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New data on the Zygentoma (Insecta, Apterygota) from Italy

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Summary

The fauna of Zygentoma from Italy is reviewed and extended by new data. *Ctenolepisma guadianica* and *Allacrotelsa kraepelini* are new to Italy (the second one is also a new genus for this country). *Neoasterolepisma crassipes* is new to continental Italy and *Atelura formicaria* is new to Sicily. *Neoasterolepisma angustothoracica* (Grassi & Rovelli, 1890) n. comb., is redescribed.

The Zygentoma fauna of Italy is composed of 24 species, 2 of Ateluridae (*Atelura formicaria* and *Proatelurina pseudolepisma*), 16 of Lepismatidae (*Allacrotelsa kraepelini*, *Ctenolepisma algharbica*, *C. ciliata*, *C. guadianica*, *C. lineata*, *C. longicaudata*, *C. targionii*, *Lepisma chlorosoma*, *L. saccharina*, *Neoasterolepisma angustothoracica*, *N. balcanica*, *N. crassipes*, *N. wasmanni*, *Thermobia domestica*, *Tricholepisma aurea* and *T. gyринiformis*) and 6 of Nicoletiidae (*Coletinia maggi*, *C. setosula*, *C. subterranea*, *Coletinia* sp. III, *Lepidospora* sp. and *Nicoletia phytophila*). A key to the identification of all these species is given.

Key words: Zygentoma, Italy, fauna, taxonomy, *Neoasterolepisma angustothoracica*, key to Italian fauna

Introduction

The first data concerning the fauna of *Zygentoma* from Italy were given by Parona (1882–1888), Grassi (1887) and Grassi & Rovelli (1889), including the description of some new species. Since then, some other entomologists have studied material from this country (see Table 1 and references). However, the information provided by these works is very fragmentary and none of it offers an overall view of the fauna of *Zygentoma*, neither for Italy nor Europe. At most, only one family, the Nicoletiidae, has been reviewed in detail in Europe (Wygodzinsky 1980). The present paper attempts to combine the data dispersed in the literature with results obtained from the study of some new material collected in continental Italy and in Sicily, to give a catalogue of the fauna of Italy. Special attention is paid to faunistic novelties and to the case of *Lepisma angustothoracica* Grassi & Rovelli, 1889, a species that has never been found since its original description and was treated as “species inquirenda” (Mendes 1988).

Results and Discussion

New records

FAM. ATELURIDAE

Atelura formicaria (Heyden, 1855)

Muto, near Monte Soro, Messina, Sicily, 4-10-95, 1 female, with ants (*Tetramorium* sp.), Ref. Z2122. Etna, Sicily, chestnut-tree forest, 5-10-95, 2 males with ants (*Tetramorium* sp.), Ref. Z2123.

This species had been reported from continental Italy (Grassi & Rovelli 1889) as *Lepismina polipodia*, and later by Janetschek (1951); now it has been recorded for the first time in Sicily. The specimens coincide well with the studied specimens coming from other countries of Europe, this being the most southern report known for this species and for the genus *Atelura*.

Proatelurina pseudolepisma (Grassi & Rovelli, 1889)

Pontignano, Siena, 25-8-89, 1 female, Ref. Z2124. Pontignano, Siena, 30-10-95, 1 juvenile, Ref. Z2125.

This species is widely distributed in the Italic Peninsula, and it is also present in many Italian islands.

FAM. LEPISMATIDAE

Allacrotelsa kraepelini (Escherich, 1905)

Monte Argentario-Cacciarella, 13-10-95, 1 male, 1 female and 1 juvenile, Ref. Z2112.

This species was previously known from some countries of the Eastern Mediterranean Region, from where it was described, and from Spain and Portugal, where it was found later. The hypothesis that there is a wide gap in the distribution of this species in the Central Mediterranean Region was rejected with the discovery of some specimens of *Allacrotelsa kraepelini* in the Italic Peninsula.

***Ctenolepisma ciliata* (Dufour, 1831)**

Near Cesaró (Sicily) 4-10-95, 2 females and 1 juvenile, Ref. Z2113. Siracusa, chalky stony ground, 5-10-95, 2 males and 2 females, Ref. Z2114. Antillo, Messina, Sicily, 5-10-95, 6 males, 7 females and 6 juveniles, Ref. Z2115.

