ng SOPs included in the QAPP;		
thods:		1631e, NO	AA 1993a		-		12 Fish Sampling Procedure	• · · · · · · · · · · · · · · · · · · ·		
tainer: Ziplock						SOP S-13 Fish Sam	ple Processing and Handling	Procedures		
ditional Question	s:									
Additional QC Col	llected:	Yes	lf ves. M	1S sample ID:	BO-04	092516	TOM WB MS 01			
	ple Types:	MS,MSD		D sample ID:	BO-04	092516	TOM WB MD 01			
neral observation:										
	ozen?	Yes								

Sampler Signature:

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Project Name:	USDC Penobscot	River		Project Number:		3616166052	.04.05		
Date:	092516			Location ID:		OB-05			
Collectors:	JB, ICD			Lat/Long:	44.	7055	-68.8379		
Media:	Whole Body (			Weather:		Partly Cloudy/cool low			
Species:	Atlantic Tomcod	(TOM)	C	ollection Method:	Eel trap				
	Sample ID		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
OB-05 _	092516 _TOM_WB_	01	11:30	166	33.0				
OB-05 _	092516 _TOM_WB_	02	11:30	98	7.0				
OB-05 _	092516 _TOM_WB_	03	11:00	122	14.0				
OB-05 _	092516 _TOM_WB_	04	11:00	133	16.0				
OB-05 _	092516 _TOM_WB_	05							
OB-05 _		06							
OB-05 _	092516 _TOM_WB_								
OB-05 _		08							
OB-05 _		09							
OB-05 _	092516 _TOM_WB_	10							
OB-05 _		11							
OB-05 _		12							
OB-05 _	092516 _TOM_WB_	13							
uested Analyses:									
alytes:	Total Hg, T	otal Lipids		Note: Fish/Eel San	npling was conduc	ted according to the follow	ing SOPs included in the QAPP;		
thods:	1631e, NO	AA 1993a				12 Fish Sampling Procedure	· · · · · · · · · · · · · · · · · · ·		
ntainer:	Zipl				SOP S-13 Fish San	ple Processing and Handlin	g Procedures		
ditional Question									
•		If you MC -	ample ID:		092516				
Additional QC Col		If yes, MS s If yes, MSD s		OB-05 _ OB-05		TOM_WB_MS_06 TOM_WB_MD_06			
				08-05	092516				
neral observations	s of habitat, abundance a	ind diversity:							
Were samples fr	ozen? Yes								
were samples fi	02611: 165								

Sampler Signature:

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Project Name:	USDC Penobs	cot River		Project Number	:	36161660	)52.04.05
Date:	09253	16		Location ID		OB-	-05
Collectors:	MM, I	DL		Lat/Long	: 44	.7055	-68.8379
Media:	Whole Boo			Weather	:	Partly Cloudy/cool I	ow 50s, gusty wind
Species:	Atlantic Tomo		C	ollection Method	:	Eel t	
	Sample ID		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes
OB-05	092516 _TOM_W	B_ 14	11:30	166	33.0		
OB-05 _	092516 _TOM_W	B_ 15	11:30	98	7.0		
OB-05	092516 _TOM_W	B_ 16	11:00	122	14.0		
OB-05	092516 _TOM_W	B_ 17	11:00	133	16.0		
Requested Analyses	:						
Analytes:		g, Total Lipids		Note: Fish/Eel	Sampling was condu	cted according to the fol	lowing SOPs included in the QAPP;
Methods:	1631e,	NOAA 1993a			SOP S	-12 Fish Sampling Proced	dures
Container: Additional Question	Z	liplock			SOP S-13 Fish Sar	nple Processing and Han	dling Procedures
Additional Question	s:						
Additional QC Co			MS sample ID:		NA		
	ple Types: NA		ISD sample ID:		NA		
General observation	s of habitat, abundan	ce and diversity:					
Were samples fr	rozen? Yes						

Sampler Signature:



Project Name:       Object Periodical (Nee)       3000000000000000000000000000000000000	Wheeler Project Name:	1101	DC Penobscot	River		Project Number:		361616	6052.04.05
Collectors:       JB, ICD       tat/Long:       44.7055       -68.8379         Media:       Whole Body (WB)       We weather:       Really calm no wind         Species:       Atlantic Tomcod (TOM)       Collection Method:       Really calm no wind         08-05       _092616       _TOM_WB_ 18       10.05       117       12.0       Notes         08-05       _092616       _TOM_WB_ 18       10.05       117       12.0       Image: Collection Method:       Image: Collection	-	031							
Media:       Whole Body (WB)       Owerham       Really calm no wind         Species:       Atlantic Tomcod (TOM)       Collection Method:       Hoop net         Sample ID       Time       Length (mm)       Weight (grams)       Photo Number       Notes         08-05       092616       _TOM_WB_18       10:05       117       12.0						-	44.	-	
Species:         Atlantic Tomcod (TOM)         Collection Method:         Hoop net           Sample ID         Time         Length (mm)         Weight (grams)         Photo Number         Notes           08-05         092616         _TOM_WB_18         10.05         117         12.0         Image: Collection Method:         Image:	_	V		/B)					
Sample IJ         Time         (mm)         (grams)         Proto Number         Notes           OB-05	Species:				C	Collection Method:			
Analytes:       Total Hg, Total Lipids         Analytes:       Total Hg, Total Lipids         Analytes:       Total Hg, Total Lipids         Analytes:       Zipiock         Methods:       1631e, NOAA 1993a         Container:       Zipiock         Maditional QC collected:       Yes, MSS sample ID:         QC Sample Types:       If yes, MSS sample ID:         QB-05 _       092616 _       TOM_WB_MS 06         General observations of habitat, abundance and diversity:       OB-05 _       092616 _       TOM_WB_MD 06		Sample	ID		Time	-	-	Photo Number	Notes
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:	OB-05 _	092616	_TOM_WB_ :	18	10:05	117	12.0		
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Analytes:       Total Hg, Total Lipids       Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP;         Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05 _ 092616 _ TOM_WB_MS 06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _ TOM_WB_MD 06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:									
Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05       092616       TOM_WB_MS       06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05       092616       TOM_WB_MD       06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:       OB-05       092616       TOM_WB_MD       06	<b>Requested Analyses:</b>								
Methods:       1631e, NOAA 1993a       SOP S-12 Fish Sampling Procedures         Container:       Ziplock       SOP S-13 Fish Sample Processing and Handling Procedures         Additional Questions:       Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05       092616       TOM_WB_MS       06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05       092616       TOM_WB_MD       06         General observations of habitat, abundance and diversity:       General observations of habitat, abundance and diversity:       OB-05       092616       TOM_WB_MD       06	Analytes:		Total Hg, To	tal Lipids		Note: Fish/Fel Sa	mpling was conduc	ted according to the f	ollowing SOPs included in the OAPP
Container:     Ziplock     SOP S-13 Fish Sample Processing and Handling Procedures       Additional Questions:     Additional QC Collected:     Yes     If yes, MS sample ID:     OB-05     092616     _TOM_WB_MS     06       QC Sample Types:     MS,MSD     If yes, MSD sample ID:     OB-05     092616     _TOM_WB_MD     06       General observations of habitat, abundance and diversity:     Sop S-13 Fish Sample Processing and Handling Procedures						Note: Hony Let Su			
Additional Questions:         Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05       092616       _TOM_WB_MS       06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05       092616       _TOM_WB_MD       06         General observations of habitat, abundance and diversity: </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>SOP S-13 Fish Sam</td> <td>ple Processing and Ha</td> <td>indling Procedures</td>							SOP S-13 Fish Sam	ple Processing and Ha	indling Procedures
Additional QC Collected:       Yes       If yes, MS sample ID:       OB-05       092616       _TOM_WB_MS       06         QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05       092616       _TOM_WB_MD       06         General observations of habitat, abundance and diversity:       General observations       OB-05       092616       _TOM_WB_MD       06		s:							
QC Sample Types:       MS,MSD       If yes, MSD sample ID:       OB-05 _ 092616 _TOM_WB_MD 06         General observations of habitat, abundance and diversity:       Second provide the s			Ves	lfves M	Ssample ID:	OB-05	092616	TOM WB MS	06
General observations of habitat, abundance and diversity:							_		
		· · · _			·····				
Were samples frozen? Yes				,					
	Were samples fr	ozen?	Yes						
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Sampler Signature:

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wheeler								
Project Name:	USDC Penobscot River		Project Number:	3616166052.04.05 ES-FP				
Date:	092716		Location ID:					
Collectors:	MM, DL		Lat/Long:	44.	44.4719 -68.8169 Calm,cloudy			
Media:	Whole Body (WB)		Weather:					
Species:	Atlantic Tomcod (TOM)		Collection Method: Eel Trap					
	Sample ID	Time	Length (mm)	Weight (grams)	Photo Number	Notes		
ES-FP _	092716 _TOM_WB_ 01	08:15	232.0	130.0		MS/MSD		
_								
_								
_								
-								
Requested Analyses	:							
Analytes:	Total Hg, Total Lipids		Note: Fish/Eel Sa	mpling was conduc	ted according to the	following SOPs included in the QAPP;		
Methods:	1631e, NOAA 1993a				12 Fish Sampling Pro	ocedures		
Container:	Ziplock			SOP S-13 Fish Sam	ple Processing and H	landling Procedures		
Additional Question	s:							
Additional QC Co	llected: Yes If yes	, MS sample ID: ES-F	P	092716	TOM_WB_MS	01		
-		MSD sample ID: ES-F		092716	TOM_WB_MD			
	s of habitat, abundance and diversity	•	-					
Were samples fi	rozen? Yes							
Sampler	Signature: MA AM-			: Lauren Tierne		_		
Sumpler	51611010101 / h / b =	L.	Date	-: 12/30/201	Date: 12/30/2016			



Project Name:	USDC Penobscot	River	Project Number:		3616166052.0	3616166052.04.05		
Date:	092716		Location ID: Lat/Long: Weather:		ES-13			
Collectors:	JB				05425	-68.766915		
Media:	Whole Body (V	VB)			Calm, clou	dy		
Species:	Atlantic Tomcod	TOM)	Collection Method:		Eel trap			
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
ES-13 _	092716 _TOM_WB_	01 10:05	146.0	23.0				
ES-13 _	092716 _TOM_WB_	02 10:08	144.0	20.0				
ES-13 _	092716 _TOM_WB_	03 10:21	137.0	20.0				
ES-13 _	092716 _TOM_WB_	04 10:23	166.0	35.0		MS/MSD		
ES-13 _	092716 _TOM_WB_	05 10:59	147.0	24.0				
_								
_								
_								
_								
_								
_								
_								
_								
_								
equested Analyses	:							
nalytes:	Total Hg, To	otal Lipids	Note: Fish/Eel Sa	mpling was condu	cted according to the following	ng SOPs included in the QAPP;		
ethods:	1631e, NO	A 1993a			-12 Fish Sampling Procedures	•		
ontainer:	Ziplo			SOP S-13 Fish San	nple Processing and Handling	Procedures		
dditional Question		UN .						
-								
Additional QC Co		If yes, MS sample ID:	ES-13	092716	_TOM_WB_MS_04			
	ple Types: MS,MSD	If yes, MSD sample ID:	ES-13	_ 092716	_TOM_WB_MD 04			
eneral observation	s of habitat, abundance a	nd diversity:						
Were samples fr	rozen? Yes							
	-							

Sampler Signature:

