Some erigonine spiders from southern Europe

A. F. Millidge

Little Farthing, Upper Westhill Road, Lyme Regis, Dorset DT7 3ER

Summary

The following new species of erigonine spiders from southern Europe are described: Walckenaera insperata n.sp., Walckenaera plumata n.sp., Walckenaera angelica n.sp., Tapinocyba ventosa n.sp., Tapinocyba latia n.sp., Tapinocyba lucana n.sp., Trachelocamptus minor n.sp., and Erigonoplus simplex n.sp. Two subspecies of Tapinocyba affinis Lessert, are erected: orientalis n.ssp. and pyrenaea n.ssp. Diplocephalus crassiloba Simon is redescribed, and the probable synonymy of D. hungaricus Kulcz. with D. crassiloba is discussed. A brief list is given of some new records for erigonine species in southern Europe.

Introduction

The erigonine spiders dealt with in this paper are mainly from three sources:

- 1. a collection of Italian species provided by Prof. P. Brignoli (L'Aquila, Italy);
- 2. species collected over several years in Yugoslavia by Mrs C. L. Deeleman (Ossendrecht, Netherlands); 3. the author's own collecting in France and Italy.

The description of a new species of *Mecopisthes* (M. latinus) present in the Brignoli collection has already been published (Millidge, 1978).

Genus Walckenaera Blackwall 1833

Three new species of this genus are described, all from Italy. The first is close to W. antica (Wider) and W. stylifrons (Cambr.), the second is close to W. corniculans (Cambr.) and W. monoceros (Wider), while the affinities of the third (P only) are not clear.

Walckenaera (Wideria) insperata n.sp. (Figs. 1-3)

Total length: 92.1-2.2 mm, 32.2-2.3 mm. Cephalothorax: length 9ca0.9 mm, 3ca1.0 mm. Orangebrown with blackish fovea and striae. 3cbc: head raised

into lobe (Fig. 1) carrying posterior median eyes, lobe broader than in antica Wider but rather close to suspecta Kulcz.; a small anterior lobe carries two cornicles as in antica. Chelicerae: a clear stridulatory file present in both sexes. Eyes: 9 closely spaced, posteriors less than 1 d. apart. Abdomen: grey to black, clothed with short hairs. Sternum: orangebrown, suffused with black particularly on margins. Legs: whitish yellow to pale brown. Tibial spines 2211 but extremely short and inconspicuous in d. Metatarsi I-IV with a trichobothrium, TmI 0.50-0.54 (9), 0.47-0.50 (d). Tarsal claws highly pectinate, as normal in the genus. Epigyne: Fig. 2; somewhat similar to W. stylifrons (Cambr.), but vulva (Fig. 3) is quite distinct from stylifrons. Male palp: the palpal organs and tibial apophyses are identical with antica.

Material: 29 16 Piana d'Incenso (Ponza, Italy), Nov.-Dec. 1966; 16 Spiaggia M. Rosa (Ponza), Feb. 1968 (P. M. Brignoli). Holotype of (Piana d'Incenso) and paratypes deposited with Prof. Brignoli (L'Aquila).

This species is somewhat smaller than W. suspecta (? 2.9 mm, ? 2.6 mm, in specimens from Czechoslovakia), which has TmI ca 0.6.

Walckenaera (Prosopotheca) plumata n.sp. (Figs. 4-8)

The δ and P described were not taken together, but are considered to belong probably to the same species.

Total length: ♀ 3.0 mm, ♂ 2.7-3.0 mm. Cephalothorax: length 9 1.2 mm, & 1.3 mm. Orange-brown, with slightly darker fovea, striae and margins. 5: head with a plume of spatulate hairs (Fig. 4) in the ocular area, quite distinct in appearance from monoceros Wider, corniculans Cambr., erythrina Simon and crocata Simon (Wunderlich, 1972). Chelicerae: clear stridulatory file present in both sexes. Eyes: 9 posterior medians ca 0.5 d. apart and < 1d. from laterals; & posterior medians practically contiguous, ca 2 d. from laterals. Abdomen: Long oval, grey to black, clothed with hairs of moderate length. Sternum: Orange-brown, darker on margins. Legs: in both sexes, distinctly pale in colour: pale yellow to yellow, with no darkening of anterior tibiae (d). Tibial spines 2211, but only short thin stumps on I-II in J. Metatarsi I-IV with a trichobothrium, TmI 0.60-0.63 (?), 0.58 (d). Tarsal claws highly pectinate.

Epigyne: Fig. 5; very similar to corniculans, but the "wings" on either side are more conspicuous; vulva (Fig. 6) probably distinguishable from corniculans. Male palp: Figs. 7, 8; palpal organs appear to be identical with corniculans, but tibia is more or less intermediate between corniculans and monoceros.

Material: 1 & Piana d'Incenso (Ponza, Italy), Dec. 1966; 1 & Doberdo (Venezia Giulia); 1 & Capo Colonne (Calabria); 1 & Strada FI (Tuscany), all localities in Italy (P. M. Brignoli). Holotype & (Piana d'Incenso) and paratypes deposited with Prof. Brignoli (L'Aquila).

In the past, this species may have been mistaken for monoceros or corniculans.

