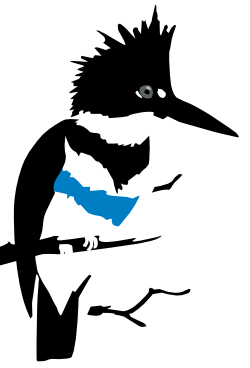


Nature Notes

Winter
2010

NEWS FROM DURANGO NATURE STUDIES



Do it Yourself Nature Bringing Nature Inside

Making a terrarium is a fun and interactive activity for children of all ages to get their hands dirty and create a relationship with a local ecosystem. It is also a great way to bring a little bit of summer into those cold winter months. Below you will find instructions for making a woodland terrarium in your own home.



The Basics:

First thing you will need for your terrarium is a container to hold it. A clear container is a must so that you can see what is happening inside your environment; old aquariums, mason jars with wide mouths, fish bowls and clear plastic storage bins all work great. Just make sure the opening is wide enough to get your hand in and that it is deep enough to allow for the plants to grow. The plant roots will need soil that is about an inch deep with an extra 2-3 inches to grow above the soil. You will also need a lid that is large enough to cover the top completely; a panel of plastic or glass, wire mesh, or plastic wrap.

Get your hands dirty:

You will need 3 things to prepare your terrarium: gravel or pebbles, soil, and plants. All of these things can be purchased at a local gardening store or you can go out and collect them. If you choose to collect plants please be sure not to pick a plant if it is the only one in an area. (Cont. on pg. 3)

DNS Becomes a Project Learning Tree Center: Teacher Trainings in the Works for 2011

The Durango Nature Studies' staff, joined by eight of its Senior Naturalists, spent three days during the beginning of December receiving training to become Project Learning Tree facilitators. Staff also took the first steps to becoming Project Wild facilitators. Leigh Gillette from Project Wild and Shawna Crocker, the Project Learning Tree Coordinator for Colorado, led the trainings. Perhaps the funnest part of training was to actually play some of the many wonderful inquiry based games for which both programs are known.

Although participation in the workshops was meaningful in and of itself, DNS staff had a loftier goal in mind. We hope to become a resource for teachers in the four corners who need training hours in either of these programs. Beginning in January, we will be reaching out to teachers and districts to understand training needs for incorporating environmental education and inquiry based learning in the classroom. We hope to offer at least three trainings next year that are tailored to specific needs. For example, some grades may want training on teaching

specific topics. Others may want to focus on concepts that bring lots of ideas together.

In addition to building our teacher training program, DNS will fold these resources into our current programs. We are already building it into our after school Nature Club, which is finishing up its third session this month. The training also fueled lots of thinking about new activities for summer camp.

One of our programs that will most be affected by the resources now available to us is our Nature in the Classroom (NIC) Program. Currently we offer seven one-hour classroom programs for teachers to choose from. Now, the possibilities are endless. We hope to develop new DNS classroom programs that are tailored to specific classroom needs.

One of the perks of becoming a Project Learning Tree Center is that we will be receiving a bench for the Nature Center with the teachings of Aldo Leopold engraved on it. We look forward to sitting on it as we reflect on new ways to bring nature into the classroom.



Mission

Durango Nature Studies is dedicated to providing nature, science, and environmental education to students and communities of the Four Corners.

Vision

As an integral member of our community, Durango Nature Studies inspires a positive personal relationship with our natural world through outdoor learning, thereby promoting enhanced respect for nature.

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Sally Shuffield

Executive Director

Karen Hickerson

Program Director

Jess Bordenaro

Development Assistant

Allison Smith

Americorp VISTA

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"Those who dwell among the beauties and mysteries of the earth are never alone or weary of life."

Rachel Carson

Wildlife Adaptations in Winter Months

by DNS Staff



Many of us celebrate winter as a time of outdoor adventure tempered by returns to indoor havens. For wildlife, surviving frigid temperatures, snows, and food shortages requires incredible coping strategies such as migration, hibernation, or special physical and behavioral adaptations.

Animals that cannot cope with winter, don't! Instead, they migrate to warmer climes. A vee of geese in the fall sky is the classic illustration of this winter survival strategy. Most song birds travel hundreds of miles in their journey from the frigid north to the balmy south, following their food supply.

