

THE ONE-PERSON SEINE

by Konrad P. Schmidt, St. Paul, Minnesota

Because I do a great deal of collecting on my own, I've found that the equipment I use must have the feature of solo operation. In the beginning, I used 14" dipnets which enabled me to work boulder-strewn streams of moderate gradient, but required clear water, sunny days, and sighting my intended quarry (See "Dipping for Darters," AC, July/August 1984). There are several types of one-person seine; the idea for this design came to me while reading A Netful of Natives by Tom Baugh. The book contains a photo of a collector working a stream with a triangular seine. I immediately realized several advantages this seine had over my dipnets and decided to build one for myself.

I now have a seine that hugs the bottom of high-gradient streams, and also works well in tight areas of dense aquatic vegetation. I've had my best results keeping the seine stationary and flushing fish from cover into the net. In streams, I select open areas large enough to accommodate the seine, immediately downstream from boulders or logs. The large lead sinkers on the bottom lip conform the seine to the streambed. The current fills the seine and forms a small pocket in the back where the fish are eventually funneled. Because the seine is semi-rigid, it can be supported in the back by a forked stick or held by hand on just one side.

After turning over rubble and probing around boulders and logs with my feet, I quickly lift the bottom lip of the seine, trapping fish in the pocket. In areas of dense aquatic vegetation, I either work areas along the weed line or small holes in the middle of the patch. Since these areas have little or no current, I find it necessary to either push the seine a short distance or place some small rocks in the back for ballast to fill the pocket. Usually holding the seine on one side, I swing my leg in a leisurely zig-zag arc while combing the vegetation toward the net and then lift the bottom lip.

I have had excellent results wielding the seine solo, but must admit there are advantages in having a partner. Larger areas can be sampled and at a faster rate with one person seining and the other flushing. The flusher is also usually better positioned and swifter at raising the bottom lip minimizing the chance of escape. And finally, it is simply a great deal more enjoyable having company on a collecting trip.

I've used this seine for two years and it has already collected an impressive list of fishes consisting of the following:

1. American Brook Lamprey
2. Central Mudminnow

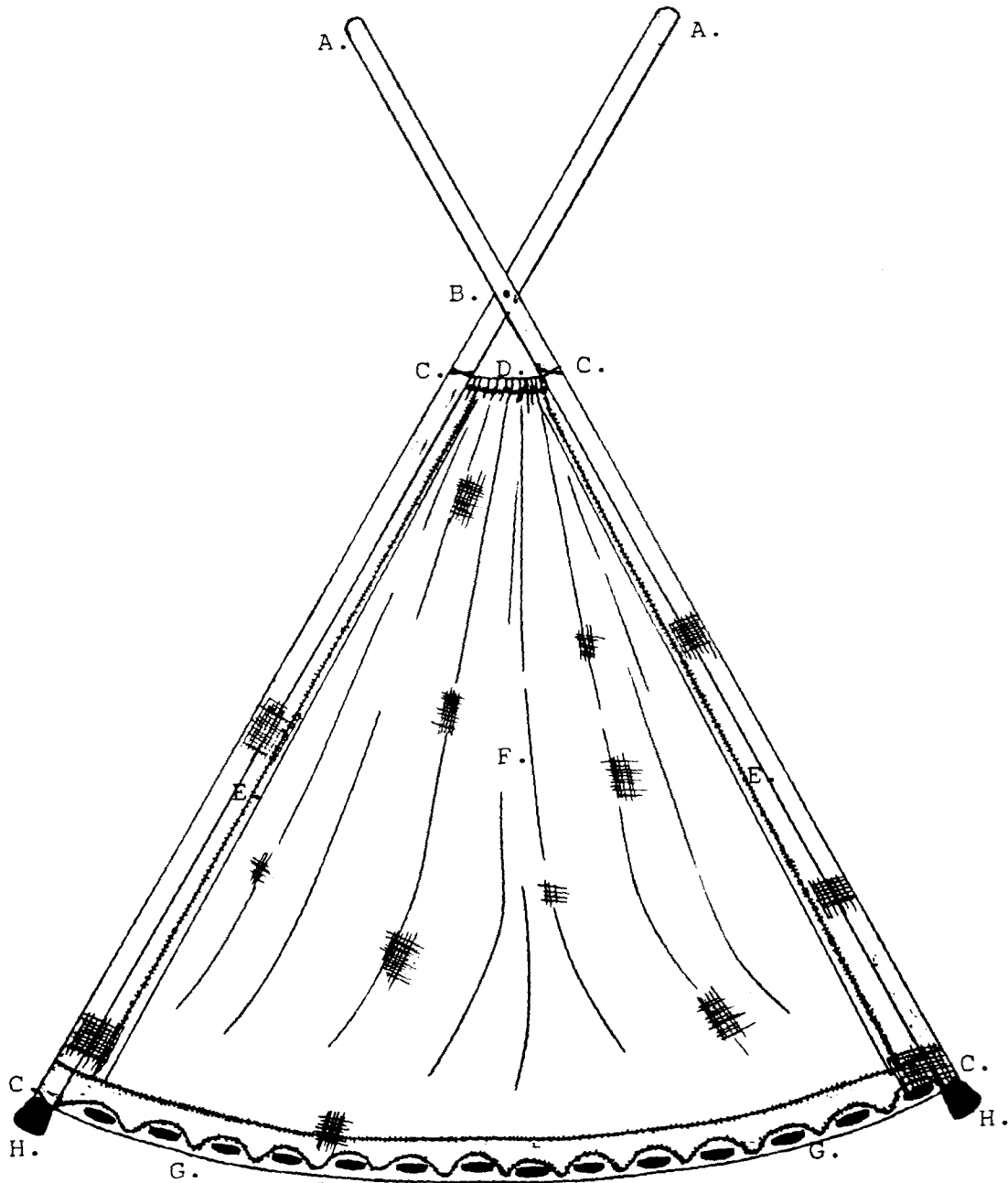
3. Common Stoneroller
4. Emerald Shiner
5. Blacknose Shiner
6. Spotfin Shiner
7. Spottail Shiner
8. Northern Redbelly Dace
9. Blacknose Dace
10. Longnose Dace
11. Creek Chub
12. White Sucker
13. Northern Hog Sucker
14. Stonecat
15. Tadpole Madtom
16. Burbot
17. Banded Killifish
18. Blackstripe Topminnow
19. Mosquitofish
20. Least Killifish
21. Sailfin Molly
22. Brook Stickleback
23. Green Sunfish
24. Orange Spotted Sunfish
25. Black Crappie
26. White Crappie
27. Mud Darter
28. Rainbow Darter
29. Iowa Darter
30. Fantail Darter
31. Slough Darter
32. Least Darter
33. Johnny Darter
34. Banded Darter
35. Looperch
36. Blackside Darter
37. Slenderhead Darter
38. Yellow Perch
39. Mottled Sculpin
40. Freshwater Drum

