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Spiders of the Galápagos Islands. Part IV. Miscellaneous Families II.

by L. BAERT

Abstract

Four species are described as new from the Galápagos Islands, *Glenognatha maelfaiti* sp.n. (Tetragnathidae), *Leucauge bituberculata* sp.n. (Metidae), *Metepeira desenderi* sp.n. (Araneidae) and *Emblyna formicaria* sp.n. (Dictynidae), while the formerly unknown males of *Darwinneon crypticus* CUTLER, 1971 and *Filistatoides fasciatus* (BANKS, 1902) are described. The description of *Anyphaenoides pacifica* (BANKS, 1902) new combination, is also given together with a differential diagnosis between the two ctenid species *Odo galapagoensis* BANKS, 1902 and *Odo insularis* BANKS, 1902.
Key-words: Galápagos, Araneae, taxonomy.

Résumé

Quatre espèces sont décrites comme nouvelles des Iles Galápagos, il s'agit de *Glenognatha maelfaiti* sp.n. (Tetragnathidae;, *Leucauge bituberculata* sp.n. (Metidae), *Metepeira desenderi* sp.n. (Araneidae) and *Emblyna formicaria* sp.n. (Dictynidae) tandis que les mâles de *Darwinneon crypticus* CUTLER, 1971 et de *Filistatoides fasciatus* (BANKS, 1902), inconnus jusqu'à présent, sont décrits. La description d'*Anyphaenoides pacifica* (BANKS, 1902) comb.n. est donnée ainsi qu'une diagnose differentielle entre les Ctenides *Odo galapagoensis* BANKS, 1902 et *Odo insularis* BANKS, 1902.
Mots-clefs: Galápagos, Araneae, taxonomie.

Introduction

An araneological investigation of the Galápagos Islands was started in 1982 (February-May; participants: L. Baert & J.P. Maelfait). A first synecological approach of the results obtained from the taken samples (various islands and volcanoes) of the first sampling campaign is given in BAERT & MAELFAIT (1986b). A complete survey on the distribution of the determinable spider-species found, supplemented with the available data out of the literature and from collections of other Institutions, is given in BAERT & MAELFAIT (1986c). A second visit to the Islands was made in 1986 (February-April; participants: L. Baert, J.-P. Maelfait and K. Desender). Additional islands and volcanoes have been sampled.

TETRAGNATHIDAE

Glenognatha maelfaiti sp.n.
Figs. 1-7.

DESCRIPTION (♂/♀)

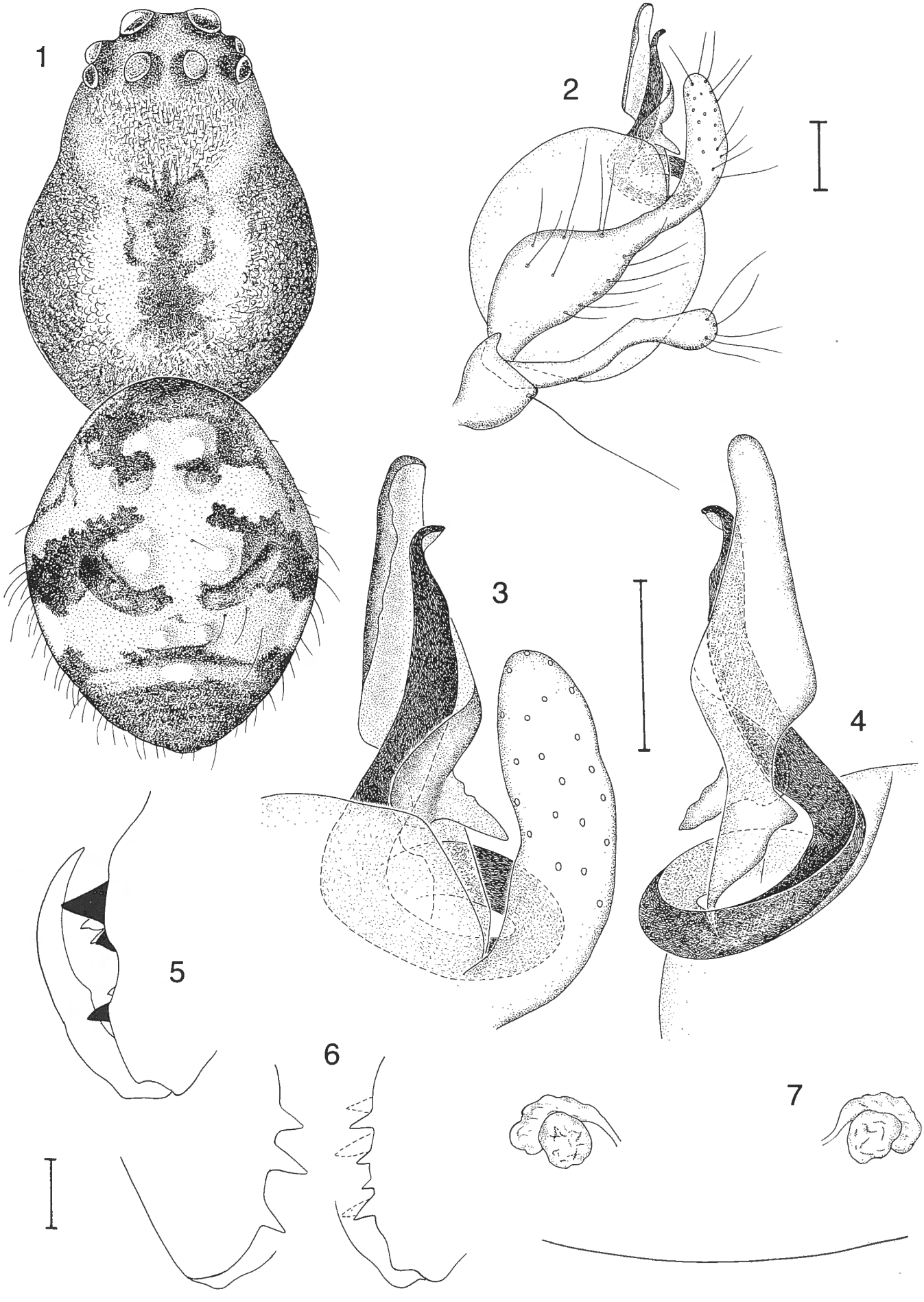
Carapace brown, suffused with black, with two median lightbrown longitudinal bands; chelicerae brown; maxillae and labium brown with yellow apex; sternum brown, borders suffused with black; legs yellow with distal end of Ti, Mt and Ta suffused with black; pedipalpi yellow; abdomen creamy with black transversal bars, dorsum (Fig. 1) with 7 silvery spots and 4 impressed dots, caudally 2 lateral silvery spots; venter blackish with two slivery spots. The abdominal markings are strongly fainted in some specimens.

Male holotype:
Total length: ca 2.3 mm; carapace ca 1.13 mm long and ca 0.8 mm wide. Chelicerae with 3 teeth on outer- and inner margin (Fig. 5). Palp (see Figs. 2-4). Legs (approximate measurements in mm):

	Fe	Pa	Ti	Mt	Ta	Tot.
I	1.51	0.35	1.33	1.15	0.57	4.91
II	1.21	0.37	1.11	0.98	0.53	4.20
III	0.76	0.25	0.57	0.57	0.30	2.45
IV	0.98	0.25	0.82	0.75	0.38	3.18

Female (Santa Cruz, Media Luna, 10 March 1982):
Total length: ca 2.3 mm; carapace ca. 1.0 mm long and ca. 0.7 mm wide. Chelicerae with respectively 3 and 4 teeth on outer- and inner margin (Fig. 6). Vulva (Fig. 7). Legs (approximate measurements in mm):

	Fe	Pa	Ti	Mt	Ta	Tot.
I	1.01	0.27	0.96	0.91	0.53	3.68
II	0.91	0.27	0.82	0.80	0.47	3.27
III	0.60	0.23	0.40	0.43	0.31	1.97
IV	0.88	0.23	0.69	0.63	0.34	2.77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DIFFERENTIAL DIAGNOSIS

The males are easily recognized from the other *Glenognatha*-species (cfr. LEVI, 1980) by the shape of the conductor and by the cheliceral dentition.

ETYMOLOGY

This species is dedicated to Dr. J.-P. Maelfait, who accompanied me during my visits to the Islands in 1982 and 1986.

