



# Idaho Naturalist news

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## Twig Eater: The Moose

*Janice Berndt, Sagebrush-steppe Master Naturalist*

What weighs 900 pounds, can run 35 miles per hour, and is an excellent swimmer? As unlikely as it seems, the answer to this question is a moose. To many, the moose is a symbol of the far northern territories. Rarely is Idaho thought of as moose habitat, yet they are found throughout much of the state, from the panhandle in the north to the Caribou National Forest in the southeast.

The moose is an Artiodactyl ruminant mammal. Ruminants are even-toed, cud-chewing, hoofed, and usually horned mammals that have a stomach divided into four compartments. The variety of moose found in Idaho is the Shiras (*Alces alces shirasi*) - the smallest of four subspecies native to North America and the largest member of the deer family. The bull moose is characterized by having deciduous palmate *antlers*.

In Idaho, the habitat they prefer is shrubby, mixed coniferous and deciduous forests with nearby lakes, marshes or bogs. Moose require water bodies for both foraging and cooling. They deal with summer conditions by utilizing dense shade or bodies of water. During hot days, they may completely submerge themselves, except for their nose, in the water of a beaver pond. The Shiras' slender frame allows their body to cool more quickly and is one reason they are able to survive in areas where summer temperatures can be quite warm.



*Photo courtesy Terry Thomas.*

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

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Moose are primarily browsers. Adults may consume 40 to 50 pounds of browse per day. In summer, they browse on the new growth of trees and shrubs as well as aquatic vegetation. As much as half of their diet may consist of aquatic plants, which provide the sodium their bodies require. In winter, they feed on conifer and hardwood twigs, including yew, alder, maple, fir, aspen, menziesia and willow.

Wolves and bears are major predators. Humans are also considered a major predator. Idaho Fish & Game offered approximately 900 moose hunting tags for the 2011-12 season.

Moose are solitary animals and do not form herds. The one time they do come together is during mating season in September and October. At this time, bulls bellow and battle with their antlers for mating supremacy. After mating, the two sexes go their separate ways until the following year, though they may occasionally feed in the same grounds. Females give birth to one or two calves in the spring. The calves grow quickly but usually stay with their mothers until the following mating season.

The next time you are in moose territory, keep your eyes open and you may be treated to a view of one of nature's very unique creatures.

## Creating a Butterfly Garden Takes Special Consideration

*Valle Novak, Pend Oreille Master Naturalist*

Everyone loves butterflies and enjoys having them visit their flower gardens. Many people purposely plant fragrant and colorful annuals and perennials to lure these lovely creatures, and call the results "butterfly gardens," but there's much more to it than that.



First of all, a butterfly garden must be just that; not a bird garden or other combination, since many birds feast on butterflies. So do spiders, toads and dragonflies. Too, people seem to forget that butterflies come from caterpillars, and that those often unlovely critters need to eat to become the beloved "winged flowers."

Consideration must be made then, for protection and food for these lepidoptera from caterpillar to chrysalis to butterfly. A garden site away from bird feeders is a good start. Also consider places out of wind, too-bright sun and heavy rain—dappled shade from overhanging tree branches is good—and of course, there must be no possibility of any pesticide residue. Sprays or dust of any kind, whether chemical or organic, cannot be used in a butterfly garden. Remember, if you kill the larvae you kill the butterfly. Of course there must be chewable plants for the caterpillars (generally the leaves and flowers of the plants they were born on), nectar-producing colorful flowers for the butterflies and water for both.

Don't make the mistake of thinking a nearby birdbath or pool will work, because butterflies don't drink per se, they extract moisture, called "puddling." Damp sand and pebbles work nicely in combination, perhaps offered in a shallow container. The minerals within the sandy soil also benefit the butterflies, replacing those lost in their constant flying/foraging for nectar.



Eggs are laid on the underside of leaves on the chosen plant, hatch into voracious caterpillars that must eat for the strength to finally spin a silken web about itself that will harden into the dormant-stage chrysalis. After about two weeks the hard shell splits and the butterfly emerges to sit and dry its wing for flight and the ensuing search for nourishment.

