

ANSS

The American Nature Study Society Newsletter



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Todd Buchta, Editor % 7953 Tyson Oaks Circle, Vienna, VA 22180

Environmental Education Directory Now Available

The *New England Field Guide to Environmental Education Facilities and Resources* has just been published by the Antioch/New England Graduate School and the New England Environmental Education Alliance. Covering over 175 organizations, the directory includes nature centers, museums, environmental education centers, sanctuaries, national parks, and state and regional organizations. It features over 20 pieces of information about each organization: programs, facilities, membership, staffing, budgets, internships, and more. Also fully indexed, it includes cumulative statistics, and appendices. Its publishers describe it as an invaluable reference for naturalists, educators, administrators, organizations, consultants, and any others interested in environmental education. To order, send \$16 plus \$1.50 postage and handling per copy to: New England Field Guide, Antioch/New England, Roxbury St., Keene, NH 03431. Checks should be made payable to Antioch/NE; allow 4 to 6 weeks for delivery.

Available from ANSS

Christmastime is upon us, and what better way to celebrate it than to help others learn about winter? *Winter Here and Now*, a book of wintertime natural history activities by ANSS Board Member Joy Finlay, will help you spread the wonder of winter. It is still available at the special price of \$6.00 postpaid for ANSS members. Full of practical tips for teachers and naturalists, it will make a well-received Christmas gift. Proceeds from the book will go to ANSS.

Good for anytime of year are back issues of the *ANSS Journal*. Copies of the recent issue on international environmental education (Vol. 39, No. 2/3) are available for \$4.00 postpaid.

To order either of the above, please send checks payable to ANSS and mail to John Gustafson, 5881 Cold Brook Road, Homer, NY 13077.

Another great Christmas gift is an ANSS membership for the person whose interest is piqued by things outdoors, and who is curious about natural history. See the membership coupon inside.

The Three R's of Ecology

ANSS member Martha Munzer, 87 years young, has produced a book entitled *Insight: The Three R's of Ecology*. Published through the cooperation of the Lee County Schools (Florida) and the Conservation Education Association, *Insight* is a personal collection of writings from a diverse group of authors who have expressed the joy Martha feels in living on our planet. Her feelings are expressed in "Our Response to Nature," "Our Relation to Nature," and "Our Responsibility to Nature." A limited number of copies is available by contacting Jo Ellen Kessler (305/275-3033) at Lee County Schools, or Martha Munzer, 4411 Tradewinds Ave. East, Lauderdale by the Sea, FL 33308.

Outdoor Education Assistantships Available

More than a dozen graduate teaching assistantships are available at the Field Campus in Outdoor Teacher Education at Northern Illinois University for the 1987-88 school year.

These assistantships involve outdoor teaching at the Lorado Taft Field Campus, Oregon, Illinois. Because the teaching is primarily with public school students and university juniors and seniors, priority is given to those applicants who have had several years of experience in the elementary or secondary public schools or outdoor schools. Applicants who have nature center and/or camping experience will be considered.

Applications and further information may be received by writing Dr. Clifford Knapp, P.O. Box 299, Lorado Taft Field Campus, Oregon, IL 61061 (815/732-2111).

Call for Articles

Articles are needed for the next three issues of the *ANSS Journal*. The topics for these quarterly editions will be Water, Inter-relationships with Living Things, and Women. For more information, please contact Journal Editor Dr. Helen Ross Russell, 44 College Drive, Jersey City, NJ 07305 (210/432-1053).

In addition, brief articles of general interest to the environmental education community and announcements of events are invited for this newsletter. The deadline for the Spring issue, out in March, 1987, is January 26. Please contact the editor, Todd Buchta (address on masthead).

ANNOUNCEMENTS

January 9-11

The Pocono Environmental Education Center and the National Park Service are holding a weekend workshop for teachers who wish to learn about and search for bald eagles. Also this weekend, PEEC will hold a computer graphics workshop for teachers; the workshop will be repeated May 1-3. Contact: PEEC, RD 1, Box 268, Dingmans Ferry, PA 18328 (717/828-2319).

