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Field tests of two types of cetacean barriers rigged in a pelagic trawl: effects on trawl-geometry and catch efficiency of target fish

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Project objectives

To develop trawl devices, acoustical deterrents, and alternative fishing tactics to reduce the by-catch of cetaceans in the European pelagic fisheries, and to determine the biological effects and socio-economic repercussions.

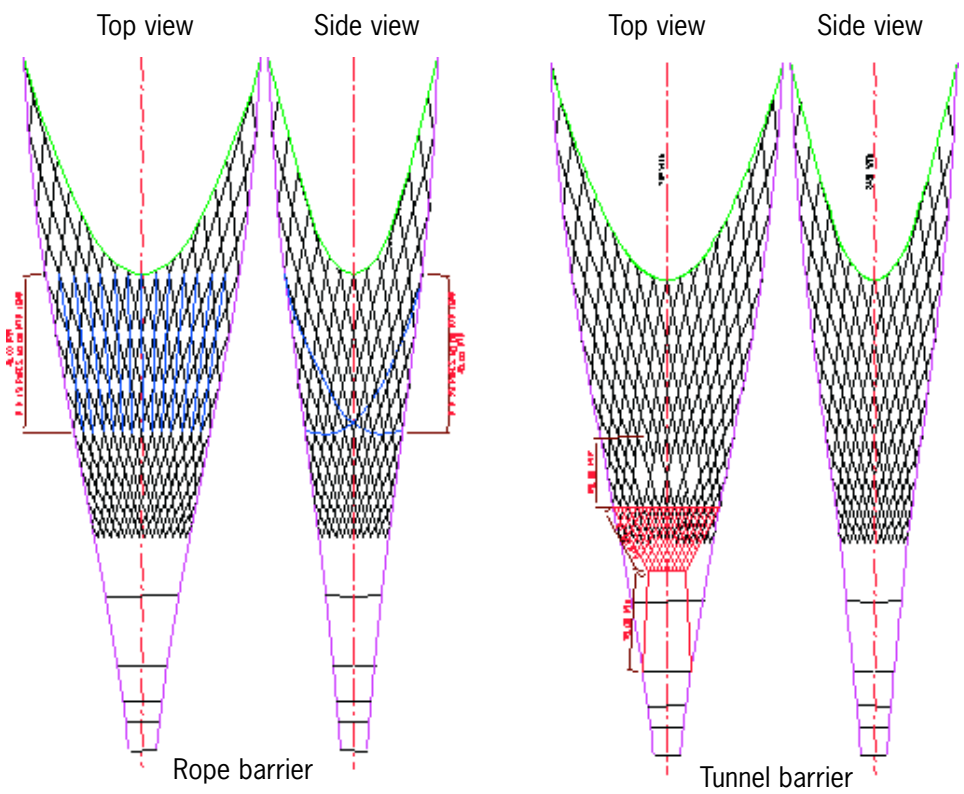
Project acronym: NECESSITY (financed by EC and national governments)
Project full title: (NEphrops and CETacean Species SElection Information and TechnologY)
Project duration: 01-03-2004 to 01-05-2007

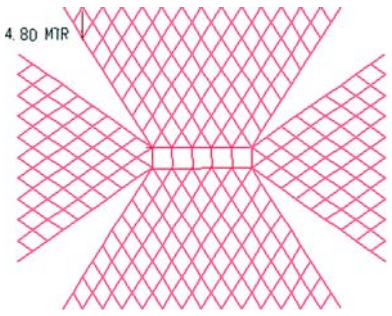
Countries involved in cetacean research Netherlands, France, United Kingdom, Denmark, Ireland, Spain and Germany

Activities

Development of net adaptations cetacean barriers

- Flume tank model tests
- Field tests on board FRV “Walther Herwig III” in the Bay of Biscay of the effects on trawl geometry and target fish in March/April 2005





Tunnel design with a passage of 10 x 2 m in the centre

WESMAR TCS 701 trawl sonar

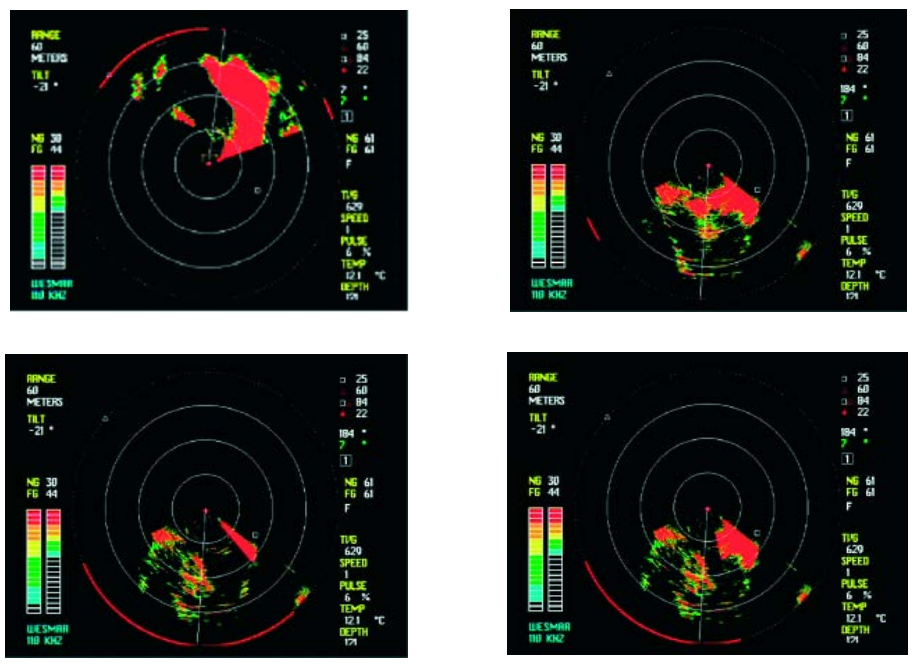
Results

Rope barrier

- Reduced vertical trawl opening
- Losses of target fish

Tunnel barrier

- Less effect on trawl geometry
- Large mackerel was caught and not observed escaping



Trawl sonar images of a large shoal of fish escaping at the crossing of the ropes in the rope barrier prototype

Conclusions

Rope barrier idea abandoned, tunnel barrier to be tested further. Continued full scale trials at sea with tunnel barrier in September 2006

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