

## BELGIUM

(R Fonteyne)

### Trawl Gear

In the field of energy-saving studies, the influence of increasing the mesh size in beam trawls for shrimps has been investigated. Using 34 mm instead of 28 mm meshes in the front part of the net resulted in a 10% reduction of drag without any loss in catching efficiency.

The use of multiple rig trawls was studied.

Several types of high opening bottom trawls for engine powers ranging from 150 to 900 hp were developed and tested on commercial trawlers. These trawls are gaining popularity in the Belgian fishery.

### Electrical Fishing

Work on electrical fishing was concentrated on the development of a pulse generator to be incorporated in the beam of a flatfish beam trawl. The electrical field strength between two electrodes was studied under laboratory conditions.

### Selectivity

Several factors which may influence the selectivity of beam trawls for sole were studied. The experiments were carried out on a coastal beam trawler. The effect of the codend mesh shape (diamond versus square), the mesh size, yarn material (braided PA and PES and twisted PE) and the length of the codend were investigated. Of these only the mesh size had a significant influence on the codend selectivity for the target species.

### Netting Materials

Research on the shrinkage of meshes due to the penetration of bottom sediments was continued. A new experimental method permits control of the tension on the netting sample during testing. Netting of different materials and yarn construction have been tested with sand and mud.

### Safety

In relation to the improvement of safety on board beam trawlers, work with the new overload protection system continued. The system automatically opens the winch brakes if a preset overload occurs in one of the two warps, if a given load difference between the two warps is detected, or in the event of a sudden, well defined increase in towing resistance.