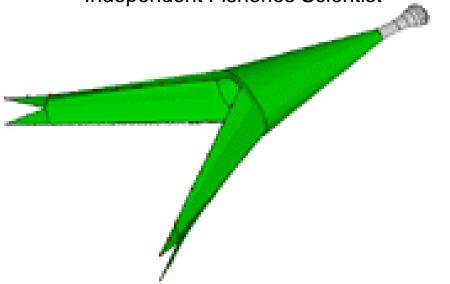
FSAM 2010 Fish Sampling with Active Methods

September 8-11, 2010 Ceské Budejovice, Czesk Republic

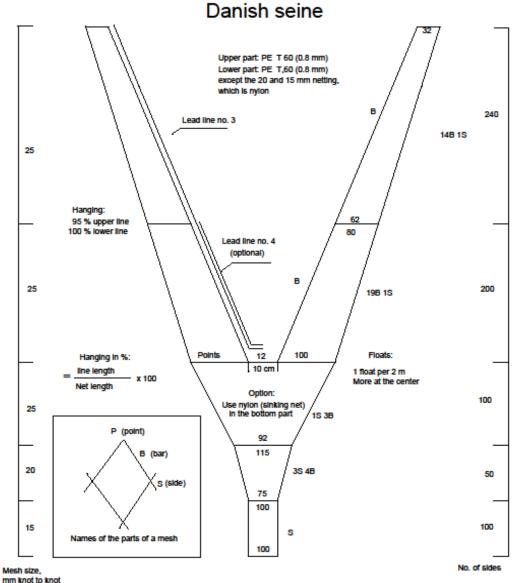
Danish seine for shallow lakes

Presentation by Jon Kristjansson Iceland Independent Fisheries Scientist



In order to find a fishing gear to catch live fish in lakes without pulling it to shore beach seine, alternative to a beach seine which has to be pulled to the shore experiments were performed.

The final result was a light weight seine that could be stored and carried around in an ordinary 80 I sack



The seine is 40 m long, 5 m high and 10 m deep (stretched) from the opening of the belly to the bottom of the cod-end.

Material is 0.8 mm, polyethylene, which a specific gravity of 0.96 and therefore floats in the water. The head-line is 5 mm nylon rope, the netting is hung 95% on the rope. The bottom line is a lead-line no. 3, netting is hung 100% on the line.

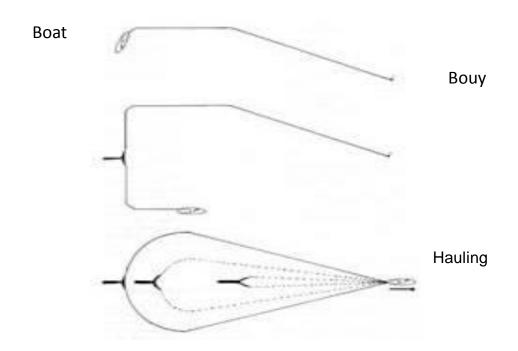
Thus the upper line is 5% shorter than the bottom line, making the seine to "sit" better on the bottom when pulled towards the boat. The weight put on the bottom line depends on bottom density. To heavy line on a soft bottom makes the foot-rope dig into the mud. Heavy weight makes the seine sit better and can be used on a hard bottom.

This has to be experimented with. It is practical to twist a lead line around the bottom line as needed.

All materials, netting, ropes, locks, lead lines etc. are available from:

http://www.engel-netze.de

Seine laid out



The seine is lead out as shown. First, a buoy, linked to herding rope, is put out. Then the rope is lead in a semi-circle. The first wing is laid out. While the cod-end still in the boat, the second wing is laid out, when the belly is fully stretched the cod-end is thrown over the wing.



Onboard a 5,2 m long stern seiner. Author redy to tag the fish.



Good catch of artic char

Her are some results from the tagging - recapture project:

Arctic char Ellidavatn Iceland, 200 ha

Tagged in 2001 and 2003 = 556+475 fish

Examined for tags in 2001-2003: 1834+659+922

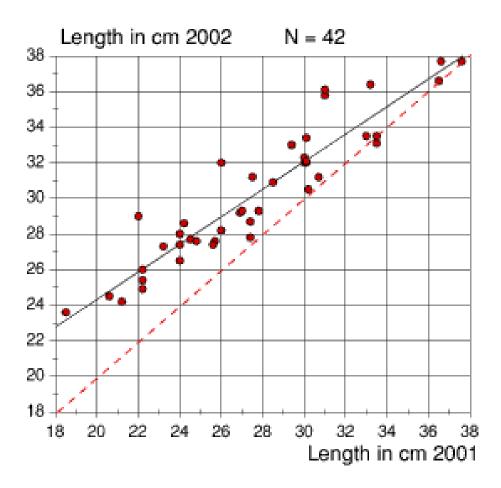
Recovered tags total: 220

Population size > 20 cm 7000-9000 fish

Total mortality 30% / year

Recruitment 2000 ~20 cm fish / year

Walford Plot



This shows the length increment in one year, based on tagged and recovered fish

The operation of the seine is shown in a video which is located here: http://www.youtube.com/watch?v=-OfU0CjMmL0

Catches vary, but they can be great, the record is 800 kg in one haul. This video shows a good haul were 500 fish were caught in order to examine the ratio of tagged/ untagged fish:

http://www.youtube.com/watch?v=_CIAd8r_Qng

Portable DC electrofisher presented as a poster:

Electrofishing is used to sample young fish in rivers and streams. The anode stick delivers 300 V DC current that affect the fish in such way that they swim towards the anode where they are collected by a dip-net.

Here is a video of the gear in operation: http://www.youtube.com/watch?v=sLOay7UFxrg

For more information contact: jonkr@mmedia.is and: http://www.fiski.com