

FISHING OF NORWAY LOBSTER, *NEPHROPS NORVEGICUS* (L.), WITH LOBSTER POT IN THE VELEBIT CHANNEL (EASTERN ADRIATIC)

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Abstract

The effects of pots for Norway lobster on its population in Velebit Channel (northern Adriatic) were researched. It was found that pots have got no damaging influence on its population in the researched area.

Keywords: fisheries, Adriatic Sea

Introduction

Catch of Norway lobster, *Nephrops norvegicus* (Linnaeus, 1758), in Croatian fisheries has a great commercial value. Its catch exceed total catch of all crustaceans, or all shells together, and even catch of some commercially important fishes. The reason for that is its larger abundance and dispersion in the Adriatic in relation to other crustaceans and higher efficiency of fishing gear used for its catch. The area of its distribution has been spread and could be found in commercial quantities in many areas along the eastern Adriatic coast. Such area, among others, is Velebit Channel where this research was conducted. Catch of Norway lobster in Croatia, in last 10 years, varies between 500 to 600 tons per year (according to Croatian statistical data), but those data can be consider quite underestimated, because the data for Norway lobster are collected only from trawlers through their regular reports and none from fisherman who are using pots for Norway lobster (1).

The aim of this paper was, according to obtained results such as length structure, presence of immature specimens and sex ratio, to evaluate influence of pots on population of Norway lobster in Velebit Channel in order to protect it in the research area.

Material and methods

Research was conducted monthly during 1997. and 1998. in the area of Velebit Channel (northern Adriatic) on 7 general areas (see in Fig. 1). Fishing was carried out within 1NM from coast at depth between 70-80 m. The pot immersion time was usually one day except on occasions when bad weather conditions didn't allow lifting. Pots used for this research were made of netting material with mesh size not lower than 40 mm. Total of 12 077 pots was used and their dimension was 70x45x25 cm (Fig. 2). Pots were ordered in series of 20-40 pieces and time of immerse of the one series was 5 - 10 min, while time of its lifting was 35 - 45 min. Following parameters were determined for each specimen: total length (L_t) in cm, from tip of rostrum to posterior margin of telson, weight (in g) and sex. Fishing effort of pot was calculated according to average weight and number of specimens caught during one immersion of pot.

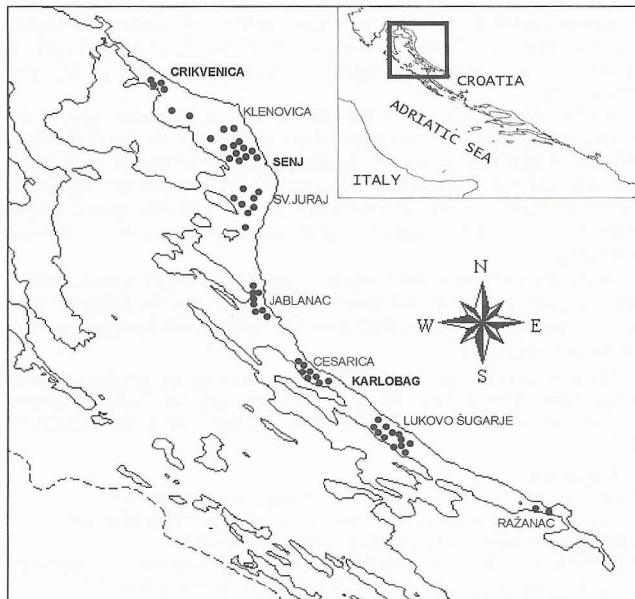


Figure 1. The research area - Velebit Channel (Σ - stations).

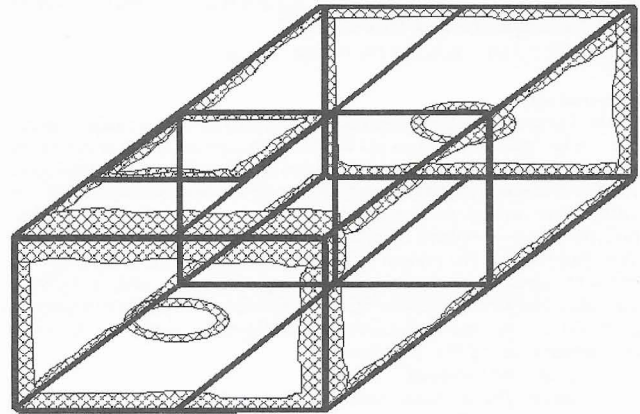


Figure 2. Pot for Norway lobster used in Velebit Channel.

Results and discussion

The total length of Norway lobster ranged from 9.5 to 19.5 cm (mean length = 12.5 ± 1.51 cm). Of the total specimens examined ($N=6212$) 2653 (42.7%) were male and 3559 (57.3%) females. The sex ratio was 1:1.34 in favour of female. Males were mostly dominant in length classes 12.0-12.5 cm (29%), and females in length classes 11.5-12.0 cm (45.2%).

Fishing effort of pot was 19.76 g, while number of specimens 0.57 for one immersion, and those are the lowest values according to results obtained by other authors for the same area and others in the eastern Adriatic : 78 g for 36+44 m pots (3), 66.7 g for 36+38+40 mm pots (4), and 96.87 for 36 mm, 71.86 for 40 mm, 64.90 for 44 mm pots (1).

According to recently finished research (2), the size of first maturity of Norway lobster in the eastern Adriatic was 9 cm, so it can be said that no immature specimens were caught in pots, because a minimum length of caught specimen was 9.5 cm. That means pots for catch of Norway lobster are selective fishing gear and it can be consider as fishing gear with no harmful influence on its population, because normal reproduction of species has been allowed.

References

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