



Comparative Study of the Distribution the Marsh Crab, *Sartoriana Rokitanskyi* in Hormozgan Province

Mehrnoush Mirzadeh^{1,2*}, Ehsan Kamrani¹, Foziye Shojae¹, Sahar Nakhodai¹ and Abdul-Reza Dabbagh^{1,3}

1. Department of Marine Biology, Faculty of Basic Sciences, University of Hormozgan, PO Box: 3995, Bandar Abbas, Iran

2. Department of Fisheries, Islamic Azad University, Bandar Abbas, Iran

3. Young Researchers Club, Islamic Azad University, Bandar-e Lengeh Branch, Iran

*Corresponding author's email: mehrnoosh_mirzadeh@yahoo.com

ABSTRACT

The study was conducted in 2009 in order to investigate the marsh crab, *Sartoriana rokitanskyi* from Hormozgan, Iran. The *Sartoriana rokitanskyi* is found in the mud in the Geno and Rudan marshes. The findings showed that the distribution of the marsh crabs in Rudan marsh is wider than Geno. On the other hand, the crabs in Geno marsh are bigger than those in Rudan.

Keywords: Distribution; Marsh crab; *Sartoriana rokitanskyi*; Hormozgan Province

INTRODUCTION

Crabs are the most advanced member of the phylum Arthropoda. The marsh crab, *Sartoriana rokitanskyi*, belongs to family Gecarcinucidae, which is related to true crabs. These crabs also fall into the class Crustaceans, infraorder Brachyuran from order Decapoda. Brachyuran crabs exhibit the most diversity in tropical regions [1] which principally have a very short projecting "tail" as well as a reduced abdomen that is thoroughly hidden under the thorax. So far, 6700 species of Brachyuran crabs are known to science, of which only 1300 species live in fresh waters. Freshwater true crabs are differentiated from marine crabs since they spend their entire lives fresh waters. Eight freshwater families Brachyuran crabs exist such as: Trichodactilidae, Pseudothelphusidae (in Mexico, Central American and Southern American), Potamonatutidae (African), Deckenidae, Platythelphusidae (eastern African), Potamidae (Northern African, Southern European), Gecarcinocidae (Asian), Parathelphosidae (Asian, Australian) [2].

The family Gecarcinucidae has 25 genera, as 5 species are included in genus *Sartoriana*. The all live in tropical and subtropical habitats such as marshes, wetlands, rivers and pools [3].

Since the specific distribution of the *Sartoriana rokitanskyi* in Iran is not known, the present paper describes the distribution of the species in the Hormozgan Province.

MATERIALS AND METHODS

Sampling was accomplished monthly throughout the year of 2009 in the Geno and Rudan marshes (Fig 1). The crabs were caught using a trap (Fig 2). Beat bread was used to lure the crabs into a hand net. After collection, the specimens were deposited at laboratory of Islamic Azad University, Bandar Abbas Branch. The specimens were identified according to identification valid key by Alcock [4].

RESULTS AND DISCUSSION

Crabs from Decapoda are accounted for as predominant organisms in intertidal areas as well as adjacent ecosystems related to the Persian Gulf and Oman Sea. The limited distribution of freshwater crabs has made it difficult to conserve them. Fortunately the species was predominately found in supralittoral between rocks and craves, which may reduce the likelihood that they are preyed upon by other animals [5 and 6].

At present, crabs of the family Gecarcinucidae are found in Asian countries such as India, Afghanistan and Bangladesh [7]. The marsh crab, *Sartoriana rokitanskyi* (Fig 3) . Until now, in Iran known the species found in marshes of Geno and Rudan in Hormozgan province. Kamrani et al. [7] described the characteristics of the marsh crab, *Sartoriana rokitanskyi*. Our finding of the study showed that the distribution of the marsh crabs in Rudan marsh is wider than Geno. On the other hand, the crabs in the Geno marsh are bigger than those in Rudan. Bott in 1955 demonstrated that stress can affect distribution as well as the crabs' size. In Rudan, the crabs' smaller size may be due to the development of human activities when compared to Geno.

