

RESEARCH PAPER

The Osoriinae (Coleoptera: Staphylinidae) from the Ionian Islands, with the description of *Typhloiulopsis pavesii* sp. nov. from Kérkyra

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Abstract. The Osoriinae (Coleoptera: Staphylinidae) genera *Typhloiulopsis* Scheerpeltz, 1931 and *Leptotyphlopsis* Scheerpeltz, 1931 from the Ionian Islands (Greece) are revised based on morphology. *Typhloiulopsis pavesii* sp. nov. from Kérkyra is described. The three taxa of *Leptotyphlopsis* described from Kaligoni, Lefkàda, are considered as belonging to a single species, *Leptotyphlopsis kaligoniana* Scheerpeltz, 1931 (= *Leptotyphlopsis jonica* Scheerpeltz, 1931 syn. nov. and *Leptotyphlopsis leucadiana* Scheerpeltz, 1931 syn. nov.).

Key words. Coleoptera, Staphylinidae, Osoriinae, *Leptotyphlopsis*, *Typhloiulopsis*, rove beetles, endogean, island endemism, morphology, new species, new synonymy, soil fauna, Greece, Palaearctic Region

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Introduction

The subfamily Osoriinae is represented in the Palaearctic region by at least 268 species and subspecies, distributed across four tribes and 33 genera (SCHÜLKE & SMETANA 2015, ASSING 2019). In the Mediterranean region, it primarily includes anophthalmous and depigmented species that inhabit deep soils. These species are exclusively collected using specialized methods, such as soil sifting and washing, and they tend to exhibit high levels of endemism, with species distributions often confined to single islands or mountain ranges.

Nearly a century ago, SCHEERPELTZ (1931) described three new genera and six new species of Osoriinae from material collected by Dr. Max Beier in the Ionian Islands of Lefkàda and Kefalonia. The genus *Typhloiulopsis* Scheerpeltz, 1931 was established to include the newly described *Typhloiulopsis rudiana* Scheerpeltz, 1931 from Kefalonia and *Typhloiulopsis leucadiae* Scheerpeltz, 1931 from Lefkàda, while *Leptotyphlopsis* Scheerpeltz, 1931 was established to include *Leptotyphlopsis doderoi* (Razzauti, 1914) from Italy as the type species, previously placed under the genus *Cylindropsis* Fauvel, 1885, and three new syntopic species from Kaligoni (Lefkàda): *Leptotyphlopsis leucadiana* Scheerpeltz, 1931, *Leptotyphlopsis kaligoniana* Scheerpeltz, 1931, and *Leptotyphlopsis jonica* Scheerpeltz, 1931. Finally, he described the new genus *Geomitopsis* Scheerpeltz, 1931, with *Geomitopsis zariquieyi* (Dodero, 1918) from Spain as the type species, formerly placed in

the genus *Cylindropsis*, and described *Geomitopsis beieri* Scheerpeltz, 1931 from Lefkàda. The descriptions provided are highly detailed, with excellent depictions of the habitus, mouthparts, and antennae. However, the illustration of the male copulatory organs, along with sexual dimorphism and leg ornamentations, was deferred to a monographic study on the Mediterranean endogean Osoriini which, along with other planned works, was never completed (cf. PACE 1988).

The discovery of new specimens of *Typhloiulopsis* collected by the colleague Maurizio Pavesi in Kérkyra in the late 1990s, and by the author during a trip to Kefalonia in 2019, has provided the opportunity to critically re-examine the type material from Scheerpeltz's collection, as recently done with *G. beieri* (VIOLI & PAGLIALUNGA 2023). The new specimens belong to a new species here described, morphologically well differentiated from *T. rudiana* from Kefalonia and *T. leucadiae* from Levkas.

Materials and methods

Dried specimens were re-hydrated with acetic acid and examined on temporary slides in glycerine with a Reichert Microstar IV compound microscope at a maximum of 400× magnification. The images were taken with a Nikon Coolpix S6900 camera attached to the same microscope and stacked with Zerene Stacker 1.04 software. Measurements were taken with the same microscope and a micrometric ocular at a 200× total magnification (sensitivity ±0.0047 mm). Measurements are given in the Appendix (Table 1).



Acronyms: HL = head length from the anterior margin of clypeus to the median posterior margin, HW = maximum head width, PL = pronotum length on the median line, PW = maximum pronotum width, EL = elytra length from the end of the scutellum to the posterior margin, EW = maximum elytra width taken together, TL = tergite VII length, TW = maximum tergite VII width, AN = antenna length excluding antennomere I, BODY = HL + PL + EL + TL. Genitalia and other dissected parts were mounted in DMHF on acetate microslides and pinned under the respective specimens. Terminology mainly follows OROUSSET (1985).

The material examined in this study is deposited in the following private and public collections:

MHNL	Muséum d'Histoire Naturelle, Lyon, France;
MPMI	Maurizio Pavesi personal collection, Milano, Italy.
MSNM	Museo di Storia Naturale, Milano, Italy;
MVMI	Michele Violi personal collection, Montecchio Emilia, Reggio Emilia, Italy;
NHMW	Naturhistorisches Museum, Wien, Austria;

Taxonomy

Genus *Typhloiulopsis* Scheerpeltz, 1931

Typhloiulopsis Scheerpeltz, 1931: 370. Type species: *Typhloiulopsis rudiana* Scheerpeltz, 1931, fixed by original designation.

