

Map. The sampling site of *Boetersiella wolfi* n. sp. marked with an asterisk.

Locus typicus: Spain, Andalucía, Huelva, Sierra de Aracena, at La Peña de Arias Montano SE of Jabugo and W of Aracena, at the church in the spring basin.

Shell: The colourless valvatoid shell is formed by 3 whorls. The spire is flat conical. The diameter of the whorls increases steadily towards the aperture. In frontal view, the aperture is roundish and touches sometimes the body whorl over a short distance. Only the umbilical skirt of the aperture is slightly broadened. Seen from the right side, the border of the aperture appears clearly inclined. The width of the aperture is about 3.5 to 4 times that of the narrow umbilicus. The operculum is red-brownish.

Measurements: Shell height 1.30-1.46-1.65 mm; diameter 1.60-1.69-1.80 (n = 7).

External body features: Eyes are present. The two lobes of the snout and the two tentacles are blackish pigmented. Disregard the area of the osphradium and its unpigmented skirt, the mantle is also blackish pigmented.

Non-genital anatomy: A gill is present. The intestine when leaving the stomach forms first a Z-like loop followed by a bend. In females this bend is V-like, whereas in males the two legs of the bend are positioned rather parallel to each other.

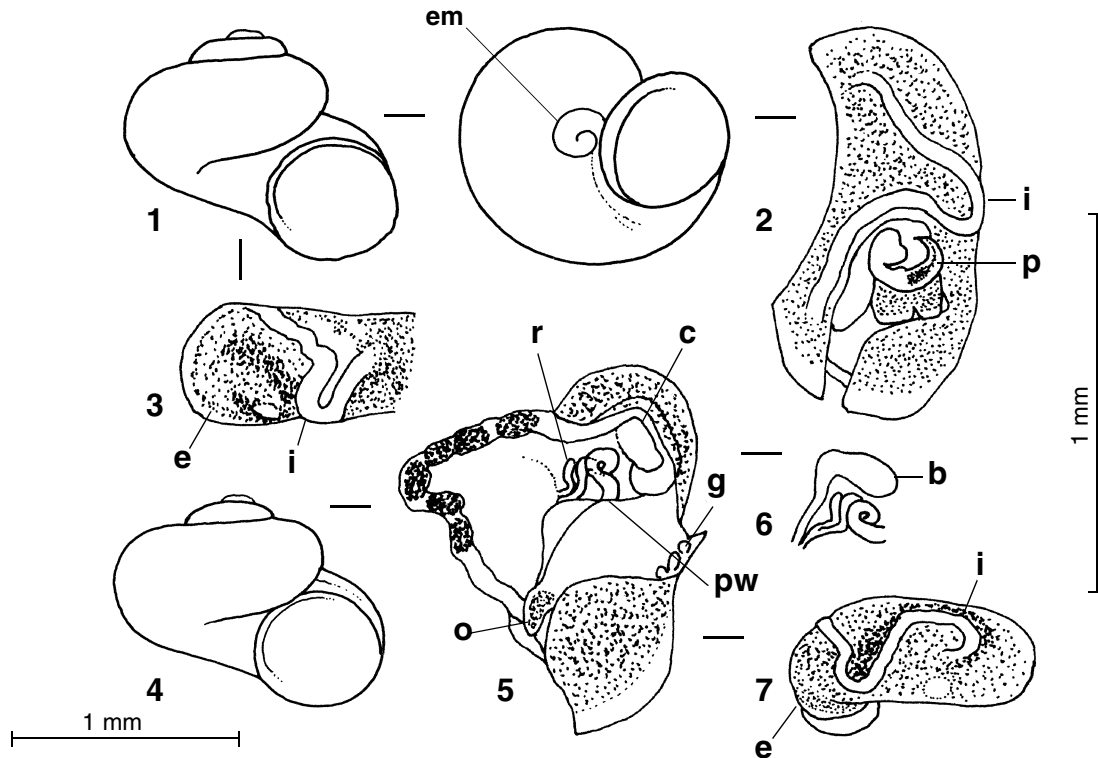
Female genital tract: The renal oviduct is strongly coiled and provided with a receptaculum (rs1) and a lengthy spacious bursa.

