



Photo: Martin Neptune

Pəskehtəkək

Joining of the Branches

Winter 2005 ~ Issue 3

Penobscot Indian Nation
 Department of Natural Resources
www.penobscotnation.org/DNR/DNR1.htm

Phone Extensions

David Almenas, Forest Technician	7335
Ron Bear, Forest Technician	7335
John Banks, DNR Director	7330
Rhonda Daigle, Water Quality Monitoring Program Coordinator	7326
Kristin Dilworth, Big Game Biologist	7363
Yvonne "Cookie" Francis, Administrative Assistant	7331
Tim Gould, Game Warden Supervisor	7395
Dan Kusnierz, Water Resources Program Manager	7361
Frank Loring, Game Warden	7392
Josh Loring, Game Warden	7392
Jason Mitchell, Water Resources Field Coordinator	7381
Jim Pardia, Game Warden	7392
Ed Paul, Game Warden	7392
Jan Paul, Water Resources Field and Lab Technician	7382
Angie Reed, Water Resources Planner	7360
Russ Roy, Forest Manager	7339
Dennis Stevens, Forester	7337
Bill Thompson, Air Quality Program	7340
Binke Wang, GIS Specialist	7341
Water Resources Trainees	7381

Penobscot River Data on the Web

This article was taken almost directly from *Water Lines*, a publication of the George J. Mitchell Center at the University of Maine. Their version and more info can be found at: www.umaine.edu/WaterResearch/outreach/waterlines_v12_n1.htm

THE MITCHELL CENTER & THE PENOBSCOT RIVER

Anticipating increased interest in the Penobscot River as the Penobscot River Restoration Project moves forward, the Mitchell Center at University of Maine is helping to provide scientists, educators, and communities with needed information on water quality trends, expected impacts of dam removal, river flora and fauna, environmental history, and current monitoring efforts in the Penobscot River watershed. Here, they highlight two of their current Penobscot-related projects.

Penobscot River data on the Web...

PEARL is a clearinghouse for environmental information in Maine, serving as the portal to data from lakes, streams, wetlands, and terrestrial systems, including flora and fauna, water chemistry, and landscape-level information. Data can be retrieved via text-based and map-based searches, at the level of township, watershed and individual waterbody. A section of the PEARL web site dedicated to the Atlantic salmon watersheds provides direct access to key data sets and information summaries for

the salmon watersheds, including the Penobscot. Biological data include fishway trap counts, redd counts, and electro-fishing survey results. Chemical data include pH, temperature, and stream chemistry from a variety of monitoring projects. PEARL is currently developing a feature that generates "on-the-fly" summaries of watershed information and data availability. Also under development is a geo-referenced database of journal articles, reports and information summaries. Both features will be available by February 2006. As a statewide information resource, PEARL is housed at the Fogler Library, University of Maine. It is administered by the Mitchell Center in collaboration with PEARL's many partners.

<http://www.pearl.maine.edu>

PEARL
 the source for environmental information in maine

A forum for sharing environmental data from Maine... lakes, streams, wetlands, and terrestrial systems

- Data** Retrieve PEARL data using text or map-based search tools or simply browse all the datasets
- Focus Topics** Quick retrieval of key datasets, information summaries and interpretive materials:
 - Lakes Guide
 - Atlantic Salmon
 - Freshwater Biodiversity
 - Penobscot Synthesis
- Other Resources** Learn more from other resources: educational materials • science guides • reference library • resource links

PEARL NEWS

(Continued on next page)

(Continued from previous page)

Bringing together scientific knowledge of the Penobscot River Ecosystem.



Bringing together scientific knowledge of the Penobscot River ecosystem...

