



## A CHECK-LIST OF TERRESTRIAL SLUGS OF TURKEY WITH SOME NEW DATA AND A DESCRIPTION OF A NEW SPECIES (GASTROPODA TERRESTRIA NUDA)

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ABSTRACT: A list of all slug species recorded from Turkey, with synonyms used and published sources, supplemented with the previously unknown localities and a description of *Deroceras orduensis* n. sp. new to science.

KEY WORDS: Slugs, Turkey, checklist, new species

### INTRODUCTION

The physiographically diverse territory of Turkey has a very rich mollusc fauna, including numerous slug species. As the malacofauna of this area is relatively poorly known, new species can still be expected to be discovered there in the future and now it is too early to determine the geographical distribution of the gastropods already recorded. Therefore, it seems justifiable to summarise the current knowledge about these molluscs, which could be helpful in further research on this group. This check-list is an attempt at such a summary. As is usually the case with old publications, not all data available in the literature are verifiable. Besides, the last fifty years brought an intensification of studies on the molluscs of Turkey, and many collections certainly got enriched with new material much of which is still unidentified. This pertains also to slugs.

Although slugs do not form a taxon, they constitute a group of clear distinctive characters. Their life style, difficulty in species identification in the field, reduced shells that hinder identification, research methodology which requires dissection and involves examining anatomical characters, preservation techniques and methods for the storage of material, etc.

are the main reasons behind the investigations on these gastropods being neglected. Many researchers do not collect these invertebrates at all, and even in many museums the slug material is still very scanty.

The taxonomy of slugs undergoes extensive changes and many specific names have been synonymised. Therefore, for it to be more helpful, the slug list presented below, apart from the currently valid names, includes also old synonyms under which the particular species can be found in older literature on the malacofauna of Turkey. It should be also borne in mind that some species names in old publications are mentioned in combination with generic names different than they are today. This fact, however, should not present any major difficulties.

The new localities so far unpublished concern material which was collected partly by Prof. ADOLF RIEDEL from Warsaw alone (kept at the Museum and Institute of Zoology, Polish Academy of Sciences in Warsaw) and jointly by A. WIKTOR, A. RIEDEL, B. M. POKRYSZKO and E. STWORZEWICZ (below noted as "leg. A. WIKTOR et al.", deposited at the Museum of Natural History, Wrocław University).

## CHECK-LIST OF THE SLUGS OF TURKEY

Familia **Limacidae** Lamarck, 1801

Subfamilia **Limacinae** Lamarck, 1801

*Limax satunini* Simroth, 1912

SIMROTH 1912 (unclear taxonomic position): Mitt. kaukas. Mus. St.-Petersburg 6: 6, pl. 1, fig. 1, pl. 5, fig. 1 (Tausker, Kreis Olty)

*Gigantomilax (Gigantomilax) lederi* (O. Boettger, 1883)

*Amalia (Gigantomilax) lederi* BOETTGER 1883: Jahrb. dtsh. malak. Ges. 10: 143, pl. 4, fig. 1, (Svanetia – Georgia)

*Amalia (Gigantomilax) Kollyi* RETOWSKI 1889: Ber. seckenb. Ges. 1889: 180, pl. 19, figs 1–9 (Batum, Risa) = *G. (G.) lederi* f. *Kollyi*

Also as *Pseudolimax*

See: RETOWSKI 1889, LIKHAREV & WIKTOR 1980, RÄHLE 1992, SCHÜTT 2001

New localities:

Vil. Artvin (Çoruh)

- Cankurtaran Geçidi – a pass between Hopa and Borçka, mixed forest with beech, *Rhododendron* and chestnut, leg. A. WIKTOR et al. 3.05.2001
- Above the village of Kemalpaşa, NE of Hopa, leg. A. WIKTOR et al. 4.05.2001
- 5 km SE of Hopa, by the road to Artvin, under stones, leg. A. WIKTOR et al. 2.05.2001
- Çamlıhemşin, overgrown rock-debris by a tributary of the Fyrtýna River, under boulders, leg. A. RIEDEL 19.05.1994
- Çemlihemşin, by the Fyrtýna River, S of Pazar, mixed forest with *Rhododendron*, leg. A. WIKTOR et al. 1.05.2001
- Ca. 12 km from Borçka towards Hopa, the Nolu stream valley, under stones, leg. A. RIEDEL 14.05.1984

Vil. Rize

- 2 km NW before Ayder, ca 20 km SE of Çamlıhemşin, rock-debris covered mainly by *Rubus*, leg. A. RIEDEL 16.05.1994

*Gigantomilax (Vitrinoides) daghestanus* (Simroth, 1898)

*Limax daghestanus* SIMROTH 1898: Ann. Mus. Zool. St.-Petersburg 3: 54 (Turkestan)

*Vitrinoides florenskii* SIMROTH 1912: Mitt. kaukas. Mus. St.-Petersburg 6: 18, pl. 2, fig. 12, pl. 6, figs 12 A–C (Ardanuç)

See: AKRAMOVSKIY 1976, LIKHAREV & WIKTOR 1980, SCHÜTT 2001

*Gigantomilax (Vitrinoides) koenigi* (Simroth, 1912)

*Limax koenigi* SIMROTH 1912: Mitt. kaukas. Mus. St.-Petersburg 6: 10, pl. 1, fig. 4, pl. 5, fig. 4 (Ker-ogly, Kreisgebiet Olty)

*Limax oltinus* SIMROTH 1912: Mitt. kaukas. Mus. St.-Petersburg 6: 15, pl. 1, fig. 8a, pl. 5, fig. 8 (Ker-Ogly, Kries Olty)

*Limax jailanus* SIMROTH 1912: Mitt. kaukas. Mus. St.-Petersburg 6: 16, pl. 1, fig. 9, pl. 5, figs 9a–b (Eznos-jaila, Kreis Olty)

See: SIMROTH 1912, AKRAMOVSKIY 1976, LIKHAREV & WIKTOR 1980, SCHÜTT 2001

*Gigantomilax (Vitrinoides) monticola armeniacus* (Simroth, 1886)

*Limax armeniacus* SIMROTH 1886a: Jahrb. dtsh. malak. Ges. 13: 27, pl. 1, figs 4–7 (Insel Sewanga im Goktscha-See und Darytschitschach, Armenia)

*Limax (Vitrinoides) colchicus* SIMROTH 1898: Ann. Mus. Zool. St.-Petresburg 3: 55 (Kazbek)

*Limax incipiens* SIMROTH 1912: Mitt. kaukas. Mus. St.-Petersburg 6: 12, pl. 5, fig. 5 (Kyrmyzy Dag Mts, Ker-ogly Kreis Olty (-pars))

*Limax (Vitrinoides) kaznakovi* SIMROTH 1912: Mitt. kaukas. Mus. St.-Petresburg 6: 12, pl. 5, figs 6 a–d (Pass Satanachaç in the Gokça Mts)

See: SIMROTH 1912, AKRAMOVSKIY 1976, WIKTOR 1971, 1994, LIKHAREV & WIKTOR 1980, RÄHLE 1992, SCHÜTT 2001

New localities:

Vil. Artvin (Çoruh)

- Ca. 3 km of Artvin in the Çoruh valley towards Hopa, rock-slide at the road, leg. A. WIKTOR et al. 4.05.2001

*Limax (Limax) dobrogicus* Grossu et Lupu, 1960

*Limax dobrogicus* GROSSU & LUPU 1960: Arch. Moll. 89: 162, fig. 5 (Coco)

