

**Houlton Band of Maliseet Indians**  
**Natural Resources Department**  
**88 Bell Road**  
**Littleton, ME 04730**

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**Skitkomiq 2019!**



**Save the date!**

Attention tribal members in grades 5 to 8 - it's almost time for our annual Skitkomiq - Culture & Science Camp.

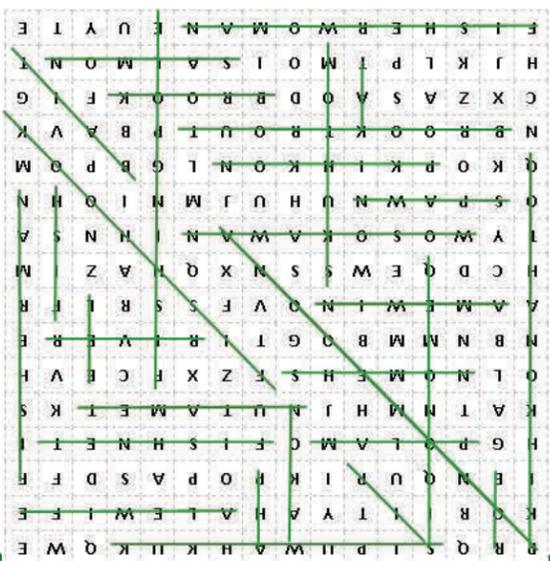
This year's camp will take place August 12-15 and the fast will be August 20-21.

For more information: watch our Facebook page or contact Cara O'Donnell

[water@maliseets.com](mailto:water@maliseets.com) or call 207-532-4273

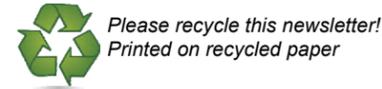


**Word Search Answers**



**Nipon - June 2019**

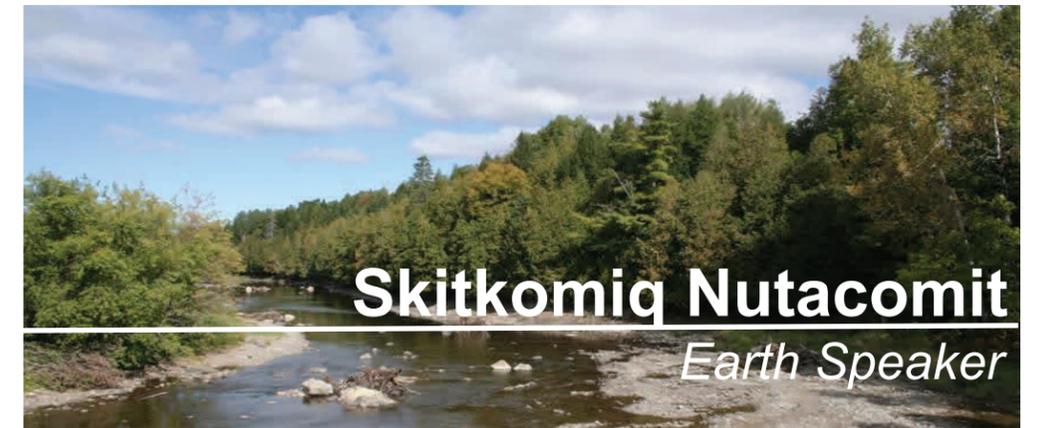
Clarissa Sabattis - Tribal Chief  
 Susan Young - Editor



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**Natural Resources Department**  
**(207)532-6883**  
**1-800-564-8524 (Maine only)**  
**1-800-545-8524**  
**Fax 207-532-6883**  
Environmental Planning  
 Sharri Venno - ext. 215  
Natural Resources  
 Matthew Edberg - ext. 220  
Water Resources  
 Cara O'Donnell - ext. 212  
 Sam St. John - ext. 221  
Natural Resources - Real Estate  
Director  
 Sue Young - ext. 202



**Why this owl raised a duckling as its own**  
 by Jason Bittel

Wood duck parents don't put all their eggs in one basket - as brood parasites, they place some of their eggs in other birds' nests.