Walckenaera angelica n.sp. (Figs. 9-11)

Total length: 9 2.2 mm. Cephalothorax: length 9 0.90 mm. Yellow, with head and striae orange-brown. Profile (Fig. 9). Chelicerae: with clear stridulatory file. Eyes: large, in compact group; posterior medians 0.5 d. apart and < 1 d. from laterals. Abdomen: whitish grey. Sternum: pale yellow. Legs: pale yellow to pale brown. Tibial spines 2211, but very thin and barely distinguishable from hairs. Metatarsi I-IV with a trichobothrium; TmI ca 0.4. Tarsal claws highly pectinate. Epigyne: Fig. 10; vulva Fig. 11.

Material: 29 S. Angelo Gargano (Puglie, Italy), Oct. 1966 (P. M. Brignoli). Holotype ♀ and paratype deposited with Prof. Brignoli (L'Aquila).

The sub-genus to which this species belongs cannot be decided on the basis of the 9.

Genus Tapinocyba Simon 1884

Two new subspecies of *T. affinis* Lessert are erected, based on populations from central and eastern Europe and from the Pyrenees; and three new species of *Tapinocyba* are described, one from southern France and two from Italy.

Tapinocyba affinis Lessert, and its subspecies orientalis n.ssp. and pyrenaea n.ssp. (Figs. 12-19)

In view of the fairly numerous species of *Tapinocyba* present in central and southern Europe, Lessert's description (1907, 1910) of *T. affinis* is barely detailed enough to identify his species with certainty. A re-examination of the type material (2 &

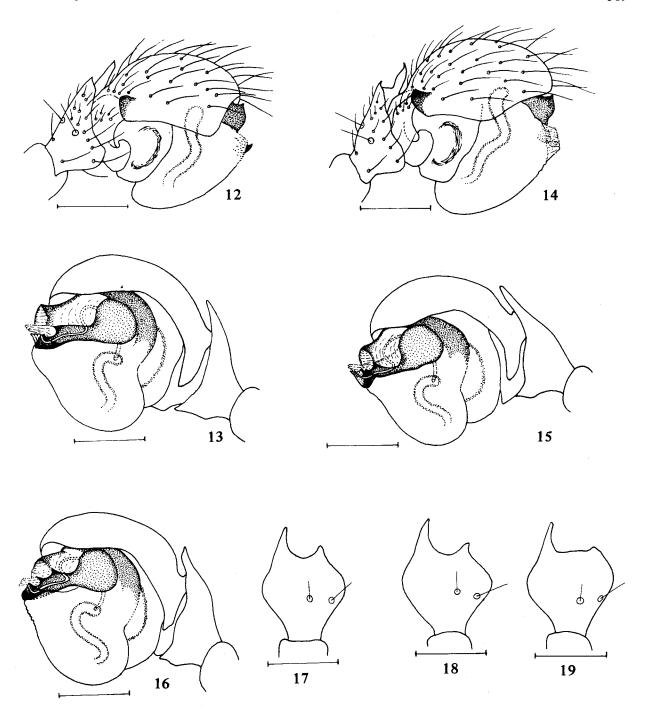
MHN, Geneva) has therefore been carried out by the author. These types are rather bleached and hence not perfect material for study. Fortunately the numerous specimens labelled *T. affinis* from the Simon Collection (MNHN, Paris) (all collected in France) appear to be identical with the types, and are in good condition.

T. affinis is a typical Tapinocyba, small in size and rather pale in colour, with tibial spines 1111, trichobothria on metatarsi I-III, TmI ca 0.55 (\$), ca 0.52 (3). The distinguishing features of the species lie in the male palpal organs and palpal tibia (Figs. 12, 13, 17) and in the female epigyne/vulva, which has been figured by several authors (Miller, 1947; Wiehle, 1960; Thaler, 1976). One male (from Fionnay, Valais) has been selected from the type material and labelled as the lectotype of the species, and is deposited in the Museum d'Histoire Naturelle, Geneva.

Specimens of *T. affinis* from Czechoslovakia (collected by F. Miller and J. Buchar), from E. Germany (Wiehle Collection) and Austria (Tyrol, collected by K. Thaler) show small but constant differences from the type in the embolic division of the palp (Fig. 15, cf. Fig.13); the palpal tibia (Fig. 18, cf. Fig. 17) is rather broader, though the apophyses appear to be practically identical. This material is regarded as a subspecies of affinis and is here given the name orientalis n.ssp. The epigyne and vulva of orientalis appear to be indistinguishable from those of the nominate subspecies (affinis affinis).

Populations of T. affinis in the eastern Pyrenees (specimens taken by the author) appear to represent a second subspecies. This also shows small and constant differences in the embolic division of the o palp (Fig. 16), but in this case the form of the tibial apophyses (Fig. 19) is distinct from that of the nominate subspecies, and rather similar to that of T. ligurica Thaler (Thaler, 1976). The tegulum is also somewhat more prominent (Fig. 14), and of a characteristic silvery grey colour. This material is given the subspecific name pyrenaea n.ssp. The epigyne and vulva of pyrenaea, though appearing slightly different from those of affinis affinis, are not distinguishable with certainty. The holotype of of orientalis (from Czechoslovakia) and the holotype of of pyrenaea (from Aude, France) have been deposited in the Museum d'Histoire Naturelle, Geneva.