Many animals also migrate vertically, moving from higher elevations to lower. Deer and elk take this route, especially during heavy snow years. Traveling through deep mountain snow is exhausting, so they move to the valleys, where there is less snow to walk and paw through in search of food. Juncos, the small, dark headed birds that we often see feeding on the ground beneath bird feeders, are also vertical migrants. They frequent the mountains during the summer, but move into the lowlands each winter, seemingly falling with the first winter snow.

For animals that cannot migrate or otherwise cope with the challenges of winter, hibernation (or another sleep dormancy) is their survival solution. While many animals sleep through the winter, the relative depth of this sleep varies. "True hibernators" are those animals that allow their heart rate to drop radically and whose body temperature hovers just a few degrees above freezing. For example, the ground squirrel's heart rate drops from 350 beats/minute to just two, and its body temperature goes from 98° F to 34° F. Marmots and little brown bats have similar true hibernation metabolisms.

Like a true hibernator, the black bear's heart rate slows dramatically, but its body

temperature only drops a few degrees, leaving scientists to debate how to define this "milder" version of hibernation. In complete contrast, skunks and raccoons are considered "light sleepers," undergoing only slight changes in temperature and heart rate, and awakening during warm spells to leave their dens and feed.

Amazingly, there are animals that thrive in snow and cold. Ideal winter adaptations include wearing white camouflage, being able to keep warm and move easily in snow, and using available food sources. Examples are the snowshoe hare, weasel (or ermine), and ptarmigan (a grouse-like alpine bird). Each wears a brownish coat from late spring to fall. As winter approaches, the brown is gradually molted or shed and replaced with white fur or feathers.

These animals travel easily in the snow. The snowshoe hare and the ptarmigan have large "snowshoe feet" allowing them to float atop the snow as they travel. The lightweight weasel bounds across the snow, or tunnels straight through it, torpedo style! To stay warm, the weasel and ptarmigan burrow beneath the snow, while the hare grows a luxurious winter coat and shelters beneath the boughs of evergreen trees.

Each of these animals' food is consistently available in winter. The weasel catches rodents beneath the snow pack (and lines its snowy den with rodent fur!) and the hare and ptarmigan nibble plant buds and shoots.

Take time to appreciate local winter animals. Enjoy migrant juncos at your birdfeeder, watch for raccoons during warm spells, or head to the high country to track snowshoe hare. Don't hibernate!

Look for Durango Nature Studies' monthly column in the Durango Herald's Good Earth section.

Also, visit our website to see monthly phenology.

Phenology: The study of cyclic events in nature.

Nature Briefs

Community Support Team

DNS is happy to announce the creation of our new Community Support Team. The Community Support Team is made up of community members that enthusiastically support the mission of DNS and are committed to ensuring its success. Members of this group may have a past connection to the organization, special skills or knowledge that they are willing to offer the organization, or just enthusiasm for the work that DNS does. We are grateful to the following individuals for lending their name and talents to DNS.

Candice Carson	Rose Chilcoat	Roger Cohen
JJ Colman	Geoff Craig	Ronnie Egan
Mark Franklin	Andy Guilliford	John Hansen
Rick Routh		

The Community Support Team is an organic group of people. Please contact us if you have an interest in joining. Check the website for the updated list.

Women's Snowshoe Series

This year we will be offering a Women's Snowshoe Series on Mondays in February. This will be a great opportunity to meet other women and get some exercise, while learning about winter ecology. Snowshoes can be rented from DNS if you don't have a pair. Visit our website for times and to register.



Pedestrian Bridge Opens New Trails

We have begun construction on a new footbridge at the Nature Center to help us access some better areas for our water education programs. Ray Pierotti from LPEA donated the poles for the bridge. Ray, along



with Corey Sue Hutchinson from Aquahab, Rick Routh, and Dave Derfus with D&D River and Dirt provided the man and machine power to put the poles in place. The second phase of the project, which involves making the poles into a real bridge with handrails, will be completed in the next few months as an Eagle Scout project. It will be completed in time for spring trail work to be done by Southwest Conservation Corp crews. The bridge is truly a community project, which will open up much more of our Nature Center for programs.

Winter Social!!!!

Traditionally DNS has a party each January to celebrate the past year and let folks know what is in store for the year to come. Mostly, it is just a good time to mingle and meet each other. This year we are holding our Winter Social at Ska Brewing. Join us for a beer, bring the kids, and learn about what is in the works for 2011!

