

NEW FINDING OF *JANTHINA GLOBOSA* SWAINSON, 1822 (MOLLUSCA, GASTROPODA) IN THE EASTERN PART OF THE ADRIATIC SEA

MIRJANA LEGAC¹ & HENK K. MIENIS²

¹Natural History Museum Rijeka, Lorenzov prolaz 1, HR-51000 Rijeka, Croatia

²National Natural History Collections, Berman Building, Hebrew University, IL-91904 Jerusalem, Israel

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Two specimens of the holo-planktonic gastropod *Janthina globosa* Swainson, 1822 (Janthinidae) were collected by M. Legac in the waters around the island of Rab. This constitutes a new finding of this uncommon species in the northern part of the Croatian coast.

Key words: Gastropoda, Janthinidae, *Janthina globosa*, Adriatic Sea

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Dva primjerka holoplanktonskog puža *Janthina globosa* Swainson, 1822 (Janthinidae) sakupila je M. Legac u području otoka Raba. To je novi nalaz ove rijetke vrste na sjevernom dijelu hrvatske obale.

Ključne riječi: Puž, Janthinidae, *Janthina globosa*, Jadransko more

For the eastern part of the Adriatic coast the first findings of holo-planktonic gastropods were reported by BRUSINA (1866): *Janthina bicolor* Menke and *J. nitens* Menke. Both species were collected by Ivan E. Kuzmić in the heaps of sea grass leaves deposited ashore around the islet of Lokrum near Dubrovnik. In 1868 he donated the shells to S. Brusina (BRUSINA, 1907). These specimens are still kept in malacological collection of the Croatian Natural History Museum in Zagreb (ILJANIĆ & STOŠIĆ, 1972). BRUSINA (1872) recorded that specimens of *J. prolongata* Menke collected in Dubovadol (the island of Hvar) formed part of the collection of L. Stalio. Today this locality is probably known as Dubovica (GAMULIN, 1981).

SABELLI *et al.* (1990) noted that *J. bicolor* Menke 1828 is a junior synonym of *J. janthina* (Linnaeus, 1758). According to MIENIS (1994) *J. janthina* is indeed a senior synonym of *J. bicolor* Menke, 1828, while *J. nitens* Menke, 1828 has to be regarded as



Fig. 1. *Janthina globosa* Swainson, 1828. Both shells are lodged in the Mollusc collection of Natural History Museum Rijeka – Inv. Nr. 2225 (Photo: L. Bartoniček).

a junior synonym of *J. globosa* Swainson, 1822. Probably we can also consider *J. prolongata* found at the island of Hvar to be a synonym since *J. prolongata* (de Blainville, 1822), the real author of that name and not Menke, is a synonym of *J. globosa* Swainson, 1822. BOUCHET *et al.* (2001) cited *J. nitens* Menke, 1828, while the valid name *J. globosa* Swainson, 1822 was noted by CLEMAM (2007).

Two specimens of *J. globosa* (Fig. 1) have been collected by M. Legac at the locality Zad Školjić, Lopar (the island of Rab) on 29th August 1961. After a strong north-eastern wind (in Croatian named »bura«) the waves tossed gastropod shells on the sandy shore along with the torn off sea grass *Cymodocea nodosa*. The size of the shells is 13.5 and 15.5 mm. The specimens are kept in malacological collection of the Natural History Museum Rijeka (Inv. No. 2225). On the check list for the island of Rab LEGAC (1974) erroneously quoted the species *J. janthina* (Linnaeus, 1758), instead of correctly *J. globosa* Swainson, 1822.

According to MIENIS & SPANIER (1987) four species of *Janthina* are present in the Mediterranean Sea: *J. janthina* (Linnaeus, 1758), *J. exigua* (Lamarck, 1816), *J. globosa* Swainson, 1822, and *J. pallida* Thompson, 1841. They are all living in a similar pelagic way i.e. adhered to a float, which snails construct by means of mucus-covered air bubbles. Usually they are associated with swarms of certain anthomedusae like *Porpita* and *Velella*, and siphonophoran *Physalia* on which they feed. All these pelagic organisms, including *Janthina*, are typical inhabitants of the open sea. Only under certain weather conditions such swarms enter more or less closed seas like the Adriatic Sea. However, *J. janthina* is always the dominant species, followed at a large distance by *J. globosa*, and by even less numbered *J. exigua* and *J. pallida*.