This termophilic species is very common in Sicily and it is found also in Sardinia and other Italian islands, but its presence in continental Italy has not been reported since Escherich (1905), although it is probably common in the southern part of the Italic Peninsula.

***Ctenolepisma guadianica* Mendes, 1993**

Monte Argentario, Cacciarella, 1 juvenile, 13-10-95, Ref. Z2116. Antillo, Messina, Sicily, 1 female, 5-10-95, Ref. Z2117.

Recently described from the southeastern part of Portugal, in the Guadiana river valley (Mendes 1993), this species was recorded later in Andalusia in the south of Spain and in other Mediterranean provinces of eastern Spain, including the island of Ibiza (Molero-Baltanás et al. 1994 and Molero-Baltanás 1995 (unpublished data)). Its appearance in Italy, not only in the Italic Peninsula but in Sicily, for the first time, demonstrates that this species is not endemic in Portugal and Spain. Probably it is more widely spread than has been known up to now, and its recent discovery is due to the small size of the specimens, to the special habitat they frequent (grounds covered by a thin layer of gravel, in arid sites) and to the difficulties in capturing these insects in an environment where they move quickly among the small stones.

***Ctenolepisma lineata* (Fabricius, 1775)**

Campiglia d'Orcia, Siena, in a house, 29-10-95, 1 male, Ref. Z2118.

This species is usually found in houses, but sometimes it appears also in natural environments in warm sites.

***Ctenolepisma longicaudata* Escherich, 1905**

Grosseto, in a house, 20-10-95, 1 male, Ref. Z2119.

Strictly an anthropophilic species, *C. longicaudata* had been reported repeatedly in continental Italy and in some Italian islands. The report of *C. ciliata* var. *dives* for Sicily (Silvestri 1908) corresponds unquestionably to this species.

***Ctenolepisma targionii* (Grassi & Rovelli, 1889)**

Siena, in a house, 31-10-95, 1 female, Ref. Z2120.

This anthropophilic species was described from Italy, but probably its original area is situated in the Eastern Mediterranean region.

***Lepisma saccharina* Linnaeus, 1758**

Near Cesaró (Sicily) 4-10-95, 2 females, Ref. Z2121

Although this species has been found throughout Italy, it behaves as a strict anthropophile in the northern area of the country. Many reports do not specify the habitat where the species has been collected, but some of the specimens found in Sardinia, Sicily and perhaps in some southern regions of continental Italy could have been encountered in natural environments, as the specimens reported here.

Neoasterolepisma angustothoracica (Grassi & Rovelli, 1889) n. comb.

Antillo, Messina, Sicily, 5-10-95, one male, **neotype** (deposited in the collection of the Dept. of Animal Biology of Córdoba University, Ref. Z2126), collected from an ant nest of *Messor* sp. with *Neoasterolepisma crassipes*.

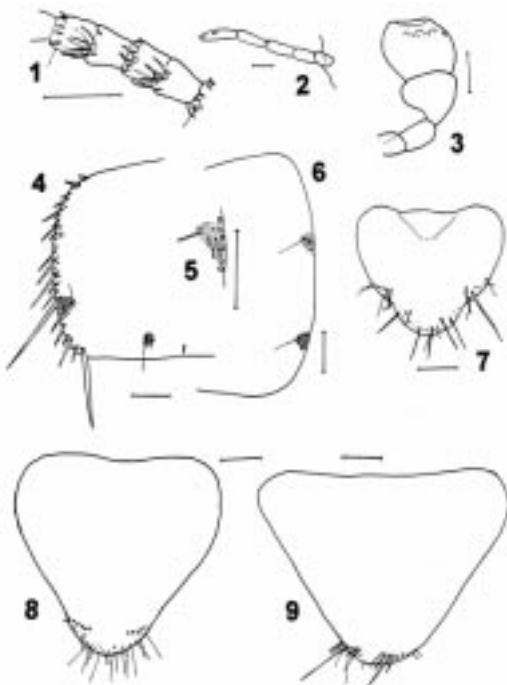
REDESCRIPTION:

Body length: 4.6 mm. Thorax length: 1.5 mm. Thorax width: 0.95 mm. Antennae length (apical part damaged): 1.9 mm. Cerci length: 0.8 mm. Terminal filament length: 0.6 mm (damaged).