See: RÄHLE 1992, SCHÜTT 2001

*Limax (Limax) maximus* Linnaeus, 1758

*Limax maximus* LINNAEUS 1758: Syst. Nat. Ed. X: 652 (? Sweden)

See: RÄHLE 1992, WIKTOR 1994, SCHÜTT 2001

*Limax (Limacus) flavus* Linnaeus, 1758

*Limax flavus* LINNAEUS 1758: Syst. Nat. Ed. X: 652 (? Sweden)

*Limax retowskii* SIMROTH 1898: Ann. Mus. Zool. St.-Petersburg 3: 61 (Sephanos bei Trapezund)

*Limax (Lehmannia) variegatus* DRAPARNAUD 1801: Hist. Nat. Mus. Terr. fluv. Franc.: 117 (France)

*Limax (Limacus) flavus ecarinatus* BOETTGER 1881: Jahrsb. dtsh. malak. Ges. 8: 167–261 (Kutais= Kutaisi)



Also as *Lehmannia*

See: POLLONERA 1888, RETOWSKI 1889, SIMROTH 1898, 1901, 1910, 1912, BABOR 1905, WAGNER 1934, 1937a, b, 1938, 1940, GERMAIN 1936, GADEAU DE KERVILLE 1939, FORCART 1953, 1972, 1986, GÖTING 1970, WIKTOR 1971, 1994, STOJASPAL 1986, SCHÜTT 2001, YILDIRIM & KEBAPÇI 2004

New localities:

– Istanbul – on plane trunks in the town, leg. A. WIKTOR et al. 22.04.2001

Vil. Kırklareli

– 6 km SE of Yenice, beech-hornbeam forest, 800 m a.s.l., leg. J. SZYPUŁA 10.06.1996 (in coll. Mus. Nat. Hist. Wrocław)

Vil. Strandzha

– Yenice, pass, beech forest, on tree trunks, collected at night, no date or collector  
– Fortress Rumeli Hisar by the Bosphorus River, NE Istanbul, wet rock-debris covered by *Rubus*, leg. A. RIEDEL 31.03.1993

*Limax (Limacus) maculatus* (Kaleniczenko, 1851)

*Limax flavus ecarinatus* BOETTGER 1881: Jahrb. dtsh. malak. Ges. 8: 7, figs 7a-c (Caucasus and Asia Minor)

*Krynickillus maculatus* KALENICZENKO 1851: Bull. Soc. Nat. Moscou 24: 226, pl. 6, fig. 2 (“Kuczukoij” – Kuuk-koj, Crimea) (nomen praecoccupatum)

*Limax retowskii* SIMROTH 1898: Ann. Mus. Zool. St.-Petersburg 3: 61 (Sephanos bei Trapezund, Turkey) and SIMROTH 1901: Nacktsch. Russ. Reiches: 89, pl. 5, figs 17–20

See: SIMROTH 1898, 1901, LIKHAREV & WIKTOR 1980, FORCART 1986, RÄHLE 1992, WIKTOR 1994, SCHÜTT 2001

New localities:

Vil. Amasya

– Kaleköy at the road towers ca. 26 km from Amasya Tokat, under logs and by a stream, leg. A. WIKTOR et al. 26.04.2001

Vil. Kastamonu

? juv. – beneath the pass Ballidag on the side of Dadaj, spruce-fir forest with pine and beech, ca. 1,200 m a.s.l., leg. A. WIKTOR et al. 8.05.2001

Subfamilia **Eumilacinae** Likharev et Wiktor, 1980

*Eumilax (Eumilax) brandti* (Martens, 1880)

*Limax (Milax) brandti* MARTENS 1880: Bull. Acad. sci. St.-Petersburg 26: 143 (Borshom)

*Promilax multirugatus* BOETTGER 1888: Nachrsbl. Malakozool. Ges. 20: 149 (Oshten-Fischt, Pontischer Caucasus)

*Paralimax marmoratus* SIMROTH 1901: Nacktsch. Russ. Reiches: 117, pl. 9, fig. 7, map 7 (Rissa)

*Eumilax Kalischewskii* SIMROTH 1910: Ann. Mus. Zool. Imp. Acad. Sc. St.-Petersburg 15: 517, pl. 6, figs 14–16 (Caucasus)

*Paralimax albomaculatus* SIMROTH 1901: Nacktsch. Russ. Reiches: 120, pl. 12, fig. 1, map 3 (Caucasus)

Also as *Amalia*

See: RETOWSKI 1889, SIMROTH 1901, GERMAIN 1936, GADEAU DE KERVILLE 1939, WIKTOR 1971, 1994, LIKHAREV & WIKTOR 1980, RÄHLE 1992, SCHÜTT 2001

New localities:

Vil. Artvin (Çoruh)

– 3 km of Artvin towards Hopa in the Çoruh valley, rock-slide at the road, leg. A. WIKTOR et al. 4.05.2001

– Cankurtaran Geçidi – pass between Hopa and Borçka, mixed forest with beech, *Rhododendron* and chestnut *Castanea*, leg. A. WIKTOR et al. 3.05.2001 (form *salamandroides*)

Vil. Rize

– Dikeya, S of Pazar, by a stream, leg. A. WIKTOR et al. 1.05.2001

– Çemlihemşin, by the Fýrtýna River, S of Pazar, by a stream, mixed forest with *Rhododendron*, leg. A. WIKTOR et al. 1.05.2001

– Çamlıhamşın, overgrown rock-debris by a tributary of the Fýrtýna, under boulders, leg. A. RIEDEL 13.05.1994

– 2 km NW of Ayder, ca. 20 km SE of Çamlıhemşin, rock-debris covered mainly by *Rubus*, leg. A. RIEDEL 16.05.1994

Familia **Agriolimacidae** Wagner, 1935

*Deroceras (Deroceras) agreste* (Linnaeus, 1758)

*Limax agrestis* LINNAEUS 1758: Syst. Nat. Ed. X: 652 (Sweden)

?*Agriolimax transcausicus simplex* SIMROTH 1901: Nacktsch. Russ. Reiches: 155, pl. 16, figs 18–30, map 6 (Sinope und Samsun)

*Agriolimax transcausicus* SIMROTH 1901: Nacktsch. Russ. Reiches: 155, pl. 16, figs 18–30, map 6

*Agriolimax transcausicus* var. *coeciger* SIMROTH 1901: Nacktsch. Russ. Reiches: 157 (Turkey, Armenia)

See: SIMROTH 1899, 1901, 1912, BABOR 1905, GERMAIN 1936, WAGNER 1937a, 1938, GADEAU DE KERVILLE 1939, AKRAMOVSKIY 1976, WIKTOR 1994, 2000, SCHÜTT 2001

New localities:

Vil. Kastamonu

– Çiçekayyla, at the road Devrekani–Türkeli, leg. A. WIKTOR et al. 7.05.2001

*Deroceras* cf. *bakurianum* (Simroth, 1912)

*Agriolimax bakurianus* SIMROTH 1912: Mitt. kaukas. Mus. St.-Petersburg 6: 40, pl. 3, fig. 34, pl. 7, fig. 23 (Bakuriani bei Borzhomi)

See: WIKTOR 1994, 2000, SCHÜTT 2001

New localities:

Vil. Ordu

- A slope above the town of Ordu, *Corylus*, *Castanea*, *Smilax*, *Scolopendrium* sp. *Euphorbia*, *Primula* etc., leg. A. RIEDEL 14.03.1993
- Yemişli, SW of Ordu at the road to Ulubey, leg. A. WIKTOR et al. 27.04.2001
- 10 km E of Ünye, on the coastal beach, under stones, leg. A. WIKTOR et al. 6.05.2001

