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REMARKS ON PUBLISHED DATA ON HARVESTMEN (ARACHNIDA: OPILIONES) FROM SLOVENIA

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ABSTRACT

A critical review of the literature on harvestmen from Slovenia was made to evaluate the data. Where needed, comments and/or corrections were added to avoid further confusion. 57 of 63 species known to inhabit Slovenia have been cited. In comparison to the relatively long reference list, only few harvestman localities in Slovenia have been published, but there are many mistakes. Two major types of mistakes have occurred: errors related to inadequate determinations and those caused by using garbled locality names, especially by foreign authors. Thus the in-field collected data should be critically examined before further use. Apart from making use of the Atlas of Slovenia, consultations with native biologists, geographers and/or linguists are strongly recommended.

Key words: bibliography, Opiliones, Slovenia

OSSERVAZIONI SUI DATI PUBBLICATI SUGLI OPILIONI (ARACHNIDA: OPILIONES) DELLA SLOVENIA

SINTESI

Gli autori hanno effettuato una revisione critica dei dati di letteratura sugli opilioni della Slovenia. Diversi dati sono risultati incorretti. Per evitare ulteriore confusione, gli autori hanno apportato correzioni e aggiunto commenti dove si sia rivelato necessario. Nel testo vengono citate 57 delle 63 specie note in Slovenia. Vista la lunga lista di letteratura pubblicata sull'argomento, è risultato scarso il numero dei luoghi di ritrovamento in Slovenia, e molti siti citati si sono rivelati incorretti. Gli errori registrati risultano di due tipi: determinazioni inadeguate e citazioni sbagliate dei nomi dei luoghi di ritrovamento, pubblicati principalmente da autori stranieri.

Parole chiave: bibliografia, Opiliones, Slovenia

INTRODUCTION

In the present contribution, the aim was to examine the taxonomic value of published data on harvestmen from Slovene territory according to the present knowledge, and to replace the incorrect and old locality names with the correct and current ones, respectively. Where possible, the 10 x 10 km² UTM code (Fig. 1) and the altitude (at entrances to caves) were added. The summit altitude of mountains is routinely given; the actual collecting localities may be situated at - sometimes markedly - lower altitudes.

Two major types of mistakes have been published concerning harvestmen from Slovene territory. The first group of errors relates to inadequate determinations. Most of these mistakes arose in cases when a species has later been found to be an aggregate of two or more species. For this reason Hadži's determinations of *Trogulus* and *Opilio* species, for example, cannot be taken into account at all.

The second group of errors has been caused through use of garbled locality names. Among them, authors' mislocations and misunderstanding of phonetically similar Slovene and other Slavic names are the most numerous (e.g. Mokrica Mt. in N Slovenia and Mokrec Mt. in C Slovenia; Slovenia, Slavonia /a region in Croatia/, Slovakia, *etc.*). Further errors were caused through using names of museum-towns for finding-localities themselves. In the region, the names of Ljubljana and Trieste were most frequently misused this way. In some European museums, further confusion has been caused by curators by using names of only a few famous caves (e.g. Postojnska jama cave) for some other caves.

Some misinterpretations occurred via erroneously used and/or translated native names. So, in Austrian geographical maps of the Slovene territory the German name "Birnbaumer Wald" is used for both: Hrušica-Highland (NE from Postojna; correctly) and Nanos Mt. (NWW from Postojna; incorrectly). In written Slovene language - called "gajica" according to its Croatian introducer Ljudevit Gaj and adopted also in Slovene language around 1840 - some Czech letters are used. In some cases, transcriptions cause serious trouble. Thus, through the loss of the diacritic ˇ (= "strešica" in Slovene, from Czech "střeška", meaning roofle) of the Slovene name Svinška planina (= Lead Mt.) to Svinska /meaning nothing/ and misunderstood as Svinjska (Pig-), the translated German name of the southeastern Austrian mountains is Saualpen (= Pig-Alps) instead of "Bleialpen" (= Lead-Alps), in spite of the town Bleiburg/Pliberk in the vicinity. For unknown reason, some foreign authors have replaced the Slovene names with others (e.g. the translation of the Slovene word: jama /= cave/ in the Serb word: pećina /= cave/). Note that Hadži was a Serb and was not familiar with the Slovene language and native names when he came to Ljubljana.

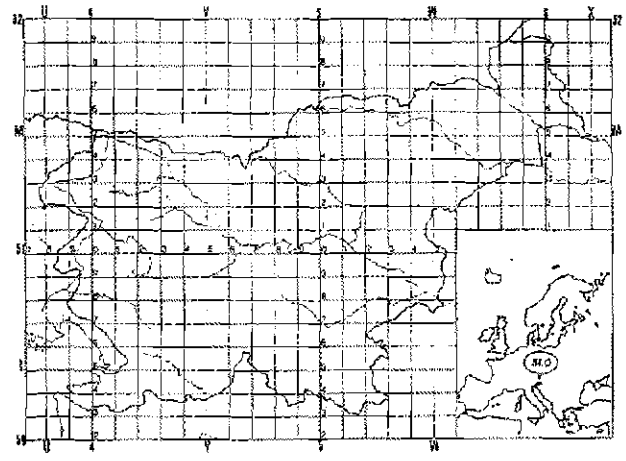

Fig. 1: The UTM map of Slovenia.
Sl. 1: UTM karta Slovenije.

Some further mistakes could also be made via intentionally misleadingly named locations, mostly caves; it was found to be the practice of some collectors of hypogean beetles to hide in this way their commercially important sources (Pretner, 1974, 1976).

A special case is Carl-Friedrich Roewer, who was not an obscure insect-dealer, but the leading authority on Opiliones in the first half of the 20th century: his many notoriously confused or even downright misleading locality data therefore had a highly detrimental influence on the secondary literature. Comments on this problem can be found in Rebel (1938) and in von Helversen & Martens (1972), Martens (1978), Gruber (1979, 1984, 1998), Acosta (1996) and Thaler (1996). This concerns especially the locations of the material kept in Roewer's personal collection (Acosta, 1996) - he rarely if ever named collectors, instead referring to mostly nameless "correspondents", which makes critical evaluation difficult. In some cases, clarification may be achieved by perusal of Roewer's catalogues (Gruber, 1984:264; Acosta, 1996). The dubious cases relevant for Slovenia are discussed below sub Travunioidae.

Besides, in the last hundred years the names of some places have changed, therefore many more localities are cited in the literature in comparison to their real number (e.g. the name Lukova jama is the only known name for the cave used by natives, in the literature cited as God jama, Godjama, Jodloch and Jagdloch from the 19th century till World War II). There are some lapses in inscribing names, too (e.g. Velika /= big/ Pišnica valley instead of Mala /= small/ Pišnica) and some further errors could have arisen during printing (e.g. Castitljiva luknja instead of Častitljiva luknja). In the Slovene language the use of adjectives is common (e.g. Medvedja jama /= Bear-cave/), but some authors used only the adjectives instead of full names (e.g. Medvedja /= Bear-/).

The geographical names of localities have been checked in Jakopin *et al.* (1985) and in the geographic atlas of Slovenia, Atlas Slovenije (1985, 1996). As for caves, their first names from the Cadaster of caves in Slovenia (Institute for Karst Research at the Research Centre of the Slovene Academy of Science and Art, Postojna, and Cave Association, Ljubljana) are used, synonyms being mentioned only if noticed in the literature.

Data from works fulfilling the UTM-criterion (Hudrap & Pavlin, 1996; Lipovšek *et al.*, 1996 /Gyas/; Novak *et al.*, 1984, 1995a, b - for the species cited in, see the Annex) are analysed here only in cases of mistakes, while data from some unpublished diploma works are included to provide published evidence. General records for Slovene fauna, marked with dots, are mentioned only in some reasonable cases. The taxa which (very probably) do not inhabit the territory of Slovenia are marked with asterisks.

Abbreviations and symbols used

CM	Coll. I. Marcellino
JM	Coll. J. Martens
MSNG	Museo Civico di Storia Naturale, Genova
NHMW	Naturhistorisches Museum, Wien
R Coll.	C. F. Roewer
SMF	Senckenberg-Museum, Frankfurt/Main
ZMB	Zoologisches Museum Berlin
•	inaccurate location citation (UTM coding impossible)
*	not inhabiting Slovenia, or no record available

SYSTEMATIC PART

CYPHOPHTHALMI

Sironidae

Siro duricorius duricorius (JOSEPH, 1868)

- **Slovenia** (Hansen & Soerensen, 1904: Austria, provincia Krain, sub *S. duricorius*, Figs. 3a, 3b Plate IV and Figs 1a - 1o Plate V, Coll. Joseph: 3 mm, 3 ff, coll. SIMON: 2 mm, NHMW: 2 mm, Museo Hauniesi: 1 m; Roewer, 1923: Krain, sub *S. duricorius*; Hadži, 1926/27: Krain, sub *S. duricorius*, Figs. 1-11 Tab. I, Coll. Schmidt; Hadži, 1928, 1957b, 1961, all sub *S. duricorius*; Bole *et al.*, 1993 erroneously designated *S. duricorius* to be troglobitic and endemic in W Slovenia; Rambla & Juberthie, 1994, sub *S. duricorius*; Mršic, 1997a, sub *S. duricorius*: Fig. 52B: female)
- caves in **Slovenia** (Joseph, 1869: Krain, sub *Cyphophthalmus duricorius* JOSEPH, 1868; Simon, 1879: Carniole, sub *C. duricorius*, Joseph leg.; Kühnelt, 1950: Krain, sub *S. duricorius*; Juberthie, 1971: une des grottes de la Carinthie; Moritz, 1971: Krainer Grotten, sub *S. duricorius*, Joseph leg., ZMB 4189 - 3 syntype specimens)

1. the cave **Volčja jama**, Nanos Mt., **VL27**, Cad. No. 743, 1060 m (Joseph, 1881: Nanosgrotte = Volcja jama = Kózia jama, sub *Siro Cyphopselaphus*, Joseph leg.)
2. the cave **Žegnana jama**, Orehek, **VL36**, Cad. No. 960, 620 m (Joseph, 1881: Grotte bei Nussdorf, sub *C. duricorius*, Joseph leg.)
3. the cave system Predjamski sistem, cave **Jama pod Predjamskim gradom**, loc. typ., **VL37**, Predjama, Cad. No. 734, 490 m (Joseph, 1868a, b: die mittlere /grosse/ Grotte von Luëg, sub *C. duricorius*, Joseph leg., Figs. 1-17 Tab. I, 02.08.1865: 1 ex.; Joseph, 1881, 1882: Luëger Grotte, sub *C. duricorius*, Joseph leg., the species also cited sub *(Cyphophthalmus) Siro duricorius*; Bedel & Simon, 1875: la grotte centrale /la grande/ de Luëg, sub *C. duricorius*; Roewer, 1923: Luegger Grotte /German correct: Lueger/, sub *S. duricorius*, types in Hofmuseum Wien and at Kopenhagen; Müller G. 1926: Grotta di Castel Lueghi, sub *C. duricorius*; Wolf, 1934-38: Luegger, sub *S. duricorius*; Hadži, 1973b: loc. typ.: Predjama, sub *S. duricorius*; Martens, 1978a: Luegger Höhle, sub *S. duricorius*; Novak *et al.*, 1984, sub *S. duricorius*; Mršić, 1997b: Predjama, sub *S. duricorius*; Fig. 19)
4. the cave **Krška jama, VL88**, Krka, Cad. No. 74, 280 m (Joseph, 1868b: Grotte von Obergurk, sub *C. duricorius*, Joseph leg.; Bedel & Simon, 1875: grotte d'Obergurk, sub *C. duricorius*; Wolf, 1934-38: Obergurker Höhle)
5. the cave **Lukova jama pri Zdihovem, VL94**, Podstene, Cad. No. 91, 520 m (Joseph, 1881: God jama bei Ober-Skril, sub *Siro Cyphopselaphus* and *S. (= Cyphophthalmus) cyphopselaphus*; Joseph, 1882, sub *S. cyphopselaphus* - Fig. 3 Tab. I in Joseph, 1868a, Joseph leg.: 3 mm; Hansen & Soerensen, 1904: God jama der Ober Skril: *S. cyphopselaphus*, species incertae sedis; Roewer, 1923: Godjama der Ober-Skril, sub *S. cyphopselaphus* - very probably a juvenile of *S. duricorius*; Wolf, 1934-38: Jagdloch, also sub *S. cyphopselaphus*; Hadži, 1973b: Godjama, Škrilj (Kočevje), sub *S. cyphopselaphus*)
6. at **Šmarjetna gora** Mt., **VM42** /the summit altitude 646 m/ (Hadži, 1933, sub *S. duricorius*, under stones, 04. 1929, Kuščer leg.)
7. the cave **Boštonova jama, VM71**, Cad. No. 757, 330 m (Joseph, 1881: Bostonova jama, sub *C. duricorius*)
8. the cave **Sovenca v Globičici, VM71**, Škocjan, Cad. No. 772, 470 m (Joseph, 1868b: Sovença jama; Joseph, 1881: Sovenca jama, sub *C. duricorius*, Joseph leg.; Bedel & Simon, 1875: Sovença jama, sub *C. duricorius*; Wolf, 1934-38: Sovenca jama)
9. cave **Celarjeva jama** at Zalog pod Trojico near Moravče (Stražar, 1979: Celarjeva jama nad Kokošnjami;

not yet in the Cadaster, the name acc. to the Rožič farm, natively Celar, 820 m 356° from the church of Sv. Trojica, alt. 410 m), **VM81** (Joseph, 1868b, 1881: Celerjeva jama, Joseph leg.; Bedel & Simon, 1875: Celeryova jama, sub *C. duricorius*; Wolf, 1934-38: Celerjeva pećina)

10. a **cave** (which one?, the name not known today) **at Moravče, VM81** (Joseph, 1881: V dolinâ, sub *C. duricorius*, Joseph leg.)
11. the cave **Jama pri gradu Struga, WL17**, Cad. No. 4929, 130 m (Joseph, 1868b: Grotte oberhalb Struge, Dürrenkrain, sub *C. duricorius*, Joseph leg.; Bedel & Simon, 1875: grotte au-dessus de Struge, sub *C. duricorius*; Wolf, 1934-38: Struga jama)
12. **Robindvor**, Dravograd, **WM06**, 500 m (Hudrap & Pavlin, 1996, sub *S. duricorius)*
13. the cave **Knapovca, WM46**, 360 m (Novak *et al.*, 1984, sub *S. duricorius*: 04.1983; obstructed at least after 1994)
14. an artificial **tunnel at Osek, WM76**, 250 m (Novak *et al.*, 1984, sub *S. duricorius*: 11.1982: 6 ex.; 01.1983: 2 ex.)

Joseph (1882) noted that Fig. 3 Tab. I in Joseph (1868a) does not relate to *Siro duricorius* but to *S. cyphopselaphus*. The drawn chelicerae are typical for adult *S. duricorius*, while those in Fig. 15 are not and probably relate to young specimen of *S. duricorius*, as proposed by Roewer (1923). Roewer's *(ibid.)* notation that the types are deposited in Hofmuseum Wien is incorrect (the specimens are in the Catalogue labelled: *Cyphophthalmus duricorius* Josef - Luegger Grotte 1862. - Erber leg. - W. Sörensen deter. - 1877.1.7. 2). Unfortunately, in the cave Lukova jama pri Zdihovem and in eight other caves in its vicinity no *Siro* has been found (July, August 1999, Slana, Novak; see under: Erroneous locations for *Ischyropsalis* spp.). In dolines above the caves, relatively small specimens of *S. d. duricorius* were found; the small size probably tempted Joseph to describe *S. cyphopselaphus*.