The Schmidt one-person seine is inexpensive and fairly easy to construct. I used the following materials which are available at most hardware and sporting-goods stores.

- 2 - 60" broomsticks
- 2 yards of mosquito netting
- 14 - 1½" lead sinkers
- 2 - 7/8" rubber leg tips

Bolt the two broomsticks (poles) together about 10" from the tip and spread them to the desired width. Drape the fabric across the poles overlapping about 5" on the sides (at the widest point) and 4" on the bottom. Cut the fabric straight along the mesh row--not at an angle along the poles. On both sides, fold the raw edge

One-person seine



- A. Poles
- B. Bolt
- C. Rubber Bands
- D. Gathered Material
- E. Pole Sleeves
- F. Netting
- G. Lead Sinkers
- H. Rubber Leg Tips

under 1" and pin. Bring the folded edges around the poles to form sleeves and pin. Remove the poles and sew along the folded edge and reinforce with another row of stitching about $\frac{1}{2}$ " inside the first line. On the bottom, fold the edge up 4" and place sinkers, evenly spaced, two 2" above the folded edge. Carefully bring the folded edge up around the sinkers to meet the raw edge and pin. Reposition sinkers along the bottom edge and pin in place to avoid shifting. Sew along top edge through all four layers and sew around sinkers to form pockets. On the top, reduce the width to about 10" between the sleeves by gathering and pinning fabric. Sew $\frac{1}{4}$ "- $\frac{1}{2}$ " from edge through all gathers and reinforce with another row of stitching. Place one rubber band on each pole just below the bolt and slip poles into sleeves. Cut a small hole in the bottom of each sleeve to allow tip to protrude about $1\frac{1}{2}$ ". On the top, roll rubber bands down poles and over fabric. Repeat on bottom and place one rubber leg tip on each leg to prevent fraying.

This seine has held up well under regular use and has proven to be remarkably resistant to tearing, fraying, and running. My only complaint has been the fine mesh which is small enough to catch fry, but creates a humbling weight to lift in swift streams over about 2' in depth. I hope to rectify this problem by replacing the mosquito netting with $1/8$ " fabric salvaged from a minnow seine.