

Fishery/ target species: Pontoon traps in the Bothnian Bay. Target species is whitefish.

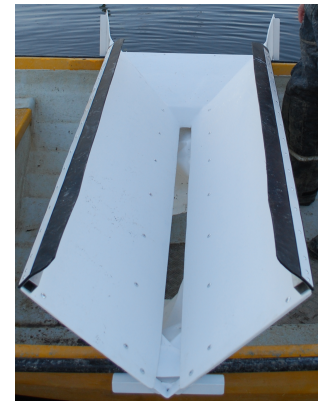
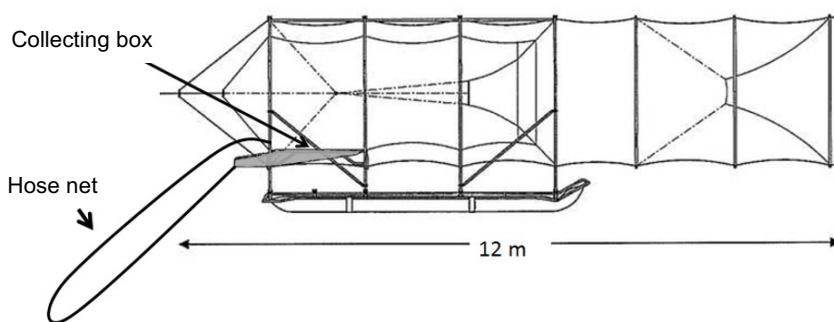
Area: Baltic Sea, ICES SD 31

Fishermen: Patrik Blomberg and Gunnar Nilsson

Gear type: Pontoon trap for whitefish and salmon

Gear modification: Gunnar Nilsson used a hose net attached to the collecting box decrease injury on salmon when emptying the trap. Patrik Blomberg used a selection chute on the boat as a method to separate whitefish from salmon with minimal impact on the bycaught salmon. In the fish chamber the collecting box was replaced with a tarpaulin to further decrease scale loss of salmon.

Gear design (Left side: Hose net (8 m knotless hose net, 20 mm stretched mesh) attached to the collecting box in the fish chamber. Right side: The selection chute placed on the boat leading larger fish back to the water.



Results

Gear modification	Catch salmon & sea trout (No.)	Catch whitefish	Comments
Hose net	200	116 kg	No visible damage on the salmon.
Selection chute	156	~15 kg	All whitefish fell through the chute into the boat. 94 % of the salmon and sea trout passed the chute into the water.

Conclusion

- The hose net is easy to fit on a trap and it decreases injuries on bycaught salmon.
- The disadvantage is that it is heavy to handle large amount of salmon and when separating fish in the hose net outside the boat the fisherman is in a bad working position.
- The selection chute decreased emptying time and injuries on salmon. The tarpaulin in the fish chamber also prevented scale loss. The disadvantage is that usage of the selection chute requires good weather conditions.
- Both modifications meet the goal to in a more harmless way separate salmon and whitefish.
- The selection chute is also ergonomic for the fisherman.

- A trap that separates fish by size to minimize impact on bycaught salmon

Fishery/ target species: Pontoon traps in the Bothnian Bay. Target species is whitefish.

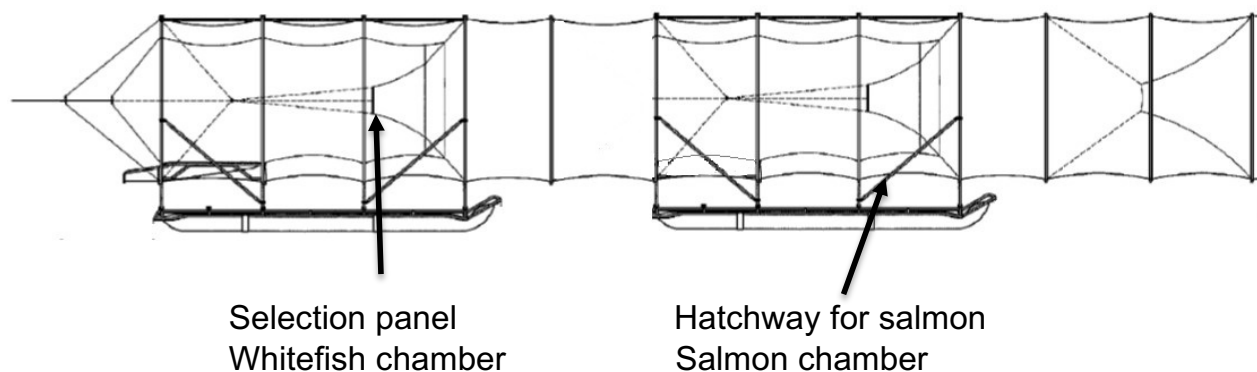
Area: Baltic Sea, ICES SD 31

Fisherman: Linus Bylund. Construction by Harmånger Maskin o Marin.