Josefan -



Project Name:	USDC Penobscot F	River	Project Number	•	3616166052.04.05			
Date:	092916		Location ID		FRB-01			
Collectors:	DL, MM, ID		Lat/Long		44.465131 -68.356255			
Media:	Whole Body (W	В)	Weather		Warm,			
Species:	Atlantic Tomcod (1	rom)	<b>Collection Method</b>	:	Eel tr	rap		
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
FRB-01 _	092916 _TOM_WB_ 0	1 12:00	152.0	28.0				
_								
_								
-								
1								
Requested Analyses:								
Analytes:	Total Hg, Tot	tal Lipids	Note: Fish/Eel	Sampling was conduc	ted according to the follo	owing SOPs included in the QAPP;		
Methods:	1631e, NOA	A 1993a		SOP S-	12 Fish Sampling Procedu	ures		
Container:	Ziploo			SOP S-13 Fish Sam	ple Processing and Hand	ling Procedures		
Additional Questions								
Additional QC Col		If yes, MS sample ID:	FRB-01	092916	TOM WB MS 01			
	ple Types: MS,MSD	If yes, MSD sample ID:	FRB-01	092916	TOM_WB_MD_01			
	of habitat, abundance an	· · · · · · · · · · · · · · · · · · ·						
Were samples fr	ozen? Yes							
		121 S						
Sampler Signature: Cant C.l			Reviewed by: Lauren Tierney					



Project Name: USDC Penobscot Ri			t River		Project Number:	3616166052.04.05			
Date:	092916 JB,KB Whole Body (WB) Atlantic Tomcod (TOM)		Location ID:		ES-13				
Collectors:				Lat/Long:	44.5	507770	-68.764564		
Media:				Weather:		Sunny windy rough seas 50 deg F			
Species:			C	ollection Method:		Ee	l trap		
	Samp	le ID		Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes	
ES-13 _	092916	_TOM_WB_	06	10:01	168.0	34.0	Na	ES13_092916_TOM_WB_06 Trap 08	
ES-13 _	092916	_TOM_WB_		10:05	204.0	63.0	Na	ES13_092916_TOM_WB_07 Trap 24	
ES-13 _	092916	_TOM_WB_	08	10:15	194.0	62.0	Na	ES13_092916_TOM_WB_08 Trap 15	
_									
_									
_				┨───┤──			_		
				<u> </u>					
_				+ +					
				+ +					
_									
_									
_									
Requested Analyses									
Analytes:		Total Hg, T	otal Lipids		Note: Fish/Fel Sa	moling was condu	cted according to the f	ollowing SOPs included in the QAPP;	
, Methods:		1631e, NC			Note: Hany Let Su		-12 Fish Sampling Proc		
Container:		Zipl					nple Processing and Ha		
Additional Question	c.	Ζιρι	UCK						
Additional QC Co		No		1S sample ID:					
	ple Types:			D sample ID:		Na			
General observation	s of nabita	t, abundance a	and diversity:						
Were samples fr	ozen?	Yes							

Sampler Signature:



Project Name:	USDC Penobscot	River	Project Number:		3616166052.04.05 ES-13 44.506945 -68.765933 Sunny calm 50 deg F			
Date:	093016		Location ID:					
Collectors:	JB,KB		Lat/Long:	44.5				
Media:	Whole Body (W		Weather:					
Species:	Atlantic Tomcod (	TOM)	Collection Method:		Ee	el trap		
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
ES-13 _	093016 _TOM_WB_ (	09 11:24	238.0	110.0	Na	ES13_092916_TOM_WB_09 Trap 42		
ES-13 _	093016 _TOM_WB_ :		189.0	48.0	Na	ES13_092916_TOM_WB_10 Trap 16		
ES-13 _	093016 _TOM_WB	11 12:24	139.0	22.0	Na	ES13_092916_TOM_WB_11 Trap 16		
_								
					-			
_								
_								
_								
_								
_								
_								
equested Analyses:								
nalytes:	Total Hg, To	tal Lipids	Note: Fish/Eel S	ampling was condu	cted according to the f	following SOPs included in the OAPP:		
lethods:	1631e, NOA	A 1993a	Note: Fish/Eel Sampling was conducted according to the following SOPs included in the QAPP; SOP S-12 Fish Sampling Procedures					
ontainer:	Ziplo			SOP S-13 Fish San	nple Processing and Ha	andling Procedures		
dditional Questions								
Additional QC Col		If you MS completion		NIA				
-	lected: No ple Types: Na	If yes, MS sample ID: If yes, MSD sample ID:		NA				
	s of habitat, abundance ar							
		ia aiversity.						
Were samples fr	ozen? Yes							
Sampler	Signature:	Reviewed b	oy: Lauren Tierne	<u>у</u>				



Project Name:	USDC Penobscot	t River	Project Number:		3616166052.04.05			
Date:	100116		Location ID:	ES-FP				
Collectors:	JB		Lat/Long:	44.4	44.471106 -68.80596			
Media:	Whole Body (		Weather:		Overcast, co			
Species:	Species: Atlantic Tomcod (TOM)		Collection Method:		Eel tra	DS		
	Sample ID	Time	<b>Length</b> (mm)	Weight (grams)	Photo Number	Notes		
ES-FP _	100116 _TOM_WB_	02 09:11	209.0	76.0				
_					_			
_								
_								
_								
_								
_								
_								
Requested Analyses:								
Analytes:	Total Hg, T	otal Lipids	Note: Fish/Eel Sa	mpling was condu	cted according to the follow	ving SOPs included in the QAPP;		
Methods:	1631e, NO	AA 1993a			-12 Fish Sampling Procedur	-		
Container:	Ziple			SOP S-13 Fish San	nple Processing and Handlin	ng Procedures		
Additional Questions	:							
Additional QC Coll		If yes, MS sample ID:		NA				
	ple Types: NA	If yes, MSD sample ID:	NA					
	of habitat, abundance a							
Were samples fro	ozen? Yes							
Sampler S	Signature: Agor	Habber -		y: Lauren Tierne				

evie Date: 1/3/2017



# APPENDIX B-2 2016 Field Activity Photographs

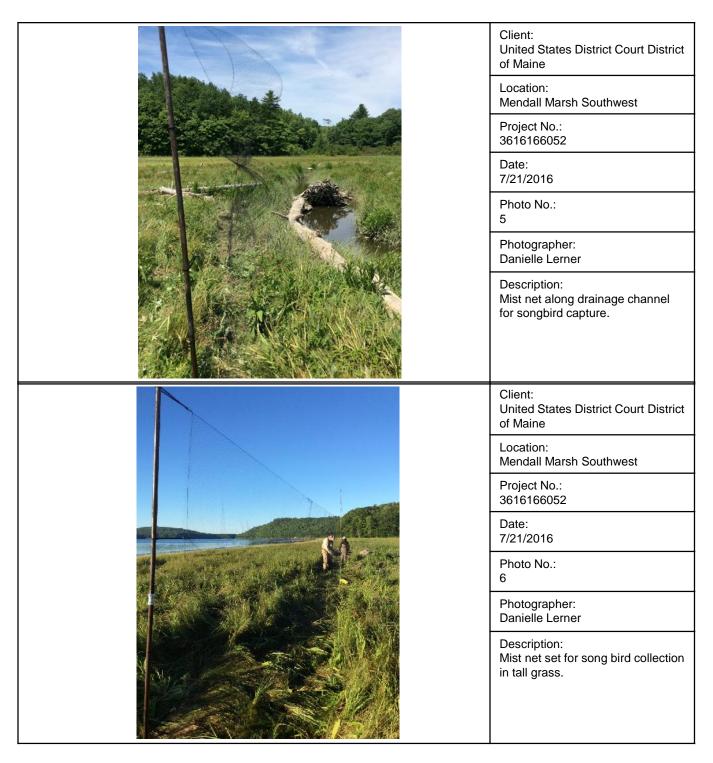


Client: United States District Court District of Maine
Location: Addison
Project No.: 3616166052
Date: 7/21/2016
Photo No.: 1
Photographer: Louise Venne
Description: Terrestrial Insects and spiders being captured in butterfly nets.
Client: United States District Court District of Maine
United States District Court District
United States District Court District of Maine Location:
United States District Court District of Maine Location: Addison Project No.:
United States District Court District of Maine Location: Addison Project No.: 3616166052 Date:
United States District Court District of Maine Location: Addison Project No.: 3616166052 Date: 7/21/2016 Photo No.:



	Client: United States District Court District of Maine
	Location: Mendall Marsh Southwest
2.5	Project No.: 3616166052
Se Se Msw	Date: 7/26/2016
IN MA	Photo No.: 3
	Photographer: Julie Pallozzi
	Description: Spider sample MMSW-C_072616_SPI_WB_03.
the second second	Client: United States District Court District of Maine
	Location: Mendall Marsh Southwest
	Project No.: 3616166052
	Date: 7/21/2016
A little and a second second	Photo No.: 4
	Photographer: Danielle Lerner
	Description: Mist net set for songbird capture.

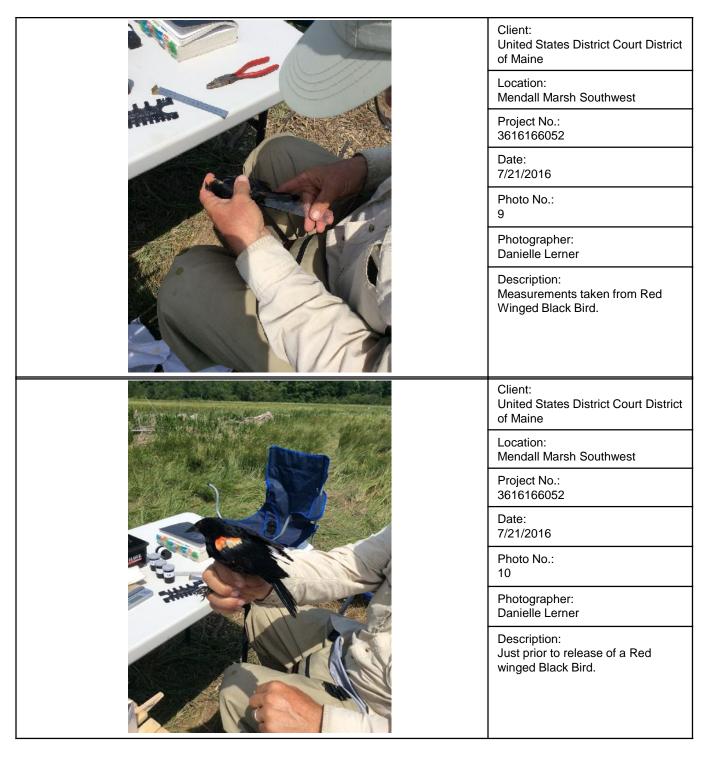




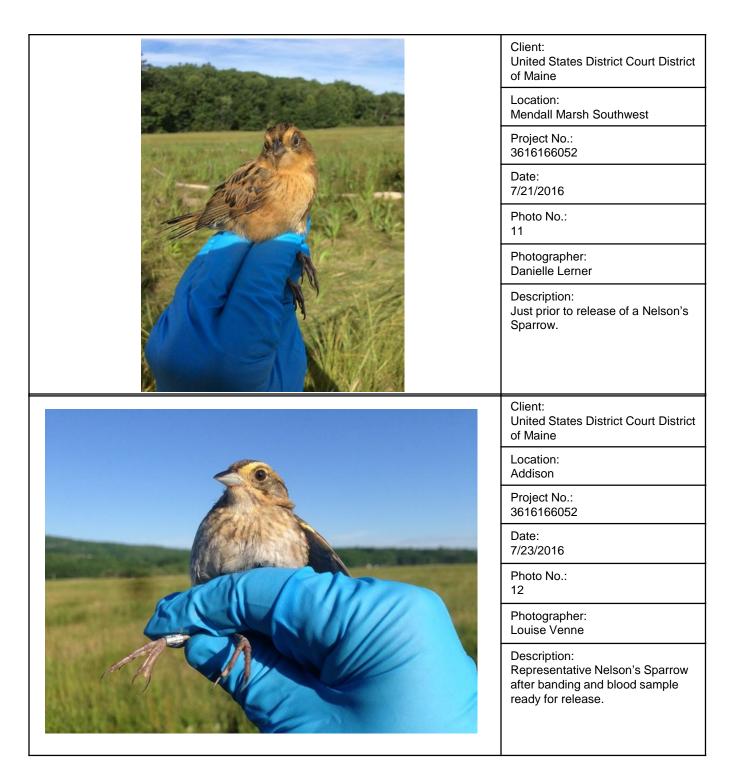


Client: United States District Court District of Maine
Location: Mendall Marsh Southwest
Project No.: 3616166052
Date: 7/21/2016
Photo No.: 7
Photographer: Danielle Lerner
Description: Nelson's Sparrow being sized for banding.
Client: United States District Court District of Maine
Location: Mendall Marsh Southwest
 Project No.: 3616166052
Date: 7/21/2016
Photo No.:
8
8 Photographer: Danielle Lerner