Vil. Gümüşhane

- Gümüşhane, 3.5 km NW (from the town borders) toward Torul, valley of the Dagankent-çay stream, at the foot of volcanic rocks, among herbs and rubble, leg. A. RIEDEL 9.05.1994

Vil. Samsun

- 16 km SE of Gerze, shrub thicket, Ca-rich sandstone, leg. A. WIKTOR et al. 6.05.2001

Vil. Kastamonu

- 2 km SW of Azdavay toward Pinarbaşı, rocky gap of the Çatak stream, scrub and moss-grown limestone, leg. A. RIEDEL 22.05.1994
- 2 km W of Azdavay in the Çatak stream gap, ca. 830 m a.s.l., leg. A. WIKTOR et al. 8.05.2001

Vil. Trabzon

- Ilgaz Dağı, pass Geçidi, S of Kastamonu, 1,800 m a.s.l., fir forest, leg. A. WIKTOR et al. 9.05.2001
- NW of the village Of between Trabzon and Rize, rocks by the road, leg. A. WIKTOR et al. 30.04.2000

*Deroceras berytensis* (Bourguignat, 1852)

*Limax Berytensis* BOURGUIGNAT 1852: Testacea novissima... etc: 10 (circa urbem Berytum, Lebanon)

?*Agriolimax* (s. str.) *Pentheri* BABOR 1905: Ann. naturhist. Hofmus. Wien 20: 3 (Lifos am Takir Erdschias Mts)

?*Agriolimax Steindachneri* WAGNER 1931b: Zool. Anz. 95: 196 (Samsun)

*Deroceras grossui* REISCHÜTZ 1975: Arch. Moll. 106: 25–26, figs 1–4 (Afon Karahisar, near Anatolia, Turkey)

See: BABOR 1905, WAGNER 1931b, 1934, 1937a, b, 1938, 1940, GERMAIN 1936, WIKTOR 1971, 1994, 2000, REISCHÜTZ 1975, LIKHAREV & WIKTOR 1980 (emend. *D. steindachneri*), SCHÜTT 2001, YILDIRIM & KEBAPÇI 2004

New localities:

Vil. İçel:

- Between Krimler and Yeniköy, 20 km NW of Mersin (by the road to Arslanköy), rocks and steep limestone, herbs, leg. A. RIEDEL 16.04.1983

Vil. Amasya:

- Kaleköy, ca. 28 km SE of Amasya, limestone rocks, scant shrubs and herbs, leg. A. RIEDEL 29.03.1993

*Deroceras christae* Rähle, 1998

*Deroceras christae* RÄHLE 1998: Malak. Abh. 19: 25, figs 9–14 (Olympos, Vil. Antalya, SSW of Antalya, Turkey)

See: RÄHLE 1998, WIKTOR 2000, SCHÜTT 2001

*Deroceras demitrensis* Rähle, 1998

*Deroceras demitrensis* RÄHLE 1998: Malak. Abh. 19: 22–25, figs 6–9 (Demitras, Sedre Tal (= valley), Vil. Antalya, SE of Alanya, Turkey)

See: RÄHLE 1998, WIKTOR 2000, SCHÜTT 2001

*Deroceras grossui* Reischütz, 1975

*Deroceras grossui* RESCHÜTZ 1975: Arch. Moll. 106: 25, figs 1–4 (Afyon Karahisar)

See above and WIKTOR 2000 (synonym of *D. berytensis*)

*Deroceras helicoidale* Rähle, 1998

*Deroceras helicoidale* RÄHLE 1998: Malakol. Abh. 19: 22, figs 1–5 (Vil. Antalya, E of Alanya, Obaçay (= valley), S of Alanya, Vil. Anatolya, Turkey)

See: RÄHLE, 1998, WIKTOR 2000, SCHÜTT 2001

*Deroceras laeve* (Müller, 1774)

*Limax laevis* O. F. MÜLLER 1774: Verm. terr. II: 1 (Fredriksdal)

See: WIKTOR 1971, 2000, SCHÜTT 2001

New localities:

Vil. Artvin (Çoroh)

- 4–5 km SE of Hopa by the road to Artvin, under stones, leg. A. WIKTOR et al. 2.05.2001 No. 3020 – 1 aphallic juvenile – identification uncertain

*Deroceras malkini* Wiktor, 1984

*Deroceras malkini* WIKTOR 1984: Malak. Abh. 9(16): 151, figs 1–6 (Tymiana, Hios Isl.)

See: WIKTOR 1994, 2000, SCHÜTT 2001

*Deroceras (Deroceras) orduensis* n. sp.

Holotypus: Turkey, Vil. Ordu, by the road from Ulubey to Gürgente, ca. 1,000 m a.s.l. on a mountain crest SW of Yeni Sayaza, beech forest with *Rhododendron*, leg. A. WIKTOR, et al., 27.04.2001, in Mus. Nat. Hist. Wrocław No. MP 1002

Paratypes: collected with the holotype – 40 specimens, in Mus. Nat. Hist. Wrocław No. MP 1002

Other material examined:

Vil. Ordu

- A slope above the town of Ordu, *Corylus*, *Castanea*, *Smilax*, *Scolopendrium*, *Euphorbia*, *Primula*, etc., leg. A. RIEDEL 14.03.1993, 5 spec. – in. coll. Institute and Museum Pol. Acad. Sc. Warsaw
- Ordu, brushwood and rubble heap by the road to Paşembe, leg. A. RIEDEL 15.03.1993 – 11 spec. – in. coll. Institute and Museum Pol. Acad. Sc. Warsaw

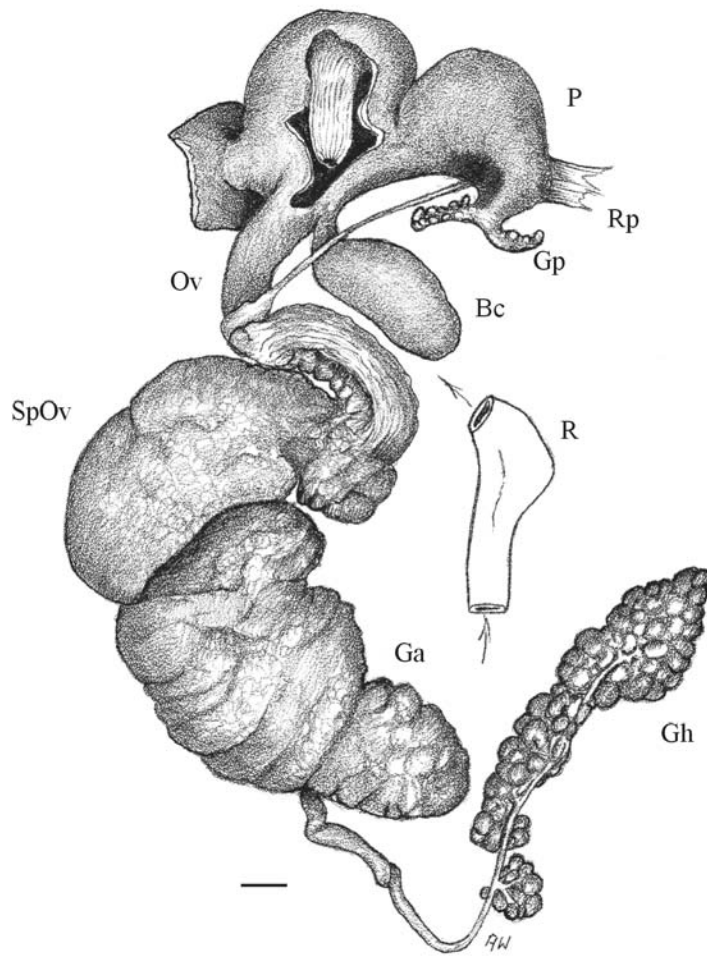


Fig. 1. *Deroceras (Deroceras) orduensis* n. sp. – reproductive system (a paratype collected with the holotype): Bc – spermatheca, Ga – glandula albuminalis, Gh – glandula hermaphroditica, Gp – penial gland, Ov – oviductus, P – penis, R – terminal section of the intestine, Rp – musculus retractor penis, SpOv – spermoviductus (scale bar – 1 mm)