MATERIAL EXAMINED

♂ HOLOTYPE: SANTA CRUZ: Cerro Maternidad, along road, alt. 500 m (15.II-1.III.1986), together with 3 ♂♂ and 14 ♀♀ paratypes.
PARATYPES:
Baert & Maelfait, 1982: SANTA CRUZ: Dry arid zone: CDRS-Barranco, alt. 50 m (19.II): 3 ♀♀, (15.III): 1 ♀; Transitionzone: El Chato (alt. 190 m), grassland (30.III): 1 ♂/1 ♀; Caseta Tortuga, alt. 150 m (20.III): 1 ♀; *Scalesia* zone: Los Gemelos (alt. 580 m), grassland (13.III): 2 ♂♂; *Miconia* zone: Media Luna trail, alt. 540 m (10.III): 1 ♀; Fern-sedge zone: Media Luna, near Caseta, alt. 600 m (8-10.III): 1 ♀; *Sphagnum*, alt. 600 m (10.III): 3 ♂♂/6 ♀♀; alt. 640 m (8.III): 1 ♀; ISABELA: Volcán Sierra Negra, rim, alt. 1060 m (23.III): 1 ♀.
Baert, Maelfait & Desender, 1986: SANTA CRUZ: Cerro Maternidad, along road, alt. 500 m (1-12.III): 4 ♂♂/4 ♀♀, (12-15.III): 3 ♂♂/5 ♀♀/SA ♂/SA ♀; ISABELA: Lagunas de Villamil (25.II): 2 ♀♀; marsch at 5 km inland from Villamil (18.II): 4 ♂♂/2 ♀♀, (21.II): 1 ♀; Cerro Azul (alt. 700 m), grassland (22.II): 1 ♀.
Abbedrabo S., 1986: ISABELA: Volcán Sierra Negra, alt. 900 m (15-17.IV): 2 ♂♂/2 ♀♀, (8-20.VI): 6 ♀♀.

HABITAT CHOICE

This species is found in grassy wet situations (grasslands of the *Scalesia* –, the *Miconia* and Fern-sedge zones), even in the Dry arid zone (lagunas of Villamil; the Barranco, at a permanent fresh water pond).

METIDAE

Leucauge bituberculata sp.n.
Figs. 8-15

Argyroepeira nigriventris KEYSERLING, 1879 (misidentification): BANKS (1902): p. 61. – SNODGRASS (1902): p. 77.

Leucage nigriventris (KEYSERLING, 1879) (misidentification): – ROEWER (1942): p. 1010. – BONNET (1957): p. 2472. – ROTH & CRAIG (1970): p. 118. – BAERT & MAELFAIT (1986b): p. 186.

DESCRIPTION

Male: Carapace yellow (margins and a central stripe sometimes suffused with black) fringed with short hairs; eyes surrounded with black, eyeregion with very short hairs; chelicerae yellowbrown with black concave distal end, very hairy with a frontolateral row of a few curved hairy spines, distal outer margin with a row of strong bristles, outer- and inner cheliceral margins with three teeth (Fig. 14); sternum black with a median light patch, hairy; legs yellow-brown, tibiae curved; abdomen: dorsum silvery with dark median band; posterior black, venter blackish with two parallell longitudinal pale stripes.
Approximate measurements in mm (♂ holotype): Total length ca. 3.3 mm (range of examined males: 3.3-4.0 mm. Carapace 1.6 mm long. Legs:

	Fe	Pa	Ti	Mt	Ta	Tot.
I	3.4	0.6	3.5	3.8	1.2	12.5
II	2.7	0.6	2.5	3.0	1.1	9.9
III	1.3	0.3	0.9	1.3	0.5	4.3
IV	2.2	0.4	1.7	2.0	0.6	6.9

Palp (Figs. 8 & 9).

DESCRIPTION FEMALE

As in male but for the following characters:
Colourpattern of abdomen (Figs. 10 & 13) more pronounced; dorsum silvery, made of tiny coalescing spots, no spots in midline and in branches from midline; posterior black, venter blackish with two parallel longitudinal pale stripes. Chelicerae (Fig. 15) more robust, glabrous, inner margin with 4 teeth.
Approximate measurements in mm (female from San Cristobal, alt. 225 m, 27 March 1986): Total length ca. 4.9 mm (range of examined females: 3.3-5.4 mm). Carapace 2.0 mm long. Legs:

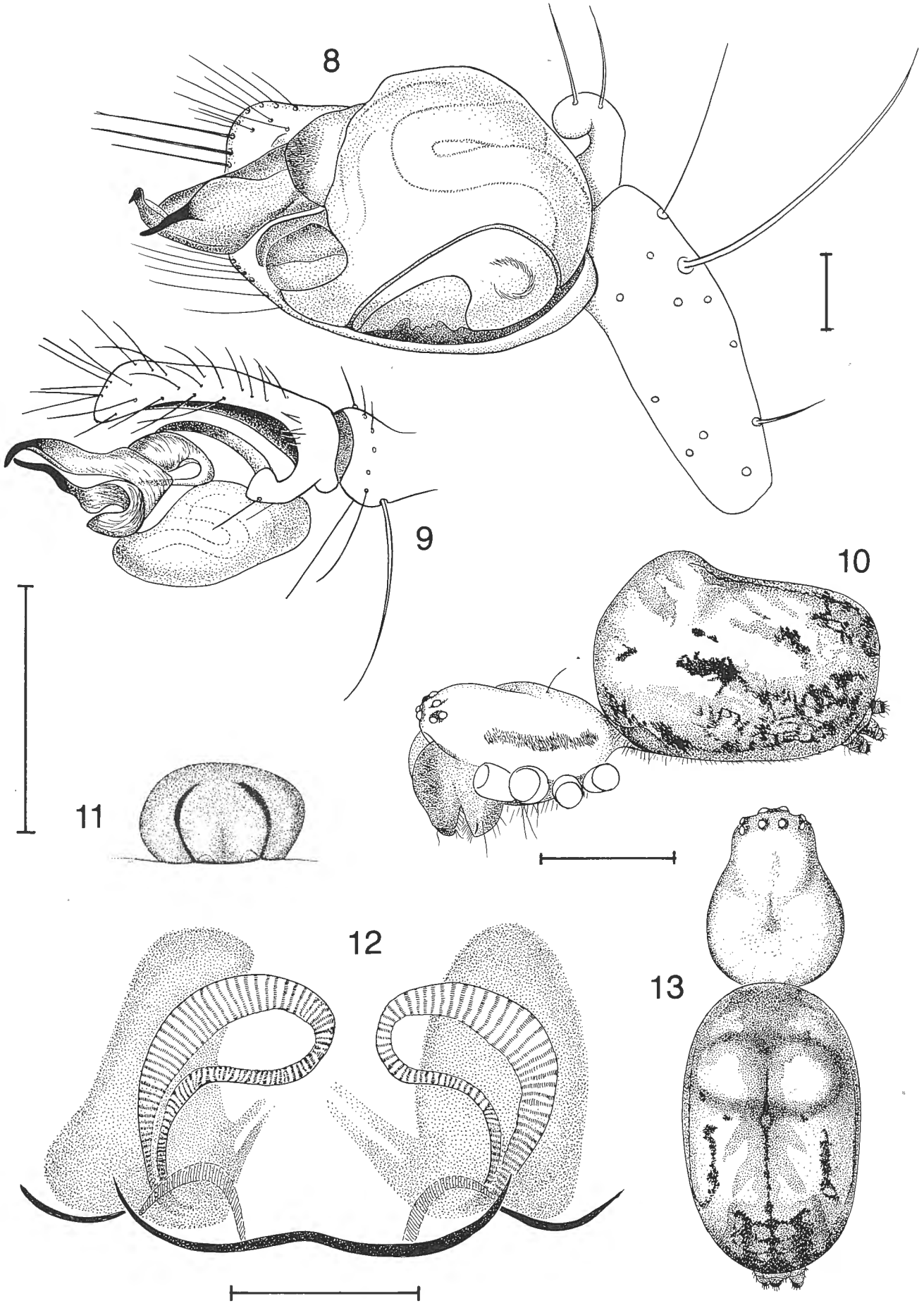
	Fe	Pa	Ti	Mt	Ta	Tot.
I	3.0	0.9	3.0	3.3	1.1	11.3
II	2.6	0.7	2.2	2.8	0.9	9.2
III	1.5	0.4	0.9	1.3	0.7	4.8
IV	2.4	0.5	1.7	2.0	0.8	7.4

Vulva (Figs. 11-12).

DIFFERENTIAL DIAGNOSIS

The males are recognizable by their palpal conformation. The conductor has a rough resemblance with the one of *L. venusta* (WALCKENAER, 1841) (cfr. LEVI, 1980: Figs. 55-59, p. 29) but differs considerably in

◁ Figs. 1-7. Glenognatha maelfaiti *sp.n. Male: 1. dorsal view; 2. palpus; 3., 4. embolus and conductor; 5. left chelicera. Female: 6. left chelicera; 7. vulva. (Scale lines: 0.1 mm).*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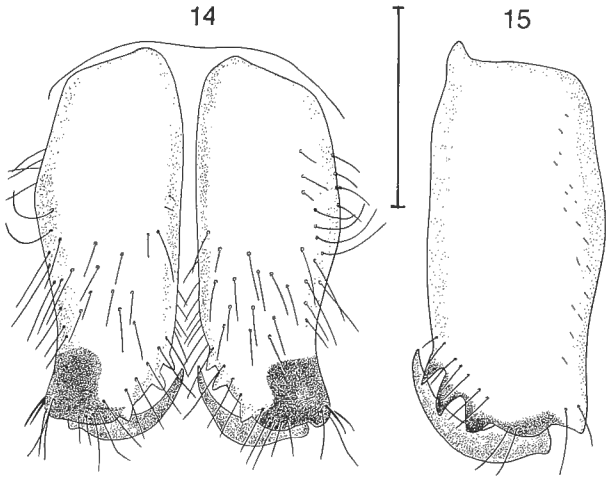


Figs. 14-15. Leucauge bituberculata *sp.n.: 14. male chelicerae; 15. female left chelicera. (Scale lines: 0.5 mm).*

detail. Other differentiating characters are the much shorter palpal tibiae, the different cheliceral shape, the sparser trichobothria on Fe IV and the two longitudinal light stripes on venter. The females are clearly recognizable from the other *Leucage*-species by their vulval structure.