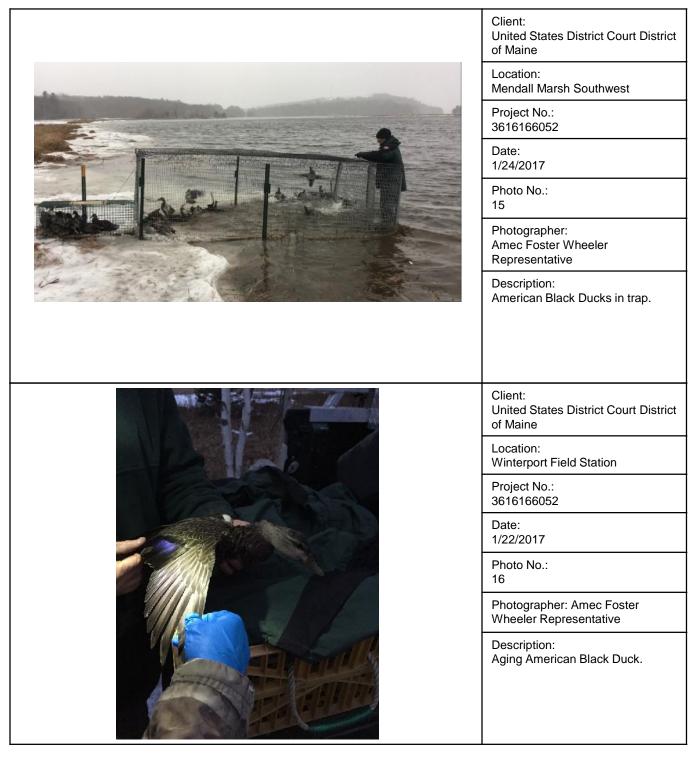




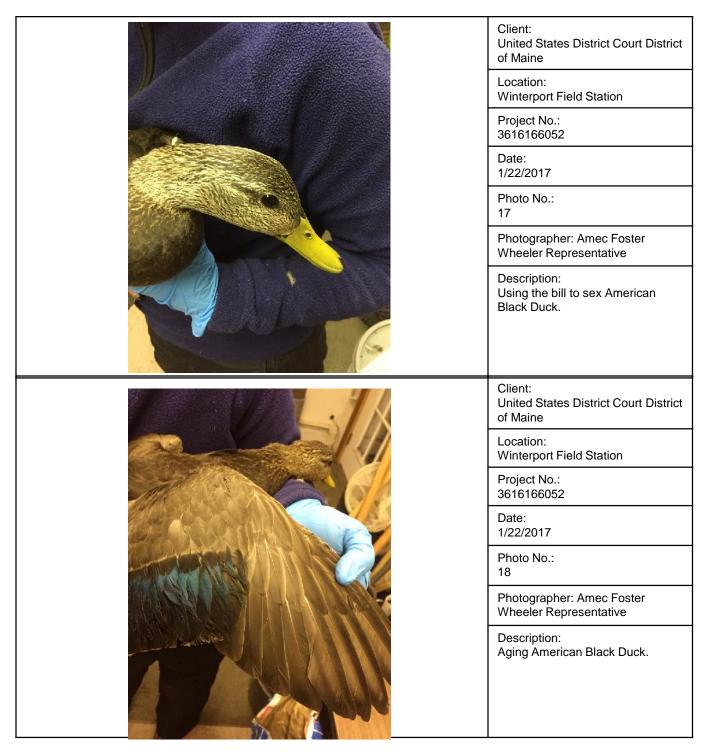


	Client: United States District Court District of Maine
山山之子、西方的人、河南北江市	Location: Searsport Penobscot study area
	Project No.: 3616166052
	Date: 1/23/2017
	Photo No.: 13
	Photographer: Louise Venne
	Description: Representative American Black Duck trap baited with corn
	Client: United States District Court District of Maine
	United States District Court District
	United States District Court District of Maine Location:
	United States District Court District of Maine Location: South Verona Island Project No.:
	United States District Court District of Maine Location: South Verona Island Project No.: 3616166052 Date:
<image/>	United States District Court District of Maine Location: South Verona Island Project No.: 3616166052 Date: 1/27/2017 Photo No.:

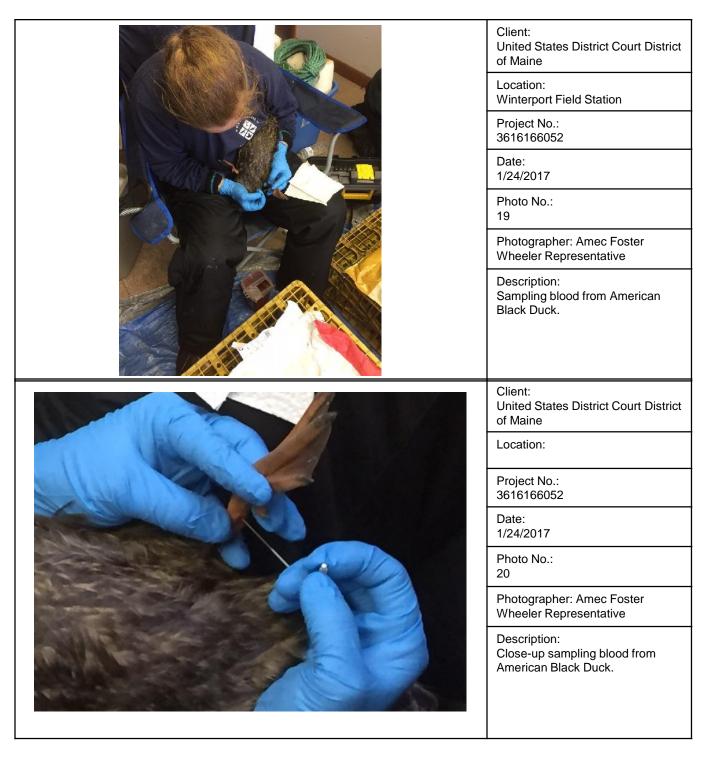














	Client: United States District Court District of Maine
	Location: Winterport Field Station
	Project No.: 3616166052
	Date: 1/24/2017
5	Photo No.: 21
i de la companya de la compa	Photographer: Amec Foster Wheeler Representative
	Description: Polychaete sample: ES-13_072716_POL_WB_02
	Client: United States District Court District of Maine
	United States District Court District
	United States District Court District of Maine Location: Onboard lobster boat in
	United States District Court District of Maine Location: Onboard lobster boat in Penobscot River study area Project No.:
	United States District Court District of Maine Location: Onboard lobster boat in Penobscot River study area Project No.: 3616166052 Date:
	United States District Court District of Maine Location: Onboard lobster boat in Penobscot River study area Project No.: 3616166052 Date: 9/25/2016 Photo No.:

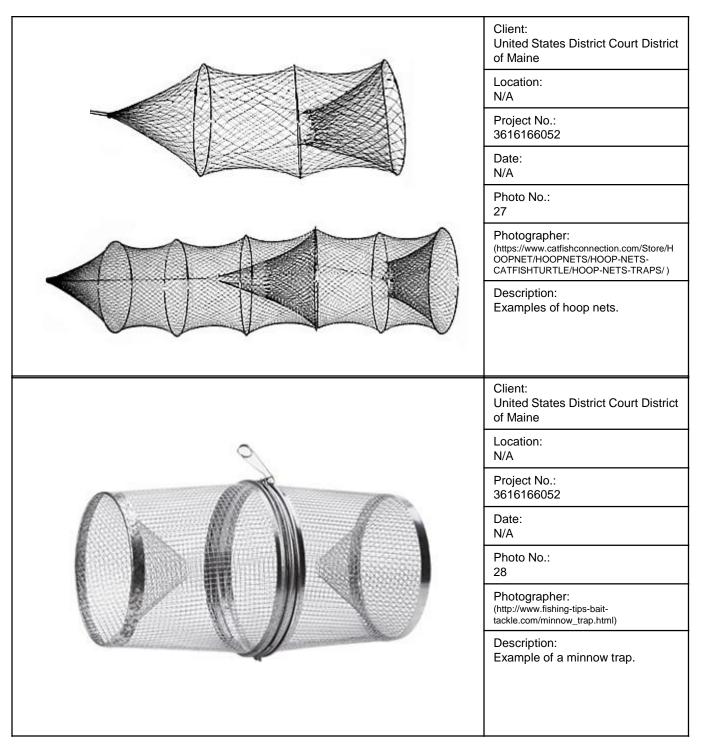


	Client: United States District Court District of Maine
Ziploc	Location: OB-01
58-01-0A2116-RAS-WB-19 68-01-0A2116-RAS-WB-19	Project No.: 3616166052
68-5-	Date: 9/21/2016
	Photo No.: 23
	Photographer: Jonathan Bourdeau
	Description: Rainbow smelt sample OB-01- 092116_RAS_WB_19
Jperson and the second s	
	Client: United States District Court District of Maine
	Location: South Verona Island
	Project No.: 3616166052
	Date: 9/29/2016
	Photo No.: 24
	Photographer: Kendra Bavor
	1



	Client: United States District Court District of Maine
	Location: Mendall Marsh
	Project No.: 3616166052
	Date: 9/29/2016
	Photo No.: 25
	Photographer: Kendra Bavor
	Description: Tomcod fish caught in minnow trap.
	Client: United States District Court District of Maine
Ziploc	Location: OB-05
	Project No.: 3616166052
	Date: 9/23/2016
	Photo No.: 26
	Photographer: Jonathan Bourdeau







Client: United States District Court District of Maine Location: N/A Project No.: 3616166052 Date: N/A Photo No.: 29 Photographer: (http://www.fishermansheadquarters.com/im ages/Equipment/Douglas/walking_a_seine_ net.gif) Description: Diagram of a seine net.
Client: United States District Court District of Maine Location: Onboard lobster boat in
Penobscot River study area
Project No.: 3616166052
Date: 9/26/2016
Photo No.: 30



Client: United States District Court District of Maine
Location: Onboard lobster boat in Penobscot River study area
Project No.: 3616166052
Date: 9/24/2016
Photo No.: 31
Photographer: Jonathan Bourdeau
Description: Lobsters and crabs in lobster trap.
Client: United States District Court District of Maine
Location: Onboard lobster boat in Penobscot River study area
Project No.: 3616166052
Date: 9/26/2016
Photo No.: 32
Photographer: Jonathan Bourdeau
Description: Lobsters in lobster trap.