The Penobscot River Synthesis consists of a literature review and data inventory of past and current research in the Penobscot River and its watershed. Housed on PEARL, the Synthesis will provide direct access to a broad array of information from the Penobscot River basin, including: a searchable, geo-referenced bibliographic database of articles, reports, books, videos, recordings, and published research on the Penobscot River; access to key datasets in the PEARL data bank; narrative summaries of topics relevant to dam removal; and publications for a non-scientific audience about the environmental history of the lower Penobscot. Pending future funding, we hope to continue the Penobscot River Synthesis and include more information on current research projects. We hope to extend coverage to the estuary and upper bay, providing a conceptual meeting place for the freshwater and marine science communities. The Synthesis is currently supported by the University of Maine, the Senator George J. Mitchell Center for Environmental and Watershed Research, Maine Sea Grant, and the Atlantic Salmon Federation through an Olin Fellowship.

<http://www.pearl.maine.edu/windows/penobscot>

Penobscot River Theme for Spring Lecture Series

SPRING 2006 "BROWN BAG IT" SEMINAR SERIES

PENOBSCOT RIVER RESEARCH — LOOKING TO THE FUTURE

The Spring 2006 seminars are sponsored by the Senator George J. Mitchell Center for Environmental & Watershed Research and the UMaine Program in Ecology and Environmental Science.

Unless otherwise noted, all seminars take place at 12 noon in Norman Smith Hall. If you are coming from off-campus, and need parking permits and/or directions, please contact Ruth Hallsworth at 581-3196.

More information can be found at
www.umaine.edu/WaterResearch/outreach/lecture_series.htm

At this site, click on the seminar date for additional information on the seminar and speaker. Any materials or links to relevant materials provided by the speaker are also available there.

Tuesday, March 28, 2006

Topic: Continued Development of a Fish Assemblage Assessment Method for Non-Wadeable Large Rivers in Maine and New England: 2002-2005
Speaker: Chris O. Yoder, Research Director, Center for Applied Bioassessment and Biocriteria, Midwest Biodiversity Institute

Tuesday, April 4, 2006

1. Topic: Does descaling impair osmoregulation in seawater-challenged Atlantic salmon smolts?
Speaker: Gayle Zydlewski, School of Marine Sciences, UMaine
2. Topic: Sturgeon habitat in the lower Penobscot River.
Speaker: Stephen Fernandes, UMaine

Thursday, April 6, 2006

Topic: Water Quality of the Penobscot River
Speaker: Barry Mower, Division of Environmental Assessment, Maine Department of Environmental Protection

Thursday, April 13, 2006

Topic: Oceanography at Maine Maritime; Particles, Currents and Hydrography in the Penobscot Estuary
Speaker: Lauren Sahl, Corning School of Ocean Studies, Maine Maritime Academy

Thursday, April 27, 2006

Topic: A Pilot Study to Evaluate the Potential for River Water Toxicity to Increase Following Dam Removal
Speaker: Adria Elskus, USGS/Dept. of Biological Sciences, UMaine

Thursday, May 4, 2006

Topic: Mercury (Hg) Cycling in Sulfide-rich Sediments: Contaminant Storage in the Penobscot River Estuary, Maine
Speaker: Karen Merritt, Dept. of Civil & Environmental Engineering, UMaine

Date to be announced

Topic: Valuing Environmental Changes for Decision Making: Dam Removal and Restoration on the Penobscot and Kennebec Rivers
Speaker: Lynne Lewis, Bates College





Check Out These Trends in Big Game Hunting on Tribal Lands!



BEAR: TAKEN BY TRIBAL MEMBERS

Location	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
River Islands													1
Argyle													1
T2&3R9		1						1					1
TOTAL BEAR		1						1					3

If you have any questions regarding the harvest data, please contact Kristin Dilworth at 817-7363 or kdilworth@penobscotnation.org.

