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Two new species of *Argoptochus* WEISE, 1883 from Albania (Coleoptera: Curculionidae: Entiminae)

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Abstract

Two species of *Argoptochus* WEISE, 1883 (Coleoptera: Curculionidae: Entiminae: Phyllobiini) from Albania, *A. skodai* sp.n. and *A. valamarensis* sp.n., are described and illustrated.

Key words: Coleoptera, Curculionidae, Entiminae, Phyllobiini, *Argoptochus*, taxonomy, new species, Albania.

Introduction

The weevil fauna of Albania remains very poorly investigated as faunistic but also taxonomical data concerns. One of first taxonomists who described new entimines to the science from Albania was V. Apfelbeck as for instance in APFELBECK (1922) followed by very few entomologists like SOLARI (1926), later DIECKMANN (1984) or quite recently BOROVEC & KOŠŤÁL (2022).

Understandably enough, there are still many new species to be discovered, especially those of the subfamily Entiminae, which are often terricolous and/or very stenotopic. As many of species of *Argoptochus* are highly stenotopic dwellers of low perennials, it is not surprising that the authors of this paper collected in Albania two new species of the genus, which are here described.

Material and methods

Body length of all specimens was measured in dorsal view from the anterior margin of eyes to the apex of the elytra, excluding the rostrum. Width/length ratio of the rostrum was measured at the maximum width at base versus maximum length to the base of mandibles. Width/length ratios of pronotum, elytra, antennal and tarsal segments were taken at the maximum width and length of the respective parts in dorsal view; length of onychium was taken as exceeding part from the outline of tarsal segment 3. For the study and drawing, dissected male and female genitalia were placed in glycerine. Dissected female genitalia were embedded in Solakryl BMX (Medika, Prague); male genitalia were mounted dry on the same card as the respective specimen. Habitus images were taken with high resolution camera Canon EOS 50D connected with a Canon MP-E 65mm macro zoom lens. For photography, male genitalia were dissected, treated for three days in 10% KOH, and photographed in glycerine with the same camera under the laboratory microscope Intraco Micro LMI T PC. Female internal structures (spiculum ventrale, spermatheca) were dissected, embedded in Solakryl BMX on a plastic transparent board, and photographed under the same laboratory microscope. Multilayer pictures were processed using the Combine ZP software. The terminology of the rostrum and the terminalia follows OBERPRIELER et al. (2014).

Type specimen labels were cited verbatim, separate labels are indicated by a simple slash (/). Holotypes and paratypes are indicated by a printed red label.

Abbreviations:

El, Ew	maximum elytral length, maximum elytral width
Pl, Pw	pronotal length, pronotal width
Rb, Ra	rostrum width at base in dorsal view, rostrum width at apex
Rl, Rw	rostrum length in dorsal view, rostrum width at base
KO	Collection Michael Košťál, Šoporňa, Slovakia
HO	Collection Milada Holecová, Bratislava, Slovakia
NMW	Naturhistorisches Museum Wien, Vienna, Austria
NMP	National Museum, Museum of Natural History, Prague, Czechia
BO	Collection Roman Borovec, Sloupno, Czechia
SK	Collection Richard Škoda, Liberec, Czechia

