

## On the presence of *Siphonaria belcheri* Hanley, 1858 [Gastropoda: Siphonariidae] and *Septifer bilocularis* (Linnaeus, 1758) [Bivalvia: Mytilidae] in the Iskenderun Bay (SE Turkey)

Serhat Albayrak\* and Senem Çağlar

Istanbul University, Faculty of Science, Department of Biology 34134 Vezneciler-Istanbul Turkey

E-mail: [serhatal@istanbul.edu.tr](mailto:serhatal@istanbul.edu.tr)

\*Corresponding author

Received 20 October 2006; accepted in revised form 5 December 2006

### Abstract

*Siphonaria belcheri* and *Septifer bilocularis* were reported from Iskenderun Bay in 2001. But they were considered as misidentifications of *Siphonaria crenata* and *Septifer forskali* respectively, in the CIESM Atlas of Exotic Species. The present study, carried out in 2005-2006, indicates the presence of these two alien molluscs in Iskenderun Bay, Turkey.

Key words: *Siphonaria belcheri*, *Septifer bilocularis*, Mollusca, Alien, Iskenderun Bay

Two alien molluscs (*Siphonaria belcheri* Hanley, 1858; *Septifer bilocularis* (Linnaeus, 1758)) were reported from Iskenderun Bay, Turkey by Albayrak and Çeviker (2001). Their descriptive characters were explained in that manuscript but no photographs were given due to the editorial considerations of the journal (Israel Journal of Zoology). The authors of the CIESM Atlas of Exotic Species in the Mediterranean (Zenetos et al. 2003) had not contacted either Albayrak or Çeviker, and chose to consider *S. belcheri* and *S. bilocularis* as misidentifications of *Siphonaria crenata* Blainville, 1827 and *Septifer forskali* Dunker, 1855 respectively.

Only a single dead specimen of *S. belcheri* was reported from Burnaz (Figure 1) (Albayrak and Çeviker 2001), but, in November 2005, six living specimens (Figure 2) were obtained from rocky shores in Iskenderun (36°35'54"N,

36°09'20"E) and hundreds of its shells are found all around Iskenderun Bay (Doğan Çeviker, pers. comm.). *Siphonaria belcheri* is unknown from the Red Sea or the Suez Canal, where another species *S. crenata* is known which had also been found off the Israeli coast (Dekker and Orlin 2000, Zenetos et al. 2003). *Siphonaria crenata* has a solid shell, oval in outline, with strong, unequal ribs, beige to white, usually with darker ribs externally, internally white, cream or orange with occasionally fused brown blotches or rays, muscle impression cream or rose. The shell of *Siphonaria belcheri* is thick, also oval in outline but its margin is often distorted, there are thick ribs and lesser ribs between them and two nearly fused ribs at side of the siphonal groove, externally the ribs are off-white, their interstices brown, internally whitish rays have dark or paler brown sections between them, muscle impression

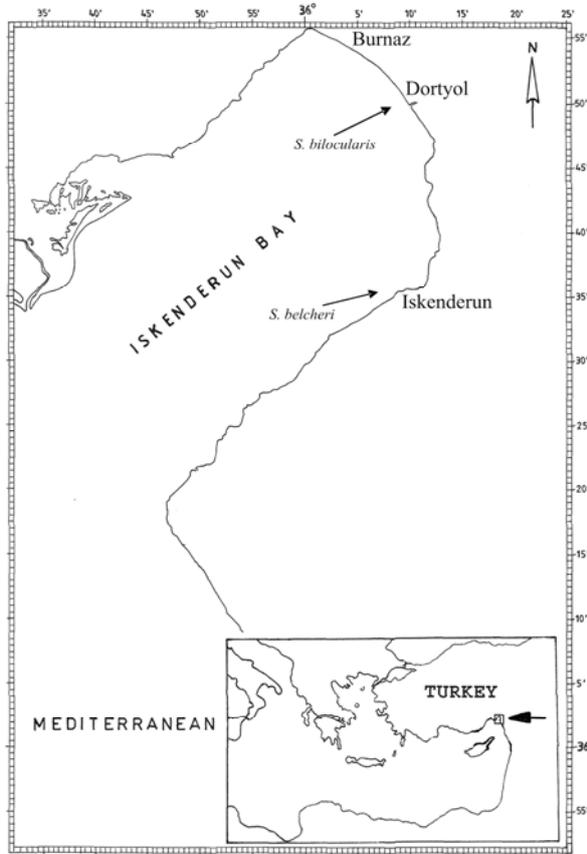


Figure 1. Map of the investigation area showing sampling locations of alien molluscs

