

ANSS

The American Nature Study Society Newsletter



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Todd Buchta, Editor % 4362 North Pershing Drive, No. 4, Arlington, VA 22203

ANSS Elects New Officers

Congratulations to the newly elected! We are pleased to announce our new Officers and the Class of '89 Board of Directors. Welcome to all of these educators who will help ANSS make important contributions to the field of environmental education. Committees will soon be forming to carry out several important tasks; members wishing to become involved should contact ANSS President Dr. Kathleen Blanchard at QLF/Atlantic Center (617/356-0038) or President-Elect Frank Knight, Skytop Drive, Wappingers Falls, NY 12590.

Vice President

Paul Spector

Recording Secretary

Joy Finlay

Board of Directors, Class of '89

Michael Caduto
John Disinger
Tracy Kay
Hank Tyler
Diane Wiessinger

Environmental Values Education

To develop environmentally conscious citizens, more than information about natural history and ecology is needed. Many educators feel that values in support of the environment – such as those reflected in Aldo Leopold's "land ethic" – are equally important. A recent work by Michael J. Caduto, a newly-elected director of ANSS, provides a useful guide to help teachers in formal and non-formal settings incorporate a values dimension into their educational efforts.

Entitled *A Guide on Environmental Values Education*, the 106-page text is published by UNESCO-UNEP's International Environmental Education Programme (Environmental Education Series #13). Written in two parts, the first part tells why environmental values education (EVE)

is important and provides a basic understanding of human values and behavior. It then outlines the status of EVE theories and methods and suggests a holistic approach for fostering environmentally positive values and behavior among learners. Part two contains detailed, practical steps for teachers to take when designing, implementing and evaluating an EVE program, and a diverse set of experiential exercises that can be adapted to the specific needs of the learners and educational setting. A teacher training model and self-evaluation form in the theory and methods of EVE concludes the section. Finally, a list of curriculum materials and further suggested reading in environmental values education is included.

The guide is available from Michael J. Caduto, Box 1052, Norwich, VT 05055.

Annual Members' Meeting

The annual Members' Meeting will be held October 18, taking place concurrently with the 1987 annual conference of the North American Association for Environmental Education, to be held at Chateau Frontenac in Quebec City, Quebec. Members are strongly encouraged to attend the meeting, which will take place from 2:45 to 5:45.

Frank Knight will become the new president of ANSS that evening, receiving the gavel in an inaugural ceremony at 9:00 PM. His name will be the 50th added to the Scroll of Presidents. The reception and ceremony marking the passing of the gavel is an historical and colorful event. As you may know, the gavel is made from a walking stick that Liberty Hyde Bailey, leading nature educator and founder of ANSS, used on a botanical trip to Ireland in 1908. We hope you will be on hand to enjoy the event.

The NAAEE Conference runs from October 16 to 21, complete with keynote speakers, workshops, field trips, and exhibits. Its theme is "Showcase for Environmental Education Excellence: Gaining Momentum for the Challenge Ahead." To register, contact NAAEE Headquarters, P.O. Box 400, Troy, OH 45373 (513/698-6493).

For details regarding the ANSS Members' Meeting contact Dr. Kathleen Blanchard, QLF/ACE, 39 S. Main St., Ipswich, MA 01938 (617/356-0038).

ANNOUNCEMENTS

October 2

The Naturalist Center of the Smithsonian Institution will hold the workshop "Learning to Read Natural History Objects: An Inquiry Approach" in Minneapolis. Contact: Peggy Millett, Naturalist Center, Mail Stop 1158, National Museum of Natural History, Washington, DC 20560

October 2-4

Naturethics will hold a fall foliage photography weekend in western Massachusetts. Contact: Naturethics, Box 961, Amherst, MA 01004

October 2-4

The Pocono Environmental Education Center (PEEC) will hold a Hawk-Watch Weekend to look for and learn about migrating hawks and eagles. Lectures and field observation are featured. Contact: PEEC, RD 1, Box 268, Dingmans Ferry, PA 18328 (717/828-2319)

October 9-12

The New York State Outdoor Education Association will hold its 20th annual conference at the State University of New York at Cortland. The 1987 theme will be "Outdoor Education Across America: Weaving the Web." Over 125 workshops will be held. Contact: The Coalition for Education in the Outdoors, Dept. of Recreation and Leisure Studies, SUNY-Cortland, Cortland, NY 13045