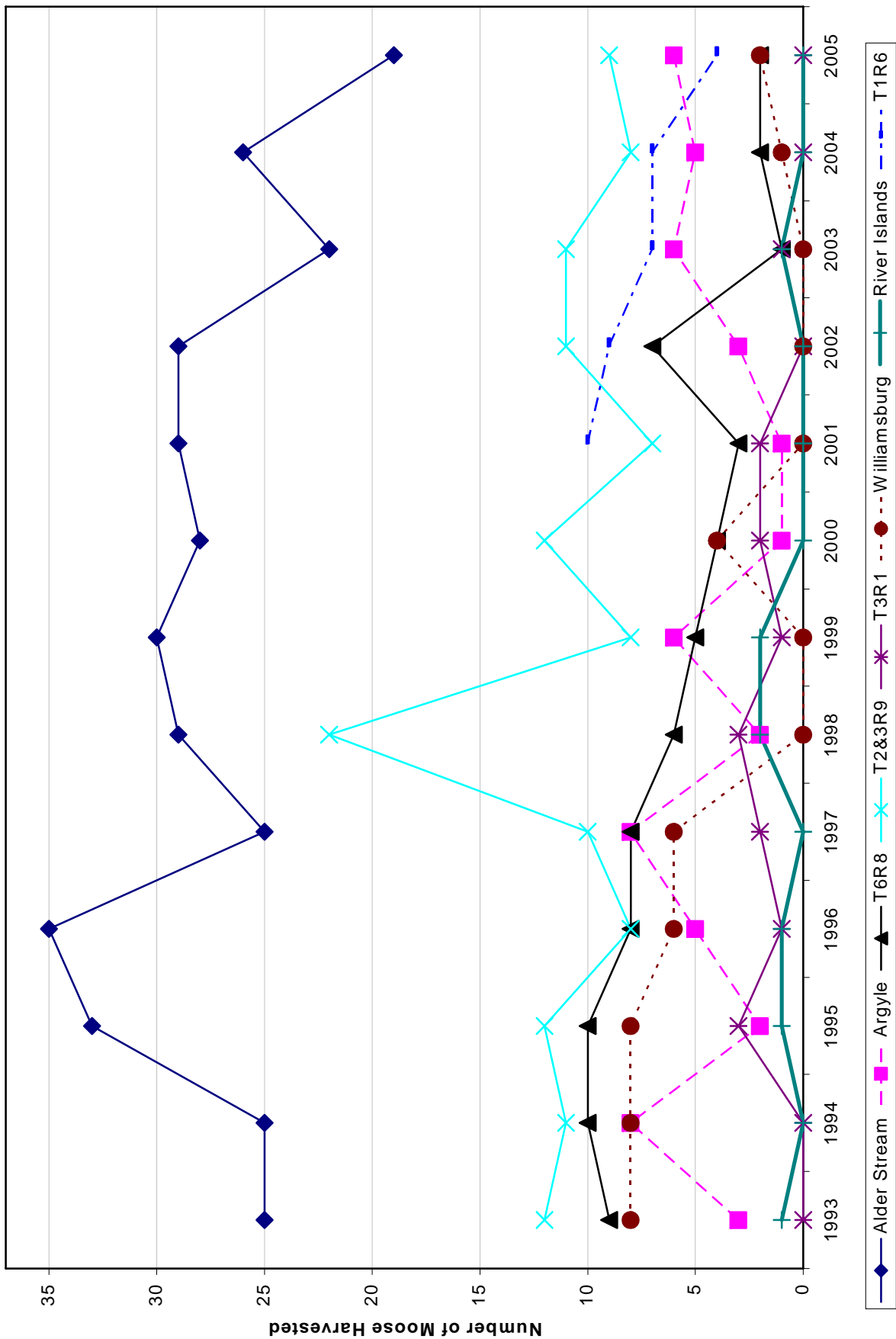


Watercolor art used with permission from Heron Dance. Copyright 2004 © Rod MacIver www.herondance.org

MOOSE: TAKEN BY TRIBAL MEMBERS

Location	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Alder Stream	25	25	33	35	25	29	30	28	29	29	22	26	19
Argyle	3	8	2	5	8	2	6	1	1	3	6	5	6
T6R8	9	10	10	8	8	6	5	4	3	7	1	2	2
T2&3R9	12	11	12	8	10	22	8	12	7	11	11	8	9
T3R1	0	0	3	1	2	3	1	2	2	0	1	0	0
Williamsburg	8	8	8	6	6	0	0	4	0	0	0	1	2
River Islands	1	0	1	1	0	2	2	0	0	0	1	0	0
T1R6									10	9	7	7	4
TOTAL MOOSE	58	62	69	64	59	64	52	51	52	59	49	49	42