orange. *Siphonaria belcheri* occurs in the Arabian Sea (Bosch et al. 1995), but not in the Red Sea or the Suez Canal and it was probably introduced to the Mediterranean by ships coming from the Arabian Sea.

Albayrak and Çeviker (2001) identified *Septifer bilocularis* as *S. bilocularis* var. *forskali* according to Oliver (1992). Since variety is not a valid taxon, it was reported as *S. bilocularis*. The explanatory paragraph was deleted by the journal editor. Çeviker (2002) discussed this species and supplied differentiating characters between *S. forskali* and *S. bilocularis* (*S. bilocularis* and *S. forskali* can be easily distinguished from each other by the position of umbones. *S. bilocularis* has a terminal umbo whereas *S. forskali* has a subterminal one) and stated that the specimens collected in Iskenderun Bay belong to *S. forskali*. Mienis (2004) reported the presence of *S. bilocularis* from Israel and postulated it arrived from Australia. In June 2006, a single living

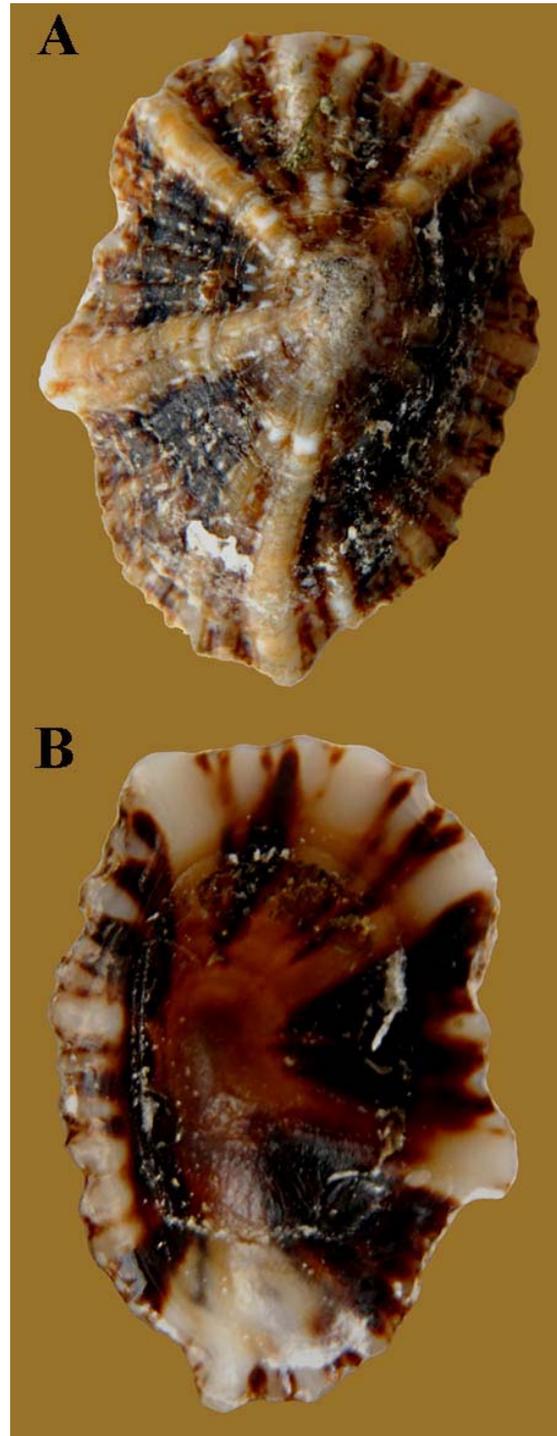


Figure 2. *Siphonaria belcheri*, view from a) dorsal b) ventral. Length 17 mm (Photographed by S. Çağlar).

