



New and little-known species of the genus *Lacon* Laporte, 1838 (Coleoptera: Elateridae) of Afghanistan and adjacent countries

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Abstract

Two new species of the genus *Lacon* Laporte, 1838 are described: *L. elegantissimus* sp. nov. (Afghanistan, India) and *L. kabakovi* sp. nov. (Afghanistan). *L. caeruleus* Schimmel, 1998 is recorded for the first time in Afghanistan, presence of *L. funebris* (Solsky, 1881) in Afghanistan is confirmed. In addition, some taxonomic and morphological notes on the *Lacon* species of Afghanistan and adjacent countries are given.

Key words: Coleoptera, Elateridae, Agrypninae, Agrypnini, new species, new synonymy, new records, Palaearctic region, Afghanistan, click beetles

Introduction

The elaterid fauna of Afghanistan is very poorly known. Only 71 species have been recorded from Afghanistan to date, most of them were recorded or described over the last three decades (Gurjeva 1986, 1989, 1990; Chassain 1991; Dolin 1992; Dolin & Atamuradov 1994; Platia & Gudenzi 2000, 2002, 2005; Cate *et al.* 2002, 2007; Platia 2008, 2011, 2015b; Platia & Németh 2011; Németh & Platia 2014). By contrast, the elaterid fauna of the adjacent Pakistan and Turkmenistan includes about 160 species and 100 species respectively (Rizvi *et al.* 2005; Platia *et al.* 2006; Cate *et al.* 2007; Platia & Gudenzi 2007; Schimmel & Tarnawski 2008a, 2008b, 2012; Platia 2010, 2011, 2013, 2015a, 2015b; Akhter *et al.* 2011a, 2011b, 2011c, 2012a, 2012b, 2014; Ahmed & Akhter 2013; Németh & Platia 2014; Schimmel *et al.* 2015). It is very likely that many new and previously unrecorded elaterid species will be discovered in Afghanistan in the future.

Only two species of the genus *Lacon* Laporte, 1838, *L. funebris* (Solsky, 1881) and *L. mekrani* (Candèze, 1889), have been recorded from Afghanistan to date (Jacobson 1913; Platia & Németh 2011). In the course of studying the *Lacon* fauna of the East Palaearctic, I recognized two undescribed species and some interesting little-known species of the same genus from Afghanistan and adjacent countries. These species are described and discussed below.

Material and methods

Materials from the following museums, institutions, and private collections have been used in this study:

ZISP Zoological Institute, Russian Academy of Sciences (St. Petersburg, Russia). The material from ZISP belongs to the collections of O.N. Kabakov and A.P. Semenov-Tian-Shansky (hereinafter—OK and AS respectively).

ZMMU Zoological Museum, Moscow State University (Moscow, Russia).

CKS private collection of A.G. Koval (St. Petersburg, Russia).

CPM private collection of A.S. Prosvirov (Moscow State University, Moscow, Russia).

All the type material will be stored in ZISP.

The examined specimens were mounted on transparent plastic plates (most pinned specimens were remounted on plates). The genitalia were removed, cleaned and fixed beside the body of the specimen in glycerol mounts. The procedure of making such mounts was described by Prosvirov & Savitsky (2011).

The material was studied under a MBS-1 stereomicroscope and a Micromed 3 trinocular microscope.

Photographs were taken with Canon EOS-40D and Canon EOS-6D cameras with a Canon MP-E 65 mm lens. Extended focus technology was used. Photographs of the genitalia were taken from glycerol mounts. Some photographs of the genitalia were taken with an additional Raynox DCR-250 super macro conversion lens.

Body length was measured from the apical margin of the frons to the apices of the elytra. Body width was measured at the widest point of the body (usually near the middle of the elytra) using a measuring eyepiece of the stereomicroscope.

Types of the new species were marked with red labels indicating the type status (holotype or paratype), the name of the species, and the author. The labels of the specimens are quoted verbatim; additional information is given in square brackets.

Taxonomy

Lacon elegantissimus sp. nov.

(Figs. 1, 2, 5, 8, 9)

Type locality. Afghanistan, Kunar Province.

Type material. Holotype, male, **Afghanistan:** “Afghan., Konar, W. Barikot, 1800 m, 22.7.1972, Kabakov” [NE Afghanistan, Kunar Province, W Barikot Town, 1800 m, 22 July 1972, O.N. Kabakov leg.] (ZISP, OK).

Paratype, female, **India:** [first label] “Keshtewar, [illegible, probably “V”]anjai”, on the underside of the label – “Kashmir” [N India, Jammu and Kashmir State, Jammu Region, Kishtwar District]; [second label] “109” [probably this number is from the list of localities of coll. AS, but I could not find how it is deciphered]; [third label] “*Adelocera*, Kashmir R. [probably “Region”]” (ZISP, AS).

Diagnosis. *L. elegantissimus* sp. nov. is similar to *L. altaicus* (Candèze, 1857) and *L. quadrinodatus* Lewis, 1894 (Figs. 3, 6, 10; see also Kishii 2003). It can be easily distinguished from these species by the distinctly larger and flatter body, red color of the scale-like pubescence, more transverse and differently sculptured pronotum, more elongate and only slightly tapered to apex elytra, different shape of the genitalia, and by other minor characters.

Description. Male: Length 16.4 mm; width 4.8 mm. Body elongate, more or less flattened, matt, blackish; antennae, mouthparts, propleural depressions for insertion of profemora, propleurae along prosternal sutures, elytra, articulations of legs and tarsi all dark reddish brown; claws yellowish. Dorsum covered with very dense red scale-like setae; underside covered with dark reddish brown scale-like setae; lateral part and anterior 1/3 of propleurae, prosternal lobe and partially disk of prosternum, sides and posterior margin of last abdominal sternites and elytral epipleurae covered with identical red pubescence as on dorsum. Antennomere 1 covered with dense red scale-like setae and sparse brownish hair-like setae, other antennomeres covered with identical hair-like pubescence only, these setae slenderer and shorter than on other dorsal parts.

Head. Clearly wider than long (length/width 0.49); frons deeply depressed almost over entire width; this depression extended to middle of vertex, being, however, relatively shallow medially. Punctures coarse and dense; intervals between punctures subequal to or smaller than diameter of one puncture. Antennae reaching near middle of pronotum, distinctly serrate from antennomere 3. Antennomere 1 long, dilated, notably thicker than others; antennomere 2 globose, less than half as long as antennomere 3; antennomere 3 elongate, prominent at apex; antennomeres 4 to 10 about 0.7-0.8 times as long as antennomere 3, about equal in shape, somewhat wider than long; last antennomere oblong, almost obovate (ratio of length/width of antennomeres from 1 to 5 as 2.2; 1; 1.4; 1; 0.8, respectively). Pubescence of antennae rather dense, antennomeres internally covered with recumbent and some erect setae, externally (from antennomere 2) with erect setae. Mandible with tooth; last segment of maxillary palpus noticeably broadened and truncated at apex, obtriangular.

Thorax. Pronotum slightly wider than long (length 4.2 mm; width 4.5 mm), widest medially, flattened laterally; narrowed toward front angles more sharply than toward hind angles; pronotal sides at anterior 1/4 with angulate prominence, then simply narrowed toward anterior margin, notably sinuate before hind angles. Front angles of pronotum relatively short, pointed, covering almost half length of each eye. Median impression on

pronotal disc very wide and deep, extended from base almost to anterior margin, less deep at anterior half. Disc of pronotum with two pairs of tubercles laterally from median impression, first one at anterior 1/4, second one near posterior 1/3; anterior pair somewhat larger than posterior pair. Pronotum with small distinct impressions outwardly from posterior pair of tubercles; pronotum also impressed at anterior 1/3, slightly behind lateral angulate prominence. Hind angles of pronotum rather short, flattened, narrowly rounded at apex, clearly divergent, without carina. Pronotum and head similarly punctate.