"OH,WE HAVE an owl chick, This is wonderful!" These were Laurie Wolf's first thoughts when she noticed something small and fluffy bobbing up and down inside the nest box in her Jupiter, Florida backyard. An eastern screech owl had taken up residence in the box about a month before, so she suspected it was an owl hatchling.



Amateur photographer Laurie Wolf captured this image of a duckling sharing a nest with an owl in her backyard in Jupiter, Florida.

But the truth was far stranger.

As a storm rolled in and the sky darkened, Wolf and her husband caught a glimpse of the mother owl poking her head out of the nest box. And right beside the owl was a tiny, yellow-and-black duckling.

"The two of them were just sitting there side by side" says Wolf, a wildlife artist and amateur photographer. "It's not believable. It's not believable to me to this day."

Concerned that the predatory owl might eat the wood duck chick, Wolf contacted a raptor expert, who confirmed the duckling might be in danger. A local wildlife sanctuary agreed to care for the animal if she could catch it.

But just as Wolf and her husband were about to intervene, the wood duck chick leapt out of the box and "made a beeline" to a nearby pond, and she hasn't seen the little critter since.

"I don't think I'll every experience anything like that in my life again," says Wolf.

*Continued page 2*

### Why this owl raised a duckling as its own (continued)

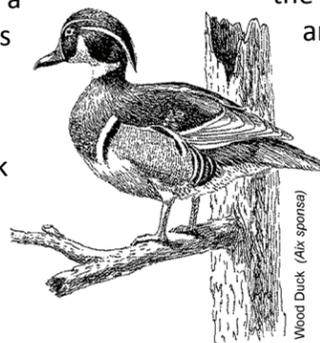
But it's possible she might: Wood ducks have been scientifically recorded living with eastern screech owls before. "It's not commonly documented, but it certainly happens, says Christian Artuso, the Manitoba Director of Bird Studies Canada, who made a similar observation back in 2005 while he was studying eastern screech owls for his Ph.D.

In that case, the female owl was actually able to incubate and hatch three wood duck chicks, says Artuso, who published the findings in 2007 in the *Wilson Journal of Ornithology*.

You see, wood ducks are known to practice brood parasitism. This means that the parent ducks will sometimes lay an egg or two in someone else's nest - usually another wood duck or another closely related species.

"You could think of it as not keeping all your eggs in one basket," says Artuso. "If you spread your eggs out, then your chances of passing on your genes are increased slightly, especially if you lose your own eggs to a predator."

There are also other recorded examples of birds of prey incubating the eggs of waterfowl, including an American kestrel incubating a bufflehead and an



Wood Duck (Aix sponsa)

osprey fostering a clutch of Canada geese. Artuso's isn't even the only published record of a wood duck parasitizing an eastern screech owl, he says. "We know this occurs, but we really don't know the frequency," he says. "So I was happy to see another example of this."

But shouldn't the female owl be able to recognize she's sitting on the wrong eggs? After all, wood duck eggs are not only more oblong in shape than owl eggs, they're also about twice the volume. Artuso says it's impossible to know what an owl is thinking, but that it could be a case of what scientists call supernormal stimuli. "The parents might be thinking. Oh my god! This egg is huge! We're going to have the best baby in the world!" But it's more likely that the occurrence is just so rare, eastern screech owls simply haven't evolved a defense against it.

As for the Florida duckling, it may have survived, he adds. Wood duck chicks are precocial, says Artuso, meaning they are pretty independent from the get-go. There are also many documented cases of chicks from one brood joining up with those from another brood. And even if it was hatched by an owl.

<https://www.nationalgeographic.com/animals/2019/04/screech-owl-ducklings-nest-florida/>

### More on Brood Parasites



©Audubon.com

Most brood parasites are detrimental to the host species often killing or evicting the young of their hosts. In the United States you are most likely to encounter the Brown-headed cowbird. The females (see photo left) can lay up to 40

eggs per season, damaging and removing the host eggs as she does. There are also many species of cuckoo around the world that act as brood parasites.

