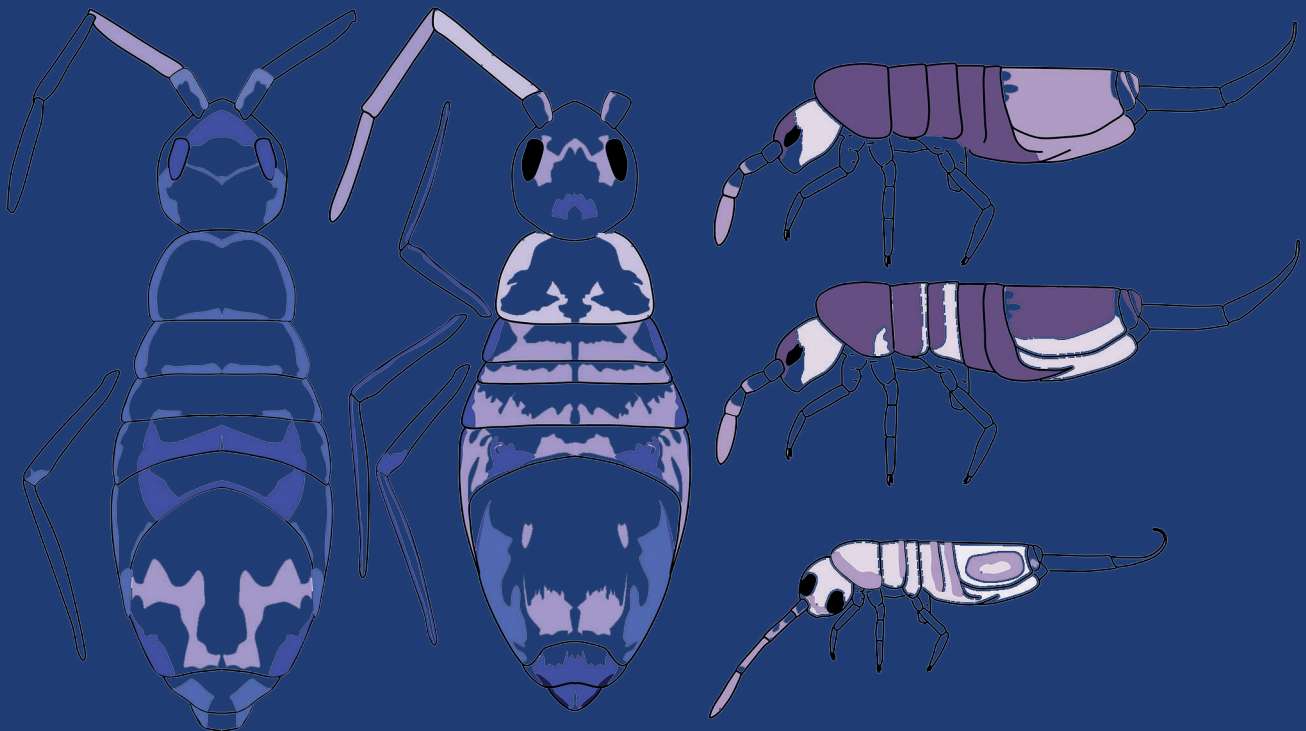


Type material designation and species description;
addendum to “Distinctive Collembola Communities
in the Mesovoid Shallow Substratum:
Entomobryomorpha of the Sierra de Guadarrama
National Park (Central Spain)”

Enrique Baquero, Rafael JORDANA
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Type material designation and species description; addendum to “Distinctive Collembola Communities in the Mesovoid Shallow Substratum: Entomobryomorpha of the Sierra de Guadarrama National Park (Central Spain)”

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MOTS CLÉS
Mesovoid shallow
substratum (MSS),
subterranean sampling
devices (SSD),
ecology,
new species.

ABSTRACT

The specimens identified as *Entomobrya intermedia* Brook, 1883 by Katz *et al.* (2015) have been proposed to be a new species from the USA, *Entomobrya katzi* Jordana & Baquero n. sp. (Baquero *et al.* 2021). However, type material had not been designated. Here we provide a diagnosis and designate type material for *Entomobrya katzi* Jordana & Baquero n. sp.

RÉSUMÉ

Désignation du matériel type et description d'espèce; addendum à « Communautés distinctes de collembolles dans le milieu souterrain superficiel : Entomobryomorpha du parc national de la Sierra de Guadarrama (centre de l'Espagne) ».

Les spécimens identifiés comme *Entomobrya intermedia* Brook, 1883 par Katz *et al.* (2015) ont été proposés comme une nouvelle espèce des États-Unis, *Entomobrya katzi* Jordana & Baquero n. sp. (Baquero *et al.* 2021). Cependant, le matériel type n'avait pas été désigné. Ici, nous fournissons une diagnose et désignons le matériel type pour *Entomobrya katzi* Jordana & Baquero n. sp.

