

Mediterranean Marine Science

Vol 9, No 2 (2008)



Expanding distribution and occurrence of the Indo-Pacific Stomatopod, *Erugosquilla massavensis* (Kossmann, 1880) on the Aegean coast of Turkey

T. OZCAN, A.S. ATES, T. KATAGAN

doi: [10.12681/mms.137](https://doi.org/10.12681/mms.137)

To cite this article:

OZCAN, T., ATES, A., & KATAGAN, T. (2008). Expanding distribution and occurrence of the Indo-Pacific Stomatopod, *Erugosquilla massavensis* (Kossmann, 1880) on the Aegean coast of Turkey. *Mediterranean Marine Science*, 9(2), 115–118. <https://doi.org/10.12681/mms.137>

Expanding distribution and occurrence of the Indo-Pacific Stomatopod, *Erugosquilla massavensis* (Kossmann, 1880) on the Aegean coast of Turkey**T. ÖZCAN¹, A. S. ATEŞ² and T. KATAĞAN³**¹Department of Hydrobiology, Fisheries Faculty, Mustafa Kemal University, TR-31200 Iskenderun, Hatay, Turkey²Department of Hydrobiology, Fisheries Faculty, Çanakkale Onsekiz Mart University, TR-17100 Çanakkale, Turkey³Department of Hydrobiology, Fisheries Faculty, Ege University, TR-35100 Bornova-Izmir, Turkey

e-mail: tahozcan@yahoo.com; tozcan@mku.edu.tr

Abstract

*The indo-Pacific mantis shrimp, *Erugosquilla massavensis* was recently collected from Sigacik Bay, located on the Aegean coast of Turkey. It is the first record of the species along the Aegean coast of Turkey*

Keywords: *Erugosquilla massavensis*; Crustacea Stomatopoda; Aegean Sea; Turkey.

The present study was conducted during a benthic survey along the southern Aegean coast of Turkey on 25th April 2007 (Fig 1). Four specimens of *Erugosquilla massavensis* (Kossmann, 1880) were collected by means of trawl over sandy-silt bottoms at a depth of between 150 and 200 m. The specimens were preserved in 4% formaldehyde and deposited in the Museum of the Faculty of Fisheries, Mustafa Kemal University, Iskenderun-Hatay. A total of 12 stomatopod species have been reported from the Mediterranean Sea, including two alien species namely: *Erugosquilla massavensis* (Kossmann, 1880) and *Clorida albolitura* (Ahyong &

Naiyanetr, 2000) (DOUNAS & STEUDEL, 1994; KATAĞAN *et al.*, 2004; AHYONG & GALIL, 2006; ÖZCAN *et al.*, 2008). Six of them occur on the Turkish coast (ÖZCAN *et al.*, 2008).

Erugosquilla massavensis is the first Red Sea stomatopod species reported from the Mediterranean Sea. Previous records of the alien species on the Mediterranean Sea coasts were from the Sea of Marmara and the Levantine coast of Turkey (KATAĞAN *et al.*, 2004; HOLTHUIS, 1961; GELDIAY & KOCATAŞ, 1969; KOCATAŞ & KATAĞAN, 1995), Palestine (STEUER, 1936), Egypt (STEUER, 1936;



Fig. 1: Geographical location and sampling station (black bullet) of *Erugosquilla massavensis*.

LEWINSOHN & MANNING, 1980), Israel (LEWINSOHN & MANNING, 1980), Syria (HASSAN & NOEL, 2007), Lebanon (HOLTHUIS, 1961; LEWINSOHN & MANNING, 1980), Cyprus (INGLE, 1963; LEWINSOHN & MANNING, 1980), Greece: Crete (DOUNAS & STEUDEL, 1994), Rhodes Island (GALIL & KEVREKIDIS, 2002), Karpathos (CORSINI & KONDYLATOS, 2006) and Libya (SHAKMAN & KINZELBACH, 2007). *Erugosquilla massavensis* is now reported as the first record for the Aegean coast of Turkey (Fig. 2).

It appears that the native mantis shrimp, *Squilla mantis*, has been displaced by the mantis shrimp *Erugosquilla massavensis* along the Levantine coast of Turkey. Displacement into deeper waters has also been reported off the Israeli coast (GALIL & ZENETOS, 2002; STREFTA-

RIS & ZENETOS, 2006; GALIL, 2007).

Although the non-indigenous species *Erugosquilla massavensis* has been recorded in the SE Aegean Sea (Karpathos, Rhodes), as well as from the Levantine coast of Turkey and the Sea of Marmara, to date it has been absent from the Turkish Aegean coast. The present finding of *E. massavensis* from the Aegean coast of Turkey expands its distribution range, confirming also that is one of the most successful Lessepsian migrant species in the eastern Mediterranean.

Acknowledgements

The authors thank to the Dr. Halit Filiz and Dr. Gökçen Bilge (Muğla University, Fisheries Faculty) for their help in collecting and sorting the benthic material.