Gear type: Pontoon trap

Gear modification: The pontoon trap has an additional fish chamber. In the entrance to the second chamber there is a selection panel that allows smaller fish such as whitefish to enter.

Gear design (Salmon are caught in the first fish chamber while smaller fish, such as whitefish, can continue through the selection panel into the second fish chamber)



Results (Catch in the two different fish chambers)

Fish chamber	Salmon	Whitefish	Sea trout
Salmon chamber	96 (90%)	49	17
Whitefish chamber	11	294 (86%)	44 (72%)

Conclusion

- The selection process with two fish chambers was successful. Human handling of bycaught salmon was eliminated by the use of an opening in the salmon chamber.
- The disadvantages are that the construction is weather sensitive and an expensive investment for the fisherman.

Fishery/ target species: Pontoon traps in the Bothnian Bay. Target species is whitefish.

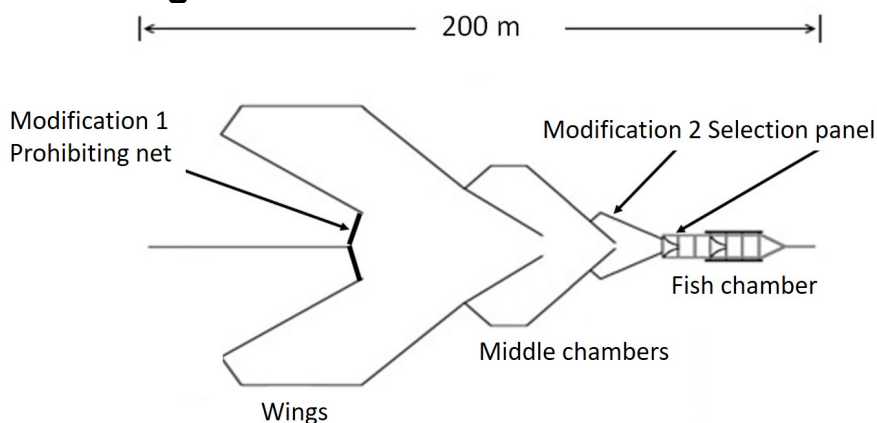
Area: Baltic Sea, ICES SD 31

Fisherman: Viktor Medström

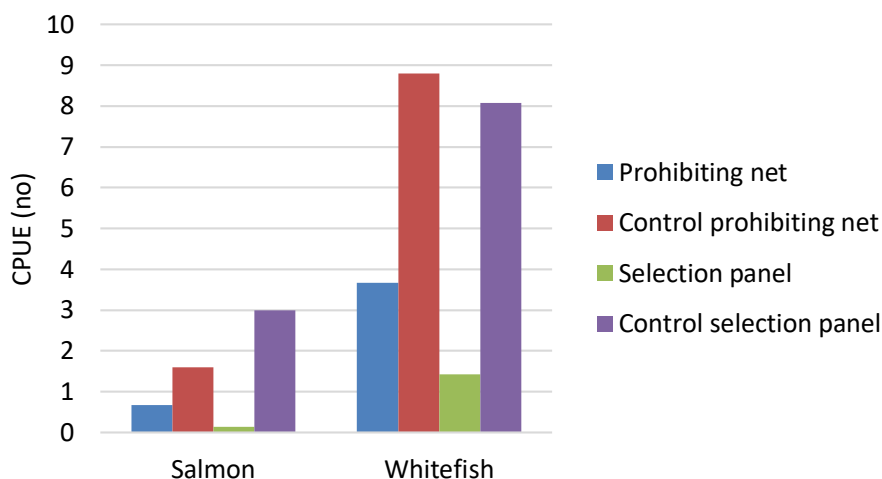
Gear type: Pontoon trap

Gear modification: Modification 1, prohibiting net: A 2 m deep net was hung in the entrance to the wings of the trap. Below the net the entrance to the trap was open. This method is based on behavioural thought differences between species, the salmon swim near the surface while the whitefish approach the trap closer to the bottom. Modification 2, selection panel: A selection panel in the entrance to the fish chamber which allows smaller fish to pass and larger to turn around. An escape hole was opened in the entrance section to let fish escape from the trap to prevent seal damage.

Gear design



Results (Catch using a prohibiting net, selection panel or a control pontoon trap.)



60 % of both salmon and whitefish were stopped by the prohibiting net. When a selection panel was used 95 % of salmon and 83 % of whitefish did not enter the fish chamber.

Conclusion

- A relatively large part of the salmon entered the trap with the prohibiting net while the selection panel successfully decreased catches of salmon.
- Both modifications decreased catches of whitefish significantly and can therefore not be recommended.