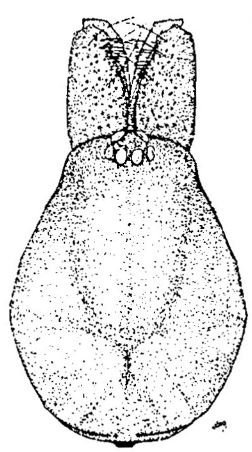
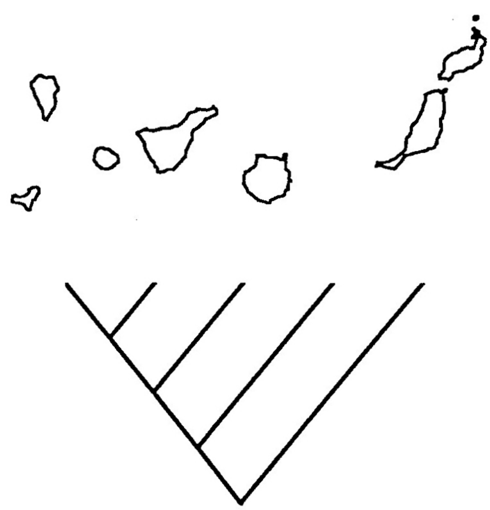
Departament de Biologia Animal
Facultat de Biologia
Universitat de Barcelona