MOTS CLÉS
Milieu souterrain
superficiel (MSS),
trappes d'échantillonnage
souterrain,
écologie,
espèce nouvelle

INTRODUCTION

Sometimes the misidentification of species, if accompanied by a good description, provides an excellent opportunity to describe a new species. This happened with the brilliant paper from Katz in 2015, with a few specimens then identified as *Entomobrya intermedia* Brook, 1883 (Katz *et al.* 2015). In the paper of Baquero *et al.* (2021), considering these specimens, *Entomobrya katzi* Jordana & Baquero n. sp. was defined as a new species, but it is true that some important details were missing for a good description. With the publication of this addendum, the species becomes valid after a short period as *nomen nudum* due to the lack of a complete description. With the publication of this addendum, the species is now fully described.

ABBREVIATION

INHS Illinois Natural History Survey, Champaign.

SYSTEMATICS

Class COLLEMBOLA Lubbock, 1870
Order ENTOMOBRYOMORPHA Börner, 1913,
sensu Soto-Adames *et al.* 2008
Family ENTOMOBRYIDAE Schäffer, 1896
Subfamily ENTOMOBRYINAE Schäffer, 1896
sensu Zhang & Deharveng 2015
Genus *Entomobrya* Rondani, 1861

Entomobrya katzi Jordana & Baquero n. sp.

[urn:lsid:zoobank.org:act:238FE982-D643-4C8C-8AA7-B57D11DDCC9C](https://doi.org/10.3897/zookeys.525.6020.figure21)

Entomobrya katzi Jordana & Baquero in Baquero *et al.*, 2021, *nomen nudum*.

TYPE MATERIAL. — **Holotype.** USA • ♀; Pennsylvania, Chester Co., Wayne; 40.0662, -75.3769; 130 m a.s.l.; 23.V.2011; A. Katz leg.; sweep of *Forsythia* sp.; INHS 1007501 and INHS 10007502 (head and body in two different slides), code AK11-32.

Paratypes. USA • ♀ on two slides; INHS 1007503 and INHS 10007504; same data; AK11-32; A. Katz leg.; INHS • 8 undetermined sex on slides; INHS 1007505-1007520; same data; AK12-

50; A. Katz leg.; INHS • 12 in ethyl alcohol; INHS 1007521; 29.VI.2012; AK12-50; A. Katz leg.; INHS.

TYPE LOCALITY. — USA, Pennsylvania, Chester Co., Wayne, coordinates 40.0662, -75.3769; 130 m a.s.l.

ETYMOLOGY. —The specific epithet, *katzi*, is referred to Aron Katz, the Collembola researcher from USA who captured the specimens now described as new species and mentioned them in a paper in 2015.

DIAGNOSIS. — Yellow background, with longitudinal pigmentation (principally two bands: dorsolateral and lateral), multispinate labral papillae, 3-5 Mc on areas T1-T2 on Th II, 2-2/1-0-1 Mc on areas A1-A5 on Abd IIIII, and 0-4-1-2-2 on Abd IV. The unequivocal identification of the species can only be done using the abbreviated formula that, for this species, is: 3-2-0-1(2)-2/3-5/2-2/0-4-1-2-2 (following Jordana & Baquero 2005).

DESCRIPTION

Size and color

Ground color yellow, with pigment in a longitudinal patron on lateral head and body, dorsolateral Th II–Abd IV, two dorsal patches on Abd II, one on anterior Abd III, and a transversal pale stripe (W-shaped) on Abd IV (fig. 21 in Katz *et al.* 2015 <https://doi.org/10.3897/zookeys.525.6020.figure21>).

Head

Eight eyes, GH subequal and smaller than EF. Ant IV with simple apical vesicle and pin chaeta present; sensory organ of Ant III as usual for the genus. Prelabral chaetae ciliated; labral smooth. Labral papillae multispinose. Lateral process of labial papilla E slightly curved, thin, nearly reaching tip of papilla. Maxillary palp bifurcated, with three sublobal chaetae. Labial row with –MRELL, R 1/3 of M, all ciliated.