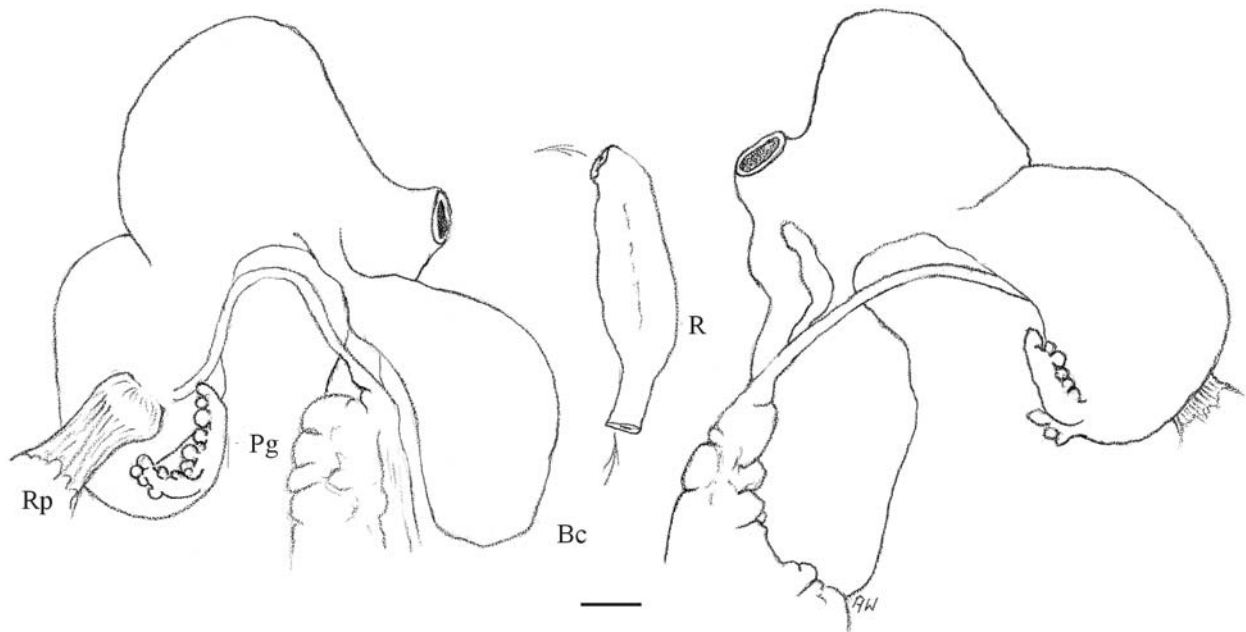


Fig. 2. *Deroceras (Deroceras) orduensis* n. sp. – copulatory organs (of a paratype collected with the holotype) viewed from two different sides (scale bar – 1 mm, for lettering see Fig. 1)

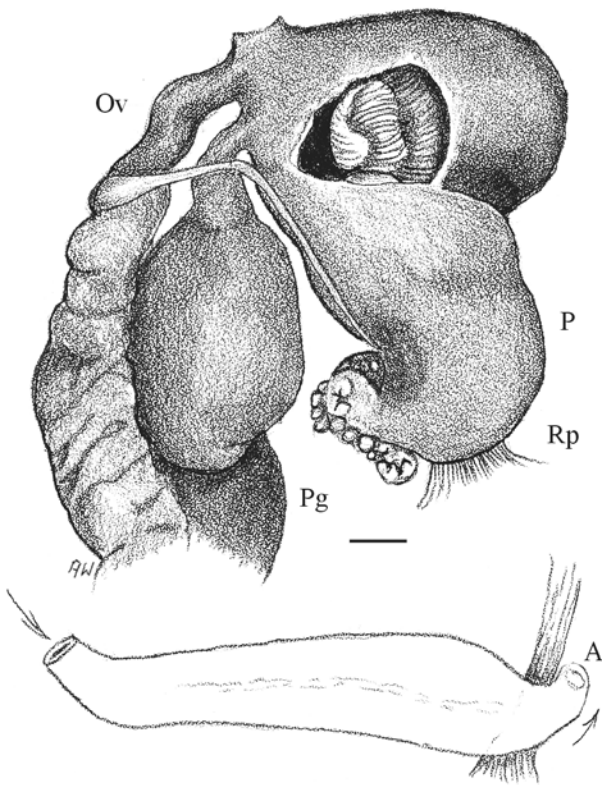


Fig. 3. *Deroceras (Deroceras) orduensis* n. sp. holotypus – copulatory organs and caecum (scale bar – 1 mm, for lettering see Fig. 1)

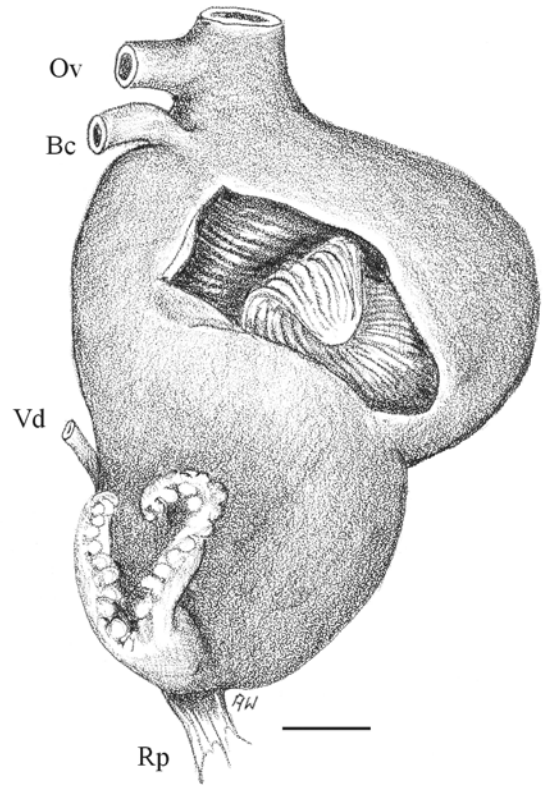


Fig. 4. *Deroceras (Deroceras) orduensis* n. sp. – penis with its stimulator visible inside (a paratype collected with the holotype, scale bar – 1 mm, for lettering see Fig. 1)

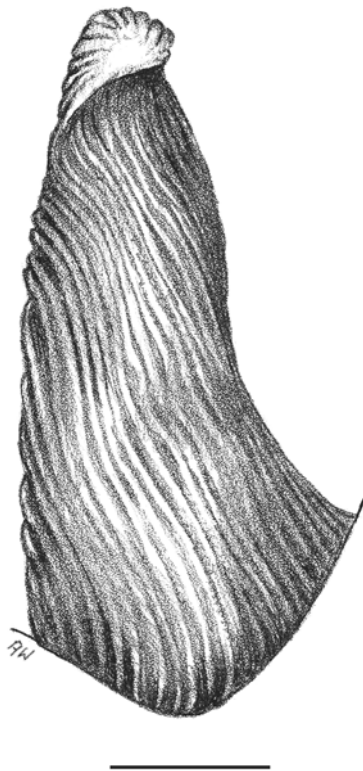


Fig. 5. *Deroceras (Deroceras) orduensis* n. sp. – stimulator inside penis (a paratype, scale bar – 1 mm)