LANIATORES

*Travuniidae

**Peltonychia tenuis* ROEWER, 1935

1. the cave *Martinova jama pri Materiji, VL24*, Cad. No. 963, 580 m (Roewer, 1935, loc. typ., type Coll. Roewer 5016/1: 1 m; Kratochvíl, 1946; Hadži, 1973b; Rambla & Juberthie, 1994: Fig. 13: approximate locality). Martens (1978) noticed that the holotype is a young animal. In spite of some systematic investigations carried out each season, no further specimen has been found in the cave (Novak *et al.*, 1995b).

**Peltonychia gabria* (ROEWER, 1935)

The cave *Gabria jama* at Basovizza/Bazovica at Trieste, **Italy**, 360 m (Martens, 1978a: Gabria jama bei Triest, Slowenien, loc. typ., Figs. 81-87; Rambla & Juberthie, 1994: Fig. 13: approximate locality)

The identity of the cave (short description in Roewer, 1931b: Gabria Jama) was revealed by Gasparo (1995). It is the obstructed cave Grotta dei Colombi di Basovizza, Cad. No. VG 32. After the description, the species has not been found there (Marcellino, 1987). Thaler (1996) discovered that the species morphologically complies with *P. clavigera* from France and Spain.

**Peltonychia postumicola* (ROEWER, 1935)

1. the cave *Postojnska jama, VL37*, Cad. No. 747, 530 m (Roewer, 1935: Adelsberger Grotte, loc. typ., Postumia, sub *Hadziana Postumicola*: 2 mm, 3 ff, 1 iuv.; type Coll. Roewer 5018/3; Hadži, 1936, sub *Hadžiana postumicola* ROEWER; Kratochvíl, 1946, sub *H. postumicola*; Pretner, 1968, sub *Hadziana postumicola*; Hadži, 1973b, sub *Hadžiana postumicola*; Guéorguiev, 1977: Postojna, sub *H. postumicola*; Martens, 1978a: Adelsberger Grotte, loc. typ., Figs. 88-94; Marcellino, 1982: Adelberger Grotte; Novak *et al.*, 1984; Marcellino, 1987: Adelsberger Grotte; Rambla & Juberthie, 1994: sub *P. posthumicola*, Fig. 13, approximate locality).

Groundlessly, Bole *et al.* (1993) designated *P. postumicola* to be an endemic troglobite in southern Slovenia and *P. tenuis* in the Primorska region /southeastern part of Slovenia/; the same holds true for the sightings of the family Travuniidae for Slovenia (Mršić, 1997a).

Beside several other species, the three species of Travuniidae mentioned herein were described by Roewer in his "Biospeologica" paper (1935) - one of the less felicitous productions of this prolific author. In this case, the following facts are noteworthy:

1. In 1931 (a, b) Roewer published Arachnids from caves in the southeastern Alps, collected by Karl Strasser in 1929 and 1930, including a few opilionids ("trivial species", no Laniatores).
2. In 1935, 8 of 13 new Laniatorid species were described after the material in "Coll. Roewer" with no collector names given, as usual with this author.
3. Several "new species" (including *Peltonychia tenuis* and *P. gabria)* were allegedly found in the caves mentioned already in the 1931 papers. Since no other collector was named, especially not the "Biospeologica team", a naive reader would expect the material coming from Strasser's collection. But why is it then not mentioned in

1931, or - if the description had been postponed for a good reasons till 1935 - is there no mention of the collector in the lastmentioned paper?

4. Concerning *Peltonychia postumicola*, the Postojnska jama cave system has been thoroughly explored since the mid 19th century (see Schiner, 1854) and it is one of the best known cave localities worldwide. It remains completely incomprehensible why nobody had found a Laniatorid harvestman until a mysterious sample cropped up to find its way into Roewer's personal collection. Furthermore, no specimen of *Peltonychia* has been found (Marcellino, 1987; Novak *et al.*, 1995b) during more than 100 collecting visits by the authors and collegues to Postojnska jama and hundreds of excursions to other caves in Slovenia and in the vicinity of Trieste (Gasparo's, Stock's *etc.* researches). In the case of *P. postumicola*, one could assume that Roewer mismatched the name of Postojnska jama with actual cave names, but it could have hardly happened unintentionally for the other cited caves.
5. The catalogue and card indexes of Roewer's collection in the cases mentioned are not informative; according to Grasshoff (in litt. 18.02. and 21.02.2000) the only entries read "Istrien" or "Triest"; collectors are not mentioned!
6. According to Thaler (1996) the penis of *P. gabria* is strikingly similar to that of *P. clavigera* from the Cantabrian - Western Pyrenean - region, which makes the specific identity nearly certain. The penis of *P. postumicola* is of the same general type, too (the glans shape resembles that of *P. sarea*; Juberthie, 1972). In *Peltonychia*, a natural disjunction at such a distance is improbable; the suspicion at "human help" cannot be avoided (compare the case of "*Nemastoma navarrense* ROEWER", a further example of "faunal interchange" between southwestern and southeastern Europe; Gruber, 1979).

It may be concluded that the cited records of Travuniidae in the Southeastern Alps and Karst regions are not authentic, but cases of "illegitimate faunal enrichment" sensu Rebel (1938). It is astonishing how many people were "taken in" by these "transfers" till Thaler (1996) provided conclusive evidence. In conclusion, Travuniidae are to be removed from the faunal lists of Slovenia and northeastern Italy.

Cladonychiidae

Holoscotolemon unicolor ROEWER, 1915

- **Slovenia** (Sket, 1979: 12, sub *Euscotolemon novaki*, Photo; Rambla & Juberthie, 1994, Fig. 14: the locality placed in Slovenia; Mršic, 1997a: Fig. 532)

1. **Trenta** valley, **UM93-94**, 500-900 m (Hadži, 1973a, loc. typ., sub *Trentania antoniana* HADŽI, 1973, Figs. 10, 11, ethylene-glycol pitfall traps, humus soil, *Piceetum*, Polenec leg.: 2 mm, 1 f; Martens, 1978a)
2. the doline **at Križna jama, VL56**, Cad. No. 65, 630 m (Martens, 1978a, Martens leg.)
3. the cave **Jama pri Riži, VL68**, Mokrec Mt., Cad. No. 358, 850 m (Hadži, 1973a, b: loc. typ.: Brezno pod Mišjim plazom na Mokrecu, sub *Sketia borisi* HADŽI, 1973, Figs. 12, 13, Sket leg.: 1 m subad.; Martens, 1978a: Brezno Höhle/Mokrecu)
4. **Golnik, VM43**, 510 m (Hadži, 1973a: loc. typ., sub *Poleneciana terricola* HADŽI, 1973, Figs. 8, 9, Polenec leg.; Hadži, 1973b, sub *Polenecia terricola* HADŽI, 1973; Martens, 1978a)
5. **Križka gora** Mt., **VM43** /the summit altitude 1471 m/ (Hadži, 1973a, sub *Poleneciana terricola*, Polenec leg.)
6. **Tupaliče, VM52**, 450 m (Hadži, 1973a, sub *P. terricola*: ethylene-glycol pitfall traps, Polenec leg.: 1 m, 1 m iuv., 1 f)
7. the cave **Jama pri Votli peči, VM95**, Ravne na Koroškem, Cad. No. 3263, 400 m (Novak & Sivec, 1977a, b; Novak & Kuštor, 1980a, sub *Euscotolemon* sp.)
8. the cave **Pilanca, WM14**, Cad. No. 520, 650 m (Hadži, 1973a, b: loc. typ.: Pilenca, sub *E. novaki* HADŽI, 1973, Fig. 13A, 19.02.1972, Novak leg.: 1 ex.; Martens, 1978a: Pilenca; Novak & Kuštor, 1982b, sub *E. novaki*)
9. **Huda luknja** cleft, **WM14**, 500-786 m (Novak & Kuštor, 1980b, sub *E. novaki*, Photo)

Joseph (1882) also referred to the find of *Scotolemon* (Phalangodidae) with no locality cited. In Slovenia, *S. doriae* is restricted to the coastal region that had not been explored by Joseph, therefore *H. unicolor* was probably observed.

PALPATORES

Nemastomatidae

Nemastoma triste (C.L. KOCH, 1835)

- **Slovenia** (Novak & Slana, 1996: endangered species; Mršić, 1997a)

Nemastoma bidentatum bidentatum ROEWER, 1914

- **Slovenia** (Hadži, 1926/27, sub *Nemastoma bidentatum* ROEWER, 1914, Figs. 81-93 Tab. IV and, sub *N. quadripunctatum humerale* C.L. KOCH, Figs. 94-98 Tab. V; Hadži cited Schmidt's determination, sub *N. triste* C. L. KOCH; Marcellino, 1987; Mršic, 1997a, sub *N. bicuspidatum* (Figs. 525-527: female) and, sub *Paranemastoma bicuspidatum* (Fig. 533: female)
- the surroundings of **Ljubljana** (Hadži, 1973a, sub *Nemastoma (Lugubrostoma) triste pluridentatum* HADŽI, 1973, Fig. 34b, Coll. Schmidt: 1 m)

1. the surroundings of **Kamno, UM92**, 200 m (Marcellino, 1973: dintorni di Kamno, 09.1915: 1 m, 1 f, MSNG; 1 m, 1 f, Andreini leg., CM)
2. **Divača, VL16**, 440 m (Roewer, 1917: Divaca, sub *N. bidentatum)*
3. **Nanos** Mt., **VL27** /the summit altitude 1313 m/ (Gruber & Martens, 1968; Martens, 1978a)
4. **Postojna, VL36**, 550 m (Roewer, 1917, 1923: Adelsberg, sub *N. bidentatum*; Gruber & Martens, 1968; Martens, 1978a)
5. the cave **Jama Sv. Janeza pri Prestranku, VL36**, Cad. No. 897, 600 m (Hadži, 1973a, sub *N. (L.) t. pluridentatum*, Fig. 34c: 1 m; Novak *et al.*, 1984)
6. surroundings of **Cerknica, VL57** (Martens, 1978a, Martens leg.)
7. at the **Podkorenski potok** stream, **VM05** (Hadži, 1931, sub *N. bidentatum*: pl.)
8. at the waterfall **Peričnik**, Vrata valley, **VM14**, 860 m (Hadži, 1931, sub *N. bidentatum*, under a stone, 14.08. 1928, Hadži leg.: 1 f; Gruber & Martens, 1968)
9. **Bled, VM33**, 500 m (Gruber & Martens, 1968; Martens, 1978a)
10. **Ljubljana, VM60**, 300 m (Roewer, 1917, 1923: Laibach, sub *N. bidentatum*; Gruber & Martens, 1968; Martens, 1978a)
11. **Šmarna gora** Mt., **VM60-61** /the summit altitude 689 m/ (Hadži, 1973a, sub *N. (L.) t. pluridentatum*, Fig. 34a, several times, Hadži leg.: pl. mm, ff)

Nemastoma bidentatum sparsum GRUBER & MARTENS, 1968

- **Slovenia** (Mršić, 1997a)

1. 2,5 km **N from** the railway station **Pesnica, WM56**, 260 m (Gruber & Martens, 1968)
2. **Dolnja Bistrica, XM05**, 170 m (Kovač, 1997, 17.08. 1996, Kovač leg.: 2 mm, 1 juv. - 2 ff)
3. **Dobrovnik/Dobronak, XM07**, 170 m (Kovač, 1997, 18. 08.1996, Kovač leg.: 1 f, 1 juv.)
4. **Središče/Szerdahely, XM08**, 240 m (Kovač, 1997, 12. 08.1996, Kovač leg.: 2 ff - 24.08.1996: 16 mm, 7 ff)
5. **Benica/Benice, XM15**, 160 m (Kovač, 1997, 19.08. 1996, Kovač leg.: 11 mm, 14 ff)
6. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 22. 08.1996, Kovač leg.: 4 mm, 11 ff, 1 juv. - 12.10.1996: 11 mm, 9 ff - 19.10.1996: 18 mm, 18 ff)
7. **Banuta/Bánuta, XM16**, 170 m (Kovač, 1997, 10.08. 1996, Kovač leg.: 7 mm, 6 ff)

In the legend to Fig. 12 in Gruber & Martens (1968), Županja is placed in Slovenia ("Slowenien") instead of Slavonia (Croatia).

Nemastoma bidentatum bidentatum x sparsum

- **Slovenia** (Hadži, 1926/27, sub *N. bidentatum* ROEWER, 1914, the pedipalp in Fig. 94, sub *N. quadripunctatum humerale*, probably belongs to *N. b. bidentatum x sparsum*, Coll. Schmidt; Roewer, 1931, sub *N. bidentatum)*

1. **Snežnik** Mt., **VL54** /the summit altitude 1696 m/ (Martens, 1978a, Martens leg.)
2. **Novo mesto, WL17**, 190 m (Hadži, 1973a, b, sub *N. (L.) triste pluridentatum* HADŽI, 1973, Figs. 33b, c, Karaman leg.: pl. mm, ff; Gruber & Martens, 1968; Martens, 1978a)
3. **Mirna gora, WL05** /the summit altitude 1046 m/ (Hadži, 1973a, b, sub *N. (Stridulostoma) seliskari* HADŽI, 1973, Fig. 37, 28.07.1948, Seliškar leg.: 1 m)

Nemastoma bidentatum ssp.

1. **Celje, WM22**, 240 m (Roewer, 1917: Cilli, sub *N. triste)*
2. **Maribor, WM55**, 280 m (Roewer, 1917: Marburg, sub *N. triste)*

Nemastoma dentigerum CANESTRINI, 1873

- **Slovenia** (MRŠIĆ, 1997a)

1. **Divača, VL16**, 440 m (Gruber & Martens, 1968, Verhoeff leg.; Martens, 1978a)
2. **Bukovje, VL37**, 580 m (Martens, 1978a: Bukovje/ Selva di Piro, Sbordoni leg.)

Nemastoma (Lugubrostoma) triste (C.L. KOCH, 1835) and **N. (L.) lugubre unicolor* ROEWER, 1914, mentioned for Slovenia and Croatia (Hadži, 1973b), probably mostly comply with *N. bidentatum sparsum*, but partly maybe also with *N. triste* and *N. dentigerum*. *N. (L.) bidentatum* ROEWER, 1914 in Hadži's works could be *N. bidentatum bidentatum, N. b. sparsum*, but also *N. triste*. **N. lugubre* (MÜLLER, 1776) mentioned by Hadži (1973b) does not live in Slovenia.

