

FISH CAPTURE COMMITTEE

by
E.J. de Boer
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Belgium
(G. Vanden Broucke)

As in the past technical parameters affecting the performance and catchability of traditional trawl nets were further studied. The parameters concerned were the rigging, the netopening, the drag, the wear and the mesh size.

The behaviour of pelagic pair trawls, semi-pelagic trawls and one boat semi-pelagic nets was studied by means of a netsonde.

Further investigations on high-opening beam trawls were directed to measure the drag, the vertical opening and the catchability.

With regard to energy saving possibilities a new project was started. In this study different types of otter boards (rectangular and oval) were compared in function with the fuel consumption.

As in the past, various types of netting yarns and nettings were tested on their physical properties.

The variations in mesh size under different conditions (new and used, wet or dry) were measured in the laboratory as well as at sea. Significant differences were noted and they may be of importance in relation to mesh size regulation.

In Belgium 65 % of the synthetic yarns used are made of polyamide, the remaining 35 % of polyethylene. ISO standards are applied by the Fisheries Research Station only, for its own research projects and for tests carried out on request of the industry.

In the laboratory the power of the battery fed underwater pulse generator was measured under different working conditions.

The study of a reproducible tape cassette system for the distribution of wreck positions was continued. The wreck listing was further completed.

In the field of passive fishing methods a project on fishing with single-walled and three-walled tangle nets for sole and roundfish was prepared.

Future work:

- Further study of the catchability in relation to the technical parameters of high-opening beam trawls, semi-pelagic nets and pelagic nets.
- Comparative experiments on otter boards.
- Testing of a new developed acoustic board spread meter.
- Experiments with the battery operated pulse generator.
- Compilation of wreck lists.
- Study on the automatic feeding system for the flatfish grader.
- Study of energy saving on board of fishing vessels.
- Introduction of tangle nets.
- Study of line-trawls.

CANADA

(P.J.G. Carrothers)

The federal Industrial Development Branch, Newfoundland Region, reports of seven relevant projects. A uniform containerization system is being developed for the catch of 5.5-10.5 m. inshore vessels. These high-density polyethylene, insulated containers will have a capacity of about 225 kg and are designed for better catch quality and more efficient off-loading. A high-density polyethylene fish-hold liner has been fitted to a new 14 m inshore commercial, long-liner and is being evaluated for fish keeping, quality, sanitation and durability. A study has compared the relative effectiveness and economics of a trough-baiting, long-line system vs. the Mustad automatic system, noting bait economy, baiting effectiveness, number of hooks fished, retrieval time and catching efficiency. A prototype, multiple, long line baiting system is being designed, constructed and tested with the objective of baiting 350 hooks in one operation, as compared with singly at present, for use either on shore or on board. Comparative fishing with redfish gillnets in the 127 to 140 mm mesh-size range, to determine the effective entrapment of small and large redfish, indicate that the 127 mm mesh nets captured 78% of total redfish landings. A total handling system for bleeding flatfishes on inshore vessels has been designed and is being studied. A prototype, automatic shucking machine which can accommodate all sizes of scallops has been built and is being evaluated.

The federal Research and Resource Service Directorate, Newfoundland Region, reports three relevant projects. The standard, groundfish survey trawl has minimum selectivity for juvenile flatfish (15 cm) and a modified Yankee 36 shrimp trawl was tried in an effort to find a better sampling tool. Two surveys have shown that it is physically possible to measure redfish densities by hydroacoustic techniques.