ETYMOLOGY

The name refers to the two anterior dorsal abdominal elevations.

MATERIAL EXAMINED

♂ HOLOTYPE: SANTA CRUZ, Media Luna (alt. 600 m), 16.II.1986, together with 1 ♂ and 3 ♀♀ paratypes.
PARATYPES:
Baert & Maelfait, 1982: SANTA CRUZ: Dry arid zone: Bahía Tortuga trail, fissure (13.II): 1 ♀; Transitionzone: El Chato, alt. 280 m (30.III): 2 ♀♀; Culture zone: Caseta Tortuga, mora-vegetation, alt. 280-320 m (20.III): 2 ♀♀; Media Luna trail, alt. 200-250 m (10.III): 2 ♀♀; *Scalesia*-zone: NE-slope of Cerro Crocker, alt. 750 m (9.III): 2 ♀♀; Los Gemelos, alt. 580 m (13.III): 1 ♀; *Miconia* zone: Media Luna trail, alt. 540 m (10.III): 1 ♂/3 ♀♀; Fern-sedge zone: Media Luna, alt. 650 m (9.III): 1 ♂; alt. 640 m (8.III): 1 ♀; *Sphagnum*, alt. 600 m (10.III): 2 ♀♀; NE-slope of Cerro Crocker, alt. 570 m (9.III): 3 ♀♀. SAN CRISTOBAL: Along road between Puerto Baquerizo Moreno and El Progreso, culture zone, alt. 250 m (4.III): 1 ♀; Along road between El Progreso and El Junco crater, Aguayava-vegetation, alt. 500 m (3.III): 1 ♀; alt. 600 m (3.III): 2 ♀♀; swamp, alt. 600 m (3.III): 1 ♀; El Junco, rim of crater, alt. 700 m (3.II): 2 ♀♀. SANTIAGO: Cerro Cowan, rim of crater, alt. 260 m (7.IV): 3 ♀♀; Highland, alt. 580 m (8.IV): 2 ♀♀.

Baert, Maelfait & Desender, 1986: SANTA CRUZ: *Miconia* zone: Media Luna Trail, alt. 500 m (16.II): 1 ♀; Fern-sedge zone: Media Luna, alt. 630 m (16-28.II): 3 ♂♂/18 ♀♀; NE-slope of Cerro Crocker, alt. 670 m (13.III): 1 ♀. ISABELA: Volcán Sierra Negra: Culture zone, alt. 450-500 m (20.II): 11 ♀♀; Bottom of crater, alt. 925 m (19.II): 5 ♀♀/2 SA ♀♀; Pampa zone, alt. 1100-1175 m (19.II): 2 ♂♂/4 ♀♀. Volcán Cerro Azul: alt. 200 m (24.II): 1 ♀; alt. 250 m (24.II): 1 ♀; alt. 450 m (24.II): 3 ♀♀; alt. 850 m (23.II): 1 ♀; alt. 1200 (23.II): j. PINTA: Dry arid zone: coast, anchorage bay (21.III): j. ♀. Toptransept: alt. 300 m (20-22.III): j. ♂/j. ♀; alt. 400 m (20.III): 1 ♀. W-transept: alt. 210 m (21.III): 1 ♀. E-transept: alt. 360 m (19.III): j. ♀. SAN CRISTOBAL: Along road to El Progreso: Culture zone, alt. 225 m (27.III): 16 ♀♀. Along road to El Junco: Culture zone, alt. 300 m (27.III): 3 ♀♀; alt. 400 m (27.III): 1 ♂; alt. 500 m, Aguayava-vegetation (27.III): 1 ♀. El Junco: alt. 570 m (27.III): 4 ♀♀; rim of crater, alt. 625 (27.III): 1 ♀.
Other material examined:
C.A.S.: SANTA CRUZ: Cerro Mesa, alt. 440 m (16.IV. 1964): ♂♂/♀♀; Eastern slope, alt. 160 m (16.IV.1964): 1 ♀; Horneman farm, Culture zone, alt. 220 m (16.II.1964): 3 ♀♀, (18.IV.1964): ♂/♀; Fern-sedge zone, alt. 750 m (10.IV. 1964): ♂/♀. SANTIAGO: (4.VI.1932): 1 ♀; NE-slope, alt. 600 m (30.V.1964): j. FERNANDINA: Western slope, alt. 330 m (5.II.1964): 1 ♂/1 ♀.
Leleup: S-ISABELA, 17 km inland at an alt. of 250 m (XI.1964): 1 ♂.
Jacquemart: SAN CRISTOBAL, Culture zone (2.II.1974): 1 ♀.
CDRS: PINTA: (6-9.II.1982): 1 ♀; ISABELA: Volcán Sierra Negra (15-17.IV.1986): 3 ♂♂.

RECORDS MENTIONED IN LITERATURE

FERNANDINA (II, IV: southeastern slope at an altitude of ca. 450 m), ISABELA (II, IV: mangrove swamp west of Bahía Elisabeth), SANTA CRUZ and SANTIAGO (II, IV: Bahía James).

HABITAT CHOICE

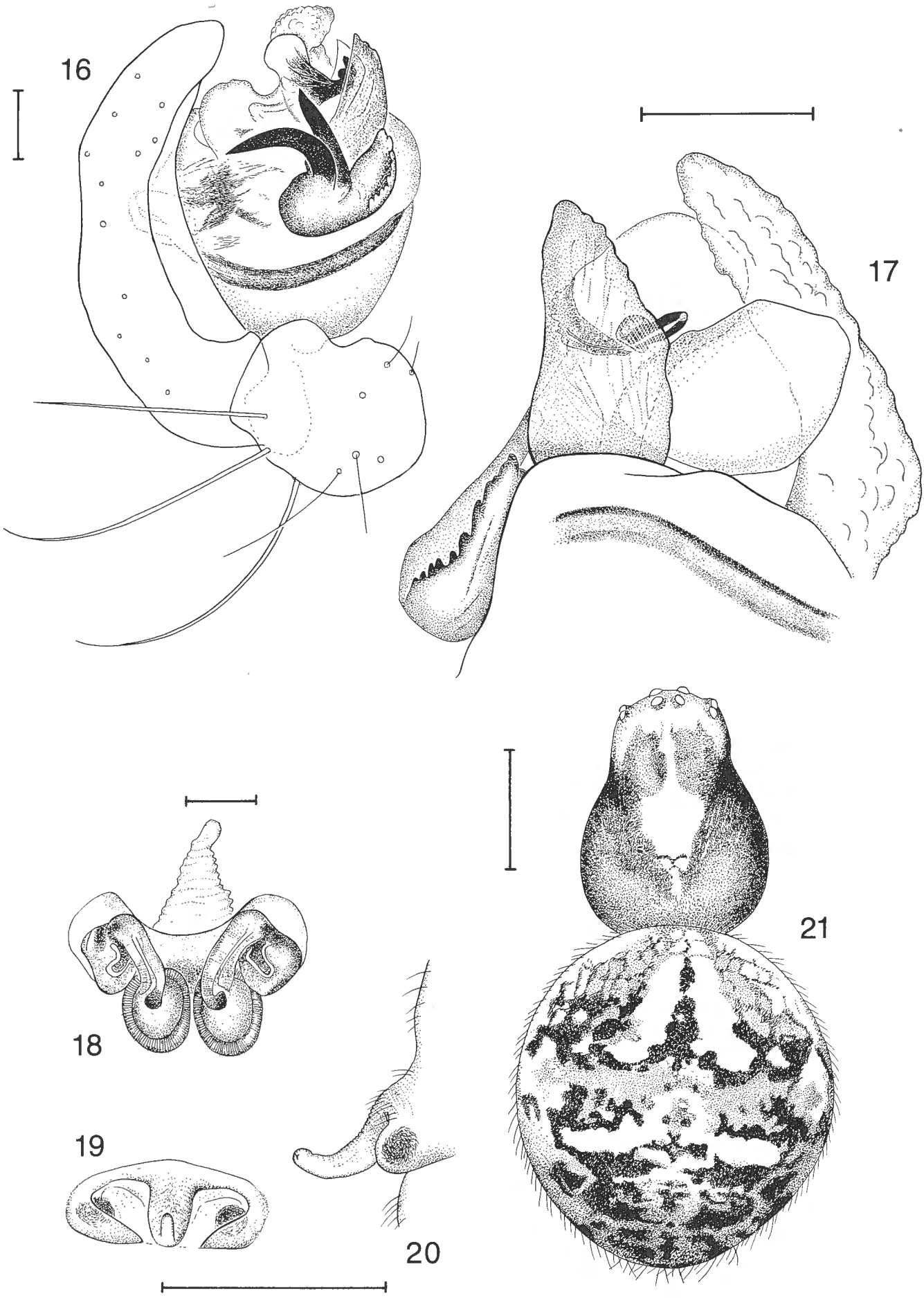
Species with a large ecological amplitude: distributed over all the vegetation-zones: Transition-, *Scalesia-*, *Miconia-* and Fern-sedge zone. It was even found at one occasion in a fissure along the trail to Bahía Tortuga (Dry arid zone).