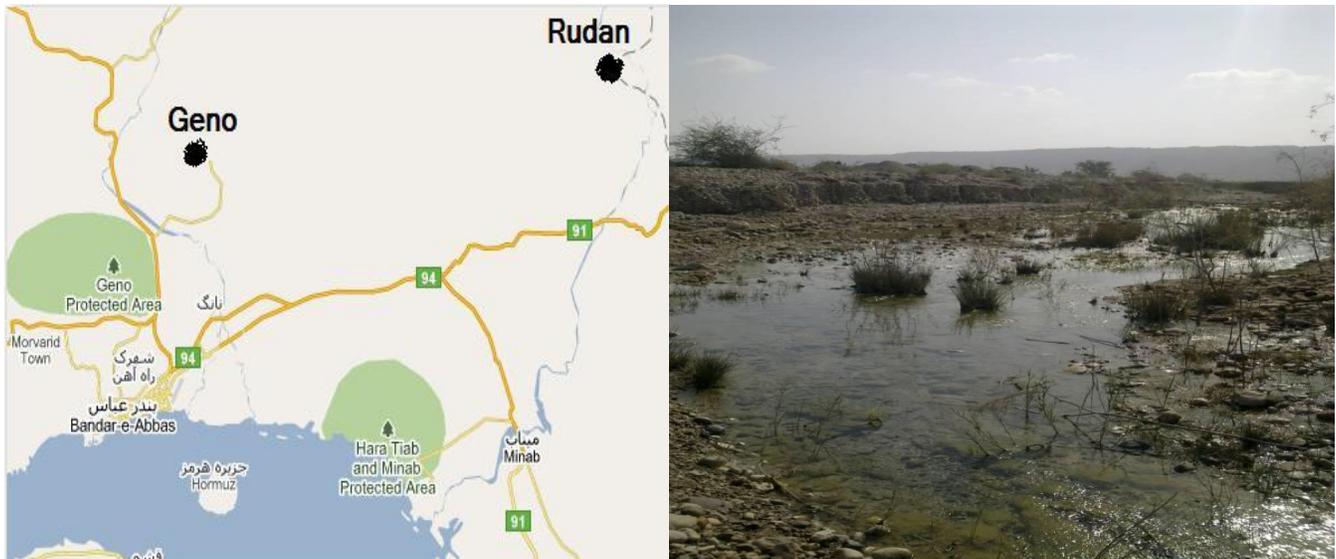


Figure 1. Location map of sampling areas. Right: A view of sampling area



Figure 2. A view of the trap used to catch the crabs

Figure 3. A view of the marsh crab, *Sartoriana rokitanskyi* in Hormozgan Province

REFERENCES

1. Barnes, R.D. (1980). Invertebrate zoology. Saunders College Publishing, Philadelphia.
2. Martin, J.W. Davis, G.E. (2001). An updated classification of the recent Crustacea. Natural History Museum of Los Angeles County Science Series, 39.
3. Pretzmann, G. (1973). Grundlagen und Ergebnisse der Systematik der Pseudothelphusidae. Zeitschrift fuer Zoologische Systematik und Evolutionsforschung, 11, 196-218.
4. Alcock, A. (1909). Diagnoses of new species and varieties of freshwater crabs. No. 4. Records of the Indian Museum, 3, 375-381.
5. Bahir, M.M. Ng, P.K.L. Crandall, K. Pethiyagoda, R. (2005). A conservation assessment of the freshwater crabs of Sri Lanka. Raffles Bull Zool Suppl, 12, 121-126.
6. Reed, S.K. Cumberlidge, N. (2006). Taxonomy and biogeography of the freshwater crabs of Tanzania, East Africa (Brachyura: Potamoidea: Potamonautidae, Platythelphusidae, Deckeniidae). Zootaxa, 1262, 1-139.
7. Kamrani, E. Ng, P.K.L. Mirzadeh, M. Nakhodai, S. (2009). The marsh crab, *Sartoriana rokitanskyi* (Pretzmann, 1971) (Decapoda, Brachyura, Gecarcinucidae) from southern Iran. Zootaxa, 2305, 24-32