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Nipon *(Summer)*
June 2011

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HBMI Natural Resources Department

Fishing = Fun! by Valerie L. Polchies


Kim St. Jean and Caden

Tired of endless hours of video games and being stuck inside? Here are a few tips to get that little one of yours outside and having some real fun. Taking a child fishing can be a rewarding experience. With these five simple tips I will explain how.

1. **Be Prepared –** An extra set of clothes, sunscreen, bug spray, and a simple first aid kit will get you started. Also, be sure to bring a drink and snack.

2. **Keep things simple –** Trout worms or crawlers (these can be found in the backyard), bobber (**this will help you keep track of your child's bait**); hook, sinker, and child sized pole (can be found at any dept. store). Bending the barb on your child's hook will make it easier for you to unhook fish.


Cecelia Tibbetts with son Dylan

3. **Fish to catch, not for species –** To keep your child's interest, take them where there is a high success rate, whether it be sunfish, bass, or chub. If your child catches anything, it will increase his/her chance of wanting to go fishing again. Children love to play in the water, so a little dip net will help them catch minnows they can put into a bucket.

4. **Make this event about the kids –** Praise them in their efforts whether they want to fish, splash, chase butterflies, or just feed the worms to the fish. Don't get upset if they start throwing rocks (you could even show them how to skip them). If they see it is okay to do these things outside, they will continue to want to be outside. Remember, carrying a camera makes for lots of fun while going through the memory books.

5. **Teach them how to be responsible about nature –** Picking up litter while fishing or retrieving a couple stray hooks will teach your child responsibility and soon they will make it a habit to do the same. Children learn by example. By picking up litter, it will help ensure that someday they will have the resources to teach their children these same traditions.

Remember **- The most important lesson is having fun and getting outside!!!**

Meet the Summer Techs - 2011

(top) clockwise, Ryan Greenlaw, Rhonda Ireland and Rhonda Smart.

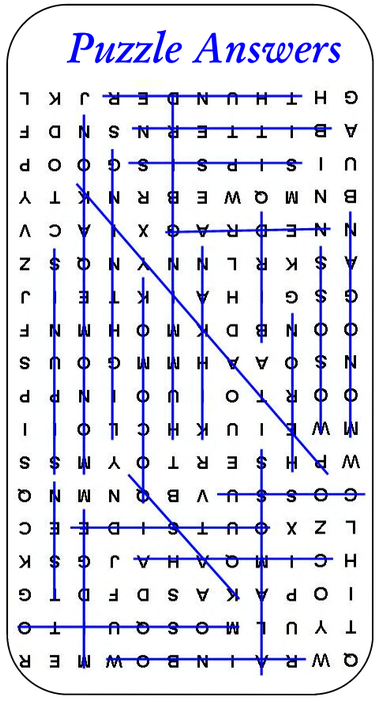
(right) Isaac St. John)

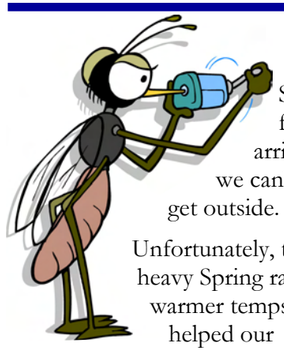
Summer field season is in full swing and that means one thing, the Summer Techs are here! This year Isaac St. John has returned to work with Matthew Edberg on various projects, including the building of the new high tunnel greenhouse. Ryan Greenlaw has returned to work with the Water Resources Program.

We are also pleased to announce that Rhonda Ireland is working with the department as part of her EPSCoR (Experimental Program to Stimulate Competitive Research) Internship through the University of Maine studying water quality and it's relationship to Muskrat Root and it's habitat. She is also working with Michelle Baumflek continuing research on native plants.

Be sure to say hello when you see them out and about this summer.

Puzzle Answers





Ugh! Mosquitoes!

Summer finally arrives and we can't wait to get outside.