T. affinis affinis seems to be limited to the western

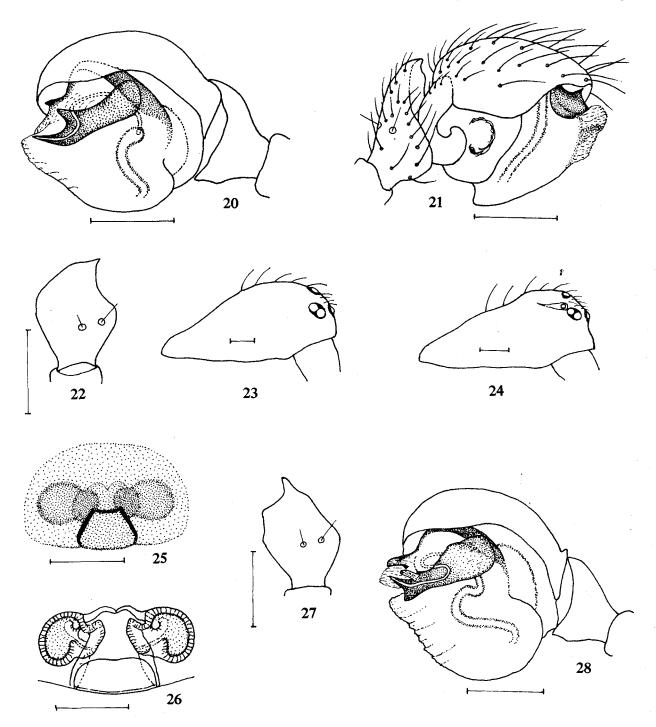


Figs. 12-19: Tapinocyba affinis affinis Lessert. 12 d palp ectal; 13 d palp mesal; 17 d right palpal tibia dorsal.

T. affinis orientalis n.ssp. 15 d palp mesal; 18 d right palpal tibia dorsal.

T. affinis pyrenaea n.ssp. 14 d palp ectal; 16 d palp mesal; 19 d right palpal tibia dorsal.

Scale lines = 0.1 mm.



Figs. 20-28: Tapinocyba ventosa n.sp. 20 o palp mesal; 21 o palp ectal; 22 o right palpal tibia dorsal; 23 profile c cephalothorax; 24 profile o cephalothorax; 25 epigyne; 26 vulva.

Tapinocyba corsica Simon. 27 o right palpal tibia dorsal; 28 o palp mesal.

Scale lines = 0.1 mm.

A. F. Millidge 321

Alps (France and Switzerland), while T. affinis orientalis seems to extend eastwards and northwards from at least as far west as the N. Tyrol; where the boundary between the two forms lies is not known. T. affinis pyrenaea appears to be limited to the Pyrenees, where it is a common species in both spring and autumn in woods at altitudes of ca 1000-1300 m. No intermediates between the three forms of the embolic division have been seen by the author, but it cannot at this stage be certain that such intermediates do not exist. The rather distinct differences in the & of pyrenaea may indicate that this should have full specific status; if T. affinis affinis were later found to be sympatric with the orientalis form, with no intermediates, it would presumably become necessary to elevate the latter to full specific status.

Tapinocyba ventosa n.sp. (Figs. 20-26)

Total length: \Im ca 1.7 mm, \Im ca 1.5 mm. Cephalothorax: length \Im ca 0.75 mm, \Im 0.6-0.65 mm. Brown with faintly darker fovea and striae. Profiles (Figs. 23, 24). \Im : head with rather short post-ocular sulci (Fig. 24). Chelicerae: clear stridulatory file present in both sexes. Eyes: \Im posteriors all slightly \Im 1 d. apart; \Im posterior medians small, ca 2-2.5 d. apart. Abdomen: pale grey, clothed with fairly short hairs. Sternum: yellow-brown with brown margins. Legs: yellow to pale brown. Tibial spines 1111. Metatarsi I-III with a trichobothrium, \Im ca 0.50 (\Im), 0.45 (\Im). Tarsal claws pectinate with large teeth. Epigyne: Fig. 25; vulva Fig. 26; these are rather close to \Im affinis Less., but distinguishable. Male palp: Figs. 20-22.

Material: 39 15 in forest litter at 1200-1300 m on Mont Ventoux (Vaucluse, France), May 1975; 15 in forest litter at ca 1200 m near La Preste (Pyr.-Or., France), Sept. 1975, mixed with T. affinis pyrenaea. All collected by the author. Holotype 5, paratype 9 deposited in British Museum (Natural History).

In the 3, this species is rather similar to *T. corsica* Simon (Figs. 27, 28), but is fairly readily distinguishable.

Tapinocyba latia n.sp. (Figs. 29-32)

Total length: & 1.7 mm. Cephalothorax: length & 0.80 mm. Yellow-brown; short sulci run back from above the lateral eyes. Profile (Fig. 32). Chelicerae:

Clear stridulatory file present, with lines very closely spaced. Eyes: & posterior medians ca 1.5 d. apart. Abdomen: whitish grey, clothed with fairly short hairs. Sternum: Yellow, with slightly darker margins. Legs: yellow-brown, tibial spines 1111, Metatarsi I-III with a trichobothrium, TmI 0.57-0.60 (&). Tarsal claws pectinate with large teeth. Male palp: Figs. 29-31. The female is not yet known.

Material: 2 & M. Catabio (Lazio, Italy), Oct. 1967 (P. M. Brignoli). Holotype & and paratype deposited with Prof. Brignoli (L'Aquila).

The palpal organs indicate that *T. latia* is a fairly close relative of *T. insecta* (Cambr.).

