

Pene galilaea n. sp., a new Enid from Northern Israel.

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With 7 figures.

Pene galilaea n. sp.

Diagnosis. *Pene galilaea* differs from *P. fourousi* (BOURGUIGNAT) of of corresponding height in having a much narrower minimal diameter, and in that the epiphallus of the male excretory system is twice as long (6.5-9 mm, against 3.0-3.5 in *fourousi*; HESSE 1933: 203).

Description of the shell (fig. 1). The shell is dextrorsal, cylindric, tall, extremely narrow, horny-brown. It is composed of 9 to 10 whorls. The protoconch has two smooth whorls. The other whorls are distinctly, but irregularly striated. The apex consists of 4-5 whorls which are convex, their diameter grows rapidly and the suture between them is deep. The other whorls are flatter, subequal in diameter, their height growing only slightly and the sutures between them very shallow. Umbilicus deep. The aperture is elongate. The outer and inner lips are usually connected by a callus. The peristome is white and reflected outwards, but not backwards.

Holotype (N^o 3925) und 225 paratypes (N^o 1831-82, 3907-39, 4053-83) in moll. coll., Hebrew Univ. Jerusalem, Zool. Dept. and SMF 224149/5.

Type locality: Upper Galilee, Tarshiha 460 m, 16 km E of Naharyia (35° 16' E, 33° 00' N or 175268 Israel Grid).

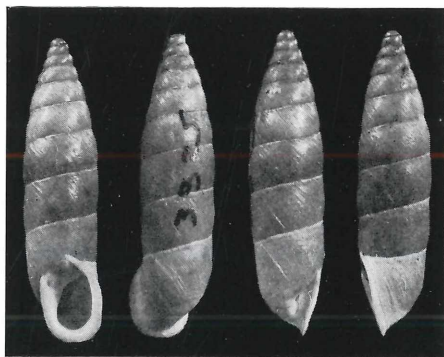


Fig. 1. *Pene galilaea* n. sp., Holotype N^o 3925 from Tarshiha, Upper Galilee. $\frac{2}{1}$.

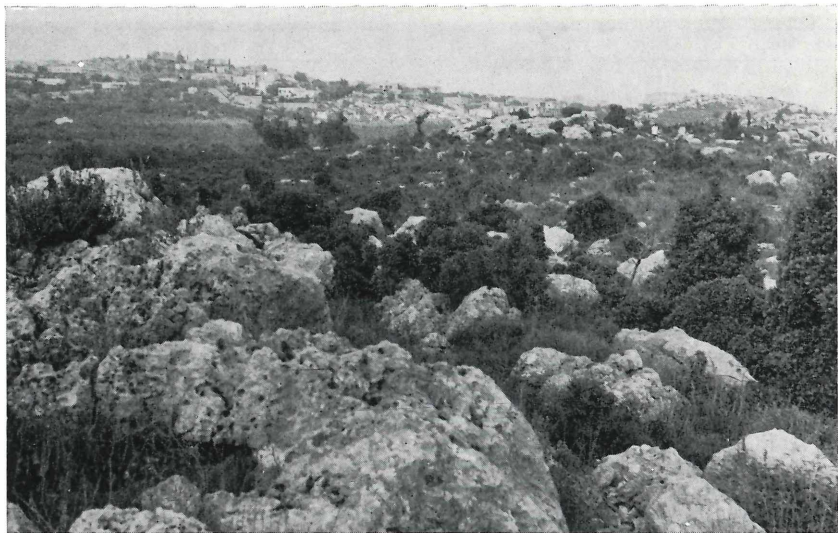


Fig. 2. Environs of Mi'ilya, Upper Galilee, biotope of *Pene galilaea* n. sp. (in the background Mi'ilya to the left and Ma'alot to the right).

