



Idaho Naturalist news

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INSIDE THIS ISSUE:

Contribute to our Next Newsletter 2

Conifer Trees of Idaho 3

Welcome New Chapters 4

Albino Animals 5

Portneuf Watershed Work 7

Where's my Fish? 8

The IMNP Goes to High School 9

Photo Gallery 10

Do your Taxes Right! 11

The Idaho Naturalist News is a quarterly newsletter of the Idaho Master Naturalist Program.

For questions, comments, or contributions to this newsletter, contact Sara Focht Sara.focht@idfg.idaho.gov



Male wood duck at MK Nature Center. Photo by Glenn Mouser, President of the Sagebrush-steppe Chapter

Creating a Sense of Place- a Master Naturalist Philosophy

Sara Focht, Wildlife Educator and Idaho Master Naturalist Program Coordinator, Idaho Department of Fish and Game

Some of the articles in this issue of Idaho Naturalist News reminded me of concepts I studied in graduate school: “place-based education” and creating a “sense of place.”

Some areas have a “sense of place” and some do not. A “sense of place” it is a quality held by the *people*, not the place itself. A sense of place is developed through knowledge and appreciation of a location’s unique qualities.

In the field of environmental education, there is a movement to teach kids (and adults) about the natural world in their community in order to foster and develop a sense of place for those people. The idea is that if there is a sense of place held by the people who live and visit an area, the area will be preserved, protected, and cared for. Connect people with the animals and plants, the unique geologic features, even the cultural underpinnings of an area....and you will increase the likelihood the place will remain authentic.

The Idaho Master Naturalist Program was designed to be implemented in local chapters (of which there are now 6 and 3 in the making). Chapters are developed to present information on local flora, fauna, concepts, and volunteer opportunities with the very intentional purpose of connecting participants to their place.....to help develop a sense of place.

As a participant, you may not have known that your leaders were tasked to make your training and experience local, relevant and “place-based.” As a leader, you might not even have called it this!

Place-based education and developing a sense of place for IMN participants and the communities they live in is a concept that forms the foundation of the Idaho Master Naturalist Program.

With this in mind, I hope you enjoy learning about conifer trees on page 3, trees we have in all of our communities. Page 5 and 6 will bring you a story about very unique animals that you may have never seen in your area, but are sure to exist! On page 7, you will find out how the Portneuf Master Naturalists are taking care of and learning about their watershed. Page 8 brings us a very personal story of one man’s look back on a special place. Finally, you will read about young people getting to know their place through the Idaho Master Naturalist Program, as it is implemented in their high school.

Send us YOUR Story



A unique owl pellet. Most owl pellets are full of skulls, ribs, and vertebrae of mice, shrews, voles and rats! But this one was not. Can you tell what this owl ate? For the answer, see the bottom of the last page of the newsletter.

Please consider contributing to the next *Idaho Naturalist News* newsletter. We are interested in articles about your training, volunteer experiences, places you have visited, species you have researched. Or, send us a photo you have taken on one of your outdoor adventures. Get creative, write us a poem, or draw us a picture!

Submit newsletter items to Sara Focht at sara.focht@idfg.idaho.gov by March 15th to have your entry posted into the April 1 newsletter.

Oh Conifer Tree, Oh Conifer Tree...how lovely are your branches?

*Sara Focht, Wildlife Educator and Idaho Master Naturalist Program Coordinator,
Idaho Department of Fish and Game*

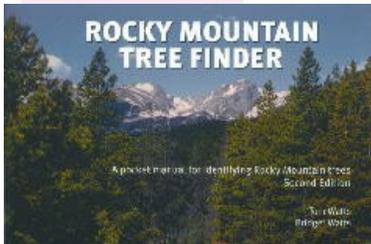
The holiday season has come and gone, but perhaps you still have your drying Christmas tree in the corner, shedding more and more needles as the days in January pass. Traditional Christmas trees are, of course, conifer trees (unless you are a scrooge and tie your ornaments to a bare stick).

Idaho has 18 species of trees that produce cones. Cone-bearing trees are different in many ways from other trees.