Paranemastoma quadripunctatum (PERTY, 1833)

- **Slovenia** (Hadži, 1926/27, sub *Nemastoma quadripunctatum humerale* (C.L. KOCH, 1839), Figs. 99-115 Tab. V.: 1 m, 4 ff; Hadži cited Schmidt's determinations, sub *Phalangium imaculatum* var. *quadrimaculatum* KOCH: 1 m, 1 f, sub *Ph. flavimanum*: 2 ff, and sub *Ph. hispidum*: 1 f; Hadži, 1973b, sub *N. (N.) quadripunctatum* (PERTY, 1833), *N. (N.) aurosum* (C.L. KOCH, 1869), *N. (N.) slovenicum* HADŽI, 1973, *N. (N.) werneri* KULCZYNSKI, 1903, *N. (Lugubrostoma) moesiacum* (ROEWER, 1917); Mršić, 1997a)
- **Triglav** Mts. /the summit altitude 2864 m/ (Hadži, 1973a, b, sub *N. (N.) triglavense* HADŽI, 1973, Fig. 19: 1 m; Martens, 1978a)
- **Pohorje** Mts. /the summit altitude 1543 m/ (Martens, 1978a: Bachergebirge)

1. cave **Brimšca, VL25**, Cad. No. 1132, 540 m (Roewer,

1931a: Bresnica Jama bei Basovizza, sub *N. nervosum* ROEWER, 1923, 21.09.1931, Strasser leg.: 2ff; Wolf, 1934-38: Grotta di Bresovizza, sub *N. nervosum)*

2. **Bukovje, VL37**, 580 m (Di Caporiacco 1949: Crusizza, Selva di Piro, sub *N. nervosum*, 10.08.1938: 1 m, 1 f)
3. at lake **Bohinjsko jezero, VM02-12**, 630 m (Hadži, 1931, sub *N. quadripunctatum quadripunctatum* PERTY, 1833, Hadzi leg.: 1 f)
4. at lake **Črno jezero, VM03**, 1350 m (Hadži, 1973a, sub *Nemastoma (N.)* sp., Fig. 72, noticed some characteristics of *N. quadripunctatum* and *N. aurosum* (C.L. KOCH, 1869), 07.07.1965, Pretner leg: 1 m)
5. **Koren** mountain pass, **VM05**, 1073 m (Martens, 1978a: Wurzen-Pass, Martens leg.)
6. the hill **Šišenski hrib, VM50**, Ljubljana, 429 m (Hadži, 1973a sub *N. (N.) emonense* HADŽI, 1973, Figs. 21, 22, several times, Hadži leg.: pl. mm, ff - Hadži noticed that in 1926/27 he mentioned the species sub *N. quadripunctatum humerale* (C.L. KOCH, 1839))
7. at **Predoslje, VM52**, 420 m (Hadži, 1973a, b, sub *N. (N.) quadripunctatum carniolicum* HADŽI, 1973, Fig. 20, ethylene-glycol pitfall traps, *Piceetum*, Polenec leg.: pl. mm, ff)
8. the cave **Jama Sv. Janeza pri Prestranku, VL36**, Cad. No. 897, 600 m (Hadži, 1973a, b, sub *N. (N.) mediosignatum* HADŽI, 1973, Fig. 16, 29.08.1954, Pretner leg.: 1 m; 23.08.1965: 1 m)
9. the pothole **Brezno pri Veliki groblji, VL48**, Cad. No. 19, 520 m (Hadži, 1973a, sub *N. (N.) slovenicum* HADŽI, 1973, Fig. 18, material of the Društvo za raziskovanje jam /Cave research Society/, 02.05.1926: 2 mm, 1 f)
10. **Snežnik Mt., VL54** /the summit altitude 1796 m/ (Martens, 1978a, Martens leg.)
11. **Cerknica, VL57**, 560 m (Martens, 1978a, Martens leg.)

Paranemastoma bicuspidatum C.L. KOCH, 1835

- **Slovenia** (Hadži, 1973b sub *Nemastoma (N.) bicuspidatum* C.L. KOCH, 1835)

1. the cave **Huda luknja pri Radljah, WM16**, Cad. No. 3191, 450 m (Novak & Kuštor, 1982b: Huda luknja nad Radljami, 1972-73; Novak *et al.*, 1984: Huda luknja nad Radljami, Novak leg.)
2. pothole **Strelški pekel, VM74**, 1200 m, Cad. No. 4251 (Kranjc & Novak, 1978: Strelčev pekel, sub *N. bicuspidatum*, 05.1975, Novak leg.)

""Paranemastoma polonicum* ROEWER, 1951"

Staręga (1965) elucidated that "*Nemastoma polonicum* ROEWER, 1951" does not inhabit Poland. According to his opinion, a mistake was made in reading as well as interpreting the location label, which should not be San Valley in Poland but Sava or Savinja valley, both being in Slovenia ("es könnte nicht "San-Tal" sondern "Sau-Tal" oder "Sann-Tal" (beide Flüsse in Slowenien) ..."). Staręga therefore supposed that the species could inhabit the Slovenian E Alps. Hadži agreed (1973b: Slovenia?, sub *N. (Dromedostoma polonicum)*. According to M. Grasshoff (in litt.), the relevant entry in the catalogue of the Roewer collection reads "Galizien Oberes Sav (or: Sau) Tal". (Let us note that the Sana valley NE from Jajce in Bosnia sounds very similarly and is close to the areal of *P. radewi*, though it has not been recorded from the valley.) As is often the case in Roewer's collection, no collector is mentioned; he shifted the responsibility to an "unknown soldier". In fact, only two *Paranemastoma* species: *P. quadripunctatum* and *P. bicuspidatum* live in Slovenia, and no further are expected. According to Roewer's (1951, Tab. 3) Figs. 26 for *P. radewi* (sub *Nemastoma radevi)* and 27 for *P. polonicum* (sub *N. polonicum*; *cf.* Martens, 1978a), and Staręga's Fig. (1965: 302) it seems reasonable to assume *P. polonicum* to be the synonym of a very polymorphic *P. radewi (cf.* Staręga 1976).

Histricostoma dentipalpe (AUSSERER, 1867)

- **Slovenia** (Roewer, 1923: Krain, sub *Nemastoma dentipalpe*, Mus. Wien, Berlin, Coll. ROEWER *etc.*; Hadži, 1973b, sub *N. (N.) dentipalpe* AUSSERER, 1896; Mršić, 1997a: Fig. 534)

1. **at Podkorenski potok** stream, **VM05**: pl. (Hadži, 1931, sub *N. dentipalpe*, Hadži leg.)
2. **Podkoren, VM05**, 850 m (Hadži, 1973a, b, sub *N. (Histricostoma) slovenicum* HADŽI, 1973, Fig. 38, 13. 08.1928, Hadzi leg.: 1 m)
3. **Postojna, VL36**, 550 m (Roewer, 1917: Adelsberg, sub *N. dentipalpe)*
4. surroundings of **Cerknica, VL57**, 560 m (Martens, 1978a, Martens leg.)

Carinostoma carinatum (ROEWER, 1914)

- **Slovenia** (Hadži, 1973b, sub *Mitostoma (Carinostoma) carinatum*; Mršić, 1997a: Fig. 535: male)

1. **Divača, VL16**, 440 m (Roewer, 1917: Divaca, sub *Nemastoma carinatum)*
2. **Postojna, VL36**, 550 m (Martens, 1978a, Thaler leg.)
3. surroundings of **Cerknica, VL57**, 560 m (Martens, 1978a, Martens leg.)
4. **Ljubljana, VM60**, 300 m (Hadži, 1973b, sub *N. (Dromedostoma) bimaculosum* ROEWER, 1951 /in the region, only *C. carinatum* complies with the notation/)

Mitostoma chrysomelas (HERMANN, 1804)

- **Slovenia** (Hadži, 1973b, sub *Mitostoma (M.) chrysomelas chrysomelas* (HERMANN, 1804); Mršić, 1997a)

1. the neighbourhood of **Podkoren, VM05** (Hadži, 1942, sub *Nemastoma chrysomelas*: 1 juv.)

2. **Divača, VL16**, 440 m (Roewer, 1917: Divaca, sub *N. chrysomelas)*
3. **Postojna, VL36**, 550 m (Roewer, 1917: Adelsberg, sub *N. chrysomelas)*
4. **Kranj, VM42-52**, 390 m (Hadži, 1973a, b, sub *Mitostoma (M.) chr. polenecí* HADŽI, 1973, Fig. 44, Polenec leg.: pl. ex.)
5. **Dolina pri Lendavi/Völgyifalu, XM15**, 170 m (Kovač 1997, 19.08.1996, Kovač leg.: 1 iuv.)

Mitostoma alpinum (HADŽI, 1931)

- **Slovenia** (Mršić, 1997a)
- **Triglav** Mts. (Hadži, 1973b sub *Nemastoma chrysomelas alpinum* HADŽI, 1931, Figs. 1-3, 08.08.1928, Hadži leg.; Šilhavý, 1939: Triglavski masiv, sub *N. chr. alpinum* (HADŽI): 1 m; Roewer, 1951, sub *M. chr. alpinum* (HADŽI, 1931); Martens, 1978a)

1. **Mangrt** Mt., **UM94** /the summit altitude 2679 m/ (Hadži, 1973a, b, sub *Mitostoma (M.) chr. multidenticulatum* HADŽI, 1973, Fig. 42, 13.07.1945, Pretner leg.: pl.; (Martens, 1978a: Mangart, Figs. 222-228, Faltermeier, Ausobsky leg.)
2. **Krn** Mt., **UM92** /the summit altitude 2244 m/ (Hadži, 1973a, b, sub *M. (M.) chr. michielii* HADŽI, 1973, Fig. 43, Michieli, Carnelutti leg.: 2 ex.)
   Martens (1978) cited the taxon in synonymy, sub *M. (M.) chr. michieli* HADŽI, 1973.
3. southern slope of the **Ciprnik** Mt. above Mala Pišnica valley, **VM04** /the summit altitude 1745 m/ (Hadži, 1931: Čipernik, Velika Pišenica valley, sub *N. chr. alpinum*, under stones, Hadži leg.: 1 m)
4. a snowfield under the **Prisojnik** (= Prisank) Mt., **VM04** /the summit altitude 2547 m/ (Hadži, 1931, sub *N. chr. alpinum*, under stones, 11.-12.08.1928, Hadži leg.: 5 ex.)
5. **Kamniško sedlo** mountain pass, **VM63**, 1903 m (Hadži, 1931: Kamnićko sedlo, sub *N. chr. alpinum*, under stones, 11.08.1928, Seliškar leg.: 1 ex.)

Erroneous location

Kratochvíl's (1934) mention of *M. alpinum* (sub *N. chr. alpinum* HADŽI) for Slovakia is probably wrong, though Martens (1978: Fig. 134) marked the locality without comments.

Dicranolasmatidae

Dicranolasma scabrum (HERBST, 1799)

- **Slovenia** (Roewer, 1923: Krain, Mus. Berlin and Coll. Roewer; 3 ex.; Hadži, 1926/27, sub *D. schmidti* HADŽI, 1927, Figs. 61-80 Tabs. III, IV; Hadži noticed that one specimen had been determined by Schmidt, sub *Phalangium hispidum*; Hadži, 1973b, also sub *D. schmidti*, and sub *D. opilionoides* (C. L. KOCH, 1867); Mršić, 1997a: Fig. 536)

1. **Kobarid, UM82**, 230 m (Martens, 1978a, Ausobsky leg.)
2. **Divača, VL16**, 440 m (Roewer, 1950: Divaca, sub *D. opilionoides* (L. KOCH) 1867: 4 (mm, ff), RII/216/7; Gruber, 1976; Martens, 1978a)
3. **Markovščina, VL24**, a doline, ca. 500 m (Gruber, 1976, Gruber leg.)
4. the cave **Dimnice** at Markovščina, **VL24**, (Gruber, 1976, Gruber leg.)
5. the cave **Županova jama** at Grosuplje, **VL79**, Cad. No. 27, 340 m (Gruber, 1976, Brit. Mus.)
6. **Jesenice, VM24**, 510 m (Gruber, 1976: Aßling/ Jesenice; Martens, 1978, ZMB)
7. **Begunje, VM33**, 590 m (Martens, 1978, Figs. 236-238)
8. the cave **Štinetova jama, VM41**, Cad. No. 240, 400 m (Novak *et al.*, 1984: 2 mm)

Trogulidae

Trogulus tricarinatus (LINNAEUS, 1767)

- **Slovenia** (Mršić, 1997a)
- **Triglav** Mts., (Martens, 1978a, Fig. 264)

Trogulus falcipenis KOMPOSCH, 2000

1. **Kobariški Stol** Mt., **UM82**, eastern side, 1300-1480 m (Komposch, 2000: Kobariski Stol Ostseite, 46°17' (16')N, 13°28'E, 01.08.1993, Komposch leg., Coll. Komposch: 1 m)
2. **1,5 km SE** from **Kamno, UM91**, 200 m (Komposch, 2000: 46°13'N, 13°39'E, 31.07.1998, Slana, Novak leg., Coll. Novak: 1 m)
3. **Krn** Mt., **UM92**, eastern side, 1700-1800 m (Komposch, 2000: 46°15'N, 13°39'E, 03.08.1993, Komposch leg., Coll. Komposch: 1 m)
4. **Nanos** Mt., **VL27** (Komposch, 2000: VL27 45°46'N, 14°03'E, 25.06.-04.07.? NHMW Nr. 894 /right: the year 1894/, Ganglbauer leg.: 1 m)
5. **Medvedjek** at Cioteniška gora Mt., **VL74**, 950 m (Komposch, 2000: 45°37'N, 14°42'E, 10.10.1993, Komposch leg., Coll. Komposch: 2 mm, 2 iuv.)
6. **Vršič** mountain pass, **VM04**, SSE from the Alpine hut Tičarjev dom, 1600 m (Komposch, 2000: Vrsic, SSE Ticarjev dom, 46°25'N, 13°4'E, 07.08.1993, Komposch leg., Coll. Komposch: 1 f)
7. **Matajurski vrh** Mt., **VM11**, southern side, 950-1150 m (Komposch, 2000: 46°13'N, 13°52'E, 25.08.1995, Komposch leg., Coll. Komposch: 1 m, (1 iuv.))
8. the cave **Jama v Lipovici, VM91**, Cad. No. 1182 (Novak et al., 1984: Lovrinova jama, sub *T. tricarinatus*: 1 m)

Trogulus nepaeformis (SCOPOLI, 1763) sensu lato

- **Slovenia** (Scopoli, 1763: Carniola, sub *Acarus nepeformis*; Roewer, 1923: Krain; Martens, 1978a: Krain, more finding-places; Neuffer, 1980: Krain, Fig. 29, Type III, and Fig. 38, Type III ext, both NHMW 5847; Mršić, 1997a: Figs. 529-531; iuv.)
- **Triglav** Mts. (Martens, 1978a)

1. **Portorož, UL84**, seashore (Neuffer, 1980, Fig. 18, Type II, NHMW 5854)
2. **Kostanjevica na Krasu, UL97**, 300 m (Marcellino, 1987: Kostanjevica (Kras-YU): 22.06.1978: 15 mm, 12 ff)
3. **Kobarid, UM82**, 230 m (Marcellino, 1968: Caporetto (Alto Isonzo), 06.1915: 1 m)
4. **Kamno, UM92**, 200 m (Marcellino, 1968: Kamno (Alto Isonzo), 09.1915: 3 mm, 4 ff, 1 iuv.)
5. **Slavnik** Mt., **VL14** /the summit altitude 1028 m/ (Neuffer, 1980, Fig. 14, Type II, NHMW 5853)
6. **Markovščina, VL24**, 570 m (Neuffer, 1980, Fig. 15, Type II, NHMW 5855)
7. the cave **Dimnice, VL24**, Cad. No. 736, 570 m (Novak *et al.*, 1984: 1 m);
8. **Škocjan, VL25**, 400 m (Neuffer, 1980, Fig. 30, Type III, NHMW 5848)
9. **Cerknica, VL57**, 560 m (Neuffer, 1980, Fig. 23, Type III, JM 1302)
10. the surroundings of **Cerknica, VL57** (Neuffer, 1980, Figs. 31, 32, 35, Type III, JM 1253, JM 1302 /2 Ex./, Fig. 52, Type IV, JM 1189)
11. **Kočevje, VL85**, 460 m (Neuffer, 1980, Fig. 19, Type II, NHMW 5851)
12. the cave **Štinetova jama, VM41**, Cad. No. 240, 400 m (Novak *et al.*, 1984: 1 m)
13. **Razkrižje, XM05**, 180 m (Kovač, 1997, 17.08.1996, Kovač leg.: 1 m)
14. **Dolina pri Lendavi/Völgyifalu, XM15**, 170 m (Kovač, 1997, 10.08.1996, Kovač leg.: 1 f)

Trogulus cf. *nepaeformis* (SCOPOLI, 1763)

1. in the neighbourhood of **Godovič, VL29**, 400 m (Chemini, 1984: dint. Godovic, MTSN, traps, 26.06.-18.09. 1983, Chemini leg.)