Numidotyphlus Coiffait, 1959b: 215. Type species: *Numidotyphlus normandi* Coiffait, 1959, fixed by original designation. Synonymy by OROUSSET (1985).

Typhloiulopsis rudiana Scheerpeltz, 1931

(Figs 3, 6, 9, 12, 15)

Typhloiulopsis rudiana Scheerpeltz, 1931: 374.

Type material examined. SYNTYPES: 2 ♀♀, with identical labels: "Kephallinia / Mt. Rudi // leg. E. MoczarSKI / Dr. M. Beier 1926 // ex coll. Scheerpeltz // TYPUS *Typhloiulopsis rudiana* O. Scheerpeltz", O. Scheerpeltz coll. (NHMW) [one specimen wrongly labeled as male]; 4 ♀♀ with identical labels: "Kephallinia / Mt. Rudi // leg. E. MoczarSKI / Dr. M. Beier 1926 // ex coll. Scheerpeltz // COTYPUS *Typhloiulopsis rudiana* O. Scheerpeltz", O. Scheerpeltz coll. (NHMW) [two specimens wrongly labeled as males]; 1 ♂, labelled: "Mt. Rudi / Kephallinia // leg. MoczarSKI / -Dr Beier, 1926- // COTYPUS / *Typhloiulopsis / rudiana* / O. Scheerpeltz // *Typhloiulopsis / rudiana* / Scheerp. // *Typhloiulopsis / rudiana* Scheerp. / J. Orousset det.", M. Tronquet coll. (MHNL), with damaged microscopic mounting missing the aedeagus.

Additional material examined. 3 ♂♂ 4 ♀♀, GREECE: Kefalonia, 2 km SW Makryotika, 400 m, 38°18'08"N 20°32'05"E, 30.viii.2019, M. Violi leg. (MVMI).

Comments. More than 50 years after the original description, OROUSSET (1985) detailed the aedeagus and secondary sexual characters of this species, based on three syntypes, a male of the type series from the M. Tronquet collection (now in MHNL) and two females, and considered *Numidotyphlus* from Tunisia a junior synonym of *Typhloiulopsis*. All the specimens in the Scheerpeltz collection turned out to be females, and unfortunately the male studied by Orousset misses the aedeagus due to a damage to the microscopic mounting. Therefore, no other males are known from the typical series. During a trip in 2019, new specimens were collected about 15 km from the locus typicus of *T. rudiana*. They differ from the typical specimens in slightly smaller sizes, the head on average more elongated and elytra on average more transverse (cf. Table 1), but with no other differences in external morphology and genita-

lia, confirmed through comparison of the aedeagus with the drawing in OROUSSET (1985). While waiting for new specimens from the locus typicus that could clear out the question, this population could be considered to belong to *T. rudiana*, and its characters are here compared to that of the next two species.

The aedeagus in the new population of *T. rudiana* (Figs 9, 12) is similar to that of *T. leucadiae* in lateral view, but the projection of the median lobe in dorsal view (Fig. 9) appears to be thinner and sharper than that of *T. leucadiae*. It is highly desirable to find other male syntypes or new specimens from the type locality to confirm the differences here newly reported.

Typhloiulopsis leucadiae Scheerpeltz, 1931

(Figs 4, 7, 10, 13, 16)

Typhloiulopsis leucadiae Scheerpeltz, 1931: 375.

Type material examined. SYNTYPES: 1 ♀, labelled: "Kaligoni, Levkas / 14.iv.29 // Photographiert / 6.iv.1931 / O. Scheerpeltz // ex coll. / Scheerpeltz // TYPUS / *Typhloiulopsis / leucadiae* / O. Scheerpeltz"; 1 ♂, labelled: "Kaligoni, Levkas / 14.iv.29 // Photographiert / 6.iv.1931 / O. Scheerpeltz // ex coll. / Scheerpeltz // TYPUS / *Typhloiulopsis / leucadiae* / O. Scheerpeltz"; 1 ♂ [only the abdomen with aedeagus], labelled: "Kaligoni, Levkas / 14.iv.29 // ex coll. / Scheerpeltz // COTYPUS / *Typhloiulopsis / leucadiae* / O. Scheerpeltz"; 1 ♂ [wrongly labelled as female], labelled: "Kaligoni, Levkas / 14.iv.29 // ex coll. / Scheerpeltz // COTYPUS / *Typhloiulopsis / leucadiae* / O. Scheerpeltz"; 1 ♀ 1 ♂, with identical labels: "Kaligoni, Levkas / 14.iv.29 // ex coll. / Scheerpeltz // COTYPUS / *Typhloiulopsis / leucadiae* / O. Scheerpeltz" [the male missing last urites and aedeagus]. All in Scheerpeltz coll. (NHMW).