Client: United States District Court District of Maine
Location: Onboard lobster boat in Penobscot River study area
Project No.: 3616166052
Date: 9/26/2016
Photo No.: 33
Photographer: Jonathan Bourdeau
Description: Representative lobster.
Client: United States District Court District of Maine
United States District Court District
United States District Court District of Maine Location: Onboard lobster boat in
United States District Court District of Maine Location: Onboard lobster boat in Penobscot River study area Project No.:
United States District Court District of Maine Location: Onboard lobster boat in Penobscot River study area Project No.: 3616166052 Date:
United States District Court District of Maine Location: Onboard lobster boat in Penobscot River study area Project No.: 3616166052 Date: 9/24/2016 Photo No.:



Client: United States District Court District of Maine
Location: Onboard lobster boat in Penobscot River study area
Project No.: 3616166052
Date: 9/24/2016
Photo No.: 35
Photographer: Jonathan Bourdeau
Description: Breeding female lobster with eggs
Client: United States District Court District of Maine
United States District Court District
United States District Court District of Maine Location: Onboard lobster boat in
United States District Court District of Maine Location: Onboard lobster boat in Penobscot River study area Project No.:
United States District Court District of Maine Location: Onboard lobster boat in Penobscot River study area Project No.: 3616166052 Date:
United States District Court District of Maine Location: Onboard lobster boat in Penobscot River study area Project No.: 3616166052 Date: 9/22/2016 Photo No.:



# APPENDIX C 2016 Biota Data Summary Tables

### Appendix C-1 2016 Terrestrial Insect Analytical Results

#### 2016 Biota Monitoring Report Penobscot River

Parameter Name: Analytic Method: Units:		EPA	cury 1631 I/g	Methyl Mercury EPA 1630 ng/g		Lipids NOAA Lipids 1993 %		
Location ID	ion ID Sample Date Sample ID Result Qualifier		Result	Qualifier	Result	Qualifier		
W17-Nb	7/19/2016	W17-N_071916_TIN_02_WB	25.5	J	118	J	3.4	
W17-Nb	7/19/2016	W17-N_071916_TIN_05_WB	29.2	J	28	J	3.9	
W17-Nb	7/19/2016	W17-N_071916_TIN_04_WB	30.4	J	21.7	J	2.8	
W17-Nb	7/19/2016	W17-N_071916_TIN_03_WB	50	J	56.7	J	3.4	
W17-Nb	7/19/2016	W17-N_071916_TIN_01_WB	254	J	64.2	J	0.99	
MMSE-1a	7/20/2016	MMSE-1_072016_TIN_01_WB	16.5	J	91.2	J	4.1	
MMSE-1a	7/20/2016	MMSE-1_072016_TIN_05_WB	56.3		6.9		3.5	
MMSE-1a	7/20/2016	MMSE-1_072016_TIN_04_WB	222		100		2.9	
MMSE-1a	7/20/2016	MMSE-1_072016_TIN_02_WB	327		68.3		3.1	
MMSE-1a	7/20/2016	MMSE-1_072016_TIN_03_WB	354		241		2.9	
MMSW-Cb	7/20/2016	MMSW-C_072016_TIN_02_WB	33.8		28.3		3.4	
MMSW-Cb	7/20/2016	MMSW-C_072016_TIN_04_WB	43.8		16.8		3.5	
MMSW-Cb	7/20/2016	MMSW-C_072016_TIN_03_WB	47.5		33.5		3.4	
MMSW-Cb	7/20/2016	MMSW-C_072016_TIN_05_WB	52.9		26.8		3.5	
MMSW-Cb	7/20/2016	MMSW-C_072016_TIN_06_WB	59.4		7.9		3.2	
ADD-01c	7/21/2016	ADD-01_072116_TIN_04_WB	7.37	J	12.7	J	3.4	
ADD-01c	7/21/2016	ADD-01_072116_TIN_05_WB	8.85	J	18.6	J	5.1	
ADD-01c	7/21/2016	ADD-01_072116_TIN_03_WB	16.8	J	31.2	J	3.3	
ADD-01c	7/21/2016	ADD-01_072116_TIN_02_WB	49.2		2.5	J	3.4	
ADD-01c	7/21/2016	ADD-01_072116_TIN_01_WB	63.2		24.9	J	3.5	

Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

#### Data Qualifier Definitions:

J = The detected concentration is considered estimated

#### Appendix C-2 2016 Spider Analytical Results

#### 2016 Biota Monitoring Report Penobscot River

Parameter Name: Analytic Method: Units:		Method: EPA 1631			Mercury 1630 g/g	Lipids NOAA Lipids 1993 %		
Location ID			Result	Qualifier	Result	Qualifier		
W17-Nb	7/24/2016	W17-N_072416_SPI_02_WB	197	J	278	J	2.6	
W17-Nb	7/24/2016	W17-N_072416_SPI_05_WB	213	J	642	J		
W17-Nb	7/25/2016	W17-N_072616_SPI_04_WB	263	J	480	J		
W17-Nb	7/25/2016	W17-N_072616_SPI_01_WB	431		210		2.1	
W17-Nb	7/25/2016	W17-N_072616_SPI_03_WB	420		282			
MMSE-1a	7/22/2016	MMSE-01_072216_SPI_01_WB	198		174		2.6	
MMSE-1a	7/25/2016	MMSE-1_072616_SPI_04_WB	200		136			
MMSE-1a	7/23/2016	MMSE-01_072316_SPI_03_WB	205		166		3.4	
MMSE-1a	7/22/2016	MMSE-01_072216_SPI_05_WB	208		181			
MMSE-1a	7/22/2016	MMSE-01_072216_SPI_02_WB	771		244		4.5	
MMSW-Cb	7/20/2016	MMSW-C_072016_SPI_01_WB	166	J	274	J		
MMSW-Cb	7/20/2016	MMSW-C_072016_SPI_02_WB	200		201		2.7	
MMSW-Cb	7/20/2016	MMSW-C_072016_SPI_05_WB	219		217			
MMSW-Cb	7/25/2016	MMSW-C_072616_SPI_03_WB	257	J	330	J	3	
MMSW-Cb	7/20/2016	MMSW-C_072016_SPI_04_WB	270		151			
ADD-01c	7/21/2016	ADD-01_072116_SPI_01_WB	25.9		14.6	J	1.1	
ADD-01c	7/21/2016	ADD-01_072116_SPI_05_WB	30.5		22.9	J	2.3	
ADD-01c	7/21/2016	ADD-01_072116_SPI_03_WB	31.4		22.9	J	1.6	
ADD-01c	7/21/2016	ADD-01_072116_SPI_02_WB	43.3		24	J	1.1	
ADD-01c	7/21/2016	ADD-01_072116_SPI_04_WB	44.2	J	60.2	J	2	

Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

#### Data Qualifier Definitions:

J = The detected concentration is considered estimated

#### Appendix C-3 2016 Nelson's Sparrow Blood Analytical Results

### 2016 Biota Monitoring Report Penobscot River

		Parameter Name:	Mercury
		Analytic Method:	EPA 1631
	-	Units:	ng/g
Location ID	Sample Date	Sample ID	Result
W17-Nq	7/19/2016	W17-N_071916_NSS_04_BL	734
W17-Na	7/20/2016	W17-N_072016_NSS_09_BL	1560
W17-Nq	7/20/2016	W17-N_072016_NSS_07_BL	1630
W17-Nq	7/20/2016	W17-N_072016_NSS_14_BL	1960
W17-Nq	7/20/2016	W17-N_072016_NSS_06_BL	2140
W17-Nk	7/25/2016	W17-N_072516_NSS_16_BL	2920
W17-Nj	7/19/2016	W17-N_071916_NSS_08_BL	3990
W17-Nn	7/25/2016	W17-N_072516_NSS_15_BL	5000
W17-Nh	7/25/2016	W17-N_072516_NSS_10_BL	5240
W17-Nm	7/24/2016	W17-N_072416_NSS_12_BL	5350
W17-Np	7/19/2016	W17-N_071916_NSS_02_BL	6020
W17-Nq	7/19/2016	W17-N_071916_NSS_11_BL	6680
W17-Nq	7/19/2016	W17-N_071916_NSS_01_BL	7570
W17-Np	7/19/2016	W17-N_071916_NSS_03_BL	9590
W17-Ni	7/19/2016	W17-N_071916_NSS_05_BL	10300
MMSE-1c	7/25/2016	MMSE-1_072516_NSS_18_BL	4020
MMSE-1i	7/21/2016	MMSE-1_072116_NSS_04_BL MMSE-1_072116_NSS_07_BL	4130
MMSE-1b MMSE-1b	7/21/2016		4330 4590
MMSE-1b	7/21/2016	MMSE-1_072116_NSS_06_BL MMSE-1_072316_NSS_12_BL	4390 4880
MMSE-1b	7/23/2016 7/21/2016	MMSE-1_072316_NSS_12_BL MMSE-1 072116 NSS 08 BL	5730
MMSE-11	7/21/2016	MMSE-1_072116_NSS_06_BL	5730
MMSE-1f	7/23/2016	MMSE-1_072116_NSS_02_BL MMSE-1_072316_NSS_13_BL	6130
MMSE-1j	7/23/2016	MMSE-1_072316_NSS_11_BL	6220
MMSE-15	7/23/2016	MMSE-1_072316_NSS_15_BL	6380
MMSE-1i	7/21/2016	MMSE-1_072116_NSS_01_BL	7450
MMSE-1j	7/23/2016	MMSE-1_072316_NSS_16_BL	7520
MMSE-1d	7/25/2016	MMSE-1 072516 NSS 17 BL	8070
MMSE-1i	7/21/2016	MMSE-1_072116_NSS_05_BL	8450
MMSE-1h	7/21/2016	MMSE-1_072116_NSS_03_BL	9240
MMSW-Ca	7/24/2016	MMSW-C 072416 NSS 09 BL	3280
MMSW-Cd	7/19/2016	MMSW-C 071916 NSS 02 BL	4230
MMSW-Cc	7/20/2016	MMSW-C 072016 NSS 05 BL	5240
MMSW-Ca	7/24/2016	MMSW-C_072416_NSS_11_BL	5310
MMSW-Ca	7/23/2016	MMSW-C 072316 NSS 08 BL	5670
MMSW-Ca	7/23/2016	MMSW-C_072316_NSS_10_BL	5840
MMSW-Ce	7/19/2016	MMSW-C_071916_NSS_03_BL	5910
MMSW-Ca	7/20/2016	MMSW-C_072016_NSS_06_BL	6620
MMSW-Ca	7/20/2016	MMSW-C_072016_NSS_04_BL	6770
MMSW-Ca	7/20/2016	MMSW-C_072016_NSS_07_BL	7630
MMSW-Cc	7/19/2016	MMSW-C_071916_NSS_01_BL	7790
ADD-01a	7/25/2016	ADD-01_072516_NSS_06_BL	290
ADD-01d	7/25/2016	ADD-01_072616_NSS_09_BL	296
ADD-01g	7/22/2016	ADD-01_072216_NSS_03_BL	317
ADD-01g	7/22/2016	ADD-01_072216_NSS_05_BL	382
ADD-01i	7/25/2016	ADD-01_072616_NSS_08_BL	434
ADD-01f	7/25/2016	ADD-01_072616_NSS_10_BL	467
ADD-01i	7/25/2016	ADD-01_072616_NSS_11_BL	469
ADD-01e	7/22/2016	ADD-01_072216_NSS_04_BL	558
ADD-01h	7/21/2016	ADD-01_072116_NSS_02_BL	566
ADD-01a	7/25/2016	ADD-01_072516_NSS_07_BL	637
ADD-01j	7/21/2016	ADD-01_072116_NSS_01_BL	740

#### Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

#### Data Qualifier Definitions:

## Appendix C-4 2016 Red-winged Blackbird Blood Analytical Results

### 2016 Biota Monitoring Report Penobscot River

		Parameter Name: Analytic Method: Units:	
Location ID	Sample Date	Sample ID	Result
W17-NI	7/20/2016	W17-N_072016_RWB_02_BL	99.4
W17-NI	7/20/2016	W17-N_072016_RWB_03_BL	2500
W17-No	7/19/2016	W17-N_071916_RWB_01_BL	5850

#### Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

### Data Qualifier Definitions:

#### Appendix C-5 2017 American Black Duck Blood Analytical Results

### 2016 Biota Monitoring Report Penobscot River

		Parameter Name: Analytic Method:	Mercury EPA 1631
		Units:	ng/g
Location ID	Sample Date	Sample ID	Result
MMBKD-01	1/22/2017	MMBKD-01 012217 ABD 02 BL	157
MMBKD-01	1/24/2017	MMBKD-01_012217_ABD_02_BL	242
MMBKD-01	1/22/2017	MMBKD-01 012217 ABD 01 BL	264
MMBKD-01	1/24/2017	MMBKD-01 012417 ABD 05 BL	284
MMBKD-01	1/24/2017	MMBKD-01 012417 ABD 13 BL	330
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_13_BL	379
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_04_BL	409
MMBKD-01	1/24/2017	MMBKD-01 012417 ABD 08 BL	504
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_00_BL	533
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_07_BL	558
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_07_BL	589
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_14_BL	628
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_13_BL	701
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_06_BL	961
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_00_BL	1400
ES-13	2/5/2017	ES-13 020517 ABD 07 BL	1400
ES-13	2/5/2017	ES-13 020517_ABD_07_BL ES-13 020517 ABD 14 BL	120
ES-13	2/5/2017	ES-13 020517 ABD 09 BL	209
ES-13 ES-13	1/24/2017	ES-13_020317_ABD_09_BL ES-13_012417_ABD_02_BL	310
ES-13 ES-13	2/5/2017	ES-13_012417_ABD_02_BL ES-13_020517_ABD_08_BL	319
ES-13 ES-13	1/24/2017	ES-13_020317_ABD_06_BL ES-13_012417_ABD_01_BL	331
ES-13 ES-13		ES-13_012417_ABD_01_BL ES-13_020517_ABD_10_BL	362
ES-13 ES-13	2/5/2017 2/5/2017	ES-13_020517_ABD_10_BL ES-13_020517_ABD_11_BL	302
ES-13 ES-13	2/5/2017	ES-13_020517_ABD_11_BL ES-13_020517_ABD_06_BL	396
ES-13 ES-13	2/5/2017	ES-13_020517_ABD_00_BL ES-13_020517_ABD_05_BL	403
ES-13 ES-13	2/5/2017	ES-13_020517_ABD_05_BL ES-13_020517_ABD_15_BL	403
ES-13 ES-13	2/5/2017	ES-13_020517_ABD_15_BL ES-13_020517_ABD_13_BL	408
ES-13 ES-13	1/28/2017	ES-13_020517_ABD_13_BL ES-13_012817_ABD_03_BL	472 487
ES-13 ES-13		ES-13_020517_ABD_03_BL ES-13_020517_ABD_12_BL	596
ES-13 ES-13	2/5/2017	ES-13_020517_ABD_12_BL ES-13_012817_ABD_04_BL	700
	1/28/2017		
FRB-01	1/24/2017	FRB-01_012417_ABD_06_BL	11.3
FRB-01	1/24/2017	FRB-01_012417_ABD_03_BL	31.2
FRB-01	2/2/2017	FRB-01_020217_ABD_13_BL	31.5
FRB-01	2/2/2017	FRB-01_020217_ABD_15_BL	32.6
FRB-01	1/24/2017	FRB-01_012417_ABD_02_BL	35.5
FRB-01	2/2/2017	FRB-01_020217_ABD_12_BL	41.5
FRB-01	1/24/2017	FRB-01_012417_ABD_09_BL	43.3
FRB-01	1/24/2017	FRB-01_012417_ABD_01_BL	43.5
FRB-01	1/24/2017	FRB-01_012417_ABD_08_BL	53.1
FRB-01	1/24/2017	FRB-01_012417_ABD_07_BL	53.8
FRB-01	1/24/2017	FRB-01_012417_ABD_10_BL	69
FRB-01	1/24/2017	FRB-01_012417_ABD_05_BL	70.6
FRB-01	2/2/2017	FRB-01_020217_ABD_11_BL	83.9
FRB-01	2/2/2017	FRB-01_020217_ABD_14_BL	89.3
FRB-01	1/24/2017	FRB-01_012417_ABD_04_BL	109

#### Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

#### Data Qualifier Definitions:

## Appendix C-6 2017 American Black Duck Muscle Analytical Results

### 2016 Biota Monitoring Report Penobscot River

		Parameter Name: Analytic Method: Units:	Mere EPA ng	1631	Lipi NOAA Lip %	ids 1993
Location ID	Sample Date	Sample ID	Result	Qualifier	Result	Qualifier
MMBKD-01	1/23/2017	MMBKD-01_012217_ABD_02_MU	121		2.5	
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_05_MU	170		1.6	
MMBKD-01	1/23/2017	MMBKD-01_012217_ABD_01_MU	177		2.9	
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_04_MU	325		2.6	
MMBKD-01	1/24/2017	MMBKD-01_012417_ABD_03_MU	854		1.1	
ES-13	1/24/2017	ES-13_012417_ABD_02_MU	243		2	
ES-13	1/28/2017	ES-13_012817_ABD_03_MU	371		2.1	
ES-13	2/5/2017	ES-13_020517_ABD_05_MU	441		2.1	
ES-13	1/28/2017	ES-13_012817_ABD_04_MU	507		2.7	
ES-13	1/24/2017	ES-13_012417_ABD_01_MU	717	J	1.9	
FRB-01	1/25/2017	FRB-01_012417_ABD_06_MU	10.1		2.3	
FRB-01	1/26/2017	FRB-01_012417_ABD_10_MU	41.7		1.5	
FRB-01	1/25/2017	FRB-01_012417_ABD_08_MU	44.8		1.7	
FRB-01	1/25/2017	FRB-01_012417_ABD_07_MU	46.5		1.6	
FRB-01	1/26/2017	FRB-01_012417_ABD_09_MU	47.6		2	

#### Notes:

ng/g = nanograms per gram

#### Data Qualifier Definitions:

J = The detected concentration is considered estimated

Prepared by/Date: <u>RMB 4/7/17</u> Checked by Date <u>BPW 4/7/17</u>

#### Appendix C-7 2016 Polychaete Analytical Results

#### 2016 Biota Monitoring Report Penobscot River

	Parameter N Analytic Me		Mere EPA ng		Methyl I EPA ng		Lipi NOAA Lip %	ids 1993
Location ID	Sample Date	Sample ID	Result	Qualifier	Result	Qualifier	Result	Qualifier
BO-04b	7/26/2016	BO-04_072616_POL_01_WB	142	J	8.6	J		
BO-04b	7/26/2016	BO-04_072616_POL_02_WB	176	J	6.9	J		
BO-04b	7/26/2016	BO-04_072616_POL_03_WB	185	J	9.2	J		
BO-04b	7/26/2016	BO-04_072616_POL_05_WB	256	J	8.3	J		
BO-04b	7/26/2016	BO-04_072616_POL_04_WB	311	J	7.3	J		
OB-05k	7/26/2016	OB-05_072616_POL_04_WB	189	J	12.8	J		
OB-05k	7/26/2016	OB-05_072616_POL_03_WB	205	J	11	J		
OB-05k	7/26/2016	OB-05_072616_POL_01_WB	215	J	11.7	J		
OB-05k	7/26/2016	OB-05_072616_POL_02_WB	224	J	12.8	J		
OB-05k	7/26/2016	OB-05_072616_POL_05_WB	230	J	12.7	J		
MMPOLYa	7/29/2016	MMPOLY-01_072916_POL_01_WB	69.9	J	1.4	J		
MMPOLYa	7/29/2016	MMPOLY-01_072916_POL_04_WB	142	J	8.2	J		
MMPOLYa	7/29/2016	MMPOLY-01_072916_POL_03_WB	190	J	11.1	J		
MMPOLYa	7/29/2016	MMPOLY-01_072916_POL_05_WB	239	J	9.9	J		
MMPOLYa	7/29/2016	MMPOLY-01_072916_POL_02_WB	321	J	11.3	J		
ES-13h	7/27/2016	ES-13_072716_POL_03_WB	12.8		< 1.7	U	3.4	
ES-13h	7/27/2016	ES-13_072716_POL_01_WB	20.8		3.3		1.8	
ES-13h	7/27/2016	ES-13_072716_POL_04_WB	24.7		1.1	J	4.3	
ES-13h	7/27/2016	ES-13_072716_POL_02_WB	45.2		1.5	J	3.3	
ES-13h	7/27/2016	ES-13_072716_POL_05_WB	71.3		4.1			
ES-FPc	7/28/2016	ES-FP_072816_POL_04_WB	19.4	J	5.3	J	1.2	J
ES-FPc	7/28/2016	ES-FP_072816_POL_02_WB	24	J	4.4	J		
ES-FPc	7/28/2016	ES-FP_072816_POL_03_WB	24.5	J	< 1.6	UJ		
ES-FPc	7/28/2016	ES-FP_072816_POL_01_WB	34.6	J	6.2	J		
ES-FPc	7/28/2016	ES-FP_072816_POL_05_WB	46.1	J	15.7	J		
FRB-01a	9/28/2016	FRB-01_092816_POL_02_WB	< 0.661	U	< 1.7	U	1.5	
FRB-01a	9/28/2016	FRB-01_092816_POL_03_WB	< 0.668	U	< 1.9	U	1.4	
FRB-01a	9/28/2016	FRB-01_092816_POL_01_WB	< 0.691	U	< 1.7	U	2	
FRB-01a	9/28/2016	FRB-01_092816_POL_05_WB	< 0.739	U	< 1.8	U	1.4	
FRB-01a	9/28/2016	FRB-01_092816_POL_04_WB	3.18		< 2	U		

#### Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

#### Data Qualifier Definitions:

J = The detected concentration is considered estimated

 $\ensuremath{\mathsf{U}}$  = The target parameter was not detected above the method detection limit

UJ = The target parameter was not detected, and the reporting limit is considered to be an estimate