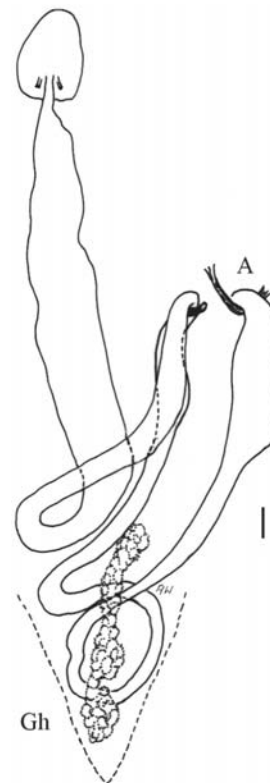


Fig. 6. *Deroceras (Deroceras) orduensis* n. sp. – alimentary canal: A – anus, Gh – glandula hermaphroditica (a paratype, scale bar – 1 mm)



## Vil. Çorum

- Yazilikaya, 3 km E of Boğazkale and 3.5 km NW of Yozgat, ca. 2,300 m a.s.l., limestone rocks, under stones in oak forest, leg. A. RIEDEL 12.05.1992 – 1 spec. – in coll. Institute and Museum Pol. Acad. Sc. Warsaw

## Vil. Trabzon

- 3.5 km N of Tonya by the Foldere stream, under stones and in grass, leg. A. WIKTOR et al., 29.04.2001 – 4 spec. – in Mus. Nat. Hist. Wrocław No. MP 1002

## Vil. Giresun

- Yolağzi, 6–7 km E of Kesab in a quarry of volcanic rocks, leg. A. WIKTOR et al., 28.04.2001 – 1 spec. – in Mus. Nat. Hist. Wrocław No. MP 1002

**Etymology.** The name is derived from that of Ordu, the district [vilayet] where the holotype and paratypes were found.

**Diagnosis.** A uniform black slug with a pale sole and bifurcated penial gland, very similar to *Deroceras berytensis*, from which it differs in a narrow conical stimulator and rectal caecum lacking.

**Description.** Body length (after preservation in alcohol) up to 41 mm, breadth to 9 mm, mantle length to 16 mm (holotypus is the largest specimen of the series). The coloration of back evenly deeply black, sides gradually turning lighter downwards. Sole pale – dirty cream. Mucus colourless.

Reproductive system (Figs 1–5). Gonad dark chocolate in colour, narrow, strongly elongated, not covered by the lobes of hepatopancreas. In mature specimens (the series collected with the holotype) the gonad reaches the posterior end of viscera (Fig. 6), whereas in the immature specimen from Yazilikaya it is situated at some distance from the posterior body end. Ductus hermaphroditicus inserted in the crevice between the lobes of glandula albuminalis. Penis clearly constricted. Its posterior section is asymmetrically bent and dark-coloured in the region of the junction with penial gland. The latter organ is always bifurcated, the two branches usually of similar size, only sometimes one is slightly shorter (Fig. 2). Musculus retractor penis short, not branching, attached laterally to penis at a small distance from its posterior end (not apically). Stimulator (Figs 1, 3–5) in the shape of a flattened cone, often twisted, especially its free end can be hook-like bent and darker in colour. Spermatheca (Figs 1–3) with an oval container and short duct. Gonoporus situated exceptionally close to the right tentacle. The remaining parts of the genitalia do not bear any distinctive characters as compared with other representatives of the genus.

Alimentary canal (Fig. 6). The final section of intestine (rectum) abruptly broadening. There is no caecum, nor even a pocket-like fragment.

There is hardly any information on the biology or ecological requirements of this species. Its habitat is

forest. Most of the specimens collected with the holotype were crawling abundantly on the margin of a road running through a dense beech forest with *Rhododendron* undergrowth. Only a few specimens were collected in the forest itself under pieces of timber. The specimen from Yazilikaya lived in oak forest. At another locality the slug was found under stones by a stream. A fact worth noting is that this species reaches sexual maturity in April and May, which means it yields a spring generation.

**Comments.** The habitat in which this slug was found is situated far from human settlements and, although crossed by a small road, it makes an impression of being natural.

Morphologically, the newly described species deceptively resembles *Deroceras berytensis* (Bourguignat, 1852) (see WIKTOR 1994: 16, figs 37–62, WIKTOR 2000: 408, figs 135–146), a slug known from Turkey as well (also under the names of *D. pentheri* and *D. steindachneri*) but other regions of this country. The two slugs are of similar size and coloration, not differing in any external features. Also, their penises and penial glands are remarkably alike in shape, with a dark blot in the posterior part of the former organ mentioned occurring in both species. A striking difference is a narrow stimulator in the new species, which, although somewhat flattened and usually folded, is always pointed. In *D. berytensis* the stimulator is wide, fan-shaped and conspicuously wrinkled. Another important difference is complete lack of caecum on the final intestinal section. In *D. berytensis* the caecum is usually well-developed or at least a clear lateral pocket is present.

These two differences are of paramount importance as diagnostic characters in the genus *Deroceras*, for which reason I have decided to describe the slug concerned as a species new to science.

***Deroceras osseticum*** (Simroth, 1901)

*Agriolimax osseticus* SIMROTH 1901: Nacktschn. Russ.

Reiches: 161, pl. 14, figs 22–26, map 6 (Tkwibuli)  
See: WIKTOR 1994, 2000, SCHÜTT 2001

## New localities:

## Vil. Rize

- On the border of vil. Artvin, 6–7 km SW of Artvin, a scree of moss-covered boulders in a hazel grove, leg. A. RIEDEL 19.03.1993
- Rize, a small ravine of a stream, *Castanea*, *Rhododendron*, abundant liverworts, under stones, leg. A. RIEDEL 17.03.1993
- Rize, a small ravine on the eastern margin of the town, leg. A. RIEDEL 12.05.1994
- 2 km NW of Ayderka, ca 20 km SE of Çamlıhemşin, rock-debris overgrown mainly with *Rubus*, leg. A. RIEDEL 16.05.1994
- Rize, by a stream above the town, leg. A. WIKTOR et al. 30.04.2001

## Vil. Artvin (Çoruh)

- Hopa, hills at the eastern margin of the town, in leaf litter of hazel, *Castanea* and *Rhododendron* brushwood, leg. A. RIEDEL 20.03.1993
- Environs of Borçka, SE of Hopa, in a deciduous forest, leg. A. WIKTOR et al. 3.05.2001
- 5 km SE of Hopa by the road to Artvin, under stones, leg. A. WIKTOR et al. 2.05.2001
- Cankurtaran Geçidi – pass between Hopa and Borçka, mixed forest with beech, *Rhododendron* and *Castanea*, leg. A. WIKTOR et al. 3.05.2001
- Dikya, S of Pazar, by a stream, leg. A. WIKTOR et al. 1.05.2001

***Deroceas reticulatum*** (Müller, 1774)

*Limax reticulatus* O. F. MÜLLER 1774: Verm. terr.: 10 (Fredriksdal)

See: WAGNER 1934, 1937a, 1940, WIKTOR 2000, SCHÜTT 2001, YILDIRIM & KEBAPÇI 2004

***Deroceas rethimnonensis*** De Winter et Butot, 1986

*Deroceas rethimnonensis* DE WINTER & BUTOT 1986: Basteria 50: 41, figs 13–16 (Margarites – Crete)

See: WIKTOR 1994, 2000, SCHÜTT 2001

***Deroceas samium*** Rähle, 1983

*Deroceas samium* RÄHLE 1983: Zool. Meded. 57: 115, figs 1–8 (Psili – Samos Isl.)