- Conifers are all considered “softwood” compared to other trees that are “hardwood” species.
- Conifer trees all produce their seeds in their cones, rather than in flowers.
- Conifer trees have needles or scaled needles as leaves.
- Conifer trees are evergreen and do not shed their leaves/needles for the winter. Well, all except one species...the ever famous Tamarack! There are exceptions to every rule.

Tamarack or Western Larch are unique. Not only do their needles turn yellow in the fall and drop to the ground, but the needles grow from branches in large clusters. This tufty needle growth pattern makes Tamarack easy to identify...in the summer!

The Rocky Mountain Tree Finder second edition (Watts and Watts, 2008) is a inexpensive little book that helps you identify trees using a simple dichotomous key!



© Susan McDougall

Tamarack needles in summer.

Susan McDougall @ USDA-NRCS PLANTS Database

Upon closer investigation, conifer trees are as different *from each other* as they are from broad-leaved trees.

Pines grow with needles that come in bundles of 2, 3, or 5. Species in Idaho include the Ponderosa, Whitebark, Lodgepole, Limber, Western White, and Colorado Pinyon.

Spruces have needles that grow out of the branch individually and are pointy and VERY sharp. Decorating your Christmas tree is a painful process if you buy or cut a spruce variety! Idaho has White Spruce, Engelmann Spruce and Colorado Blue Spruce. Spruce cones are papery compared to pines.

Firs also do not have bundled leaves, however, this group is usually easier to touch (“friendly firs.”) Idaho has Grand Fir, Douglas Fir (thought not a true fir), White Fir, and Subalpine Fir.

Cedars and junipers have scale-like needles instead of smooth needles. Junipers produce a blue-ish purple berry like cone! Rocky Mountain Junipers and Western Red Cedars are in Idaho.



The Sage School



Welcome New Idaho Master Naturalist Chapters

The Idaho Master Naturalist program has some new chapters to welcome. The Lizard Butte Chapter is based out of SW Idaho. Sponsors of the chapter include the Natural Resource Conservation Service in Marsing and Deer Flat National Wildlife Refuge in Nampa. Training starts soon. Contact Diane French for more information at diane.french@id.usda.gov.

The Wood River Valley Chapter has brought in the Sage School in Hailey. Thirteen students from the school have started the program! They are the first school that incorporates the program into their curriculum. The Wood River Valley Chapter sponsors are the Environmental Resource Center (ERC), the Wood River Land Trust, and the Sawtooth National Recreation Area. See article on page 9 for more information.

The Sage School in Hailey may be the first school to use the Master Naturalist program as part of their curriculum, but they are not the only school. A BYU Idaho professor, Kari Archibald (Henry's Fork Master Naturalist) has brought the IMNP to her Interpretation Class. These college students will join the program as a subchapter of the Upper Snake Chapter in Idaho Falls. The Upper Snake Chapter is sponsored by Idaho Department of Fish and Game, University of Idaho Extension, and now, BYU.

Welcome new chapters. We look forward to hearing from you in the future.

Whose Fleece was White as Snow

the story of Albino animals

Sara Focht, Wildlife Educator and Idaho Master Naturalist Program Coordinator,
Idaho Department of Fish and Game



An albino mule deer in the foothills of Boise. Photo courtesy, Jeff Rohlman, IDFG.

Elaine Walker, a Sagebrush-steppe Master Naturalist, recently sent me a photo of an albino squirrel she found in a city park in Payette (see next page). This sparked my interest in albinism, so I checked into it a little and here is what I learned.

Albinism in wildlife species is not common, but not exactly unheard of. One in 20,000 mammal births result in a double recessive combination of a gene that produces the skin pigment melanin. This double recessive gene condition results in the animal having no ability to produce melanin pigment to color its skin, eyes, feathers, or hair. The condition is more common in birds!

Albino mammals will have all white skin and hair, and red eyes. As you can imagine, being completely white might not be a great quality to have. Pure white animals who are meant to be camouflaged have a hard time protecting themselves and rarely live to become reproducing adults.