ARANEIDAE

Metepeira desenderi sp.n.
Figs. 16-21

Epeira labyrinthea HENTZ (misidentification): BANKS (1902): p. 60. – SNODGRASS (1902): p. 75. – BANKS (1924): p. 97.

◁ Figs. 8-13. Leucauge bituberculata *sp.n. Male: 8., 9. palpus. Female: 10. lateral view; 11. epigynum; 12. vulva; 13. dorsal view. (Scale lines: 8., 12.: 0.1 mm; 9., 10., 11., 13.: 0.5 mm).*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Metepeira labyrinthea (HENTZ): BONNET (1957): p. 2821.
Metepeira spec: ROTH & CRAIG (1970): p. 116.

DESCRIPTION (♂/♀)

Carapace brown with a dorsal central whitish patch, headregion brownish yellow; chelicerae yellowbrown; sternum brown with a central longitudinal white line; labium and maxillae with brown base and white tip; legs brown and annulated, Fe with white base, Pa brown, Ti with yellowwhite base, Mt and Ta yellowwhite with sometimes brownish tip, the prolateral median macrosetae of Fe I the longest; palps whitish (in female with brown tip); abdomen with distinct pattern (see Fig. 21), the 4 white patches may sometimes be fused to 2 or 1 great patch. There is a great variation in abdominal pattern, from a pronounced pattern to a totally faded pale colour.

Male holotype:
Total body length: 4.7 mm (range of examined males: 1.8-2.2 mm) and 1.5 wide (range of examined males: 1.4-1.7 mm). Legs (approximate measurements in mm):

	Fe	Pa	Ti	Mt	Ta	Tot.
I	3.4	0.9	2.7	3.1	1.0	11.1
II	2.7	0.8	2.1	2.4	0.9	8.9
III	1.6	0.5	0.9	1.1	0.6	4.7
IV	2.3	0.6	1.5	1.7	0.6	6.7

Palp (Figs. 16 & 17): Median apophysis with a long prominent distal keel with a denticulated edge, base of palpal embolus at the distal tip of bulbus.

Female (Santiago, Mina de Sal, 8 March 1986):
Total length: 6.4 mm (range of examined females: 3.9-8.7 mm). Carapace 2.7 mm long (range of examined females: 1.89-3.0 mm) and 2.0 mm wide (range of examined females: 1.3-2.4 mm). Legs (approximate measurements in mm):

	Fe	Pa	Ti	Mt	Ta	Tot.
I	3.2	1.2	2.2	2.8	1.0	10.4
II	2.8	1.0	1.7	2.3	0.9	8.7
III	1.7	0.7	0.9	1.2	0.7	5.2
IV	2.5	0.9	1.5	1.9	0.7	7.5

Epigynum (Figs. 18-20): Epigynal scape narrow, much narrower than epigynal base (less than 1/4th of base), depressions on each side of the scape large.

DIFFERENTIAL DIAGNOSIS

Metepeira desenderi sp.n. can be diagnosed by its palpal conformation and epigynal (vulval) structure.
LEVI (1977) divides the North American *Metepeira*-species in two groups according to the presence (*M. labyrinthea* group) or absence (*M. foxi* group) of a white line on the dark sternum and on the presence (*M. foxi* group) of a tubercular keel on the median apophysis. This galapagoan species does not fit into this subdivision as both characters, presence of a white line on sternum and the presence of a distal tubercular keel on the median apophysis, are combined. LEVI noted already that *M. grinelli* (COOLIDGE, 1910) has a relatively small distal extension on the median apophysis and that the sternal white line is often broken or partly missing. I wonder if such a subdivision might be of any taxonomic relevance.

ETYMOLOGY

This species is dedicated to Dr. K. Desender who accompanied me to the Islands in 1986.

MATERIAL EXAMINED

♂ HOLOTYPE: PINZON: alt. 0-100 m (9.III.1986): together with a ♂ and 14 ♀♀ paratypes.

PARATYPES:
Baert & Maelfait, 1982: SANTA CRUZ: CDRS (15.II): 4 ♀♀; (31.III): 1 ♂. Bahía Tortuga (18.II): 1 ♀; (13.II): 1 ♀/2 AS ♂♂. Along trail to Bahía Tortuga, in fissure (13.II): 1 ♀. Bahía Conway (18.IV): 4 ♀♀. Bahía Tiburón, laguna (18.IV): 1 ♂. Media Luna trail, *Scalesia* wood, alt. 570 m (19.III): 1 ♀. SANTA FE: (1-2.IV): 1 ♂/12 ♀♀. SEYMOUR NORTE: (19.IV): 6 ♀♀. ISABELA: Lagunas de Villamil (e.g. mangrove) (24.III): 5 ♂♂/7 ♀♀/juvs.; Beagle Crater, alt. 20-225 m (22.II): 1 ♂/3 ♀♀, shore of inner lake (24.II): 1 ♂/1 ♀.
Baert, Maelfait & Desender, 1986: SANTA CRUZ: CDRS (27.II): 1 ♂; CDRS, Barranco (16.III): 1 ♂/11 ♀♀; Bahía Tortuga (14-15.III): 1 ♀. ISABELA: Lagunas de Villamil (21.II): 1 ♂/8 ♀♀ and (25.II): 1 ♂/4 ♀♀; Volcán Alcedo: alt. 200 m (2.IV): 5 ♀♀, alt. 400 m (2.IV): 2 ♀♀, alt. 600 m (2.IV): 1 ♀. SANTIAGO: northern slope: Puerto Nuevo (4.III): 2 ♀♀, alt. 100 m (4.III): 1 ♀, alt. 200 m (4.III): 1 ♂/1 ♀, alt. 400 m (4.III): 1 ♂/2 ♀♀, Mina de Sal (8.III): 2 ♀♀, Playa Espumila (8.III): 1 ♂/7 ♀♀. RABIDA: laguna (9.III): 2 ♂♂/ 7 ♀♀/1 SA ♂, 6 SA ♀♀. PINZON: rim of caldera, alt. 300 m (10.III): 1 ♂/8 ♀♀; bottom of crater, alt. 125 m (10.III): 1 ♀. PINTA: Coast, anchorage bay (22.III): 2 ♂♂/5 ♀♀/ 2 SA ♂♂/ SA ♀. Toptransept, alt. 0-50 m (22.III): 4 ♂♂/

◁ Figs. 16-21. Metepeira desenderi *sp.n. Male: 16. palpus, mesal; 17. palpus, ventral. Female: 18. epigynum, posterior; 19. epigynum, ventral; 20. epigynum, lateral; 21. dorsal view. (Scale lines: 16-18.: 0.1 mm; 19-21.: 0.5 mm).*

17 ♀♀. Western transept, coast (21.III): 3 ♂♂/11 ♀♀, alt. 210 m (21.III): 1 ♂/1 ♀. SAN CRISTOBAL: along road to El Progreso, alt. 100 m (27.III): 1 ♂/1 ♀; churchyard of El Progreso, alt. 225 m (27.III): 1 ♂/1 ♀/1 SA ♀. SANTA FE: (26.III): 1 ♂/2 ♀♀.
CDRS-collection: PINTA: (6-9.II.1982): 2 ♀♀.