Comments. The external morphology is consistent with that provided in the original description. Secondary sexual characters are compliant with those described for *T. rudiana* by OROUSSET (1985). Aedeagus (Figs 10, 13) is similar to that of *T. rudiana* but with the projection of the median lobe in dorsal view more robust and rounded. The body size is smaller than in *T. rudiana*, with elytra on average more transverse (similar to that of the new population of *T. rudiana*) (cf. Table 1). No other external differences are observed between these two species. Based on the differences of the aedeagus and the geographical separation, *T. leucadiae* is here considered a valid species.

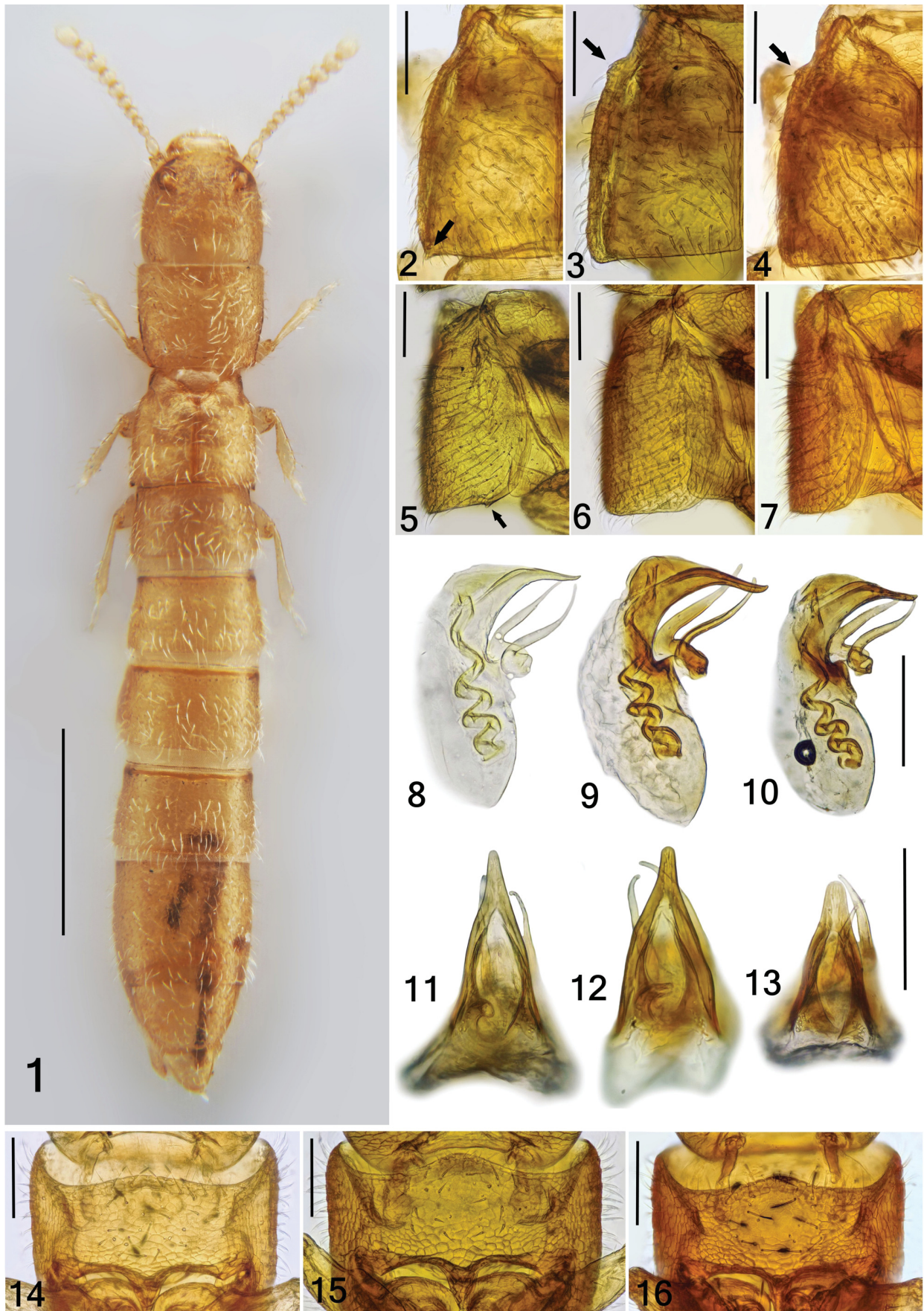
Typhloiulopsis pavesii sp. nov.