Host birds will sometimes abandon the nest if they find eggs that don't belong. Parasitic species are often larger than the host species. Their young crowd out the host species hatchlings, out competing them for food, driving them from the nest or killing them outright.



Male cardinal feeding brown-headed cowbird chick © Robert Visconti - Flickr.com

Brown-headed cowbird egg in nest with 2 robin eggs © Flickr.com



Common yellowthroat warbler feeding brown-headed cowbird chick © startribune.com

### Bird Song Mnemonics

Mnemonics (neemonicks) are phrases that help you string together the syllables and notes of birds songs so that you might remember the rhythm, pitch and tempo. Check the mnemonics below to help you identify the birds you hear when next outside. For more on learning bird calls check out:

[www.audubon.org/news/how-to-start-identifying-birds-their-songs-and-calls](http://www.audubon.org/news/how-to-start-identifying-birds-their-songs-and-calls)



Yellow Warbler



Black-throated Blue Warbler



White-throated Sparrow



Eastern Towhee



Black-throated Green Warbler



Ovenbird



Chestnut-sided Warbler



Gray Catbird



Red-eyed Vireo



Blue-winged Warbler



Indigo Bunting



Carolina Wren

### Bird Sound Mnemonics

Songs and Calls of Eastern North American Birds

# Leave Wildlife Alone

People who interfere with wildlife are well-intentioned. However, "helping" wild animals is often detrimental to their health and safety. The best action is to leave wildlife alone and enjoy animals from a distance.



## "Rescuing" Baby Animals

All baby animals should be left alone. They are well-adapted to their environment and although they may seem helpless, their parents are often nearby and attentive.

## Feeding Wild Animals

Wild animals that are fed by humans may:

- Lose their natural fear of humans.
- Become nuisance animals.
  - For example, bears accustomed to receiving handouts can become food aggressive.
- Attract predators, causing a safety concern for people and pets.
- Spread disease and parasites.
- Be more likely to be injured by human activity.



## Domestic Animals and Wildlife

Let's keep both safe

- Keeping cats and dogs on leashes prevents injury or death to your family pet.
- Unleashed or unattended cats and dogs can injure or kill wild animals.
  - Domestic cats are the #1 cause of bird deaths in Canada.
  - Dogs can kill deer, especially during the winter when they are vulnerable and females are pregnant.

## Wildlife as Pets

Keeping wildlife as pets:

- Is illegal.
- Can spread diseases like Salmonella and rabies.
- Is difficult or impossible due to animals' specific needs.
- Impacts populations.
  - For example, turtles mature slowly and removing them from the wild greatly decreases breeding opportunities.
- Can become a nuisance when the animal becomes too big or aggressive to care for. They cannot be returned to the wild.

## Fawns and Moose Calves

- Are left alone for several hours to avoid attracting predators.
- Should not be moved as it can be very difficult to reunite them with their mothers.

## Baby Birds

- Can be found on the ground for several days when learning to fly.
- May starve if you move them away from their parents.



Do not remove a baby bird from its habitat, even if you've touched it. It is a myth that human scent will cause parent birds to abandon their young.

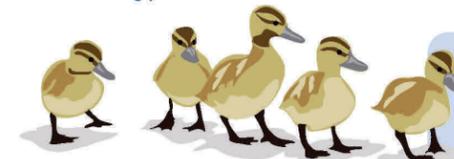
Cats can also be leash-trained. Learn how here: [www.spcans.ca/documents/LeashTraining.pdf](http://www.spcans.ca/documents/LeashTraining.pdf)



This project was undertaken with the financial support of the Government of Canada. Ce projet a été réalisé avec l'appui financier du gouvernement du Canada.

If you think you have found an animal that is actually hurt or abandoned, please call the Atlantic Wildlife Institute at 506-364-1902.