Prosternal sutures deeply grooved almost over entire length, near procoxal cavities simply furrowed. Prosternal lobe rather short, with rounded and distinctly carinate anterior margin, partially covering labium; separated from rest of prosternum by rather deep transverse impression at about anterior 1/4 of prosternum. Prosternum and head punctate similarly, punctures somewhat larger than on head. Hypomerone and prosternum punctate similarly, punctures denser than on prosternum. Hypomerone basally with broad and deep depression for insertion of profemora; this depression impunctate; hypomerone slightly impressed along prosternal suture at basal 1/2. Prosternal process with weak prominence near apex, about 3 times as long as diameter of procoxal cavity, slightly bent inwards immediately behind procoxal cavities. Mesoventrite, metaventrite, and head punctate similarly. Metaventrite longer than wide (length/width 1.2); without lateral depressions, medially with narrow and rather deep impression extended almost over entire length; metepisternum rather broad, narrowed towards posterior margin. Broad part of metacoxal plates about 3 times as wide as narrow part, with rounded prominence.

Scutellum distinctly inclined, flat, short, tongue-shaped, anterior margin weakly emarginate medially, with punctuation as on head. Elytra strongly oblong, slightly wider than pronotum, widest near middle, more than 2.5 times as long as pronotum (both elytra together: length 11.2 mm; width 4.8 mm); almost parallel-sided from shoulders to posterior 1/3, then slightly tapering to apex; shoulders evenly rounded. Disc of elytra flat, weakly convex at anterior half laterally, distinctly convex lateral of scutellum; slightly divergent along suture near apex, narrowly rounded at apex; without striae, more or less evenly punctate; punctures subequal in size to those on head, sparser than on head.

Metathoracic wings completely developed, reaching apex of elytra.

Abdomen. Abdomen and metaventrite punctate similarly.

Aedeagus (Fig. 5). Typical, trilobate. Parameres slightly shorter than penis, broadened at basal 1/2, broadly expanded at anterior 1/4, with tooth, rounded at apex. Penis relatively slender, narrow; its apophyses short, about 0.3 times as long as penis.

Female. Slightly lighter than male. Similar in size to male (body length 15.9 mm; width 4.8 mm); pronotum and elytra relatively wider than in male; antennae somewhat shorter than in male (ratio of length/width of antennomeres from 1 to 5 as 2.2; 1.3; 1.25; 1.2; 0.8, respectively; antennomeres from 6 to 10 subequal in length and maximum width). Erect setae on antennomeres weakly developed, consisting of only a few setae. Pronotal tubercles and median impression less developed than in male. Scutellum shorter and wider than in male, almost triangular.

In all other respects, female similar to male.

Female genitalia. (Figs. 8, 9). Ovipositor relatively long; baculum long, strongly sclerotized (ratio length baculum/length ovipositor 0.81); coxite moderately sclerotized, with several setae, narrowed to apex, with rather long, distinct stylus. Bursa copulatrix with large sclerotized plate typical of this genus covered with short spinules and long spines, plate sharply narrowed in middle; distal small plate weakly sclerotized, walls of bursa copulatrix lateral of this plate sclerotized similarly. Several dark sac-like spermatophores contained inside bursa copulatrix

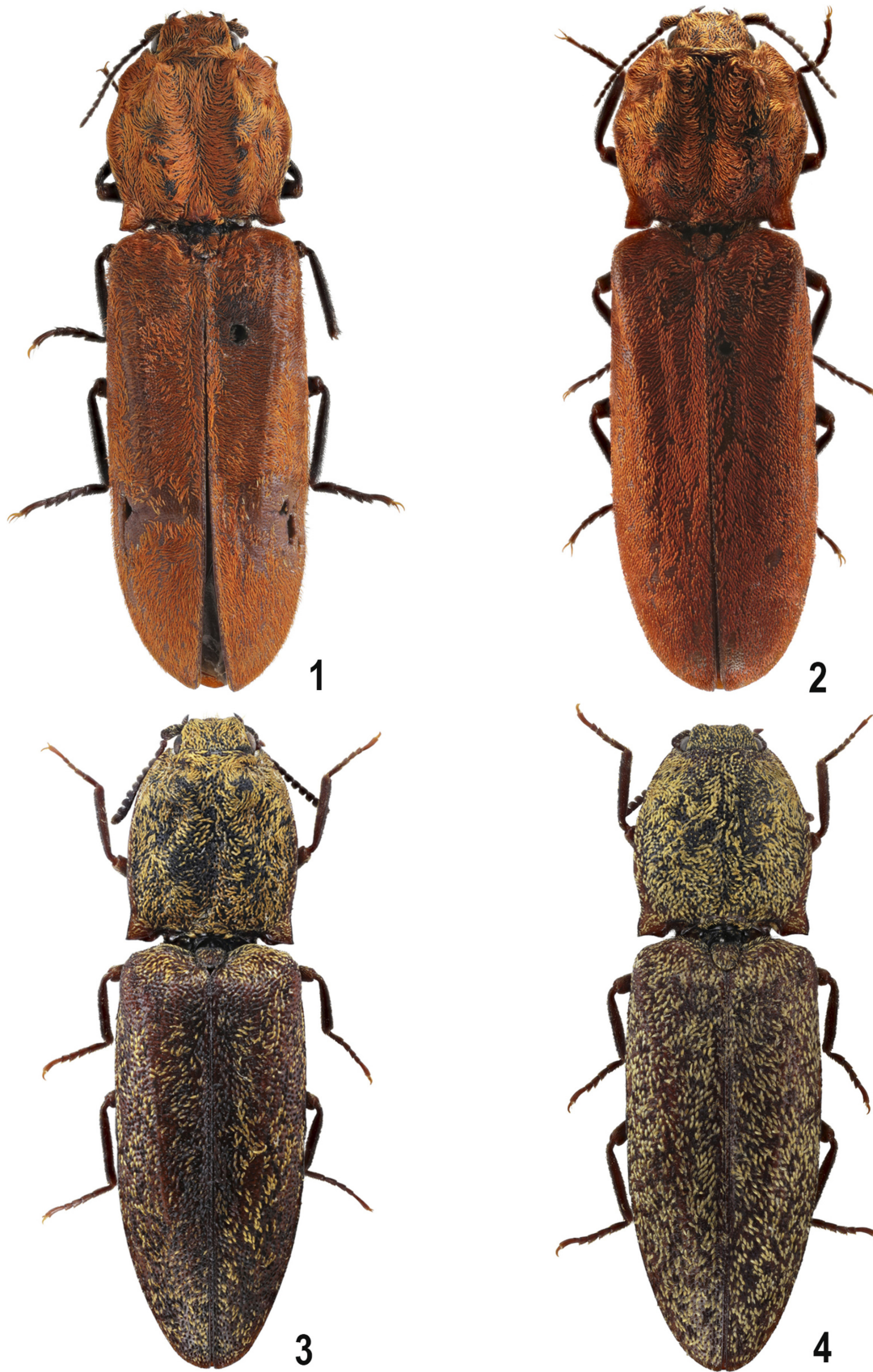
Larva. Unknown.

Distribution. Northeastern Afghanistan: Kunar Province; Northern India: Jammu and Kashmir State.