(Figs 1, 2, 5, 8, 11, 14)

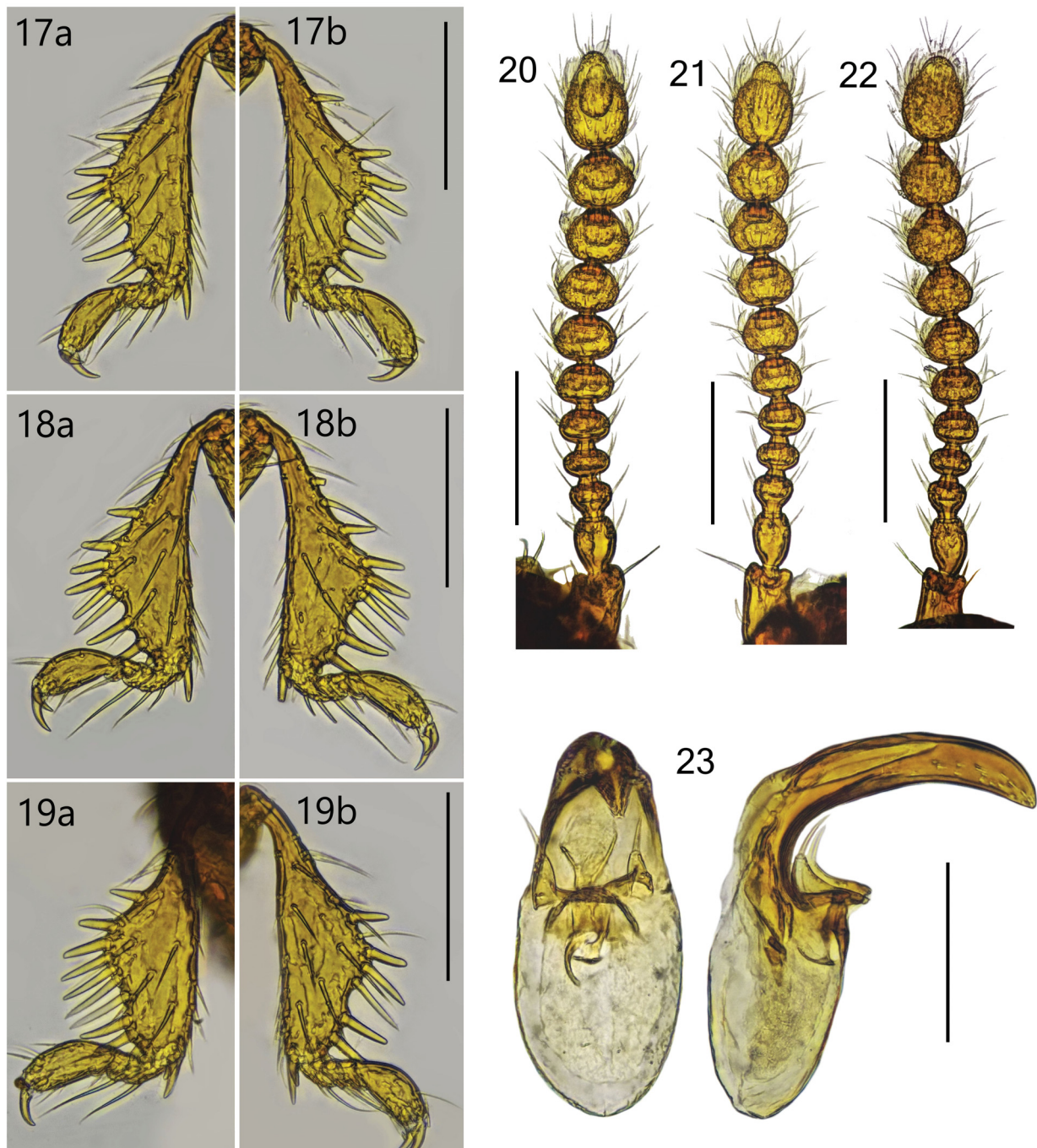
Type material. HOLOTYPE: ♂, labelled: "GREECE – Kérkyra Is. / 2 km W Kassioi, Apraos bay, / 10 m, 39°47'40"N 19°53'41"E / 29.iii.1998, M. Pavesi leg.", deposited in MSNM, dry prepared. PARATYPES: same labelling as holotype: 17 ♂♂ 19 ♀♀, same collecting data as holotype (10 ♂♂ 7 ♀♀ in MVMI, 4 ♂♂ 8 ♀♀ in MPMI; 2 ♂♂ 2 ♀♀ in NHMW; 1 ♂ in MHNL); 6 ♀♀, same collecting locality, 4-8.xii.1999, M. Pavesi leg. (MPMI). Glued on labels or entirely included in DMHF.

Description. *Body* (Fig. 1) elongate and cylindrical; total length in liquid on average 2.4 mm for males, 2.7 mm for females; pale yellow (probably lightened due to the long conservation in ethanol), monochromatic.

Head rounded, slightly longer than wide, exposed dorsum and lateral part (about 2/3 of head), covered with shallow pores, with short and sturdy setae directed towards disc behind antennae and directed anteriorly in front of them, with reticulate microsculpture; basal 1/3 without setae and pores, with faded microsculpture. Ventral portion



Figs 1–16. Morphological details of *Typhloiulopsis* species. 1 – *Typhloiulopsis pavesii* sp. nov. habitus of holotype. 2–4 – elytra, dorsal view. 5–7 – elytra, lateral view. 8–10 – aedeagi, lateral view. 11–13 – aedeagi, dorsal view. 14–16 – prosternum. 2, 5, 8, 11, 14 – *T. pavesii* sp. nov. 3, 6, 15 – *T. rudiana* Scheerpeltz, 1931 (syntype). 9, 12 – *T. rudiana* (male from Makryotika). 4, 7, 10, 13, 16 – *T. leucadiae* Scheerpeltz, 1931 (syntype). Scale bars = 0.5 mm (Fig 1); 0.1 mm (Figs 2–16).



