



NEWS FROM...

Hudsonia

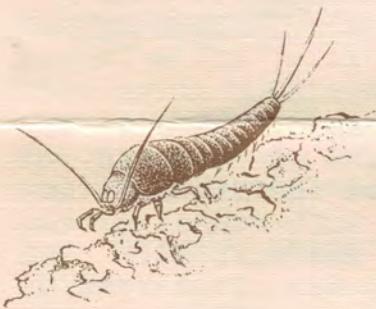
a non-profit institute

Bard College
Annandale, N.Y. 12504
U.S.A. — (914) 758-1881

A CHECKLIST FOR SUMMER SLEUTHING IN THE HUDSON VALLEY

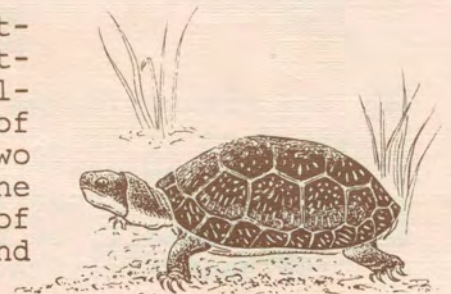
For most of us, events in nature inspire wonder and expectation. They mark the progress of the season more accurately than any calendar or weather forecast. Listed below are some of the organisms and phenomena of summer -- many of which feature prominently in current Hudsonia projects. Some will be familiar to you, but we hope you will be tempted to seek out the others -- and that finding them will enhance your appreciation and respect for the lovely area in which we live.

✿ **WANTED: BRISTLETAILS.** You can help Hudsonia scientists with one of our ongoing projects by looking for "jumping bristletails." Little is known about the northeastern species of this insect; for that reason, we are particularly pleased that we have already discovered two species previously unknown to science. We suspect there may be more undiscovered bristletails and you can help us find them.



Jumping bristletails live on exposed rocks, concrete or stone walls, and building foundations. They eat algae, and are not harmful to people or destructive to property. They come out at night so you must look for them with a flashlight. How do you recognize one? As the drawing shows, they look very much like tiny, coppery-brown shrimp, about half an inch long. If you find any, please call Hudsonia (914-758-1881). We are interested in collecting these insects in upstate New York.

✿ The **BLANDING'S TURTLE**, classified as "threatened" in New York, lives in shallow pools and wetlands with abundant vegetation in areas of gravelly soils. You might be lucky enough to see one of these rare turtles crossing a road between two wetlands, or poking its long neck out of the weedy waters. Although it is about the size of the common box turtle, the black upperparts and bright lemon-yellow chin and throat are unique.



✿ **PURPLE LOOSESTRIFE**, a tall, bushy marsh plant introduced from Europe in the early 1800's, has become extremely abundant in the Hudson Valley. Purple loosestrife often spreads at the expense of native marsh herbs such as cattails, bulrushes, and tussock sedge, and there is concern that this degrades the habitat of some marsh animals. The spikes of red-purple flowers may be seen along almost any roadside or wetland margin from late June through September.

✿ The next time you see **AMERICAN GOLDFINCHES** in the summer, check to see if they are nesting in a clump of purple loosestrife near or in the water. If so, notify Erik Kiviati at Hudsonia who is documenting goldfinches' use of this introduced plant.



✿ **SWAMP ROSE MALLOW**, a plant found in brackish tidal marshes, resembles the cultivated hollyhock, and has large pink flowers. It can most easily be seen at Iona Island Marsh, accessible from Rte 9W just south of the Bear Mountain Bridge traffic circle. The mallow flowers in July and August and may also be seen at Constitution Island Marsh, Croton Point and Piermont Marsh.

✿ **SUNFISH NESTS** can be found in ponds and rivers in our area. These circular depressions are visible in the shallow water near the shore. The male sunfish builds the nest by fanning away the sediment and then remains on the nest for weeks, chasing away all intruders.



✿ **LARGE MINNOW NESTS** look like large mounds of gravel 10 - 12 inches high and 2 - 3 feet in diameter. The nests are constructed in streams early in the spring but they are most visible during low water in the summer.



✿ **CALTROPS** are the spikey seeds of the invasive water chestnut, an aquatic plant of concern to Hudsonia and other scientists on the river. Introduced from Asia, this plant with round, glossy leaves is now choking our coves and marinas. The seeds, released at the end of summer, look remarkably like the spiked iron caltrop which in earlier days was thrown on battle fields to hinder advancing enemy cavalry.

✿ The **LEAST BITTERN**, a secretive marsh bird, is a real find as well. Unlike most habitats where least bitterns are "lost" in the dense vegetation, in Tivoli North Bay in June and July, least bitterns may readily be seen by canoe around low tide as they hunt killifish along the creek margins.



Welcome to NEWS FROM... **Hudsonia**. Hudsonia began in 1980 with informal discussions among several Hudson Valley ecologists and educators. In five years, it has grown into a vital, community-spirited network of professionals working in the interests of the Valley's environment. The broad purposes of Hudsonia's scientific "cottage industry" are as follows:

- # to conduct activities in the public interest, including research and education in the environmental sciences.
- # to design or improve technologies that aid in the conservation and wise management of natural resources.
- # to provide direct scientific and educational services to the government, private, and non-profit sectors, by maintaining a quick response time, low overhead, and an unbiased approach.