Male copulatory organ: At its base the male copulatory organ shows a bulbous bulge. In its inactive state the penis is hook-like bend. It is structured with two sections which are marked by a weak waist. The bulge and the proximal section of the penis are unpigmented, whereas the distal section shows a blackish pigmented core. The penis terminates with a pointed tip.

Differentiating characters: (1) The shell of *B. sturmi* is more globular than that of *B. wolfi* n. sp., and the narrow umbilicus of *B. sturmi* nearly closed by the umbilical broadening of the border of the aperture. Further, *B. wolfi* n. sp. differs by a ctenidium which is missing in *B. sturmi*. In the latter species the bursa of the female genital tract is a round rather than lengthy sack, and the penis is unpigmented and shows a very wide basal portion instead of a basal bulge.

(2) The shell of *B. davisii* is also more globular than that of *B. wolfi* n. sp., and the umbilicus is only slit-like opened because of the umbilical broadening of the border of the aperture. Furthermore, *B. wolfi* n. sp. differs by its ctenidium which is again missing in *B. davisii*. The bursa of the female genital tract is

similar to that of *B. wolfi* n. sp. by its lengthy sack-like shape. The penis shows a slightly broadened basal portion but not a bulge; occasionally and similar to *B. wolfi* n. sp. a double stripe of black spots in its central part is visible.



Figures 1-7. 1-3: male; 1) shell, 2) mantle skirt cut with uncovered penis, 3) mantle skirt with bend of intestine. 4-7: female; 4) shell, 5) pallial cavity and abdominal cavity opened, 6) renal oviduct with receptaculum and bursa, 7) mantle skirt with bend of intestine. —

b = bursa copulatrix; c = crystal sac; e = edge of mantle skirt; em = embryo; g = gill; i = intestine; o = ommatophore; p = penis; pw = posterior wall of pallial cavity; r = receptaculum.

(3) The shell of *Chondrobasis levantina* ARCONADA & RAMOS 2001 is also more globular than that of *B. wolfi* n. sp. and shows an only slit-like opened narrow umbilicus. In addition, *C. levantina* differs by a missing ctenidium, a proximal receptaculum (rs2) instead of a distal one, and an unpigmented penis with a small papilla at its base.

Remarks: Sometimes the umbilicus is closed by a fresh egg capsule or an egg capsule with an embryo. This reproductive strategy to oviposit on their own shells and carry the egg masses is also known in pulmonate gastropods in the Balkans (ALBRECHT 2006) and prosobranch gastropods, too (GLÖER & PEŠIĆ 2006).

Derivatio nominis: The name of this new species is derived from the Christian name of its first collector, WOLFGANG GRAACK.

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References.

- ALBRECHT, CH. (2006): Unusual reproductive strategy of pulmonate gastropods in the Balkan ancient Lake Prespa. — Malak. Abh., **24**: 57-63. Dresden.
- ARCONADA, B. & RAMOS, M. A. (2001): New data on Hydrobiidae systematics: two new genera from the Iberian Peninsula. — J. nat. Hist., **35** (7): 949-984. London.
- GLÖER, P. & PEŠIĆ, V. (2006): On the identity of *Bithynia graeca* WESTERLUND, 1879 with the description of three new *Pseudobithynia* n. gen. species from Iran and Greece (Gastropoda: Bithyniidae). — Malak. Abh., **24**: 29-36. Dresden.

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Explanations of Plate 12.

Photographs P. GLÖER.

Magnification x20.

Fig. 1-2. Shells of *Boetersiella wolfi* n. sp. (Paratypes). – 1) male; 2) female.