Trogulus closanicus AVRAM, 1971

1. **Log pod Mangrtom, UM94**, 700 m (Chemini, 1984: Bretto, MFSN, traps, 10.08.1978, Stergulc leg.: 1 m)
2. in the neighbourhood of **Godovič, VL29** (Chemini, 1984: dint. Godovic, MTSN, traps, 26.06.-18.09.1983, Chemini leg.: 1 m, 2 ff)
3. **Kočevje, VL85**, 460 m (Chemini, 1984: Krain, Gottschee, ZMB 12024: 1 f)
4. **Gornje Kamence, WL17**, 210 m (Neuffer, 1980: Gorne Kamince, Fig. 62, Type V - corresponding to *T. closanicus*, NHMW 5856)

Trogulus tingiformis C.L. KOCH, 1848

- **Slovenia** (Mršić, 1997a)

1. **Snežnik** Mt., **VL54** /the summit altitude 1796 m/ (Martens, 1978a, Martens leg.)
2. **Grahovo** at Cerknica, **VL57**, 570 m (Martens, 1978a, Martens leg.)
3. **Kočevje, VL85**, 460 m (Martens, 1978a, Gruber leg.)
4. the cave **Huda luknja pri Radljah, WM16**, Cad. No. 3191, 450 m (Novak *et al.*, 1984: Huda luknja nad Radljami, Novak leg.: 1 f)

Trogulus spp.

- **Slovenia** (Hadži, 1926/27, sub *T. nepaeformis* and *T. melanotarsus* (SIMON, 1879), Figs. 12-42 Tabs. I-III; different parts of more specimens were described and drawn, therefore only some drawings can be useful for identification: Figs. 27, 43: *T.* cf. *coriziformis*, Fig. 32: *T.* cf. *tingiformis*; according to the lengths cited: 7,2 and 7,5 mm, HADŽI 1931, sub *T. tricarinatus* noticed troguli from the *T. nepaeformis*-group)
- **Slovenia** (very probably *T. tricarinatus*, but it could also be *T. falcipenis* - Hadži, 1926/27, sub *T. niger* C. L. KOCH, 1839 - alleged size: 5 -5,5 mm, Figs. 43-60 Tab. III)

1. **Zaplana, VL49**, Vrhnika, 600-801 m (Hadži, 1942: Zaplat, sub *T. tricarinatus*, Fig. 15b: 1 iuv.)
2. **Ribčev laz, VM12**, Bohinj, 530 m (Hadži, 1931: at the hotel of St. Janez, sub *T. tricarinatus* - body size 7,2 with the legs II 9,5 and 7,5 with the legs 9,2 mm, 16.08.1928, Hadži leg.: 2 mm) - *T. nepaeformis*-group, including *T. closanicus*
3. cave **Celerjeva jama** (which one?, the name not known today) at Zalog, **VM81** (Joseph, 1881, Joseph leg.)

Considering drawings and size data: 8,2-12,5 mm, Hadži (1926/27) confused *Trogulus nepaeformis*, *T. tingiformis* and *T. coriziformis*. Besides, the *T. nepaeformis*-species complex still has not been cleared satisfactorily. So, for example Martens (1978) regarded the *T. closanicus* as a synonym of *T. nepaeformis*, Neuffer (1980) supposed that hybrids between *T. closanicus* and *T. nepaeformis* may occur in Slovenia, while Chemini (1984) mentioned a syntopic existence of both species and alleged another one *(T. cf. nepaeformis)* at Godovič. So far, in Slovenia *T. nepaeformis* s.s., *T. closanicus* and *T. cisalpinus* have been recognized from the group; further revision is needed. Besides, *T. falcipenis* KOMPOSCH, 2000 is very close to *T. tricarinatus* in size and shape, therefore small *Trogulus* specimens from Slovenia must be revised, too.

Anelasmocephalus hadzii MARTENS, 1978

- **Slovenia** (Mršić, 1997a)

- the upper **Posočje** /the upper Soča valley/, 170-500 m (Martens, 1978a: oberer Isonzo)

1. **Tolminski Kuk** Mt., **VM02** /the summit altitude 2085 m/ (Marcellino, 1968: M. Kuck (Alto Isonzo), sub *A. lycosinus*; Martens, 1978: Mt. Kuck)
2. **Vrata** valley, **VM14**, /840- ca. 1100 m/ (Hadži, 1942, sub *A. cambridgei*, Figs. 17b, 18, 07.1940, Hadži leg.: 1 iuv.; Martens, 1978a)
3. **Draga** valley at Begunje, **VM33**, 620-700 m (Hadži, 1942, sub *A. cambridgei*, Fig. 17a, Kuščer leg.: 2 iuv.)
4. **Snežnik** Mt., **VL54** /the summit altitude 1796 m/ (Martens, 1978a, Martens leg.)
5. the surroundings of **Cerknica, VL57** (Martens, 1978a, Martens leg.)
6. **Kočevje, VL85**, 460 m (Martens, 1978a, Ganglbauer leg., NHMW)

Ischyropsalididae

Ischyropsalis hellwigi hellwigi (PANZER, 1794)

- **Slovenia** (Koch, 1848b: Krain, sub *I. Herbstii*; Schmidt, 1851: Krain; Bedel & Simon, 1875: Ljubljana /the museum-town/, sub *I. Herbsti* C.L. KOCH, Schmidt leg.; Hamann, 1898: Ljubljana /the museum-town/, sub *I. Herbstii*, Schmidt leg.; Roewer, 1914: Krain, sub *I. helwigii*; Roewer, 1923: Ljubljana /the museum-town/, sub *I. herbstii* C.L. KOCH, 1848, Mus. Genf, Coll. Roewer; Müller G., 1926; Hadži, 1926/27, sub *I. pectinifera* HADŽI, 1927, Figs. 174-190 Tabs. VII, VIII: 2 or 3 ex.?; Roewer, 1950: Krain, sub *I. pectinifera* HADZI 1928, Fig. 15a Tab. 2 - copied from Kratochvíl, 1934: 4 mm, and: Krain (Laibach), sub *I. herbstii* C. L. KOCH 1848; Martens, 1969: Krain, revised syntype of *I. pectinifera*: 1 m; Hadži, 1973b, sub *I. helwigii*; Mršić, 1997a)
- a small **cave at Kranj** (Sever, 1900: unbenannte kleine Höhle unweit Krainburg, sub *Ischyropsalis müllneri)*

1. surrounding of **Cerknica, VL57** (Martens, 1978a, Martens leg.)
2. the **vicinity of** the cave **Jama treh bratov**, 800-900 m, Stojna Mt., **VL85**, Cad. No. 141 (Martens, 1969: Friedrichsteiner Wald s. Gottschee, 06.1968, Gruber leg.: 1 iuv.; Martens, 1978a: Friedrichsteiner Wald südl. Gottschee /Kočevski rog is east, not south from Kočevje, the Stojna Mt. is not its part/; reconstruction of the locality acc. to Gruber's diary)
3. **Kočevje, VL85**, 460 m (HADŽI, 1973b, sub *I. helwigi*; among the synonyms, *I. taunica* HADŽI, 1940, is noticed instead of: *I. taunica* A. MÜLLER, 1924 - Hadži, 1942)
4. **Šmarna gora** Mt., **VM60-61** /the summit altitude 689 m/ (Hadži, 1954, 22.12.1941, Kuščer leg.: 1 m; Martens, 1969, sub *I. muellneri* erroneously cited Hadži, 1942)
5. cave **Benkotova jama**, Ig, **VL68**, Cad. No. 325 (Joseph, 1882: Benkotowa jama bei Iggdorf, sub albinotisches *Phalangium* ...dem *Ph. cancroides* Schmidt nahestehend...)
   According to the description and geographical distribution of *Ischyropsalis* species, it cannot be but a juvenile *Ischyropsalis h. hellwigii*.
6. the cave **Gadina** at Črnomelj, **WL14**, Cad. No. 235, 150 m (Hadži, 1926/27, sub *I. pectinifera*, Figs. 175-190 Tabs. VII, VIII, 1904, Kandare leg.: 1 m; Hadži, 1942: Gadina jama, sub *I. taunica)*
7. **Kum** Mt., **WM00** (Hadži, 1942: Kum (Zlatica), sub *I. taunica*, Fig. 13; Hadži, 1954, sub *I. taunica*; Martens, 1969: Kuma; Martens, 1978a)
8. **Podčetrtek, WM41**, 210 m (Hadži, 1954, sub *I. taunica*, Figs. 9, 10, Jäger leg.: 4 ff; Martens, 1969: Podcetrtek/Windisch-Landsberg)

Ischyropsalis kollari C.L. KOCH, 1839

- **Slovenia** (Mršić, 1997a: Fig. 537; Mršić, 1997b: Fig. 18)
- **Triglav Mts.** (Bole, 1974, sub *I. k. triglavensis*; Fig. 6)
- **Pohorje** Mts. (Hadži, 1954, Figs. 2, 3, Hadži leg.: Hadži, 1973b)

1. under **Stenar** Mt., **VM04**, ca. 2000 m (Hadži, 1954: Pod stenarjem, sub *I. (O.) triglavensis*, Fig. 1, D. Hadži leg.; Martens, 1969: Triglav, *Pod Sternarjem* am Berg Skrlatica)
2. the cave **Jama na prevalu pod planino Viševnik**, Stador Mt., **VM13**, Cad. No. 368, 1680 m (Hadži, 1942: brezimna jama na sedlu nad planino Viševnik, sub *I. triglavensis*, 19.08.1935, Pretner leg.: 1 iuv. f)
3. a **cave at** the Alpine pasture **Viševnik, VM13** /very probably the cave Ledena jama 1 na južni strani Studorja (= Jama na planini Viševnik), Cad. No. 645, 1600 m/ (Hadži, 1942: Jama za mrhovino, 1600 m, sub *I. cancroides*, Fig. 23, 20.08.1935, Pretner leg.: 1 iuv.; Martens, 1969: Viševnik Jama, sub *I. hadzii*, Pretner leg., 1953: 1 iuv.; Martens, 1978a: Viševnik jama, sub *I. hadzii* - determination not sure: 1 iuv.)
4. at the Alpine cottage **Koča na Kredarici, VM30**, 2515 m (Hadži, 1954, sub *I. (O.) triglavensis*, Pretner leg.: 1 iuv.)
5. a snowfield **between** the Alpine cottage **Staničeva koča** and **Kredarica** Mt., **VM31**, ca. 2200 m (Hadži, 1931, sub *I. (Odontopalpa) triglavensis* HADŽI, 1931, Figs. 4-7, 30.05.1930, Seliškar leg.: 1 m; 31.05.1930: 1 f; Hadži, 1936, 1942 and 1954, all sub *I. (O.) triglavensis*; Roewer, 1950: Triglav Massiv (Schneefeld Kredarica, ca. 2000 m), sub *I. triglavensis* HADZI 1931, Fig. 8a, b, d Tab. 1 (copied from Hadži); Martens, 1969: Triglav, Schneefeld des Kredarico, D. Hadži leg.; Martens, 1978a: Kredarica)
6. at the Alpine cottage **Staničeva koča**, Triglav Mts., **VM31**, 2332 m (Hadži, 1942: Alpine cottage Aleksandrov dom, sub *I. (O.) triglavensis*, Fig. 21, 20.08. 1935, Pretner leg.: 1 iuv.; Martens, 1978a; Hadži, 1973b, sub *I. kollari triglavensis* (HADŽI, 1931))

7. the cave **Potočka zijalka, VM74**, Cad. No. 634, 1630 m (Novak *et al.*, 1984: 1 iuv.)
8. the neighbourhood of the Alpine cottage **Ribniška koča, WM15**, Pohorje Mts., 1507 m (Hadži, 1954, sub *I. (O.) triglavensis*, 05.06.1953, ca. 980 m /??/, Matjašič leg.: 1 m; Martens, 1978a: Bachergebirge (= Pohorje), Ribniska koca)
9. at the Alpine cottage **Mariborska koča**, Pohorje Mts., **WM45**, 1040 m (Hadži, 1942, sub *Ischyropsalis* sp., Fig. 20, 24.07.1929, Hadži leg.: 1 iuv.)

Ischyropsalis muellneri HAMANN, 1898

- **Slovenia** (Müller A., 1924: Krain, sub *I. helwigii*: 3 mm from Coll. Roewer, Figs. 6 A, B Tab. 19; Kästner, 1928, sub *I. helwigii* male, Fig. 47; Roewer, 1950: Krain, sub *I. hellwigii*, Figs. 45a-d Tab. 7: 1 m, 1 f, RI/2116/16; Martens, 1969: Krain, Mus. Hamburg 1248, Mus. Berlin 986, SMF/RII/2116, SMF/RI/972: 7 mm, 3 ff; Novak *et al.*, 1984, 1995b, Fig. 9; Rambla & Juberthie, 1994, sub *I. muellneri* HAMANN, 1895; Mršić, 1997a)
  Martens (1969) found that the specimen cited and drawn by Simon (1872) sub *I. hellwigi* undoubtly belongs to *I. muellneri*. It is probably a specimen from Slovenia, as J. Stussiner, the curator of the Nat.-hist. Mus. Ljubljana at that time, was obviously in close contact with E. Simon (*cf.* Simon, 1885).
- **caves** in the surroundings of **Bled** (Müller G., 1926, sub *I. Müllneri*)