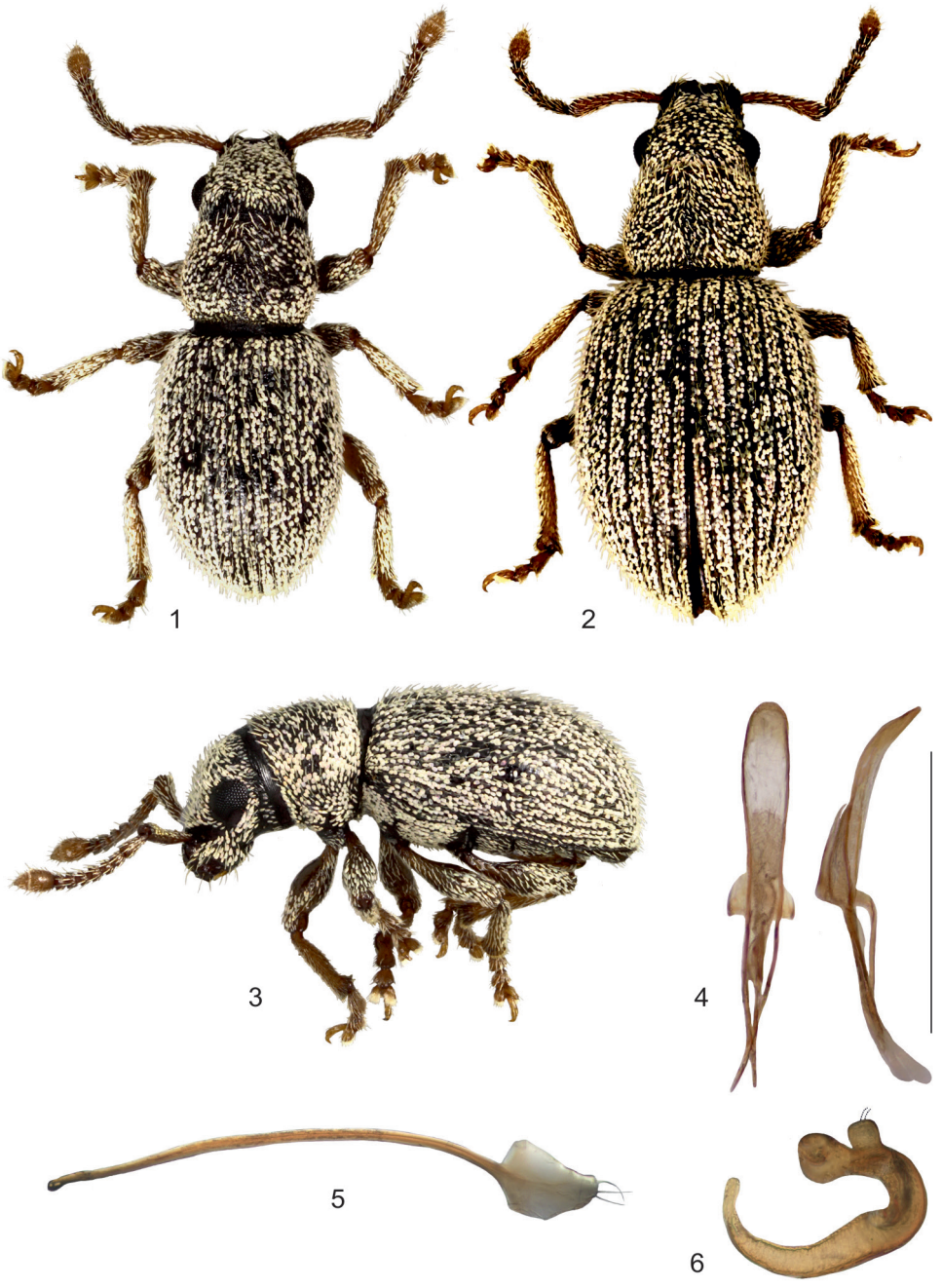
Argoptochus skodai sp.n.

