

# CATCHES OF THE HOLOTHURIAN *STICHOPUS REGALIS* (CUVIER, 1817) DURING THE "PIPETA" EXPEDITION IN THE ADRIATIC SEA

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## Abstract

We present data on the abundance of the holothurian *Stichopus regalis* (Cuvier, 1817) on the continental shelf of the Adriatic Sea during 11 cruises of the "Pipeta" Expedition (1985-1994). A total of 518 bottom trawl hauls were performed covering an area of approximately 59,000 km<sup>2</sup> of different substrata at different depths. The greatest catch rate (33.88 kg h<sup>-1</sup>) of the species was recorded at 105 m and on "relict" sand sediment.

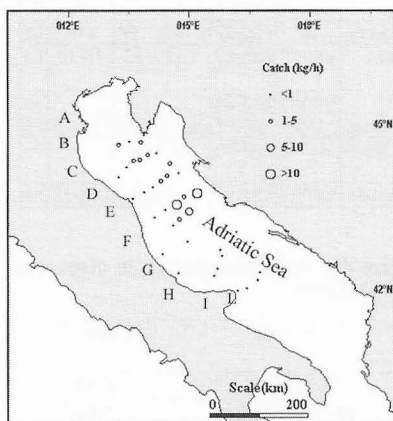
**Keywords:** *Stichopus regalis*, catch, Adriatic Sea

## Introduction

Bottom trawl by-catch was recorded for the first time during the "Pipeta" Expedition in the Adriatic Sea. The holothurian *Stichopus regalis* (Cuvier, 1817) is a common species in trawl by-catches from the continental shelf in the Adriatic (1). It is an edible species but not consumed in the Adriatic region. Here, we present the species catch rates based on the "Pipeta" Expedition results.

## Material and methods

Samples were collected during 11 cruises of the "Pipeta" Expedition (1985-1994) with standard Italian bottom trawl (2) during different periods of the year. Trawling was performed on 10 transects (A-L) (Fig. 1) over the Adriatic continental shelf, at depths 10-430 m, covering an area of about 59,000 km<sup>2</sup> of different substrata. Catch rates per station were expressed as mean kg h<sup>-1</sup> of trawling.

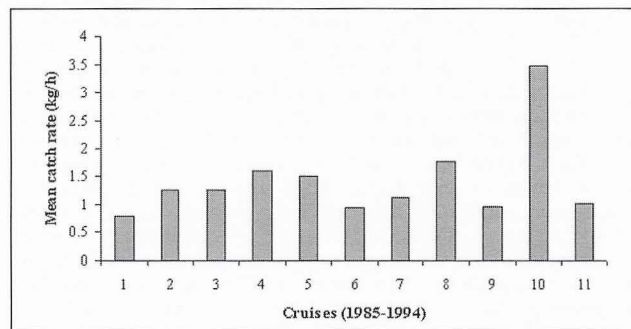


**Fig. 1.** Catch rates (kg h<sup>-1</sup>) of the holothurian *Stichopus regalis* during the "Pipeta" Expedition (1985-1994) along 10 transects in the Adriatic Sea.

## Results and discussion

A total of 518 bottom trawl hauls were performed during 1985-1994. To calculate mean catch values at different substrata, 356 hauls were used from the area of its distribution (i.e., stations where the species was caught at least once). The greatest mean catch rate of *Stichopus regalis* was recorded at depths 50-100 m, whereas it is

normally distributed at depths 5-470 m (3). The highest mean catch rate (4.62 ± 6.31 kg h<sup>-1</sup>) was recorded at stations with "relict" sand (Table 1). On clay silt and silty clay sediments, its presence was negligible being in accordance with previous data (1). Generally, the mean catch rates at the stations of each sediment type differed significantly (ANOVA, P<0.01). Furthermore, the high standard deviation values of the means (Table 1) denote the uneven species distribution in the area. The species was not caught at stations on transects "A" and "B". The greatest catch (33.88 kg h<sup>-1</sup>) was recorded on transect "F" (Fig. 1), in the area where Šimunović (1) recorded 940 specimens per hour, while very small catches along the "H", "I" and "L" transects. The mean catch rates of *S. regalis* during 11 cruises did not differ significantly (ANOVA, P>0.1) (Fig. 2). Finally, the mean catch rates did not differ with season (ANOVA, P>0.1) (Table 1).



**Fig. 2.** Mean catch rates (kg h<sup>-1</sup>) of the holothurian *Stichopus regalis* during 11 cruises of the "Pipeta" Expedition (1985-1994) in the Adriatic Sea.

**Table 1.** Mean (±SD), range (min-max) and number (n) of the holothurian *Stichopus regalis* trawl catches (kg h<sup>-1</sup>) at different sediment types and seasons during the "Pipeta" Expedition (1985-1994).

SEDIMENT	MEAN DEPTH (m)	CATCH RATE (kg h <sup>-1</sup> )			
		n	min	max	$\bar{x}$ SD
"relict" sand	75	79	0	33.88	4.62 6.31
clayey silt and silty clay	91	151	0	0.43	0.03 0.08
clayey "relict" sand	105	126	0	1.30	1.32 2.38
SEASON					
autumn		123	0	16.94	1.14 2.41
winter		103	0	17.92	1.13 2.64
spring		69	0	26.68	2.13 5.15
summer		61	0	33.88	1.94 5.12

## References

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