1. the cave **Jama v Molidniku nad Robičem**, Matajur Mt., **UM82**, Cad. No. 824, 500 m (Hadži, 1954, sub *I. helwigii müllneri* HAMANN, 1898, Pretner leg.: 1 m)
2. the cave **Majska jama**, Pršivec Mt., **VM02**, Cad. No. 2016, 1705 m (Hadži, 1942: Jama na Pršivcu, and: jama Pršivec, sub *I. h. müllneri*, Fig. 9: 4 mm, 4 ff; Hadži, 1954: jama Pršivec, sub *I. h. müllneri*: 4 mm, 4 ff; Martens, 1969: Höhle Pršivec, Zvan leg.: 2 mm, 2 ff, Coll. Šilhavý 15543; Martens, 1978a: Höhle Pršivec, and, jama Pršivec, Fig. 15f, Šilhavý leg., Coll. Šilhavý)
3. the pothole **Brezno pri Gamsovi glavici, VM12**, Cad. No. 3455, 1610 m (Novak *et al.*, 1984, at the depth -300 m, Smerdu leg.: 1 f)
   the cave **Jama na prevalu pod planino Viševnik, VM13**, Cad. No. 368, 1680 m, (Hadži, 1942: Jama na sedlu nad planino Viševnik, sub *I. helwigii*, 10.08.1935, Pretner leg.: 1 f)
4. a **cave or** artificial **tunnel** (?) **at Viševnik** pasture, **VM13** (Hadži, 1942: Rov pri mostu nad planino Viševnik, sub "very probably *I. helwigii*", Fig. 22, 10.08.1935, Pretner leg.: 1 iuv.; Martens, 1969: Viševnik Jama, sub *I. hadzii*, Pretner leg., 1953: 1 iuv.)
5. the cave **Jama pod Babjim zobom**, Kupljenik, **VM23**, Cad. No. 129, 860 m (Hadži, 1942: Jama na Babjem zobu, sub *I. helwigii*, Fig. 8a, 08.1920, Pretner leg.: 2 mm; Roewer, 1950: Krain (Batji Zol), sub *I. hellwigii*: 1 m RII/6440/34; Hadži, 1954, sub *I. h. müllneri*; Martens, 1969: Berg Babji Zob/Krain, SMF/RII/6440: 1 m; Martens, 1978a: Babji zob jama)
6. the cave **Kristalna jama**, Kupljenik, **VM23**, Cad. No. 844, 990 m (Martens, 1978a: Kupljenk, Fig. 316, Deeleman leg.)
7. a **cave or** artificial **tunnel** (?) at Rudno polje, **VM32**, (Hadži, 1954: Rov nad Rudnim poljem /maybe the cave Luknja pod Rudnim poljem, Cad. No. 2185/, Pretner leg.: 2 ff)
   In spite of Hadži's note that the females from the cavity at Rudno polje "don't show signs of *"I. müllneri"* they should belong to the species. The only other species in the region is *I. kollari* - well known to Hadži, as he analysed it in detail under *I. triglavensis*.
8. the cave **Častitljiva luknja, VM33**, Cad. No. 395, 860 m, under the Jelovica upland at Lipnica near Radovljica /at first, the species was recorded in the cave sub *I. hellwigi* as evident from the label in NHMW: *Ischyropsalis Helwigii* Panzer - Höhle Castitja jama bei Radmannsdorf - Ober-Krain - Ganglbauer leg. - Ganglbauer don. - 1897.IV.1- pl./ (Hamann, 1898: Castitljiva jama bei Leibnitz, sub *I. Müllneri*, loc. typ., Hamann, Müllner leg., 1898: ca. 20 ex. - Müllner found the harvestmen in the cave at least 40 years before; SEVER, 1900: Castitljeva jama, sub *Ischyropsalis müllneri*, Hamann, Müllner, Sever leg., 06.06.1898, and afterward Sever leg. several times; Megušar, 1914, sub *I. Müllneri*, 05.10.1913: 8 ex., 12.10.1913: 7 ex., 25.10.1913: 3 ex.; Hadži, 1926/27: Lipice, slope of Jelovec, sub *I. müllneri* and *I. helwigii*, Figs. 116 /not 115/-145 Tabs. V, VI: 6 mm, 3 ff, 1 f iuv. - Hadži alleged that specimens had already been found by Müllner in 1858; Hadži (1926/27:18) and Roewer (1950) wrongly thought that the description of *I. mülleri* in Hansen & Soerensen (1904) could be *lapsus calami* concerning *I. müllneri* indeed; Hadži, 1928, sub *I. helwigii müllneri*; Wolf, 1934-38, sub *I. müllneri*; Hadži, 1942, sub *I. h. müllneri*, Figs. 7a, b, Pretner leg., 09.1914 and 08.1920: 13 ex.; Kratochvil, 1946; Roewer, 1950: Krain (Castiliova), sub *I. müllneri*, Figs. 28a: 1 m, RI/11/977b; Hadži, 1954, sub *I. h. müllneri*; Juberthie, 1964: Castitljica Luknja, Radovljica, sub *I. h. müllneri*, 07.1962 and 08.1963: ca. 20 specimens observed; Martens, 1969: Častitljiva jama, Figs. 15a, 15e and 61a, and Radmannsdorf /Krain, Figs. 15b, 61b and 62b /surely the cave, not the town Radovljica/: 2 mm, 4 ff, Hamann, Müllner leg., NHMW: 2 ff syntypes, Mus. Berlin 8057: 11 mm, 6 ff, NHMW, Mus. Hamburg, Berlin, Coll. Šilhavý 25928, SMF/RI/977 - /very probably the cave/: 7 mm, 3 ff: Krain, Mus. Hamburg 1248, Berlin 986, SMF/RII/2116, SMF/RI/972; Moritz, 1971: Cantitljiva Jama bei Leibnitz, Müllner, Hamann leg.: 3 syntype specimens, ZMB 7819; Hadži, 1973b: Častitljiva jama; Martens, 1969: Fig. 15a, and Radmannsdorf /undoubtly the cave/, Fig. 15b; Martens, 1978a: Častitljiva jama, Figs. 324, 325, 327-331, 333; Novak *et al.*, 1984)

Ischyropsalis hadzii ROEWER, 1950

- **Slovenia** (Martens, 1969: Krain, Coll. Schmidt, 1 f; Mršič, 1997a)
- Bole *et al.* (1993) inaccurately stated *I. hadzii* to be endemic in the Karavanke and the Savinjske Alpe Mts. instead of the eastern /limestone/ Karavanke, Savinja and Kamnik Alps (*cf.* maps in, Novak *et al.*, 1984, 1995b: Fig. 9).

1. the cave **Medvedja jama na Mokrici**, Mokrica Mt., **VM63**, Cad. No. 375, 1550 m, loc. typ. (Schmidt, 1851: Knochenhöhle Ziavka, and Zjavka, sub *Phalangium cancroides* SCHMIDT, 25.07.1849, under a stone in the dark part, Schmidt leg.: 1 m; Robič, 1877: Mokriška jama, sub *Ph. Hellwigii*, the end of 06.1877, Robič, leg.: 7 ex.; Joseph (1882) wrote that *Ph. cancroides* is perhaps only a more widely spread form of *Ph. Hellwigii*; Roewer, 1923, sub *I. hellwigi* wrote that the male designated as *I. cavernosum* SCHMIDT (Zool. Inst. Univ. Wien) is *Phalangium cancroides* SCHMIDT from Slovenia: Krain, and that it is probably the specimen described in, Schmidt, 1851; Hadži, 1926/27 /surely the cave/, sub *I. cancroides* (SCHMIDT), Figs. 146-157 Tab. VI: 1 f, and *I. manicata* L. KOCH, 1865, Figs. 157-173 Tabs. VI, VII: 1 m - 20.06.1935, Pretner leg.: 3 mm, 2 ff, 1 m iuv. - 14.07.1935: 1 m, 2 iuv.; Hadži, 1942: also: antrum Medvedja, sub *I. cancroides*, Figs. 7d, 11 and (from the cave?) 24, "from the same nest" /meaning: belonging to the same taxon/ as a juvenile from the cave "Jama za mrhovino" /see at, *I. kollari*/: 2 iuv.; Kratochvíl, 1946: Zijavka jama, sub *I. cancroides*; Roewer, 1950: Castiliova; Gruber, 1964 found *I. cancroides* (SCHMIDT) and *I. manicata* L. KOCH in Hadži's works (1926/27, 1928 and 1942) to be *I. hadzii*; Martens, 1969: Krain, and Knochenhöhle Ziavka /probably the type female/, Figs. 14a-d: "acc. to Hadži's (1942) data" /"nach Angaben von Hadži (1942)"; strongly adjusted/, Coll. Schmidt: 1 f, Höhle Medvedja; Bohinec, 1972: Mokriška zijavka, sub *Ph. hellwigii*; Hadži, 1973b: Mokerc, in synonymy sub *I. manicata* HADŽI, 1928 instead of: *I. manicata* L. KOCH, 1865 - Hadži, 1928; Martens, 1978a)
2. the cave **Kamniška jama, VM63**, Cad. No. 5058, 1400 m (Slapnik, 1996, sub *I. milleri*)
3. the cave **Velika Veternica** (= Veternica), Velika planina Mt., **VM72**, Cad. No. 121, 1590 m (Hadži, 1942: Velika vetrnica, and Vjetrnica, sub *I. cancroides*, Fig. 12, 04.08.1935, Pretner leg.: 1 m; Fig. 12, Staudacher leg.: 1 f; 1 iuv.; Martens 1969: Höhle Vjetrenica; Martens, 1978a: Velika Vjetrenica)
4. the cave **Jama v Kofcah, VM72**, Velika planina Mt., Cad. No. 120, 1510 m (Hadži, 1942: cave Kofce, sub *I. cancroides*, 30.06.1935, Pretner leg.: 2 mm; Martens, 1969: Höhle Kofce; Martens, 1978a: Höhle Kofce).
5. the cave **Erjavčeva jama** (= Rjavčeva luknja), Luče, **VM73**, Cad. No. 466, 720 m, in Savinjska dolina /= Savinja Valey/ (Hadži, 1942: Rjavčeva jama, and antrum Erjaveci, sub *I. cancroides*, Fig. 10a, b, 16. 05.1937, Pretner leg.: 1 f; Martens, 1969: Höhle Erjevaci, and Höhle Rjavčeva, in Sannijska dolina; Martens, 1978a: Rjavčeva jama)
6. the cave **Trbiška zijalka**, Luče, **VM73**, Cad. No. 467, 600 m (Hadži, 1942: 16.05.1937, sub *I. cancroides*, Fig. 7c, Pretner leg.: 2 mm, 2 ff; Martens, 1969, 1978)

- a **cave** at Luče /Erjavčeva jama or Trbiška zijalka/, **VM73** (Hadži, 1942, Fig. 7c; Martens, 1969: Luče, under *I. muellneri* incorrectly cited Hadži, 1942)

Erroneous locations for *Ischyropsalis* spp.

I. hellwigi hellwigi

1. the cave *Zlatica, VM13*, Cad. No. 1, 1525 m (Hadži, 1942: Kum (Zlatica), 18.10.1936, Pretner leg.: 1 m) - right *I. muellneri* or *I. kollari*
   Hadži (1942) mismatched the cave location and Kum Mt., WM00. In the Zlatica *I. muellneri* is and *I. kollari* can occasionally be expected.
2. a *cave or* artificial *tunnel* (?) *at Višev*nik pasture, *VM13* (Hadži, 1942: Rov pri mostu nad planino Višev*n*ik, sub "very probably *I. helwigii*", Fig. 22, 10. 08.1935, Pretner leg.: 1 iuv.) - right *I. kollari*

I. muellneri

- Martens (1978: Fig. 350), Marcellino (1982: Fig. 1) and Rambla & Juberthie (1994: Fig. 17) erroneously present the geographical distribution of the species from Slovenia to Macedonia.

1. *Ljubljana* (Roewer, 1950: Krain (Laibach), (*non vidi*) - m f - Coll. Schmidt (*sec.* Hadži, 1928)) - right *I. h. hellwigi*
2. *Postojnska jama, VL36* (Roewer, 1950: Krain, Adelberger Grotte, Figs. 28c, d: 2 ff)
   Aside Hamann's label: "Hamann Typus", Roewer (1950) recognized F. Dahl's label, written by hand: "Adelsberger Grotte, Typen" /= Postojnska jama cave, types/. At that time Dahl was the director of the Zoological Collection of the Museum of Natural History in Berlin. Two female *I. muellneri* were undoubtedly from the cave Častitljiva luknja. According to Hadži (1954:170), the mistake was probably made because Dahl - not familiar with original names and localities - was told by Hamann that it was from a cave in "Krain", which according to Dahl's opinion could not be but the famous Postojnska jama. Why Roewer (1950) made the mistake in spite of the citation of Hamann's description remains a mystery. - In the cave no *Ischyropsalis* is expected.
   Postojna, VL36 (Guéorguiev, 1977: Postojna, Gorenjsko, sub *I. muelleri* Ham.) - no *Ischyropsalis* expected
3. the cave *Lukova jama pri Zdihovem, VL94*, Cad. No. 91 (Martens, 1969: Jodloch/Krain: 1 m, Fig. 15d, NHMW; Martens, 1978a).

Where resting on cave walls, *Ischyropsalis* specimens can easily be seen ("black on white") from a distance of at least 10 m. Besides Lukova jama, in the same UTM square the following caves have been investigated (Slana, Novak, July 1999), but no *Ischyropsalis* was found there: Bilpa 1 (Cad. No. 630), Jelovička jama (Cad. No. 727), Kotnička = Mihova jama (Cad. No. 728), Kenina jama (Cad. No. 2570), Ledena jama pri Ograji (Cad. No. 400), Kobilna jama (Cad. No. 144), Albeiska jama (Cad. No. 3852), under stones at the entrance of Prepadna jama (Cad. No. 2566). Only *I. h. hellwigi* is expected to be found occasionally in these caves.

4. the cave *Medvedja jama na Mokrici*, and *Luče* (Martens, 1969: Höhle Medvedja, erroneously cited HADŽI 1942) - right: *I. hadzii*
5. Šmarna gora Mt. (Martens, 1969) - right: *I. h. hellwigi*

I. hadzii

- Rambla & Juberthie (1994: Fig. 17) erroneously placed the species range in the W-Hungarian lowland between the Danube and the Drava rivers.

1. a *cave at* the Alpine pasture *Viševnik, VM13* /very probably the cave Ledena jama 1 na južni strani Studorja (= Jama na planini Viševnik), Cad. No. 645, 1600 m/ (Hadži, 1942: Jama za mrhovino, 1600 m, sub *I. cancroides*, Fig. 23, 20.08.1935, Pretner leg.: 1 iuv.; Martens, 1969: Viševnik jama, sub *I. hadzii*, Pretner leg., 1953: 1 iuv.; Martens, 1978a: Viševnik jama, sub *I. hadzii* - determination not sure: 1 iuv.)

The published sites for many *Ischyropsalis* specimens (sub *I. luteipes, I. manicata, I. nodulifera, I. kollari, I. muellneri* from the Alpine localities) are incorrect (Martens, 1969), and the provisional distribution *(ibid.)* of *I. muellneri* at the Balkans also turned out to be incorrect. The map was repeatedly used by Marcellino (1982) and Rambla & Juberthie (1994). Bole *et al.* (1993) erroneously mentioned the species to be endemic in Southwestern Slovenia. *I. muellneri* is endemic to the Julian Alps - NW Slovenia and NE Italy (Novak *et al.*, 1984, 1995b: Fig. 9). Komposch (1999, *sec.* Martens, 1978a, *sec.* Hadži, 1942) failed to notice the distributional map of *I. hadzii* in Slovenia (Novak *et al.*, 1984, 1995b), incorrectly alleging the Julian Alps could be possibly inhabited by the species, too.

According to Hadži (1942), a male (in Fig. 8 depicted as a female *I. müllneri)* had been found on 26th July 1932 in a cave at Bjelašnica Mt. in Bosnia at the altitude of 1000 m by Kratochvíl. Hadži *(ibid.:* 21) explicitly thanked him for the specimen and stated that this specimen was probably the one photographed in Šilhavý (1936: Fig. 2, labelled *"Ischyropsalis müllneri* HAMANN z černohorských jeskyn" /*I. m.* from Montenegrin caves/). The confusion is complete because Kratochvíl later (1946: 173) wrote: "Rod *Ischyropsalis* ... nebyl v jeskynních Bosny, Hercegoviny, Dalmacie a Černe Hory zastižen." /The genus *Ischyropsalis* ... has not been found in caves of Bosnia, Herzegovina, Dalmatia and Montenegro./ Hadži himself confused *I. muellneri* and *I. helwigii*; therefore, only data based on published drawings and/or the revision of originally labelled preserved specimens can be taken into account. Only his determinations of *I. kollari* (sub *I. triglavensis)* are useful. In Hadži (1973b), *I. taunica* HADŽI, 1940, is erroneously cited to be the synonym of *I. hellwigi*, and *I. helwigii* ROEWER, 1914, to be the synonym of *I. muellneri*.