Annual Moose Harvest



DEER: TAKEN BY TRIBAL MEMBERS

Location	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Alder Stream	2	0	5	8	3	11	1	7	11	8	4	4	0
Argyle	12	8	11	13	11	11	11	4	6	6	5	2	2
T6R8	4	8	7	9	7	1	2	7	3	1	1	0	0
T2&3R9	5	0	6	1	0	4	2	2	0	0	3	2	0
T3R1	0	0	0	0	0	0	2	0	0	0	0	0	0
Williamsburg	0	0	0	3	0	0	0	0	0	4	0	1	0
River Islands	27	19	20	20	30	11	15	21	24	13	7	15	12
T1R6										1	0	1	0
TOTALS	50	35	49	54	51	38	33	41	44	33	20	25	14

DEER: TAKEN BY NON-TRIBAL MEMBERS

Location	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Alder Stream	0	0	4	6	3	1	4	6	6	5	7	1	0
Argyle	6	2	13	4	6	3	2	1	1	4	0	1	0
T6R8	8	8	4	6	6	5	2	0	2	2	2	3	1
T2&3R9	11	4	11	3	4	0	0	1	1	2	2	1	1
TOTALS	25	14	32	19	19	9	8	8	10	13	11	6	2

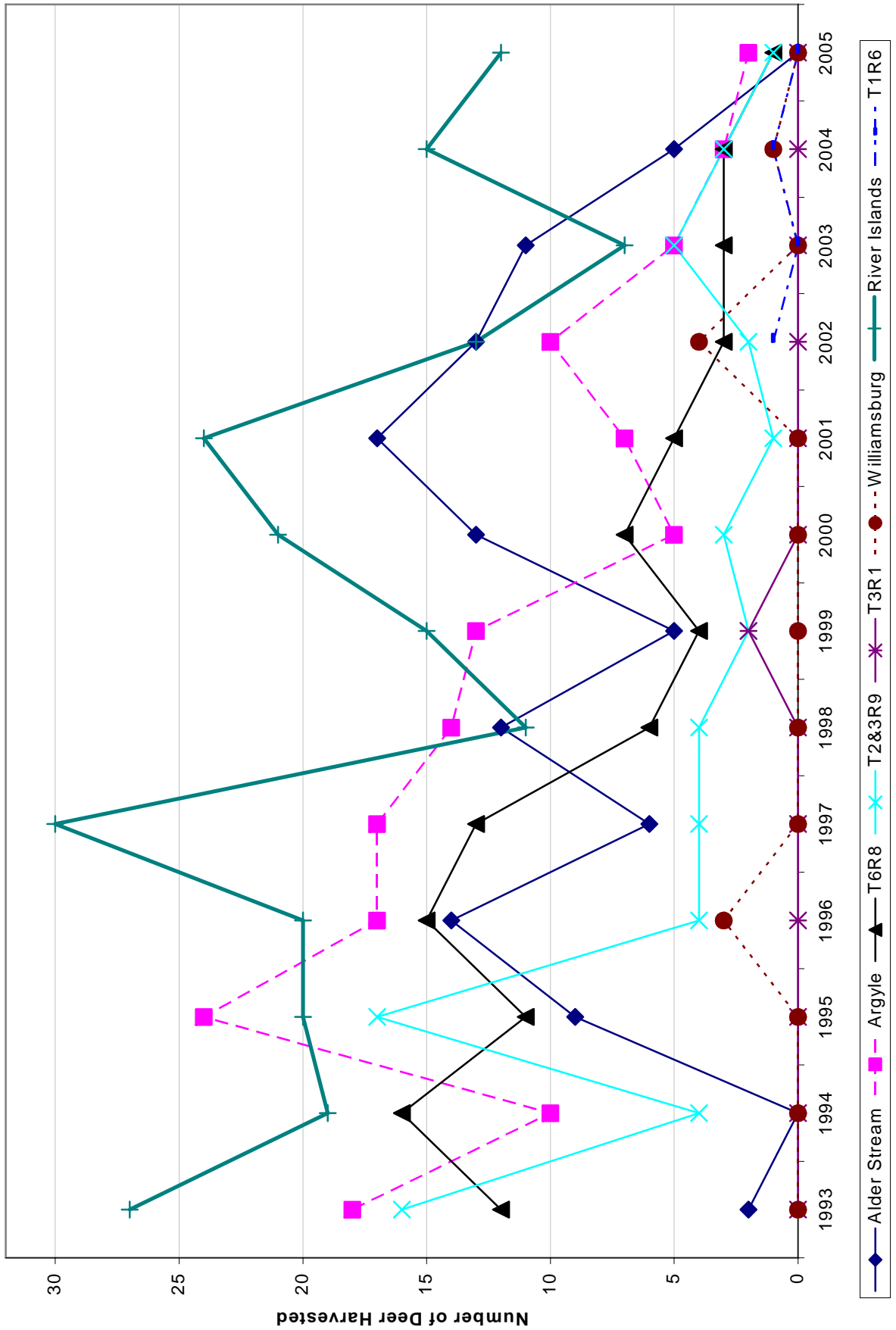
DEER: TAKEN BY TRIBAL AND NON-TRIBAL MEMBERS

Location	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Alder Stream	2	0	9	14	6	12	5	13	17	13	11	5	0
Argyle	18	10	24	17	17	14	13	5	7	10	5	3	2
T6R8	12	16	11	15	13	6	4	7	5	3	3	3	1
T2&3R9	16	4	17	4	4	4	2	3	1	2	5	3	1
T3R1	0	0	0	0	0	0	2	0	0	0	0	0	0
Williamsburg	0	0	0	3	0	0	0	0	0	4	0	1	0
River Islands	27	19	20	20	30	11	15	21	24	13	7	15	12
T1R6										1	0	1	0
OVERALL TOTALS	75	49	81	73	70	47	41	49	54	46	31	31	16



Photos by Joe "Hugga" Dana

Annual Deer Harvest



PENOBSCOT NATION TO HOST NATIONAL CONFERENCE NATIVE AMERICAN FISH AND WILDLIFE SOCIETY MAY 21 - 25, 2006 IN BAR HARBOR

This is an excellent opportunity for the tribe as representatives, biologists, and tribal members from across the country will be in attendance.

We will continue to post updates in the newsletter as the date approaches, so stay tuned!