January 16-18

The Pocono Environmental Education Center will hold a computer workshop for teachers. This workshop will be repeated February 6-8, March 20-22, April 10-12, and May 15-17. Contact: PEEC (see above).

February 14-18

The 153rd national meeting of the American Association for the Advancement of Science will meet in Chicago. Over 130 symposia and a Science Film Festival will be offered. Contact: AAAS Meetings Office, 1333 H Street, N.W., Washington, D.C. 20005 (202/326-6448).

July 26-29

The Second International Seminar on Misconceptions and Educational Strategies in Science and Mathematics will be held at Cornell University. This seminar will review progress on research and teaching approaches regarding learners' cognitive frameworks. Contact: Prof. Joseph D. Novak, Dept. of Education, College of Agriculture and Life Sciences, Roberts Hall, Cornell University, Ithaca, NY 14853 (607/255-3005).

Robots of Cave Alpha

The Soil Conservation Society of America has released a new educational cartoon booklet and teacher's guide designed to help young people understand how environmental management decisions are made and what individuals, small groups, and governments can do to influence the quality of life for citizens.

Robots of Cave Alpha: Creating a Livable Land emphasizes that people must be knowledgeable about the environment, about who makes environmental decisions, and about how or on what basis those decisions are made. The adventure story introduces young people to current environmental issues, such as urban beautification and restoration, farmland preservation, water quality, soil erosion, air pollution, and the reclamation of mined land.

The booklet's story line finds three children stumbling accidentally onto a cave filled with robots and the world's smartest computer, which is designed to help rebuild a quality life on earth after a worldwide disaster. Questioned by the robots, the children learn that rebuilding a quality environment requires many difficult and conflicting decisions.

Designed for upper elementary grades, *Robots of Cave Alpha* is available at 75 cents a copy. The teacher's guide is \$2.00. Substantial discounts are available on quantity purchases of both the booklet and the teacher's guide. For more information, write SCSA, 7515 Northeast Ankeny Road, Ankeny, IA 50021 (515/289-2331).

New Committee Chairs Selected

Committees are crucial to the work of ANSS, and it is with pleasure that we announce our recently elected committee chairs. If you would like to help out with any of these committees, please contact Dr. Kathleen Blanchard, ANSS President, c/o QLF/Atlantic Center, 39 So. Main St., Ipswich, MA 01938 (617/356-0038).

Membership

Frank Knight

Programs

Paul Spector, John Padalino (co-chairs)

Affiliations/Exchanges

Dr. Peter Corcoran

Eva Gordon Award

Louise Ritsema

Liberty Hyde Bailey Award

Dr. Helen Ross Russell

Journal and Newsletter Committee

Dr. Helen Ross Russell

ANSS News Items:

* The ANSS Board recently approved a pledge of \$1,000 for a three-year period to be given to the Alliance for Environmental Education in support of the development of a national computer network for environmental education. The network will exchange information on activities in given regions. The first component of the network already has been set up successfully in the Tennessee River Valley region, and the 10-state Missouri River Valley will be developed next.

* The Board has also formed a committee to develop the criteria for a new award called the "Liberty Hyde Bailey Award," to be given periodically in recognition of relatively unknown environmental educators who best represent the spirit of Bailey.

* In response to recent membership campaigns, ANSS membership has increased to 700.

* Anna Comstock's *Handbook of Nature Study* has been newly reprinted in paperback (895 pp., Cornell University Press, Ithaca, NY, \$16.95). It contains a foreword by Dr. Verne Rockcastle, a past president of ANSS, who describes the publication as "the natural history bible for teachers and others who seek information about their environment."

* The next Board meeting will be Sunday, January 23, in Ipswich, MA.

Get Into Nature-Join ANSS

Yes, I'd like to join the American Nature Study Society in promoting environmental education.

- | | |
|--|---------|
| <input type="checkbox"/> Contributing Member | \$ 25 + |
| <input type="checkbox"/> Family Membership | 18 |
| <input type="checkbox"/> Sustaining Member | 15 |
| <input type="checkbox"/> Student or Retired Member | 8 |
| <input type="checkbox"/> Library Subscription | 15 |
| <input type="checkbox"/> Life Member | 200* |

*May be made in four \$50.00 installments over two years

Name _____

Address _____

City _____ State _____ Zip _____

Membership in ANSS is tax-deductible.