Phalangiidae

Phalangium opilio LINNAEUS, 1761

- **Slovenia** (Scopoli, 1763: Carniola, sub *Phalangium Opilio*; Hadži, 1942, Figs. 29f, g; Hadži, 1973b)
- **Gorenjska** /NW Slovenia/ (Hadži, 1936, sub "mountain form")

2. **Bovec, UM83**, 460 m (Di Caporiacco, 1949: Plezzo, sub *Ph. opilio opilio*, 11.08.1931, Marcuzzi leg.: 2 mm, 1 f)
3. **Kuk Mt., UM92**, 950 m /the summit altitude 1243 m/ (Marcellino, 1987: M. Cucco (Caporetto), 22.08.1975: 2 mm)
4. **Slavnik** Mt., **VL14**, 1030 m (Di Caporiacco, 1949: Monte Taiano, sub *Ph. opilio brevicorne* C. L. K. 1839, 12.09.1926, Stenta leg.: 2 mm, 1 f)
5. **Podkraj, VL28**, 1050 m (Marcellino, 1987: Hrusica (Podkraj, Selva di Piro), 19.08.1967, Alberti leg.: 1 m, 3 ff)
6. **Male Strane, VL37**, 670 m (Marcellino, 1987: M. Strane, Postumia, 13.09.1980, Alberti leg.: 5 mm, 6 ff)
7. southern slope of **Ciprnik** Mt., **VM04** /the summit altitude 1745 m/ (Hadži, 1931: Čipernik, 05.08.1928, under stones, Hadži leg.: 1 m, pl. ff)
8. **Vrata** valley, **VM14** /840- ca. 1100 m/ (Hadži, 1931: 23.07.1928, Kuščer leg.: 1 f)
9. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 19. 10.1996, Kovač leg.: 1 m)

Opilio parietinus (DE GEER, 1778)

- **Slovenia** (Hadži, 1973b)

1. **Ljubljana, VM60**, 300 m (Hadži, 1928b, Figs. 1-5; Hadži, 1928c: Mirje /the town district/, autumn 1926, Hadži leg.: 1 f)
2. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 20. 08.1996, Kovač leg.: 1 m, 2 iuv. - 28.08.1996: 3 mm, 1 f)
3. **Gornji Lakoš/Felsolakos, XM15**, 160 m (Kovač, 1997, 14.08.1996, Kovač leg.: 3 mm, 7 iuv.)

A revision of Hadži's determinations revealed that he confused not only *Opilio dinaricus* and *O. ruzickai*, de-

scribed later, but also *O. parietinus* and *O. saxatilis*. The published superregenerated female (Hadži, 1928b, c) is not preserved and only distal parts of chelicerae are drawn, but according to the published data of the body and leg measurements it did belong to *O. parietinus*. Hadži's statement (1931) that *O. parietinus* lives together with *M. morio* and *Ph. opilio* everywhere from valleys to rock walls at mountain peaks is erroneous.

Opilio saxatilis C. L. KOCH, 1839

- **Slovenia** (Hadži, 1973b)

1. the surroundings of **Kamno, UM92**, 200 m (Marcellino, 1973: dintorni di Kamno, sub *O. saxatilis* (C.L. KOCH, 1839), 11.1915, MSNG, Andreini leg.: 1 m, 1 f)
2. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 20. 08.1996, Kovač leg.: 1 m, 6 ff, 2 iuv. - 24.08.1996: 1 m, 10 iuv.)
3. **Gornji Lakoš/Felsolakos, XM15** (Kovač, 1997, 14.08. 1996, Kovač leg.: 4 ff)

Opilio dinaricus ŠILHAVÝ, 1938

1. **Slovenia** (Hadži, 1973b)
2. **Postojna**, VL36, 550 m (Martens, 1978a, Figs. 439-443, Thaler leg.)
3. **Cerknica, VL57**, 560 m (Martens, 1978a, Fig. 437, Martens leg.)
4. **Kropa, VM32**, 530 m (Martens, 1978a, Faltermeier leg.)
5. **Bled, VM33**, 500 m (Martens, 1978a, Faltermeier leg.)
6. the cave **Podkrajnikova zijalka, WM82**, Cad. No. 2697, 820 m (Novak *et al.*, 1984: 2 ff)

Opilio ruzickai ŠILHAVÝ, 1938

- **Slovenia** (Novak & Slana, 1996: rare species)

1. **Radovljica, VM33**, 500 m (Hadži, 1973a, b, loc. typ., sub *Opilio pictus* HADŽI, 1973, Fig. 57, watering place, 02.06.1936, Hadži leg.: pl.)
2. the cave **Gruška jama, WM40**, Cad. No. 1374, 310 m (Novak *et al.*, 1984: Gruska jama: 1 m)

Opilio transversalis ROEWER, 1956

- **Slovenia** (Novak & Slana, 1996: rare species)

1. **Goriška Brda, UL89**, 100-321 m (Gruber, 1984: Brda, ground, 30.08.1973, Sivec leg.: 1 f)
2. **Bilje**, Miren, **UL98**, 50 m (Gruber, 1984: garden ground, 23.07.1973, Sivec leg.: 1 iuv.)
3. **Nova Gorica, UL99**, 90 m (Gruber, 1984: garden ground, 21.09.1973, Sivec leg.: 1 m)

Opilio sp.

Gaberje/Gyetyános, XM15, 160 m (Kovač, 1997, 24.08. 1996, Kovač leg.: 1 iuv.)

Platybunus bucephalus (C.L. KOCH, 1835)

- **Slovenia** (Hadži, 1973b)
- **Triglav** Mts. /the highest summit altitude 2864 m/ (Hadži, 1931; Martens, 1978a)

1. **Krnica**, Trnovski gozd, **VL09**, 980 m (Di Caporiacco, 1949: Carnizza, Tarnova, 07.1930: 1 m)
2. **Snežnik** Mt., **VL54** /the summit altitude 1796 m/ (Martens, 1978a, Martens leg.)
3. **Kočevje, VL85**, 460 m (Martens, 1978a, Gruber leg.)
4. **Vrata** valley, **VM14** /840- ca. 1100 m/(Hadži, 1931, 23. 07.1928, Kuščer leg.: 1 m; Hadži, 1936: 1 m)
5. **Grlo** Mt., **VM04** /the summit altitude 1516 m/ (Hadži, 1931, 1300 m, 12.08.1927, Seliškar leg.: 1 m)
6. the surroundings of the Alpine cottage **Mariborska koča** /1040 m/ and **Ruška koča** /1250 m/, Pohorje Mts., **WM45** (Hadži, 1931, seen, 07.1927: pl.)
7. **Dolnja Bistrica, XM05**, 170 m (Kovač, 1997, 17.08. 1996, Kovač leg.: 1 iuv.)
8. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 24. 08.1996, Kovač leg.: 1 iuv. - 12.10.1996: 1 m, 1 iuv.)

**Platybunus pinetorum* (C.L. KOCH, 1839)

Hadži (1973b) generally mentioned *P. pinetorum* for Slovenia. No specimen has been found in the revised collections. The species is expected in W Slovenia (*cf.* Martens, 1978a).

Metaplatybunus carneluttii (HADŽI, 1973)

Snežnik Mt., **VL54** /the summit altitude 1796 m/ (Martens, 1978a, Figs. 486-492, Martens leg.)

Megabunus armatus (KULCZYNSKI, 1887)

1. **Mangrt** Mt., **UM94** /the summit altitude 2679 m/ (Martens, 1978a: Mangart, Faltermeier leg.; Komposch, 1998: Mangart)
2. **Razor** Mt., **VM04** /summit altitude 2601 m/ (Martens, 1978a; Komposch, 1998)

Rilaena triangularis (HERBST, 1799)

- **Slovenia** (Hadži, 1973b sub *Platybunus triangularis*)

1. the surroundings of **Cerknica, VL57** (Martens, 1978a, Martens leg.)

Dasylobus graniferus (CANESTRINI, 1871)

- **Slovenia** (Hadži, 1973b, sub *Zacheus (Dentizacheus) rucnerianus* HADŽI, 1973, Fig. 61)
  Martens (1978) cited the taxon in synonymy, sub *Eudasylobus rucnerianus* HADŽI, 1973

1. **Tabor, VL16**, 450 m (Marcellino, 1987: Tabor (Sezana-YU), sub *E. nicaeensis*, 23.06.1978: 1 m, 1 f)

2. **Veliki Javornik** Mt., **VL46** /the summit altitude 1268 m/ (Di Caporiacco, 1949: Monte Javornik, Postumia, sub *E. cavannai* (SIMON), 06.1930, Müller leg.: 2 mm, 1 f)
3. **Snežnik** Mt., **VL54** /the summit altitude 1796 m/ (Martens, 1978a, sub *E. nicaeensis* (THORELL, 1876), Martens leg.)
4. the surroundings of **Cerknica, VL57** (Martens, 1978a, sub *E. nicaeensis*, Martens leg.)

Lophopilio palpinalis (HERBST, 1799)

- **Slovenia** (Hadži, 1973b, sub *Emonia labacensis* HADŽI, 1973, Fig. 52; he alleged the synonym: *Lophopilio tridentatus* HADŽI, 1931; Mršić, 1997a: Fig. 538)

1. **Ciprnik** Mt., **VM04** /the summit altitude 1745 m/ (Hadži, 1931: Čipernik, sub *L. tridentatus* HADŽI, 1931, Figs. 21, 22, Hadži leg., 08.08.1928)
2. at the waterfall **Peričnik, VM14**, Vrata valley, 860 m (Hadži, 1931, sub *L. tridentatus*, 12.08.1928, Hadži leg.)
3. **Vrata** valley, **VM14**, by the pathway to Prisojnik Mt. /at least 1400 m/ (Hadži, 1931, sub *L. tridentatus*, 12.08. 1928, Hadži leg.)
4. **Podutik, VM50**, 300 m (Hadži, 1931, sub *L. tridentatus*: 1 f, holotype, Hadži leg.)
5. the surroundings of **Ljubljana** (Hadži, 1973a, sub *E. labacensis*, several times, Hadži leg.: pl.)
6. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 12. 10.1996, Kovač leg.: 1 f)

Egaenus convexus (C. L. KOCH, 1835)

- **Slovenia** (Koch, 1835: Gegend von Laibach, sub *Opilio convexus*; Hadži, 1926/27: 1 m, 2 ff, Hadži published Schmidt's determination, sub *Phalangium bicuspidatum*; Hadži, 1973b; Mršić, 1997a)

1. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 12. 10.1996, Kovač leg.: 1 juv.)

Oligolophus tridens (C. L. KOCH, 1836)

- **Slovenia** (Hadži, 1973b; Mršić, 1997a)

1. **Postojna, VL36**, 550 m (Di Caporiacco, 1937: nella Cisterna del recinto di Palazzo Sclabsa, 28.08.1936: 1 f)
2. **Predoslje, VM52** (Hadži, 1973a, b, sub *Odiellus poleneci* HADŽI, 1973 - loc. typ., Fig. 53, ethylene-glycol pitfall traps, *Piceetum*, 1956: several times, Polenec leg.: up to 50 ex.)
3. cave **Boštonova jama, VM71**, Cad. No. 757, 330 m (Novak *et al.*, 1984: 2 ff)
4. **Dolnja Bistrica, XM05**, 170 m (Kovač, 1997, 17.08. 1996, Kovač leg.: 1 f, 2 juv.)
5. **Razkrižje, XM05** (Kovač, 1997, 17.08.1996, Kovač leg.: 5 juv., SL 99/1997
6. **Dobrovnik/Dobronak, XM07**, 170 m (Kovač, 1997, 18. 08.1996, Kovač leg.: 1 juv.)
7. **Dolina pri Lendavi/Völgyifalu, XM15**, 170 m (Kovač, 1997, 10.08.1996, Kovač leg.: 3 juv.)
8. **Banuta/Bánuta, XM16**, 170 m (Kovač, 1997, 10.08. 1996, Kovač leg.: 8 juv.)
9. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 13. 08.1996, Kovač leg.: 2 mm, 1 juv. - 22.08.1996: 2 mm, 2 juv. - 24.08.1996: 1 m - 12.10.1996: 1 f - 20.10. 1996: 1 m, 2 ff, 2 juv.)
10. **Petišovci/Petesháza, XM15** (Kovač, 1997, 18.08.1996, Kovač leg.: 1 m, 2 juv.)

Lacinius horridus (PANZER, 1794)

- **Slovenia** (Hadži, 1973b: the synonym *Lacinius labacensis* HADŽI, 1971 /right: 1931/ was mentioned for this species instead for *L. dentiger*)
- **the Soča valley** (Marcellino, 1987: Valle dell'Isonzo)
- (Slovene ?) **Istra** (Roewer, 1957, sub *L. echinatus* (LUCAS, 1847), Strasser leg.: 2 mm, Coll. RII/706/31)

1. the surroundings of **Kobarid, UM82**, 230 m (Marcellino, 1973: dintorni di Caporetto, 06.1915: 1 f, 1 juv., MSNG, Andreini leg.)
2. **Kuk Mt., UM92**, 950 m /the summit altitude 1243 m/ (Marcellino, 1987: M. Cucco (Caporetto), 22.08.1975: 2 juv.
3. **Radovljica, VM33** (Hadži, 1973a: the watering place, 02.06.1936, Hadži leg.)

Lacinius dentiger (C. L. KOCH, 1848)

- **Slovenia** (Hadži, 1973b)
- **Triglav** Mts. /the highest summit altitude 2864 m/ (Hadži, 1931, sub *L. labacensis* HADŽI, 1931, Figs. 16-18, HADŽI leg.; Hadži, 1942, Fig. 28f; Martens, 1978a)

1. **Ljubljana, VM60**, 300 m (Hadži, 1931: Vegova ulica /the street/, sub *L. labacensis*, Figs. 16-18, Hadži leg.: 1 ex.; Hadži, 1936, sub *L. labacensis*)
2. **Rogaška Slatina, WM52**, 250 m (Hadži, 1936, sub *L. labacensis*)
3. **Dobrovnik/Dobronak, XM07**, 170 m (Kovač, 1997, 18.08.1996, Kovač leg.: 1 juv.)
4. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 22. 08.1996, Kovač leg.: 1 juv.)

Lacinius ephippiatus (C.L. KOCH, 1835)

- **Slovenia** (Koch, 1848a: Krain, sub *Acantholophus ephippiatus*; Doleschal, 1852: Krain, sub *A. ephippiatus*; Hadži, 1973b)

1. **Stojna** Mt., **VL85** /the summit altitude 1068 m/ (Hadži, 1973a, sub *Odiellus rucneri* HADŽI, 1973a, Fig. 54, Bole leg.: pl. ex.; Hadži (1973b) mentioned *O. rucneri* as an Croatian endemit)
2. **Ciprnik** Mt., **VM04** /the summit altitude 1745 m/ (Hadži, 1931: Čipernik, sub *L. oligodentatus* HADŽI, 1931, Figs. 19 /sexes confounded/, 20, 05.08.1928, Hadži leg.: 1 m)

3. by the road **Podkoren - Korensko sedlo** mountain pass, **VM05**, 850-1073 m (Hadži, 1931: road Podkoren - Koruška meda, sub *L. oligodentatus*, Hadži leg.)
4. the cave **Štinetova jama, VM41**, Cad. No. 240, 400 m (Novak *et al.*, 1984: 2 ff)
5. at **Podutik, VM50**, 300 m (Hadži, 1931, sub *L. oligodentatus*, Hadži leg.)
6. **Ljubljana, VM60**, 300 m (Hadži, 1931: Mirje /the town district/, sub *L. oligodentatus*, Hadži leg.)
7. **Banuta/Bánuta, XM16**, 170 m (Kovač, 1997, 10.08. 1996, Kovač leg.: 1 m, 1 juv.)
8. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 20. 10.1996, Kovač leg.: 3 mm)

Odiellus spinosus (BOSC, 1772)

1. **Komen, VL07**, 290 m (Di Caporiacco 1949: Comeno, 06.1913, Müller leg.: 3 ex.)
2. **Kuk Mt., UM92**, 950 m /the summit altitude 1243 m/ (Marcellino, 1987: M. Cucco (Caporetto), 22.08.1975: 1 m)
3. surroundings of **Hruševica, VL07**, 300 m (Marcellino, 1987: dintorni di Hrusevica (Stanjel-YU), 03.10.1969: 1 m, 1 f)

Mitopus morio (FABRICIUS, 1779)

- **Slovenia** (Hadži, 1926/27: 1 ex., alleged Schmidt's det., sub *Phalangium?*; Hadži, 1942, Figs. 28a, b; Hadži, 1973b)
- **Triglav** Mts. /the highest summit altitude 2864 m/ (Hadži, 1931, sub *M. morio alpinus*, Figs. 14, 15, Hadži leg.; Hadži, 1973b, sub *M. m. alpinus*)
- the surroundings of **Ljubljana** (Hadži, 1936)
- **Sava Dolinka** valley, 500-830 m (Hadži, 1931: Sava gorenjka valley, sub *M. m. alpinus*, 08.1928, Hadži leg.)
- **Bohinjske (Fužinske) planine** Mts. /the summit altitude 1782 m/ (Hadži, 1931, sub *M. m. alpinus*, 09.09.1919, Seliškar leg.)