Unfortunately, this year's heavy Spring rains and warmer temps have helped our mosquito population to explode, thereby sending us running for cover and all the bug spray we can find.

Remember, mosquitoes are not just on this planet to annoy us, they play an important role in our ecosystem, providing food for birds, bats, fish and reptiles.

To reduce their numbers and avoid the need for pesticide use, there are some simple steps you can take to reduce their numbers.

The best way to reduce mosquito populations is to eliminate the standing water mosquitoes need to breed.

Be sure to empty or remove all outdoor containers that hold water, such as:

- Boats and canoes
- Old Tires
- Flower pots
- Wading pools
- Toys
- Buckets
- Wheelbarrows
- Cargo trailers
- Bird baths
- Pet Dishes

Make sure water does not stand for more than 4 days by:

- Removing leaves, trash or other items that might clog drainage ditches.
- Fill in low areas of your lawn or yard that hold water.
- Draining excess water in flower pots.
- Clear out gutters frequently in warmer months.
- Change water in birdbaths by flushing every few days.

Eliminate stagnant pools of water by creating movement. Female mosquitoes will not lay eggs in moving water:

- Add a fountain, pump, bubbler or waterfall to ornamental pools.
- Add a swimming pool cover when not in use. Make sure water is chlorinated per manufacturer's directions.
- Make sure water pumps in pools and ponds are operating properly.

For more information :
www.mosquitoawareness.com

Uncommon Visitor to Tribal Lands

Keep your eyes peeled for a bright orange flash flying through the sky. No I'm not talking about flying pumpkins, I'm talking birds. A male Baltimore Oriole was recently seen on Bell Road. Although this area is part of the Oriole's summer range, they do not appear here in great numbers.

The males, shown at right, do not gain their beautiful orange colors until the fall of their second year. They breed along woodland edges and open areas with scattered trees.

The Oriole is a medium sized bird measuring 6.7 to 7.5 inches and has a wingspan of 9.1 to 11.8 inches. Surprisingly for their size, they only weigh 1.1 to 1.4 ounces.

Orioles eat caterpillars, spiders, many insects, fruit and nectar. They are drawn to oranges and feeders. To help draw them to your home, place orange slices in mesh bags or in the crooks of trees. Like hummingbirds, they will drink from nectar feeders. Feeders and nectar are available for purchase at most stores that sell bird feeding supplies. You can make your own nectar by boiling 2 cups water, add ½ cup sugar (1 part sugar to 6 parts water). Stir until fully dissolved, allow to cool completely before filling the feeders. Store unused nectar in refrigerator for up to 2 weeks. **Do not add food coloring to the mixture.** The birds will find it if it is in an orange colored feeder. Be sure to clean feeder regularly in hot weather.

You can also make hummingbird food by using 1 part sugar to 4 parts water.

for more information:

http://www.allaboutbirds.org/guide/Baltimore_Oriole

Stages of a Beaver Dam

by Cara O'Donnell Water Resources Specialist

Wetland creation

If a beaver pond becomes too shallow due to sediment accumulation, or if the tree supply is depleted, beavers will abandon their site. Eventually the dam will be breached and the water will drain out. The rich thick layer of silt, branches, and dead leaves behind the old dam is the ideal habitat for wetland species. Many may have been on the fringes of the pond. Wetlands provide significant environmental benefits.

Meadow creation

As the wetland fills up with plant debris and dries out, pasture species colonize it and the wetland becomes a meadow suitable for grazing in an area with nothing but forest down to the stream edge. This provides a valuable niche for many animals which otherwise would be excluded.

The riverine forest

Finally the meadow will be colonized by riverine trees, typically aspens, willows and such species which are favoured by the beaver. Beavers are then likely to recolonize the area, and the cycle begins again.

Bottom land

Each time the stream life cycle repeats itself, another layer of rich organic soil is added to the bottom of the valley. The valley slowly fills and the flat area at the bottom gets wider. Research is sparse, but it seems likely that much of the fabled bottom land in North America was created, or at least added to, by the efforts of the generations of beavers that lived there.