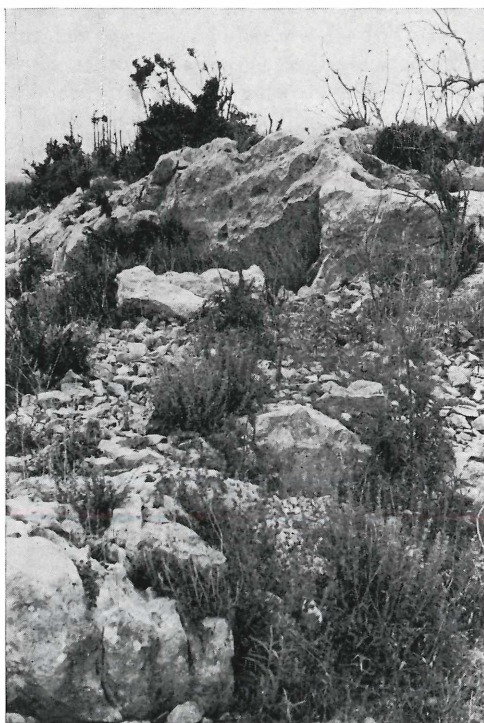


Fig. 3. Environs of Mi'ilya, biotope of *Pene galigaea* n. sp.

Localities. Upper Galilee: Tarshiha 460 m; leg. G. HAAS (without date) and J. HELLER 9. 6. 1970 (42 paratypes). — Ma'alot; leg. J. HELLER 9. 6. 1970 and 14. 1. 1971 (45). — Mi'ilya; leg. J. HELLER 7. 1., 10. 5., 6. 6. 1971 (93). — Wadi Karkara; leg. G. HAAS 12. 1939, BYTINSKI 3. 4. 1940 and MOSCANA 1945 (3). — Elon; leg. G. HAAS 31. 10. 1950 (3). — Me'ona; leg. J. HELLER 10. 5. 1971 (17). — 2 km SE of Goren; leg. J. HELLER 7. 6. 1971 (7). — 1.5 km W of Fassutta; leg. 7. 6. 1971 (12). — Ein Ziv; leg. J. HELLER 6. 6. 1971 (3).

Measurements and ratios:

| | holotype (No 3925) | 225 paratypes (range) | (mean) |
|--------------|-----------------------|--------------------------|--------|
| Shell Height | 19.5 | 15.1-20.2 | 17.00 |
| Max. Diam. | 6.0 | 4.5- 6.3 | 5.38 |
| Min. Diam. | 4.8 | 4.1- 5.1 | 4.64 |
| Mouth Height | 5.5 | 4.5- 6.0 | 5.07 |
| Mouth Diam. | 3.9 | 3.1- 4.3 | 3.62 |
| Shell Height | 325 | 264-389 | 315.5 |
| Max. Diam. | | | |
| Shell Height | 355 | 284-394 | 334.3 |
| Mouth Height | | | |
| Mouth Height | 141 | 121-150 | 140.2 |
| Mouth Diam. | | | |

Reproductive system (figs. 4-7). Four specimens from Ma'alot have been dissected to examine their reproductive organs.

The albumen gland is whitish, bent and grooved at its distal end. The bursa of the receptaculum seminis reaches about a third of the length of its duct. The diverticulum is at least three times as long as the bursa and its duct.

The vas deferens curves around the vagina, thickening only slightly before opening into the epiphallus. The epiphallian flagellum, of uniform diameter, is as long as the epiphallus. The epiphallus has six to ten times the length of the penis, and is much narrower. There is no caecum. The appendix is about twice as long as the penis, and has a long distal part. The two retractors may insert (fig. 4) separately into the diaphragma or, in other specimens (fig. 5-7), they may unite into a common muscle before inserting.

Taxonomy. *P. galilaea* is ascribed to *Pene* on account of the typical characters of its shell and genital system. *Pene* PALLARY, 1929 was described as a section of the genus *Ena* TURTON, 1831, and transferred to the genus *Petraeus* ALBERS, 1850 (= *Buliminus* BECK, 1837) by HESSE (1933: 192). New studies resulted that *Pene* is a peculiar genus, as will be confirmed in a later publication.

Acknowledgements.

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References.