Tapinocyba lucana n.sp. (Figs. 33, 35-38, 40)

The \mathcal{P} and \mathcal{S} described below were not taken together, but both were found in the southern half of Italy, and are assumed to belong to the same species.

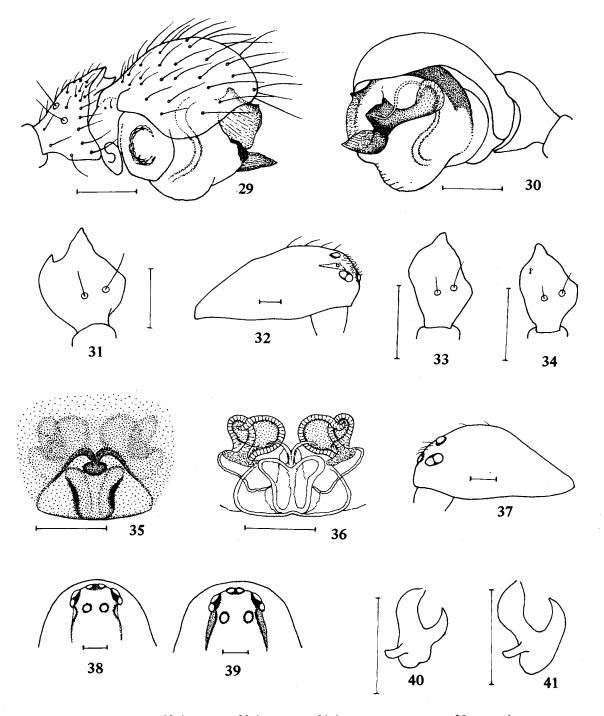
Total length: 9 1.5 mm, & 1.4 mm. Cephalothorax: length 9& 0.65 mm. Brown to pale brown. Profile 9 Fig. 37. Post-ocular sulci (d) (Fig. 38) differ slightly from those of T. silvestris Georgescu (Fig. 39). Chelicerae: weak stridulatory file present (9d). Eyes: 9 posteriors all ca 1 d. apart. Abdomen: grey, clothed with short hairs. Sternum: yellow-brown with darker margins. Legs: pale brown (9) to whitish yellow (d). Tibial spines 1111; metatarsi I-III with a trichobothrium, Tm1 ca 0.50 (9d). Tarsal claws pectinate with large teeth. Epigyne: Fig. 35; vulva Fig. 36. Male palp: almost identical with that of T. silvestris; the tibial apophyses and the paracymbia (Figs. 33, 40 and 34, 41) show small differences.

Material: 1 ♀ near Viggiano (Basilicata, Italy), March 1967; 1 ♂ S. Angelo Gargano (Puglie, Italy), Oct. 1966 (P. M. Brignoli). Holotype ♀ and paratype ♂ deposited with Prof. Brignoli (L'Aquila).

The \mathfrak{P} of *lucana* has the epigyne of similar type to that of *silvestris*. The \mathfrak{F} described may prove to be a slightly abnormal specimen of T. *silvestris* (which has not been recorded from Italy).

Genus Trachelocamptus Simon 1884

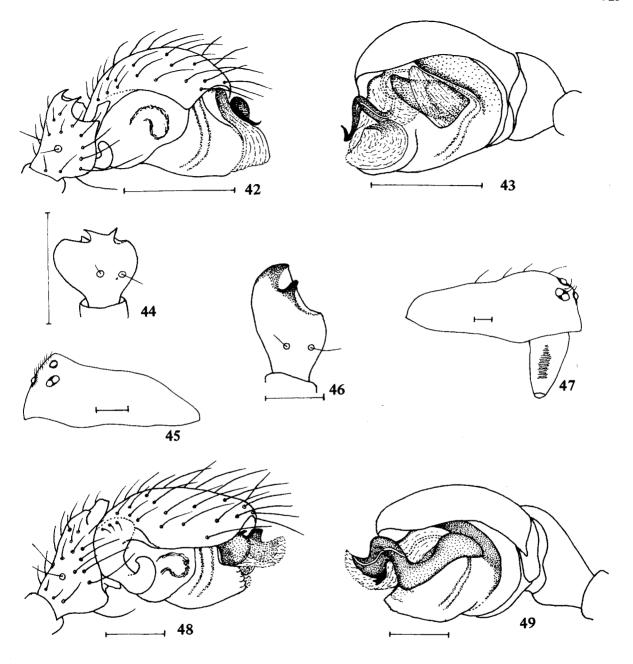
This genus is limited to southern Europe and north Africa, and all the species appear to be rare, with very few examples available for study. One new species is described, based on a single & from Italy. As suggested earlier (Millidge, 1977) it is doubtful



Figs. 29-41: Tapinocyba latia n.sp. 29 & palp ectal; 30 & palp mesal; 31 & right palpal tibia dorsal; 32 profile & cephalothorax.

Tapinocyba lucana n.sp. 33 & right palpal tibia dorsal; 35 epigyne; 36 vulva; 37 profile & cephalothorax; 38 & head dorsal; 40 paracymbium.

Tapinocyba silvestris Georgescu. 34 d right palpal tibia dorsal; 39 d head dorsal; 41 paracymbium. Scale lines = 0.1 mm.



Figs. 42-49: Trachelocamptus minor n.sp. 42 d palp ectal; 43 d palp mesal; 44 d right palpal tibia dorsal; 45 profile d cephalothorax. (E = embolus, SA = suprategular apophysis).