Body and legs

Length ratio of Abd IV/III c. 4. Trochanteral organ with approximately 31 chaetae. Tibiotarsus not sub-segmented, without smooth chaetae, except for smooth terminal chaeta on legs III. Claw with four teeth: paired at 50% and first unpaired at 75% from base; dorsal teeth basal. Empodium

TABLE 1. — Differences between the species that *E. intermedia* Brook, 1883; *E. katzi* Jordana & Baquero n. sp.; *E. leonensis* Jordana & Baquero, 2005; and *E. nivalis* (Linnaeus, 1758). Legend for the headers of the columns: **HEAD:** **H1**, Mc on series sd'4-sd'4' (An2-An3), total number; **H2**, Mc on series sd4-sd'3a (A5-A7), total number; **H3**, Mc on series d'0 (S'0), total number; **H4**, Mc on series d1-sd1-sd'1 (S1-S3-S4), total number; **H5**, Mc on series v1-v3-v4 (Ps2-Ps3-Ps5), total number; **L1**, labral papilla presence and shape: 1, without; 2, simple, smooth papilla; 3, multispinose; 4, a chaetalike projection. **AV**, Antennal apical vesicle: 0, no bulb; 1, lobule simple; 2, bilobed; 3, trilobed; **AH**, Ant/Head ratio: 1, > or = 3; 2, > or = 2 < 3; 3, < 2; **Th II:** **T1**, Mc on series m1-m2i2; total number, 5 if > 4; **T2**, Mc on series a5-m5; total number, 9 if > 8; **CLAW:** **CD**, claws dorsal tooth: 0, absent; 1, basal; 2, internal teeth level; 3, intermediate; 4, duplicate; **EM**, external empodium: 0, smooth; 1, serrate; 2, with tooth; **Abd II:** **A1**, Mc on series a2-a3, total number; **A2**, Mc on series m3 series, total number; **Abd III:** **A3**, Mc on series a1, total number; **A4**, Mc on series above m2, total number; **A5**, Mc on series m3-m4 series, total number; **Abd IV:** **A6**, Mc on series a1-a5 (A1E1a), total number; 9 if > 8; **A7**, Mc on series ma1-ma4 (A2-E1), total number; 10 if > 9; **A8**, Mc on series m1-m3 (A4p-C4), total number; 6 if > 5; **A9**, Mc on series mp1-mp3 (A5-B5), total number; 6 if > 5; **A10**, Mc on series p1a-p3 (A6i-B6), total number; 6 if > 5. Abbreviations and symbols: *, difference for the character with the new species; **D**, total number of differences between the species and the new species; occasional number in brackets; **U**, unknown.

Species	H1	H2	H3	H4	H5	L1	AV	AH	T1	T2	CD	EM	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	D
<i>E. intermedia</i>	3	1(2m)	0	3*	2	1*	1	1	3(4)	4(5)	1	0	2	2(4)	1	0	1	0	5(6)*	0*	2	2	4
<i>E. katzi</i> Jordana & Baquero n. sp.	3	2	0	1(2)	2	2	1	1	3	5	U	U	2	2	1	0	1	0	4	1	2	2	–
<i>E. leonensis</i>	3	3*	0	3*	2	2	2*	1	4*	4*	2	1	2	3*	1	0	1	0	3*	2*	2	2	8
<i>E. nivalis</i>	3	1*	0	3*	2	2	2*	1	4*	4*	1	1	2	3*	1	0	1	0	3*	0*	2	2	8

acuminate, with finely serrate external lamella (pe) in leg III. Tenent hair clavate. Manubrial plate with four (sometimes up to six) chaetae and two pseudopores. Sensillar formula from Th II to Abd V normal as in the rest of Entomobryinae (Zhang & Deharveng 2015): 2,2/1,2,2,7 n,3; microsensillar formula from Th II to Abd III: 1,0/1,0,1.

Macrochaetotaxy

Simplified Mc formula: 3-2-0-1(2)-2/3-5/2-2/1-0-1/0-4-1-2-2. Head: H1 area with Mc An2, An3a and An3; H2 area with Mc A5 and A6; S'0 absent (H3); H4 area with one Mc (S3), and S1 sometimes present; H4' area with three Mc (S4, S5i and S5); H5 area with Ps2 and Ps5 as Mc. Mesothorax: area T1 with three Mc: m1, m2 and m2i; T2 with five Mc: m4, m4i, m4p, a5 and m5; a5' present but small. Abdomen: Abd II area A1 with two Mc (a2 and a3); area A2 with two Mc (m3 and m3e); Abd III with one Mc on area A3 (a1), without Mc on A4, and another Mc on A5 (m3); Abd IV with or without Mc on A6 area (B1), four Mc on A7 (A2, B2, B3 and C1), one Mc on A8 (A4a), two Mc on A9 (A5 and B5), and two on A10 (A6 and B6).

REMARK

Most of the information in this addendum has been obtained from the work of Katz *et al.* (2015) in which a group of specimens was presented as belonging to the species *E. intermedia*, but considering their characters did not coincide with those of the specimens of *E. intermedia* described in Europe.

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