

Trot Line Use

The interest in trot lines as a sampling tool is increasing. Issues of efficiency and safety should be addressed when using this gear. The following text and photos describe some of the gear, methods, and safety precautions we utilized while sampling catfish on the Minnesota River. This is by no means all inclusive. Variations in habitat, location, and target species will call for different techniques with many creative adjustments required by those using this gear.



The boat was kept as open as possible. We attached a piece of 1" Styrofoam to the upper left corner of the bow to hold dropper hooks and another to the right gunnel to hold trot lines that were ready to be reset.





The lines were assembled and stored in a Styrofoam lined five gallon pail. These pails were used when the lines were



initially set and then again when finished. We placed 1" of clean

rock in the bottom of the Styrofoam liner, under the trot lines, to stabilize the bucket. The plastic five gallon pail extends the life of the Styrofoam liner. The liners are called Plasti-kool coolers and can be found at tackle stores. They are produced by Plastilite Corporation, Omaha, Nebraska 68112.

The tackle box holds all of the necessary trot line repairs. This includes pre tied dropper lines, pre sharpened hooks, swivels, brads (swivel stops), a hook file, needle nose, and side cutters for cutting hooks. I have included a complete equipment list at the end of this document.



After experimenting we found it best to start lifting lines at the upstream end of the trot line and work to the downstream end. At no point in the lifting process is the line brought inside the boat. The person in the bow of the boat handles the line and cuts the droppers holding fish after they are netted. By using the upstream anchor this individual, along with the motor operator, can control the rate of drift. The middle person nets the fish and places them in a live well or tub after they are cut from the main line. The boat operator attempts to keep the boat from drifting over the line and watches for potential hazards.

We require everyone in the boat to carry a fixed blade belt knife or divers knife during this process. If something would be inadvertently hooked, the line can be immediately severed by anyone. One of the most dangerous aspects of using trot lines is the hook extraction process. Cutting the dropper after the fish is netted allows easier hook removal once the line is completely lifted. You are not fighting a live fish and moving boat at the same time. You will find most hooks can be removed by simply pulling the hook eye through the skin rather than trying to pull the barbed end of the hook back through the skin. We clip the hooks on any gullet hooked fish.



After the fish are removed from the trot line the boat is at the downstream end of the line. At this point we lift the rear anchor, place it in the stern end of the boat, then slowly motor forward while pulling the trot line into the boat and spreading it along the length of the floor and on to the bow. Once we reach the upstream end of the line we have the entire trot line inside the boat (left photo). Here we attach the boat to the upstream anchor or tie off to the bank keeping the boat stationary while we repair the line and work through the fish.

We assemble extra dropper lines with hooks and hang them on the Styrofoam, attached to the bow, for quick access (upper right photo). Once the boat is secured we go through the line and replace all droppers, hooks, and damaged brads. Dropper replacement is done by running the dropper line through the swivel and bringing the hook back through the loop. No cutting or tying is needed. We work from front to back and hang each hook, in order, on the Styrofoam attached to the right gunnel (lower right photo). Once all the hooks are repaired the trot line is ready to be reset.

The line is reset in one of two ways. With cut bait, the line can be baited and spread across the bow and floor (left photo) while the boat is stationary. Once the line is baited we release the boat and allow the boat to drift downstream while feeding out the baited line. When all the hooks are in the water we position and tighten the line and drop the downstream anchor. I personally feel most comfortable with this method. At no point are we fighting the current while trying to attach bait to the hooks.

The second method is typically used when setting live bait. This involves one person on the bow, another baiting the hooks, and a third person operating the motor. The person on the bow is responsible for keeping line tension off the person baiting the hooks. This individual controls the rate of drift, along with the motor operator, and ensures no hooks hang up on the bow of the boat. The second person baits the hooks and then carries the anchor to the front when completed. The line is then positioned and the anchor dropped. This method involves a bit more coordination between the crew members and, with variable current and wind conditions, can create some rather precarious setting situations.

Safety Issues

In the past 10 years, we have experienced one injury while using set lines. An individual imbedded a hook in his thumb while attempting to unhook a small channel catfish. I believe the menacing nature of a line full of hooks has a tendency to maintain a high level of awareness. That conscience level of recognition may be the best safety program ever implemented. Most of the near misses that I have observed occurred when tension was unknowingly put on the line due to unobserved hooks catching somewhere on the boat while the boat was in motion. I feel we have reduced those incidences by our lifting and setting techniques described here.

Another injury occurred while disarticulating a large (to lend credibility) flathead catfish. This injury involved a knife wound to the wrist. We use a knife to disarticulate spines from larger catfish to keep the damage to the fish at a minimum. Some peers suggest the use of a pliers to grasp the spine and remove it without using a cutting tool. This may be an excellent suggestion from a safety standpoint although its use on larger fish may be limited. I would suggest people try it. Since we advise using a knife to cut the droppers, crew members may want protective gear on their hands. We used a product from Perfect Fit Glove Co. Inc. that provides protection to the hand and forearm by using a Kevlar sleeve. The products are soft and pliable providing a better fit than many unprotective gloves.

This company provides many types of Kevlar products for working with sharp objects. A catalog can be ordered from:

Perfect Fit Glove Company Inc.
85 Innsbruck Drive
Buffalo, New York 14227
Phone: 800-245-6837

These products are also available from a supplier in Minnesota at Minnesota Gloves - phone 651-552-8840. They will set up an account with any of the area offices.

If anyone has questions or concerns with our use of trot lines please feel free to contact any of the staff at the Hutchinson Fisheries office.

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Trot line Checklist

Trot lines
Tackle box - file, needle nose pliers, side cutters, hooks, droppers, brads
Anchors (7 - 10 pound)
Belt knife (required for every person in boat)
First aid kit
Known location of medical facility
Trot line locator hook
Shock cord or clamp (secure boat to shore debris)
Topographic maps (set locations)
GPS unit
Data sheets
Waterproof field book (record set locations)
Flagging (mark set location - optional)
Warden notification
Horns platform scale (12 kg)
Large scale (up to 50 pounds)
Hanging cradle
Measuring board
Retractable metric tape
Pencils
Cotton gloves
Protective gloves and sleeves
Spine envelopes
Bow saw
Live tank or tub
5 gallon pail
Cut bait
Large dip net
Depth locator
Cooler (gear)
Belt holders (pliers, knife)
Knife (for disarticulation)
Betadine (optional)