While there are many wonderful flower choices to lure butterflies, **native flowers are hands-down winners.** Think Gaillardia (tickseed or Indian Blanket), or anise hyssop, lupine, bee balm (bergamot), columbine (Aquilegia), larkspur, penstemon, laitris, viburnum and umbellifers like valerian and sweet Cecily. A variety of small shrubs and trees can figure into the mix: Wild roses, honeysuckle, dogwood, willow, aspen, birch, and Rocky Mountain maple all provide sustenance.

In keeping with our warning about bird-proofing, don't plant bushes that produce berries that would draw them, and keep the bird-bath over by the feeding stations. Butterflies do have the advantage of camouflage and, while seeming very evident to our eyes, somehow fool many birds and other enemies by their various positions and wing-pattern. We can help as best we can with our initial planning, and enjoy the beauty of these lovely quiet visitors that enhance our lives.

The Xerces Society of the Smithsonian Institution has created a lovely and very helpful book, *Butterfly Gardening*. Published by Sierra Club Books in San Francisco in association with the National Wildlife Federation, its number is: ISBN 0-87156-615-X.

*Photos courtesy MK Nature Center, Boise, Idaho*

*Pend Oreille Chapter Master Naturalist Valle Novak is a north Idaho native and lifetime journalist, who was raised by her father, an outdoorsman, to appreciate and understand the forests, waterways, and creatures that inhabit them. She has followed the lure of Nature for her 82 years. Her research on lepidoptera led to this article.*



## New 2012 Classes for Pend Oreille Chapter

Pend Oreille Chapter classes for 2012 began on March 31 with 13 new students who gathered at the WaterLife Discovery Center on Lake Pend Oreille. They listened to Keynote speaker Jack Nisbet, author and naturalist from Spokane, who has written books about David Thompson and David Douglas, early naturalists, mapmakers and mountain men of Canada and the Pacific Northwest.

Classes are on Saturdays in April and May 2012, and include a variety of instructors and field trips. The Chapter is happy to welcome these additional volunteers and looks forward to their participation in current and new projects.



*Keynote speaker Jack Nisbet.  
Photo courtesy Denise Drombrowski.*

Visit the Pend Oreille Chapter on Facebook

## Surprise in a Box



Sagebrush-steppe Master Naturalist Michelle Meyers helps Idaho Fish and Game maintain wood duck boxes. She found this Western Screech Owl in one box when she opened it up to clean it! She took a picture and quietly closed the door! It looks sleepy.

# The Wolverine Project

*Ann Wimberley, Pend Oreille Master Naturalist*

Pend Oreille Chapter Idaho Master Naturalists had the opportunity this winter to participate in an exciting Citizen Science project spearheaded by one of their partners, The Friends of Scotchman Peaks Wilderness (FSPW). In 2010, the Idaho Department of Fish and Game and their partner agencies began conducting extensive regional biodiversity monitoring surveys as part of the Multispecies Baseline Initiative. In the winter of 2009-10, IDFG biologists Michael Lucid and Lacy Robinson focused their rare forest carnivore project on the Selkirk Mountains in the Idaho Panhandle. In the winter of 2010-11, the focus was expanded to include the West Cabinet Mountains, with assistance from volunteers from FSPW, in setting up several wildlife camera monitoring stations. Wolverine tracks were found and 18 unique sets of tracks from fishers, another mustelid, were photographed. With guidance from IDFG and with support from other community partners including the Idaho Conservation League, FSPW applied for and was awarded a \$30,000 Zoo Boise Conservation Fund grant. Funds from this grant covered the purchase of 27 wildlife cameras and other necessary gear, plus the salary of a part-time project coordinator. And thus began The Wolverine Project.