1. **Matajur** Mt., **UM82**, 1643 m (Di Caporiacco, 1949, sub *M. morio cinerascens* (C. L. KOCH, 1839), 24.07.1923, Müller leg.: 1 f)
2. the surroundings of **Kamno, UM92**, 200 m (Marcellino, 1973: dintorni di Kamno, 09.1915: 1 m, MSNG, Andreini leg.)
3. *M. morio*
4. **Jalovec** Mt., **UM94**, 1300 m (Marcellino, 1987: Jalovec (M. Gialuz), 12.08.1968, Alberti leg.: 1 m, 1 f)
5. **Kuk** Mt., **UM92**, 950 m /the summit altitude 1243 m/ (Marcellino, 1987: M. Cucco (Caporetto), 22.08.1975: 1 f)
6. **Podkraj, VL28**, 1050 m (Marcellino, 1987: Hrusica (Podkraj, Selva di Piro), 19.08.1967, Alberti leg.: 1 m, 1 f)
7. **Tolminski Kuk** Mt., **VM02** /the summit altitude 2085 m/ (Marcellino, 1973: pendici orientali di Monte Kuck, 09. 1915: 1 f, MSNG;)
8. **Komna, VM02** /the Alpine cottage at 1525 m/ (Hadži, 1931, sub *Mitopus m. alpinus*, Figs. 14, 15, 11.09. 1919, Seliškar leg.)
9. by the mountain cottage **Erjavčeva koča** at Vršič mountain pass, **VM04**, 1515 m (Hadži, 1931, sub *M. m. alpinus*, 12.08.1928, Hadži leg.)
10. **Beli potok** above Zadnjica valley, **VM04**, 1530 m (Di Caporiacco, 1949: Bieli potok nel gruppo del Tricorno, sub *M. m. morio*, 21.09.1928, Zirmich leg.)
11. the mountain pathway **Tominškova pot**, Triglav Mt., **VM14**, 1100-1800 m (Hadži, 1931, sub *M. m. alpinus*, 28.08.1928, Hadži leg.)
12. **Prisojnik** Mt., N wall, **VM04** /at least 1700 m/ (Hadži, 1931, sub *M. m. alpinus*, 12.08.1928, Hadži leg.)
13. Mlinarica valley, **VM04**, 1550 m (Di Caporiacco, 1949: Meinerza appiè del Prisanig (Bois de Chesne) /probably: bois de chène: oak forest/, sub *M. m. morio* (FABRICIUS, 1779): pl. mm, ff)
14. **Nadiža valley, VM04**, 1100-1200 m (Hadži, 1931, sub *M. m. alpinus*, 08.1928, Hadži leg.)
15. **Gozd Martuljek, VM05**, 720 m (Hadži, 1931: Martuljak, sub *M. m. alpinus*, 15.08.1928, Kuščer leg.)

Mitopus glacialis (HEER, 1845)

1. **Kanin** Mt., **UM73** (Di Caporiacco, 1922, sub *Oligolophus glacialis* (C. Koch) assumed the mountain to be inhabited by *M. glacialis*: Val Raccolana - esemplare ... sia stato transportato ... delle cime del Canin o del Montasio ...)

Gyas titanus SIMON, 1879

- **Slovenia** (Mršić, 1997a)
- **Pohorje** (Hadži, 1973b)

1. the cave **Huda luknja pri Radljah, WM16**, Cad. No. 3191, 450 m (Novak & Kuštor, 1982b: 1972-73; Novak *et al.*, 1984; Lipovšek *et al.*, 1996: all Huda luknja nad Radljami)
2. the cave **Huda luknja pri Gornjem Doliču, WM14**, Cad. No. 413, 510 m (Lipovšek *et al.*, 1996: Huda luknja pri Doliču)
3. **Huda luknja** cleft, **WM14**, 500-786 m (Novak & Kuštor, 1980b)

   Martens (1978) and repeatedly Komposch (1999) incorrectly noted that the species does not pass over the Karavanke/Karawanken Mts. chain.

Gyas annulatus (OLIVIER, 1791)

- **Slovenia** (Koch, 1848b: Gegend von Laibach, sub *Opilio nigricans*, Schmidt leg.; Doleschal, 1852: Bei Laibach, sub *O. nigricans* Koch; Hadži, 1942, Figs. 28c, d; Hadži, 1973b; Mršić, 1997a)
- **Triglav** Mts. /the highest summit altitude 2864 m/ (Hadži, 1931, Hadži leg.; Bole, 1974)

1. **Mangrt, UM94** /the summit altitude 2679 m/ (Martens, 1978a: Mangart, Ausobsky leg.)
2. the cave Predjamski sistem, **Jama pod Predjamskim gradom**, Predjama, **VL37**, Cad. No. 734, 490 m (Roewer, 1935: Luegger /German correct: Lueger/ Grotte, 26.04.1914: 1 pullus; Nr. 773)
3. cave **Planinska jama, VL73**, Cad. No. 748, 450 m (Novak *et al.*, 1984)
4. at the waterfall **Savica, VM02**, 750 m (Hadži, 1931: at the waterfall of the Sava Bohinjka river, 14.08.1917, Kuščer leg.)
5. **Komarča - Sedmera jezera, VM02**, 1360-1680 m (Hadži, 1931, Hadži jr. leg.)
6. by a stream /which one?/ along the road leading to **Vršič** mountain pass, **VM04** (Hadži, 1931, seen /permanent streams by the Kranjska gora - Vršič road are at 1040, 1190 and 1210 m/)
7. under the **Prisojnik** Mt., **VM04** /at least 1400 m; the summit altitude 2547 m/ (Hadži, 1931, seen)
8. **Gozd Martuljek, VM05**, 720 m (Hadži, 1931, 15.08. 1928, Kuščer leg.: 1 iuv.)
9. **Črna prst** Mt., **VM12** /the summit altitude 1844 m/ (Martens, 1978a, NHMW)
10. the **Vrata** valley, **VM14** /840-ca. 1100 m/ (Hadži, 1931, the valley of the Bistrica river, seen 14.08.1928: 1 ex.)
11. at the waterfall **Peričnik, VM14**, 860 m (Hadži, 1931, seen)
12. mountain pathway **Tominškova pot, VM14**, Triglav Mt., 1100-1800 m, (Hadži, 1931, 28.08.1928, Hadži leg.: 3 iuv.; *Nelima humilis* (L. KOCH) was found to be the synonym of juvenile *G. annulatus*; Figs. 28, 29; Luhan (1980) clarified that *Leiobunum humile* (KOCH, 1876) /right: L. KOCH, 1869/ is the synonym of *G. titanus*)
13. **Bled, VM33**, 500 m (Martens, 1978a, Ausobsky leg.)

Dicranopalpus gasteinensis DOLESCHALL, 1852

- **Slovenia** (Hadži, 1957a; Mršić, 1997a)
- **Triglav** Mts. /the summit altitude 2864 m/ (Hadži, 1931, Hadži leg., 1973b)

1. **Mangrt** Mt., **UM94** /the summit altitude 2679 m/ (Martens, 1978a: Mangart, Faltermeier leg.)
2. the snowfield edge on **Triglav** Mt., **VM03** /ca. 2600 m/ (Hadži, 1936)
3. a snowfield under the **Prisojnik** Mt., **VM04** /the lowest part at ca. 1400 m/ (Hadži, 1931, Figs. 11-13, under stones, 12.08.1928: 1 f, 7 iuv. - 14.08.1928, Hadži leg.: 1 iuv.)
4. above the **Bistrica spring, VM14**, under the mountain wall Severna triglavska stena /the spring at 1020 m/ (Hadži, 1931, Hadži leg.: 1 iuv.)

Amilenus aurantiacus (SIMON, 1881)

- **Slovenia** (Martens, 1978b, *sec.* Roewer, 1923; Hadži, 1973b, sub *Nelima aurantiaca* (SIMON, 1881))

1. the cave **Volčja jama**, Nanos Mt., **VL27**, Cad. No. 743, 1060 m (Roewer, 1935, sub *N. aurantiaca*, 29.04.1914: 2 mm, Nr. 776; Kratochvíl, 1946, sub *N. aurantiaca*)
2. the cave system **Postojnska jama, VL36**, Cad. No. 747, 530 m (Schiner, 1854: Adelsberger Grotte, Khevenhüller leg., sub *Lejobunum rotundatum* KOCH; Roewer, 1957: Adelsberger Grotte, sub *N. aurantiaca*, Strasser leg.: 1 f, Coll. RII/8492/83; Pretner, 1968, sub *N. aurantiaca*)
3. the cave **Črna jama**, Postojna, **VL36**, Cad. No. 471, 540 m (Roewer, 1935, sub *N. aurantiaca*, 27.04.1914: 1 m, Nr. 774; Kratochvíl, 1946, sub *N. aurantiaca*)
4. the cave **Logarček**, Planina, **VL47**, Cad. No. 28, 500 m (Roewer, 1957: Logarček, sub *N. aurantiaca*, Strasser leg.: 1 f, Coll. RII/8493/84)
5. the cave **Mrzla jama pri Ložu**, Bloška polica, Lož, **VL56**, Cad. No. 79, 610 m (Roewer, 1935: Mrzla jama, sub *N. aurantiaca*, 28.04.1914: 1 m, Nr. 775; Kratochvíl, 1946, sub *N. aurantiaca*)
6. **Cipmik** Mt., **VM04** /the summit altitude 1745 m/ (Hadži, 1931: Čipernik, sub *N. aurantiaca*, 05.08. 1928, Hadži leg.: pl. iuv.)
7. by the road **Kranjska gora - Vršič** mountain pass, **VM04** /ca. 900-1611 m/ (Hadži, 1931: by the road leading to Vršič, sub *N. aurantiaca*, 14.08.1928, Hadži leg.: pl. iuv.)
8. **Podkoren, VM05**, 850 m (Hadži, 1931, sub *N. aurantiaca*, Hadži leg.: pl. iuv.)
9. **Ribčev laz**, Bohinj, VM12, 530 m (Hadži, 1931: at the church of St. Janez, sub *N. aurantiaca*, Fig. 31, 16.08. 1928, Hadži leg.: 1 iuv.)
10. a **cave** between Toško čelo and Babni dol, **VM60** (Hadži, 1926/27, sub *N. aurantiaca*; Schmidt's label: Grotte zwischen Toško čelo - Labni dol: 2 ex. /it could be the cave Jama 1 v Jurcetovih Percah, Cad. No. 366, 450 m/)
11. the cave **Kamniška jama, VM63**, Cad. No. 5058, 1400 m (Slapnik, 1996, sub *N. aurantiaca*)
12. the cave **Jama pri Votli peči, VM95**, Ravne na Koroškem, Cad. No. 3263, 400 m (Novak & Sivec, 1977a, b, sub *N. aurantiaca*; Novak & Kuštor, 1980a, sub *N. aurantiaca*)
13. the cave **Špegličeva jama, WM12**, Cad. No. 3512, 400 m (Novak & Kuštor, 1982a, males sub *Leiobunum rupestre*)
14. the cave **Zgornja Steska jama, WM13**, Cad. No. 169, 370 m (Novak & Kuštor, 1982a, males sub *L. rupestre*)
15. the cave **Jama pod južnim vrhom Tisnika, WM14**, Cad. No. 521, 730 m (Novak & Kuštor, 1982a, sub *N. aurantiaca*, 1972-73)
16. the cave **Pilanca, WM14**, Cad. No. 520, 650 m (Novak & Kuštor, 1982a, sub *N. aurantiaca*, 1972-73)
17. the cave **Huda luknja pri Radljah, WM16**, Cad. No. 3191, 450 m (Novak & Kuštor, 1982a: Huda luknja nad Radljami, sub *N. aurantiaca*, 1972-73)
18. the cave **Fantovska luknja 2, WM21**, Cad. No. 3967, 480 m (Novak & Kuštor, 1982a, males sub *L. rupestre*)

Astrobunus laevipes (CANESTRINI, 1872)

- **Slovenia** (Hadži, 1926/27, sub *A. bernardicus simoni* HADŽI, 1927, Figs. 208-213; Hadži, 1973b, sub *A. meady* (THORELL, 1876), *A. b. simoni* HADŽI, 1927, *A. slovenicus* HADŽI, 1928 /right: HADŽI, 1927/, and *A. roeweri* HADŽI, 1928 /right: HADŽI, 1927/; Mršić, 1997a)

1. **Slivnica, VL57** /the summit altitude 1114 m/ (Martens, 1978a, Martens leg.)
2. **Ljubljana, VM60**, 300 m (Hadži, 1973b, sub *A. bernardicus* SIMON, 1879)
3. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 22.08.1996, Kovač leg.: 1 m, iuv. - 24.08.1996: 1 m - 12.10.1996: 1 m)

Astrobunus helleri (AUSSERER, 1867)

- **Slovenia** (Hadži, 1926/27, sub *A. slovenicus* HADŽI, 1927, Figs. 191-202 Tab. VIII: 2 ff and sub *A. roeweri* HADŽI, 1927, Figs. 203-207 Tab. VIII; Hadži, 1931, Fig. 8, and sub *A. slovenicus*, Fig. 9, 10; Hadži, 1942, Fig. 26; Novak *et al.*, 1995b, also sub *A. croaticus* SOERENSEN, 1894; Mršić, 1997a)
- **Triglav** Mts. /the summit altitude 2864 m/, **Karavanke** Mts. /the summit highest altitude 2236 m/ (Hadži, 1927, 1931, 1973b)

1. the surroundings of **Kamno, UM92**, 200 m (Marcellino, 1973: dintorni di Kamno, 11.-12.1915: 1 f, MSNG, Andreini leg.)
2. **Trenta** valley, **UM93-VM03**, 500-900 m (Martens, 1978a, Martens leg.)
3. **Divača, VL16**, 440 m (Martens, 1978a, Martens leg.)
4. **Rakov Škocjan, VL47**, 520 m (Martens, 1978a, Martens leg.)
5. southern slope of **Ciprnik** Mt., **VM04** /the summit altitude 1745 m/ (Hadži, 1931: Čipernik, Fig. 8, 08.08.1928, Hadži leg.)
6. at the foot of **Ciprnik** Mt., **VM04** (Hadži, 1931: Čipernik, sub *A. slovenicus*, Figs. 9, 10, under stones, 800-1000 m, 08.08.1928, Hadži leg.: 1 f; Hadži, 1942, Fig. 27)
7. **Planica** valley, **VM04**, 870-1100 m (Hadži, 1931, sub *A. slovenicus*, 04.08.1928, Hadži leg.: 1 f)
8. at **Podkoren, VM05**, 850 m (Hadži, 1931: pl.)
9. by the road **Podkoren - Korensko sedlo** mountain pass, **VM05**, 870-1073 m (Hadži, 1931, sub *A. slovenicus*, Hadži leg.: pl.)
10. at the waterfall **Peričnik**, valley Vrata, **VM14**, 860 m (Hadži, 1931, under stone, 14.08.1928, Hadži leg.)
11. at **Polhov Gradec, VM 40**, 370 m (Hadži, 1931: Polhov grac, sub *A. slovenicus*, Hadži leg.: pl.)
12. at **Kranj, VM42-52**, 390 m (Hadži, 1931, sub *A. slovenicus*, Hadži leg.: pl.)
13. **Ljubelj** mountain pass, **VM44** /up to 1060 m/ (Martens, 1978a, Martens leg.)
14. **Mozirje, VM93**, 340 m (Hadži, 1931, sub *A. slovenicus*: pl.)