Erigonoplus simplex n.sp. 46 d right palpal tibia dorsal; 47 profile d cephalothorax; 48 d palp ectal; 49 d palp mesal.

Scale lines = 0.1 mm.

whether the splitting of *Trachelocamptus* from *Acartauchenius* is justified.

Trachelocamptus minor n.sp. (Figs. 42-45)

Total length: 3 1.2 mm. Cephalothorax: length 0.55 mm. Pale brown with fovea and striae faintly suffused with black. Head raised into shallow cone (Fig. 45), clothed anteriorly with fine short hairs. Chelicerae: with clear stridulatory file. Eyes: 3 posterior medians 4 d. apart. Abdomen: grey, clothed with hairs of moderate length. Sternum: yellow, reticulated with grey. Legs: pale yellow. Tibial spines (3) 2211; metatarsi I-III with trichobothrium, TmI 0.41. MTI/tI 1.0. Male palp: Figs. 42-44. The SA curves inwards to the mesal side.

Material: 1 & Piana d'Incenso (Ponza, Italy), Dec. 1966 (P. M. Brignoli). The holotype & has been deposited with Prof. Brignoli (L'Aquila).

The conformation of the & palp (the form both of the ED and of the SA), together with the chaetotaxy and the form of the & head, indicate that this species belongs in *Trachelocamptus* or *Acartauchenius*. The embolus is rather longer than in *A. scurrilis* (Cambr.) or *Trachelocamptus* (Acartauchenius) depressifrons (Simon), but the ED is of the same type.

Genus Erigonoplus Simon 1884

Most of the members of this genus seem to be limited to southern and eastern Europe; the genus was revised by the author several years ago (Millidge, 1975a). One new species is now described, based on a single of from Italy.

Erigonoplus simplex n.sp. (Figs. 46-49)

Total length: § 2.45 mm. Cephalothorax: length § 1.0 mm. Chestnut-brown, with black fovea and striae; no cephalic elevation (Fig. 47). Chelicerae: with clear stridulatory file. Eyes: § posterior medians >1 d. apart and 2.5 d. from laterals. Abdomen: oval, rather pointed posteriorly; black, with faint paler chevrons posteriorly, and 4 reddish impressed dots. Clothed with fairly long curved hairs. Sternum: brown, reticulated with black. Legs: yellow, rather long and thin, with tibia I 1/d ca 12. Tibial spines 2211, length ca 1 d. on I, ca 1.5 d. on IV. Metatarsi I-III with a trichobothrium, TmI 0.30. Femora and tibiae I have some stout bristles ventrally, but no spines as in the

other *Erigonoplus* species (Millidge, 1975a). *Male palp:* Figs. 46, 48, 49; the form of the embolic division is the same as in the remaining members of the genus.

Material: 1 & Bosco delle Pianelle, Massafra (Puglie, Italy), May 1967 (P. M. Brignoli). The holotype & is deposited with Prof. Brignoli (L'Aquila).

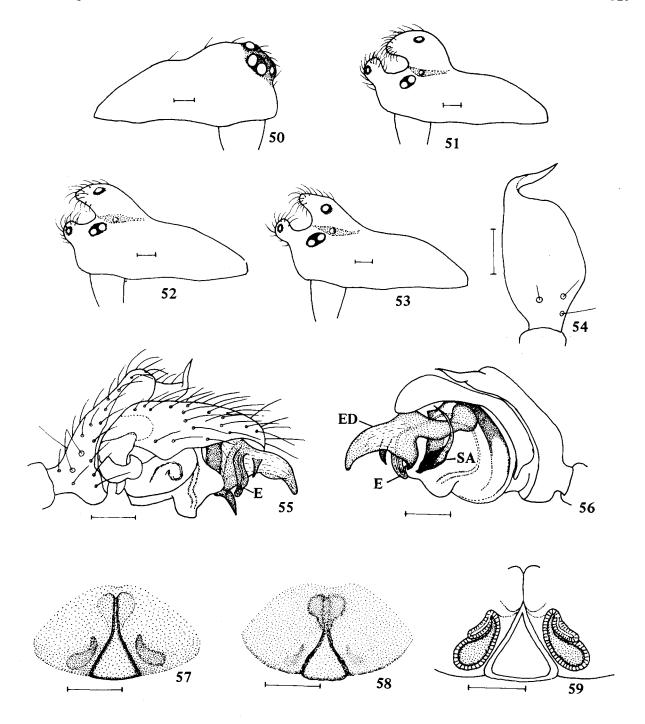
The form of the δ palp, plus the chaetotaxy, puts this species firmly into the genus *Erigonoplus*. *E. simplex* resembles *E. inclarus* Simon in the absence of cephalic elevation in δ , but the palpal tibial apophyses are quite distinct from that species.

Diplocephalus crassiloba Simon 1884 and D. hungaricus Kulcz. 1915 (Figs. 50-59)

D. crassiloba has been somewhat inadequately described (Simon, 1884, 1926), and the capture of what is probably this species in north-west Yugoslavia (Mrs C. Deeleman) prompts the author to give a more detailed description.