NEWS FROM HUDSONIA will be part of our effort to alert concerned lay people and professionals to opportunities to improve our environment.

CURRENT HUDSONIA PROJECTS

The FISHKILL CREEK project was designed to assess water quality by analyzing water chemistry, animal distribution, and published accounts of industrial discharges into the Fishkill Creek system. We hope this project will serve as a model of Hudson River tributary studies.

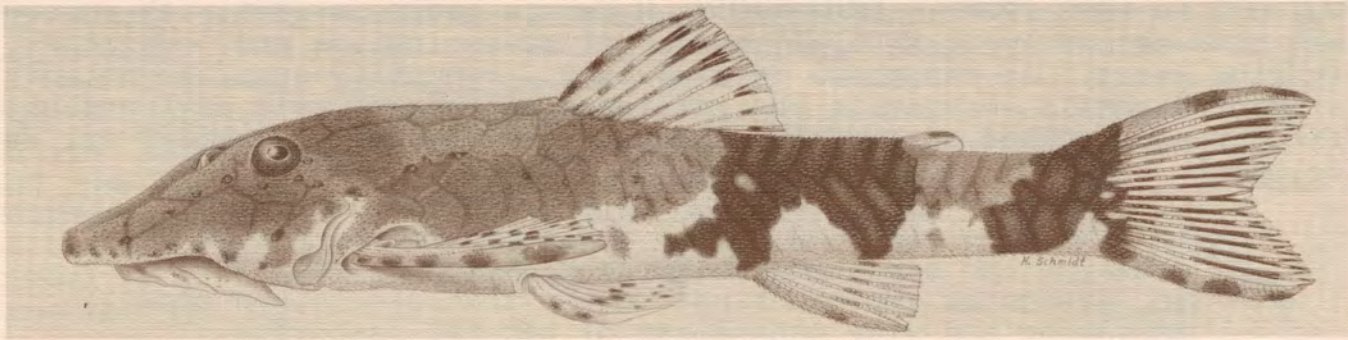
CONVERSION OF APPLE POMACE TO ENERGY, is a follow-up of our 1983 investigation for Central Hudson into the feasibility of making better use of apple pomace, the solid residue left after pressing for cider. In March we carried out a successful demonstration of an anaerobic digester which converts pomace to methane (natural gas).

TIVOLI BAY project involves sampling the fish populations of Tivoli Bay, a Hudson River tidal freshwater marsh, to document what kinds of fish are there, when they are there, and how abundant they are.

ENVIRONMENTAL EVALUATION. Jim Stapleton is developing citizen workshops which will evaluate significant regional resources like the Shawangunk Mountains or the Hudson River. The workshops, planned for the fall, will explore personal and community values evoked by these resources and investigate ways to trade-off conflicting values to arrive at acceptable community development decisions.

Our WETLAND PROJECTS provide consulting services for the evaluation, conservation, and management of wetlands. In support of these activities, Hudsonia is building a library of books and reprints on Wetland ecology. Erik Kiviati is also conducting a comparative study of the human ecology of wetlands worldwide.

Though the BLANDING'S TURTLE ranges from Nebraska to Nova Scotia, it is scientifically one of the least-known turtles in the U.S. Classified as threatened by New York State, this turtle lives in wetland enclaves and is more common in Dutchess County than elsewhere in the State. Since 1976, we have been tagging Blanding's turtles, observing their movements, population characteristics, and individual growth.



A new species of armored catfish from Guyana, South America.

SCIENTISTS IN PROFILE

Bob and Kathy Schmidt usually see eye-to-eye, as befits a happily married couple, but when they look at a pond or marsh, they don't see the same thing at all.

Bob is one of the original directors of Hudsonia and he and Kathy have been active in the organization since its inception. Both are biologists interested in different groups of animals. Bob is an ichthyologist (studies fish) and has worked as a teacher and researcher in the Hudson Valley and elsewhere. He is currently a professor at Simon's Rock of Bard College in Great Barrington, Massachusetts.

Kathy has a MS degree in entomology (insects) and is an accomplished illustrator. (The illustrations in this brochure are hers.) She worked at both occupations at the American Museum of Natural History in New York until recently. She is now doing free-lance work and completing a manuscript on a group of insects.

Their different interests were compatible on two recent trips to Guyana, South America, where Bob collected many rare species of fish-- five of which were previously unknown to science. Kathy found an undescribed millipede and at least three undescribed species of bugs that live on the surface of streams and puddles. Bob and Kathy are cooperating on publishing the results of these trips and are hopeful that they can return to South America.

They are also doing cooperative work on more local projects. Both are applying their specialties to studying the animals of Tivoli Bay, a freshwater tidal marsh ecosystem near Bard College. Bob is analyzing the changes in the fish communities over the summer and fall. Kathy is studying the waterlily leaf beetle, an insect that feeds on water chestnuts, and perhaps could be used to control this pest plant.



Don't miss our fall issue on TIVOLI BAY!