Birds that cannot produce melanin may be all white or partially white, since bird feather color is determined by more than one type of pigment (melanins, carotenoids, porphyrins). The albino crow on the next page is all white because black feathers are produced by the pigment melanin. It turns out that melanin and other pigments help make feathers strong, not just colored. So having no pigment will cause feathers to deteriorate and break down faster than having black or highly colored feathers.



This albino crow was found near the Salmon River-thirty miles down stream from North Fork, Idaho. Photo courtesy, Dale Toweill, IDFG.



An albino squirrel (above) races from tree to tree in a Payette, Idaho city park. Photo by Elaine Walker.

An albino moose (left). Photo courtesy, Blake Phillips, IDFG.



An albino bighorn sheep (left). Photo courtesy, Jeff Rohlman, IDFG.

Portneuf Naturalists Take Care of Portneuf Watershed

Pam Reschke, Portneuf Chapter Master Naturalist.

Idaho Master Naturalists from the Portneuf Chapter have been assisting with the monthly water quality monitoring of the Portneuf watershed since June 2009. The Portneuf Watershed Partnership is a cooperative effort of private industry, educational institutions, scientists, and government agencies that runs the water quality testing. Scientists from the Idaho Department of Environmental Quality, ISU, and Three Rivers RC & D Council have welcomed Master Naturalists in the monthly process of collecting data from several locations in the Portneuf River basin. Teams go out to 8 different sites to record current water conditions and collect water samples.

The scientists use an electronic device called a sonde that is usually lowered into the stream at four spots. The sonde has different sensors that detect and record water temperature, dissolved oxygen, pH, specific conductance, and turbidity. Water is sampled across the streams and throughout the vertical column by wading across the stream or dipping from a bridge. The water samples are sent to a laboratory to analyze both physical and chemical characteristics, like suspended sediment and suspended phosphorus. A flow measurement is taken at each site with a velocity meter and depth recorder to calculate river discharge. All of this data is used to determine if water quality standards are being met.

Master Naturalists were trained in the precise protocol used to gather the monthly data last spring by Greg Mladenka, Kelsey Flandro, Heather Bechtold, and Chris Waite. Naturalists Kelley Collis, Deb Harrison, and Pam Reschke have accompanied these scientists and helped by recording data, operating equipment, wading the streams, and dipping water samples. Field conditions can be a little chilly in the fall and winter, but the camaraderie amongst the scientists and interesting work make the monitoring a rewarding adventure.



Portneuf Chapter Master Naturalists at work monitoring the Portneuf Watershed. Photo courtesy, Terri Bergmeier.

Where's my Fish?

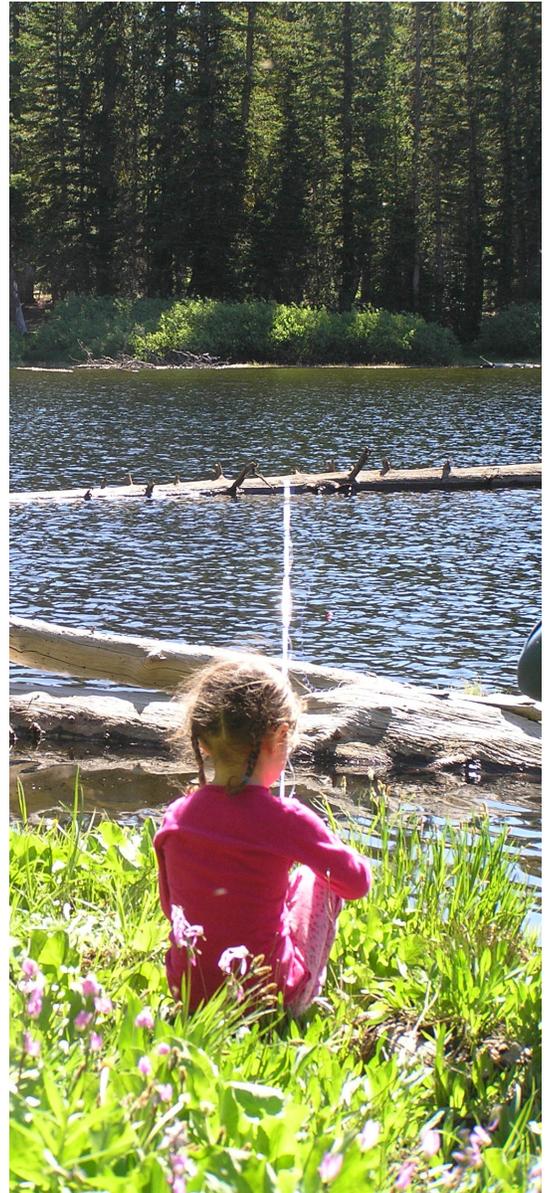
Troy Abercrombie, Coordinating Committee member for a Western Idaho Chapter of IMNP