See: RÄHLE, 1983, WIKTOR 1994, 2000, SCHÜTT 2001

***Deroceas sturanyi*** Simroth, 1894

*Agriolimax sturanyi* SIMROTH 1894: Ann. naturhist. Hofmus. Wien 9: 393, pl. 19, figs 6–9 (Ochrida = Ohrid – Macedonia)

See: WIKTOR 1971, 2000, LIKHAREV & WIKTOR 1980, SCHÜTT 2001

***Deroceas subagreste*** (Simroth, 1892)

*Agriolimax subagrestis* SIMROTH 1892: Sitzb. nat. Ges. Leipzig 1890/1891: 43 (Maikop = Majkop)

*Agriolimax Ananowi* SIMROTH 1901: Nacktschn. Russ. Reiches: 159, pl. 15, figs 1–16, map 6

?*Agriolimax roseni* SIMROTH 1912: Mitt. Kaukas. Mus. St.-Petersburg 6: 41, pl. 3, fig. 38, pl. 7, fig. 25 (Ardanu and Eznos-jaila Keis Olty)

See: BABOR 1905, SIMROTH 1910, GERMAIN 1936, WAGNER 1937a, b, 1940, GADEAU DE KARVILLE 1939, GÖTING 1970, RÄHLE 1992, WIKTOR 1994, 2000, SCHÜTT 2001

***Deroceas thersites*** (Simroth, 1886)

*Agriolimax thersites* SIMROTH 1886b: (as *Agriolimax Thersites* Heynemann et Koch) Jahrb. dtsh. malak. Ges. 21: 317, pl. 10, figs 5–7 (Athens)

See: GÖTING 1970, WIKTOR 2000

***Deroceas turcicum*** (Simroth, 1894)

*Agriolimax turcicus* SIMROTH 1894: Ann. naturhist. Hofmus. Wien 9: 392, pl. 19, figs 2–5 (Ochrida = Ohrid – Macedonia)

*Deroceas (Agriolimax) wiktorei* GROSSU 1969: Arch. Moll. 99: 168, fig. 10 (Orşov-Eşanița, Roumania)

*Deroceas dymczewiczii* SIMROTH 1901: Nacktschn. Russ. Reiches: 151, pl. 16, figs 1–6, map 1 (Simferopol) (non Kaleniczenko, 1851)

?*Deroceas vranceanus* GROSSU 1969: Arch. Moll. 99: 161, figs 4a–g (Vrancea Mts, E Carpathian Mts, Roumania)

See: WIKTOR 1971, 1994, 2000, STOJASPAL 1986, LIKHAREV & WIKTOR 1980, SCHÜTT 2001

## New localities:

## Vil. Rize

- Rize, slope of a hill with a fortress, overgrown mainly with brambles (*Rubus*), in leaf litter and under stones, leg. A. RIEDEL 17.03.1993
- 2–3 km SE of Ambalik (ca. 23 km SSE of Rize), valley of the Taşlıdere stream, wet rock-debris at the foot of the slopes, volcanic rocks (basalt, etc.), leg. A. RIEDEL 25.03.1993
- Çamlıhemsin, scrub, rock-debris by a right tributary of the Fyrtýna River, just outside the town, under stones, leg. A. RIEDEL 13.05.1994
- Çayalı, rubble by the path at the Büyükdere River mouth, leg. A. RIEDEL 23.03.1993

## Vil. Artvin (Çoruh)

- Artvin, beneath the town, at the foot of rocks, by the Çoruh River, basalt screes, almost devoid of vegetation, leg. A. RIEDEL 22.03.1993
- Borçka, 2 km towards Hopa, rock-debris (volcanic rocks) by a stream tributary to the Çoruh River, box, hazel, thorny creepers *Rubus*, *Smilax*, leg. A. RIEDEL 21.03.1993

## Vil. Ordu

- 2 km SW of Uzunisa (= 12 km SSW of Ordu) high grassy terrace by the Dedeli stream, talus overgrown with *Rubus* sp., leg. A. RIEDEL 15.03.1993

## Vil. Trabzon

- The Küçükdere valley, ca. 3 km of Arakali, leg. A. WIKTOR et al. 5.05.2001

Vil. Trabzon, 2 km SW of the village, moss-grown boulders and stones, *Rhododendron*, *Rubus*, *Smilax*, leg. A. RIEDEL 16.03.1994

- Zigana Geçidi pass by the road from Maçka to Torul (S of Trabzon), a dry basalt slope, leg. A. WIKTOR et al. 29.04.2001
- 3.5 km N of Tonya, SW of Trabzon, by the Foldere stream, under stones and in grass, leg. A. WIKTOR et al. 28.04.2001
- Sumela, S of Trabzon, 1,000–1,250 m a.s.l., volcanic rocks, mixed forest with *Evonymus* and *Rhododendron*, leg. A. WIKTOR et al. 29.04.2001





## Vil. Rize

- Çamlıhemşin in the Fırtına River valley, S of Pazar, by a stream, mixed forest with *Rhododendron*, leg. A. WIKTOR et al. 01.05.04.2001

## Vil. Kastamonu

- Below the Yarlýgöz pass NE of Kastamonu, 1,000–1,200 m a.s.l., leg. A. WIKTOR et al. 8.05.2001
- Beneath the Ballýdag pass on the side of Dadaj, spruce-fir forest with pine and beech, ca. 1,200 m a.s.l., leg. A. WIKTOR et al. 8.05.2001

***Deroceras cf. vranceanum*** Grossu, 1969

*Deroceras vranceanus* (Sic!) GROSSU 1969: Arch. Moll. 99: 161, fig. 4 (Putna valley, Vrancea Mts)

See: STOJASPAL 1986, WIKTOR 2000 (see *D. turcicum*)

***Deroceras (Liolytopelte) caucasicum*** (Simroth, 1901)

*Litopelte caucasica* SIMROTH 1901: Nackschn. Russ. Reiches: 171, pl. 17, figs 5–14, maps 6–7 (Lagodechi – Georgia)

See: LIKHAREV & WIKTOR 1980 (possible occurrence in Turkey), WIKTOR 1994, SCHÜTT 2001

***Deroceras (Liolytopelte) trabzonensis*** Wiktor, 1994

*Deroceras (Liolytopelte) trabzonensis* WIKTOR 1994: Arch. Moll. 123: 27, figs 70–77 (Küçük)

See: WIKTOR 1994, 2000, SCHÜTT 2001

## New localities:

## Vil. Rize

- 3–4 km NE of Çayeli towards Pazar, volcanic rock amphitheatre with a waterfall, hardly any vegetation, under stones and boulders, leg. A. RIEDEL 19.03.1993
- Rize, ravine of a small stream, *Castanea*, *Rhododendron*, abundant liverworts, under stones, leg. A. RIEDEL 17.03.1993

## Vil. Giresun

- Yolagzi, 6–7 km E of Keşap, rock amphitheatre at a coastal road, volcanic rocks, wet rock-debris, leg. A. RIEDEL 7.05.1994

***Krynickyllus melanocephalus*** Kaleniczenko, 1851

*Krynickyllus melanocephalus* KALENICZENKO 1851: Bull. Soc. Imp. Nat. Moscou 24: 221, pl. 5 figs 2a-b (Staupopolin = Stavropol)

Also as *Limax (Agriolimax) melanocephalus* Kal.