Holotype ♂ (NMP): "Albania mer. Maja i Çikës Mts. Palasë env. 6 km NW pr. Vlorë 1.vi.2024 N 40°12.0' E 19°35.0' 1200 m leg. R. Borovec". **Paratypes**: 1 ♀ (BO): same data; 3 ♀♀ (BO): "Albania mer. Maja i Çikës Mts. Palasë env. 6 km NW pr. Vlorë 1.vi.2024 N 40°11.9' E 19°34.8' 1250 m leg. R. Borovec"; 1 ♂, 4 ♀♀ (SK) "Albania Llogara PK 29-30.v.2016 N 40°11' 53.84" E 19°35' 30.46" 1034-1378 m lgt. R. Škoda"; 1 ♀ (KO) "ALBANIA mer. Maja i Cikës Mts. Michael Košťál leg. / Palasë env. 6 km NW pr. Vlorë 1200 m N 40°12.0' E 19°35.0' 1.vi.2024"; 1 ♂ (KO) same data but 1250 m N 40°11.9' E 19°34.8"'; 1 ♂, 3 ♀♀ (HO) "ALBANIA mer. 82/24 Maja i Cikës Mts. Milada Holecová leg. / Palasë env. 6 km NW pr. Vlorë 1200 m N 40°12.0' E 19°35.0' 1.vi.2024"; 2 ♂♂ (HO); "ALBANIA mer. 85/24 Maja i Cikës Mts. Milada Holecová leg. / Palasë env. 6 km NW pr. Vlorë 1250 m N 40°11.9' E 19°34.8"'.

DIAGNOSIS: This species is recognizable by pale, yellowish brown legs, elytra with oval appressed scales and 1–2 irregular rows of moderately long, semi-erect setae, but particularly by metafemora finely dentate and elytral striae with long setae, longer than diameter of one appressed scale.

DESCRIPTION: Holotype: Completely preserved, 2.37 mm long male. Integument dark brownish; entire antennae and legs paler, yellowish brown. Elytra densely covered with appressed oval scales, 3–4 across width of one interstria, leaving visible glabrous striae. Pronotum and head including rostrum with same type of scales, not completely covering integument, scales on pronotum slightly smaller. Each elytral interstria with 1–2 irregular rows of dense, semi-erect, piliform setae; interstriae 4–6 with two irregular rows; setae slightly shorter than width of interstria, distance between two setae shorter than length of one seta. Striae with single rows of moderately long setae, each situated in one puncture, longer than length of one appressed scale. Pronotum and head with rostrum densely irregularly distributed semi-erect setae, half as long as elytral ones, on pronotum slightly directed anteriad (Fig. 1–3).

Head: Rostrum wide and short (Rw/Rl 1.41), in dorsal view widest at base, distinctly evenly tapered anteriad (Rb/Ra 1.22), with almost straight sides. Epifrons flat, short, distinctly tapered anteriad with strongly concave sides, at its narrowest point before antennal insertions slightly narrower than half of rostral width. Epistome large, U-shaped, glabrous, smooth, paler than rest of rostrum, posteriorly slightly carinated and slightly exceeding antennal insertions. Antennal scrobes in dorsal view open, pit-shaped; in lateral view short, curved downwards, not reaching ventral margin of eye. Eyes moderately large, regularly vaulted, in dorsal view distinctly prominent from head outline. Vertex wide, slightly regularly domed. Antennae (Fig. 1–3) short and robust, more robust in males than in females. Scape 4.9× as long as wide at apex, slightly curved at midlength, widened only at its apex, here 0.9× as wide as club. Funicle with segment 1 1.6× as long as wide and 1.8× as long as robust and isodiametric segment 2. Segment 3 1.4× as wide as long; segment 4 slightly longer, 1.2× as wide as long; segments 5 and 6 1.5× as wide as long; segment 7 1.6× as wide as long; club 1.5× as long as wide.



Figs. 1–6: *Argoptochus skodai*, 1) male (paratype, dorsal view), 2) female (paratype, dorsal view), 3) male (paratype, lateral view), 4) penis (paratype, ventral view – left, lateral view – right), 5) female sternite VIII (paratype), 6) spermatheca (paratype). Scale bars: 0.8 mm (Fig. 4), 0.6 mm (Fig. 5), 0.3 mm (Fig. 6); Figs. 1–3 not no scale.

Pronotum (Fig. 1–2): wider than long (Pw/Pl 1.32), widest at midlength with feebly regularly rounded sides, equally tapered anteriad and posteriad. Disc regularly domed, regularly, densely, finely punctuate.