Total length: ♀ 1.8-2.0 mm, ♂ 2.0-2.1 mm. *Cepha*lothorax: length \(\varphi \) ca 0.9 mm, \(\delta \) ca 1.1 mm. Chestnutbrown, with blackish fovea and striae. Profile (?) Fig. 50. d: head raised into two lobes (Fig. 51) which are somewhat variable in size and shape; there is a small hole behind each posterior lateral eye. Chelicerae: with stridulatory file (93). Eyes: ♀ rather large, with posteriors all < 1 d. apart. Abdomen: grey to black, clothed with short hairs. Sternum: deep brown, blackish on margins. Legs: brown to orange-brown. Tibial spines 2211, very short in & Metatarsi I-III with a trichobothrium, TmI ca 0.45 (9), 0.43 (d). Epigyne: a 9 from the Simon Collection has epigyne as in Fig. 57; comparison with fig. 677 of Simon (1926) shows that the anterior marking has almost faded out, and the spermathecae have become more visible. The vulva (Fig. 59) is distinct from other Diplocephalus species. Male palp: Figs. 54-56; the palpal organs are distinctive and of the same type as in D. cristatus, procer* and longicarpus.

^{*}Bonnet (1958) has changed Simon's name of procer to procerus. The use of procer is however perfectly good Latin, being a noun (procer = a leader, a noble) in the nominative singular standing in apposition to the generic name (Article 11 (g) (2) of ICZN Rules), and whatever a subsequent author may think, inappropriateness is not an allowed reason for rejection of a name (Article 18 (a)); procerus Bonnet is thus an "unjustified emendation" (Article 33 (a) (ii)) and is a junior objective synonym of procer Simon.



Figs. 50-59: Diplocephalus crassiloba Simon. 50 profile \mathcal{S} cephalothorax; 51 profile \mathcal{S} cephalothorax, French specimen; 52 ditto, Hungarian specimen; 53 ditto, Yugoslav specimen; 54 \mathcal{S} right palpal tibia dorsal; 55 \mathcal{S} palp ectal; 56 \mathcal{S} palp mesal; 57 epigyne, French specimen; 58 ditto, Hungarian specimen; 59 vulva. (E = embolus, ED = embolic division, SA = suprategular apophysis). Scale line = 0.1 mm.

This description is based on Simon's material (MNHN).

Simon (1926) regarded D. hungaricus as a possible synonym of D. crassiloba; Chyzer & Kulczynski had previously (1891-7) described a species taken in Hungary as crassiloba var. hungarica. Material of D. hungaricus from the Kulczynski Collection (Warsaw) has palpal organs and tibia identical with those of crassiloba from France. The epigyne (Fig. 58) agrees well with the figure given by Simon (1926). The vulva of hungaricus is identical with that of crassiloba. The & head of hungaricus (Fig. 52) shows only small differences from crassiloba. The 2 & from Yugoslavia have palpal organs identical with crassiloba, but the 3 head (Fig. 53) differs to a greater extent from the French and Hungarian specimens. Despite these cephalic variations, it seems probable that the specimens from France, Hungary and Yugoslavia all belong to the same species.

D. crassiloba appears not to be a mountain species. In France it was taken at ca 1000 m (in September) in the Alpes Maritimes; as hungaricus it was found at Simontornya, Hungary, which is situated in lowland, and the specimens from Yugoslavia were found in a cave at ca 3-400 m (Jernejciceva, Slovenia, May 1968).

Additional records of erigonine species in southern Europe

- Araeoncus anguineus (L. Koch). This species, already known from the Italian alps, has also been taken in central Italy: 1 9 Parco Naz. Abruzzo, 2200 m, August 1969, and 1 9 Gran Sasso (Abruzzi), 2000 m, June 1972 (P. M. Brignoli).
- A. longiusculus (Cambr.). 18 Novi Velia (Campania),
 October 1967, and 1 8 Ventotene (Pontine Islands),
 March 1967 (P. M. Brignoli); already recorded from Italy.
- Caracladus avicula (L. Koch). This species has been re-described by Thaler (1969, 1972). 99 were frequent in forest litter (mainly spruce) and moss in the Dolomites near Corvara (Trentino, Italy) at 1700-1800 m, together with two adult and several immature 33, mid-July 1973 (author). The species therefore comes to maturity from mid-July onwards. New to Italy.

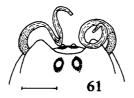
- Cineta gradata (Simon). For information on this species see Thaler (1972). 1 ? beaten from pine at ca 1400 m near Corvara (Trentino), 12 July 1973 (author). New to Italy.
- Scotinotylus (Cochlembolus) clavatus (Schenkel). This species has been re-described by Thaler (1970). 99 were frequent in forest litter (mainly pine and spruce) and in moss, near Corvara (Trentino) at ca 1750 m, mid-July 1973; numerous subadult & at the same time. 1& in pine needles, Pirchhüttberg, near Obergurgl (N. Tirol), 27 July 1973 (author). This species also appears to come to maturity from mid-July onwards. New to Italy and to Austria.
- Diplocephalus graecus (Cambr.). This species, with a Mediterranean distribution and already recorded from Italy, turned up on Isola Giglio (Tuscany): 13, October 1966 (P. M. Brignoli).
- D. procer Simon. 2 & (1 with stunted palps), Foresta Umbra (Puglie), 26 October 1966; 1 \(\text{ M. Cimino} \) (Lazio), 13 April 1969 (P. M. Brignoli). Already recorded from Italy, in caves (Brignoli, 1972).
- Entelecara aestiva Simon. Both sexes fairly common on low plants, Corsica, early June 1974 (author).
- Evansia merens Cambr. 1 & M. Sibillini (Marches), 1900 m, 4 July 1967 (P. M. Brignoli). New to Italy.
- Gongylidiellum edentatum Miller. 39 1 & in beech litter, Mt Povljci (W. Serbia), July 1976; 99 in beech litter, Tarnowaner Wald (W. Slovenia), June 1976 (Mrs C. Deeleman). 1 9 Mont Ventoux (Vaucluse, France) in beech litter at ca 1500 m, 24 May 1975 (author). New to France. Previously recorded from Czechoslovakia, Austria, Italy and Yugoslavia (Thaler, 1973).
- Oedothorax paludigena Simon. 1 & Magliani (Roma), 1 January 1966 (P. M. Brignoli). New to Italy. Numerous & in Salicornia, Camargue (France), end September 1974: at this time the PP were immature. Previously recorded from the French Mediterranean coast and Corsica (Millidge, 1975b).
- Panamomops latifrons Miller. 2 9 in hazel litter, near Gacko (E. Bosnia), 12 July 1976 (Mrs C. Deeleman). New to Yugoslavia. Previously recorded from Czechoslovakia and Austria (Thaler, 1973).
- Panamomops tauricornis (Simon). Both sexes frequent in spruce litter at 1700-1800 m near