Summertime Word Search Puzzle

Find these **English** and **Maliseet** words hidden in the puzzle below.

Bird	**Sipsis**
Bittern	**Cimqaha**
Garden	**Kihkan**
Heron	**Kasq**
Hummingbird	**Alamossit**
Lightning	**Monomeqakon**
Midge	**Sipunis**
Mosquito	**Cossu**
Nest	**Wososs**
Outside	**Qocomok**
Rainbow	**Monoqan**
Thunder	**Petakiyik**

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

Dendrology Corner

Dendr = tree ology = study of

Prepared by: Matthew P. Edberg, HBMI Natural Resources Specialist

Northern White Cedar *(Thuja occidentalis)*:
Thuja= arbor vitae= "tree of life", occidentalis= Western

Cedar is an important and beautiful tree.

Habitat: commonly found in pure stands of more than 70% cedar, in peat-land swamps, but can also be an old field pioneer on upland sites.

Native Range:

Natural History: Cedar is classified as shade tolerant. It commonly attains a diameter of 2' feet and heights of 80' feet. A record cedar tree found in Michigan, measures 6' feet in diameter and 113' in height. In addition, it is a long lived tree attaining a maximum age of **400 years!** Cedar grows optimally on slightly alkaline soils that contain limestone, such as the "potato rock" soils common to our area in Eastern Aroostook County.

Special Uses: Cedar wood is very decay resistant. It is used in the construction of shingles, barrels, fence posts, canoes and other applications requiring decay resistance. Cedar swamp peat-lands provide important wildlife habitat to a variety of species such as the white tail deer (*Odocoileus virginianus*).

Medicinal Uses: The Maliseet call cedar **kakskus. "**It is used as a sacred medicine in smudging - to rid negativity, cleanse, purify ones being and bring balance to the emotions - also used by our ancestors to line sweat lodges as we do today."

Danya Boyce

Cedar leaf tea is used for a variety of ailments. In addition cedar leaf oil, distilled from the leaves, is also used in medicines and perfumes (**warning leaf oil is toxic!!**). The name "arbor vitae" (tree of life) for cedar first appeared in the 1600's when Native Americans first taught French explorer Jacques Cartier how to treat scurvy (a vitamin C deficiency) with cedar leaf tea.

Remember: When collecting any wild plant species for medicinal or edible use be absolutely sure you have identified the species correctly. Be sure to take only what you need and harvest carefully leaving some behind for the future and for others.

Utilitarian Uses: Cedar's inner bark can be made into cordage for lacing and cloth, as well as, being excellent tinder for starting fires. Cedar wood also makes excellent kindling but tends to throw a lot of sparks.

Literature Cited

- Silvics of North America Vol. I Conifers, USDA, Handbook 654
- Foster, 1990, Medicinal Plants, Peterson Field Guides.
- Wilbur, 1990, Indian Handicrafts, The Globe Pequot Press.

Beat the Heat *(cont'd)*

- Keep the thermostat on your air conditioner set at 78°.
- Use fans to help move the cooler air.
- Turn the AC down when you are asleep or no one is home.
- Choose a properly sized air conditioner for the space you're cooling.
- Keep all windows and doors closed while air conditioner is on.
- Keep unit's coils properly cleaned and refrigerant charged.

for more information:

www.ehow.com

Dioxin in our Lakes? *by Cara O'Donnell Water Resources Specialist*

Linda Bacon (MEDEP) and Matthew Edberg with core sediment sampler

The HBMI Natural Resources staff will be out and about this summer sampling something new: Dioxin in lake bottom sediments. Dioxin is a general term that describes a group of hundreds of chemicals that are highly persistent in the environment. So why should we be so concerned about something at the bottom of a lake? Dioxin has the potential to bio-accumulate in foods we eat, including fish. In fish, these toxins bio-accumulate up the food chain so that dioxin levels in fish are 100,000 times that of the surrounding environment.