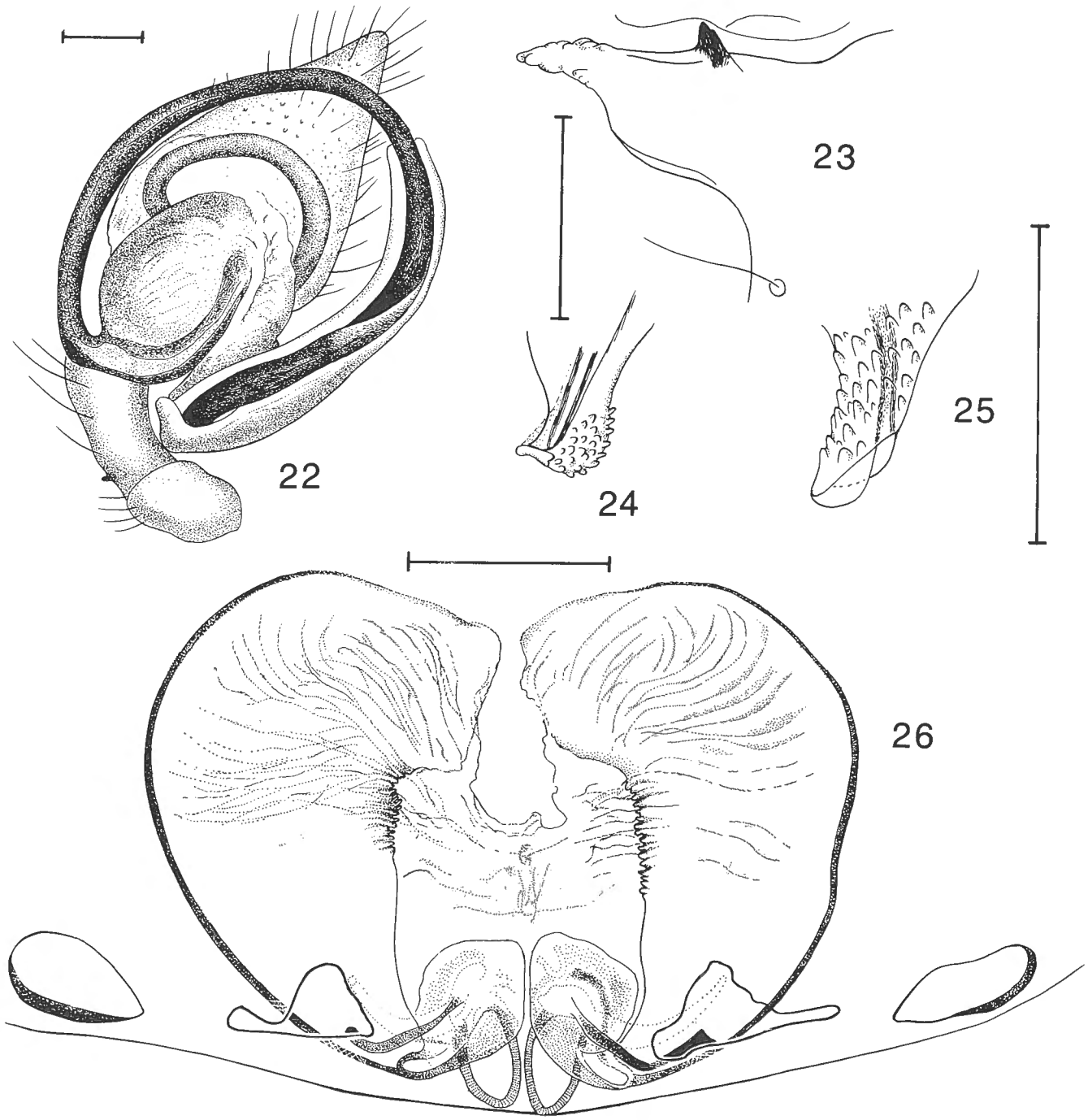
RECORDS MENTIONED IN LITERATURE

PINTA (II-VI), ISABELA (II-VI), SANTE FE (II-VI), MARCHENA (II-VI), FLOREANA (II-VI), SAN CRISTOBAL (II-VI), DAPHNE (IV), ESPANOLA (II-VI), SANTA CRUZ (II-VI), SANTIAGO (II-VI), FERNANDINA (II-VI), GENOVESA (II-VI) and WOLF;

HABITAT CHOICE

Species typical from dry circumstances. Very common in the dry arid zone of most islands.

Figs. 22-26. Emblyna formicaria *sp.n. Male: 22. palpus; 23. distal end of tibia; 24., 25. embolus. Female: 26. vulva. (Scale lines: 0.1 mm).*



DICTYNIDAE

Emblyna formicaria sp.n.
Figs. 22-26

DESCRIPTION (♂/♀)

Carapace orange with a row of white hairs running from the fovea up to the posterior eye-row; sternum and coxae orange; legs orange, suffused with black and covered with black hairs and a few scattered white hairs; dorsum of abdomen black, covered with thick black hairs, flanks with a well distinct anterior and median patch of thick white hairs (posterior patch can be restricted to a few or none), venter greyish.

Male holotype:
Total length ca. 1.75 mm. Carapace ca. 0.82 mm long and ca. 0.63 mm wide. Chelicerae long and slender, slightly concave in front, bowed apart to form a distinct median fusiform opening. Anterior eye-row strongly recurved, AE equidistant. Posterior eye-row slightly recurved, eyes equidistant, PM-eyes 3/4th of their diameter apart. Clypeus ca. 3.3 times as long as diameter of an AM-eye. legs (approximate measurements in mm):

	Fe	Pa	Ti	Mt	Ta	Tot.
I	0.71	0.26	0.64	0.54	0.37	2.52
II	0.64	0.24	0.52	0.48	0.31	2.29
III	0.58	0.20	0.40	0.42	0.28	1.88
IV	0.67	0.24	0.56	0.55	0.31	2.33

Palp (Fig. 22): Tibia (Fig. 23) with short basal apophysis provided with two black ctenidia, at apex retrolaterally enlarged. Embolus thick with blunt unmodified apex, tip with scaly covering (Figs. 24 & 25).

Female (Isabela, Beagle Crater, February 1982):
Total length ca. 1.90 mm. Carapace ca. 0.78 mm long and ca. 0.60 mm wide. Clypeus shorter than in male, nearly 2.7 times diameter of an AM-eye. Chelicerae shorter and more robust, bowed apart. Anterior eye-row strongly recurved (but less than in ♂), AE equidistant. Posterior eye-row slightly recurved with the eyes nearly equidistant, PM eyes nearly 5/4th of their diameter apart. Legs (approximate measurements in mm):

	Fe	Pa	Ti	Mt	Ta	Tot.
I	0.64	0.23	0.51	0.41	0.30	2.09
II	0.60	0.22	0.41	0.36	0.27	1.86
III	0.51	0.19	0.34	0.33	0.24	1.61
IV	0.60	0.23	0.47	0.46	0.27	2.03

Epigynum (Fig. 26): Median atria wide apart and of irregular form, relatively large oval lateral foveae. Vulva with voluminous receptaculae.

DIFFERENTIAL DIAGNOSIS

This species belongs to the *sublata* group (CHAMBERLIN & GERTSCH, 1958) according to the slender, in front, concavely curved chelicerae, the carinate inner cheliceral margin, the very short tibial apophysis and the near the base originating embolus. The males can be diagnosed by their palpal conformation and the blunt unmodified embolic apex. The females can be diagnosed by the vulval structure, the small irregular median atria and the relatively large oval lateral fovae.

ETYMOLOGY

It is named *formicaria* as it was found in the vicinity of an ant species with the same colourpattern (head, pronotum and legs orange, abdomen black).

MATERIAL EXAMINED

Baert & Maelfait, 1982: ISABELA: Beagle Crater, western flank and rim, alt. 0-250 m (22-25.II): ♂ HOLOTYPE, 2 ♂♂ paratypes and 10 ♀♀paratypes; Volcán Alcedo, eastern flank, alt. 550 m (22.IV): 1 ♀ paratype.

HABITAT CHOICE

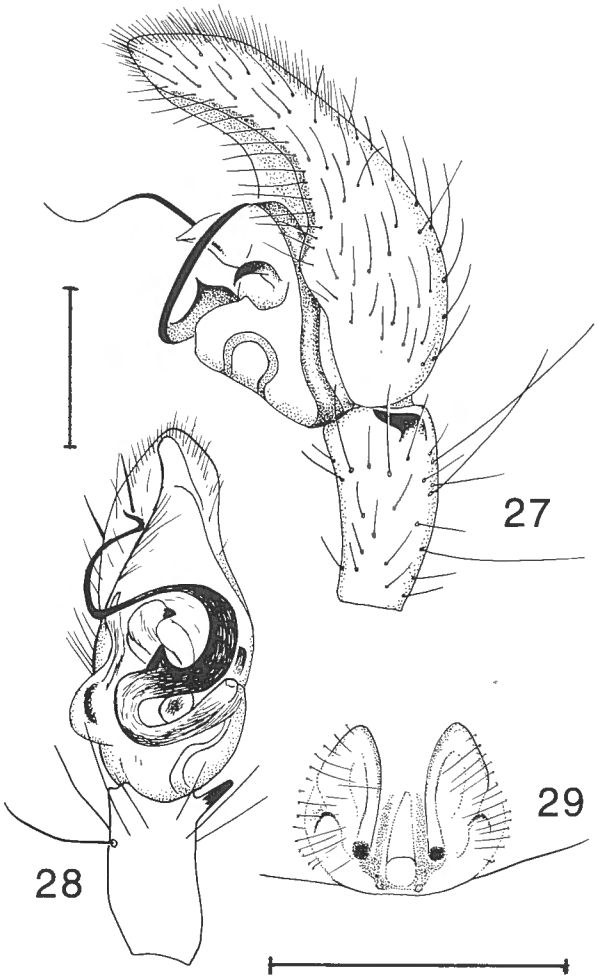
Dry arid zone, in the vicinity of ants.

ANYPHAENIDAE

Anyphaenoides pacifica (BANKS, 1902)
new combination
Figs. 27-29

Aysha pacifica BANKS, 1902: p. 58, pl. 1, fig. 11. – SNODGRASS (1902): p. 71. – BANKS (1930): p. 273. – ROEWER (1954): p. 533. – BONNET (1955): p. 838.
Teuidis (?) pacifica (BANKS, 1902): ROTH & CRAIG (1970): p. 116. – BAERT & MAELFAIT (1986b): p. 186. – BAERT & MAELFAIT (1986b): p. 97, map 7.

