

BELGIUM

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Attention was paid to four main topics, viz.

- gear research,
- research on selectivity,
- research on netting materials and
- the introduction of computer techniques in technical fisheries research.

Gear Research

The gear research aimed at the development of efficient fishing gear from a technical, biological and economical point of view. As a consequence this research is often carried out in close cooperation with the fishing industry. The types of gears involved in this research were beamtrawls for flatfish as well as for shrimps, semi pelagic and high opening bottom trawls and pair trawls. As in the past years a reduction in towing resistance was still of a major concern in the development or improvement of fishing gear. A 10 % reduction in the towing resistance of shrimp beam trawls could be achieved by increasing the mesh size in the front part of the trawl. A first study was carried out with twin shrimp trawls on board a coastal stern trawler. Line trawls were also introduced in the Belgian fisheries. A new semi-pelagic trawl for smaller trawlers was developed. The initial tests showed a better manoeuvrability and a lower drag compared to earlier designs.

Selectivity studies

Experiments on codend selectivity for sole were carried out on board a coastal beamtrawler. The codend parameters involved were the mesh size, the netting material, the mesh shape (diamond versus square) and the codend length. Of these only the mesh size proved to have a significant effect on the selectivity for sole.

Netting materials

The research on netting materials concentrated on the shrinkage of netting due to the absorption of bottom sediments (mud and sand). A new experimental method permits to control the tension on the netting sample during testing. Nettings of different materials and construction were tested. Dependent on the tension on the netting (0, 2 or 4 kgf per mesh) mesh size reductions of up to 6 % were noted.

Computer techniques

The application of computer techniques in technical fisheries research was started. Computer programs for the analysis of data from selectivity experiments and the design and drawing of net plans were introduced. A database of technical characteristics of fishing gears used in the Belgian fleet was compiled.