Why is it unsafe? Based on studies done on laboratory animals, exposure to dioxins and furans is known to cause a variety of cancers and can harm the immune system. Effects on reproductive, endocrine, circulatory and nervous systems have also been observed. TCDD (the most hazardous of the dioxin compounds) exhibits the highest cancer potency of any chemical ever studied in animals.

Where does it come from? Small amounts of dioxins are produced naturally during forest fires and volcanic eruptions. However, the majority of dioxins and furans in the environment are an unwanted result of human industrial processes like plastic production, waste incineration, chlorine bleaching of pulp at paper mills, and from backyard burn barrels. Improved pollution controls and changes in manufacturing processes have, in some instances, reduced releases of dioxins to the environment.

Lake sediment dioxin data collected from numerous lakes in the Meduxnekeag Watershed will shed light on the amounts of dioxin and associated compounds found in our lakes, and the potential for it to be found in fish caught in these lakes. When purchasing fish and seafood from the grocery store you can use the following table to make healthier choices.

(continued page 6)

Popular Seafood: Best & Worst Choices

Fish	✓ Eco-Best	- Eco-OK	✖ Eco-Worst
Salmon	• Canned salmon ♥ • Wild salmon from Alaska ♥	• Wild Salmon from Washington, Oregon or California ▲	• Farmed or Atlantic Salmon ▲
Shrimp	• Pink Shrimp from Oregon ♥ • Spot Prawns from Canada ♥	• Brown Shrimp ♥ • Farmed Shrimp from the US ♥ • Northern Shrimp from US and Canada ♥ • White Shrimp ♥ • Wild Shrimp from US ♥	• Blue Shrimp • Chinese White Shrimp • Giant Tiger Prawn • Imported Shrimp and Prawns
Tilapia	• Tilapia from the US ♥	• Tilapia from Latin America	• Tilapia from Asia
Trout	• Farmed Rainbow Trout ♥		
Tuna	• Albacore from US or Canada ♥ • Yellowfin from the US Atlantic caught by troll/pole ♥	• Canned light tuna • Canned white/albacore ▲ • Imported bigeye/yellowfin caught by troll/poll ▲	• Albacore tuna (imported longline) ▲ • Bluefin Tuna ▲ • Imported Bigeye/yellowfin tuna caught by longline ▲

♥ = Indicates fish high in heart-healthy omega-3 fatty acids and low in environmental contaminants ▲ = Indicates fish high in mercury or PCBs

for more information:

http://www.edf.org/article.cfm?contentID=3950) or http://www.edf.org/page.cfm?tagID=1521

Reasons to Ditch Your Lawn & Garden Chemicals

A beautiful yard and lawn is the goal of many households. Unfortunately, many people choose to get that perfect lawn at any cost. In doing so, they subject their family, pets and the environment to a myriad of toxic chemicals. Organic lawn care was the norm long before chemical pesticides and fertilizers came along.

In order to improve the health and vitality of your home environment, consider these reasons to ditch your lawn and garden chemicals:

Lawn chemicals are unnecessary. Organic lawn care protects your family, pets, local wildlife and the environment while giving you the lush green growth you strive for.

Use of chemical pesticides and fertilizers:

- **Contaminate surface and ground water.** Rainfall and the act of watering your lawn and garden cause these chemicals to enter the groundwater and possibly your drinking water. Runoff that includes these chemicals can also endanger aquatic habitats and reduce fish populations.
- **Threaten the health of children and pets.** Their small size and the nature of child's play puts our youngster's health at great risk. Children who play in grass, or dirt that has been treated with chemicals introduce these toxins into their bodies when they breathe, put their hands and toys into their mouths or touch their eyes. Pets are also exposed to toxins as well.
- **Threaten the health of local wildlife.** Turf dwelling and feeding birds and animals are highly vulnerable to poisoning. Granular pesticides are often mistaken for food and eaten directly by birds and animals looking for seeds.

