

## Executive summary

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The Study Group on Electrical Trawling (SGELECTRA), chaired by Bob van Marlen, the Netherlands and Bart Verschueren, Belgium, met in Lorient, France, 21–22 April 2012. A total of seven participants attended from Netherlands, Belgium, Germany, Scotland, and France. The meeting began with a short presentation on the history of research of pulse trawling (on flatfish), and the ICES Advice on Pulse Trawling on flatfish of 2006 and 2009. Following the ICES Advice of 2009 further studies were carried out by IMARES.

New research activities of IMARES, IJmuiden, The Netherlands, were presented and discussed, namely: a catch comparison in May 2011 on two pulse trawl vessels and one conventional tickler chain beam trawl boat fishing side-by-side, further analysis of spinal damage in cod (*Gadus morhua* L.) in 2010 and 2011, reference measurements of field strength *in situ* in 2011 and the result of an effect prognosis, using the model developed by Piet *et al.*, 2009 and the data from the catch comparison.

A presentation was also given about the development of a pulse trawl (called the “Hovercran”) for the brown shrimp (*Crangon crangon* L.) fishery by ILVO, Ostend in Belgium, and work to be carried out by two PhD students from the University of Ghent in cooperation with ILVO. This work has been given follow-up in The Netherlands on three commercial vessels, and a project on shrimp fishery using the “Hovercran” in Germany on a commercial boat is about to begin.

In addition a report was given on the razor clam (*Ensis*) fishery in Scotland in which electrical stimulation is used. In addition a new problem was mentioned related to electrical stimuli of heavy power, i.e. the production of chlorine (it and its derivatives are toxic to marine organisms and soluble in seawater) due to electrolytic reactions.

Discussions in the Netherlands Control and Enforcement Group and draft Procedure for Control and Enforcement were presented and the draft text in English improved.

A recent report by STECF was discussed and comments given on its contents.

The reviewing experts concluded that:

- It was acknowledged that as a result of the studies for ICES more information on the effects is now available than 6 years ago, *e.g.* real numbers on damages in cod in the catches, also dependence of damages on size classes, the effect on sharks, and invertebrates.
- Further long-term investigations be undertaken.
- The pros and cons of each system be taken into account.
- The views of SGELECTRA on pulse trawling are still under development.

SGELECTRA recommended continuing work with Terms of Reference given in Annex 2.