



MAS NOTE

From the University of Delaware Sea Grant Marine Advisory Service

University of Delaware Sea Grant College Program ♦ 700 Pilottown Road ♦ Lewes, DE 19958

BEACH SEINING

by Bill Hall, Marine Education Specialist, (302) 645-4253

Beach seining is a field activity that generates student excitement and enthusiasm for learning. It requires a minimum of equipment; if properly cared for, a small seine 10 to 20 feet long will last for years. In fact, a seine often pays for itself over the years if it is used to stock classroom aquaria as an alternative to purchasing exotic sea animals from the local pet shop. (Using indigenous species in the classroom also makes sense because it introduces students to local aquatic animals and ecosystems.)

Beach seines, sometimes called haul seines because they are hauled or pulled to catch fish and shellfish, were used by the ancient Phoenicians to catch fish in the Mediterranean, and remain basically unchanged today. There are four parts to a beach seine:

- ♦ Float line — supports top of webbing and has attached floats.
- ♦ Webbing — usually 1/4-inch or larger, generally 4 feet deep, and of varied length.
- ♦ Lead line — supports the bottom of webbing and has lead weights attached.
- ♦ Poles — attached to the ends of the net and are used to drag the seine.

Seines are available in various mesh sizes. Minnow seines have a 1/4-inch mesh. Larger meshes are used commercially to selectively catch larger fish. Seines can be ordered in any length or depth. As a general rule, a 4-foot depth is sufficient for minnow seines. Younger students will find it difficult to use a net longer than 12 feet. Junior and senior high school students can use nets 20 feet long or longer. However, nets over 20 feet long are of questionable value, as they don't catch different species, just more animals.

Seining Techniques

Any two people can use a seine successfully, but those who follow these simple rules are more successful than others.

- ♦ Keep the net in a half-moon configuration.
- ♦ Never tow hard enough to pull the lead line off the bottom or to pull the floats under.
- ♦ Keep the poles touching the bottom.
- ♦ When pulling the seine onto the beach, keep the lead line on the bottom, or your catch will escape.
- ♦ Watch for "hang-ups" that might catch or rip the seine.

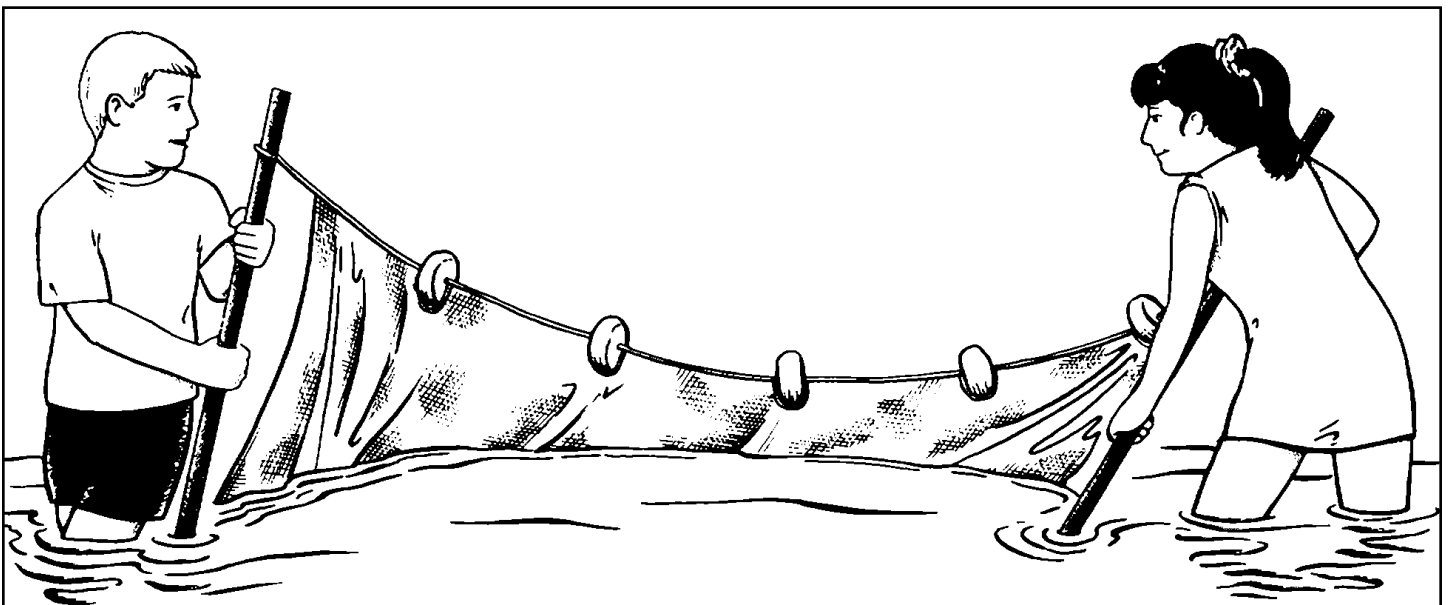


Figure 1. Keep the lead line close to the bottom and drag the net parallel to the shore. If the lead line comes off the bottom, the catch will escape.

- ◆ Wear shoes or sneakers when seining. It only takes one broken bottle or sharp shell to ruin your outing.
- ◆ Clean and rinse the seine with fresh water when you are finished, and let the net air dry.