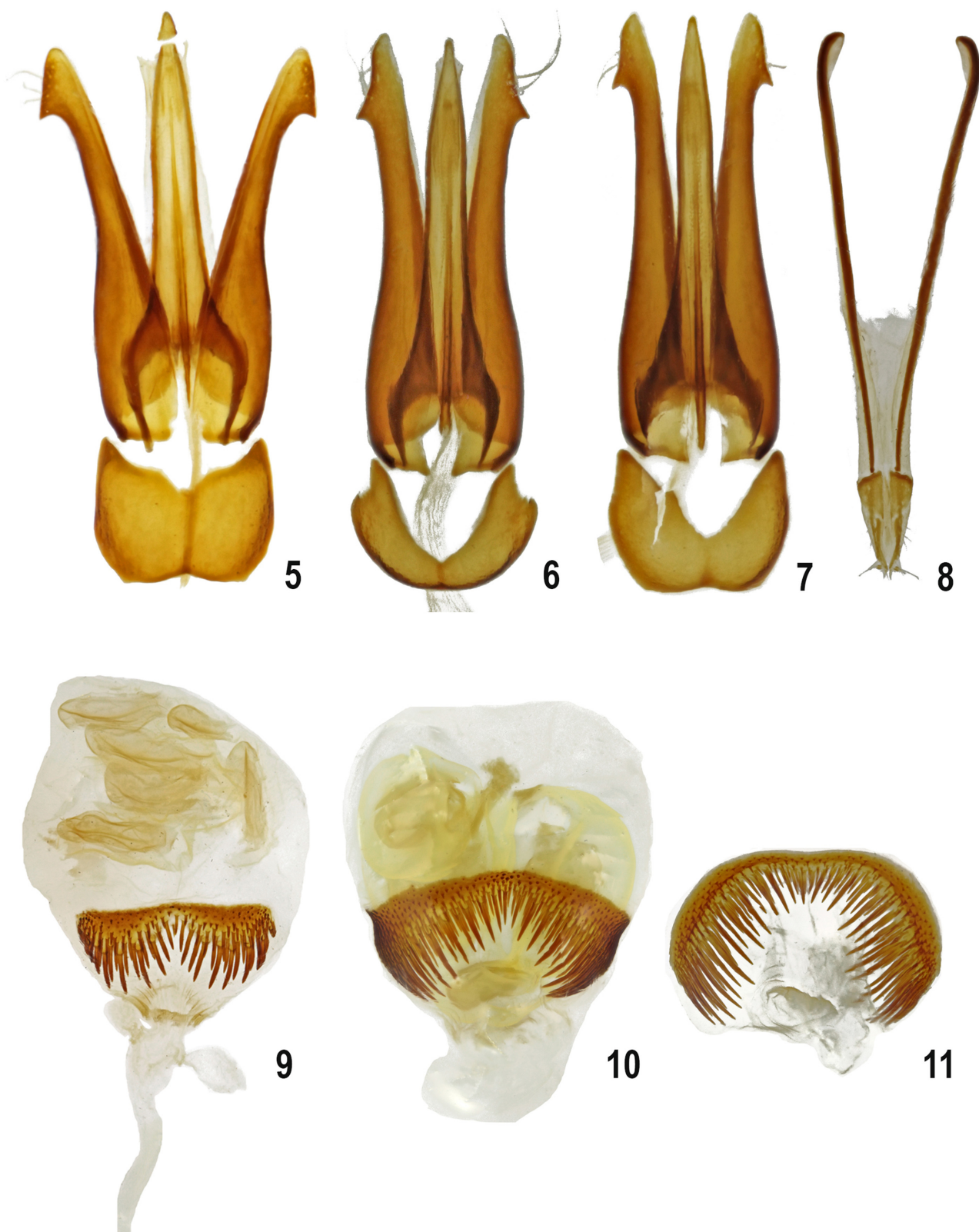
Bionomics. The biology of this species remains unknown, but according to the label data it is likely that *L. elegantissimus* **sp. nov.** inhabits mountain areas.

Etymology. The name of the new species is derived from the Latin *elegantissimus* (very elegant) and refers to its beautiful and striking appearance.

Systematic remarks. In addition to *L. altaicus* and *L. quadrinodatus*, this species is also somewhat similar to *L. lepidopterus* (Panzer, 1800) (Figs. 4, 7, 11). All these species are characterized by the very dense, more or less light scale-like pubescence of the body, rather short antennae, reaching only near the middle of the pronotum, and specific pronotal sculpture consisting of tubercles and/or impressions. The genitalia of these species are also quite similar. It is very likely that all these species form a separate natural species group within the genus, although *L. elegantissimus* **sp. nov.** seems more distantly related to the other three species than these three species to each other.



FIGURES 1–4. Habitus of *Lacon* species, dorsal view. 1. *L. elegantissimus* sp. nov., male, holotype (16.4 mm). 2. *L. elegantissimus* sp. nov., female, paratype (15.9 mm). 3. *L. altaicus*, female (14.1 mm; Russia, Primorsky Krai). 4. *L. lepidopterus*, female (14.1 mm; Russia, Republic of Adygea). Not to scale.



FIGURES 5–11. Genitalia of *Lacon* species: aedeagus, ventral view (Figs. 5–7); ovipositor, ventral view (Fig. 8); part of female genital tract, general view (Figs. 9–11). **5.** *L. elegantissimus* sp. nov., holotype (apex of penis broken and placed separately). **6, 10.** *L. altaicus* (Russia, Primorsky Krai). **7.** *L. lepidopterus* (Russia, Krasnodar Krai). **8, 9.** *L. elegantissimus* sp. nov., paratype. **11.** *L. lepidopterus* (Russia, Republic of Adygea). Not to scale.

***Lacon kabakovi* sp. nov.**

(Figs. 12, 15, 18, 21)

Type locality. Afghanistan, Nuristan Province.

Type material. Holotype, female, **Afghanistan:** “Afghan., Nurestan, SW Čapa-Dara, 2000 m, 11.6.1971, Kabakov” [E Afghanistan, Nuristan Province, SW Chapa Dara District of Kunar Province, 2000 m, 11 June 1971, O.N. Kabakov leg.] (ZISP, OK).

Diagnosis. *L. kabakovi* sp. nov. is closely related to *L. diqingensis* Prosvirov, 2016 (Figs. 13, 16, 19, 22). It can be distinguished from this species by the smaller body (body lengths are 12.70 mm and 13.20 mm, respectively), shinier integument, narrower pronotum, more elongate elytra, tongue-shaped scutellum, absence of wings, and different shape of genitalia.

Description. Female: Length 12.70 mm; width 3.90 mm. Body rather flattened, rather broad, oblong. Weakly shining, almost matt, all body dark reddish brown; elytra partially lighter; anterior margin of head, anterior margin and base of pronotum, beaded part of prosternal lobe, scutellum along margin, and basal margin of elytra darkened; maxillary palpi light brown. Body covered with golden, rather dense and short, recumbent scale-like setae; pubescence on dorsum and on prosternum distinctly longer than on other parts of body.