Please make check payable to American Nature Study Society.

Teaching Tips

Using Old Christmas Trees

by Joy Finlay

Rather than discard Christmas trees when the short festive season is over, recycle them as a resource for learning and creative projects.

Create a forest corner

In the schoolyard, set trees out in buckets of sand, freeze them into pails of ice, or prop them in a snowbank. Make paths in and around the trees.

Drifting snow can add interesting features to your forested landscape. If there is wildlife in the area, watch for signs that birds and mammals have taken shelter in your evergreen forest.

A tree for the birds

After putting trees outside, decorate them with suet chunks, seed baubles, peanuts and popcorn. If they are anywhere near, woodpeckers, jays, chickadees and grosbeaks may come to feed. Then the tree will once again be part of the living scene in winter.

Landscape for a winter carnival

Use old Christmas trees for temporary landscaped backdrops and for marking off activity areas. Or, arrange them to make a maze.

A crystal tree

Set a discarded tree upright and secure it to a post in the ground. Attach a hose to the trunk, with the nozzle facing upward at the top. Turn on the water during freezing temperatures to form a fountain of ice. (Be prepared to lose the hose if it freezes too!) Spraying water on a tree is another way to get an icing effect. Rime and hoarfrost, caused by water vapour, are nature's way of forming ice crystals on trees, making beautiful winter scenes.

How long did each tree live?

Determine the approximate age of each tree by counting the number of branch whorls (the places on the trunk where branches grow out all round) plus the tip, called a candle, at the top.

Measure the distance between the whorls of branches to find how much the tree grew each year. The last year of growth can be determined by measuring the candle tip.

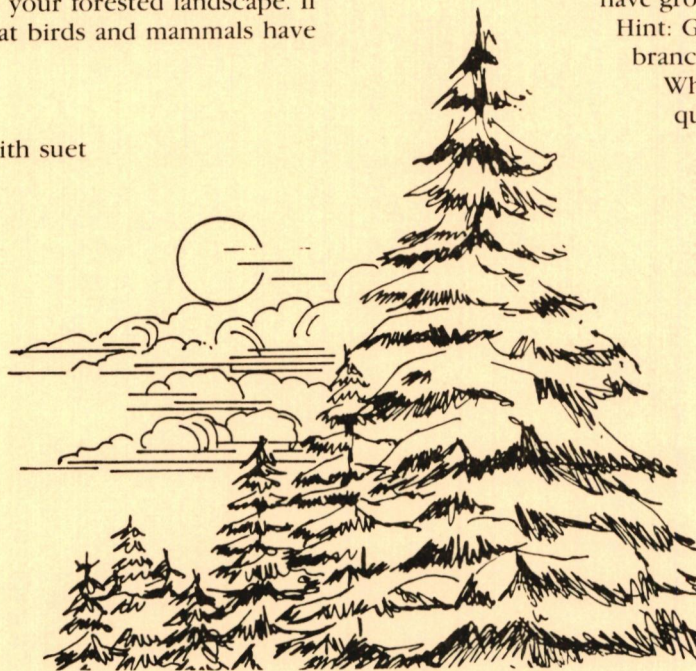
Plot the growth on a graph and compare trees and growth for each year. How does this compare with students' growth?

What factors would affect the rate of growth? Which trees were fast growing? Which were slow? Is growth the same on all sides? Or did the tree have competition for light on one side?

Which trees have grown in untended native forests? Which have grown in managed plantations? What are the clues?

Hint: Growing trees may be shaped by cutting tips of branches to produce bushier clusters of shoots.

What makes a good Christmas tree? Consider this question from various imagined perspectives, such as that of a Christmas tree grower, a Christmas tree shopper, a snowshoe hare, a bluejay, deer, squirrel, or a tree itself.



What tree rings can tell us

Saw slices of wood from the trunk of a discarded tree, taking one cross-section from below every set of whorled branches. Number each slice on the underside. Sand the top so the annual rings show clearly. Count the rings to determine the age of the tree at each slice and stack the slices in sequence.