MILIŠIĆ (1991) omitted to quote exact finding localities of *J. globosa* but he considered that this species (named *J. nitens*) is poorly distributed in the Adriatic. Accord-

ing to VIO & DE MIN (1996) the species was found in the Gulf of Trieste and it is cited as a rare species for the Slovenian coast by DE MIN & VIO (1997).

Like all other *Janthina*-species, *J. globosa* also has a circum-equatorial distribution pattern (Mienis, 1994).

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REFERENCES

- BRUSINA, S., 1866: Contribuzione pella fauna dei Molluschi Dalmati. Verh. zool.-bot. Ges. Wien **16**, 1-134.
- BRUSINA, S., 1872: Naravoslovne crtice sa sjevero-istočne obale Jadranskog mora. Dio prvi, Putopis. Rad Jugosl. akad. zn. umjet., **19**, 105-177.
- BRUSINA, S., 1907: Naravoslovne crtice sa sjevero-istočne obale Jadranskog mora. IV i posljednji. Specijalni. XIII. Prilog za faunu školjkaša Dalmacije i Jadranskog mora. Rad Jugosl. akad. zn. umjet., **171**, 43-228.
- BOUCHET, P., J. LE RENARD & S. GOFAS, 2001: Mollusca. In: COSTELLO, M. J., C. S. EMBLOW & R. WHITE (eds) European register of marine species. A check-list of the marine species in Europe and bibliography of guides to their identification. Mus. natl. Hist. nat., Paris, Patrimoines naturels, **50**, 180-213.
- CLEMAM, 2007: <http://www.somali.asso.fr/clemam/biotaxis.php?X=14579>
- DE MIN, R. & E. VIO, 1997: Molluschi conchiferi del litorale Sloveno. Annales ser. hist. nat. **11** (4), 214-258.
- GAMULIN, T., 1981: Riječ za Makarsku, njenu »Planinu« i »More«. Acta Biokovica **1**, 17-22.
- ILJANIĆ, V. & M. STOŠIĆ, 1972: Popis zbirke mekušaca (Mollusca) Spiridiona Brusine. Hrvatski narodni zoološki muzej Zagreb, **6**, 86 pp.
- LEGAC, M., 1974: Prilog poznavanju litoralne flore i faune otoka Raba. Vijesti muzeal. i konzerv. Hrv., **23** (5-6), 75-85.
- MIENIS, H. K., 1994: New information concerning *Janthina* in the eastern Mediterranean (Mollusca, Gastropoda, Janthinidae). Plankton Newsletter, **19**, 12-13.
- MIENIS, H. K. & E. SPANIER, 1987: A review of the family Janthinidae (Mollusca, Gastropoda) in connection with the *Tekhelet* dye. In E. SPANIER (ed.): The Royal Purple and the Biblical Blue *Argaman* and *Tekhelet*. The study of Chief Rabbi Dr. Isaac Herzog on the dye industries in Ancient Israel and recent scientific contributions, 197-205, pl. H. Keter Publishing House, Jerusalem.
- MILIŠIĆ, N., 1991: Školjke i puževi Jadrana. Logos, Split, 302 pp.
- VIO, E. & R. DE MIN, 1996: Contributo alla conoscenza dei molluschi marini del Golfo di Trieste. Atti Mus. civ. Stor. nat. Trieste **47**, 173-233.

S A Ž E T A K

**Novi nalaz *Janthina globosa* Swainson, 1828 (Mollusca, Gastropoda)
u istočnom dijelu Jadranskog mora**

M. Legac & H. K. Mienis

Vrsta *Janthina globosa* Swainson, 1828 prvi puta je zabilježena za istočnu obalu Jadrana sredinom 19. stoljeća u području otočića Lokrum kod Dubrovnika. Područje Zad Školjić, Lopar (otok Rab) novi je nalaz ove rijetke vrste splavara u sjevernom dijelu hrvatske obale. Dva primjerka sakupila je M. Legac 29. kolovoza 1961. godine. Nakon jedne jake bure valovima su kućice toga planktonskog puža izbačene na pjeskovitu obalu zajedno s morskom resom *Cymodocea nodosa*. Veličine kućica iznose 13,5 i 15,5 mm. Primjerci su pohranjeni u malakološkoj zbirci muzeja (Inv. br. 2225). Ranije su ovi primjerci bili pogrešno određeni kao *J. janthina* (Linnaeus). Sve vrste roda *Janthina* imaju cirkumekvatorijalnu rasprostranjenost.