October 14-18

The National Association of Biology Teachers will hold its annual conference in Cincinnati. Contact: Patricia J. McWethy, 1987 Convention, NABT, 11250 Roger Brown Drive, No. 19, Reston, VA 22090 (703/471-1134)

October 16-18

The New York Rainforest Alliance will hold a Conference on "Tropical Rainforests: Interdependence and Responsibility" in New York City. Featured speakers include Dr. Norman Myers, environmental consultant and author; Dr. Thomas Lovejoy, World Wildlife Fund; Dr. Noel Brown, United Nations Environment Programme, and over 40 others. Contact: New York Rainforest Alliance, 320 Park Ave., 30th floor, New York, NY 10022 (212/906-1694)

October 18

ANSS Annual Members' meeting, concurrent with NAAEE '87 conference (see page 1).

October 19-22

The National Council for Geographic Education will hold its annual convention in Springfield, Missouri. Contact: Dr. Russell Gerlach, '87 Conference Chairman, Dept. of Geosciences, Southwest Missouri State University, Springfield, MO 65804

October 28-31

The Wisconsin Association for Environmental Education will hold its annual conference in Madison, with the theme "Back to the Future: Educating for Environmental Action." Contact: Dan Sivek, Dept. of Natural Resources, 1300 W. Clairmont Ave., Box 4001, Eau Claire, WI 54702-4001.

October 30 - November 1

The Pocono Environmental Education Center (PEEC) will hold another Hawk-Watch Weekend (see description and contact information above).

November 1-7

The Association of Interpretive Naturalists and the Western Interpretive Association will hold the 1987 National Interpreters' Workshop in St. Louis. The theme is "Evolving Gateways," representing the many ways the interpretive professions are changing. Contact: 1987 National Interpreters' Workshop, 6700 Needwood Road, Derwood, MD 20855.

November 6-8

Naturethics will lead a trip to Brigantine National Wildlife Refuge in New Jersey to see 10,000 snow geese, along with herons, ducks and other wildlife. Contact Naturethics (see above).

November 6, 20

The Smithsonian workshop "Learning to Read Natural History Objects" will be in Worcester, Mass. (6th) and Milwaukee (20th). Contact: (see above).

November 13-15

The Pennsylvania Alliance for Environmental Education will hold its annual conference in Milford, Penn. The theme will be "Soundings of the Future." A highlight will be a concert by the Paul Winter Consort. Contact: PAEE Conference '87, c/o Roger Spotts, Monroe County Conservation District, RD 2, Box 2335-A, Stroudsburg, PA 18360 (717/992-7334).

December 4, 12

The Smithsonian workshop "Learning to Read Natural History Objects" will be in Russellville, Alabama (4th) and Denver (12th). Contact: (see above).

ANSS in Profile

Thanks to **The Alliance Exchange**, the newsletter of The Alliance for Environmental Education, for covering both ANSS members and the organization itself in its summer 1987 issue. ANSS Board Director Joy Finlay's multiple activities, especially her work as national chairperson for Canada's **Wildlife '87** celebration, were mentioned. Another article introduced ANSS to the other 30 members of the Alliance. A brief excerpt follows:

"Ever since it was founded nearly 80 years ago, the American Nature Study Society has not swerved from its basic philosophy, as stated by Bailey: ...'Nature Study...is not the study of nature merely...(but) to put the pupil in a sympathetic attitude toward nature for the purpose of increasing his joy of living.' Through its publications, **Nature Study** and the **ANSS Newsletter**, its workshops and the celebrated Eva Gordon Award for children's science literature, ANSS is a leading advocate for excellence in environmental teaching, writing and interpretation."

"One of the qualities that sets ANSS apart from other organizations is its commitment to members and the opportunities it offers to aspiring young leaders. Where else can you rub shoulders with Helen Ross Russell on a "Ten Minute Field Trip," be inspired by the unsurpassed volunteerism of John Gustafson, or meet authors of some of the best science books for children available today? It's their commitment that sets ANSS people apart from others."

Thanks to the Alliance for spreading the good word!