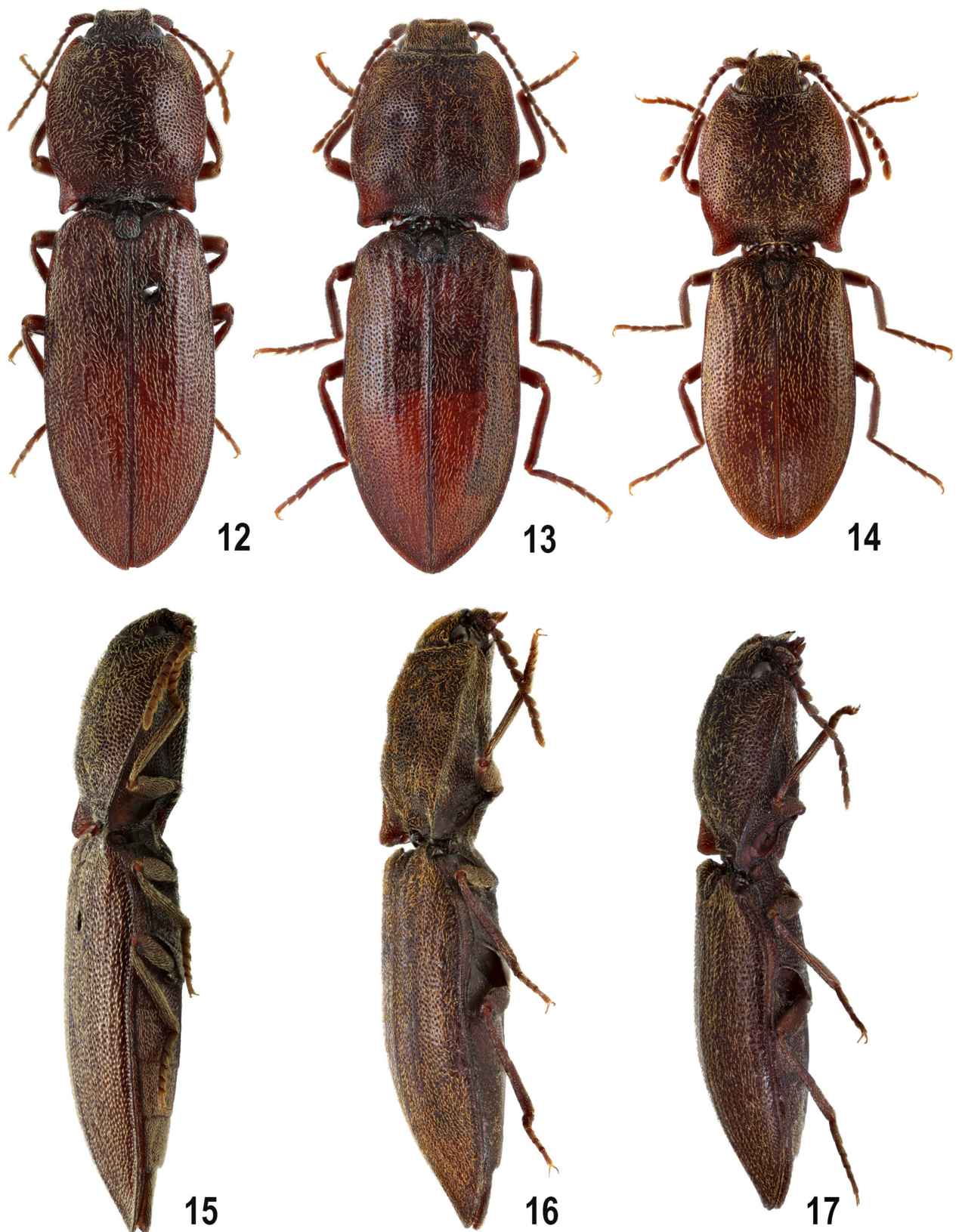
Head. Clearly wider than long (length/width 0.74); frons moderately deeply depressed almost over entire width; this depression extended to middle of vertex, being, however, shallow and obsolete medially. Punctures coarse and dense; intervals between punctures smaller than diameter of one puncture. Antennae reaching slightly beyond middle of pronotum, weakly serrate from antennomere 4. Antennomere 1 long, dilated; antennomere 2 almost globose, 0.8 times as long as antennomere 3; antennomere 4 1.4 times as long as antennomere 3; antennomeres 5 to 10 subequal in length, about 0.9 times as long as antennomere 4; last antennomere ovate, subapically slightly tapered (ratio of length/width of antennomeres from 1 to 5 as 2.2; 1; 1.25; 1.4; 1.2, respectively). Pubescence of antennae rather dense, setae slenderer and shorter than on other dorsal surfaces; recumbent setae interspersed with some erect ones. Mandible with tooth; apical segment of maxillary palpus noticeably broadened at apex, almost obtriangular.

Thorax. Pronotum more than 2.5 times as wide as head, slightly longer than wide (length 3.70 mm; width 3.65 mm), widest near middle, narrowed toward front angles more sharply than toward hind angles, sinuate before hind angles; weakly convex, flattened laterally. Front pronotal angles rather short, narrowly rounded, covering almost half eye length. Median impression on pronotal disc very shallow, apparent only in basal 1/3 of pronotum. Hind angles of pronotum depressed, rather short, rounded at apex, directed backwards and weakly divergent, without carina. Punctures coarse, very dense; intervals between punctures mostly smaller than half as great as diameter of one puncture; punctures on average larger than on head.

Prosternal sutures deeply grooved over half of their length, then simply furrowed. Prosternal lobe broadly rounded, rather short, almost completely covering labium, laterally separated from rest of prosternum by obsolete transverse impression at about anterior 1/4 of prosternum, with distinctly carinate anterior margin. Prosternal punctures coarse, dense, at basal 2/3 of prosternum distinctly larger than on pronotum; intervals between punctures smaller than half as great as diameter of one puncture; in anterior 1/3 of prosternum punctures distinctly smaller, intervals between punctures equal to or smaller than half as great as diameter of one puncture. Anterior and lateral parts of hypomeron with dense punctation, intervals between punctures on average smaller than diameter of one puncture; basal half of hypomeron near prosternal suture with larger and sparser punctation, intervals between punctures on average subequal to or greater than diameter of one puncture; intervals between punctures on hypomeron matt. Hypomeron basally with rather broad and deep depression for insertion of profemora; this depression impunctate; hypomeron slightly impressed along prosternal suture in basal 1/2.

Prosternal process with weak prominence near apex, about 3 times as long as diameter of procoxal cavity, slightly bent inwards immediately behind procoxal cavities. Mesoventrite and metavenrite punctate similarly, intervals between punctures distinctly smaller than half as great as diameter of one puncture, punctures subequal in size to those on basal half of hypomeron. Metavenrite as long as wide, without depressions. Metepisternum rather slender, almost parallel-sided. Broad part of metacoxal plates about 4 times as wide as narrow part.

Scutellum short, tongue-shaped, anterior margin weakly emarginate medially, very weakly convex, with punctation as on elytra. Elytra oblong, slightly wider than pronotum, widest near middle, more than twice as long as pronotum (both elytra together: length: 8.05 mm; width: 3.90 mm); very slightly widened from anterior 1/4 to



FIGURES 12–17. Habitus of *Lacon* species, dorsal (Figs. 12–14) and lateral (Figs. 15–17) view. **12, 15.** *L. kabakovi* **sp. nov.**, female, holotype (12.7 mm). **13, 16.** *L. diqingensis*, female, holotype (13.2 mm; China, Yunnan). **14, 17.** *L. lijiangensis*, female, holotype (9.5 mm; China, Yunnan). Not to scale.



FIGURES 18–23. Genitalia of *Lacon* species: ovipositor, ventral view (Figs. 18–20); part of female genital tract, general view (Figs. 21–23). **18, 21.** *L. kabakovi* **sp. nov.**, female, holotype. **19, 22.** *L. diqingensis*, female, holotype (China, Yunnan). **20, 23.** *L. lijiangensis*, female, holotype (China, Yunnan). Not to scale.

middle, then almost parallel-sided until about posterior 1/3, in posterior 1/3 tapering more strongly to apex than to base; shoulders obtusely rounded. Disc of elytra flat, weakly convex lateral to scutellum; elytra slightly sloping at posterior 1/3; elytra flattened along external margin, slightly divergent along suture near apex, blunted at apex; without striae, more or less evenly punctate; punctures subequal in size to those on head or smaller, rather sparse, intervals between punctures subequal to 1–4 diameters of one puncture.

Metathoracic wings absent.