See: RETOWSKI 1889, SIMROTH 1901, LIKHAREV & WIKTOR 1980, WIKTOR 2000, SCHÜTT 2001

***Krynickyllus (Krynickyllus) urbanskii*** (Wiktor, 1971)

*Deroceras (Krynickyllus) urbanskii* WIKTOR 1971: Zool. Meded. 23: 264, figs 2A–D, 3A–E (Karlovo, Stara Planina Mts)

See: WIKTOR 1971, 2000, LIKHAREV & WIKTOR 1980, RÄHLE 1992, SCHÜTT 2001

***Krynickyllus (Toxolimax) hoplites*** (Simroth, 1899)

*Mesolimax (Toxolimax) hoplites* SIMROTH 1899: Sitzb. naturf. Ges. Leipzig (1897–1898): 37 (Brussa = Bursa)

See: SIMROTH 1899, 1901, GERMAIN 1936, LIKHAREV & WIKTOR 1980, RÄHLE 1992, WIKTOR 1994, 2000, SCHÜTT 2001

## New localities:

## Vil. Samsun

- 8 km S of Ayancıık, a dry sandstone slope, leg. A. WIKTOR et al. 7.05.2001

## Vil. Kastamonu

- Below the Yarlýgöz pass NE of Kastamonu, 1,000–1,200 m a.s.l., leg. A. WIKTOR et al. 7.05.2001
- Azdavay, limestone rocks above the town, leg. A. WIKTOR et al. 8.05.2001
- Beneath the Ballıdag pass on the side of Dadaj, spruce-fir forest with pine and beech, ca. 1,200 m a.s.l., leg. A. WIKTOR et al. 8.05.2001

## Vil. Bursa

- Inkaya near Bursa, hazel-maple forest with ivy, leg. A. WIKTOR et al. 10.05.2001

***Megalopelte simrothi*** Lindholm, 1914

*Megalopelte simrothi* LINDHOLM 1914: Nachrsbl. dtsh. malak. Ges. 26: 168 (Dsankul = Dzansul vil. Artvin–Turkey)

See: LINDHOLM 1914, LIKHAREV 1957, LIKHAREV & WIKTOR 1980 (? Lake Abant), RÄHLE 1992, WIKTOR 1994, 2000, SCHÜTT 2001

## New localities:

## Vil. Rize

- Rize, by a stream above the town, leg. A. WIKTOR et al. 30.04.2001
- 5 km SE of Hopa by the road toward Artvin, under stones, leg. A. WIKTOR et al. 2.05.2001
- Çamlıhemşin, by the Fırtına River, S of Pazar, by a stream, mixed forest with *Rhododendron*, leg. A. WIKTOR et al. 1.05.2001

## Vil. Artvin (Çoruh)

## Vil. Trabzon

- West of Of between Trabzon and Rize, rocks at the road, leg. A. WIKTOR et al. 30.04.2001
- The valley of Küçükdere, ca. 3 km from Arakli leg. A. WIKTOR et al. 5.05.2001

## Vil. Kastamonu

- Beneath the Ballıdag pass on the side of Dadaj, spruce-fir forest with pine and beech, ca. 1,200 m a.s.l., leg. A. WIKTOR et al. 8.05.2001

Subfamilia **Mesolimacinae** Hausdorf, 1998***Mesolimax brauni*** Pollonera, 1888

*Mesolimax Brauni* POLLONERA 1888: Boll. Mus. Zool. Anat. comp. Torino 3: 8, pl. 2, figs 19–23 (Asia Minor)

See: SIMROTH 1901, BABOR 1905 (? *M. escherichi* Simroth, 1897), GERMAIN 1936, WAGNER 1937a, 1940, GADEAU DE KERVILLE 1939, WIKTOR 1971, 1994, FORCART 1972, LIKHAREV & WIKTOR 1980, SCHÜTT 2001, YILDIRIM & KEBAPÇI 2004

*Mesolimax escherichi* Simroth, 1899

*Mesolimax Escherichi* SIMROTH 1899: Sitzb. naturf. Ges. Leipzig (1897–1898): 36 (Sultan Dagh = Sultan Daglari Mts)

See: SIMROTH 1899, 1901, (BABOR 1905 ? as *M. brauni*), GERMAIN 1936, GADEAU DE KERVILLE 1939, WIKTOR 1971, 1994, 2000, LIKHAREV & WIKTOR 1980, SCHÜTT 2001

Familia **Boettgerillidae** Wiktor et Likharev, 1979

*Boettgerilla pallens* Simroth, 1912

*Boettgerilla pallens* SIMROTH 1912: Mitt. kaukas. Mus. St.-Petersburg 6: 55, pl. 3, fig. 50, pl. 8, fig. 32 (Gudaut = Gudalty)

See: STOJASPAL 1986, WIKTOR 1994, SCHÜTT 2001

New localities:

Vil. Samsun

– Kutlukent, E of Samsun, at the road to Trabzon, under stones, leg. A. WIKTOR et al. 26.04.2001 No. 3004 – 1 juv.

Familia **Milacidae** Ellis, 1926

*Milax altenai* Forcart, 1972

*Milax altenai* FORCART 1972: Basteria 36: 108, fig. 2 (Embona near Rhodos = Rhodes)

See: WIKTOR 1987, 1994, FRANK 1997, SCHÜTT 2001, YILDIRIM & KEBAPÇI 2004

*Milax gagates* (Draparnaud, 1801)

*Limax gagates* DRAPARNAUD 1801: Tabl. Moll. terr.: 100 (probably near Montpellier)

See: STOJASPAL 1986, SCHÜTT 2001

*Milax riedeli* Wiktor, 1986

*Milax riedeli* WIKTOR 1986: Malak. Abh. 11: 156, figs 4–6 (Iskenderun = Alexandreta)

See: WIKTOR 1987

*Tandonia budapestensis* (Hazay, 1881)

*Amalia budapestensis* HAZAY 1881: Malakozool. Bl. (N.F.) 3: 37 (Budapest)

*Milax (Milax) gracilis* LEYDIG 1876: Arch. Naturges. 42: 276, pl. 12, fig. 22 (Tübingen)

See: WAGNER 1937a, 1938, 1940, WIKTOR 1971, 1986, 1987, LIKHAREV & WIKTOR 1980, SCHÜTT 2001

New localities:

Vil. Kastamonu

– 2 km W of Azdavay, in the gap of the Çatak stream, ca. 830 m a.s.l., leg. A. WIKTOR et al. 8.05.2001 No. 3035 – 1 spec.

Vil. Sinop

– Environs of Erfelek, SW of Sinop, under stones among fields, leg. A. WIKTOR et al. 7.05.2001 – 3 spec.