Corvara (Trentino), mid-July 1973 (author). Some males had the normal bull-like horns (Fig. 60), while others had horns of ca 2 turns (Fig. 61); these irregular coils suggest that the horns are extrusions from the holes in the 3 head, the distal ends of the extrusions subsequently disintegrating or breaking off. New to Italy.

Tapinocyba corsica Simon. 1 & Parco Naz. del Circeo (Lazio), 30 November 1968 (P. M. Brignoli). New to Italy. Previously only from Corsica.

- T. ligurica Thaler. 3 9 1 8 in beech litter at ca 1500 m, Mont Ventoux (Vaucluse), 24 May 1975 (author). New to France. Previously known only from Alpi Liguri (Italy) (Thaler, 1976).
- T. silvestris Georgescu. 99 in oak litter, Vracenovici (Montenegro), 22 June 1975; in cypress litter near Ploce (Dalmatian coast), April 1976; and in pine litter, Zalom river valley (Central Hercegovina) (all Yugoslavia: Mrs C. Deeleman). New to Yugoslavia. Previously only from Romania (Georgescu, 1973).
- "Trichopterna" cucurbitina (Simon). 1 9 2 d in a heap of cut sedge/grass by roadside, Camargue (France), 8 October 1974 (author). Previously recorded, many years ago, from several localities in southern France, bordering the Mediterranean, and from Portugal (Machado, 1949).
- "T." rufithorax Simon. 99 from the Pontine Islands (Ponza, January and February 1966; Ventotene, April 1966) (P. M. Brignoli). 19 in marsh, Lava River (Corsica), June 1974 (author). The few earlier records are from southern France, Corsica, Isola Giglio (Italy) and Tunisia, but it has not been recorded for many years. As noted earlier (Millidge, 1977), this species and the previous one do not belong in Trichopterna.





Figs. 60-61: Panamomops tauricornis (Simon). of head dorsal. 60 normal specimen; 61 specimen with coiled "horns". Scale lines = 0.1 mm.

- Walckenaera (Wideria) dalmasi Simon. Fairly frequent in beech litter in spring and autumn, eastern Pyrenees at ca 1000-1500 m (author). Previously recorded only from further west in the Pyrenees (Htes.-Pyr.).
- W. (Wideria) languida Simon. 2 \(\text{in pine needles on Mont Ventoux (Vaucluse) at \$ca\$ 1000 m, May 1975. 1 \(\text{ at Vallombrosa (Tuscany)}, 5 \) April 1967 (P. M. Brignoli). New to Italy. Previously known only from south-east France.

Janetschekia monodon (Cambr.) (= lesserti Schenkel).

A single female from the Alpi Marittime (fiume Stura, Moila), Italy, 28 August 1969 (P. M. Brignoli). This species was first recorded (Erigone monodon Cambr., 1872) from near Adamello (Trentino — Alto Adige: north Italy), and subsequently (under the name Janetschekia lesserti Schenkel, 1939) from Switzerland and Austria (Thaler, 1969).

Acknowledgements

The author is grateful for the loan or gift of specimens from the following: Prof. P. Brignoli (L'Aquila); Dr J. Buchar (Prague); Mrs C. Deeleman (Ossendrecht); Prof. F. Miller (Brno); Dr K. Thaler (Innsbruck); Senckenberg Museum, Frankfurt (Dr M. Grasshoff); Museum d'Histoire Naturelle (MHN), Geneva (Dr B. Hauser); MNHN, Paris (Mons. M. Hubert); Instytut Zoologiczny, Warsaw (Dr W. Starega).

References

BONNET, P. 1958: Bibliographia Araneorum 2 (N-S): 3027-4230. Toulouse.

BRIGNOLI, P. M. 1972: Catalogo dei ragni cavernicola Italiani. *Quad.Speleol.* 1: 1-212.

CHYZER, C. & KULCZYNSKI, L. 1891-7: Araneae Hungariae. Budapest.

GEORGESCU, M. 1973: La position systématique des genres Tapinocyba E. Simon et Aulacocyba E. Simon. La description d'une nouvelle espèce: Tapinocyba silvestris, Trav. Inst. Speol. E. Racovitza 12: 127-134.