Remember, if you are seining at a state park, all animals and plants are protected and should be returned to the water. Watch out for some species of jellyfish that can sting, such as the sea nettle or the lion's mane. Both of these species are present in the spring, summer, and early fall.

Marine Species Commonly Seined in Delaware

<i>Fish</i>	<i>Other</i>
Striped killifish	Hermit crab
Bay anchovy	Blue crab
Lookdown	Calico crab
Northern kingfish	Grass shrimp
Spot	Jellyfish
Mullet	Sea lettuce
Summer flounder	Enteromorpha
Silversides	Green algae

Useful Texts

- Bigelow, Henry B. and William C. Schroeder. 1953. *Fishes of the Gulf of Maine*. Cambridge, MA: Museum of Comparative Zoology, Harvard University.
- Boschung, H. T., Jr., J. D. Williams, D. W. Gotshall, D. K. Caldwell, and M. C. Caldwell. 1983. *The Audubon Society Field Guide to North American Fishes, Whales & Dolphins*. Alfred A. Knopf, New York, NY.
- Gosner, Kenneth L. 1979. *A Field Guide to the Atlantic Seashore. Invertebrates and Seaweeds of the Atlantic Coast*

from the Bay of Fundy to Cape Hatteras. The Peterson Field Guide Series. Boston: Houghton Mifflin Company.

Hildebrand, Samuel F. and William C. Schroeder. 1972. *Fishes of Chesapeake Bay*. Washington, DC: Smithsonian Institution Press. (Out of Print)

Meinkoth, Norman A. 1981. *The Audubon Society Field Guide to North American Seashore Creatures*. Alfred A. Knopf, New York, NY.

Zim, Herbert S. and Lester Ingle. 1955. *Seashores*. New York: Golden Press.

Zim, Herbert S. and Hurst H. Shoemaker. 1955. *Fishes*. New York: Golden Press.

Sources of Seine Nets

Memphis Net and Twine Co.
P.O. Box 8331
Memphis, TN 38108
(901) 458-2656
(800) 238-6380

Nylon Net
Dept. NF-11
P.O. Box 592
Memphis, TN 38101
(901) 525-8616
(800) 238-6680

Carolina Biological Supply Co.
Burlington, NC 27215
(919) 584-0381

Rev. 10/99:1K

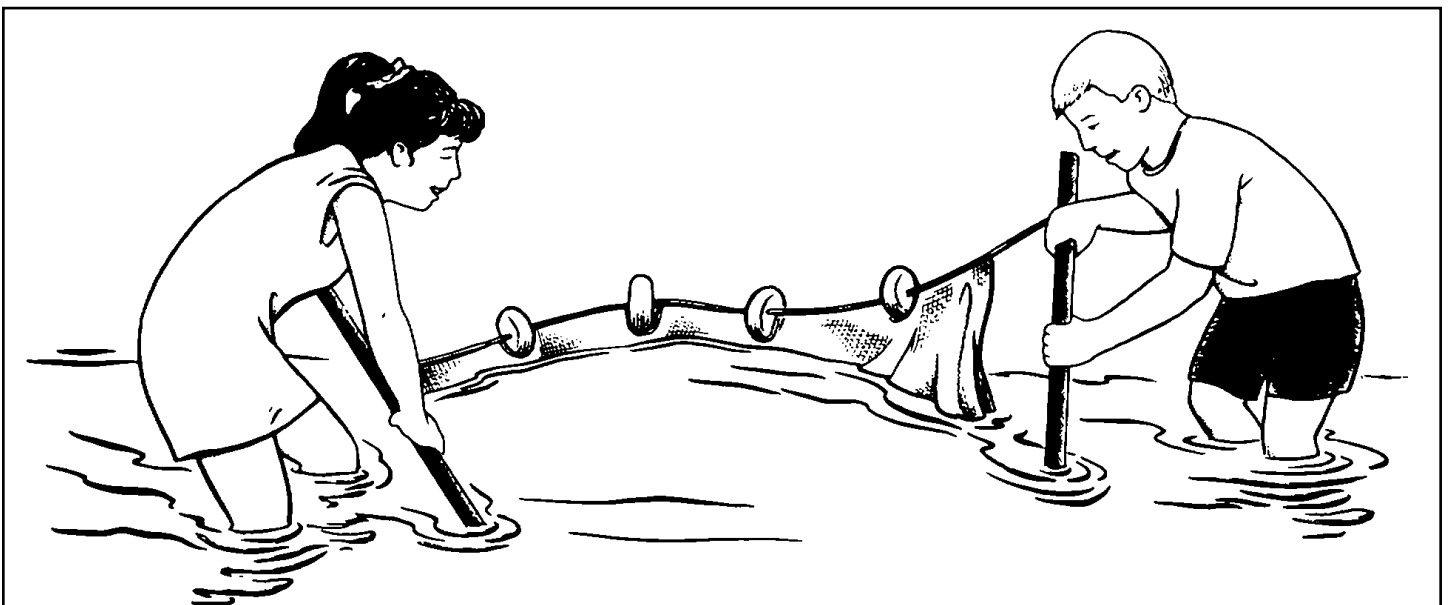


Figure 2. After 20 to 50 meters, turn the net and drag it toward shore. Keep the lead line on the bottom and drag the net up onto the beach.