Abdomen. Punctuation of abdomen rather sparse, intervals between punctures subequal to or smaller than diameter of one puncture; punctures smaller than on metaventricle.

Female genitalia (Figs. 18, 21). Ovipositor relatively long; baculum long, strongly sclerotized (ratio length baculum/length ovipositor 0.79); coxite moderately sclerotized, with several setae, narrowed to apex, with very small, almost indistinct stylus. Bursa copulatrix with large sclerotized plate typical of this genus covered with short spinules and long spines, distally with small sclerotized plate with short spinules; dark sac-like spermatophore contained inside bursa copulatrix.

Male. Unknown.

Larva. Unknown.

Distribution. Eastern Afghanistan: Nuristan Province, the Hindu Kush mountain system.

Bionomics. *L. kabakovi* **sp. nov.** was collected at a medium elevation; this wingless species probably inhabits only mountain areas. Other aspects of its biology remain unknown.

Etymology. Named in the honour of its collector, the distinguished geologist and entomologist Oleg N. Kabakov.

Systematic remarks. This species is also rather similar to *L. lijiangensis* Prosvirov, 2016 (Figs. 14, 17, 20, 23). All these species are characterized by the flattened and rather broad body and partial or complete reduction of the wings, apparently due to living in mountain regions. The genitalia of these species are also quite similar. It is very likely that all these species form a separate natural species group within the genus. The discovery of *L. kabakovi* **sp. nov.**, which occurs in the Hindu Kush mountains, and the presence of other species of this group in the Hengduan Mountains (China, Northwestern Yunnan) indicate that this group of the genus *Lacon* is probably widely distributed in the different mountain systems of the Himalayan region and the Tibetan Plateau.

***Lacon caeruleus* Schimmel, 1998**

(Figs. 24–27, 29, 31, 32).

Material. Afghanistan: 1 male, 3 females. 2 females: “Afghan., Konar, W. Barikot, 1600 m, 18.7.1972, Kabakov” [NE Afghanistan, Kunar Province, W Barikot Town, 1600 m, 18 July 1972, O.N. Kabakov leg.] (ZISP, OK); 1 female: “Afghan., Nurestan, Kamdeš, 1300 m, 14.9.1971, Kabakov” [E Afghanistan, Nuristan Province, Kamdesh District, Kamdesh Village, 1300 m, 14 September 1971, O.N. Kabakov leg.] (CKS); 1 male: “Afghan., Nurestan, SW Čapa-Dara, 1500 m, 12.6.1971, Kabakov” [E Afghanistan, Nuristan Province, SW Chapa Dara District of Kunar Province, 1500 m, 12 June 1971, O.N. Kabakov leg.] (CPM).

This species was previously known only from one female, described from Nepal (Schimmel 1998). This is the first record for Afghanistan.

Morphological remarks. The females from Afghanistan are larger (the female from Kunar Prov. is 13.7 mm long and 3.9 mm wide; the female from Nuristan Prov. is 14.6 mm long and 4.0 mm wide) than the specimen from Nepal (according to the original description, it is 12.8 mm long and 3.4 mm wide). According to Schimmel (1998), *L. caeruleus* has the pronotal hind angle with weakly visible carina; however, the studied specimens have acarinate hind angles of the pronotum. In other respects, specimens from Kunar Prov. comply well with the original description; the female from Nuristan Prov. differs in the flatter pronotum and longer pronotal hind angles.

The original description is rather short, so I add some notes on several omitted morphological characters:

Pubescence. The body is covered with dense, cobalt blue scale-like setae (the specimen from Kamdesh Distr. has rather dull blue scale-like setae) and sparse whitish ones (Fig. 25). **Head.** The mandible has a tooth. **Thorax.** The prosternal sutures are deeply grooved almost to procoxal cavities. The metaventricle medially has a narrow and rather deep impression extended almost over its entire length; metepisternum is rather broad, narrowed towards the posterior margin. The scutellum is shortly tongue-shaped, weakly depressed from sides in anterior 1/3 and punctate



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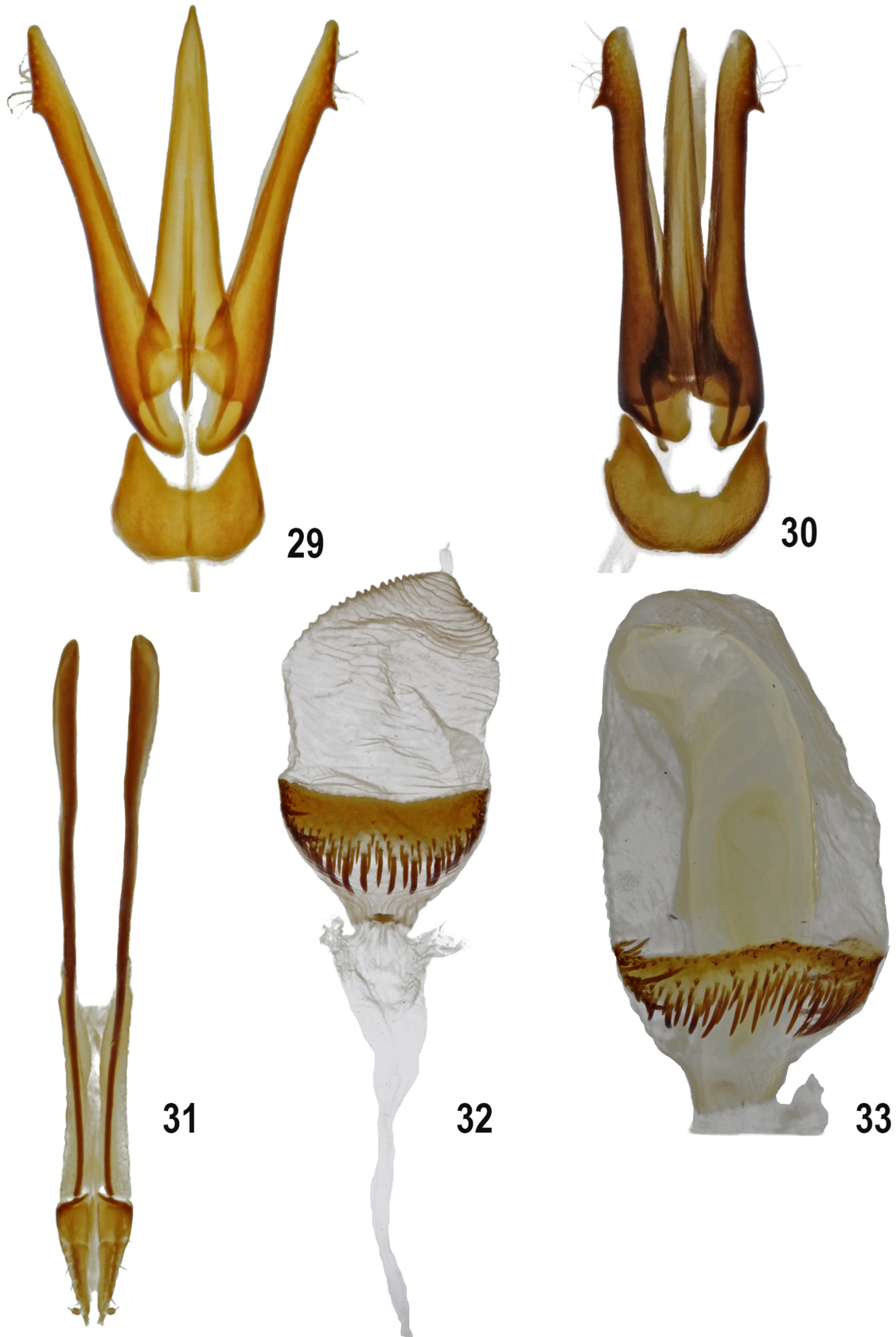


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FIGURES 24–28. Habitus of *Lacon* species, dorsal view. **24, 27.** *L. caeruleus*, male (11.5 mm; in Fig. 27 shown part of pronotum and head). **25.** *L. caeruleus*, female (14.6 mm; Afghanistan, Nuristan). **26.** *L. caeruleus*, female (13.7 mm; Afghanistan, Kunar). **28.** *L. punctatus*, female (17 mm; Morocco). Not to scale.