BERLAND (1913) diagnosed the genus *Anyphaenoides* by the presence of numerous retrolateral denticles on the chelicerae margins and by the general palpal structure. This galapagoan species, usually cited as *Teuidis (?) pacifica,* belongs clearly to this genus according the above given diagnostic characters. The male palp of *A. pacifica* has above given diagnostic characters. The male palp of *A. pacifica* has the same general structure as the palp of the type species *A. pluridentata* BERLAND, 1913, described from Ecuador (Pinnllar and La Mesa), but differs from it by its larger and slender embolus and the very conspicious hook near the base of the embolus. The type species *A. pluridentata* could unfortunately not yet been studied in detail as it was not yet available at the Muséum de Paris.



Figs. 27-29. Anyphaenoides pacifica *(BANKS, 1902). Male: 27. palpus, lateral; 28. palpus, ventral. Female: 29. vulva. (Scale lines: 0.5 mm).*

DESCRIPTION (♂/♀):

Mean length male ca. 4.7 mm, female between 4.3 and 6.1 mm. Carapace yellowish brown with a black stripe in front of the fovea and with irregular black bands, not reaching the hind margin, on both sides; chelicerae elongated, redbrown with black longitudinal stripes in male, more robust and dark brown in female; clypeus black; labium and maxillae light brown; sternum a shiny pale yellow, bordered with black in the female; legs pale yellowish with, mostly, visible annulation (not on Fe) (this annulation is in some specimens only clearly visible on legs I and IV); abdomen pale, marked with black spots, dorsolaterally arranged in two broad bands which sometimes fuse caudally, sparsely covered with black spines arranged (especially dorsally) in longitudinal rows, venter pale with epigastric region and the anterior edge of the tracheal spiracle black, there is mostly a black longitudinal stripe caudal to the tracheal spiracle. Palp (Figs. 27 & 28): tibia with a distal hooked apophysis. Epigynum (Fig. 29): Has a good external ressemblance with the epigynum of *A. pluridentata.*

MATERIAL EXAMINED

Cfr. BAERT & MAELFAIT (1986c): p. 97, map 7.

ADDITIONAL MATERIAL

Baert, Maelfait & Desender, 1986: SANTA CRUZ: CDRS (II): 1 ♀, (28.II): 1 ♂, (15.III): 1 ♀. PINTA: southern volcan flanc, alt. 540 m (20.III): 1 ♀. SAN CRISTOBAL: along road to El Progreso, alt. 100 m, Palo Santo-wood (27-28.III): 1 ♂. ISABELA: Volcán Alcedo, Palo Santo-wood, alt. 400 m (2.IV): 1 ♀/4 juvs.
Schatz, 1985: SANTA CRUZ: Cerro Crocker, *Scalesia* wood, alt. 700 m (8.II): 1 ♀. SAN CRISTOBAL: El Junco, alt. 630 m (28-29.III): 1 ♂/2 ♀♀.
CDRS-collection: PINZON: (11.V.1981): imm. ♀. SANTIAGO: Los Guayabillos, alt. 900 ft (14-16.V.1982): 2 ♂♂/1 j ♀. SANTA CRUZ: La Caseta, (I.1982): 1 ♀, (23.XII. 1981): 1 ♂.
ZMUO: FLOREANA: (20-30. X.1925): 1 ♂/j ♀.

HABITAT CHOICE

Arid coastal-, Transition- and *Scalesia* zones.

SALTICIDAE

Darwinneon crypticus CUTLER, 1971
Fig. 30

Darwinneon crypticus CUTLER, 1971: p. 509, figs. 1-3. – BAERT & MAELFAIT (1986b): p. 186. – BAERT & MAELFAIT (1986c): p. 107, map 18.

The female of *D. crypticus* has been extensively described by CUTLER (1971). No males were known at that time. Our samples made in 1982 (Baert & Maelfait, 1986c) and 1986 contained numerous male specimens. They are in general appearance much like the females, therefore I limit myself here to figure the male palp and to give some remarks on small differences in colour. The males are of a variable length and can reach a total length of appr. 2 mm. The legs are generally paler than in the females, especially the femorae. There is however a great variability in colouration. The female palp can have as well white as well totally black Ta, Fe and Pa. In the male, the cybium is always white and bears as the Ti long white feathered hairs (not drawn on the figure).

MATERIAL EXAMINED

Cfr. BAERT & MAELFAIT (1986c): p. 107, Map 18.

ADDITIONAL MATERIAL

Baert, Maelfait & Desender, 1986: SANTA CRUZ:

Transept along main road, southern slope: alt. 50 m (DAZ) (12-25.III): 2 ♂♂ / 3 ♀♀; alt. 140 m (DAZ) (15.II-1.III): 1 ♂ / 6 ♀♀ / 4 j.; (1-12.III): 5 ♀♀, (12-25.III): 1 ♂ / 1♀; alt. 230 m (Culture zone) (15.II-1.III): 2 ♂♂ / 7 ♀♀ / 2 j., (1-12.III): 5 ♂♂ / 3 ♀♀ / 2 j., (12-25.III): 2 ♂ / 2 ♀♀ / 2 j.; alt. 500 m (1-12.III): 1 ♂, (12-15.III): 1 ♀; alt. 630 m, Los Gemelos, *Scalesia* wood (1-12.III): 1 ♂ / 2 j., (12-25.III): 1 ♀. Transept along main road, northern slope: alt. 500 m (15.II-1.III): 7 ♂♂ / 4 ♀♀, (1-12.III): 1 ♀, (12-25.III): 4♀♀; alt. 350 m (12-25.III): 1 ♂; alt. 160 m (12-25.III): 1 ♂ / 1 j. Media Luna trail: alt. 600 m (*Sphagnum* bog) (16.II): 1 ♂. CDRS (Barranco): (16.III): 1 ♀. ISABELA: Volcán Sierra Negra, alt. 450-500 m, Culture zone (20.II): 2 ♂♂ / 1 ♀; Volcán Alcedo: alt. 600 m (31.III-2.IV): 5 ♀♀; alt. 400 m (2/IV): 3 ♀♀ (eastern flank). SANTIAGO: Northern flank: alt. 200 m (4.III): 1 ♀; alt. 300 m (4.III): 1 ♀; alt. 400 m (4.III): 1 ♂ / 1 ♀; alt. 500 m (5.III): 1 ♂ / 1 ♀. Highland: alt. 700 m (6.III): j.; alt. 800 m (6.III): 1 ♀. Southern flank: alt. 400 m (7.III): 4 ♀♀ / j.; alt. 300 m (7.III): 2 ♂♂ / 6 ♀♀; Mina de Sal, alt. 50 m (8.III): SA ♂. PINTA: Coast, anchorage bay (22.III): 1 ♀. Southern flank, eastern transept: alt. 300 m (19.III): 2 ♀♀; alt. 360 m (19.III): 3 j. Southern flank; toptransept: alt. 300 m (20-22.III): 1 ♂; alt. 400 m (20.III): j. SAN CRISTOBAL: Along main road to El Junco: alt. 100 m, Palo Santo wood (27-28.III): 1 ♂ / 1 ♀ / 2 j.; alt. 225 m, churchyard of El progreso (27.III): 1 ♀; alt. 400 m, Aguayava (27.III): 1 ♀; alt. 500 m, Aguayava (27-28.III): 1 ♂ / 5 ♀♀ / j.; alt. 675 m, rim of El Junco lake (27.III): 2 ♀♀; alt. 625 m, shore of inner lake (27.III): 1 ♂ / 1 ♀.
Schatz, 1985: SANTA CRUZ: Cerro Puntudo, Fern-sedge zone (10.III): 1 ♀; Los Gemelos, *Scalesia* (16.IV): 1 ♀; Cerro Crocker, alt. 700 m, *Scalesia* (28.II): 1 ♂. SANTA FE: NE, cactus forest, alt. 10 m (9.IV): j. SAN CRISTOBAL: El Junco, *Miconia* (29.III): 2 ♀♀ / 4 j.; Cerro San Joaquin, Aguayava (30.III): j. FERNANDINA: alt. 50 m (14.III): 1 ♀.

HABITAT CHOICE AND DISTRIBUTION

This species is distributed all over the major islands of the archipelago and has a very large ecological amplitude. On Santa Cruz it can be found in all vegetation zones from the coast (Dry arid zone - DAZ) up to the top of the island (Fern-sedge zone). On other islands it can also be found up to high altitudes.

FILISTATIDAE

Filistatoides fasciatus (BANKS, 1902)
Figs. 31-33

Filistata oceanea MARX, 1889: p. 210. – BONNET (1956): p. 1906 (nomen nudum).
Filistata fasciata BANKS, 1902: p. 55, pl. I, fig. 15. – BANKS (1924): p. 95. – ROEWER (1954): p. 1281. – BONNET (1956): p. 1901.
Filistatoides fasciatus (BANKS, 1902): – ROTH & CRAIG (1970): p. 117. – BAERT & MAELFAIT (1986b): p. 186. – BAERT & MAELFAIT (1986c): p. 102, map 7.

Till now only the female was known. It has been described by BANKS (1902) from Isla Wolff. During our visit to the islands in 1986 some males were captured. The description of the male, given below, is based upon a specimen caught on Isla Pinta (22 March 1986).