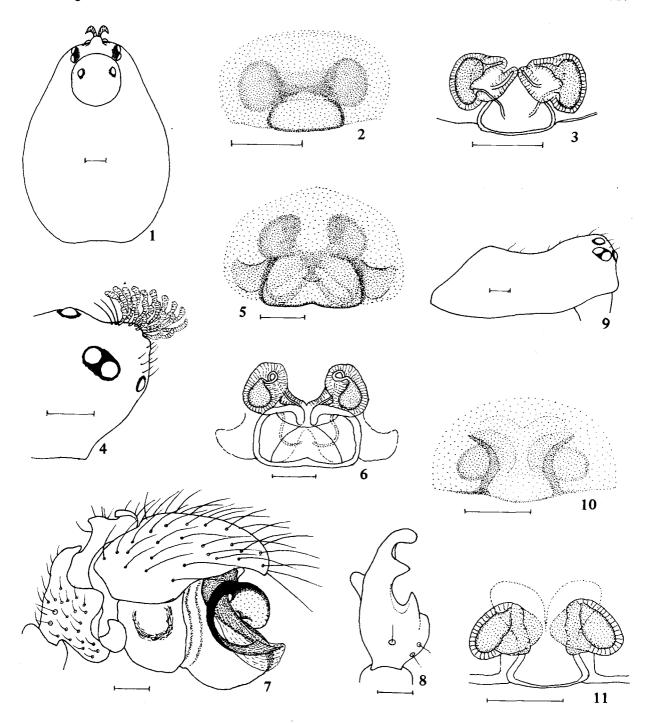
KULCZYNSKI, L. 1915: Fragmenta arachnologica X. Bull. int. Acad. Sci. Lett. Cracovie 1914: 897-942.

LESSERT, R. de 1907: Notes arachnologiques. Revue suisse Zool. 15: 93-128.

LESSERT, R. de 1910: Araignées. In Catalogue des invertébrés de la Suisse 3: 1-639. Mus. Hist. Nat. Genève.

- MACHADO, A. de B. 1949: Araignées nouvelles pour la faune portugaise (III). Mems Estud. Mus. zool. Univ. Coimbra 191: 1-69.
- MILLER, F. 1947: Pavouči zviřena hadcových stepi u Mohelna. Mohelno, Brno 7: 1-107.
- MILLIDGE, A. F. 1975a: A taxonomic revision of the genus Erigonoplus Simon 1884 (Araneae: Linyphiidae: Erigoninae). Bull. Br. arachnol. Soc. 3(4): 95-100.
- MILLIDGE, A. F. 1975b: Some new or little-known Erigonid spiders from southern Europe. Bull. Br. arachnol. Soc. 3(5): 120-125.
- MILLIDGE, A. F. 1977: The conformation of the male palpal organs of Linyphiid spiders, and its application to the taxonomic and phylogenetic analysis of the family (Araneae: Linyphiidae). *Bull.Br.arachnol.Soc.* 4(1): 1-60.
- MILLIDGE, A. F. 1978: The genera Mecopisthes Simon and Hypsocephalus n.gen. and their phylogenetic relationships (Araneae: Linyphiidae). Bull. Br. arachnol. Soc. 4(3): 113-123.
- SIMON, E. 1884: Les Arachnides de France 5(3): 421-885.
 Paris.
- SIMON, E. 1926: Les Arachnides de France 6(2): 309-532. Paris.

- THALER, K. 1969: Über einige wenig bekannte Zwergspinnen aus Tirol (Arachn., Araneae, Erigonidae). Ber.naturw.-med. Ver.Innsbruck 57: 195-219.
- THALER, K. 1970: Über einige wenig bekannte Zwergspinnen aus den Alpen (Arach., Araneae, Erigonidae). Ber.naturw.-med. Ver.Innsbruck 58: 255-276.
- THALER, K. 1972: Über einige wenig bekannte Zwergspinnen aus den Alpen II (Arachnida: Araneae, Erigonidae). Ber.naturw.-med. Ver.Innsbruck 59: 29-50.
- THALER, 'K. 1973: Über einige wenig bekannte Zwergspinnen aus den Alpen III. (Arachnida: Aranei, Erigonidae). Ber.naturw.-med. Ver.Innsbruck 60: 41-60.
- THALER, K. 1976: Über wenig bekannte Zwergspinnen aus den Alpen, IV (Arachnida, Aranei, Erigonidae). Archs Sci. Genève 29(3): 227-246.
- WIEHLE, H. 1960: Spinnentiere oder Arachnoidea (Araneae) XI. Micryphantidae – Zwergspinnen. *Tierwelt Dtl.* 47: 1-620.
- WUNDERLICH, J. 1972: Zur Kenntnis der Gattung Walckenaeria Blackwall 1833 unter besonderer Berücksichtigung der europäischen Subgenera und Arten (Arachnida: Araneae: Linyphiidae). Zool. Beitr. 18(3): 371-427.



Figs. 1-11: Walckenaera insperata n.sp. 1 of cephalothorax dorsal; 2 epigyne; 3 vulva.

Walckenaera plumata n.sp. 4 of head lateral; 5 epigyne; 6 vulva; 7 of palp ectal; 8 right of palpal tibia dorsal.

Walckenaera angelica n.sp. 9 profile 9 cephalothorax; 10 epigyne; 11 vulva.

Scale lines = 0.1 mm.