Tesi Doctoral

COLONITZACIÓ I RADIACIÓ DEL GÈNERE *Dysdera* (ARACHNIDA, ARANEAE) A LES ILLES CANÀRIES





Miquel Àngel Arnedo Lombarte

1998

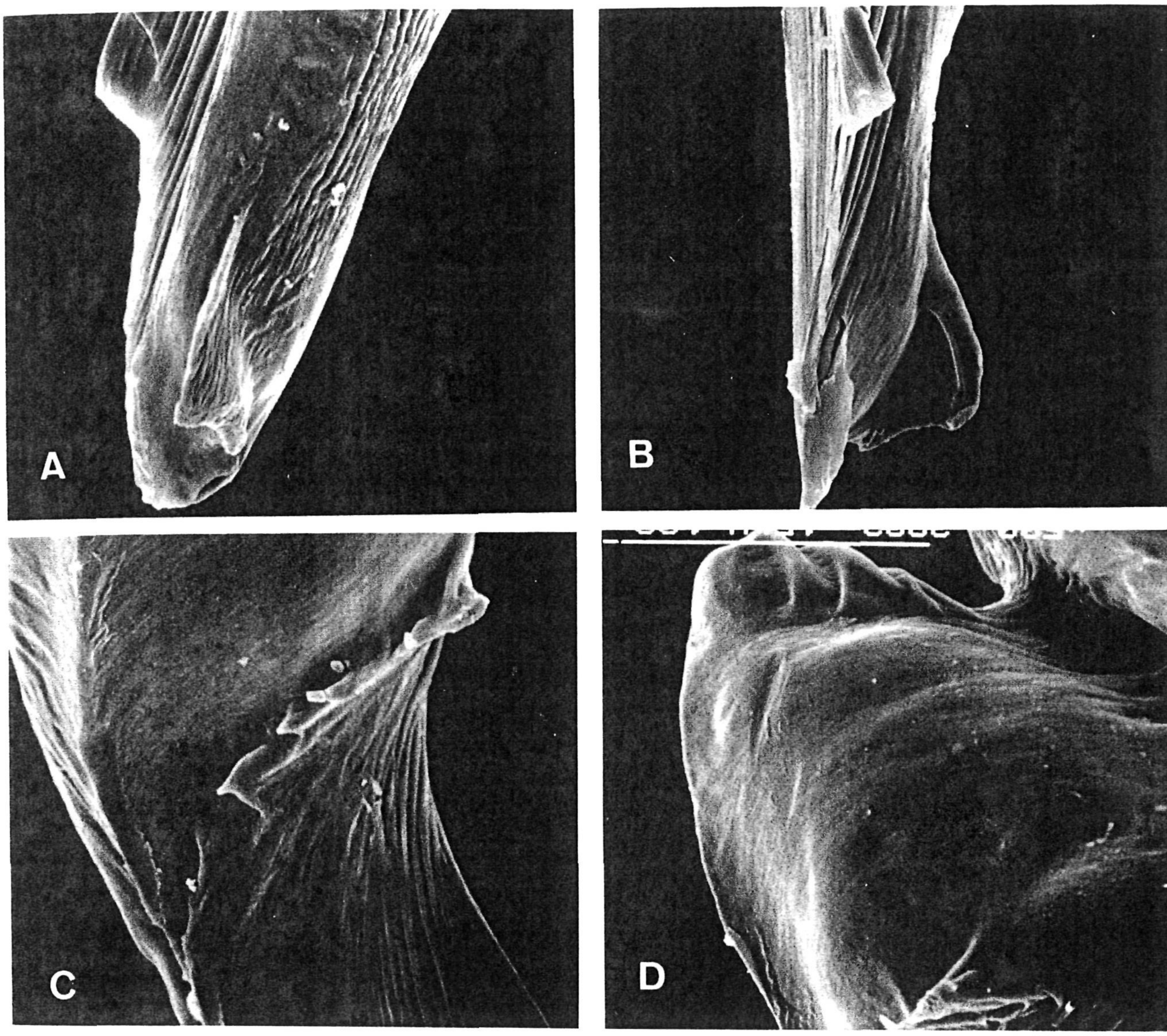


Fig. 18.—A–D. Dysdera orahan sp. n.; right male bulbus.—*A.* DD, frontal.—*B.* DD, external.—*C.* DD, posterior.—*D.* P, external.

upper tip not projected, pointed; external side excavated. AC present. LF absent. L well-developed; external border not sclerotized, scantly fold, distal border divergent, most external part perpendicular, continuous. LA absent. AL present, very poorly developed; proximal border toothed, not completely fused with distal haematodoca. P (Fig. 18D) perpendicular to T in lateral view; fused to T; narrow, reduced to ridge; strongly toothed, along upper margin; few teeth, about 4–6; not distally projected.

ALS (Fig. 19A) with piriform gland spigot in polar position; remaining piriform spigots more external than major ampulate gland spigot; 6 + 1 piriform gland spigots; PMS and PLS (Fig. 19B) with less than 6 aciniform gland spigots.

Distribution. A very rare species from halophytic coastal habitats of La Gomera (Canary Islands).

Dysdera ramblae sp. n. (Fig. 20A–F, 21A–E, 22A–C)

Holotype. ♂; data unknown, M. Rambla leg.; num. 2500/102, Stored at UB.

Type locality. Monte del Cedro, La Gomera, Canary Islands.

Allotype. ♀; Monte del Cedro, La Gomera, Canary Islands; 13/4/75, J. M. Fernández leg.; num. 2502/102, stored at the UB.

Paratypes. La Gomera: Hermigua: Las Campanas; 1/5/95; Oromí & Arnedo leg.; 2929 120 UB. El Cedro; 1♀; 7/1/83; R. García leg.; 2581 106 UB. Pajarito; 1♂; 29/4/95; Oromí & Arnedo leg.; 2911 119 UB. Monte de Juan Tome, forest path to La Laja; 28/4/95; Oromí & Arnedo leg.; 1♂ 2895 118 UB, 1♀ 2899 119 UB. San Sebastián: Bco. de Juel; 1/5/95; Oromí & Arnedo leg.; 1♂ 4161 UB. 1♀ 4162 UB. Vallehermoso: Monte Teselinde, near Ermita de Sta. Clara; 1♀; 30/4/95; Oromí & Arnedo leg.; 4149 UB.

Other material. La Gomera: Hermigua: Las Campanas; 1/5/95; Oromí & Arnedo leg.; 1♀ 2930 120 UB, 1♀ 4172 UB. 1♀ 4171 UB. Pajarito; 29/4/95; Oromí & Arnedo leg. 1♀ 4116 UB, 1♀ 4115 UB, 1♀ 4138 UB, 1♀ 4133a UB. Monte de Juan Tome, forest path to La Laja; 28/4/95; Oromí & Arnedo leg.; 1♂ subad. 2898 119 UB, 1♀ 4121 (16) Freezer UB, 1juv. 4184 (14) Freezer UB. Monte del Cedro, near old camping site; 1♂; 28/4/95; Oromí & Arnedo leg.; 4127 (38) Freezer UB.

Etymology. This species is dedicated to Dr María Rambla, collector of the type specimen, who has devoted much of her life to the study of arachnida in general and to opiliones fauna in particular.

Diagnosis. Carapace cribellated, covered with circular depressions with some small black grains mainly anterior, frontal border narrow, lateral borders divergent; rounded at maximum dorsal width point. Chelicerae less than 1/4 of carapace length, basal segment scantly covered with granulation; distal tooth largest and trapezoid-shaped. DD bent about 45°. DA ventral tooth-like projections, not

