

# AN EVALUATION ABOUT THE COLOUR VARIATION OF *CARCINUS AESTUARI* NARDO, 1847 WITH PARTICULAR REFERENCES TO THE FEATURES OF *CARCINUS MAENAS* (LINNAEUS, 1758)

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## Abstract

The carapace colour variation is distinguished in *Carcinus aestuarii* with a number of 870 male crabs were categorized as green and red. Carapace width of each individual was also measured. The population of *C.aestuarii* followed the terms that the red-coloured crabs were bigger than the green-coloured ones.

**Keywords:** *Estuaries, Crustacea*

## Introduction

The carapace colour of European green crab, *Carcinus maenas* (Linnaeus, 1758) was referred in several studies, in which a variation is exhibited ranging from light green to deep red [5]. Similar colour variation is also distinguished in the green crab *Carcinus aestuarii*, inhabits the Mediterranean estuarine and lagoons [1]. The differences in terms of behavioral, physiological and ecological features are observed between red and green coloured individuals [2, 3, 4, and 5]. The aim of this study is to identify the features of *C.aestuarii* in order to determine the similarities to *C.maenas* regarding the introduced differences.

## Material and Methods

The crabs were collected at monthly intervals for one year from April 2001 to April 2002, by means of a beam trawl. All crabs were counted and sexed. Colour forms were categorized as green and red. Carapace width of each individual was also measured. The male crabs were preferred to be given in this study according to high numbers compared to females. The Mann-Whitney U test is performed to determine the significant differences between green and red forms in terms of carapace width.

## Results and Discussion

A number of 870 crabs were categorized as green and red. In this categorization, the red-coloured males had a ratio of 13.6%. The mean carapace width of red males was  $29 \pm 0.4$  mm while the mean carapace width of green forms was  $24 \pm 0.3$  mm. Red males were significantly larger than green males ( $Z = -6.6$ ;  $p < 0.05$ ). The population of *C.aestuarii* followed the terms that the red-coloured crabs are bigger than the green-coloured ones, which indicates for both forms of *C.maenas*. Seasonal variation in abundance of red coloured males was observed with small numbers from June to October and during October, the number of individuals increased to the highest (Figure 1). The prediction about the red coloration of the crabs is related to intermolt duration [2, 4] and sexual maturity [5]. According to this approach, red coloured individuals are the mature crabs [5].

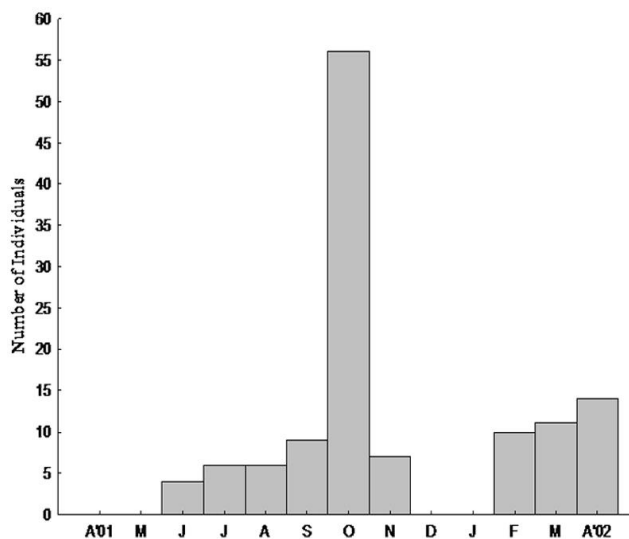


Fig. 1. Monthly variation of red males

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