Figs 17–23. Morphological details of *Leptotyphlops* species. 17–19 – mesotibiae, anterior view, left (a) and right (b) of the same specimen. 20–22 – antennae. 23 – aedeagus, ventral and lateral view. 17, 21 – *L. kaligoniana* Scheerpeltz, 1931 (syntype). 19, 20 – *L. jonica* Scheerpeltz, 1931 (holotype). 18, 22 – *L. leucadiana* Scheerpeltz, 1931 (syntype). 23 – *L. jonica* (non-type specimen). Scale bars = 0.1 mm.

without setae and pores, with very elongate microsculpture directed towards gular suture. Gular suture divergent in basal half forming acute angle, and fused in distal half; eyes absent. Antenna with antennomeres I–III distinctly elongate, decreasing in size, I subrectangular, II suboval, III calyciform, IV–X rounder, wider than long, with size successively increasing, XI narrowed apically.

Prothorax. Pronotum about as broad as elytra, transverse, widest in anterior half, slightly constricted at base, with punctures and setae similar to those on head directed towards mid-line, and reticulate microsculpture. Mid-line of

dorsal face lacking pores and setae, with faded microsculpture. Basal and apical margins slightly concave. Prosternum (Fig. 14) with reticulate microsculpture and sparse setae, some of them inserted on apical margin, which is convex and slightly protruding. Prosternal process acuminate.

Pterothorax. Elytra (Figs 2, 5) transverse if taken together, about 1.7 times wider than long if measured from scutellum to apical margin, covered with reticulate microsculpture and setae directed posteromedially. Elytral humeri completely rounded, apical margin straight, lateral margin rounded, with their conjunction protruding in small

and sharp spinal process that can be seen both in lateral and dorsal view (see arrows in Figs 2, 5). Scutellum triangular, produced in acute angle, with reticulate microsculpture. Mesoventrite glabrous, metaventrite with setae, both with reticulate microsculpture. Mesoventrite protruding posteriorly with acuminate process almost touching truncate process of metaventrite, directed anteriorly between mesocoxae. Metaventrite ending posteriorly in short obtuse process shortly behind anterior margin of metacoxae.

Legs. Coxae, femora and tibiae with sparse punctuation and setae. Base of profemur ventrally projecting. Tibiae with two apical spines on inner margin. Protibia curved, with two external spines near apex, and two parallel rows of spines on inner margin, more external one with 3–4 more robust and spaced ones, the other more internal with about 20 smaller spines very close together forming ctenidium. Mesotibia with 4–5 external spines. Metatibia with two external spines near apex.

Abdomen cylindrical, urites with isodiametric microreticulation, constricted at base, covered with setae directed posteriorly, absent in portion of constriction. Urites with basal and apical margin straight, urites III–VI about 1.5–1.6 wider than long, slightly increasing in size, urite VII longer, about as long as wide, with apical margin laterally angulate. Tergite VIII subtrapezoidal, apically truncate. Sternite VIII (sternite of pygidium *sensu* OROUSSET (1985)) subtriangular, with five pairs of longer setae and apical margin prolonged in rounded projection, more prominent in male; sternite VIII in male with sub-elliptical median depression, well defined basally, making sternite concave in lateral view, while it is less concave in females. Tergite IX subtriangular, with rounded apex and bearing a few pairs of longer setae. Male sternite IX (sternite of genital segment *sensu* OROUSSET (1985)) triangular, with flat apical margin bearing two setae.

Aedeagus (Figs 8, 11) laying in abdomen on right side, with median lobe on average 0.22 mm long, with shape typical for *Typhloiulopsis*, projecting in sharp sabre-like rostrum. Parameres very slender, without setae, each with four pores, reaching apex of median lobe. Endophallus spiral-like, with four volutes.

Measurements. See Table 1.

Differential diagnosis. The new species of Osoriinae belong to the genus *Typhloiulopsis* (tarsi tetramerous, head completely rounded, antennomeres increasing in size, pronotum with lateral ridges, metatibiae without ctenidia). Given the presence of other species of *Typhloiulopsis* in Levkas and Kefalonia, the finding of a further species in Kérkyra, the northernmost island of the Ionian Archipelago, is not surprising. *Typhloiulopsis pavesii* sp. nov. can be easily distinguished from the other two Greek species by the presence of a pointed process on the posterolateral angle of elytra (absent in *T. leucadiae* and *T. rudiana*), by completely rounded humeri (tuberculate in *T. leucadiae* and *T. rudiana*, cf. Figs 2–7) and by less prominent anterior margin of the prosternum (cf. Figs 14–16). In addition, the aedeagus shows a slenderer and sharper projection of the median lobe in dorsal view and slenderer and sharper parameres when compared with the other two species. The

number of external characters differentiating *T. pavesii* sp. nov., higher than that observed between *T. leucadiae* and *T. rudiana*, could be explained by the greater geographical distance, and thus physical and genetic separation, from them. The last known species of the genus, *Typhloiulopsis normandi* from Tunisia, seems to have a shorter and thicker projection of the median lobe of the aedeagus in lateral view than observed in the Greek species, as already noticed by OROUSSET (1985).