DESCRITION (♂/♀)

Carapace yellowbrown (with orange tint) with dark margin and dark striae, ocular area black; sternum with yellow basecolour but strongly suffused with black (in female yellow with faint dark markings); legs yelloworange (coxae a pale yellow) with faint annulation (the annulation is more conspicious in female); abdomen dark with two pale spots in the anterior third part, followed by a serie (6) of pale transversal bars (chevrons) which mostly reach the pale sides, venter with a dark epigastric region and a pale field around the ventrally located spinnerets. The pale colour can vary from greyish white to yellowish. The spider has a very dark hairy appearance.

Characteristics of male:
Approximate measurements in mm (specimen from Isla Pinta): Total length ca 3 mm, carapace 1.23 mm long and 0.92 mm wide. Legs:

	Fe	Pa	Ti	Mt	Ta	Tot.
I	2.09	0.38	2.62	1.92	1.23	8.24
II	1.65	0.38	1.54	1.25	0.95	5.87
III	1.19	0.29	1.19	1.07	0.80	4.54
IV	1.65	0.35	1.50	1.58	0.88	5.96

Ta I swollen; Mt II distally excavated with on apical edge two unequal spurs (Figs. 33-34); Ta II with small apical excavation, the bottom of this excavation covered with numerous small denticles. Chaetotaxy: all femorae with a row of fine spines along the distal edge where the Pa articulates; Ti I with 4-5 ventral spines; Mt I with 1 ventral spine; Ti II with 1 ventral spine in distal half (Ti and Mt spineless in female).

MATERIAL EXAMINED

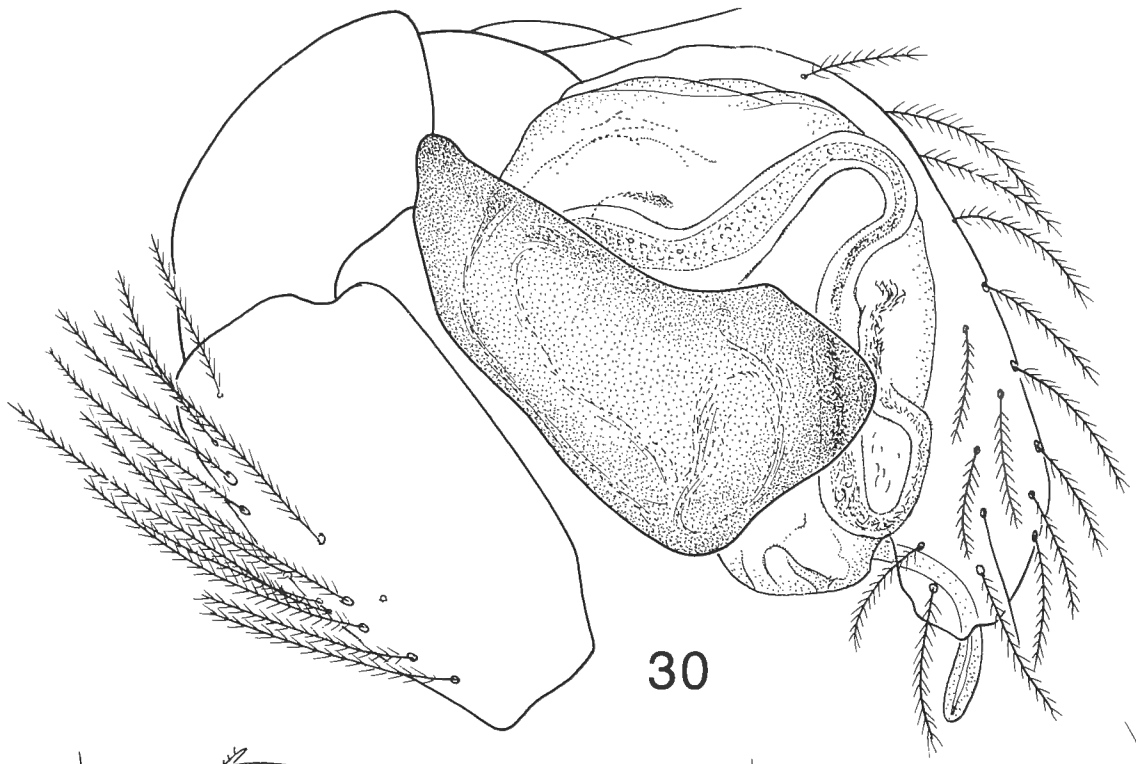
Cfr. BAERT & MAELFAIT (1986c): p. 102, map 7.

ADDITIONAL MATERIAL

Baert, Maelfait & Desender, 1986: SANTA CRUZ: Bahía Tortuga, dunes (14.III): 1 ♀. PINTA: coast, anchorage bay: (21.III): 1 ♀, (22.III): 1 ♀; eastern transept: alt. 300 m (19.III): 1 ♂ / 2 ♀♀, alt. 360 m (19.III): 1 ♂ / 6 ♀♀; toptransept: alt. 0-50 m (22.III): 1 ♂, alt. 300 m (20.III): 1 ♂ / 1 ♀; western transept: alt. 210 m (21.III): 1 ♀. ISABELA: Volcán Alcedo, eastern slope, alt. 200 m (2.IV): 1 ♀ / 3 j.

HABITAT CHOICE

In the Dry arid- and Transition zones.



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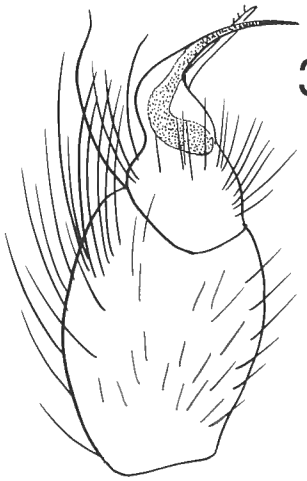

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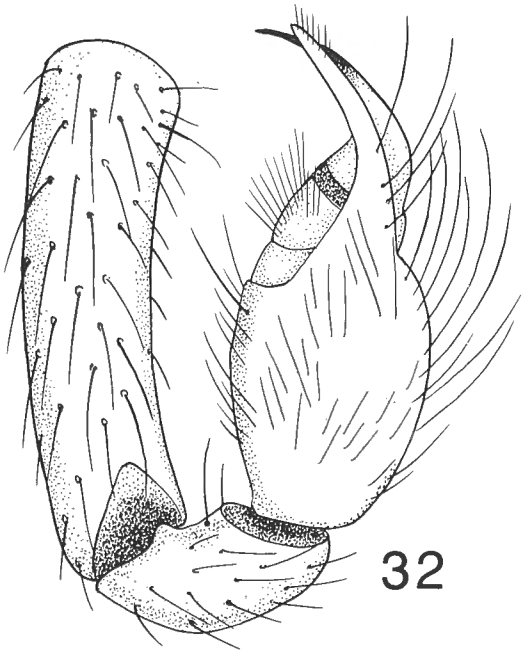

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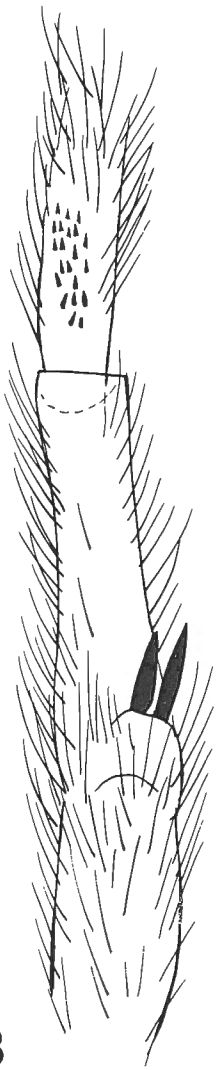

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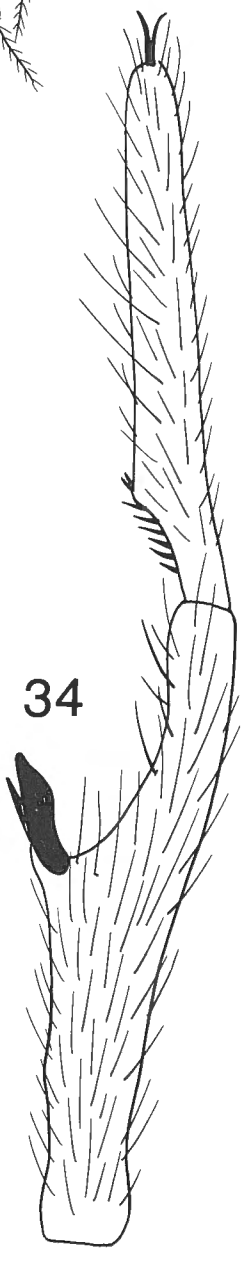

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CTENIDAE

The Ctenidae are represented on the island by two species belonging to the genus *Odo, O. galapagoensis* BANKS, 1902 and *O. insularis* BANKS, 1902.
For the general description of both species I refer to BANKS (1902). *O. insularis* is much larger (1 ♂: ca. 16 mm; ♀♀: 13-20 mm) than *O. galapagoensis* (1 ♂: ca. 8 mm; 2 ♀♀: 11 and 13 mm) and has large slender legs. The males of both species can easily be distinguished from each other by their palpal conformation, the females by their epigyne. The female of *O. galapagoensis* has moreover a very conspicious blunt retrolateral spine on its palpal tibia (many normal spines in *O. insularis*). The tibial chaetotaxy might also be used in distinguishing both species:

Odo insularis

	♂			♀		
	d	l	v	d	l	v
I	2-3 pairs	2 pairs	3 pairs*	0	1-2 pro / 1 retro pairs	3 pairs*
II	3 pairs	2 pairs	3 pairs*	0	2 pro / 1-2 retro pairs	3 pairs*
III	3 pairs	2 pairs	3 pairs*	2-3 pairs	2 pairs	3 pairs*
IV	2-3 pairs	2 pairs	3 pairs*	2-3 pairs	2 pairs	3 pairs*

Odo galapagoensis

	♂			♀		
	d	l	v	d	l	v
I	1 pair	2 pairs	3 pairs*	0	0	2 pairs
II	1 pair	2 pairs	3 pairs*	0	1 prolateral	2 pairs
III	2 pairs	2 pairs	3 pairs*	2-3 pairs	2 pairs	3 pairs*
IV	2 pairs	2 pairs	3 pairs*	2 pairs	2 pairs	3 pairs*

* distal pair very small.

