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THE FISHERY FOR SEA LAMPREY
(Petromyzon marinus marinus L.) IN THE LOIRE ESTUARY (1988, 1989)

by

Patrick GRELLIER

IFREMER, Centre de Nantes, BP 1049 – 44037 Nantes cedex (France)

INTRODUCTION

This study provides a preliminary description of the professional fishery for sea lamprey in the estuarine part of the Loire, as a complement to the main fishery for glass-eel (*Anguilla anguilla*). The fishing period (January – May) is related to the spawning migration.

MATERIAL AND METHODS

The data for 1988 and 1989 stem from inquiries to professional fishermen, fishmongers and administrative bodies. Two regulation systems are applied, a marine system and a fluvial one, thus dividing the fishery into separate sectors, for the management and the technical processes as well.

In the upstream sector, fluvial fishermen use large wooden traps of osier. This gear is anchored along the banks, and open facing the arrival of migrating lampreys, which can hide themselves into these artificial shelters. Traps are hauled every morning.

In the downstream sector (estuary), both marine and fluvial fishermen use trammels (33 to 37 mm side mesh size for the internal net). The length of these trammels and the fishing process depend on the location and the tidal current.

RESULTS

Due to interannual variation in the migration pattern, both years exhibit differences in the fishing periods. More than 100 fishermen completed an increasing fishing effort in 1989 by 10,3 % (677 fishing weeks, vs 614 in 1988), and their total catch increased by 31,8 % (49,3 tons in 1989, vs 37,4 t. in 1988). With the addition of the by-catch from the glass-eel fishery (0,9 t. in 1989, 0,5 t. in 1988), the total estimated catch for the whole fishery reached 37,9 tons in 1988 and 50,2 tons in 1989.

The market value of the sea lamprey is far from being neglectable with a high price for this species (65 Frs to 70 Frs / Kg). The fishery produced a total income of 2,6 millions Francs in 1988 and 3,3 MF in 1989.

The whole production of the Loire fishery is sold to the regional BORDEAUX market.

CONCLUSION

In relation with the ecological characteristics of the Loire estuary (fluvial discharge, tidal current, width of the river, turbidity) and to the specific behaviour of the sea lamprey, two different fishing processes are used (traps and trammels).

Compared with previous years, both 1988 and 1989 seasons were very productive for these species.

This traditional fishery for sea lamprey, in itself or in addition to the glass-eel fishery, forms a significative part of the economical income for majority of the fishermen along the Loire estuary during the late winter to early spring period.

		1988	1989	
Nb Fishermen		107	110	
Fishing effort	weeks	614	677	+ 10,3 %
Total catch	tons	37,4	49,3	+ 31,8 %
by-catch	tons	0,5	0,9	+ 80 %
TOTAL	tons	37,9	50,2	+ 32,5 %