Teaching Tips

Life on the Edge: Exploring the Inter-Tidal Zone

Sea creatures thrive in one of the earth's most stressful environments. These organisms withstand pounding surf, gusting winds, dramatic temperature fluctuations, predators, grinding winter ice, and parching summer sun. The animals of the intertidal zone have developed remarkable adaptations that allow them not only to survive their habitat of extremes, but to thrive in it as well.

Protection

Creatures that live at the sea's edge must protect themselves from crashing waves of the returning tide. The only creatures to withstand this powerful surf are those that can stick, cling, or root themselves to slick, impenetrable rock, or those that can find shelter in rock crevices or plant life.

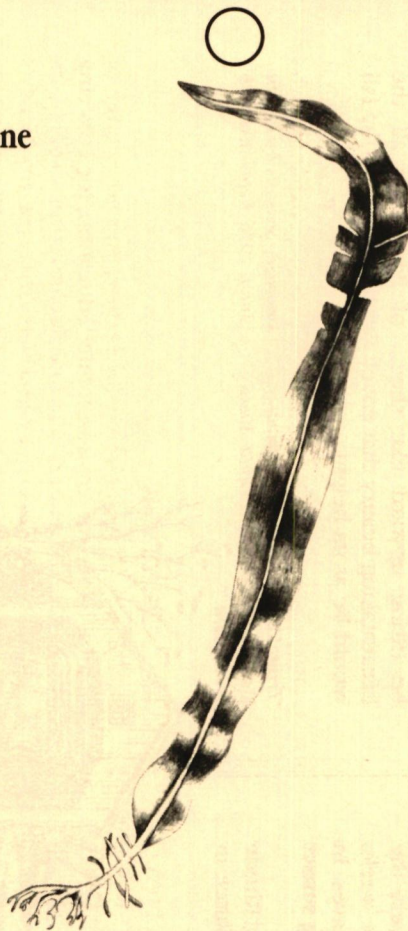
Seaweeds, for example, anchor themselves on or around rocky surfaces by means of a "holdfast" that physically resembles the roots of a land plant. Species such as rockweed and kelp are further adapted with long, narrow strands that allow water to flow through, thus preventing damage from waves.

Activity: If you find seaweeds washed up on the shore, look carefully through the holdfast; you may find very small starfish, shrimp, clams, or other creatures seeking protection there from the waves and predators.

Moisture Retention

It is vital for intertidal creatures, which are exposed to the drying effects of ocean breezes, beating sun, and fluctuating temperatures, to have means for retaining moisture. Periwinkles, a small snail species, have a trap door called an opercula that closes moisture within the shell. Limpets adhere to rocks using a flat, muscular foot around which they press their shell to effectively trap water between the foot and the shell's margin. Barnacles have doors on top of their conical shells that securely seal in water until the high tide returns.

Activity: Compare how intertidal organisms appear and behave when exposed at low tide and when submerged at high tide (consult local newspapers for a tide table). Look for differences in



movement, changes in the animal's location, changes in extending appendages, and changes in orifices. Barnacles, for example, can often be watched feeding under water with their feathery tentacles.

For Further Information

Berrill, N.J. & Berrill, J. *1001 Questions About the Seashore*. 1957. Dover Publications, Inc., New York.

Carson, Rachael. *The Edge of the Sea*. Riverside Press, Cambridge, Massachusetts

Gosner, Kenneth. *A Field Guide to the Atlantic Seashore*. 1978. Houghton Mifflin Co., Boston.

Scheid, Margaret. *Discovering Acadia: A Guide for Young Naturalists*. 1987. Beaver Tale Productions, Mount Desert, Maine.

Feeding

The carnivorous sea creatures of the intertidal zone are remarkable predators. A starfish typically feeds on clams or mussels by wrapping its arms around its victim and pulling the shell apart with its tubed feet. By protruding its stomach through its mouth and into its victim's shell, it digests the soft body parts of its victim externally. Afterwards, all that remains is an empty shell. Sea anemones, though sedentary, have tentacles with sting cells that paralyze living prey. The tentacles then draw the prey into the anemone's mouth. Dog whelks, which prey upon barnacles, blue mussels, and occasionally, other dog whelks, actually drill holes into their victims' shells with a structure known as a proboscis, and then consume the soft parts within. Voracious feeders, dog whelks can markedly alter species composition in an intertidal zone.