specimen of *S. bilocularis* (Figure 3) was obtained from Dortyol (36°49'49"N, 36°08'02"E) during dredging surveys at 20 m depth. It seems

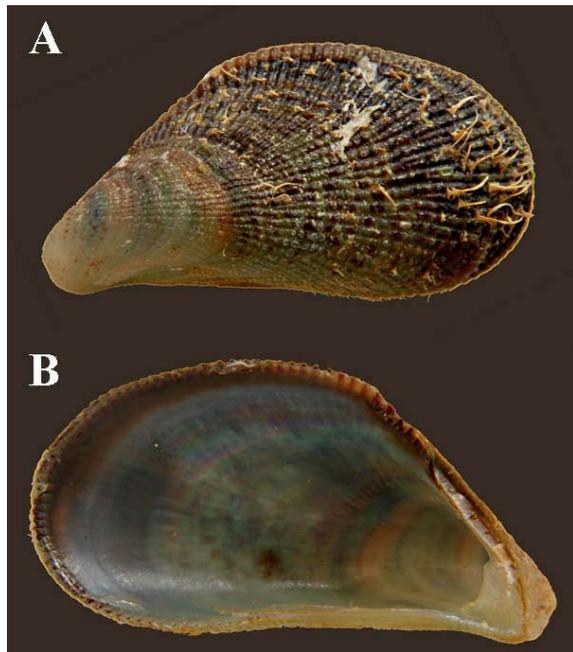


Figure 3. *Septifer bilocularis*, view from a) outside b) inside of left valve. Length 16 mm (Photographed by S. Çağlar).

to be impossible to spread from Israel to Turkey coasts within such a short time. This species may have arrived in Iskenderun Bay by way of shipping and as only a single specimen was found in the 24 different sampling sites surveyed in the Bay, we suggest it has not yet established a population.

We consider *S. belcheri* as an established species in the Bay of Iskenderun and confirm the presence of *S. bilocularis* from a second locality in the Mediterranean Sea.

### Acknowledgements

The present work was supported by the Research Fund of Istanbul University. Project no: 410/13092005. Authors are grateful to Dr. Henk Dekker (Zoological Museum, University of Amsterdam, the Netherlands) who confirmed identification of *Siphonaria belcheri*.

### References

- Albayrak S and Çeviker D (2001) Two New Extra-Mediterranean Molluscs from Southeast Turkey: *Siphonaria belcheri* Hanley, 1858 [Gastropoda: Siphonariidae] and *Septifer bilocularis* (Linnaeus, 1758) [Bivalvia: Mytilidae]. *Israel Journal of Zoology*, 47: 297-298
- Bosch DT, Dance SP, Moolenbeek RG and Oliver PG (1995) *Seashells of Eastern Arabia*. Motivate Publishing, Dubai.
- Çeviker D (2002) A new finding of *Septifer forskali* Dunker, 1855 (Bivalvia: Mytilidae) from the Northeastern Mediterranean Sea, Turkey, with discussion on the occurrence of *Septifer bilocularis* (Linnaeus, 1758) in the Red Sea and the Mediterranean Sea. *La Conchiglia*, 305: 14-16, 59.
- Dekker H and Orlin Z (2000) Check-List of Red Sea Mollusca. *Spirula*, 47 (Supplement): 1-46
- Mienis HK (2004) New data concerning the presence of Lessepsian and other Indo-Pacific migrants among the molluscs in the Mediterranean Sea with emphasize on the situation in Israel. *Turkish Journal of Aquatic Life*, 2: 117-131
- Oliver PG (1992) *Bivalved seashells of the Red Sea*. Verlag Christa Hemmen, Wiesbaden.
- Zenetos A, Gofas S, Russo G and Templado J (2003) *CIESM atlas of exotic species in the Mediterranean*. Vol. 3. Molluscs. CIESM Publishers, Monaco