*Top left: Pend Oreille Master Naturalists Ann Wimberley and Jon Burkhart secure the beaver bait to the tree. Photo Credit: Neil Wimberley. Upper right: Neil Wimberley places gun brushes to capture hair samples at station W86. Photo Credit: Ann Wimberley. Bottom photo: Station W87 Game Camera Picture of Bobcat!*

Wolverines are members of the mustelid family, as are weasels, polecats, ferrets, minks, fishers, otters, badgers, skunks and martens. They thrive in rugged snowy terrain where few other species can live, from the northern U.S. to the Arctic Circle. About the size of a dog, wolverines are shy elusive scavengers known for their gluttony and fierceness. They are also very family-oriented, with radio-tagged fathers documented traveling with adolescent sons and daughters in a study done in Glacier National Park.

One hundred twenty volunteers, including several Pend Oreille Chapter members, donated over 1500 hours preparing the beaver carcass bait, setting up the monitoring stations (many of which could only be reached by traveling miles on cross country skies or snowshoes), sorting the photos obtained from the cameras and entering the data. Results of DNA studies done on hair obtained from the animals as they were photographed are pending. Although 67% of stations in the proposed Scotchman Peaks Wilderness provided photos of martens or fishers, no wolverines were seen. There were two wolverine photos from stations in Idaho's Selkirk Mountains and one from the East Cabinet Mountains in Montana. The Wolverine Project will help provide IDFG biologists with baseline population data for the management of many different species in the Idaho Panhandle and surrounding area. For more information, go to [www.scotchmanpeaks.org](http://www.scotchmanpeaks.org).

## New Sub-chapter in the Wood River Valley

The BYU sub-chapter in Rexburg (sub-chapter of the Upper Snake Chapter in Idaho Falls) has proven to be a successful way to allow a group of people to participate in the IMNP without forming a full-fledged chapter of their own. Now we have a second sub-chapter!

Wildlife Biology students at Wood River High School are working in collaboration with the Wood River Land Trust and the Environmental Resource Center to earn Master Naturalist certification through the Wood River Valley Chapter. Six teams of students are conducting wildlife studies at the Croy Creek Preserve near downtown Hailey, Idaho, visiting the site weekly. Topics range from seeing if small mammal populations correlate with cottonwood canopy coverage to determining the effects of the temporary construction of a footbridge at the site on bird populations. The students will present their findings to the Wood River Land Trust in late May. Earlier in the semester these 17 students each made a small mammal or bird study skin and donated them to The Nature Conservancy's Silver Creek Preserve Interpretation Center.

In addition to their biology curriculum, students use the IMNP curriculum to learn about the topics they are studying. Biology teacher Larry Barnes teams with Wood River Valley Chapter Leader Lisa Huttinger to make this all happen!



*Wildlife Biology students at the Wood River Land Trust's Croy Creek Preserve take a break from data collection.*

# Junior Naturalist Program Launched by Idaho Master Naturalist



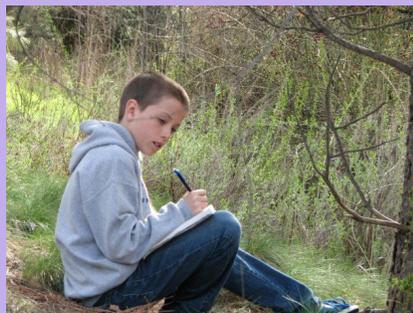
Identifying trees, studying scat, analyzing garbage, and birding. Sound like fun? The first class of Jr. Naturalists thought so! It was a wild success thanks to Sagebrush-steppe Master Naturalists, IDFG employees and other volunteers (and of course a GREAT group of kids).

Master Naturalist Joyce Harvey-Morgan and MK Nature Center education coordinator Sara Focht spearheaded the program that launched during spring break for 17 lucky 4th, 5th, and 6th graders. Joyce expressed interest in helping MK Nature Center do something big, way back in the fall. Sara had always wanted to expand her work with the Idaho Master Naturalist Program to form a Junior version, but felt she never had the time. What a perfect match. Someone with a little time, and someone with the resources and connections to make it happen!