Etymology. This species is dedicated to its collector, Maurizio Pavesi, former curator of the entomological collection of the MSNM.

Bionomics. This species is known exclusively from its locus typicus, a restricted area near the coast, characterized by Mediterranean maquis with prevalence of *Quercus ilex* L. The soil is calcareous, with exposed rocky layers in which cavities and crevices contain clayey and gritty soil beneath the litter and humus. The new species was collected by washing this soil, which was dug to a depth of up to 60 cm. Along with *T. pavesii* sp. nov., other endogean Coleoptera were also found: *Reicheadella corcyrea* (Reitter, 1884) (Carabidae: Scaritinae), *Prioniomus cassiopaues* Pavesi, 2010 (Carabidae: Trechinae), *Allotyphlus* (s. str.) sp. nov., Entomoculiini sp. nov. and *Gynotyphlus* sp. (Staphylinidae: Leptotyphlinae), and other species of Curculionidae and Carabidae which are currently under study.

Genus *Leptotyphlopsis* Scheerpeltz, 1931

Leptotyphlopsis Scheerpeltz, 1931: 376. Type species: *Cylindropsis doderoi* Razzauti, 1914, fixed by original designation.

Leptotyphlopsis kaligoniana Scheerpeltz, 1931

(Figs 17–23)

Leptotyphlopsis kaligoniana Scheerpeltz, 1931: 384

Leptotyphlopsis leucadiana Scheerpeltz, 1931: 382, syn. nov.

Leptotyphlopsis jonica Scheerpeltz, 1931: 386, syn. nov.

Type material examined. *Leptotyphlopsis kaligoniana* (Figs 17, 21). SYNTYPES: 1 ♀, labelled: “Kaligoni, Levkas / 14.IV.29 Beier. // Photographiert / 28.v.1931 / O. Scheerpeltz // ex coll. / Scheerpeltz // TYPUS / Leptotyphlopsis / kaligoniana / O. Scheerpeltz”, 1 ♀, “Kaligoni, Levkas / 14.iv.29 Beier. // ex coll. / Scheerpeltz // TYPUS / Leptotyphlopsis / kaligoniana / O. Scheerpeltz”, wrongly labeled as male; 1 ♂ 2 ♀♀, with identical labels: “Kaligoni, Levkas / 14.iv.29 Beier. // ex coll. / Scheerpeltz // COTYPUS / Leptotyphlopsis / kaligoniana / O. Scheerpeltz”, with the male missing the aedeagus. All specimens in O. Scheerpeltz coll. (NHMW).

Leptotyphlopsis jonica (Figs 19, 20, 23). HOLOTYPE: ♀, labelled: “Kaligoni, Levkas / 14.iv.29 Beier // Photographiert / 28.v.1931 / O. Scheerpeltz // ex coll. / Scheerpeltz // TYPUS / Leptotyphlopsis / jonica / O. Scheerpeltz” (NHMW).

Leptotyphlopsis leucadiana (Figs 18, 22). SYNTYPES: 1 ♂, labelled: “Kaligoni, Levkas / 14.iv.29 Beier. // ex coll. / Scheerpeltz // O. Scheerpeltz / TYPUS / Leptotyphlopsis / leucadiana”, missing the aedeagus; 1 ♀, “Kaligoni, Levkas / 14.iv.29 Beier. // Photographiert / 28.v.1931 / O. Scheerpeltz // ex coll. / Scheerpeltz // TYPUS / Leptotyphlopsis / leucadiana / O. Scheerpeltz”, both in O. Scheerpeltz coll. (NHMW).

Additional material examined. 1 ♀: “Kaligoni / 19.v.33 // Insel Levkas, Kaligoni / Mittel-Griechenland / Dr. M. BEIER, 19.v.33 // Leptotyphlopsis / leucadiana / Scheerp. // ex coll. Scheerpeltz”, O. Scheerpeltz coll. (NHMW). 1 ♂, “Kaligoni / 20.iv.1932 // Insel Levkas / Dr. M. Beier leg. // Leptotyphlopsis / jonica / Scheerp // ex coll. Scheerpeltz”, O. Scheerpeltz coll. (NHMW) (Fig. 23).

Table 1. Morphometric measurements in mm (except for ratios) of the material examined in this paper. For series of specimens (with the number of measured individuals indicated as *n*), mean values are provided, with minimum and maximum values in parentheses. See Materials and Methods for acronym definitions.