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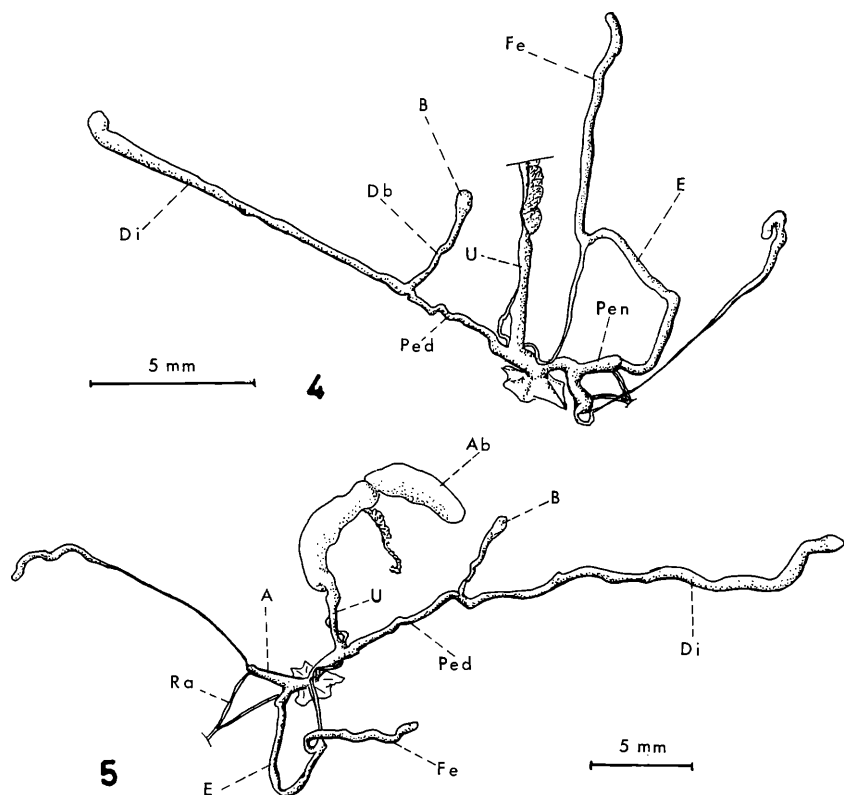
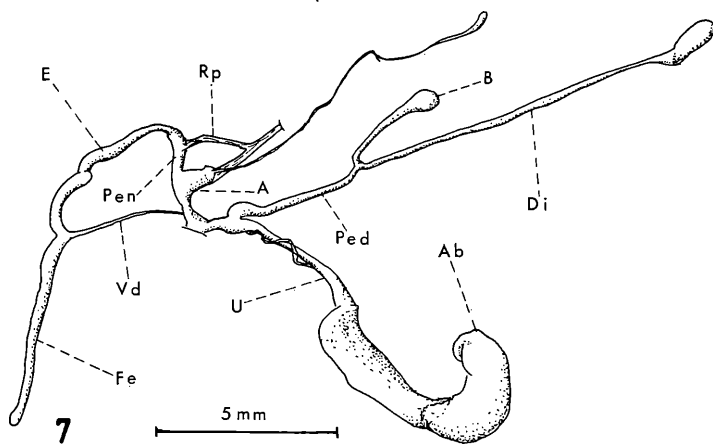
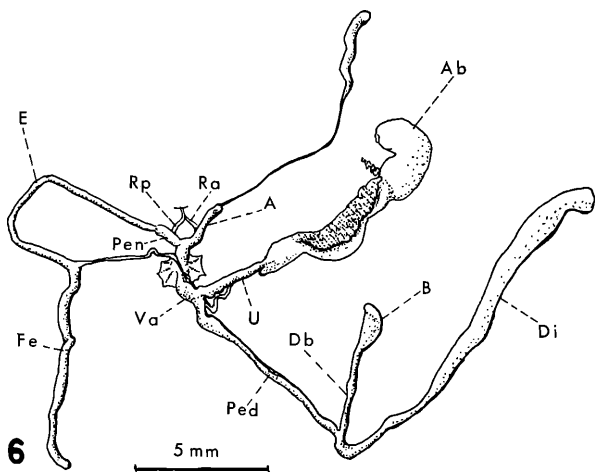


Fig. 4-7. *Pene galilaea* n. sp., Reproductive system of Paratypes from Ma'alot, Upper Galilee.

Abbreviation: *A* = Appendix of the penis, *Ab* = Albumen gland, *B* = Bursa of the receptaculum seminis, *Db* = Ductus bursae of the receptaculum seminis, *Di* = diverticulum of the receptaculum, *E* = Epiphallus of the penis, *Fe* = Flagellum of the penial epiphallus, *Ped* = Pediculus of the receptaculum seminis, *Pen* = Penis, *Ra* = Retractor of the penial appendix, *Rp* = Penial retractor, *U* = Uterus, *Va* = Vagina, *Vd* = Vas deferens.



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