FIGURES 29–33. Genitalia of *Lacon* species: aedeagus, ventral view (Figs. 29, 30); ovipositor, ventral view (Fig. 31); part of female genital tract, general view (Figs. 32, 33). **29, 31, 32.** *L. caeruleus* (Afghanistan). **30.** *L. punctatus* (Turkey). **33.** *L. punctatus* (Morocco). Not to scale.

similarly to the elytra, its anterior margin is weakly emarginate medially. The elytra have no striae, their punctation is more or less even.

The **male** (Fig. 24) differs from the female as follows: the body is smaller and slenderer (it is 11.50 long and 3.35 mm wide); the pronotum is flatter. Unfortunately, the antennae of this specimen are damaged so I only could give a description of the first four antennomeres.

Antennomere 1 is long and dilated; antennomere 2 is globose, less than half as long as antennomere 3; antennomere 3 is elongate, slightly prominent at apex; antennomere 4 is 0.9 times as long as antennomere 3 (ratio of length/width of antennomeres from 1 to 4 as 2.5; 1; 1.8; 1.7, respectively). Antennomeres are covered with recumbent and sparse erect setae. In all other respects, the male is similar to the female.

The structure of the genitalia of both sexes is unknown, so I give a brief description of them.

Aedeagus (Fig. 29). The aedeagus is typical, trilobate. Parameres are slightly shorter than the penis, weakly broadened at basal 1/2, slightly expanded at about the anterior 1/4, with a tooth, narrowly rounded at the apex. The penis is relatively slender, distinctly tapering to the apex; its apophyses are short, about 0.3 times as long as the penis.

Female genitalia (Figs. 31, 32). The ovipositor is relatively long; baculum long, strongly sclerotized (ratio length baculum/length ovipositor 0.82); coxite rather strongly sclerotized, with several setae, narrowed to apex, with rather long, distinct stylus. The bursa copulatrix has the large sclerotized plate typical of the genus bearing short spinules and long spines; distally with a small sclerotized plate bearing short spinules; the walls of the bursa copulatrix are more or less evidently weakly sclerotized.

Systematic remarks. *L. caeruleus* is very similar to the nominotypical subspecies of *L. punctatus punctatus* (Herbst, 1779), which is widely distributed in the West Palaearctic and in North Africa, but differs in the shape and proportions of the body, color of the pubescence, shape of the male genitalia, and some minor characters (Figs. 28, 30, 33). At the same time, the distinctive body shape of *L. caeruleus* is very similar to the one of *L. punctatus oblongus* (Della Beffa, 1931), which is known only from the very brief original description from “Kashmir” (Della Beffa 1931). Such important characters as the color of the pubescence of the body or the structure of the genitalia are not mentioned in this description, so *L. punctatus oblongus* is a rather enigmatic taxon. Moreover, the present location of the type material of this species is unknown, as it is absent in the collection of Della Beffa, which is stored in the Museo Civico di Storia Naturale in Verona (L. Latella and G. Platia, *pers. comm.*). It is highly probable that this taxon is a separate species, as its distribution is quite different from the range of the nominotypical *L. punctatus punctatus*, but its true systematic position and relation to *L. caeruleus* are still unclear.

It should be noted that *L. punctatus* was recently rather unexpectedly recorded from the Balochistan Province of Pakistan (Akhter *et al.* 2012a; Naz *et al.* 2012) but without any detailed comments. This record probably refers to another species, so it requires further clarification.

***Lacon mekrani* (Candèze, 1889)**

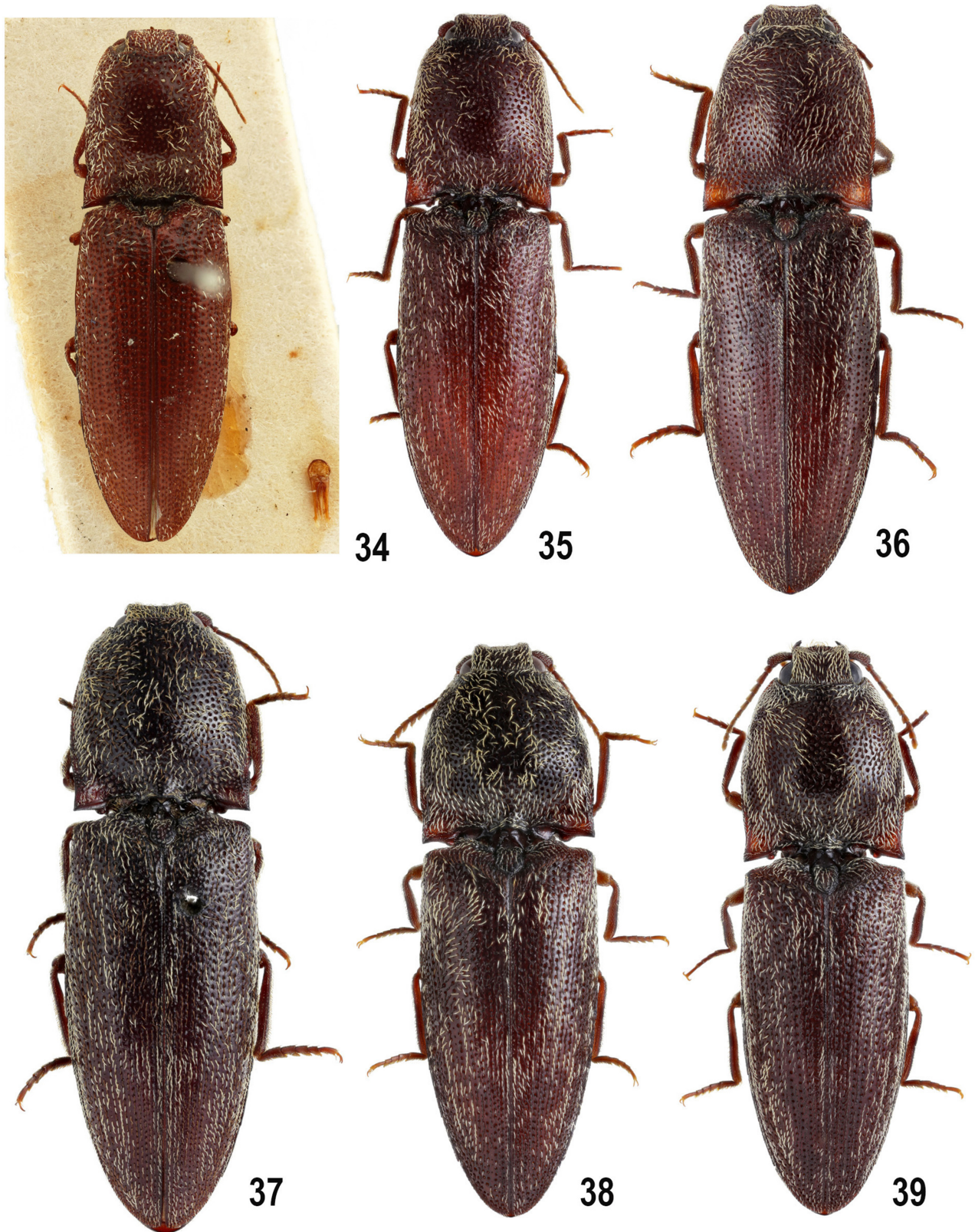
(Figs. 34–37, 40, 42–44)