## Appendix C-8 2016 Blue Mussel Analytical Results

### 2016 Biota Monitoring Report Penobscot River

		Parameter Name:	Mercury	Lipids
		Analytic Method: Units:	EPA 1631	NOAA Lipids 1993 %
La satism ID	Ormula Data		ng/g	
Location ID ES-15a	Sample Date	Sample ID ES-15_092716_BLM_13_WB	Result 44.8	Result
ES-15a ES-15a	9/27/2016 9/27/2016	ES-15_092716_BLM_13_WB ES-15_092716_BLM_15_WB	44.0	-
ES-15a	9/27/2016	ES-15_092716_BLM_15_WB	45.0	-
ES-15a	9/27/2016	ES-15_092716_BLM_01_WB	48.1	
ES-15a	9/27/2016	ES-15_092716_BLM_16_WB	49.7	
ES-15a	9/27/2016	ES-15_092716_BLM_17_WB	49.8	
ES-15a	9/27/2016	ES-15 092716 BLM 20 WB	51.1	
ES-15a	9/27/2016	ES-15_092716_BLM_03_WB	55.3	
ES-15a	9/27/2016	ES-15_092716_BLM_12_WB	55.4	
ES-15a	9/27/2016	ES-15_092716_BLM_04_WB	55.5	
ES-15a	9/27/2016	ES-15_092716_BLM_09_WB	58.2	
ES-15a	9/27/2016	ES-15_092716_BLM_18_WB	62.7	
ES-15a	9/27/2016	ES-15_092716_BLM_19_WB	64.1	
ES-15a	9/27/2016	ES-15_092716_BLM_14_WB	64.8	
ES-15a	9/27/2016	ES-15_092716_BLM_06_WB	65	
ES-15a	9/27/2016	ES-15_092716_BLM_05_WB	65.6	
ES-15a	9/27/2016	ES-15_092716_BLM_08_WB	67.4	
ES-15a	9/27/2016	ES-15_092716_BLM_10_WB	68	
ES-15a	9/27/2016	ES-15_092716_BLM_02_WB	77	
ES-15a	9/27/2016	ES-15_092716_BLM_07_WB	96	
ES-13k	9/30/2016	ES-13_093016_BLM_07_WB	48.4	
ES-13k	9/30/2016	ES-13_093016_BLM_04_WB	48.9	
ES-13k	9/30/2016	ES-13_093016_BLM_16_WB	48.9	
ES-13k	9/30/2016	ES-13_093016_BLM_02_WB	53.9	_
ES-13k	9/30/2016	ES-13_093016_BLM_08_WB	54.8	_
ES-13k	9/30/2016	ES-13_093016_BLM_17_WB	56.5	_
ES-13k	9/30/2016	ES-13_093016_BLM_18_WB	56.7	
ES-13k	9/30/2016	ES-13_093016_BLM_14_WB	58.5	
ES-13k	9/30/2016	ES-13_093016_BLM_11_WB	59.2	
ES-13k ES-13k	9/30/2016	ES-13_093016_BLM_13_WB ES-13_093016_BLM_20_WB	59.6 62.1	
ES-13k ES-13k	9/30/2016 9/30/2016	ES-13_093016_BLM_01_WB	63	_
ES-13k ES-13k	9/30/2016	ES-13_093016_BLM_01_WB	63.5	-
ES-13k	9/30/2016	ES-13_093016_BLM_12_WB	66.4	
ES-13k	9/30/2016	ES-13 093016 BLM 15 WB	69	
ES-13k	9/30/2016	ES-13_093016_BLM_06_WB	70.8	
ES-13k	9/30/2016	ES-13 093016 BLM 09 WB	73.5	
ES-13k	9/30/2016	ES-13_093016_BLM_19_WB	75.2	
ES-13k	9/30/2016	ES-13_093016_BLM_05_WB	76.9	
ES-13k	9/30/2016	ES-13_093016_BLM_03_WB	106	
ES-03a	9/27/2016	ES-03 092716 BLM 14 WB	51	
ES-03a	9/27/2016	ES-03_092716_BLM_02_WB	57.8	2.4
ES-03a	9/27/2016	ES-03_092716_BLM_03_WB	60.4	1.5
ES-03a	9/27/2016	ES-03_092716_BLM_11_WB	61.1	
ES-03a	9/27/2016	ES-03_092716_BLM_20_WB	68.6	
ES-03a	9/27/2016	ES-03_092716_BLM_08_WB	69	0.64
ES-03a	9/27/2016	ES-03_092716_BLM_10_WB	71	1.6
ES-03a	9/27/2016	ES-03_092716_BLM_07_WB	71.4	2.7
ES-03a	9/27/2016	ES-03_092716_BLM_17_WB	76	
ES-03a	9/27/2016	ES-03_092716_BLM_12_WB	77.3	
ES-03a	9/27/2016	ES-03_092716_BLM_04_WB	77.7	2.3
ES-03a	9/27/2016	ES-03_092716_BLM_01_WB	80.4	
ES-03a	9/27/2016	ES-03_092716_BLM_13_WB	81.4	0.4
ES-03a	9/27/2016	ES-03_092716_BLM_05_WB	81.9	2.1
ES-03a	9/27/2016	ES-03_092716_BLM_19_WB	87.5	
ES-03a ES-03a	9/27/2016	ES-03_092716_BLM_18_WB ES-03_092716_BLM_09_WB	88.9	4 4
	9/27/2016		<u> </u>	1.4
ES-03a ES-03a	9/27/2016	ES-03_092716_BLM_15_WB ES-03 092716 BLM 06 WB	116	1.5
ES-03a ES-03a	9/27/2016	ES-03_092716_BLM_06_WB ES-03_092716_BLM_16_WB	118	6.1
L0-03a	9/27/2016	ES-FP 092616 BLM 05 WB	40	

#### Appendix C-8 2016 Blue Mussel Analytical Results

#### 2016 Biota Monitoring Report Penobscot River

		Parameter Name: Analytic Method: Units:	Mercury EPA 1631 ng/g	Lipids NOAA Lipids 1993 %
Location ID	Sample Date	Sample ID	Result	Result
ES-FPd	9/26/2016	ES-FP_092616_BLM_13_WB	41.3	
ES-FPd	9/26/2016	ES-FP_092616_BLM_07_WB	45.2	
ES-FPd	9/26/2016	ES-FP_092616_BLM_15_WB	45.4	
ES-FPd	9/26/2016	ES-FP_092616_BLM_03_WB	48.5	
ES-FPd	9/26/2016	ES-FP_092616_BLM_14_WB	52	
ES-FPd	9/26/2016	ES-FP_092616_BLM_01_WB	55.4	
ES-FPd	9/26/2016	ES-FP_092616_BLM_19_WB	55.7	
ES-FPd	9/26/2016	ES-FP_092616_BLM_06_WB	55.8	
ES-FPd	9/26/2016	ES-FP_092616_BLM_20_WB	58.6	
ES-FPd	9/26/2016	ES-FP_092616_BLM_16_WB	59.1	
ES-FPd	9/26/2016	ES-FP_092616_BLM_04_WB	62.4	
ES-FPd	9/26/2016	ES-FP_092616_BLM_17_WB	63.7	
ES-FPd	9/26/2016	ES-FP_092616_BLM_18_WB	64.3	
ES-FPd	9/26/2016	ES-FP_092616_BLM_12_WB	73.4	
ES-FPd	9/26/2016	ES-FP_092616_BLM_10_WB	74.1	
ES-FPd	9/26/2016	ES-FP_092616_BLM_11_WB	79.3	
ES-FPd	9/26/2016	ES-FP_092616_BLM_08_WB	80.4	
ES-FPd	9/26/2016	ES-FP_092616_BLM_02_WB	86	
ES-FPd	9/26/2016	ES-FP_092616_BLM_09_WB	111	

#### Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

#### Data Qualifier Definitions:

### Appendix C-9 2016 Lobster Tail Analytical Results

### 2016 Biota Monitoring Report Penobscot River

		Parameter Name: Analytic Method: Units:	Mercury EPA 1631 ng/g	Lipids NOAA Lipids 1993 %
Location ID	Sample Date	Sample ID	Result	Result
L10-52b	9/24/2016	L10-52 092416 LOB 18 TA	142	0.56
L10-52a	9/24/2016	L10-52_092416_LOB_03_TA	149	0.29
L10-52a	9/24/2016	L10-52_092416_LOB_02_TA	152	0.48
L10-52c	9/24/2016	L10-52_092416_LOB_07_TA	158	0.47
L10-52a	9/24/2016	L10-52_092416_LOB_05_TA	159	1.4
L10-52c	9/24/2016	L10-52_092416_LOB_11_TA	161	0.7
L10-52a L10-52c	9/24/2016	L10-52_092416_LOB_01_TA L10-52 092416 LOB 06 TA	<u>169</u> 185	0.41
L10-52b	9/24/2016 9/24/2016	L10-52_092416_LOB_06_TA	200	0.53
L10-52b	9/24/2016	L10-52_092416_LOB_16_TA	200	0.33
L10-52b	9/24/2016	L10-52_092416_LOB_19_TA	212	0.61
L10-52b	9/24/2016	L10-52_092416_LOB_13_TA	254	0.91
L10-52c	9/24/2016	L10-52_092416_LOB_10_TA	263	0.73
L10-52c	9/24/2016	L10-52_092416_LOB_08_TA	364	1.4
L10-52c	9/24/2016	L10-52_092416_LOB_09_TA	365	0.51
L10-52b	9/24/2016	L10-52_092416_LOB_15_TA	418	1
L10-52b	9/24/2016	L10-52_092416_LOB_14_TA	438	0.68
L10-52a	9/24/2016	L10-52_092416_LOB_04_TA	527	0.5
L10-52c	9/24/2016	L10-52_092416_LOB_12_TA	772	0.66
L10-52b	9/24/2016	L10-52_092416_LOB_20_TA	786	0.57
SVE-01b	9/24/2016	SVE-01_092416_LOB_10_TA SVE-01_092416_LOB_07_TA	<u> </u>	0.62
SVE-01a SVE-01a	9/24/2016 9/24/2016	SVE-01_092416_LOB_07_TA SVE-01_092416_LOB_04_TA	<u>181</u> 222	0.51 0.73
SVE-01a SVE-01b	9/24/2016	SVE-01_092416_LOB_04_TA SVE-01_092416_LOB_12_TA	222	0.73
SVE-01b SVE-01a	9/24/2016	SVE-01_092416_LOB_02_TA	265	0.47
SVE-01a	9/24/2016	SVE-01_092416_LOB_02_TA	203	0.45
SVE-01a	9/24/2016	SVE-01_092416_LOB_03_TA	277	0.47
SVE-01a	9/24/2016	SVE-01 092416 LOB 08 TA	278	0.64
SVE-01d	9/24/2016	SVE-01_092416_LOB_17_TA	308	0.51
SVE-01a	9/24/2016	SVE-01_092416_LOB_01_TA	344	0.47
SVE-01b	9/24/2016	SVE-01_092416_LOB_14_TA	388	0.64
SVE-01d	9/24/2016	SVE-01_092416_LOB_18_TA	395	0.49
SVE-01b	9/24/2016	SVE-01_092416_LOB_11_TA	450	0.57
SVE-01c	9/24/2016	SVE-01_092416_LOB_16_TA	459	0.52
SVE-01a	9/24/2016	SVE-01_092416_LOB_05_TA	512	0.59
SVE-01a	9/24/2016	SVE-01_092416_LOB_09_TA SVE-01_092416_LOB_06_TA	<u>512</u> 523	0.52
SVE-01a SVE-01b	9/24/2016 9/24/2016	SVE-01_092416_LOB_06_TA SVE-01_092416_LOB_15_TA	674	0.28 0.39
SVE-01b SVE-01d	9/24/2016	SVE-01_092416_LOB_19_TA	747	0.39
SVE-01d	9/24/2016	SVE-01_092416_LOB_20_TA	1320	0.66
CPJLa	9/24/2016	CPJL-092416 LOB 04 TA	98.8	0.66
CPJLc	9/24/2016	CPJL-092416 LOB 13 TA	136	0.95
CPJLa	9/24/2016	CPJL-092416_LOB_07_TA	140	0.9
CPJLa	9/24/2016	CPJL-092416_LOB_01_TA	142	0.88
CPJLa	9/24/2016	CPJL-092416_LOB_09_TA	147	0.86
CPJLb	9/24/2016	CPJL-092416_LOB_18_TA	150	0.88
CPJLa	9/24/2016	CPJL-092416_LOB_05_TA	155	0.63
CPJLc	9/24/2016	CPJL-092416_LOB_11_TA	159	0.91
CPJLc	9/24/2016	CPJL-092416_LOB_10_TA	166	0.82
CPJLa CPUb	9/24/2016	CPJL-092416_LOB_08_TA CPJL-092416_LOB_17_TA	179	0.89
CPJLb CPJLa	9/24/2016 9/24/2016	CPJL-092416_LOB_17_TA CPJL-092416_LOB_03_TA	<u>180</u> 183	0.83
CPJLa	9/24/2016	CPJL-092416_LOB_03_TA CPJL-092416_LOB_02_TA	183	0.73
CPJLc	9/24/2016	CPJL-092416_LOB_02_TA CPJL-092416_LOB_12_TA	207	0.98
CPJLb	9/24/2016	CPJL-092416_LOB_19_TA	207	0.96
CPJLb	9/24/2016	CPJL-092416_LOB_16_TA	255	0.84
CPJLb	9/24/2016	CPJL-092416_LOB_14_TA	259	0.81
CPJLa	9/24/2016	CPJL-092416_LOB_06_TA	289	0.77
CPJLb	9/24/2016	CPJL-092416_LOB_15_TA	337	0.65
CPJLb	9/24/2016	CPJL-092416_LOB_20_TA	391	0.99
L9-45c	9/24/2016	L9-45_092416_LOB_10_TA	74	0.7
L9-45c	9/24/2016	L9-45_092416_LOB_04_TA	101	1.1
L9-45c	9/24/2016	L9-45_092416_LOB_01_TA	108	0.65
L9-45b	9/24/2016	L9-45_092416_LOB_15_TA	129	0.83
L9-45b	9/24/2016	L9-45_092416_LOB_16_TA	150	0.98
L9-45c	9/24/2016	L9-45_092416_LOB_05_TA	152	0.57
L9-45b L9-45c	9/24/2016 9/24/2016	L9-45_092416_LOB_14_TA L9-45_092416_LOB_09_TA	<u>155</u> 155	1.1 0.52
				0.02