*Tandonia cretica* (Simroth, 1885)

*Amalia cretica* SIMROTH 1885: Z. wiss. Zool. 42: 231, pl. 7, fig. 20, pl. 10, fig. 18 (Canea, Kriti = Crete, Greece)

See: WAGNER 1937a – ?*strandii*, 1938, SCHÜTT 2001

*Tandonia cristata* (Kaleniczenko, 1851)

*Krynickillus cristatus* KALENICZENKO 1851: Bull. Soc. Imp. Nat. Moscou 24: 225, pl. 5, figs 1a–b (Otuz, Crimea)

Also as *Amalia*

See: RETOWSKI 1889, SIMROTH 1899, 1901, WIKTOR 1987, SCHÜTT 2001

*Tandonia kaleniczenkoi* (Clessin, 1883)

*Amalia kalenzkoi* (nom. err.) CLESSIN 1883: Malakozool. Bl. (N.F.) 6: 39, pl. 2, fig. 11 (Straties – environs of Yalta)

See: LIKHAREV & WIKTOR 1980, WIKTOR 1987, 1994, SCHÜTT 2001

*Tandonia kusceri* (Wagner, 1931)

*Milax (Milax) Kusceri* WAGNER 1931a: Ann. naturhist. Mus. Wien (Nachtrag!) 46: 72, figs 1–2 (Svetka Petka)

See: WAGNER 1937a, 1940, LIKHAREV & WIKTOR 1980, WIKTOR 1987, SCHÜTT 2001

*Tandonia pageti* (Forcart, 1972)

*Milax pageti* FORCART 1972: Basteria 36: 106, fig. 1 (Lindos)

See: LIKHAREV & WIKTOR 1980, WIKTOR 1987, 1994, SCHÜTT 2001

*Tandonia samsunensis* (Forcart, 1942)

*Milax samsunensis* FORCART 1942: Arch. Moll. 74: 239, fig. 1 (Dervent Burnu = Derbent)

See: FORCART 1942, 1953, LIKHAREV & WIKTOR 1980, WIKTOR 1987, 1994

New localities:

Vil. Samsun

– Gorze, brushwood, Ca-rich sandstone, leg. A. WIKTOR et al. 6.05.2001

Vil. Kastamonu

– Çiçekyayla, at the road Deverkani–Turkeli, leg. A. WIKTOR et al. 7.05.2001

*Tandonia sowerbyi* (Férussac, 1823)

*Limax Sowerbii* FÉRUSSAC 1823: Hist. nat. gen. 2: 96, pl. 8D, figs 5–6 (vicinity of London)

See: WAGNER 1934, SCHÜTT 2001

***Tandonia strandi*** (Wagner, 1934)

*Milax (Subamalia) Strandii* WAGNER 1934: Folia Zool. Hydrobiol. 5: 331, figs 1–4 (Turkey – Takir-Dagh, Istanbul)

See: WAGNER 1934 [see WIKTOR 1987], 1937a, 1938, 1940, WIKTOR 1987

Familia **Trigonochlamydidae** Hesse, 1882Subfamilia **Trigonochlamydinae** Hesse, 1882***Trigonochlamys imitatrix*** O. Boettger, 1881

*Trigonochlamys imitatrix* O. BOETTGER 1881: Jahrb. dtsh. malak. Ges. 8: 177, pl. 7, fig. 3 (Kutai = Kutaisi)

*Trigonochlamys Boettgeri* RETOWSKI 1889: Ber. senckenb. naturf. Ges. 1888–1889: 126 (Rize)

*Phrixolestes ponticus* SIMROTH 1901: Nackschn. Russ. Reiches: 225, pl. 22, fig. 5, map 9 (Sephanos bei Trapezund)

*Phrixolestes adsharicus* SIMROTH 1901: Nackschn. Russ. Reiches: 224, pl. 22, fig. 4, pl. 24, map 9C (between Chula and Batum – Adsharia)

See: RETOWSKI 1889, SIMROTH 1901, 1912, LIKHAREV & WIKTOR 1980, FORCART 1983, WIKTOR 1994, SCHÜTT 2001

## New localities:

## Vil. Artvin (Çoruh)

- Borçka, 2 km towards Hopa, volcanic rock rubble by the Çoruh stream, box, hazel, thorny creepers (*Rubus*, *Smilax*, etc.), leg. A. RIEDEL 21.03.1993
- Environs of Borçka, SE of Hopa, gullies in deciduous forest, leg. A. WIKTOR et al. 3.05.2001
- Hopa, hills at the eastern margin of the town, in leaf litter of hazel, *Castanea* and *Rhododendron*, leg. A. RIEDEL 20.03.1993 and 12.05.1994
- Ca. 12 km from Borçka towards Hopa, the Nolu stream valley, under stones, leg. A. RIEDEL 14.05.1994
- Above Kemalpaşa NE of Hopa, leg. A. WIKTOR et al. 4.05.2001
- Çamlıhemşin, by the Fyrtýna River, S of Pazar, by a stream, mixed forest with *Rhododendron*, leg. A. WIKTOR et al. 1.05.2001

## Vil. Rize

- By a stream above the town, leg. A. WIKTOR et al. 30.04.2001
- 4.5 km E of Çayeli (E of Rize), leg. A. WIKTOR et al. 1.05.2001
- Dikya, S of Pazar, by a stream, leg. A. WIKTOR et al. 1.05.2001
- Camlıhemşin, leg. A. RIEDEL 13.05.1994 – 1 juv. spec. PAN

- İkizedere, under stones, leg. J. BOROWSKI & P. WĘGRZYNOWICZ 26.06.1993

- On the border between Vil. Rize and Artvin, 6–7 km of Arhavi, a scree of moss-grown boulders in a hazel grove, leg. A. RIEDEL 19.03.1993

- Çamlıhamşin, an overgrown scree on a right tributary of the Fyrtýna River, just outside the town, under stones, leg. A. RIEDEL 13.05.1994

- Ravine of a small stream, *Castanea*, *Rhododendron*, abundant liverworts (= *Hepaticae*), under stones, leg. A. RIEDEL 17.03.1993

- Rize, mountain slopes above the eastern margin of the town, a little ravine with a stream, *Castanea*, *Rhododendron*, abundant liverworts (= *Hepaticae*), in leaf litter and under stones, leg. A. RIEDEL 17.03.1993

## Vil. Trabzon

- Between Sürmenea and Köprübaşı in the Manahozdere stream valley, hornbeam-hazel thicket, leg. A. WIKTOR et al. 30.04.2001

***Drilolestes retowskii*** (O. Boettger, 1884)

*Pseudolimax retowskii* O. BOETTGER 1884: Ber. senckenb. Ges. 146 (Psirsk = Psyrcha, Abkhasia)

See: LIKHAREV & WIKTOR 1980, FORCART 1983, SCHÜTT 2001

Subfamilia **Selenochlamydinae** Likharev et Wiktor, 1980***Selenochlamys pallida*** O. Boettger, 1883

*Selenochlamys pallida* O. BOETTGER 1883: Jahrb. dtsh. malak. Ges. 10: 142, pl. 5, fig. 1 (Kutais = Kutaisi)

*Selenochlamys plumbea* SIMROTH 1912: Mitt. kaukas. Mus. St.-Petersburg 6: 62, pl. 4, fig. 52, pl. 8, fig. 34 (Ardunač – Transkaukasien)

See: SIMROTH 1912, LIKHAREV & WIKTOR 1980, FORCART 1983, SCHÜTT 2001

## New localities:

## Vil. Trabzon

- W of the village Of between Trabzon and Rize, rocks at the road, leg. A. WIKTOR et al. 30.04.2001
- 2 km SW of Of, moss-grown boulders and stones, *Rhododendron*, *Rubus*, *Smilax*, etc., leg. A. RIEDEL 13.03.1993

- Maçka, S of Trabzon, by the Altindere River, volcanic (porphyry?) rocks, under stones, leg. A. WIKTOR et al. 29.04.2001

**Comments.** Specimens of *S. pallida* from Turkey are ash grey, unlike those from the Caucasus Mts which are white.

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