Remember your favorite fishing spot growing up? The little pond behind the mill or that slough beside the bridge? That sweet little honey hole that was always good for at least dinner? I remember mine. I remember my first fish ever, a nice bluegill right out of Airport Pond in Emmett. My second fish came just a few miles down the road at Star Lane Pond. Boy, am I glad I mounted that first fish. It's probably the last one I'll ever see out of either of those ponds, unless we do something.

I went to Star Pond this past summer just to check it out. The old Merrill's Egg Farm building stood empty reminding me of the current state of our economy. The "Managed by IDFG" sign stood like Swiss cheese on a stick reminding me of the lack of maturity possessed by certain "sportsmen". The pond stood still, deathly still, reminding me of...well nothing. It didn't remind me of anything I had previously known of the pond. The water was a deep green and you could see it was thick with algae. An eerie film covered the surface of the northern pond and an old window mounted air conditioning unit poked through the surface like a shipwreck. "Ahhh no mosquitoes" I thought, how nice. But as I looked closer there was no anything.

No fish jumping to snatch the afternoon hatch. No afternoon hatch to snatch. No muskrat swimming to his lair. No state record pumpkinseed lurking. (The Idaho record was caught at Star Pond in 2001). No annoying red-winged black bird squawking. No parking lot. No bathroom. No fish. No anything. wondered why. Why the eutrophication? Why are there no birds or fish? Why is there not even a mud duck? Why is it no longer managed by IDFG? Is it fertilizer leeching from the canal that runs nearby? Maybe that old chicken farm took its toll over the years. Maybe it was a bad spot to have a fishery in the first place. After all, there are plenty of spots that we say "aww, there are no fish there" and nobody thinks anything of it. Maybe there are tons of fish in there but I just didn't see any. I don't really know why but I would like to.

Look around. How many of your old spots are still around? If there are any that are, you might want to hold on to them. Get involved, go to the next city council meeting or maybe take the kids out. There are a lot of opportunities to make a difference. The Master Naturalist program is a great place to start. Got a project that needs funding? Check out grant opportunities! The scale of the challenge before us is global but **global impact** is a result of **local efforts**. In the grand scale of time we have recognized these challenges relatively early, let's take advantage of it.



Innovative New Partnership in Education



Photo courtesy, ERC

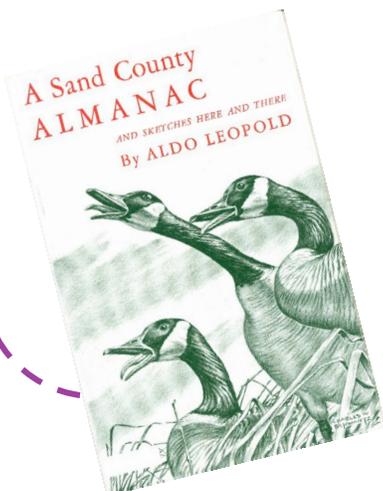
Lisa Huttinger, Idaho Master Naturalist and leader of the Wood River Valley Chapter

In this century, what is the relevance of Aldo Leopold's Sand County Almanac? How can you calculate the height of a tree without climbing it or cutting it down? How do you differentiate between the tracks of a bounding marten and a 2x2 red fox trot? For the students at The Sage School, these questions - and many more that they will generate themselves - are setting the stage for the first high school class to be certified as Master Naturalists in Idaho - and perhaps the country.