Body shape slender, parallel-sided, thorax not as widened as in other *Neoasterolepisma* species; the shape of the specimen is more similar to the habitus of *Lepisma chlorosoma* Lucas, 1846. Scales yellowish-brown (in alcohol), pigment yellowish, scarce. Head without special features. Antennae with asteriform sensilla arranged as in Fig. 1, with a pattern of distribution of type 3+2 (that is, in a pair of distal chains there are 3 sensilla in the proximal distal chain and 2 in the apical distal chain, the third sensilla of the proximal chain bearing only two branches). Maxillary palp (Fig. 2) with tiny setae, its apical segment similar in length to the preceding, with two sensilla consisting of two branches each. Apical segment of the labial palp (Fig. 3) wider than it is long and provided with 2+3 papillae of the usual type (compact).

Hind margin of pronotum and mesonotum slightly concave, more markedly concave in the metanotum, with 4+4 tiny and short cilia in pronotum, 2+2 in mesonotum and 1+1 in the metanotum. Open trichobothrial areas subtriangular and wide, as in Figs. 4, 5 and 6, with 4–7 spinulae. Closed trichobothrial areas small and with 3–4 setulae, as in Fig. 6.

Prosternum (Fig. 7) wider at the base than it is long, constricted near its apical third,



Figs. 1–9. *Neoasterolepisma angustothoracica* n. comb., neotype. 1. Periodic section of the flagellum of the antenna showing two distal chains, the basal one with 3 asteriform sensilla, and the apical one with 2 sensilla; 2. Maxillary palp; 3. Labial palp; 4. Left side of the metanotum, showing open anterior trichobothrial area; 5. Right anterior trichobothrial area of the pronotum; 6. Right side of the pronotum, showing the trichobothrial areas; 7. Prosternum; 8. Mesosternum; 9. Metasternum. Scale: 0.1 mm

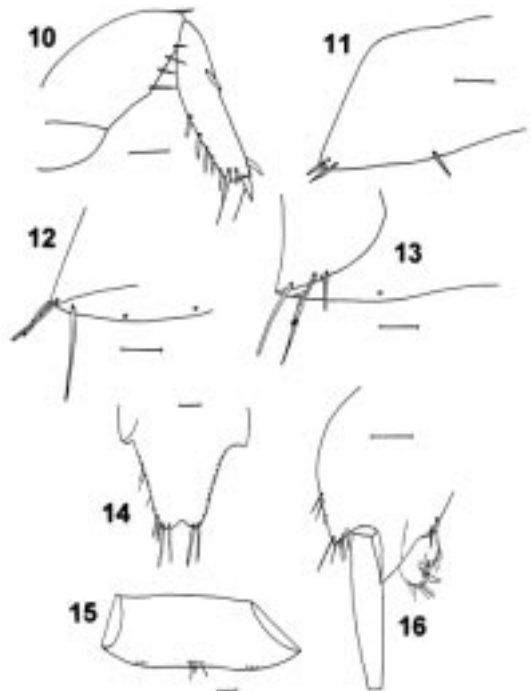
with 2+2 combs, the subapical ones not well defined, with 3–5 macrosetae each. Mesosternum (Fig. 8) as long as wide at the base; metasternum (Fig. 9) wider than it is long, both with 1+1 combs composed of 6–7 macrosetae. In the metasternum, the distance that separates the combs is clearly shorter (about 0.5 to 0.7 times) than their width.

Legs without special features. Hind tibiae (Fig. 10) not modified, but with 3–4 strong spiniform setae arranged on the ventral side of the segment. They are about 4.2 times longer than their diameter.

First urotergite with 1+1 infralateral groups of two macrosetae, 1+1 very close sublateral macrosetae, and 1+1 short submedian macrosetae (Fig. 11). Urotergites II–VIII with 1+1 infralateral, 1+1 sublateral, 1+1 lateral and 1+1 submedian macrosetae (Figs. 12 and 13). Infralateral macrosetae isolated, only accompanied by an outer tiny seta. The length of the submedian macrosetae is about 0.6–0.7 times the length of the urotergite where they are inserted. There is no reduction of the length of the infralateral macrosetae in the posterior urotergites. Only infralateral macrosetae in the IXth urotergite. Urotergite X (Fig. 14) nearly longer than it is wide at the base, with a defined and moderately deep concavity in its hind margin.