	HL	HW	HL/HW	PL	PW	PL/PW	EL	EW	EL/EW	TL	TW	TL/TW	AN	BODY/ AN
<i>Typhlotropis rudiana</i> syntypes ♀ (n = 7)	0.396 (0.390– 0.409)	0.338 (0.329– 0.353)	1.173 (1.147– 1.200)	0.281 (0.273– 0.287)	0.348 (0.334– 0.367)	0.806 (0.779– 0.831)	0.195 (0.188– 0.202)	0.364 (0.343– 0.385)	0.538 (0.494– 0.581)	0.396 (0.385– 0.400)	0.378 (0.367– 0.395)	1.048 (1.012– 1.090)	0.463 (0.442– 0.489)	2.744 (2.625– 2.883)
<i>T. rudiana</i> syntype ♂	0.376	0.320	1.176	0.263	0.329	0.800	0.183	0.338	0.542	0.385	0.362	1.065	0.442	2.734
<i>T. rudiana</i> from Makryiotika ♀ (n = 4)	0.383 (0.376– 0.390)	0.341 (0.324– 0.348)	1.125 (1.095– 1.159)	0.286 (0.282– 0.296)	0.353 (0.338– 0.367)	0.810 (0.800– 0.833)	0.223 (0.216– 0.235)	0.354 (0.343– 0.371)	0.631 (0.622– 0.644)	0.400 (0.376– 0.423)	0.378 (0.367– 0.385)	1.056 (0.988– 1.098)	0.471 (0.451– 0.484)	2.741 (2.690– 2.792)
<i>T. rudiana</i> from Makryiotika ♂ (n = 3)	0.338 (0.324– 0.348)	0.307 (0.291– 0.320)	1.102 (1.088– 1.113)	0.260 (0.240– 0.277)	0.320 (0.296– 0.338)	0.814 (0.810– 0.819)	0.196 (0.179– 0.207)	0.313 (0.287– 0.334)	0.625 (0.620– 0.632)	0.348 (0.315– 0.376)	0.345 (0.320– 0.367)	1.008 (0.985– 1.026)	0.454 (0.414– 0.489)	2.516 (2.471– 2.557)
<i>T. leucadiae</i> syntypes ♂♂ (n = 3)	0.326 (0.310– 0.343)	0.287 (0.277– 0.296)	1.137 (1.082– 1.169)	0.244 (0.240– 0.254)	0.301 (0.296– 0.306)	0.812 (0.797– 0.831)	0.183 (0.179– 0.188)	0.301 (0.282– 0.329)	0.611 (0.571– 0.633)	0.315 (0.296– 0.324)	0.313 (0.287– 0.329)	1.006 (0.986– 1.033)	0.420 (0.409– 0.428)	2.545 (2.500– 2.593)
<i>T. leucadiae</i> syntypes ♀♀ (n = 2)	0.355 (0.353– 0.357)	0.322 (0.310– 0.334)	1.104 (1.056– 1.152)	0.268 (0.259– 0.277)	0.331 (0.329– 0.334)	0.808 (0.786– 0.831)	0.212 (0.212– 0.212)	0.317 (0.315– 0.320)	0.667 (0.662– 0.672)	0.353 (0.334– 0.371)	0.338 (0.324– 0.353)	1.041 (1.029– 1.053)	0.432 (0.432– 0.432)	2.745 (2.685– 2.804)
<i>T. pavesii</i> sp. nov. holotype ♂	0.329	0.296	1.111	0.244	0.296	0.825	0.193	0.310	0.621	0.324	0.329	0.986	0.404	2.698
<i>T. pavesii</i> sp. nov. paratypes ♂♂ (n = 11)	0.341 (0.324– 0.353)	0.311 (0.296– 0.329)	1.098 (1.071– 1.141)	0.257 (0.244– 0.268)	0.315 (0.301– 0.334)	0.816 (0.789– 0.848)	0.191 (0.179– 0.197)	0.317 (0.306– 0.329)	0.604 (0.551– 0.636)	0.355 (0.324– 0.371)	0.346 (0.324– 0.362)	1.026 (0.986– 1.055)	0.432 (0.414– 0.451)	2.652 (2.543– 2.795)
<i>T. pavesii</i> sp. nov. paratypes ♀♀ (n = 10)	0.364 (0.338– 0.390)	0.331 (0.315– 0.353)	1.101 (1.059– 1.164)	0.275 (0.259– 0.291)	0.330 (0.315– 0.353)	0.833 (0.806– 0.851)	0.198 (0.179– 0.207)	0.335 (0.320– 0.367)	0.591 (0.551– 0.623)	0.369 (0.334– 0.409)	0.353 (0.334– 0.390)	1.045 (0.986– 1.078)	0.422 (0.414– 0.447)	2.858 (2.750– 2.978)
<i>Leptotyphlops leucaditana</i> syntype ♂	0.310	0.244	1.269	0.235	0.188	1.250	0.183	0.221	0.830	0.263	0.263	1.000	0.357	2.776
<i>L. leucaditana</i> syntype ♀	0.315	0.345	1.122	0.282	0.353	0.800	0.219	0.350	0.624	0.400	0.383	1.043	0.468	2.755
<i>L. leucaditana</i> det. Scheerpeltz ♀	0.334	0.263	1.268	0.259	0.202	1.279	0.207	0.240	0.863	0.273	0.277	0.983	–	–
<i>L. jonica</i> holotype ♀	0.306	0.259	1.182	0.259	0.193	1.341	0.207	0.240	0.863	0.273	0.268	1.018	0.371	2.810
<i>L. jonica</i> det. Scheerpeltz ♂	0.306	0.254	1.204	0.249	0.188	1.325	0.174	0.226	0.771	0.230	0.273	0.845	0.338	2.833
<i>L. kaligoniana</i> syntype ♂	0.315	0.249	1.264	0.249	0.193	1.293	0.197	0.226	0.875	0.263	0.268	0.982	0.367	2.795
<i>L. kaligoniana</i> syntypes ♀♀ (n = 4)	0.328 (0.324– 0.334)	0.264 (0.259– 0.273)	1.240 (1.224– 1.255)	0.262 (0.254– 0.268)	0.201 (0.193– 0.212)	1.305 (1.267– 1.357)	0.213 (0.207– 0.216)	0.239 (0.235– 0.244)	0.892 (0.880– 0.920)	0.294 (0.287– 0.301)	0.277 (0.273– 0.282)	1.059 (1.050– 1.069)	0.376 (0.367– 0.381)	2.929 (2.901– 2.949)