If you have any questions please contact
Tim Gould (871-7395) or
Kristin Dilworth (817-7363) or
visit the Native American Fish and Wildlife Society website:
www.nafws.org



Monitoring Contaminants in Bald Eagles - by Dan Kusnierz



Photo:
Joe "Hugga" Dana

There are few, if any, things as awe-inspiring as an adult bald eagle taking flight from a tree immediately overhead as you paddle your canoe amongst islands in the Penobscot River.

contaminants in eagles may still be limiting eagle productivity and could cause the population to decrease as these toxics continue to bioaccumulate.

There are currently several research projects underway in Maine that examine toxic contaminant levels in breeding bald eagles. While we are not conducting our own research, PIN DNR (Water Resources Program and Wildlife Program) has been collaborating with researchers on some of these projects to sample eagles nesting along the Reservation and Trust lands. Information gathered from these studies will be valuable to determine the risk posed by contaminants on nesting eagles and to help identify and control sources of these contaminants.

As a species of great cultural importance to Penobscot people PIN DNR is concerned with trying to protect the bald eagle. Because eagles are long-lived and eat lots of fish they can be at risk from contaminants, including dioxin, PCBs, and mercury, that accumulate in their body (bioaccumulative). For these same reasons they are also an excellent indicator of the availability of these contaminants in the environment in which they live.