Lacon kurukshetrensis Vats & Kashyap, 1992 **syn. nov.**

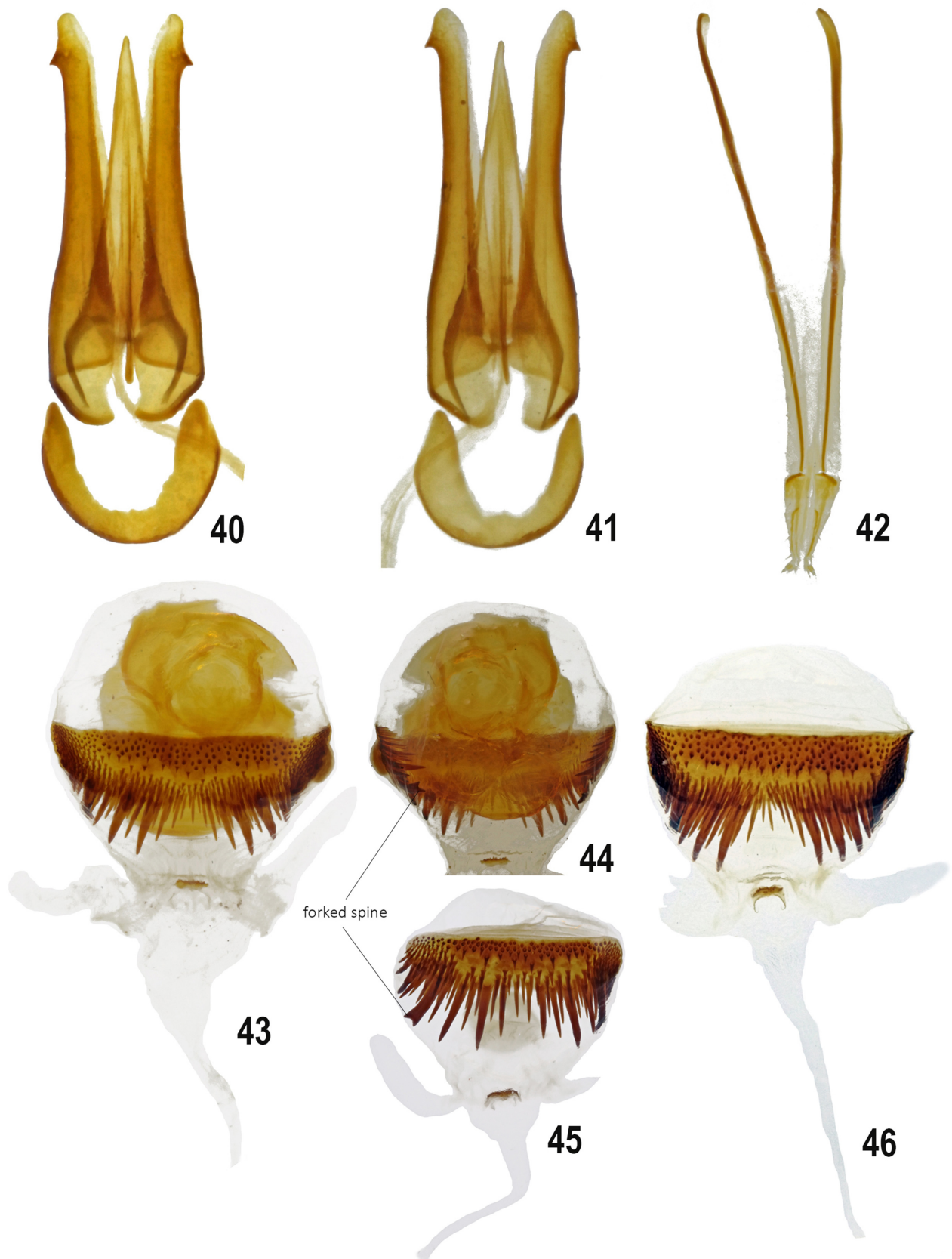
Material. 1 male, 2 females. **Afghanistan:** 1 male: “E. Afghanistan, Nangharkhar prov., 8 km SE Jalalabad city, Kabul river, Bande-Kalaksun env., 29.VI.2013 [29 June 2013], O.V. Pak leg.” (CPM); 1 female: “Afghan., Konar, W. Barikot, 1400 m, 18.7.1972, Kabakov” [NE Afghanistan, Kunar Province, W Barikot Town, 1400 m, 18 July 1972, O.N. Kabakov leg.] (CKS); **Iran:** 1 female: “Baluchistan persicum, Sarbar (apparently “Sarbaz”) -Minan, IV” [Iran, Sistan and Baluchestan Province, Sarbaz County, IV (probably month of collecting: April)] (ZMMU).

This species was originally described from “Belouchistan” [Pakistan, Balochistan Province] and later recorded from Iran and Afghanistan (Candèze 1889; Cate *et al.* 2002; Platia & Németh 2011).

Systematic remarks. *L. mekrani* is evidently a rather variable species. The female specimen from Iran at my disposal is nearly identical to the lectotype stored in the collection of the Institut royal des Sciences naturelles de Belgique, Brussels (Figs. 34, 35). Both specimens have rather small, dark reddish brown bodies (the lectotype, male, is 11 mm long and 3 mm wide, according to the description; the female specimen from Iran is 12.2 mm long and 3.65 mm wide). The specimens from Afghanistan have larger bodies (the male is 12.9 mm long and 4 mm



FIGURES 34–39. Habitus of *Lacon* species, dorsal view. **34.** *L. mekrani*, lectotype, male (Pakistan, photo by C. Locatelli, Institut royal des Sciences naturelles de Belgique). **35.** *L. mekrani*, male (12.2 mm; Iran). **36.** *L. mekrani*, male (12.9 mm; Afghanistan). **37.** *L. mekrani*, female (14.4 mm; Afghanistan). **38.** *L. modestus*, male (11 mm; eastern India). **39.** *L. modestus*, female (12.2 mm; western India). Not to scale.



FIGURES 40–46. Genitalia of *Lacon* species: aedeagus, ventral view (Figs. 40, 41); ovipositor, ventral view (Fig. 42); part of female genital tract, general view (Figs. 43–46). **40.** *L. mekrani* (Afghanistan). **41.** *L. modestus* (eastern India). **42–44.** *L. mekrani* (Iran; in Fig. 44 viewed from underside). **45.** *L. nadaii* (Iran). **46.** *L. modestus* (western India). Not to scale.

wide; the female is 14.4 mm long and 4.4 mm wide); their color is on average darker, the carina of the hind angles is less apparent (Figs. 36–37; see also Platia & Németh 2011). Other characters are quite similar and I have no doubts that all these specimens belong to the same species.

Lacon kurukshetrensis was briefly described from one female from North India, Haryana State (Vats & Kashyap 1992). The description and provided photograph of the specimen almost completely agree with the diagnosis of *L. mekrani*, so I conclude that *Lacon kurukshetrensis* is a junior subjective synonym of *L. mekrani*. This species was recently recorded from North Pakistan (Platia 2015a); photographs of the habitus and aedeagus of *L. kurukshetrensis* given in this article are also identical to those of *L. mekrani* (specimens from Afghanistan) (Fig. 40).