#### Appendix C-9 2016 Lobster Tail Analytical Results

#### 2016 Biota Monitoring Report Penobscot River

		Parameter Name: Analytic Method: Units:	Mercury EPA 1631 ng/g	Lipids NOAA Lipids 1993 %
Location ID	Sample Date	Sample ID	Result	Result
L9-45c	9/24/2016	L9-45 092416 LOB 07 TA	162	1
L9-45b	9/24/2016	L9-45 092416 LOB 18 TA	166	0.7
L9-45b	9/24/2016	L9-45 092416 LOB 12 TA	171	0.78
L9-45b	9/24/2016	L9-45_092416_LOB_19_TA	173	0.75
L9-45c	9/24/2016	L9-45_092416_LOB_02_TA	191	0.58
L9-45c	9/24/2016	L9-45_092416_LOB_06_TA	194	0.99
L9-45a	9/24/2016	L9-45_092416_LOB_20_TA	195	0.77
L9-45b	9/24/2016	L9-45_092416_LOB_17_TA	218	0.66
L9-45c	9/24/2016	L9-45_092416_LOB_11_TA	219	0.77
L9-45c	9/24/2016	L9-45_092416_LOB_08_TA	242	0.7
L9-45c	9/24/2016	L9-45_092416_LOB_03_TA	254	0.62
HB-01e	9/26/2016	HBI-01_092616_LOB_09_TA	44.4	0.73
HB-01h	9/24/2016	HBI-01_092416_LOB_03_TA	46.9	0.83
HB-01g	9/26/2016	HBI-01_092616_LOB_16_TA	54	0.94
HB-01f	9/24/2016	HBI-01_092416_LOB_04_TA	68.7	1
HB-01h	9/24/2016	HBI-01_092416_LOB_02_TA	76.9	0.91
HB-01a	9/24/2016	HBI-01_092416_LOB_08_TA	82.9	0.99
HB-01d	9/24/2016	HBI-01_092416_LOB_06_TA	92.7	1
HB-01c	9/26/2016	HBI-01_092616_LOB_12_TA	96.7	0.76
HB-01e	9/26/2016	HBI-01_092616_LOB_13_TA	98.4	1.1
HB-01f	9/24/2016	HBI-01_092416_LOB_05_TA	100	0.94
HB-01b	9/24/2016	HBI-01_092416_LOB_07_TA	103	0.81
HB-01a	9/26/2016	HBI-01_092616_LOB_20_TA	107	1.2
HB-01a	9/26/2016	HBI-01_092616_LOB_18_TA	108	0.6
HB-01h	9/26/2016	HBI-01_092616_LOB_10_TA	117	0.64
HB-01g	9/26/2016	HBI-01_092616_LOB_15_TA	119	0.93
HB-01a	9/26/2016	HBI-01_092616_LOB_19_TA	122	0.95
HB-01f	9/26/2016	HBI-01_092616_LOB_17_TA	127	0.97
HB-01g	9/26/2016	HBI-01_092616_LOB_14_TA	128	0.85
HB-01f	9/26/2016	HBI-01_092616_LOB_11_TA	129	1
HB-01h	9/24/2016	HBI-01_092416_LOB_01_TA	139	0.72

#### Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

#### Data Qualifier Definitions:

## Appendix C-10 2016 Mummichog Analytical Results

#### 2016 Biota Monitoring Report Penobscot River

		Parameter Name: Analytic Method:		Lipids NOAA Lipids 1993
		Units:	ng/g	%
Location ID	Sample Date	Sample ID	Result	Result
BO-04c	10/3/2016	BO-04 100316 MUM 10 WB	52.4	3.4
BO-04c	10/3/2016	BO-04_100316_MUM_13_WB	55	3.2
BO-04c	10/3/2016	BO-04 100316 MUM 02 WB	57.7	3.5
BO-04c	10/3/2016	BO-04 100316 MUM 15 WB	58.1	3.4
BO-04c	10/3/2016	BO-04_100316_MUM_19_WB	59.3	2.9
BO-04c	10/3/2016	BO-04_100316_MUM_09_WB	60.6	2.9
BO-04c	10/3/2016	BO-04_100316_MUM_16_WB	61.7	3.4
BO-04c	10/3/2016	BO-04_100316_MUM_20_WB	63.9	4.4
BO-04c	10/3/2016	BO-04_100316_MUM_14_WB	66.7	4.6
BO-04c	10/3/2016	BO-04_100316_MUM_04_WB	67.3	4
BO-04c	10/3/2016	BO-04_100316_MUM_08_WB	75	3.5
BO-04c	10/3/2016	BO-04_100316_MUM_06_WB	76	3
BO-04c	10/3/2016	BO-04_100316_MUM_07_WB	76	3.2
BO-04c	10/3/2016	BO-04_100316_MUM_18_WB	85.9	2.9
BO-04c	10/3/2016	BO-04_100316_MUM_11_WB	94.3	2.2
BO-04c	10/3/2016	BO-04_100316_MUM_17_WB	108	3.5
BO-04c	10/3/2016	BO-04_100316_MUM_03_WB	146	3.2
BO-04c	10/3/2016	BO-04_100316_MUM_12_WB	200	4.1
BO-04c	10/3/2016	BO-04_100316_MUM_05_WB	214	2.6
BO-04c	10/3/2016	BO-04_100316_MUM_01_WB	234	3.6
OB-05r	10/3/2016	OB-05_100316_MUM_15_WB	48.9	2.6
OB-05r	10/3/2016	OB-05_100316_MUM_18_WB	66.2	3.4
OB-05r	10/3/2016	OB-05_100316_MUM_12_WB	69.4	3.6
OB-05r	10/3/2016	OB-05_100316_MUM_14_WB	71.3	4.1
OB-05r	10/3/2016	OB-05_100316_MUM_17_WB	71.6	4.4
OB-05r	9/25/2016	OB-05_092516_MUM_04_WB	82.1	2.5
OB-05r	10/3/2016	OB-05_100316_MUM_08_WB	83.2	2.6
OB-05r	10/3/2016	OB-05_100316_MUM_09_WB	83.4	3.6
OB-05r	10/3/2016	OB-05_100316_MUM_20_WB	87.6	2.5
OB-05r	10/3/2016	OB-05_100316_MUM_11_WB	88.2	2.2
OB-05r	10/3/2016	OB-05_100316_MUM_16_WB	89.9	3
OB-05r	10/3/2016	OB-05_100316_MUM_10_WB	92.6	3.8
OB-05r	10/3/2016	OB-05_100316_MUM_19_WB	95.8	3.9
OB-05r	9/25/2016	OB-05_092516_MUM_05_WB	96.1	3.8
OB-05r	10/3/2016	OB-05_100316_MUM_13_WB	98.5	3.4
OB-05r OB-05r	10/3/2016	OB-05_100316_MUM_07_WB OB-05_092516_MUM_01_WB	<u> </u>	3.2 3.5
OB-051 OB-05r	9/25/2016 9/25/2016	OB-05_092516_MUM_01_WB	113	3.1
OB-051 OB-05r		OB-05_092516_MUM_06_WB	113	2.6
OB-051 OB-05r	9/25/2016 9/25/2016	OB-05_092516_MUM_02_WB	114	3.7
OB-031 OB-01c	9/25/2016	OB-01_092516_MUM_02_WB	123	4.5
MMMC-01b		MMMC-01_092316_MUM_04_WB	121	4.3
MMMC-01b	9/23/2016 9/23/2016	MMMC-01_092316_M0M_04_WB	121	4.2
MMMC-01b	9/23/2016	MMMC-01_092316_MUM_03_WB	140	5.6
MMMC-01a	9/23/2016	MMMC-01_092316_MUM_01_WB	249	3.5
FRB-01b	9/28/2016	FRB-01_092816_MUM_19_WB	4.94	4.4
FRB-01b	9/28/2016	FRB-01_092816_MUM_04_WB	5.16	4.4
FRB-01b	9/28/2016	FRB-01_092816_MOM_04_WB	5.76	3.6
FRB-01b	9/28/2016	FRB-01_092816_MUM_08_WB	6.49	4.1
FRB-01b	9/28/2016	FRB-01_092816_MUM_03_WB	6.77	4.4
FRB-01b	9/28/2016	FRB-01_092816_MUM_05_WB	6.9	5.7
FRB-01b	9/28/2016	FRB-01_092816_MUM_09_WB	7.05	4.5
FRB-01b	9/28/2016	FRB-01 092816 MUM 12 WB	7.67	5.2
FRB-01b	9/28/2016	FRB-01 092816 MUM 06 WB	7.83	4.5
FRB-01b	9/28/2016	FRB-01_092816_MUM_14_WB	7.9	4.8
FRB-01b	9/28/2016	FRB-01_092816_MUM_16_WB	8.01	4.8
FRB-01b	9/28/2016	FRB-01_092816_MUM_15_WB	8.19	4.6
FRB-01b	9/28/2016	FRB-01_092816_MUM_10_WB	8.37	5.5
FRB-01b	9/28/2016	FRB-01_092816_MUM_20_WB	8.43	4.2
FRB-01b	9/28/2016	FRB-01_092816_MUM_17_WB	8.58	4.8
I KD-010				

#### Appendix C-10 2016 Mummichog Analytical Results

#### 2016 Biota Monitoring Report Penobscot River

		Parameter Name: Analytic Method: Units:	Mercury EPA 1631 ng/g	Lipids NOAA Lipids 1993 %
Location ID	Sample Date	Sample ID	Result	Result
FRB-01b	9/28/2016	FRB-01_092816_MUM_13_WB	9.38	4.8
FRB-01b	9/28/2016	FRB-01_092816_MUM_02_WB	9.83	4.3
FRB-01b	9/28/2016	FRB-01_092816_MUM_18_WB	11.1	4.3
FRB-01b	9/28/2016	FRB-01_092816_MUM_11_WB	13.5	5.2

#### Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

#### Data Qualifier Definitions:

#### Appendix C-11 2016 Rainbow Smelt Analytical Results

#### 2016 Biota Monitoring Report Penobscot River

		Parameter Name:	Mercury	Lipids
		Analytic Method:	EPA 1631	NOAA Lipids 1993
		Units:	ng/g	%
Location ID	Sample Date	Sample ID	Result	Result
OB-05c	9/21/2016	OB-05 092116 RAS 01 WB	201	3.7
OB-04	9/21/2016	OB-01 092116 RAS 01 WB	44.5	3.3
OB-04	9/21/2016	OB-01_092116_RAS_04_WB	47.5	1.1
OB-04	9/21/2016	OB-01_092116_RAS_02_WB	54.9	8.2
OB-04	9/21/2016	OB-01_092116_RAS_03_WB	55.6	6
OB-04	9/21/2016	OB-01_092116_RAS_05_WB	81.9	10
OB-01e	9/21/2016	OB-01_092116_RAS_14_WB	31.8	2.3
OB-01e	9/21/2016	OB-01_092116_RAS_15_WB	33.6	6.1
OB-01e	9/21/2016	OB-01_092116_RAS_18_WB	44.2	4.2
OB-01e	9/21/2016	OB-01_092116_RAS_19_WB	58.2	3.7
OB-01r	9/21/2016	OB-01_092116_RAS_08_WB OB-01_092116_RAS_13_WB	75.3	3.4
OB-01e OB-01e	9/21/2016 9/21/2016	OB-01_092116_RAS_13_WB OB-01_092116_RAS_20_WB	79.5 82.8	5.3 3.1
OB-01e	9/21/2016	OB-01_092116_KAS_20_WB	90.8	4
OB-010 OB-01e	9/21/2016	OB-01_092116 RAS 10 WB	94.6	4.2
OB-01e	9/21/2016	OB-01_092116 RAS 11 WB	95.4	5.2
OB-01e	9/21/2016	OB-01_092116_RAS_16_WB	102	9.8
OB-01e	9/21/2016	OB-01_092116_RAS_17_WB	103	2.7
OB-01e	9/21/2016	OB-01_092116_RAS_12_WB	116	3.9
OB-01r	9/21/2016	OB-01_092116_RAS_07_WB	140	4.5
OB-01r	9/21/2016	OB-01_092116_RAS_06_WB	146	4.8
ES-15	9/21/2016	ES-13_092116_RAS_01_WB	38.4	8
ES-FPb	9/27/2016	ES-FP_092716_RAS_18_WB	27.1	4.3
ES-FPb	9/27/2016	ES-FP_092716_RAS_14_WB	31.4	4.4
ES-FPb	9/27/2016	ES-FP_092716_RAS_19_WB	33.4	2.9
ES-FPb	9/27/2016	ES-FP_092716_RAS_10_WB	35.4	7.7
ES-FPb ES-FPb	9/27/2016	ES-FP_092716_RAS_07_WB ES-FP 092716 RAS 20 WB	<u>36.2</u> 39.8	5.5 3.7
ES-FPb	9/27/2016 9/27/2016	ES-FP_092716_RAS_20_WB ES-FP 092716 RAS 17 WB	44.4	4.2
ES-FPb	9/27/2016	ES-FP 092716 RAS 06 WB	44.4	4.2
ES-FPb	9/27/2016	ES-FP 092716 RAS 03 WB	49.3	7.9
ES-FPb	9/27/2016	ES-FP_092716_RAS_12_WB	54.7	5.5
ES-FPb	9/27/2016	ES-FP_092716_RAS_13_WB	56	5.3
ES-FPb	9/27/2016	ES-FP_092716_RAS_05_WB	60.5	7.1
ES-FPb	9/27/2016	ES-FP_092716_RAS_16_WB	60.7	5.3
ES-FPb	9/27/2016	ES-FP_092716_RAS_15_WB	64	5.2
ES-FPb	9/27/2016	ES-FP_092716_RAS_11_WB	74.1	4
ES-FPb	9/27/2016	ES-FP_092716_RAS_09_WB	78.4	9
ES-FPb	9/27/2016	ES-FP_092716_RAS_04_WB	84.6	9.3
ES-FPb ES-FPb	9/27/2016	ES-FP_092716_RAS_01_WB ES-FP 092716 RAS 08 WB	93.6 108	8 3.8
ES-FPb	9/27/2016 9/27/2016	ES-FP_092716_RAS_08_WB ES-FP 092716 RAS 02 WB	113	9.5
FRB-01d	9/28/2016	FRB-01 092816 RAS 07 WB	5.07	9.5
FRB-01d	9/28/2016	FRB-01 092816 RAS 01 WB	5.46	3.7
FRB-01d	9/28/2016	FRB-01_092816_RAS_17_WB	5.72	4.1
FRB-01d	9/28/2016	FRB-01_092816_RAS_02_WB	5.96	3.2
FRB-01d	9/28/2016	FRB-01_092816_RAS_16_WB	6.19	3.7
FRB-01d	9/28/2016	FRB-01_092816_RAS_04_WB	6.37	2.8
FRB-01d	9/28/2016	FRB-01_092816_RAS_11_WB	6.46	2.4
FRB-01d	9/28/2016	FRB-01_092816_RAS_05_WB	6.5	3.9
FRB-01d	9/28/2016	FRB-01_092816_RAS_20_WB	6.52	3.8
FRB-01d	9/28/2016	FRB-01_092816_RAS_12_WB	6.6	3.5
FRB-01d	9/28/2016	FRB-01_092816_RAS_14_WB FRB-01_092816_RAS_13_WB	6.67	4.3
FRB-01d FRB-01d	9/28/2016 9/28/2016	FRB-01_092816_RAS_13_WB FRB-01_092816_RAS_10_WB	<u>6.79</u> 6.89	4.5
FRB-01d	9/28/2016	FRB-01_092816_RAS_10_WB	7.03	4.5
FRB-01d	9/28/2016	FRB-01 092816 RAS 03 WB	7.03	3.2
FRB-01d	9/28/2016	FRB-01_092816_RAS_03_WB	7.35	2.5
FRB-01d	9/28/2016	FRB-01_092816_RAS_06_WB	7.62	4.3
FRB-01d	9/28/2016	FRB-01_092816_RAS_08_WB	8	3.9
FRB-01d	9/28/2016	FRB-01_092816_RAS_18_WB	8.26	4.4
FRB-01d	9/28/2016	FRB-01_092816_RAS_15_WB	8.37	4.7

#### Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

Data Qualifier Definitions:

## Appendix C-12 2016 Eel Analytical Results

## 2016 Biota Monitoring Report Penobscot River

		Parameter Name: Analytic Method: Units:	Mere EPA ng		Lipi NOAA Lip %	ids 1993
Location ID	Sample Date	Sample ID	Result	Qualifier	Result	Qualifier
BO-04d	8/5/2016	BO-04_080516_EEL_01_WB	1370	J	7.3	
OB-05s	8/3/2016	OB-05_080316_EEL_01_WB	391		2.9	
OB-05i	8/5/2016	OB-05_080516_EEL_05_WB	428		1.6	
OB-05n	8/3/2016	OB-05_080316_EEL_04_WB	461		1.2	
OB-05v	8/3/2016	OB-05_080316_EEL_03_WB	485		1.8	
OB-05I	8/3/2016	OB-05_080316_EEL_02_WB	579		17	
OB-01a	8/2/2016	OB-01_080216_EEL_01_WB	394		2.3	

#### Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

#### Data Qualifier Definitions:

J = The detected concentration is considered estimated

#### Appendix C-13 2016 Atlantic Tomcod Analytical Results

#### 2016 Biota Monitoring Report Penobscot River

		Parameter Name: Analytic Method:	Mercury EPA 1631	Lipids NOAA Lipids 1993
		Units:	ng/g	%
Location ID	Sample Date	Sample ID	Result	Result
BO-04a	9/25/2016	BO-04_092516_TOM_03_WB	195	0.17
BO-04a	9/25/2016	BO-04_092516_TOM_01_WB	304	0.15
BO-04a	9/25/2016	BO-04_092516_TOM_04_WB	312	0.18
BO-04a	9/25/2016	BO-04_092516_TOM_02_WB	315	0.27
OB-05g	9/25/2016	OB-05_092516_TOM_03_WB	80.6	0.42
OB-05d	9/25/2016	OB-05_092516_TOM_13_WB	105	0.29
OB-05f	9/25/2016	OB-05_092516_TOM_02_WB	105	0.1
OB-05h	9/25/2016	OB-05_092516_TOM_05_WB	109	0.11
OB-05t	9/25/2016	OB-05_092516_TOM_11_WB	117	0.24
OB-05t	9/25/2016	OB-05_092516_TOM_10_WB	135	0.26
OB-05g	9/25/2016	OB-05_092516_TOM_04_WB	142	0.12
OB-050	9/25/2016	OB-05_092516_TOM_08_WB	146	0.16
OB-05a	9/25/2016	OB-05_092516_TOM_16_WB	149	0.35
OB-05b	9/25/2016	OB-05_092516_TOM_06_WB	154	0.15
OB-05e	9/25/2016	OB-05_092516_TOM_01_WB	158	0.18
OB-05q	9/25/2016	OB-05_092516_TOM_18_WB	161	0.18
OB-05u	9/25/2016	OB-05_092516_TOM_07_WB	194	0.17
OB-05m	9/25/2016	OB-05_092516_TOM_14_WB	201	0.22
OB-05m	9/25/2016	OB-05_092516_TOM_15_WB	213	0.26
OB-05p	9/25/2016	OB-05_092516_TOM_09_WB	246	0.13
OB-05j	9/25/2016	OB-05_092516_TOM_12_WB	253	0.11
OB-05a	9/25/2016	OB-05_092516_TOM_17_WB	275	0.26
OB-01d	9/24/2016	OB-01_092416_TOM_05_WB	69	0.46
OB-01d	9/24/2016	OB-01_092416_TOM_07_WB	76	0.29
OB-01d	9/24/2016	OB-01_092416_TOM_10_WB	82.1	0.32
OB-01d	9/24/2016	OB-01_092416_TOM_11_WB	89.5	0.6
OB-01d	9/24/2016	OB-01_092416_TOM_12_WB	89.5	0.35
OB-01d	9/24/2016	OB-01_092416_TOM_01_WB	115	0.26
OB-01d	9/24/2016	OB-01_092416_TOM_17_WB	155	0.19
OB-01d	9/24/2016	OB-01_092416_TOM_06_WB	159	0.32
OB-01d	9/24/2016	OB-01_092416_TOM_04_WB	170	0.34
OB-01d	9/24/2016	OB-01_092416_TOM_08_WB	174	0.34
OB-01d	9/24/2016	OB-01_092416_TOM_13_WB	179	0.22
OB-01d	9/24/2016	OB-01_092416_TOM_16_WB	188	0.34
OB-01d	9/24/2016	OB-01_092416_TOM_09_WB	196	0.48
OB-01d	9/24/2016	OB-01_092416_TOM_18_WB	212	0.37
OB-01d	9/24/2016	OB-01_092416_TOM_02_WB	215	0.33
OB-01d	9/24/2016	OB-01_092416_TOM_03_WB	232	0.4
OB-01d	9/24/2016	OB-01_092416_TOM_19_WB	245	0.42
OB-01d	9/24/2016	OB-01_092416_TOM_15_WB	276	0.28
OB-01d	9/24/2016	OB-01_092416_TOM_14_WB	280	0.18
ES-13e	9/30/2016	ES-13_093016_TOM_11_WB	56.5	0.36
ES-13g	9/27/2016	ES-13_092716_TOM_01_WB	59.2	0.61
ES-13b	9/27/2016	ES-13_092716_TOM_03_WB	65	0.14
ES-13l	9/27/2016	ES-13_092716_TOM_02_WB	76.1	0.27
ES-13i	9/27/2016	ES-13_092716_TOM_05_WB	80.4	0.11
ES-13a	9/30/2016	ES-13_093016_TOM_09_WB	103	0.34
ES-13e	9/30/2016	ES-13_093016_TOM_10_WB	113	0.17
ES-13f	9/29/2016	ES-13_092916_TOM_07_WB	129	0.13
ES-13c	9/29/2016	ES-13_092916_TOM_06_WB	142	0.19
ES-13d	9/27/2016	ES-13_092716_TOM_04_WB	164	0.29
ES-13a	9/29/2016	ES-13_092916_TOM_08_WB	211	0.38
ES-FPe	9/27/2016	ES-FP_092716_TOM_01_WB	55.5	0.35
ES-FPa	10/1/2016	ES-FP_100116_TOM_02_WB	74.3	0.48
FRB-01c	9/29/2016	FRB-01_092916_TOM_01_WB	36.5	0.36

#### Notes:

ng/g = nanograms per gram

Prepared by/Date: <u>RMB 4/7/17</u> Checked by/Date: <u>BPW 4/7/17</u>

#### Data Qualifier Definitions: