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Skitkomiq Nutacomit
Earth Speaker

The American eel (*Anguilla rostrata*) has a catadromous life cycle, that is, it spawns in the ocean and migrates to fresh water to grow to adult size. As adult eels mature, they leave the brackish/freshwater growing areas in the fall (August to November), migrate to the Sargasso Sea and spawn during the late winter. The Sargasso Sea is a large area of the western North Atlantic located east of the Bahamas and south of Bermuda. After spawning, the adult eels die. The eggs hatch after several days and develop into a larval stage (leptocephalus) which is shaped like a willow leaf. The larvae drift in the ocean for several months and then enter the Gulf Stream current to be carried north toward the North American continent. As they approach the continental shelf, the larvae transform into miniature transparent eels called “glass eels”. As glass eels leave the open ocean to enter estuaries and ascend rivers they are known as elvers. This migration occurs in late winter, early spring, and throughout the summer months. Some elvers may remain in brackish waters while others ascend rivers far inland. Eels may stay in growing areas from 8-25 years before migrating back to sea to spawn.



These eels are typically more than 2-3 years old, but not yet mature. Harvesting gear in this fishery includes baited eel pots and fyke nets. The silver eel fishery occurs in late summer and fall and consists of weirs across streams and rivers to collect out migrating sexually mature eels that are moving downstream to go to the Sargasso Sea to spawn.

A 15x15 grid of letters with 12 red lines crossing out specific rows and columns. The letters are arranged in a grid, and the red lines are drawn horizontally and vertically, creating a pattern of crosses.

Sue Young - ext. 202

There are three distinct fisheries for eels in Maine which relate to three different life stages. The glass eel/elver fishery harvests small eels returning to rivers from their ocean spawning areas. This fishery utilizes fine mesh fyke nets (a funnel shaped net) or dip nets to collect elvers as they ascend to fresh water. The yellow eel fishery occurs for eels which are growing in brackish and fresh waters.

Continued page 7



The Name Game

All known animals, birds and fish have been given names. Sometimes the plural of those names can be confusing. In English, why is it that the

plural of goose is geese, but the plural of moose is moose? Let's make it a little more interesting/confusing. You probably have heard a group of geese called a flock, but did you also know a group of geese on the ground is called a gaggle, and a group of geese in flight is called a skein?

Collective nouns as they are called certainly live up to the animal kingdom. Limiting the list to birds, fish and animals we have locally, check out the list below and see how many you know.

Mammals

- * Bears - a sloth or a sleuth
- * Cats - a clowder, pounce or glaring; for kittens: a kindle, litter or intrigue
- * Dogs - litter (puppies), pack (wild)
- * Fox - a leash, skulk or earth
- * Martens - a richness
- * Porcupines - a prickle
- * Rabbits - a colony, warren, nest, down, husk
- * Squirrels - a dray or scurry
- * Wolves - a pack, rout or route (when moving)

Birds

- * Crows - a murder or horde
- * Ducks - a brace, team, flock (in flight), raft (on water) paddling or badling
- * Eagles - a convocation
- * Hawks - a cast, kettle (in flight) or boil (two or more spiraling air)
- * Mallards - a sord (in flight) or brace
- * Owls - a parliament
- * Ravens - an unkindness
- * Sparrows - a host
- * Starlings - a murmuration
- * Turkeys - a rafter or gang



Reptiles & Amphibians

- * Frogs - an army
- * Toads - a knot
- * Turtles - a bale or nest
- * Salamanders - a maelstrom

Fish

- * Fish in general - a draft, nest, run, school or shoal
- * Herring - an army
- * Sharks - a shiver
- * Trout - a hover

Invertebrates

- * Bees - a grist, hive or swarm
- * Caterpillars - an army
- * Flies - a business
- * Grasshoppers - a cloud
- * Lobsters - a risk



For more on collective nouns check out

Wikipedia

[en.wikipedia.org/wiki/](http://en.wikipedia.org/wiki/List_of_collective_nouns_for_animals)

List_of_collective_nouns_for_animals

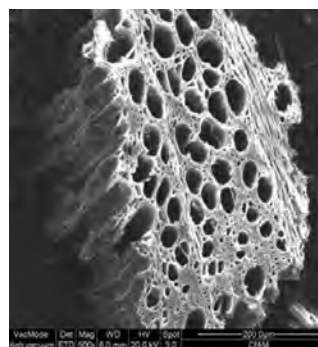
Mother Nature Network

<http://www.mnn.com/earth-matters/animals/blogs/99-strange-collective-animal-names>

Biochar- Ancient Miracle Soil Amendment

By *Matthew P. Edberg*

Biochar is a term that refers to biomass (plant materials such as wood, corn stalks, hay etc...) that has



been carbonized through the process of pyrolysis (pyro=fire, lysis=to split apart) as in the process of making natural charcoal. Simply put, biochar is "charcoal that is used for agricultural purposes" however, biochar can also be

used for a wide range of applications such as water filtration, to energy production as in co-generation and as a method to sequester carbon for centuries.

Biochar has been used by humans for thousands of years to improve marginal soils. When used as a soil amendment, biochar, can absorb excess nutrient and pesticide runoff, hold moisture, and foster the growth of beneficial bacteria. Biochar has an amazing ability to trap potentially harmful compounds due to its immense surface area. A single gram can have a surface area of 1000 square yards (see electron micrograph photo above). Biochar is a long term soil amendment lasting hundreds if not thousands of years.

Maliseet Elver Licenses

In early 2013, the Houlton Band of Maliseets were allotted 16 elver fishing licenses for the tribal community. At 5:00 p.m. on March 26, 2013 a drawing was held at the Maliseet Gymnasium to award the licenses. After a short talk by Chief Commander, Tribal Clerk Crystal Tucker began the drawing for the licenses. A total of 16 licenses were awarded.



Photos:

(Left) Members of the tribal community waiting for the drawings to begin

(right) Tribal Clerk Crystal Tucker conducting license drawing

(below right) Clair Sabattis and Chief Commander discuss elver ruling



Fyke net licenses were issued to:

- Mark Flewelling
- Michael Bither
- Henry Bear
- Jeremy Bither
- Samantha Polchies
- Kelli Shannon
- William Tompkins
- John Williams

Dip net licensed were issued to:

- Clair Sabattis
- Elissa Leplant
- Guy Hardy
- Anissa Sabattis
- Gracey McKenney
- Kyle Tomah
- Suzanne Greenlaw
- Ellen Smith

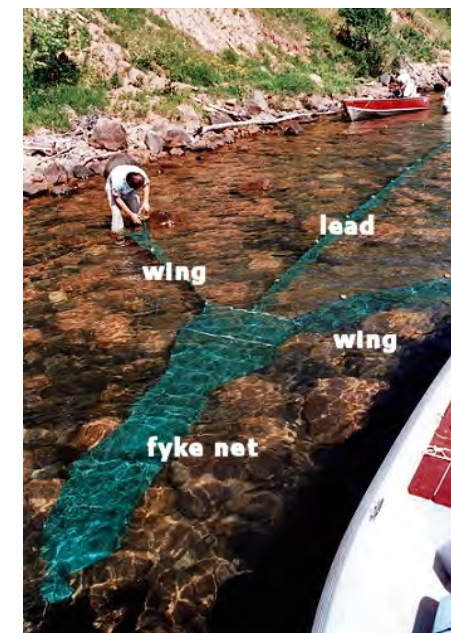


Elvers *continued*

Fisheries for yellow and silver eels have a long history in Maine, having occurred since the earliest colonial settlements. The elver fishery is relatively recent, having begun in the early 1970's to 1978 and recommenced in the early 1990's. The fishery was nonexistent from 1979 to the early 1990's due to a collapse in market demand for elvers. In recent years, market demand has increased dramatically. Elvers are highly valued in the far east (Japan, China, Taiwan, and Korea) where they are cultured and reared to adult size for the food fish market. Due to recent intense market demand, elvers have now become the most valuable marine resource in terms of price per pound which varies from \$25 to \$350. The fishing season for elvers is restricted to March 22 through May 31. Harvest methods are restricted to hand dip net and fyke nets with no more than two fyke nets allowed per license holder, depending on the license holder's history. Concerns about elver fishing relate to impacts of fyke nets on other species migrating and spawning (smelt, alewives, trout and salmon) in Maine rivers, potential over harvest of eels, and the significance of eels to the ecosystem.

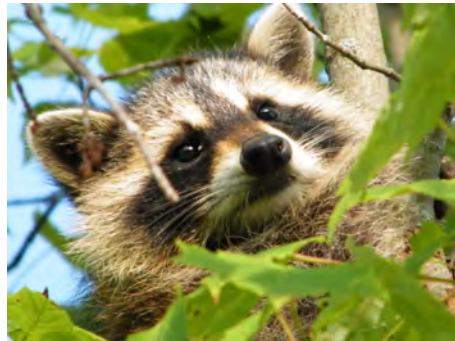
From the Maine Division of Marine Resources Page

<http://www.maine.gov/dmr/rm/eelelver/factsheet.htm>



www.glei.nrrri.umn.edu

If You Care (continued)



Baby raccoon - Sue Young photo

Squirrels or Raccoons: If a nest of squirrels or raccoons must be disturbed, (for example if a tree has been cut down or fallen) leave the young in the den part of the tree and move them nearby to a protected place. The mother will in all likelihood come back and transport them to a new location.

Birds: The same is true for a bird's nest. Put the nest and nestlings into a nearby tree, supported in a basket or other container that has drainage. The mother robin or blue jay is probably right around the corner, and will return to feed the young and care for them until they can fly on their own.



Baby robin www.ktna.org

Be aware that direct contact with wildlife can expose you to a variety of diseases. Human contact with wildlife may lead to an animal being euthanized in order to test for rabies.

For more information contact the Maine Department of Inland Fisheries and Wildlife

<http://www.maine.gov/ifw>

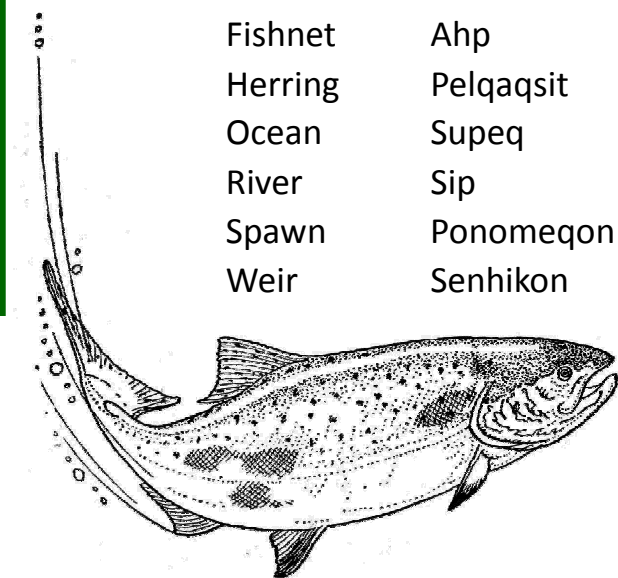
Maliseet Word Search

Find these English and Maliseet fish related

words in this puzzle

Alewife	Siqonomeq
Bait	Wakon
Eel	Kat
Estuary	Pisipique
Fish	Nomehs
Fisherman	Amewin
Fishnet	Ahp
Herring	Pelqaqsit
Ocean	Supeq
River	Sip
Spawn	Ponomegon
Weir	Senhikon

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



When Dealing With Young Wildlife: If You Care, Leave Them There

Augusta, Maine - As the weather continues to get warmer and more people are enjoying the outdoors, the Maine Department of Inland Fisheries and Wildlife is reminding everyone to follow this motto when encountering wildlife, especially young animals: If you care, leave them there. Wildlife is active during this time of the year and it isn't unusual for people to come across baby fawns, moose calves, robins, raccoons and other young wildlife in woodlands or in their backyards, but that doesn't mean it's a good idea for people to intervene.

"Well-meaning people sometimes take in young wildlife in the mistaken belief that they have been abandoned," said Governor Paul R. LePage. "But they often put the young animal in more risk. Wild animals and birds do not make good pets, and it's against the law to possess them without the proper state and federal permits."

A deer may leave its fawn hidden in the leaves on the forest floor if it's too young to come along to forage for food. The mother-young bond is very strong in mammals and birds and deer will return to its fawn as long as humans don't interfere.

"Too often people see a young animal alone and assume it has been abandoned by its mother, when in fact the mother has likely just left temporarily to search for food," said IFW Biologist Scott Lindsay. "In most cases, it's best to leave the animal alone because wildlife has a much better chance at survival when they aren't disrupted by humans".

If you come across a healthy young animal or bird, leave it alone. If you have pets, put them inside your home or on a leash so they don't disturb the young wildlings.

If you do think an animal may be orphaned, please call an IFW regional biologist to alert them to it.

Here are other tips on what to do if you see young wildlife:



Fawn -HBMI Staff photo

Fawns:

It is always best to leave fawns alone. The nutrient profile of a mother's milk enables fawns to be left for many hours as mothers feed on their own to help maintain the high energy demands of nursing the fawn. Adult does will return two or three times a day to nurse fawns but otherwise leave them in a safe place and rely on the fawn's camouflage and lack of scent to protect them from predators. As soon as a fawn is able to keep up with its mother, it will travel more with the mother.

Repeated visits to a fawn can draw the attention of predators and could discourage its mother from returning. Under no circumstances should anyone attempt to feed a fawn.

Moose calves: Treat moose calves similar to fawns, but also be aware that approaching or handling a moose calf is likely to elicit a defensive response from a mother moose if it is nearby.



14 Simple Tips to Live More Toxin Free

Living more toxin free is not as hard as you might think. These tips from Seventh Generation.com will help you on your way to living healthier.

1.) Once a week, open all the windows in your house for 5 minutes.

Like you, your house needs to breathe. No matter the season, summer or winter, open all the windows in your house for at least 5 minutes once a week. Release the vapors and bring in the fresh air.

2.) Avoid recycling receipts.

They may look like paper, feel like paper, but they shouldn't be recycled like paper, they could contain BPA. And that will contaminate the other recyclables in the mix. Just throw receipts into the trash. Or go paperless and avoid them all together.

3.) Be careful with non-stick cookware.

Face it, non-stick cookware never is as non-stick as you want it to be. You're always adding oil or butter to help it along. But here's what you may not know, when heated to above normal cooking temperatures, some non-stick coatings release perfluorooctanoic acid, which is as scary as it sounds. It has been linked to cancer. Consider switching to cast iron or stainless steel.

4.) Use glass containers for lunches and food storage.

There is no situation where the phrase "could leach into your food" is desirable. Even beets leaching into our mashed potatoes becomes a meal-breaker for some. So why tolerate potentially harmful chemicals leaching into our foods from plastic containers. Go with glass instead.

5.) Choose a good, old-fashioned mug for your morning coffee.

Grinding trees into pulp, compressing them into paper, then chucking them into landfills after one use seems, to put mildly, a bit inhumane. After all, they've worked well for generations.

6.) Your nose knows, trust it.

Here's the thing, if something, you know gives off a scent that makes you think "Whoah", that's probably a good sign to step away. Because more likely than not, you're smelling a Volatile Organic Compound, also known as a VOC. And the less you inhale of those, the better.

7.) Avoid dry-cleaners who still use "PERC".

It's not like any of us wakes up in the morning and says "Hmm, I think I'll soak my clothes in potentially carcinogenic chemicals then wear them over my



naked body for the next several hours." But essentially that's the decision many of us are making daily. Cut your body a break, bypass the dry-cleaners who still use perchloroethylene also known as "perc".

8.) Careful. Sketchy chemicals can sneak up on you when you least expect it.

No need to worry about your carpet, your clothes, your furniture and curtains, right? Wrong. All of those can contain questionable chemicals like perfluorooctane sulfonate. Clues to watch out for are words like: "stain resistant", "wrinkle-free" and "permanent-press". Choose natural fibers; like nature, they're your friend.

9.) Get a plant and improve your indoor air quality.

Plants like what you exhale, you like what they exhale. Symbiosis. It's a win-win.

10.) Beware, "Unscented" is not the same as "Fragrance Free".

No healthy relationship is ever based on secrets and some synthetic fragrances, including the nefarious "unscented" fragrance, can contain hundreds of secret chemicals, none of which have to be shared with you. Improve your label literacy and be aware of what's really inside the stuff you buy.

11.) Feed your baby organically, let them teethe organically.

Would you rather your baby chew on plastic or a vegetable? Use frozen celery or bagels instead.

12.) Just because it smells good, doesn't mean it feels good.

Choose detergents that tell you what's in their fragrance so you can choose for yourself what goes on baby's sensitive skin.

13.) Know what kind of fire retardants are used on your child's mattress.

Avoid products made with brominated fire retardants and opt for less flammable fabrics and materials like wool and cotton.

14.) Carpeting in a nursery looks nice, but avoid it.

It can trap allergens, which may make your baby sick. Stick with natural floors, and always vacuum with a HEPA filter.

For more information on Seventh Generation - the Campaign for a Toxin-Free Generation check out

www.seventhgeneration.com

Purple traps for Emerald Ash Borer

As you drive around Maine you might spot some purple contraptions hanging in the trees. No, it's not trash that has blown into the trees, it's an Emerald Ash Borer Trap. The traps are set out as part of a monitoring program overseen by the Maine Forest Service to detect the presence of the Emerald Ash Borer (EAB). There are presently some of these traps on tribal land.



The EAB is a serious invasive pest of ash trees (*Fraxinus* sp.). This insect is native to Asia and attacks all species of ash in North America. Our native ash species have no defenses against the EAB and most die within a few years of attack. Emerald ash borer was first found in Michigan in 2002, and since then has spread rapidly throughout eastern North America. Although EAB can spread up to several miles a year on its own, much of the spread can be linked to the movement of infested firewood. Emerald ash borer has killed millions of trees in the last several years, and has the potential to eliminate ash in North America.

According to the Maine Forest Service website, Emerald ash borer is now known to be within a half of a day's drive of Maine's border. It has been most recently found in Concord, New Hampshire, Dalton, Berkshire Co., Massachusetts and around Prospect and Naugatuck in New Haven Co. Connecticut; Toronto, ON Canada; Montreal Area (Montréal Region), QC, Canada. Many of the new infestations are located around campgrounds confirming that the movement of firewood is a contributing factor in the spread of EAB.

So why the purple traps you might ask? Extensive research has gone into developing a highly attractive trap and lure combination to aid officials with early detection. Researchers in Tennessee discovered that the color purple was most attractive to EAB. The traps are made of corrugated plastic and fold into a prism shape. A scented lure, which is a combination of manuka oil and a leaf-blend compound, is hung inside the trap. The outside surface is covered with a sticky glue. The trap is hung in the canopy of ash trees. The color and scent of the trap attract flying adult beetles, which then get stuck in the glue.

For more information about the Emerald Ash Borer and Other Invasive Pests check out

<http://www.maine.gov/doc/mfs/InvasiveThreats.htm>

<http://www.maine.gov/agriculture/pi/pestsurvey/pestinfo/EAB/EAB.htm>

http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/index.shtml

Welcome Summer Techs

It's that time of year again, time to welcome the summer techs. Rhonda Smart has returned to work with the Water Resources Program and Dan Devoe has come aboard to work on our various natural resources projects.



Dan Devoe

Rhonda Smart

Feeding Hummingbirds

A favorite summer pastime in Maine involves feeding hummingbirds. It's very easy to attract these birds to a feeder.

Hummingbird feeders come in a variety of sizes and shapes, and although most feeders you see for sale are red, they do not need to be. Contrary to popular belief, you do not need to buy the pre-packaged food from your local retailer. Actually many of those foods contain chemicals and dyes that are harmful to hummingbirds, so you are better off making the food yourself.



It is cheap and very easy to do. All you need is boiling water and sugar, at a ratio of 4 to 1. That translates into 1 cup water to ¼ cup sugar, 2 cups water to ½ cup sugar and so on. Simply refrigerate any left over sugar water until next time. Be sure not to use honey or artificial sweeteners, these are harmful to the birds.

Be sure to clean your feeders every few days, to keep the sugar water fresh and keep your hummies healthy.