The participants attended 38 hours of education and will donate six hours of community service for their certification. They kept a field journal where they took notes and observations, made drawings and wrote poems. They made masks (of their own faces), did a scientific experiment, made public trash sculptures, took hikes and explored their senses.

Joyce and Sara were accompanied by Master Naturalist Sandy Sweet, Sharon Johansen, Tim McNeil, and volunteer Ian Fawley, and BSU graduate students Yozora Tadehara, and Keith Carter.

Interested in learning more? We are planning to teach others how to host a Junior Naturalist Program. Contact Sara Focht at [sara.focht@idfg.idaho.gov](mailto:sara.focht@idfg.idaho.gov) for more information.



# Making the Connection

Kevin Laughlin, Sagebrush-steppe Master Naturalist

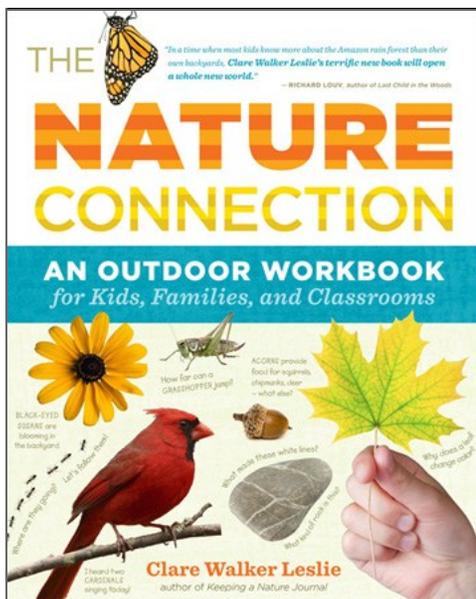
When you ask a four year old to walk with you in the garden, be prepared to answer a lot of questions! They learn through the movements they make and the sensations that result. She or he is able to use symbols (such as words or pictures) to represent objects. Dirt is a natural play attraction . . . just give 'em a digging tool and watch the smiles fly. They assume that everyone sees the yard, garden, park and rivers from the same viewpoint as they do. Awe and wonder are in every 'present moment' experience.

I picked up Clare Walker Leslie's book *The Nature Connection* at this year's 2012 INLA Horticulture Expo in Boise. I always buy one book to add to my children's gardening library. This book is an outdoor workbook for kids, families and classrooms. At a time when more kids know about the Amazon rain forest than their own backyards, this book gives a jump start to the nature of Idaho right out our back door. Clare is a self-taught, admittedly indoor girl that now loves the outdoors. She concludes her introduction with, "Nature needs us and we need nature" and challenges us to be happy exploring!

In part one she shares how to be a naturalist and how to create an Outdoor Adventure Kit; she suggests the following for working with children:

Binoculars  
Pen (Swiss Pocket) Knife  
Notebook  
Eraser  
Paper Clips/Clasps  
Magnifying Glass  
Field Guides (birds, wild flowers, amphibians, etc.)

A collection of colored pencils  
Permanent Markers  
Day pack  
Hat  
Bug repellent  
Sunscreen  
Extra clothing  
Plastic collection bags



She reminds us that all you really need is curiosity, but to also make sure clothing, including shoes, fit the weather and conditions. Taking a healthy snack and a reusable water bottle can make the adventure more pleasurable. I have three packs ready to go out the door: One for the mountain, one for the river, and one for the garden.

When you go outside with children, you're modeling how to be a naturalist, or a garden guy or gal. With your kit, a little planning and few surprises, exploring is always fun. Here in Garden City my neighbor kids ring the doorbell every month of the year and ask, "Can we go out into the garden?" When they are doing that you know their curiosity has been captured. Clare teaches how to be a naturalist by asking questions. Who lives beside you? Look at how nature has arranged those weeds, plants, flowers...could you do this? What is your favorite thing to do outside? From color wheels made with natural things right into journaling, fun activities are poked onto each page.

Part two is *Learning the Sky* with discussions of cycles and seasons. She provides ideas for *Exploring Nature Month-by-Month* in part three. The appendix holds ideas for parents and teachers about safety, using natural journals, meeting state curriculum standards and other resources.

Children that learn to explore nature outside their door will jump, stumble, and play their way right into gardening. Each year the green industry has opportunities to mentor children into the nature of their neighborhood and community by creating and advancing partnerships that do fun programs for kids outside. Make it one of your priorities for 2012! Outside children move from expectation to anticipation, to perspiration and finally transformation by making a nature connection. Nature is where the seeds of courage, hope, and trust are planted. Plant something!

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*Dr. Kevin Laughlin lives in Garden City, Idaho. He is an Idaho Master Naturalist and retired University of Idaho Extension Educator. Much of his career has been focused teaching, organizing and facilitating horticulture, gardening and especially children's gardening programs.*

# Messing with Mother Nature

*Barbara Balance, Sagebrush-steppe Master Naturalist*

I am going to present to you a cautionary tale of the joys and consequences of messing with Mother Nature. In the spring of 2006 while out and about with my two grandsons, we came upon a puddle filled with tadpoles. I have a pond in my back yard and it had nothing in it but rocks, moss, and bugs. We ran back to the house and got containers and loaded up on these soon-to-be dehydrated taddies, without any knowledge of what type of frog we would end up with. Unfortunately, soon after our rescue, I had to return to California and our little fellas were left to fend for themselves. When I returned from my trip there was not a sign of the tadpoles so I didn't know if they made it or not.

The following March, early in the evening, I thought I heard the croaking of a frog! I ran to the patio door, threw it open and listened! Nothing. . . this behavior was repeated over and over and over. I have since learned that these little fellas keep it on the "down low" until the girls show up and the competition for mating begins. I also learned that what we had in the back yard pond were Great Basin Spadefoot (toads). True to their life cycle, they arrive in the spring after the rains have come. They have just spent the last eight to nine months in the ground where they hibernate after mating season. What I know for sure is they show up at my place after Papa Joe, the man who owns the pasture behind my house, irrigates.

The mating calls begin with a solitary toad and his lonely call and with the passing of each evening the crowd gathers and the mantra, "Let's Get Loud" begins. These little 2 1/2 inch brown jobs, with vertical pupils set in golden eyes, can really make a racket. I go from, "Oh listen, they're out there!" to closing all the doors and windows and shutting the blinds just to block out the noise so I can get some sleep. This mating call can be heard all over the neighborhood. When the female toads arrive, mating takes place and on the same day the eggs are laid. They are attached to plant material, twigs and even on the cord to the pump. The tads are smaller than a speck of pepper. They begin to grow instantly and by the second day their little tails can be visible to the naked eye and beginning to wiggle. Or. . . if it suddenly turns cold, nothing happen, or if there isn't enough oxygen in the water the little black specks turn white and die.



*Photo courtesy, Bill Bosworth, IDFG*

Depending on the situation and I HAVE HAD SOME SITUATIONS, I might raise a healthy litter of tads or they may all meet a sad end. One year, I had rescued as many eggs from the pond as I could, placed them in an aquarium with an aerator system, fed them chicken, watermelon, pond scum, etc. They were BIG. They were STRONG. They were going to make it! I released them into the pond for the final stages of development: Legs. I went to the pond the next day to see how they were doing and they were GONE ! Not a trace of a living creature was left in the pond. That fall, I discovered that one of the little minnows that the grandkids had caught at the river and placed in the pond, survived. He had eaten all the poly wogs. Another year, many of them got caught in the pump, and died.

The bottom line is, I am dedicated to these visitors to my back yard. I have made many adjustments to my pond so that the conditions for their survival are right . I plan my vacations before their arrival and after their departure from my yard. The problem with that is the whole reproductive cycle seems to be going on longer and longer with the constant availability of water and a bigger population of toads. What lasted for three weeks in the first couple of years continues for three months last summer. And that fish, at the time of his demise, he was the size of a sandwich plate.