Odo galapagoensis BANKS, 1902
Figs. 37-38

Odo galapagoensis BANKS, 1902: p. 64, pl. II, fig. 2. – BANKS (1930): p. 276, pl. I, fig. 5. – ROEWER (1954): p. 670. – BONNET (1958): p. 3129. – ROTH & CRAIG (1970): p. 116. – LUBIN (1985): p. 492 (?).

MATERIAL EXAMINED

CAS: PINZON: (3.VIII.1964): 2 ♀♀ / j. GARDNER near ESPANOLA: (24. XI.1905): 2 ♀♀. SANTA CRUZ: Bahía de la Academía, CDRS (25.I.1964): 1 ♂.

RECORDS MENTIONED IN LITERATURE

ESPANOLA (V: ♀♀), GENOVESA (VI: ♀♀), SAN CRISTOBAL (V: ♀♀), FLOREANA (IX, XI: ♂♂ / ♀♀), PINZON and SANTA CRUZ.

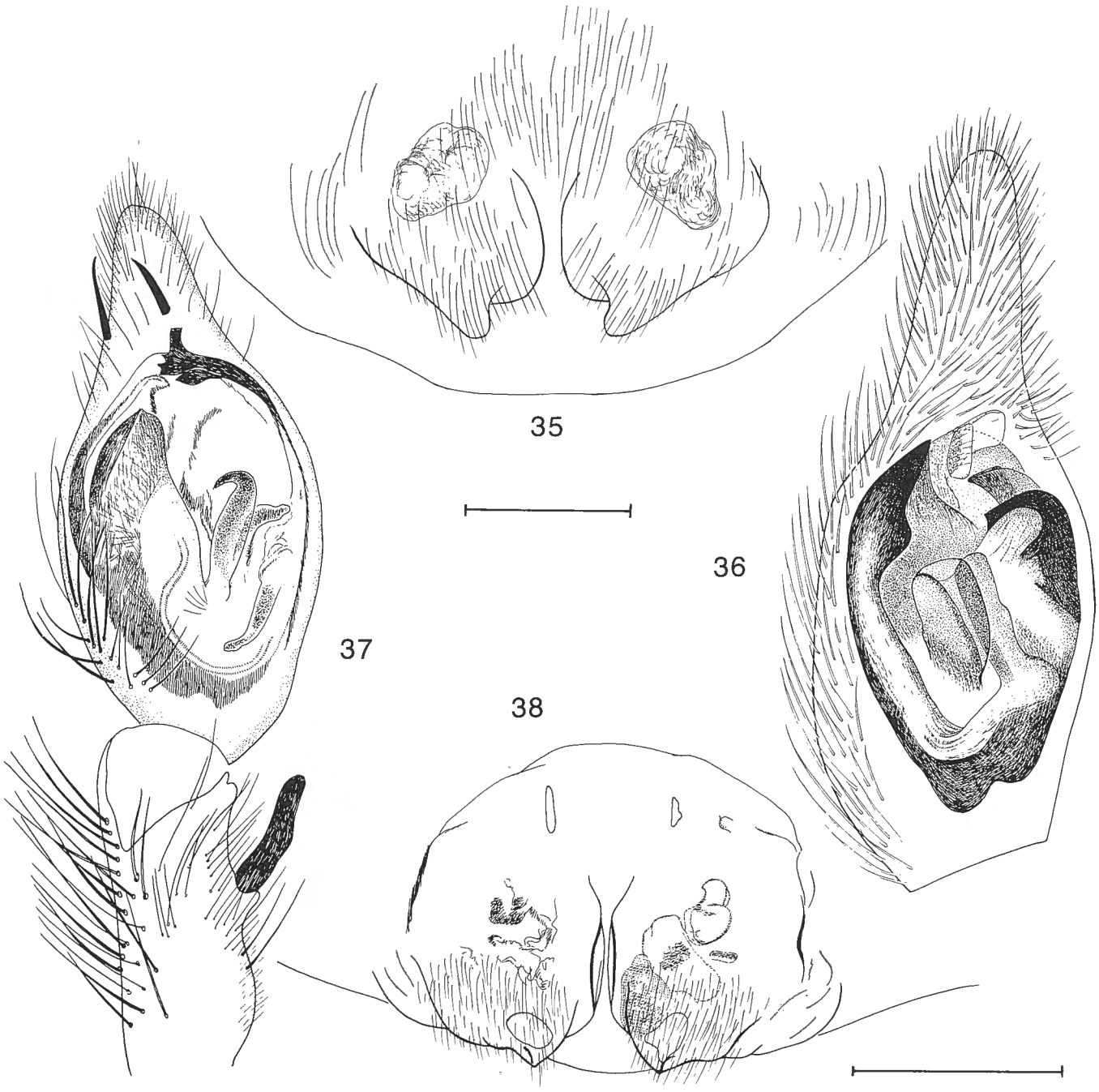
ZOOGEOGRAPHIC AFFINITIES

Only known from the Calápagos.

HABITAT CHOICE

Dry arid zone.

◁ Fig. 30. Darwinneon crypticus *CUTLER, 1791: male palpus.*
Figs. 31-34. Filistatoides fasciatus *(BANKS, 1902). Male: 31. palpus, ventral; 32. palpus, dorsal; 33. Ta & Mt I, ventral; 34. Ta & Mt I, prolateral. (Scale lines: 0.5 mm).*



Figs. 35-36. Odo insularis *BANKS, 1902: 35. epigynum; 36. male palpus.*
Figs. 37-38. Odo galapagoensis *BANKS, 1902: 37. male palpus; 38. epigynum. (Scale lines: 0.5 mm).*

Odo insularis BANKS, 1902
Figs. 35 & 36

Odo insularis BANKS, 1902: p. 64, pl. I, fig. 14, pl. II, fig. 12. – SNODGRASS (1902): p. 79. – BANKS (1924): p. 98. – ROEWER (1954): p. 670. – BONNET (1958): p. 3129. – ROTH & CRAIG (1970): p. 116.

MATERIAL EXAMINED

Baert & Maelfait, 1982: SANTIAGO: Puerto Egas (20.IV): 1 ♂ / 3 j., (26.II): 1 ♂ / 2 j. ♀. Caleta Bucanero (6.IV): 2 ♀♀ / 4 j. ♀♀ / 6 j. ISABELA: Volcán Beagle, western flank (22-25.II): 2 ♀♀; Volcán Alcedo, alt. 800 m (21.IV): 3 ♀♀.
Baert, Maelfait & Desender, 1986: SANTIAGO: Northern flank, alt. 100 m (4.III): 2 ♀♀ / 5 j.; Mina de Sal (8.III): 1 ♀. RABIDA: laguna (9.III): 2 ♀♀ / j. ♂ / j. ♀ / 7 j. SANTA CRUZ: Puerto Ayora (II): 1 ♀.
Leleup: SANTA CRUZ: Coast (IX, X.1964): 2 ♂♂ / 1 ♀.
Jacquemart: SANTIAGO: Western coast (III.1974): 4 ♀♀.
CAS: PINZON: At upper caldera (7.II.1964): 2 ♀♀. SANTA CRUZ: Bahía de la Academía, (25.I.1964): 2 ♀♀, (12.II.1964): 3 ♂♂. SANTIAGO: Northwestern slope at an altitude of 600 m (30.V.1964): 2 ♀♀.
CDRS: SANTA CRUZ: Puerto Ayora (IX.1970): 1 ♀.

RECORDS MENTIONED IN LITERATURE

BALTRA, EDEN (IV), FERNANDINA, ISABELA (II, III: Caleta Tagus), PINZON, SANTA CRUZ and SANTIAGO.

ZOOGEOGRAPHIC AFFINITIES

Only known from the Galápagos.

HABITAT CHOICE

Typical for the Dry arid zone. On Isabela it was found up to an altitude of 800 m.

Acknowledgements

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