For more information on wildlife, visit: [www2.gnb.ca/content/gnb/en/departments/natural\\_resources/wildlife.html](http://www2.gnb.ca/content/gnb/en/departments/natural_resources/wildlife.html)



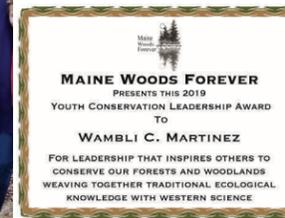
## Maine Woods Forever

HBMI's Natural Resources Department was pleased to nominate WaYS student Wambli Martinez for the Maine Woods Forever 2019 Youth Conservation Leadership Award. He was selected for this award based on his demonstrated responsibility, leadership, attention to task and insatiable appetite for learning and exhibiting Maine's



From left - Sam St. John, Wambli Martinez, Greg Ponte MWF, Cara O'Donnell

conservation ethic. **Kuli Kiseht Wambli!** (Good job!)



## Wild Bee ID

The Center for Food Safety (CFS) launched the Wild Bee ID website and app (Apple & Android) to help people learn to identify wild bees and help protect "pollinators one garden at a time."

[www.wildbeeid.org/get-the-app](http://www.wildbeeid.org/get-the-app)



## Big Brook Mascot



Painted turtle

Can you identify the newest member of our department?

Matthew Edberg and Wambli Martinez came across this beautiful critter while out on tribal lands. They are not plentiful here in northern Maine but are commonly found throughout the rest of the country.



## Word Search Puzzle



Find these Fishing related **Maliseet** and English words in the Puzzle

- Ahp Fish Net
- Amewin Fisherwoman
- Kat Eel
- Nomehs Fish
- Nutamet Fisherman
- Pkihkon Fish hook
- Pkihkonahtoq Fishing Pole
- Polam Salmon
- Ponomeqon Roe
- Sipuwahkuk Brook
- Sip River
- Siqonomeq Alewife
- Skuhtom Brook Trout
- Wakon Bait
- Wosokawan Spawn

P	R	Q	S	I	P	U	W	A	H	K	U	K	Q	W	E
K	O	R	I	I	T	Y	A	H	A	L	E	W	I	F	E
I	E	N	Q	U	P	I	K	P	O	P	A	S	D	F	F
H	G	P	O	L	A	M	O	F	I	S	H	N	E	T	I
K	A	T	N	M	H	J	N	U	T	A	M	E	T	K	S
O	L	N	O	M	E	H	S	F	Z	X	F	C	E	V	H
N	B	N	M	M	B	Q	G	T	I	R	I	V	E	R	E
A	A	M	E	W	I	N	O	V	F	S	S	R	L	F	R
H	C	D	Q	E	W	S	S	N	X	Q	H	A	Z	I	M
T	Y	W	O	S	O	K	A	W	A	N	I	H	N	S	A
O	S	P	A	W	N	U	H	U	J	M	N	I	O	H	N
Q	K	O	P	K	I	H	K	O	N	L	G	B	P	O	M
N	B	R	O	O	K	T	R	O	U	T	P	B	A	V	K
C	X	Z	A	S	A	O	D	B	R	O	O	K	F	I	G
H	J	K	L	P	T	M	O	I	S	A	L	M	O	N	T
F	I	S	H	E	R	W	O	M	A	N	E	U	Y	T	E



### Experimental Archaeology (Utilitarian Botany) by Matthew P. Edberg

This Winter and Spring, WaYS student, Wambli Martinez (at right with sweet grass braids) has been working with Natural Resources Specialist Matthew Edberg to explore plant ID, taxonomy, biochemistry, natural history and ecology through the medium of experimental archaeology. Through this practice we have worked with a variety of plant materials making practical items ranging from fish hooks to birch bark containers and more.



**Amadou**  
Processing the hoof fungus (*Fomes fomentarius*) to extract the "Amadou" (the trama layer) for use as natural tinder for fire production.