Roewer (1957) erroneously cited Kratochvíl's (1934) work and alleged *A. laevipes* (sub *Roweriolus slavicus* KRATOCHVÍL, 1934) for eastern Slovenia in place of Slovakia. Nevertheless, the species does live in eastern Slovenia, too. Hadži (1973b) and Martens (1978, *in synonymy*) cited *A. slovenicus* and *A. roeweri* sub HADŽI, 1928 instead of HADŽI, 1927. Mršić (1997) cited *A. dinaricus* ŠILHAVÝ, 1938, for Slovenia, but although expected it has not been recorded there.

Leiobunum limbatum C.L. KOCH, 1961

- NW **Slovenia** (Hadži, 1973b)

Leiobunum roseum C. L. KOCH, 1839

- **Slovenia** (Koch, 1839: Laibach; Koch, 1848b: Gegend von Laibach /und Triest/; Doleschal, 1852: Bei Laibach, sub *Lejobunum roseum* Koch; Roewer, 1910: Deutschland (Laibach), sub *Liobunum roseum*; Roewer, 1923: Laibach; Hadži (1931: 141) noted that Trieste and Ljubljana (Laibach) are certainly the places, where Roewer (1923) indirectly got the material from /the actual cause for the vague locality is rather Koch's (1839) description of the locus typicus: "Aus der Gegend von Triest")
- NW **Slovenia** (Hadži, 1973b)
- **Triglav** Mts. /the highest summit altitude 2864 m/ (Bole, 1974, sub *Liobunum roseum*; Martens, 1978a)

1. **Mrzli vrh** Mt., Kamno, **UM92** /summit altitude 1359 m/ (Marcellino, 1973: Monte Merzli)
2. **Pri Cerkvi, VM04**, 850 m (Hadži, 1931: casa d'absteig Santa Maria di Trenta, sub *Liobunum roseum*, Müller leg.; Di Caporiacco, 1949: S. Maria di Trenta, sub *Liobunum roseum*, 19.11.1928, Zimich leg.: 1 m, 1 f - 20.11.1928: pl. mm. ff)
3. **Komarča, VM02**, 660-1360 m (HADŽI 1931, sub *Liobunum roseum*, 11.09.1919, SELIŠKAR leg.; sub *Liobunum roseum* = "*Nelima nigripalpis* (SIMON)", Figs. 26, 27, 08.1928, Hadži leg.: pl. iuv.)
4. **Dolina triglavskih jezer** valley, **VM03**, 1780-2000 m (Hadži, 1931: Triglavska sedmera jezera, sub *L. roseum* = "*N. nigripalpis* (SIMON)", 08.1928, Hadži leg.: pl. iuv.)
5. by the road to **Vršič** mountain pass, Velika Pišnica valley, **VM04**, /ca. 900-1611 m/ (Hadži, 1931, sub *L. roseum* = "*N. nigripalpis* (SIMON)", 08.1928, Hadži leg.: pl. iuv.)
6. above **the spring of the Soča river, VM04**, 1000 m (Hadži, 1931, sub *Liobunum roseum*, Figs. 23-25, Müller leg.)
7. S and N side of the **Vršič** mountain pass, **VM04** /up to 1611 m/ (Martens, 1978a, Ausobsky, Martens leg.)
8. **Prisojnik** Mt., **VM04** /the summit altitude 2547 m/

(Hadži, 1931, sub *Liobunum roseum*, Figs. 23-25, 05., 11. and 12.08.1926, Hadži leg.: pl.)

9. **Gozd Martuljek, VM05**, 720 m (Hadži, 1931: Martuljak, sub *Liobunum roseum*, KUŠČER leg., 15.08.1928: 4 mm; sub *L. roseum* = "*N. nigripalpis* (SIMON)", 08.1928, HADŽI leg.: pl. iuv.)
10. at the waterfall **Peričnik**, Vrata valley, **VM14**, 860 m (Hadži, 1931, sub *Liobunum roseum* = "*N. nigripalpis* (SIMON)", Figs. 26, 27: a juvenile drawn as a female, 08.1928, Hadži leg.: pl. iuv.)

Leiobunum rotundum (LATREILLE, 1798)

- **Slovenia** (Hadži, 1973b, sub *Liobunum rotundum*)

1. **Razkrižje, XM05**, 180 m (Kovač, 1997, 17.08.1996, Kovač leg.: 1 m)
2. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 13. 08.1996, Kovač leg.: 1 m - 22.08.1996: 1 f)
3. **Lendavske gorice/Lendvahegy,** XM16 (Kovač, 1997, 17.08.1996, Kovač leg.: 1 m)

Leiobunum rupestre (HERBST, 1799)

- **Slovenia** (Koch, 1848b: Gegend von Laibach, sub *L. ovale*; Doleschal, 1852: Bei Laibach, sub *Lejobunum ovale* Koch; Hadži, 1942, Figs. 29d, e; Hadži, 1973b, sub *Liobunum rupestre)*
- **Triglav** Mts. /the highest summit altitude 2864 m/ (Martens, 1978a)

1. **Mrzli vrh** Mt., **UM92**, 1359 m (Marcellino, 1973: Monte Merzli, 10.1915: 2 mm, MSNG, Andreini leg.)
2. the surroundings of **Kamno, UM92**, 200 m (Marcellino, 1973: dintorni di Kamno, 11.1915: 1 m, MSNG; 1 m, CM, Andreini leg.)
3. the cave **Postojnska jama**, Paradiž, **VL36**, Cad. No. 747, 530 m (Di Caporiacco, 1937: nella Grotta Paradiso di Postumia, sub *Nelima nigripalpis*, 08.02.1936: 3 ff)
4. **Cerknica, VL 57**, 560 m (Martens, 1978a, Martens leg.)
5. by the road to **Vršič** mountain pass, **VM04** (Hadži, 1931, sub *Liobunum rupestre* = "*Nelima glabra* (L. KOCH)", 28.08.1928, Hadži leg.: 1 m, pl. iuv.)
6. under **Prisojnik** Mt., **VM04** (Hadži, 1931, sub *Liobunum rupestre*: pl. iuv.)
7. **Planica** valley, **VM04** (Hadži, 1931, sub *L. rupestre* = "*N. glabra* (L. KOCH)", Fig. 30, 04.08.1928, Hadži leg.: pl. iuv.)
8. **Gozd Martuljek, VM05**, 720 m (Hadži, 1931, sub *Liobunum rupestre*, 15.08.1928, KUŠČER leg.: 1 m)
9. **Ribčev laz**, Bohinj, **VM12**, 530 m (Hadži, 1931: by the church of St. Janez, sub *Liobunum rupestre*, Fig. 30, 16.08.1928, leg Hadži: 1 iuv.)
10. **Ljubelj** mountain pass, **VM44** /up to 1060 m/ (Martens, 1978a: S-Seite des Loibl Passes, Auasobsky, Martens leg.)
11. **Toško čelo, VM50**, 590 m (Hadži, 1931, sub *Liobunum rupestre*: 1 m, 1 iuv. m)
12. **Matjaževa jama**, Pirniče, **VM51**, Cad. No. 69, 420 m (Hadži, 1926/27: Gross-Kahlenberger Grotte, Schmidt's label: 1 m, Schmidt det., sub *Phalangium)*
13. the cave **Pilanca, WM14**, Cad. No. 520, 650 m (Novak & Kuštor, 1982b, sub *Liobunum rupestre*, 1972-73)
14. the cave **Jama pod južnim vrhom Tisnika, WM14**, Cad. No. 521, 730 m (Novak & Kuštor, 1982b, sub *Liobunum rupestre*, 1972-73)
15. the cave **Huda luknja pri Radljah, WM16**, Cad. No. 4191, 450 m (Novak & Kuštor, 1982b: Huda luknja nad Radljami, sub *Liobunum rupestre*, 1972-73)

Hadži (1931) recognized juveniles of *Leiobunum* (sub *Liobunum) roseum* although he wrote that young *L. roseum* and *L. limbatum* are not distinguishable; at the localities cited by him we found only *L. roseum*. He wrongly supposed (Martens, 1978a) *Nelima nigripalpis* (SIMON, 1879) to be a synonym of *L. roseum*.

Nelima semproni SZALAY, 1951

- **Slovenia** (Hadži, 1973b, sub *N. silvatica* (SIMON, 1879))

1. **Ljubljana, VM69**, 300 m (Hadži, 1973b, sub *N. silvatica fasciata* HADŽI, 1973)
2. **Bled, VM33**, 500 m (Martens, 1978, Faltermeier leg.)
3. **Podutik, VM50** (Hadži, 1973a, sub *N. s. fasciata*, Fig. 50, Hadži leg., several times: pl.)
4. **Mozirje, VM93** (Hadži, 1973a, sub *N. s. fasciata*, 10.07.1929, Hadži leg.)
5. **Dolnja Bistrica, XM05**, 170 m (Kovač, 1997, 17.08. 1996, Kovač leg.: 1 f)
6. **Benica/Benice, XM15** (Kovač, 1997, 19.08.1996, Kovač leg.: 1 m, 3 ff)
7. **Gaberje/Gyetyános, XM15**, 160 m (Kovač, 1997, 22. 08.1996, Kovač leg.: 7 mm, 1 f - 24.08.1996: 2 mm, 1 iuv.)
8. **Lendavske gorice/Lendvahegy, XM16** (Kovač, 1997, 18.08.1996, Kovač leg.: 3 mm, 1 f)

Nelima doriae (CANESTRINI, 1871)

- **Slovenia**, Adriatic coast (Hadži, 1942, Figs. 28a-c; Hadži, 1973b sub *N. doriae dalmatina* HADŽI, 1973, Fig. 51)

Incertae sedis

? ***Slovenia*** *(Roewer, 1950: Krain, sub* I. hellwigii*: 3 (m, f) RI/11/972)*
? cave **Celerjeva jama** (which one?, the name not known today) at the village Zalog, **VM81** (Joseph, 1881, sub *Lejobonum)* - probably *A. aurantiacus* or *L. rupestre*
? cave **Velika pasica**, Krim Mt., **VL58**, Cad. No. 75, 700 m (Joseph, 1881: Velka Pasica, and Pasica-Grotte, sub *Phalangium niveum*, Joseph leg.)

Annex

The species cited in works with UTM-coded localities

HUDRAP & PAVLIN (1996): *Siro duricorius, Nemastoma triste, Nemastoma b. bidentatum, N. b. sparsum, Trogulus nepaeformis, Phalangium opilio, Opilio saxatilis, Platybunus bucephalus, Lacinius dentiger, L. ephippiatus, Mitopus morio, Amilenus aurantiacus, Leiobunum rupestre, L. limbatum, Nelima semproni*

LIPOVŠEK *et al.* (1996): *Gyas titanus, G. annulatus*

NOVAK *et al.* (1984): *Siro duricorius, Peltonychia postumicola, P. tenuis, P. gabria, Holoscotolemon unicolor, Nemastoma b. bidentatum, Paranemastoma quadripunctatum, P. bicuspidatum, Mitostoma chrysomelas, Dicranolasma scabrum, Trogulus tricarinatus, T. nepaeformis, T. tingiformis, Ischyropsalis hellwigi hellwigi, I. muellneri, I. kollari, I. hadzii, Opilio dinaricus, O. ruzickai, Rilaena triangularis, Oligolophus tridens, Lacinius dentiger, L. ephippiatus, Mitopus morio, Gyas titanus, G. annulatus, Amilenus aurantiacus, Astrobunus helleri, Leiobunum rupestre*

NOVAK *et al.* (1995a): *Siro duricorius, Holoscotolemon unicolor, Nemastoma triste, N. b. bidentatum, Paranemastoma quadripunctatum, P. bicuspidatum, Mitostoma chrysomelas, Trogulus tricarinatus, T. nepaeformis, T. tingiformis, Ischyropsalis hellwigi hellwigi, I. kollari, Phalangium opilio, Opilio parietinus, O. saxatilis, O. dinaricus, O. ruzickai, Platybunus bucephalus, Rilaena triangularis, Lophopilio palpinalis, Oligolophus tridens, Lacinius horridus, L. dentiger, L. ephippiatus, Mitopus morio, Egaenus convexus, Gyas titanus, Amilenus aurantiacus, Astrobunus laevipes, A. helleri, Leiobunum roseum, L. rupestre, L. rotundum, Nelima semproni*

NOVAK *et al.* (1995b): *Siro duricorius, Peltonychia postumicola, P. tenuis, P. gabria, Holoscotolemon unicolor, Scotolemon doriae, Nemastoma b. bidentatum, N. b. sparsum, N. dentigerum, Paranemastoma quadripunctatum, Histricostoma dentipalpe, Carinostoma carinatum, Mitostoma chrysomelas, M. alpinum, Dicranolasma scabrum, Trogulus tricarinatus, T. nepaeformis, T. closanicus, T. tingiformis, T. coriziformis, Anelasmocephalus hadzii, Ischyropsalis hellwigi hellwigi, I. muellneri, I. hadzii, I. kollari, Phalangium opilio, Metaphalangium cirtanum, (M. propinquum), Opilio parietinus, O. saxatilis, O. dinaricus, O. ruzickai, O. transversalis, O. canestrinii, Platybunus bucephalus, Metaplatybunus carneluttii, Rilaena triangularis, Dasylobus graniferus (sub Eudasylobus nicaeensis), Lophopilio palpinalis, Oligolophus tridens, Odiellus spinosus, Lacinius horridus, L. dentiger, L. ephippiatus, Mitopus morio, Gyas annulatus, Amilenus aurantiacus, Astrobunus laevipes, A. helleri (also sub A. croaticus), A. dinaricus, Leiobunum roseum, L. limbatum, L. rupestre, L. rotundum, Nelima semproni, N. doriae*

DISCUSSION AND CONCLUSIONS

In comparison to the relatively long reference list, only few literature data on harvestman localities in Slovenia can be taken into account. Locality names in Slovenia used by foreign authors must be critically examined before further use. Consultations with native biologists, geographers and/or linguists are strongly recommended in the future to avoid further mistakes.

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PRIPOMBE K OBJAVLJENIM PODATKOM O SUHIH JUŽINAH (ARACHNIDA: OPILIONES) SLOVENIJE

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POVZETEK

Avtorja sta opravila kritičen pregled literaturnih podatkov o suhih južinah Slovenije. Izkazalo se je, da so mnogi podatki napačni. Da bi se izognili nadaljnji zmedi, sta tam, kjer je bilo potrebno, dodala komentarje in/ali popravke. Avtorji citirajo 57 od 62 znanih vrst v Sloveniji. V primerjavi z razmeroma dolgim seznamom literature je bilo objavljenih malo najdišč v Sloveniji, mnoge navedbe pa so nepravilne. Uvrstiti jih je mogoče v dve glavni skupini: napačne determinacije ter navajanje neustreznih imen najdišč, ki so jih objavili zlasti tuji avtorji.

Ključne besede: bibliografija, Opiliones, Slovenija

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