- **Reduce the health and activity of beneficial organisms.** Healthy soil is alive with organisms that help plants grow, reduce weeds, kill insect pests, slow the spread of disease and help plants to gather water and nutrients. Earthworms, for example, break down thatch, feed plants with their castings, improve the soils air and water circulation (they make good fishing bait too!).
- **Is a waste of money.** Chemical fertilizers usually contain three macronutrients - nitrogen, phosphorus and potassium and no organic matter. Meanwhile, compost from a back yard bin (or even a bag from the store) is a complete package of nutrients full or organic matter, microbes and a whole slew of nutrients. Using or making compost also helps keep plant based materials out of the landfill.
- **Degrade the long term health of your lawn and garden.** Continuing to add artificial nutrients causes your landscape to become chemically dependent. Just like an addict, it will require more applications the longer you use them and they will become less effective. Pests tend to build up resistance to these products as well.
- **Is more labor intensive.** Chemically dependent lawns require frequent chemical applications and watering. A healthy, nutrient rich organic lawn or garden requires less weeding and watering giving you more free time for fishing or other activities you enjoy.

For more information:

www.organiclandcare.net

Dioxins *(cont'd)*

Dioxins build up in fish and animal fat, and therefore proper cooking methods can help reduce your exposure:

- Before cooking, remove the skin, fat (found along the back, sides and belly), internal organs, tomalley of lobster and the mustard of crabs, where toxins are likely to accumulate.
- When cooking, be sure to let the fat drain away and avoid or reduce fish drippings.
- Serve less fried fish; frying seals in chemical pollutants that might be in the fish's fat, while grilling or broiling allows fat to drain away.

For smoked fish, it is best to fillet the fish and remove the skin *before* the fish is smoked.

Photo - Cornell University Dept of Horticulture

High Tunnel on the Horizon

by Sharri Venno, Environmental Planner

Check out the new construction going up next to the Elder's Center this summer. Not as impressive as our new apartment buildings or the new Health Clinic we admit, but we hope you like it.

It's a "High Tunnel" which is the technical term for a greenhouse where the plants you grow are planted in the ground like a garden instead of in trays or pots.

Prepared site awaiting construction of High Tunnel Greenhouse

What are we planting in the High Tunnel? Raspberries! Red ones and black ones. Planting raspberries in a High Tunnel will extend the growing season. We'll have to wait until next summer to plant as it's too late in the season this year. In years to come we hope to provide pick-your-own raspberries for the Tribal Community. This project represents a joint effort between HBMI and the Natural Resources Conservation Service, NRCS.

Beat the Heat Without Air Conditioning

Summary finally gets here and one of the first things we do is shut the doors and windows and crank up the AC.

By changing just a couple of habits you can keep your home and yourself cooler throughout the "dog days of summer".

To reduce the heat entering your house:

- Keep shades and blinds closed during the heat of the day. This can keep the bright sunlight from heating up your house.
- Also keep sunny windows closed to keep the heat out.
- Be sure to keep lights and other non essential electronics turned off.

To help cool your home:

- Use ceiling fans to circulate the air in the rooms you occupy most.
- If there is a breeze outside, even a minimum one, open windows in your house to take advantage of it.
- If the breeze is not enough, try using table fans. Place one in a window facing out to draw hot air from inside your home. Place a second fan blowing in on the opposite side of the house. You'll create a wind tunnel of sorts, cooling your home as you go.
- Use a dehumidifier to reduce the humidity. Be sure to use exhaust fans to vent hot air outside.

To cool yourself:

- Wet your wrists, and other pulse points with cool water.

- Apply ice wrapped cloths on your wrist, around your neck etc. These will help lower your temperature by up to 3 degrees and can last for up to an hour.
- Spend time in the shade.

If you must use and air conditioner for comfort or health reasons be sure to use one smartly.

- Install air conditioner on the shady side of your home.
- Check for gaps and leaks around the air conditioner. Seal all you find.

(*continued pg 4*)