Scutellum: Small, triangular, glabrous.

Elytra (Fig. 1–2): Oval (El/Ew 1.38) widest at midlength, with regularly rounded sides, narrowly tapered apicad; striae somewhat wide, distinctly punctate, spaces between punctures glabrous; interstriae equally flat, wider than striae.

Venter: Sparsely covered with oval appressed scales, abdominal ventrites glabrous with short, sparse piliform appressed setae.

Legs: Metafemora finely dentate. Protibiae at apex slightly enlarged laterally and more enlarged mesally, apically rounded, fringed with short and fine yellow setae. Tarsi short, segment 2 1.1× as wide as long; segment 3 1.3× as wide as long and 1.3–1.4× as wide as segment 3; onychium short, 0.8–0.9× as long as segment 3. Claws at basal half solidly fused, then subparallel-sided.

Male terminalia: Penis (Fig. 4) moderately small, weakly sclerotised; in dorsal view subparallel-sided along entire length, short apical portion subtriangular with slightly convex sides, tip narrowly rounded; in lateral view slender, weakly regularly curved, tip evenly tapered apicad; temones about twice longer than body of penis.

Female: Body larger (see variability). Rostrum with Rw/Rl 1.41–1.44. Funicle with segment 1 1.4–1.5× as long as wide and 1.4× as long as segment 2, this is 1.3–1.4× as long as wide; segments 3 and 4 isodiametric; segment 5 1.1–1.2× as wide as long; segment 6 1.2–1.3× as wide as long; segment 7 1.3–1.4× as wide as long; club 1.8× as long as wide. Pronotum 1.36–1.42× as wide as long. Elytra 1.36–1.39× as long as wide. Spermatheca (Fig. 6) with cornu long, slender, almost straight in middle part, in apical third curved; corpus slender, elongate; ramus slightly longer than wide; collum distinctly longer than ramus, tube-shaped, in apical part curved back. Sternite VIII (Fig. 5) with long and slender apodeme, plate small, oval, with several apical long setae.

COMPARATIVE NOTES: *Argoptochus skodai* is very similar only to *A. bulgaricus* ANGELOV, 1987 known from Greece and Bulgaria, the hitherto only species known with metafemore finely dentate and with long setae in elytral striae. *Argoptochus skodai* differs from *A. bulgaricus* in following characters: smaller body size, 2.37–2.97 mm (vs. larger body size, 2.88–3.63 mm in *A. bulgaricus*), antennae and tarsi more robust. Tarsal segment 2 1.1× as wide as long; onychium 0.8–0.9× as long as segment 3 (vs. antennae and tarsi more slender. Tarsal segment 2 1.1× as long as wide; onychium 1.1× as long as segment 3), scape at most 5.2× as long as at apex wide; in males segment 2 isodiametric, segments 5–7 1.5–1.6× as wide as long, in females segment 2 1.3–1.4× as long as wide, segments 5–7 1.1–1.4× as wide as long (vs. scape at least 6.1× as long as at apex wide; in males segment 2 1.2–1.4× as long as wide, segments 5–7 1.1–1.2× as wide as long, in females segment 2 1.5–1.7× as long as wide, segments 5–7 1.1–1.2× as wide as long), pronotum slender, Pw/Pl 1.32–1.37 (vs. pronotum wider, Pw/Pl 1.41–1.47), elytral interstriae 1–3 with 1–2 irregular rows of semi-erect setae (vs. elytral interstriae 1–3 with 2–3 irregular rows of semi-erect setae) and spermatheca with ramus slightly longer than wide and collum curved down (vs. spermatheca with ramus isodiametric and collum crescent-shaped).

VARIABILITY: Body length: males 2.27–2.62 mm, females 2.59–2.97 mm. Integument brownish to dark brownish. Sexes except of slight differences in length of body externally distinguishable by more robust funicle segments in males and also in shape of ventrite 5, slightly longer and apically rounded in females and shorter and apically slightly obtuse in males.

