

## 8.3 PROTOCOL FOR SAMPLING FISH WITH GILL NETS

### Overview

Gill nets are constructed of fine monofilament line suspended between a buoyant ‘float line’ and a non-buoyant ‘lead line’. Nets may be all one mesh size or may be composed of different mesh sizes by joining a series of panels. Panels are generally 15 metres long. The mesh size of a panel is measured by pulling two opposing knots of a mesh-hole tight and measuring the distance. Mesh sizes generally range from 2.5 to 12.5 cm. The size of the mesh chosen will determine the size of the fish that will be caught. The ends of the net are equipped with a bridle, tether lines, anchors and buoys. Gill nets can either be set with an anchoring point on shore or with both ends anchored in open water. There are two types of gill nets, floating gill net - positive buoyancy for capturing surface-dwelling species, and sinking gill net - negative buoyancy for capturing bottom-dwelling species.

### Sources

British Columbia MWLAP (2003), Ministère de l’Environnement, Gouvernement du Québec. (2004), Newfoundland and Labrador Environment and Conservation (1999)

### At a glance

*net location*

**1** Select a location where there is both an ideal shore line anchoring point (e.g., a tree, a large rock, a dock etc.) and suitable near shore depth (so the net will not bunch on the bottom). Avoid setting the net near obstacles such as sunken stumps or logs that can entangle and rip nets.

**2** Tie one end of the net to the shore anchor point with a tether line. Load the remainder of the net neatly into the boat.

**3** One person then slowly rows in the direction that the net is intended to be set while the other person gently feeds the net out. (Hint: If the boat has protuberances, rivets, or sharp edges that will snag the net during deployment, it is advisable to cover these with a sheet of poly film.)

*be aware of boaters, swimmers, boating lanes*

**4** Once the net is at full extension, the anchor is lowered and the buoy deployed. Attach labeled buoys to the float line at intervals of about 5 meters to warn boaters. Do not set a net near a swimming beach during swimming season, or leave a net unattended near boating lanes. Note: Ensure that the buoy is well flagged.

*retrieving net and removing fish*

**5** While kneeling, grab the float line and pull the boat along the net to check for fish (if the boat is equipped with a motor, raise it to avoid entanglement with the net). Collect any fish encountered. If enough fish have been caught, reverse your path and retrieve the net. (Hint: If there is any wind, it is advisable to retrieve the net against the wind to prevent the boat from drifting

over and entangling the net.) When retrieving the net there is the option of hauling the net in and then removing the catch or, removing the catch first. Removing the fish before the net is in the boat poses fewer entanglement problems.

**6** Place captured fish in an ice-filled cooler. Label cooler for the site if there is more than one capture site.

**7** Return to shore and process the fish.

### Protocol for gill net – open water

**1** Load the net neatly in the bow of the boat and proceed to the deployment site (established in the project design). Avoid sunken stumps or logs that can entangle and rip nets.

**2** Anchor one end of the net securely. The person in the bow is responsible for deploying the net while the person in the stern controls the boat (reverse in the direction the net is to be set). (Hint: try to set the net with the wind to prevent the boat from drifting over and entangling the net. Alternatively, you may set against the wind in reverse while under power.)

*be aware of  
boaters,  
swimmers,  
boating  
lanes*

**3** Gently feed the net out and set the other anchor when the float line is taut. Attach labeled buoys to the float line at intervals of about 5 meters to warn boaters. Do not set a net near a swimming beach during swimming season, or leave a net unattended near boating lanes. Note: Both buoys should be well flagged and labeled.

*retrieving  
net and  
removing  
fish*

**4** While kneeling, grab the float line and pull the boat along the net to check for fish (if the boat is equipped with a motor, raise it to avoid entanglement with the net). Collect any fish encountered. If enough fish have been caught, reverse your path and retrieve the net. If there is any wind, it is advisable to retrieve the net against the wind to prevent the boat from drifting over and entangling the net. When retrieving the net (after having been set for an appropriate period of time), there is the option of hauling the net in and then removing the catch or removing the catch first. Removing the fish before the net is in the boat poses fewer entanglement problems.

**5** Place captured fish in an ice-filled cooler. Label cooler for the site if there is more than one capture site.

**6** Return to shore and process the fish.

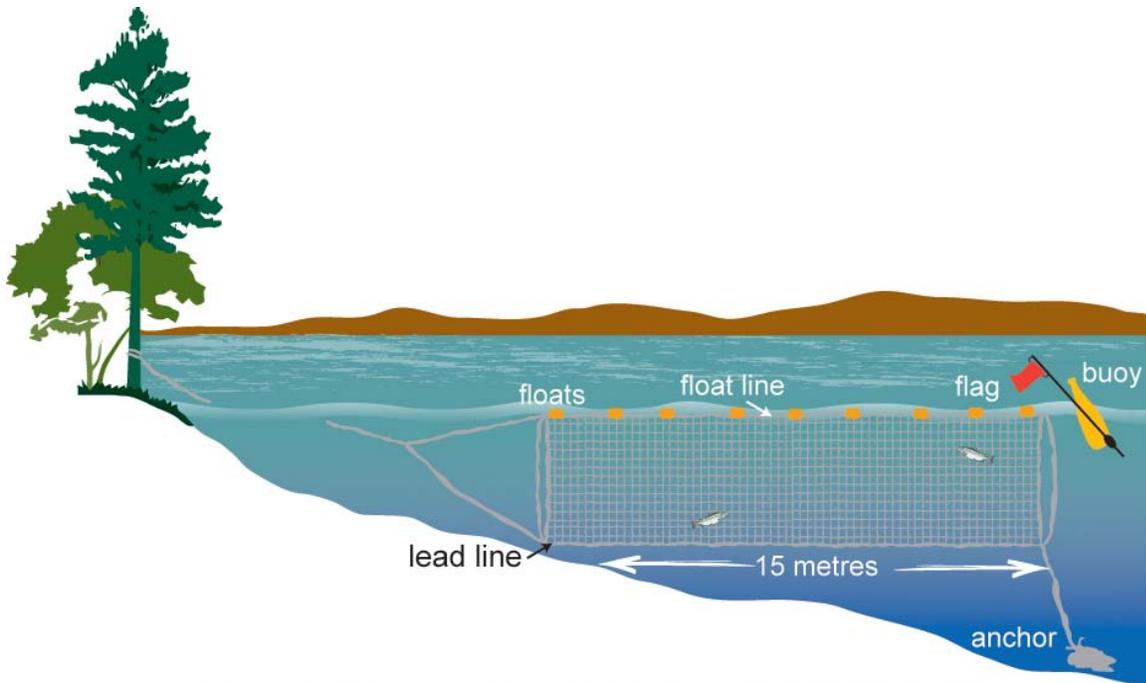


Figure 11. Shore-set gill net (British Columbia MWLAP (2003))