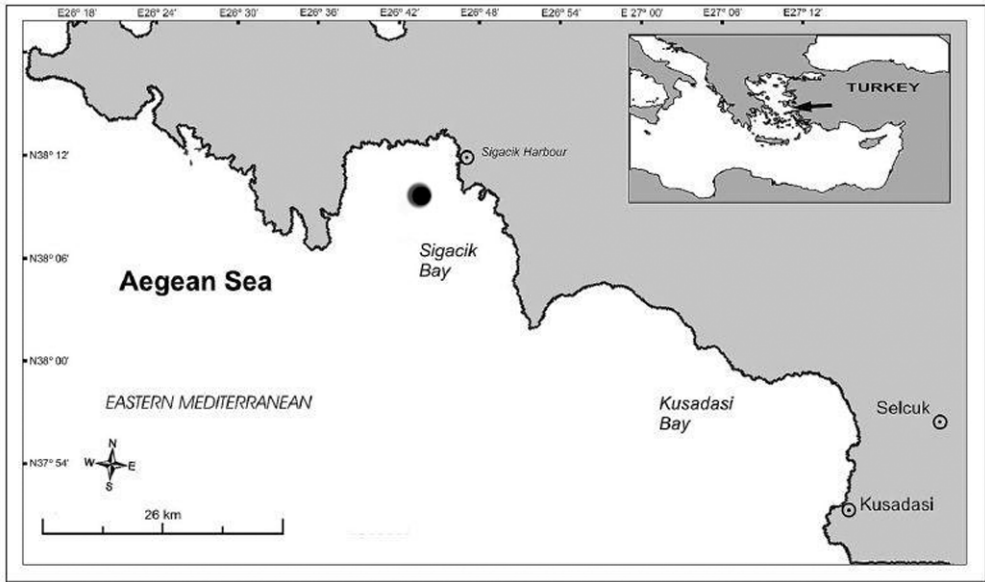


Fig. 2: *Erugosquilla massavensis* (♀, TL= 22.6 mm); dorsal view. (Photo: T.Ozcan).

References

- AHYONG, S.T. & GALIL, B.S., 2006. First Mediterranean record of the Indo-West Pacific mantis shrimp, *Clorida albolitura* Ahyong & Naiyanetr, 2000 (Stomatopoda, Squillidae). *Aquatic Invasions*, 1 (3): 191-193.
- CORSINI, M. & KONDYLATOS, G., 2006. On the occurrence of two Brachyurans, *Myra subgranulata* and *Herbstia conyliata*, on Rhodes Island (SE Aegean Sea). *Crustaceana*, 79(2): 167-174.
- DOUNAS, C. & STEUDEL, C., 1994. Stomatopod Crustacea from the island of Crete. *Crustaceana*, 66 (2): 252-254.
- GALIL, B.S. & KEVREKIDIS, K., 2002. Exotic decapods and a stomatopod off Rhodes Island (Greece) and the eastern Mediterranean transient, *Crustaceana*, 75(7): 925-930.
- GALIL, B.S. & ZENETOS, A., 2002. A sea change - exotics in the Eastern Mediterranean Sea. p.325-336. In *Invasive Aquatic Species in Europe. Distribution, Impacts and Management*, E. Leppakoski, S., Gollasch & S. Olenin (Eds), Dordrecht, Boston, London. Kluwer Academic Publishers.
- GALIL, B. S., 2007. Seeing Red: Alien species along the Mediterranean coast of Israel. *Aquatic Invasions*, 2(4): 281-312.
- GELDIAY, R. & KOCATAŞ, A., 1969. Stomatopods of Turkey *Squilla mantis* (Linnaeus) and *Squilla massavensis* Kossmann). *Scientific Reports of the Faculty of Science, Ege University*, 71(48):1-13 (in Turkish).
- HASSAN, H. & NOEL, P.Y., 2007. Introduced marine Crustacea Decapoda and Stomatopoda in Syria: an overview and recent data the 15th International Conference on Aquatic Invasive Species, September 23 to 27, 2007, Nijmegen, Netherlands.
- HOLTHUIS, L. B., 1961. Report on a col-

- lection of Crustacea Decapoda and Stomatopoda from Turkey and the Balkans. *Zoologische Verhandelingen*, 47: 1-67.
- INGLE, R.W., 1963. Crustacea Stomatopoda from the Red Sea and the Gulf of Aden. *Bulletin Sea Fisheries Research Station*, Haifa, 33: 1-69.
- KATAĞAN, T., KOCATAS, A., ZENGIN, M. & ATEŞ, A.S., 2004. An Indo-Pacific stomatopod from the Sea of Marmara: *Erugosquilla massavensis* (Kossmann, 1880). *Crustaceana*, 77: 381-383.
- KOCATAS, A. & KATAĞAN, T., 1995. On Stomatopoda from Turkey with the first record of *Rissoides pallidus* for the Turkish Fauna. *Crustaceana*, 68 (5): 649-652.
- LEWINSOHN, C. & MANNING, R. B., 1980. Stomatopod Crustacea from the eastern Mediterranean. *Smithsonian Contribution to Zoology*, 305: 1-22.
- ÖZCAN, T., KATAĞAN, T. & IRMAK, E., 2008. First record of the *Parasquilla ferussaci* (Roux, 1830) (Stomatopoda, Parasquillidae) from the Turkish coasts. *Crustaceana*, (in press).
- SHAKMAN, E. & KINZELBACH, R., 2007. First record of the Mantis Shrimp, *Erugosquilla massavensis* (Kossmann, 1880), a Lessepsian migrant, in the coastal waters of Libya (Crustacea: Stomatopoda). *Zoology in the Middle East*, 40: 109-111.
- STEUER, A., 1936. Cumacea und Stomatopoda von Alexandrien in Ägypten. *Notizen des Deutsch-Italienischen Institutes für Meeresbiologie in Rovigno d'Istria*, 21: 1-19.
- STREFTARIS, N. & ZENETOS, A., 2006. Alien marine species in the Mediterranean: the 100 'worst invasives' and their impact. *Mediterranean Marine Science*, 7(1): 87-118.

Submitted: September 2008

Accepted: October 2008

Published on line: October 2008