Median combs of urosternites with 4–7 macrosetae (only in the 2nd urosternite with 8 macrosetae), lateral combs with 2–4 macrosetae (Fig. 15). The distance between the lateral combs and the median one is about 4 to 5.5 times longer than the width of the lateral ones.

IXth coxite as in Figure 16, the inner process 1.3 times wider than it is long at base and 2.5 times longer than the outer process. Stylet IX long, broken at its apex but at least 3 times longer than the inner process of the coxite. Paramera big, practically reaching the level of the apex of the inner process of the coxite, with about 9 cilia in the basal area and 5–7 in the distal, with a glandular area well developed.



Figs. 10–16. *Neoasterolepisma angustothoracica*, n. comb., neotype. 10. Hind tibia; 11. Urotergite I, left side; 12. Urotergite II, posterior part of the left side; 13. Urotergite IV, posterior part of the left side. 14. Urotergite X; 15. Urosternite IV; 16. Coxite IX, with stylet broken in the apex. Scale: 0.1 mm

Discussion

Lepisma angustothoracica was described by Grassi and Rovelli in 1889 and had never been found until now. That is the reason why Mendes (1988) treated it as “species inquirenda” in his revision of the genus *Lepisma* sensu latum, arguing that the material studied by Grassi could not be found. In spite of the short and not very clear and precise original description of Grassi and Rovelli, the characteristics given and the little drawing presented in that work do not agree with any of the Lepismatidae known in Italy, but coincide with the features of the specimen found recently in Sicily, so it is reasonable to consider it as *L. angustothoracica*. A deeper study of this specimen using characteristics currently deemed of value in taxonomic identification of Lepismatidae would include it in the genus *Neoasterolepisma*, as it shows asteriform specialized sensilla and open posterior trichobothrial areas in the pronotum. The species belongs to a group of *Neoasterolepisma* without modifications in the hind tibiae of the males and without pseudostyla, but with compact labial papillae and few macrosetae in the urosternites – the “*myrmecobia*-group” (Mendes 1992a) –. When compared with the species of this group, *N. angustothoracica* has a very characteristic chaetotaxy of the infralateral groups of the urotergites, with only one macroseta and a thin outer seta. Only three species of the group share this feature: *N. santschii* (Silvestri, 1908), *N. braunsi* (Escherich, 1903) and *N. myrmecobia* (Silvestri, 1908).

N. santschii has a close distribution in the Mediterranean region, where it has been found in Tunisia, which is not far from Sicily, where *Neoasterolepisma angustothoracica* occurs. But these two species clearly differ morphologically, especially in the shape of the open trichobothrial areas, which are very long and narrow in *N. santschii* but wider and shorter in *N. angustothoracica*.

N. braunsi, a species from South Africa, shows many differences too, in spite of insufficient knowledge. Its intense pigmentation, wider thorax, different chaetotaxy of the IXth urotergite and the different shape and chaetotaxy of the thoracic sternites are four remarkable differences between this and the Italian species.

N. myrmecobia is very common in the Macaronesian region, and it is probably the species most similar to *N. angustothoracica*. However *N. myrmecobia* has a more limuloid body shape, with a wider thorax, open trichobothrial areas which are wider, a mesosternum which is longer than it is wide at the base (as long as wide at the base in the Sicilian species), and a Xth urotergite which is clearly shorter than the Italian species. Moreover, the pattern of distribution of asteriform sensilla in the flagellum of the antennae is different, too (type 3+2 in *N. angustothoracica*, type 4+3 or sometimes 3+3 in *N. myrmecobia*).

The study of more material belonging to these species will define the margin of variability of these and other characteristics in order to establish valid interspecific differences, but we consider that the male studied has enough characteristics to belong to *N. angustothoracica*, and we have designed this specimen as a neotype.

Neoasterolepisma crassipes (Escherich, 1905)

Pontignano, Siena, 30-10-95, 1 juvenile, Ref. Z2127. Siracusa, Sicily, chalky stony ground, 5-10-95, 1 female with *Messor* sp. and *Tricholepisma aurea*, Ref. Z2128. Antillo, Messina, Sicily, 5-10-95, 1 male with *Messor* sp. and *Neoasterolepisma angustothoracica*, Ref. Z2129.