Herbivores along the sea's edge feed primarily on various algal species, such as limpets, periwinkles and chitons. Filter feeders, although harder to observe, use delicate devices which are fascinating. These shore animals are generally sedentary, straining plankton brought in with each tide. Barnacles are the most evident filter feeders along the rocky shore. While underwater, their cover doors open to reveal six pairs of feather-like appendages. The featured net sweeps rhythmically in and out of the door, catching plankton.

Activity: Where are the different kinds of feeders located relative to other creatures in the tidepool or on the rocks? Do some animals appear to feed only underwater? What might they eat? Examine mussel beds, barnacle zones, or lower tidepools for evidence of predatory behavior. These might include empty sea shells with small holes in them, half-open empty shells, or smashed sea urchin, clam, or mussel shells. What creatures might have eaten these animals?

Adapted from an article by Catherine Kiorpes-Elk and illustrated by Meg Scheid in Habitat: Journal of The Maine Audubon Society.

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

Seasonal Notes

"The Pageantry of Autumn"

There is a midsummer. There is a midwinter. But there is no midspring or midautumn. These are the seasons of constant change. Like dawn and dusk they are periods of transition. But like night and day and day and night they merge slowly, gradually. As Richard Jefferies once wrote, broken bits of summer can be found scattered far into the shortening days of fall. Only on calendars and in almanacs are the lines of division sharply defined. Just as in the far reaches of the Everglades we had found a pre-spring spring, a season that was still winter on the calendar but already showing evidences of change, so now, while summer still officially ruled, we were in a pre-autumn autumn surrounded by the signs of coming fall.

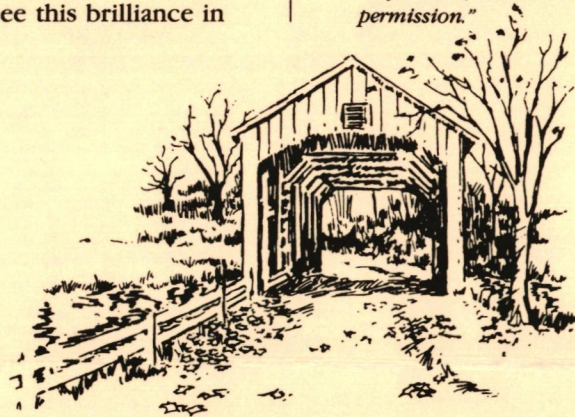
Across New England the summer-long pageant of the wildflowers was drawing to a close. Over the lowlands spread the pinkish-purple of the joe-pye weed. Chicory blue, that bluest of blues, shone from the roadside amid the violet-blue of the New England asters. The massed yellow of goldenrod—to the English "farewell-summer"—ran up the hillsides and the madder-purple of ironweed gleamed from the higher pasturelands. These were the varied flower hues that would be replaced in the weeks to come by the blazing colors of the autumn leaves. In New England fall comes as the glorious, flaming sunset of the year.

Already, as we crossed lower Massachusetts and Rhode Island and Connecticut, we could see this brilliance in

its initial stages. Scarlet enveloped an occasional sumac. Deeper red ran across the leaves of poison ivy. Along old stone walls, where chipmunks scurried with cheek pouches bulging with seeds, the berries of the bittersweet were yellow, still to split and reveal the brilliant red of the inner coating. Once we rounded a turn and came upon the glorious coloring of the branch of a sugar maple prematurely clad in autumn leaves. Although we were skirting New England along its southern border, although we were in advance of its autumn glory, we could remember from past years that beauty, unsurpassed anywhere around the world.

We could see in our mind's eye the gorgeous tapestry of its rolling countryside, the multicolored ridges curving away mile on mile, the long vistas from its mountain-tops. We could see the vivid hues reflected in quiet river reaches and mirrored in the still water of the innumerable ponds and lakes of Massachusetts and Connecticut. We could see the village greens, the white-spired churches, the winding roads, all surrounded by the incomparable pageantry of the autumn leaves. Soon the elms would be scattering golden leaves across the well-cut grass of the village greens, the sugar maples would be lifting upward like sheets of flame and all the breathtaking beauty that envelopes this region in the fall would be at its height.

"From 'Autumn Across America' in The American Seasons by Edwin Way Teale (New York: Dodd, Mead & Co., Inc.), 1976. Reprinted with permission."



American Nature Study Society

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