Each annual ring is made up of light-coloured large cells that grow in spring and early summer, and darker, smaller cells that grow more slowly in late summer and winter.

Measure the width of each ring. Drought years or crowding cause narrow growth rings. A leaning tree has narrow rings on one side.

The history of the tree's life is recorded in the tree rings. Reading the story in the tree rings depends on the scientist's ability to interpret the relationships between ring growth and the environment. It is like a detective story – the clues are in the rings.

Adapted from the December 1986 issue of Classroom, a Canadian educational magazine. Reprinted with permission. Joy Finlay, Canadian educator and naturalist, is a Board Member of ANSS.

Teaching Tips are a service of the American Nature Study Society.

More Teaching Tips

Becoming a Wildlife Lister

by Craig Tufts

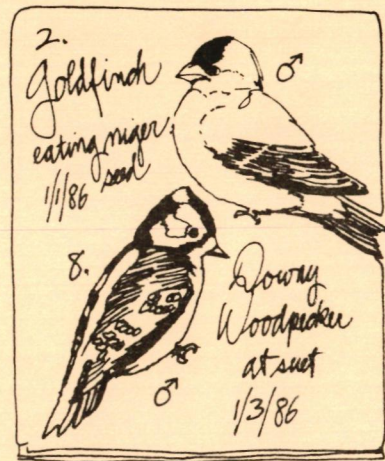
There's no better time than New Year's to resolve to keep track of what's taking place in your yard – with an eye to making it even more inviting to wildlife. If you've never before listed your wildlife observations, winter is an ideal time of year to begin; your yard is fairly quiet and your note-taking can get off to a comfortable, leisurely start.

Watching the comings and going of wildlife visitors is turned into a profitable game when you actually list the changes brought about by the seasons. Begin by making a chart, fastening it to a clipboard to be hung alongside your favorite wildlife-watching window or next to the door you use most between house and yard.

Your behavioral notes can be made in columns (left to right): numbers and names of species; description (especially of species not easily identifiable); date observed; time of day; place (i.e. which part of yard or where outside the yard); and activity (feeding, digging in the garden, nesting, pecking at a dead tree, etc.). If you have a home computer, you might like to set up a data base format for all your information. That's my own method of keeping track of my wildlife observations. The computer makes it easy to see unfolding patterns.

Your lists can cover all kinds of wildlife. Even though birds will be the most common visitor, you'll want to note what goes on in the world of insects, mammals, reptiles and amphibians. Your observations needn't be confined to your immediate yard, but can take in surrounding fields, woods or streets, if you like. Friends of mine consider the space over their house as an extension of their home environment. They've kept track of large birds of prey and migrating waterfowl that would not be apt to ever actually enter their yard, yet are certainly part of their personal world.

Within the last year, as my butterfly garden has developed, I've noted 23 species of butterflies and skippers – in both caterpillar and adult stages. I've even specified what shape each individual is in. My notes tell me for



example, that when most of the tiger swallowtail butterflies take on a faded, tattered look in late June they are near the end of their life span. I discovered, too, that it's late summer before the caterpillars of the variegated fritillaries show up in my area from points south. And just this past October, while checking over my plantings, I noticed small, pale, black-headed, yellow-green caterpillars nesting in the leaves of my native columbines, the tops of which were chewed off. My books told me this was the caterpillar of the locally rare columbine skipper, which feeds only on columbines. It winters in small silk nests among dead columbine leaves and emerges in spring as an attractive little black, beige and white butterfly which will lay eggs on the new spring columbine shoots. I was glad not to have swept the columbine leaves into the compost heap!

Keeping detailed notes and looking through authoritative books for answers to puzzling situations lays the groundwork for identifying patterns of growth and behavior you may never before have known existed. It may be a game or a hobby, but it can also be very helpful in making your yard a better place for welcome wildlife.

Adapted from The Backyard Naturalist by Craig Tufts of the National Wildlife Federation. This regular column is provided free to newspapers around the country. Should you know of local newspapers that might be interested in this feature, contact the National Wildlife Federation, Dept. BN, 1412 16th Street, N.W., Washington, D.C. 20036-2266.

American Nature Study Society

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