When: Wednesday, January 19

Where: Ska Brewing, 225 Girard

Time: 6:00 - 8:00

Who: Members, potential members, volunteers, board, staff, camper families, teachers, and anyone else who wants to come!!!



Chub Partnership

DNS has entered into an educational partnership with the Division of Wildlife to enhance their chub education and reintroduction program. DNS is working with pre-selected 4th-6th grade classes in Bayfield, Ignacio, and Durango. Each class raises chubs in a classroom tank for release in the Florida River at the Nature Center in the spring. DNS is offering four classroom programs to help students learn about related subjects such as water quality and fish anatomy. Students are using inquiry based learning and keeping a science notebook to learn as much as they can about their chubs before they are released.



Do It Yourself Nature (cont from page 1)

Plant Ideas:

Plant moss in different locations. It will eventually spread to cover the bottom and create a forest floor. Small plants such as ferns work well and they thrive in the same environment as the moss. Flowers are essential for a miniature woodland environment; begonias are a great choice and add a nice flash of color. After you have picked out your plants don't forget about sticks and rocks to give it more of a realistic feel.

Steps to Make Your Woodland Terrarium:

1. Cover the bottom of your container with about 3/4 inch of gravel or pebbles. Spread a piece of cheesecloth or an old nylon stocking across the top of the gravel.
2. Layer 2-3 inches of garden or potting soil on top of the gravel.
3. Plant the woodland plants and then spread a small amount of garden soil around all around the plants and smooth it out.
4. Water the terrarium until the soil is moist.
5. Wipe the finished terrarium clean, cover and place in a cool location with indirect light. Watch it grow!!!

Call 970-769-1800 for more information

Community Support

Thanks to this season's newsletter sponsor. Please show your appreciation by choosing them for their services and mention you saw them in the DNS newsletter!

Richard A. Grossman, M.D., M.P.H.

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DNS Recipient of Alpine Bank Loyalty Card Program

Durango Nature Studies is very fortunate to be chosen as this year's recipient of Alpine Bank's Loyalty Card Program in the area of the Environment. Alpine Bank's Loyalty Check Card program has become an innovative way for customers to give back to their communities. A check in the amount of \$1,000 was presented to staff and board members at our December board of directors meeting.

Alpine Bank has done so much for Durango Nature Studies this year. In addition to the Loyalty Card donation, they have sponsored our Earthday 5k, our Mountain Film Event, as well as provided several inkind radio advertisements. They are truly a business that gives back to the Durango community and the environment.

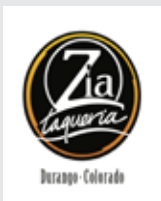


Three Springs Manager, Niall Byers, presents a check to executive director, Sally Shuffield and board president, Will Herringer, along with other DNS board members (L to R) Rick Routh, Brenda Nelson, Corey Sue Hutchinson, Robert Goodin, and Ray Pierotti, (seated) Eilene Lyon and Laine Johnson.

TELLURIDE
MOUNTAINFILM
ON TOUR

Mountain Film on Tour a Great Success

Our second annual Mountain Film On Tour Event was a huge Success thanks in part to our dedicated sponsors. We couldn't do it without them!



High Noon Rotary Kicks Off Welcome Building

In 2011, DNS hopes to raise the funds to build a welcome building at the entrance to our 140 acre site. The building will also be a resource for offering more family and adult workshops at the Nature Center. We are extremely grateful to the High Noon Rotary Club for making a generous donation to get the ball rolling. Folks will be hearing more about this project next year!



Visit www.durangonaturestudies.org

Staff and Volunteers

Karen Hickerson Joins DNS as Program Director



Gretchen Lamar, our Program Director for the past two years, left at the end of October to begin a new chapter of her life in Denver. During her time at Durango Nature Studies, Gretchen contributed a great deal to our programs. However, we are fortunate and excited to announce that Karen Hickerson will be replacing Gretchen as Program Director on January 1.

Karen grew up in Littleton, Colorado and spent most of her time outdoors building tree houses and playing at the pool or lake. She came to Durango for college because it was a great place to get outside and go to school. She graduated from Fort Lewis College with a degree in Environmental Sociology and Elementary Education. Along with teaching Environmental Education, Karen has taught children to swim, whitewater raft, rock climb, backpack and ski.

In addition to working as a contractor and summer instructor for Durango Nature Studies since 2008, Karen is also trained as a Project Wild and Project Learning Tree Facilitator. She has also completed the Kamana Naturalist Program through the Wilderness Awareness School.