**Smudging**  
Cultivating, harvesting and processing sweet grass (*Hierchloe odorata*) and braiding into smudge braids.



(Above - left to right) birch bark container, birch bark goggles, fish hooks and cordage, cornhusk dolls

#### Natural Fibers/ Cordage production

Working with Basswood (*Tilia Americana*), White Cedar (*Thuja occidentalis*) and Milkweed (*Asclepius syriaca*) inner bark (phloem) and fibrous material from the plant (bast) to use traditional techniques and experimentation to collect, process and produce traditional vegetable based cordage from native plant species.

#### Bark Craft (Utility)

Working with Paper Birch (*Betula papyrifera*) fabricating small birch bark containers utilizing the natural cordage and thorns from hawthorn (*Crataegus crus-galli*) to sew and peg the container together. Snow goggles were also produced from the birch bark, used to prevent snow blindness.

#### Thorn Craft (Utility)

Hawthorn (*C. crus-galli*) thorns have a wide variety of practical uses. We used the thorns as pegs (mechanical fasteners) and to fabricate fish hooks. The hooks were fastened to the the natural cordage we produced.

#### Resin Utility

Resin collected from blisters on the balsam fir (*Abies balsamea*) was used as glue and to waterproof the vegetable cordage.

#### Cultivation

White Sage (*Salvia apiana*) taking care (germinating, transplanting, soil mixes, perpetual harvest of leaves) of sage plants being grown under grow lights. The sage is used in traditional smudge mixtures. Tobacco (*Nicotiana rustica*) planting, growing and harvesting tobacco.

#### Medicine

Cultivation of muskrat root (*Acorus americanus*) stratification of seeds (fruits) that will be sprouted, grown, transplanted to wetland grow containers, grown for a year and a half then out planted on tribal lands.

#### Food/Utility

Wabanaki corn variety Calais flint corn (*Zea mays indurata*). Processing the corn for traditional uses. Corn husk dolls were fabricated using a Penobscot design.



### Fyke Netting for Atlantic Salmon Smolts by Sam St. John

The Water Resources program has begun a long term project to map the genetic tree of Atlantic salmon in the St. John River and all of its tributaries.

The DNA of salmon varies from stream to stream, with our ultimate goal of finding a salmon strain that would be most compatible with future stocking in the Meduxnekeag River.

Salmon smolts are fish older than parr (6 -10 inches). In the spring, salmon smolts migrate from their streams of origin back to the ocean, making the point where a brook empties into a larger stream an optimal point for to collect DNA samples. At least 30 DNA samples will be taken from Atlantic salmon smolts to create a public database and genetic tree of these at-risk fish.

Because of the distance traveled by these young fish, they are a good representation of the genetic variation within a stream.

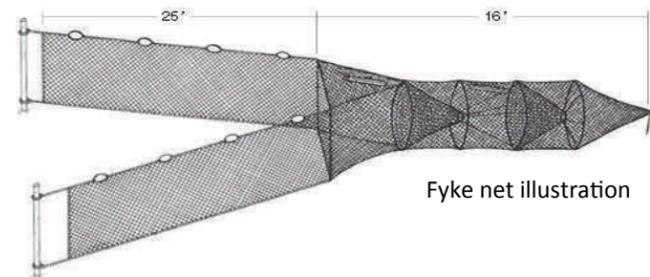


(Above) Fyke net deployed on Marven Brook, a tributary of the Meduxnekeag in Woodstock, New Brunswick, Canada pictured left to right - Cara O'Donnell, Sam St. John, Wambli Martinez, Adam Weyeneth DFO Canada

One way of collecting salmon smolts is fyke netting. Fyke netting involves deploying a funnel-like net across the entire width of a stream which guide fish into a holding area in the center.

At sundown the smolts begin to move around until the early sunup. So from sundown to about 1am, the fyke net is checked hourly for smolts.

Species also commonly collected include white suckers, small creek shiners and chubs, as well as trout. These fish are released immediately.



### Meet the Summer Techs

It's summertime and that means one thing - the summer techs have arrived!

Please join us in welcoming Damon Reynolds (left) to the Water Program and Sebastian Walton (right) to the Natural Resources Program.