Lacon mekrani is closely related to *L. modestus* (Boisduval, 1835), which is rather widely distributed in the East Palaearctic and the Oriental region and also found in other zoogeographical regions (Cate *et al.* 2007; Platia 2015a), but the latter has a distinctly broader, more convex, and shorter body, different position of the carina of the pronotal hind angle, distinct carina-like oblique eminences lateral of the scutellum, while *L. mekrani* has such eminences rather obsolete, and a different shape of the aedeagus (Figs. 38, 39, 41). The female genitalia of both species are quite similar and share quite an unusual trait (Figs. 43, 46): the shape of one of the lateral long spines of the large plate inside the bursa copulatrix. This spine has a forked apex, while the other long spines are simply pointed at the apex. A similar structure of the female genitalia is also found in *L. nadaii* Platia & Németh, 2011 (Fig. 45), but this species has markedly different external morphology (Platia & Németh 2011).

In general appearance *L. mekrani* and *L. modestus* are also similar to several other species from the East Palaearctic and Oriental region: *L. wallacei* (Candèze, 1874), *L. cinctus* (Candèze, 1878), *L. cognatus* (Candèze, 1892), *L. cristatus* (Fleutiaux, 1918), *L. distinctus* (Fleutiaux, 1920), *L. expansus* (Fleutiaux, 1920), and *L. nigrofuscus* Vats & Kashyap, 1992 (Candèze 1874, 1878, 1892; Fleutiaux 1918, 1920, 1947; Binaghi 1941; Vats & Kashyap 1992). All these species have rather convex, oblong or ellipsoidal bodies and more or less developed carina-like oblique eminences lateral of the scutellum; usually these eminences are covered with setae, which differ in color from the rest of the elytral pubescence. The natural affinities of these little-known taxa probably could be revealed after a detailed morphological study, especially of their male and female genitalia.

***Lacon funebris* (Solsky, 1881)**

(Figs. 47–50)

Material. Afghanistan: 1 male, 1 female. 1 male: “Afghan. Panj riv., Samti, 900 m, 10.5.1971, Kabakov” [NE Afghanistan, Takhar Province, Panj River, Samti Town, 900 m, 10 May 1971, O.N. Kabakov leg.] (ZISP, OK); 1 female: “N. Afghanistan, Baghlan prov., Puli Khumri city env., 600 m., 10.IV.2008 [10 April 2008], O.V. Pak, Yu.E. Skrylnik leg.” (CPM).

This species was known from Iran and Central Asia (Cate *et al.* 2007) and already was reported from Afghanistan (Jacobson, 1913) but without any exact data. This is the first reliable record of *L. funebris* for Afghanistan.

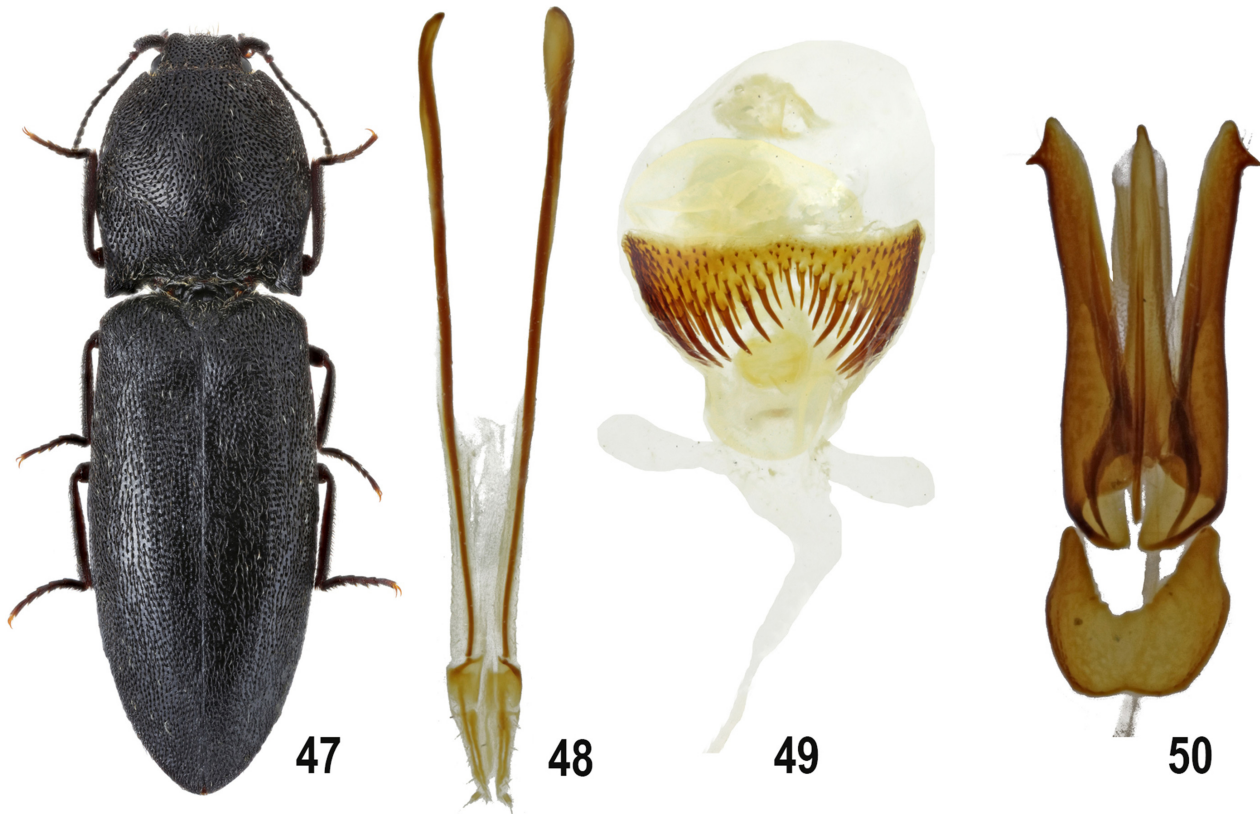
Systematic remarks. *L. funebris* is a rather distinctive species of the genus. Externally it is similar to such western Palaearctic species as *L. kapleri* Platia & Schimmel, 1994, but the shape of its genitalia is notably different (Fig. 48–50; see also Platia & Schimmel 1994). On the other hand, the aedeagus of *L. funebris* is rather similar to those of *L. unicolor* (Candèze, 1874) and *L. nadaii*, but the general appearance and female genitalia of *L. funebris* are quite different (Fig. 47; see also Platia & Gudenzi 1999; Platia & Németh 2011). Two other species similar to *L. funebris*, *L. griseus* (Schwarz, 1900) and *L. incomptus* (Kraatz, 1882), were described from Central Asia (Heyden & Kraatz 1882; Schwarz 1900). These species, judging by the original descriptions, seem closely related to *L. funebris* and probably are no more than morphological forms of this variable species.

Discussion

Thus, the *Lacon* of Afghanistan is represented now by five species. Most of them (including *L. elegantissimus* **sp. nov.**) also inhabit adjacent countries, so their presence in Afghanistan is quite natural. It is highly probable that other species of *Lacon* with similar distributions will be found in Afghanistan in the future (e.g., *L. sanguineus*

(Candèze, 1863), *L. unicolor*, *L. monticola* (Candèze, 1897), *L. robustus* (Fleutiaux, 1902), *L. kryzhanovskiy* Dolin & Atamuradov, 1989, *L. flavopilosus* Vats & Kashyap, 1992, *L. nigrofuscus*, *L. nadaii*, and *L. brachypterus* Platia, 2015).

Except for *L. funebris* and *L. mekrani*, which is known from low to medium elevations; the other recorded species were found in mountain areas and is probably distributed only at medium to high elevations, especially *L. kabakovi* sp. nov., which is notably morphologically modified.



FIGURES 47–50. *Lacon funebris*, from Afghanistan (Figs. 47–49) and Tajikistan (Fig. 50). 47. Habitus, dorsal view, female (16 mm). 48. Ovipositor, ventral view. 49. Part of female genital tract, general view. 50. Aedeagus, ventral view. Not to scale.

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