DISTRIBUTION: South Albania.

BIONOMICS: The type series was collected by sweeping of short grassy xerophilous vegetation.

ETYMOLOGY: We dedicate this new species to Richard Škoda (Liberec, Czechia), weevil collector who collected first part of material of this new species.

Argoptochus valamarensis sp.n.

Holotype ♂ (NMP): "Albania or. Valamarës Mts. Michael Košťál leg. / Selcë 4 km NW pr. Maliq 1850 m N 40°47.0′ E 20°29.5′ 3.vii.2022". **Paratypes**: 1 ♂ (KO): same data; 2 ♂♂, 2 ♀♀ (BO): same data; 6 ♀♀ (KO): same data but 6.vii.2023; 11 ♂♂, 14 ♀♀ (KO): same data but Shalës 8 km N pr. Maliq 1970 m 40°47.2′ E 20°28.7′; 1 ♂ (NMW) same data; 3 ♂♂ 4 ♀♀ (HO) "ALBANIA or. 81/22 Valamarës Mts. Milada Holecová leg. / Selcë 4 km NW pr. Maliq 1850 m N 40°47.0′ E 20°29.5′ 3.vii.2022".

DIAGNOSIS: The newly described species is well distinguishable from all other *Argoptochus* species by yellowish tibiae, elytra covered with oval appressed scales, metafemora adentate, conspicuous erect elytral setae and parallel-sided rostrum. It resembles only *A. graecus* (STIERLIN, 1887). The both species can be reliably distinguished primarily by shape of male ventrite 5, penis and spermatheca shape.

DESCRIPTION: Holotype: 2.72 mm long male. Integument of elytra brownish to dark brownish, pronotum and head with rostrum slightly darker, dark brownish to blackish; entire antennae and legs yellowish brown. Elytra sparsely covered with appressed oval scales, 3–4 across width of one interstria, in large females with 5, leaving visible glabrous striae; inner 5–6 interstriae at posterior third with ill-defined, not contrasting V-shaped spot from more slender, brownish appressed scales. Pronotum with identical appressed scales in lateral parts and in several specimens with slender stripe along basal margin, disc glabrous; head with rostrum sparsely covered with smaller appressed scales. Each elytral interstria with one dense regular row of erect, piliform, whitish setae; setae subequal in length with width of interstria, distance between two setae shorter than length of one seta. Striae with row of short and fine inconspicuous setae, as long as length of one appressed scale. Pronotum and head with rostrum densely irregularly scattered with semi-erect setae, distinctly shorter than those on elytra, on pronotum directed anteriad, on head including rostrum directed posteriad (Fig. 7–9).

Head: Rostrum wide and short (Rw/Rl 1.48), in dorsal view widest at base, at short basal part slightly tapered anteriad, then subparallel-sided with straight sides (Rb/Ra 1.14). Epifrons short, dorsally flat, distinctly tapered anteriad with distinctly concave sides, in the narrowest point before antennal insertions slightly narrower than half of rostral width. Epistome large, U-shaped, glabrous, matt, in several specimens paler than epifrons, posteriorly slightly carinated and reaching antennal insertions. Antennal scrobes in dorsal view open, pit-shaped; in lateral view very short, slightly curved, separated from eye by moderately wide squamose stripe. Eyes large, regularly vaulted, distinctly prominent from head outline in dorsal view. Vertex wide, flat. Antennae (Fig. 7–9) somewhat robust. Scape 7.5× as long as wide at apex, regularly curved, slightly evenly enlarging apicad, at apex 0.9× as wide as club. Funicles 1 and 2 long, conical, subequal in length, 2.2× as long as wide; segment 3 1.4× as long as wide; segment 4 1.2× as long as wide; segment 5 isodiametric; segment 6 1.1× as wide as long; segment 7 1.2× as wide as long; club 2.2× as long as wide.