Known from Sicily, this is the first time this species has been found in continental Italy.

***Tricholepisma aurea* (Dufour, 1831)**

Pontignano, Siena, 19-10-95, 1 juvenile, Ref. Z2130. Siracusa, Sicily, chalky stony ground, 5-10-95, 1 female with *Messor* sp. and *Neoasterolepisma crassipes*, Ref. Z2131.

This is probably the most common and widespread myrmecophilic species of Lepismatidae found throughout Italy.

Catalogue of the Italian fauna of Zygentoma:

The catalogue of Italian *Zygentoma* (Table 1) comprises 24 species, of which two are of Ateluridae, 16 of Lepismatidae and six of Nicoletiidae. The most diverse genus is *Ctenolepisma*, with six species, but it seems likely that *Coletinia*, which includes troglobitic species could ultimately be found to contain a higher number of species, as cave faunas have so far been relatively poorly studied. Some names reported in old works are clear synonyms of actual species (Table 1), but other names are doubtful because they correspond to more than one species of one or more genera (for example, *Lepisma myrmecophila* reports made by Parona); with one exception, species without clear evidence of their identity are not included in the catalogue. The only species included in the catalogue (and key – see below) whose occurrence in Italy is doubtful is *Nicoletia phytophila*; this species is included because its data suggest that it may be a misidentification of *Coletinia* spp.; such misidentification was demonstrated by Mendes (1992b) for a report of *Nicoletia phytophila* by Paclt (1966): the specimens were actually *Coletinia maggi*.

Table 1. Catalogue of the Zygentoma from Italy. * Abbreviations of author names: Esch = Escherich; Gr = Grassi; Jan = Janetschek; Par = Parona; Rov = Rovelli; Silv = Silvestri; Wyg = Wygodzinsky. ** Abbreviations for geographic regions: I = Continental Italy, SA = Sardinia; SI = Sicily; O = other islands. (regions underlined: new faunistic records of this work).

SPECIES	REFERENCES*	DISTRIB.**	SYNONYMS RECEIVED
<i>Atelura formicaria</i>	Gr., 1887; Gr. & Rov., 1889; Jan., 1951; New data	I, <u>SI</u>	<i>Lepisma polipodia</i> <i>Lepismina polipodia</i>
<i>Proatelurina pseudolepisma</i>	Gr., 1887; Gr. & Rov., 1889; Wyg., 1953; Paclt, 1961; Mendes, 1980b and 1981; Mendes & Bach, 1981; New data	I, SA, SI, O	<i>Atelura pseudolepisma</i> <i>Lepismina pseudolepisma</i> <i>Proatelura pseudolepisma</i>
<i>Allacrotelsa kraepelini</i>	New data	I	
<i>Ctenolepisma algharbica</i>	Irish, 1995	SA	
<i>Ctenolepisma ciliata</i>	Par., 1885; Gr., 1887; Gr. & Rov., 1889; Esch., 1905; Stach, 1926; Wyg., 1941, 1953 and 1957; Paclt, 1966; Mendes, 1980b; Irish, 1995	I, SA, SI, O	<i>Lepisma ciliata</i> <i>Lepisma fuliginosa</i> <i>Lepisma mauritanica?</i>
<i>Ctenolepisma guadianica</i>	New data	I, <u>SI</u>	
<i>Ctenolepisma lineata</i>	Par., 1882, 1885; Gr. & Rov., 1889; Mendes, 1980b; Paclt, 1966; New data	I, SA, SI, O	<i>C. lineata pilifera</i> <i>Lepisma parisiensis</i> <i>Lepisma pilifera</i> <i>Lepisma vittata</i> <i>C. ciliata</i> var. <i>dives</i>
<i>Ctenolepisma longicaudata</i>	Silv., 1908; Wyg., 1957; Paclt, 1966 (cf.); Mendes, 1980b; Irish, 1995; New data	I, O, SI	
<i>Ctenolepisma targionii</i>	Gr. & Rov., 1889; Esch., 1905; Mendes, 1980b; Irish, 1995; New data	I, SA, SI	<i>Lepisma targionii</i>
<i>Lepisma chlorosoma</i>	Gr. & Rov., 1889	I, SA, SI	<i>Lepisma lucasi</i>
<i>Lepisma saccharina</i>	Par., 1885, 1887 and 1888; Gr., 1887; Gr. & Rov., 1889; Mendes, 1908b; Irish, 1995; New data	I, SA, SI, O	
<i>Neoasterolepisma angustothoracica</i>	Gr. & Rov., 1889; New data	SI	<i>Lepisma angustothoracica</i>