The Environmental Resource Center (ERC) is working closely with the teachers at The Sage School in Hailey, Idaho, on an amazing endeavor - to not only certify all of the students and faculty as Master Naturalists, but to do so in a way that embeds natural science, a land ethic, a sense of place, and a motivation to action into every aspect of the school day.

In addition to the programs that the ERC is delivering several times a week, the teachers are using the natural world as an integrating context across the rest of the curriculum. As a result, students are reading, critiquing, and journaling about a variety of literature - including Aldo Leopold. In math, they are applying geometry to solve questions that have "answers" - such as methods to calculate tree height. But they will also explore questions that don't have firm answers, such as "how much does all of the snow in the valley weigh?"

We have completed two days of explorations, during which students recorded all of the questions that crossed their mind. Next, we will use these questions as the foundation of the rest of the program. We will cover all of the requirements set by the state for the Master Naturalist program, but in creative ways. For example, if the students are most interested in animals, then plants will be addressed in terms of habitat choices, and snow and geology will be explored for their impact on animal movement. It is an exhilarating way to teach - students are incredibly engaged, and it tests your ability as a teacher to respond with agility and effectiveness.



"On motionless wing they emerge from the lifting mists, sweep a final arc of sky, and settle in clangorous descending spirals to their feeding grounds. A new day has begun on the crane marsh." -Aldo Leopold

Photo Gallery-boys of winter



*A male mule deer,
male downy woodpecker and a
male hooded merganser.*

Photos by Tony Attanasio.

Answer to question on page 2:
Crayfish

TAX TIME! Line 37 for Wildlife!

34. Tax from recapture of qualified investment exemption (QIE). Attach Form 49ER	34		00
35. Permanent building fund. Check the box if you are receiving Idaho public assistance payments <input type="checkbox"/>	35	10	00
36. TOTAL TAX. Add lines 30 through 35	36		00
DONATIONS. See instructions, page 9. I wish to donate to:			
37. Nongame Wildlife Conservation Fund			
38. Idaho Children's Trust Fund			
39. Special Olympics Idaho			
40. Idaho Guard and Reserve Family			
41. American Red Cross of Greater Idaho Fund ..			
42. Veterans Support Fund			
43. Idaho Foodbank			
44. Enter total donations. Add lines 37 through 43	44		00
45. TOTAL TAX PLUS DONATIONS. Add lines 36 and 44	45		00
PAYMENTS and OTHER CREDITS. Complete the grocery credit refund worksheet on page 10.			
46. Grocery credit. Computed Amount (from worksheet)			
To donate your grocery credit to the Cooperative Welfare Fund, check the box and enter zero on line 46. <input type="checkbox"/>			

Do you like songbirds and wish to contribute to programs that protect them?

Do you care about slick-spot peppergrass, one of Idaho's most rare plants?

Do you like to watch wildlife and hope that opportunities in the future are available?

Are you a Master Naturalist and hope the program continues into the future?

Do you appreciate pygmy rabbits, bighorn sheep, sturgeon, northern leopard frogs and mountain quail?

Would you like to support the research and conservation of insects, reptiles and amphibians?

If you answered yes to any of these questions, then LINE 37 of the Idaho Individual Tax for 40 is for you! Besides buying an Idaho Wildlife License Plate for your car (bluebird, elk, trout), this is one of the only ways for you to donate money toward these programs.

The Conservation Sciences Program (the program responsible for all the items mentioned above and more) receives NO general tax dollars from Idaho and NO money from the sale of hunting and fishing licenses!

SO! Here is your chance! Get to know LINE 37 of your state tax form. Donate generously and feel good that you contributed to great work for Idaho's plants and animals.



Another way to contribute to Idaho's wildlife is to buy an Idaho Wildlife License Plate for your car! Choose from three beautiful designs. Let people know you care about one of Idaho's greatest qualities...wildlife!

Answer to question on page 2:
Crayfish