Pronotum (Fig. 7–8): wider than long (Pw/Pl 1.28), slightly widest at midlength, with slightly regularly rounded sides, with anterior margin only slightly narrower than posterior one. Disc regularly domed, densely punctuate with fine punctures.

Scutellum: Very small, triangular, glabrous, matt.

Figs. 7–12: *Argoptochus valamarensis*, 7) male (paratype, dorsal view), 8) female (paratype, dorsal view), 9) male (paratype, lateral view), 10) penis (paratype, ventral view – left, lateral view – right), 11) female sternite VIII (paratype), 12) spermatheca (paratype). Scale bars: 0.8 mm (Fig. 10), 0.6 mm (Fig. 11), 0.3 mm (Fig. 12); Figs. 7–9 not no scale.

Elytra (Fig. 7–8): Oval (El/Ew 1.47) widest at midlength, with regularly rounded sides, narrowly tapered apicad; striae roughly punctate, spaces between punctures glabrous; interstriae flat, slightly wider than striae.

Venter: Sparsely covered with oval appressed scales, abdominal ventrites glabrous with short, inconspicuous, sparse piliform appressed setae.

Legs: All femora unarmed. Protibiae with lateral margin almost straight, at apex slightly enlarged mesally, apically rounded, fringed with short and fine yellow setae, mucronate. Tarsi with segment 2 1.1× as long as wide; segment 3 1.4× as wide as long and 1.5× as wide as segment 3; onychium 1.2× as long as segment 3. Claws at base fused, then slightly divorced.

Male terminalia: Penis (Fig. 10) small; in dorsal view widest at base, in apical portion evenly tapered apicad with slightly rounded sides, tip narrowly rounded; in lateral view slightly curved, somewhat wide, tip narrowly rounded; temones as long as body of penis.

Female: Body larger (see variability). Rostrum with Rw/Rl 1.43–1.47. Funicle slightly more slender than in males, segments 1 and 2 equal, 2.3–2.4× as long as wide; segment 3 1.4–1.5× as long as wide; segment 4 1.3–1.4× as long as wide; segments 5 and 6 1.1× as long as wide; segment 7 isodiametric. Pronotum 1.33–1.37× as wide as long. Elytra 1.36–1.41× as long as wide. All tibiae with unobtrusive mucro. Spermatheca (Fig. 12) with cornu straight in middle part, before tip curved; corpus slender, elongate; ramus slightly longer than wide, larger than small, hump-shaped collum. Sternite VIII (Fig. 11) with long and slender apodeme, plate small, subtriangular, with sparse setae at apex.

COMPARATIVE NOTES: *Argoptochus valamarensis* is very similar to *A. graecus* in the light tibiae, elytra covered with oval appressed scales, metafemora inermis, erect elytral setae long, conspicuous, rostrum parallel-sided and antennae robust. It differs from *A. graecus* in the male ventrite 5 regularly domed (vs. with wide shallow depression in *A. graecus*), penis in lateral view wide, apically narrowly rounded (vs. very slender, sharply pointed in very slender apex), spermatheca with ramus slightly longer than wide and at most 3× longer than collum (vs. extremely long ramus, 3–4× as long as wide and at least 5× longer than collum), rostrum tapered in very short basal part (vs. tapered in basal third) and epifrons flat (vs. with inconspicuous, slender longitudinal furrow).

VARIABILITY: Body length: males 2.42–2.89 mm, females 2.86–3.37 mm. The type series does not show a noteworthy variability except the dark, sparsely squamose V-shaped area in the posterior half of elytra, which may be also in some fresh specimens reduced to absent giving elytra unicolorous greenish appearance.

DISTRIBUTION: East Albania.

BIONOMICS: Type material was collected by sweeping from low vegetation in subalpine zone.

ETYMOLOGY: The species takes its name from the type locality.

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