SPECIES	REFERENCES*	DISTRIB.**	SYNONYMS RECEIVED
<i>Neoasterolepisma balcanica</i>	Paclt, 1966	SI	<i>Lepisma balcanica</i>
<i>Neoasterolepisma crassipes</i>	Stach, 1926; Wyg., 1941 and 1957; Mendes, 1978 and 1980b; Irish, 1995; New data	I, SA, SI, O	<i>Lepisma crassipes</i>
<i>Neoasterolepisma wasmanni</i>	Wyg., 1957; Mendes, 1980a	I, O	<i>Lepisma wasmanni</i>
<i>Thermobia domestica</i>	Gr., 1887; Gr. & Rov., 1889; Mendes, 1980b; Irish, 1995	I, O	<i>Thermophila furnorum</i>
<i>Tricholepisma aurea</i>	Par., 1882, 1885; Gr. & Rov., 1889; Esch., 1905; Silv., 1912; Paclt, 1966; Wyg., 1941; Mendes, 1980 a and b; Irish, 1995; New data	I, SA, SI	<i>Lepisma aurea</i>
<i>Tricholepisma gyrimiformis</i>	Gr. & Rov., 1889; Irish, 1995	I, SI	<i>Lepisma lubbocki</i>
<i>Coletinia maggii</i>	Par., 1888; Gr. & Rov., 1889; Paclt, 1961; Wyg., 1980; Mendes, 1981 and 1992b	I, SI	<i>Nicoletia maggii</i> <i>Nicoletia phytophila</i>
<i>Coletinia setosula</i>	Wygodz., 1980	SI	
<i>Coletinia subterranea</i>	Esch., 1905; Wyg., 1980; Mendes, 1992b	I, SA, SI	<i>Nicoletia subterranea</i>
<i>Coletinia sp. III</i>	Wyg., 1980	I	
<i>Lepidospora spp.</i>	Wyg., 1980	I	
<i>Nicoletia phytophila</i> (?:)	Par., 1888; Gr. & Rov., 1889	I, SI	<i>N. geophila?</i> <i>N. grassi?</i>

Key to the Italian species of the order Zygentoma:

1. Without eyes, with or without scales. 2
 - With eyes and with scales 9
2. Body shape fusiform, short; thorax broader than abdomen. With golden scales 3
 - Body shape elongated and cylindrical, thorax as broad as abdomen. With or without scales, pigment often absent 4
3. Three pairs of abdominal stylets in urites VII, VIII and IX. Apex of galea with two sensorial tubercles. *Proateturina pseudolepisma*
 - Eight pairs of abdominal stylets in urites II-IX. Apex of galea with one single tubercle *Atelura formicaria*
4. Body covered with scales *Lepidospora* spp.
 - Body without scales 5
5. Urosternites I-VII divided by two sutures in two lateral coxites and one median sternite *Nicoletia phytophila*
 - Urosternite I divided, urosternites II-VII composed by a single urosternal plate, not divided (Genus *Coletinia*) 6
6. Setae inserted on the frons very numerous and subequal in length *Coletinia setosula*
 - Fewer setae inserted on the frons and differentiated in two types: distinct macrosetae and short bristles 7
7. Males with asymmetrical antennae, with the right pedicel showing a simple triangular process and the left pedicel with two long and narrow prolongations. Both sexes with the posterior portion of body brown pigmented *Coletinia subterranea*
 - Males unknown or with symmetrical antennae, the apophyses of the pedicel identical. Both sexes scarcely and uniformly pigmented with yellow or light brown colour 8
8. Females with the apex of the Xth urotergite straight across. *Coletinia maggii*
 - Female with the Xth urotergite showing an apical emargination *Coletinia* sp. III
9. Macrosetae barbed. Paramera absent 10
 - Macrosetae smooth, apically bifid or trifid. Males with paramera 16
10. Urotergites with at most 2+2 bristle-combs of macrosetae *Thermobia domestica*
 - At least urotergites II-V with 3+3 bristle-combs of macrosetae (Genus *Ctenolepisma*) 11
11. With median urosternal combs. Urotergite X trapezoidal. 12
 - Without median urosternal combs. Urotergite X trapezoidal or not 13
12. Coxite IX with a transverse comb. Urotergite VI with 3+3 combs. Both sexes with one pair of stylets. Dorsal scales brown or grey, epidermal pigment present, brownish *Ctenolepisma guadianica*
 - Coxite IX without a transverse comb. Urotergite VI with 2+2 combs. Males with one pair of stylets, females with two pairs. Dorsal scales silvery-grey, hypodermal pigment absent or very light, yellowish. *Ctenolepisma targionii*
13. Urotergite X short, often subtriangular with convex, more or less rounded apex (except for *C. algharbica*). Three or two pairs of abdominal stylets (mature specimens). Tibiae with lanceolate scales, femora with lanceolate or subtriangular scales on its inner side. Anterior trichobothria of mesonotum inserted in the penultimate lateral combs 15
 - Urotergite X trapezoidal, with straight or nearly straight posterior border, truncate. Two pairs of abdominal stylets. Tibiae without scales, femora with rounded scales on its inner side. Anterior trichobothria of mesonotum inserted in the antepenultimate lateral combs 14
14. With intense pigmentation, especially in the appendages, brownish. Body length usually not exceeding 11 mm. Antennae and caudal filaments slightly or clearly shorter than the body length. As a rule not found in houses *Ctenolepisma ciliata*
 - Without pigment or scarcely yellowish pigmented tegument. Body length exceeding 11 mm in well developed adults. Antennae and caudal filaments as long or longer than the body length. Anthropophilic species. *Ctenolepisma longicaudata*

15. Urotergite X short but trapezoidal, with straight posterior border. Urotergite VII with 2+2 combs. Two pairs of abdominal stylets. *Ctenolepisma algharbica*
 – Urotergite X short and subtriangular, with convex posterior border. Urotergite VII with 3+3 combs. Three pairs of abdominal stylets. *Ctenolepisma lineata*
16. Urotergites with macrosetae arranged in combs. Labial palp elongated with papillae arranged in circle. Males with pseudoarticulate paramera. *Allacrotelsa kraepelini*
 – Urotergites with isolate macrosetae, usually 1+1 infralateral groups of 1–3 macrosetae and 3+3 isolated macrosetae in sublateral, lateral and submedian position. Labial palp with papillae arranged in two lines, 2+3. Paramera present but not articulated. 17
17. Posterior trichobothrial areas of pronotum closed, not in contact with the border of the notum. Specialized sensilla of campaniform type. Paramera big, as long or longer than the IXth coxite (Genus *Lepisma*) 18
 – Posterior trichobothrial areas of pronotum open, in contact with the border of the notum. Specialized sensilla of asteriform type. Paramera smaller, shorter than the IXth coxite 19
18. Scales dorsally uniformly silvery grey. Infralateral groups of urotergites with two macrochaetae and one tiny seta. *Lepisma saccharina*
 – Scales dorsally not uniform, greyish with transversal bands of light scales at thorax. Infralateral groups of urotergites with one single macrochaeta and one tiny seta *Lepisma chlorosoma*
19. Hind borders of nota with a range of macrochaetae (Genus *Tricholepisma*) 20
 – Hind borders of nota without macrochaetae, only with some tiny setae (Genus *Neoasterolepisma*) 21
20. Urosternites without spiniform setae. *Tricholepisma gyriniformis*
 – Posterior urosternites with spiniform setae *Tricholepisma aurea*
21. Urosternite VII with pseudostylae *Neoasterolepisma crassipes*
 – Urosternite VII without pseudostylae. 22
22. Posterior urosternites with spiniform setae *Neoasterolepisma balcanica*
 – Urosternites without spiniform setae. 23
23. Hind tibia of the male not modified. Body shape narrow, subcylindrical, with the thorax slightly wider than the base of the abdomen *Neoasterolepisma angustothoracica*
 – Hind tibia of the male modified. Body shape limuloid, with widened thorax *Neoasterolepisma wasmanni*

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