As you may recall a chemical known as DDT, was blamed for the near extinction of eagles throughout the country. In the 1960-70s the Maine statewide population was knocked back to only a few nesting pairs all of which were in the Down East coastal region. Thanks to the ban on DDT, the Endangered Species Act, and protection of nesting habitat, bald eagles have greatly rebounded. In 2005 there were 385 nesting pairs counted during surveys in Maine and these birds were found scattered throughout the state. The species has rebounded so well that US Fish and Wildlife Service is considering removing eagles from the Endangered and Threatened species list. However, despite our large population, the productivity rate of eagles in Maine is lower than that of eagles in some other parts of the country. We are concerned that

Feeding Eagles May Harm Them

While well-intended, the practice of feeding eagles in the winter is not only illegal, under state laws on state land, but may also harm them. Butcher scraps from deer or moose often contain very high levels of lead or other metals (bullet fragments or residue). Fish provided by people may have high concentrations of mercury or other toxins. A very small amount of lead or other contaminants can be harmful. Also, be aware that baits placed for coyotes or other animals can unintentionally attract eagles and may put them at risk from snaring or contamination.

These projects include:

- A study led by Biodiversity Research Institute (BRI) to examine mercury levels found in blood and feathers of eaglets and feathers of adults. This study repeats work

(Continued on next page)

(Continued from previous page)

that was done in the early 1990s to see if mercury levels have changed over time. The study also examines whether mercury levels affect productivity rates, identifies mercury “hot spots” and determines whether mercury levels in eagles are affected by the type of habitat where the birds nest.

- Banding eaglets with colored and unique number coded leg bands. These bands give existing and future researchers the ability to identify specific birds, and provide information about age and movement patterns
- A project by USFWS to analyze levels of numerous toxic contaminants in eagle eggs that failed to hatch. The toxics tested include organochlorine compounds (dioxins, furans, PCBs, pesticides, etc.) and trace metals (mercury, arsenic, cadmium, lead, etc.). The information is invaluable for evaluating the whether pulp mills and other discharges are continuing to release certain contaminants, and what the potential health effects are of those compounds.
- A project led by USFWS to measure and evaluate levels of contaminants (organochlorine



Eaglet who had both legs banded at Seboeis Lake.



compounds and trace metals) in livers of bald eagle found dead in Maine. As banded birds die and are recovered, the examination of local, known-age livers will provide valuable information on the effect and bioaccumulation of contaminants in bald eagles.

Watch Eagles Live on the Eagle-cam!

BRI has a great website up now at which you can watch a pair of eagles, live via a web-cam, as they build a nest and get ready to have some eaglets. Go to this site and look at the still images or click on Live Video:

www.briloon.org/ed/eagle/index.htm

PENOBSCOT NATION COMMUNITY MEMBERS

BUY SOME PLANTS

PLANT THEM

HELP PREVENT NON-POINT SOURCE POLLUTION

The Penobscot Nation Department of Natural Resources has partnered with the Penobscot County Soil and Water Conservation District in offering the 2006 Wildlife Tree & Shrub Sale! Our goal is to provide plant materials to Tribal members and raise awareness to Non Point Source pollution (NPS).

NPS pollution presents one of the highest threats to water quality in the Penobscot watershed. NPS pollution occurs when stormwater run-off erodes unstable soil and carries sediments, nutrients, bacteria, pesticides, and many other toxins to the watershed.

You can think of a watershed as a bowl. Stormwater falls to the ground. Then it flows into small streams that then flow into larger streams that flow into rivers which flow into the ocean. Plant materials, such as the ones offered in this shrub sale, will create what is called a vegetative buffer. Vegetative buffers help by slowing water down and letting it absorb into the ground. Without a vegetative buffer bare soils will erode carrying pollutants into the watershed.

For questions about the tree and shrub sale, or to learn more about ways to prevent NPS pollution on Tribal lands, contact Jason Mitchell @ 817-7381.

All orders must be pre-paid and placed through the Penobscot County Soil and Water Conservation District.

Orders from Penobscot Nation community members will be picked up by PIN DNR staff and delivered to your house.