Karen's enthusiasm and creativity, as well as her love for working with kids will continue building on DNS programs. We are thrilled to have her accept this position. If

folks want to say congratulations, or just start sharing their ideas, she can be reached at karen@durangonaturestudies.org.

Thank You New Fall 2010 Volunteer Naturalists!!!

We never cease to be amazed by the talents that new individuals bring to our programs. We had some amazing people adding their enthusiasm to our work this fall. Thank you to:

Tanya Brown
Jan Collins
Sandy Goodell
Laine Johnson
Marcey Olajos
Ann Stringfellow
Sanhya Tillotson
Adam Weatherford
Edy Zwierzycki

Our next Volunteer Training will be January 20 and 21 for the winter season. Check our website for details or to register.



Allison Smith New Americorps VISTA

Allison graduated from Fort Lewis College with honors in May 2010 with a degree in Adventure Education. She chose Adventure Education after attending three years of college at Western Michigan University studying Elementary Education. She felt more passionate about teaching children in a natural environment where they can explore and discover the world around them. After spending two weeks on Isle Royal with a Y.M.C.A camp backpacking when she was 12, Allison felt a deep connection to the

outdoors and how powerful an experience being in nature can be, she felt it was important to help create an environment for others to have a similar experience.

Allison is excited to officially join the DNS team after volunteering and doing an internship with Durango Nature Studies. She is looking forward to sharing her passion of the outdoors with community members of all ages to help create a more defined sense of place and a greater appreciation and knowledge of the Durango and Four Corners region. Allison's VISTA term began September 2010 and goes through September 2011. One of her main responsibilities at DNS is running our after school Nature Club.



Our Senior Naturalist Program is growing. One of the perks of staying involved as a volunteer with Durango Nature Studies is the chance to continue honing skills as a naturalist. Welcome new Senior Naturalists Jan Collins, Terry and Kathy Sutterfield, Sandhya Tillotson, and Adam Weatherford.

Call (970)-769-1800 for More Information

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We couldn't do it without you!!

Thank you for supporting environmental education in your community!!!

Visit www.durangonaturestudies.org

Junior Naturalists



WEE WALKS LOTS OF FUN FOR LITTLEST NATURALISTS



Our youngest naturalists got some special attention

this fall with the start of our Community Wee Walks Program. Little ones like nothing better than to get close to the ground to discover the world around them. Staff member, Jess Bordenaro, took on the project of planning and leading these weekly hikes, which started at Rotary Park and wound through the Division of Wildlife's Nature Trail. We had lots of regulars, as well as some new kiddos each time. We also welcomed groups from Durango Early Learning Center and the Family Center. Parents and caregivers had lots of fun watching and helping their little ones explore and learn through sensory nature activities. Jess led classes that focused each week on a different topic, such as the senses, fall, animals, bugs, and birds. There were lots of art projects, lots of talking, laughing, and running. Of course there were often diversions, such as rolling down the Rotary Park hill or visiting the fish at the fish hatchery. We will start weekly Wee Walks again in the spring and run them through the fall. So, if you have little nature lovers age 3-5 (or need an excuse to come yourself) we hope you can join in the fun this spring.



NATURE CLUB GROWS WITH DEMAND

After-school Nature Club, held at Park, Needham, and Riverview, was enhanced this year. Rather than offer one session, we offered continuous sessions around four-week topics. Participating kids looked forward to exploring the seasons

and getting outside after school. We offered numerous scholarships for this program as a way to help families that want to support their kids' love for learning in nature in a safe and fun after-school environment. This spring we will be offering four sessions on topics such as birds, animal adaptations, spring changes, and much more. As the weather gets nicer, kids want to be outside. We love working with such happy and curious kids! Parents, watch your school folders or call Allison Smith at 769-6482 to register your child.



Junior Naturalist Field Camp (JNFC) Wins State Award

Junior Naturalists already know how fun and rewarding DNS Summer Camp can be. But, now the rest of the state is acknowledging its level of excellence. JNFC was chosen as one of nine environmental education programs in the state to receive an environmental excellence award. DNS staff will travel to Denver in February to accept the award at an awards banquet. Registration for summer camp will begin in March. It's never too early to start looking at your calendars.

Call (970) 769-1800 for more information

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*Happy Holidays
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Nature Notes
 WINTER 2010



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