Comments. The genus *Leptotyphlopsis* currently includes thirteen species, four from the western Mediterranean, one from Sicily, three from the Greek island of Lefkàda, two from central-southern Anatolia, one from Lebanon, one from Iran and one from Georgia. The presence of three syntopic species in the same locality on the island of Lefkàda, although not impossible, was worthy of doubt and the examination of the original material was needed.

In describing the three species of *Leptotyphlopsis* from Levkas, SCHEERPELTZ (1931) reported the proportions of the head, the lateral side of the pronotum and the depth of its grooves, the elytral length compared to that of the pronotum, the morphology of mesotibia, antenna and antennomeres, and the morphology and chaetotaxy of the mentum (the last two characters supported by drawings) as diagnostic characters. The first evident anomaly observed in re-examining the type material is the discrepancy between the drawings and descriptions of the antennae of *L. kaligoniana* and *L. jonica*, and the actual specimens. The antennomeres of all the specimens (Figs 20–22) are comparable, almost equally rounded, resembling more closely the drawings of *L. leucadiana* in SCHEERPELTZ (1931). Only the holotype of *L. jonica* has antennomeres from II to VII that are slightly more transverse, but not as much as depicted in the description. Also, the differences in the mentum depicted are erroneous, as all the specimens show a shape and chaetotaxy consistent with the drawing of *L. jonica*.

The body proportions and size are a more complex issue. As reported by SCHEERPELTZ (1931), *L. leucadiana* specimens show a more elongated head than *L. jonica*, with *L. kaligoniana* having intermediate proportions. The *L. jonica* holotype has a more elongated pronotum, with particularly short elytra and urite VII (features not shared with the male found two years after the publication and ascribed to the same species by Scheerpeltz). *Leptotyphlopsis kaligoniana* shows more elongated elytra and urite VII. However, if taken together, these differences can be attributed to intraspecific variability, as PÉREZ-DELGADO et al. (2022, Supporting Information) showed how those differences fall within the intraspecific variability of genetically well-defined species of *Geomitopsis*, another genus of anophthalmous Osoriinae. The holotype of *L. jonica* appears to be an anomalous female, with a more robust appearance representing one of the extremes of the range of variability.

The differences in the morphology and chaetotaxy of the mesotibia were also used by OROUSSET (1985), following NORMAND (1920), to distinguish four species of *Leptotyphlopsis*. However, examining the Greek material, it seems that the external morphology, and especially the number and position of spines (except for the five distal spines between the tarsus insertion and the indentation on the external edge), are very variable even between the two sides of the same individual. Thus, this character could not be regarded as a valid diagnostic character (Figs 17–19).

The aedeagi of the type material, probably dissected by Scheerpeltz and kept separately, are missing and are considered lost. Only the aedeagus of a specimen collec-

ted years later by Max Beier and assigned to *L. jonica* by SCHEERPELTZ (1958), was found (Fig. 23). Unfortunately, the aedeagus in this genus is poorly informative and highly uniform. In fact, the median lobe, parameres, and endophallus of the aedeagus from this male are almost identical to those of *Leptotyphlopsis zariquieyi* Orousset, 1985 from Spain, *L. doderoi* from central Italy, *L. lavagnei* Coiffait, 1955 from France, and *L. lopadusae* Bordoni, 1973 from Lampedusa, with which the three Greek taxa form a homogeneous West-Mediterranean group, well separated from the eastern species occurring in Anatolia, Lebanon, Iran, and Georgia, which have a shorter projection of the median lobe and a different endophallus. Pictures of the aedeagus of *L. peyerimhoffi* (Normand, 1920) from Tunisia are not available, but the close geographical distance from *L. lopadusae* makes it reasonable to assume that it belongs to the first group.

Based on these considerations, there is no reason to keep the three species from Lefkàda as separate entities. *Leptotyphlopsis jonica* and *L. leucadiana* are therefore considered junior synonyms of *L. kaligoniana*. Given that all the type material of the three taxa is based on females or incomplete males, precedence is given to *L. kaligoniana* as it was described on a larger series of syntypes, making it optimal to represent the high intraspecific variability of the species. Due to the poor informativity of the exoskeletal and genital characters, getting fresh specimens from the type locality is highly desirable to genetically verify the absence of cryptic species, as found, for example, in the aforementioned genus *Geomitopsis* (PÉREZ-DELGADO et al. 2022).

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