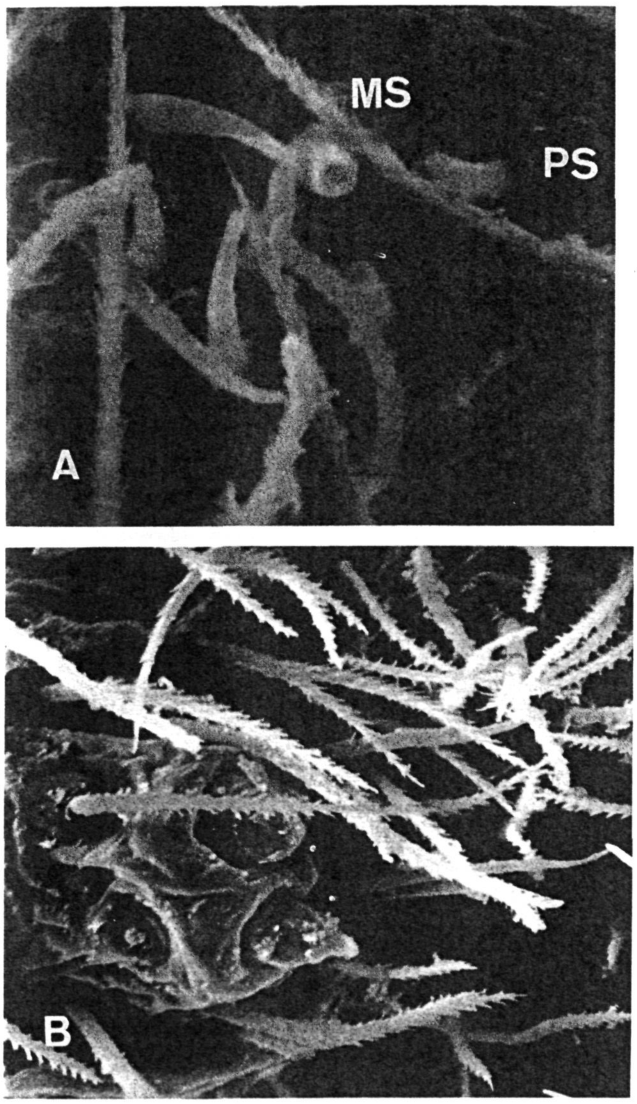


Fig. 19.—A–B. Dysdera orahan sp. n.; left male spinnerets.—*A*. ALS.—*B*. PMS and PLS (on the left).

turned to lateral sides, shorter than lateral sclerotization, small lateral slit. This species can be easily distinguished from any other Canarian species by fang enlarged at middle part.

Description. Holotype male. (Figs 20A–C, 21A–E). Carapace (Fig. 20A) 5.25 mm long; maximum width 4.27 mm; minimum width 2.45 mm. Brownish red, darkened at borders; cribellated, covered with circular depressions with some small black grains mainly anterior. Frontal border more or less rounded, about 2/5 of its length; lateral borders divergent; rounded at point of maximum dorsal width, with back lateral borders rounded; back margin narrow, straight. AME diameter 0.29 mm; PLE 0.29 mm; PME 0.21 mm; AME on edge of frontal border; separated one from another about half diameter, close to PLE; PME very close to each other, less than a quarter of PME diameter from PLE. Labium trapezoid-shaped, base wider than distal part; longer than wide at base; with semicircular groove at tip. Sternum red, darkened at borders; heavily wrinkled; covered in hairs mainly at margin.

Chelicerae (Fig. 20B) 1.49 mm long, less than 1/4 of carapace length in dorsal view; fang 1.16 mm long; enlarged at middle part; basal segment dorsal side scantly covered with granulations. Chelicera inner groove about 2/5 of cheliceral length; armed with three teeth and lamina at base; distal tooth largest, basal larger than medial; distal tooth trapezoid, located near tip of segment; basal tooth close to basal lamina; medial tooth close to basal. Legs orange. Lengths of male described above: fe1 3.91 mm (all measurements in mm); pa1 2.7; ti1 3.4; me1 3.26; ta1 0.75; total 14.02; fe2 3.5; pa2 2.47; ti2 3.08; me2 3.03; ta2 0.7; total 12.77; fe3 3.03; pa3 1.86; ti3 2.1; me3 2.8; ta3 0.7; total 10.48; fe4 3.96; pa4 2.19; ti4 3.26; me4 3.96; ta4 0.79; total 14.12; fe Pdp 1.96; pa Pdp 1.21; ti Pdp 1.07; ta Pdp 1.07; total 5.31; relative length: I = IV > II > III. Spination: Palp, leg1, leg2 spineless. Fe3d spineless; pa3 spineless; tb3d spines arranged in two bands; proximal 1.0.0–1; distal 1.0.0; tb3v spines arranged in two bands; proximal 1.2–1.0; distal 1.0.0; with two terminal spines. Fe4d spineless; pa4 spineless; tb4d spines arranged in two bands; proximal 1.0.1; distal 1.0.1; tb4v spines arranged in four bands; proximal 1.1.0; medial–proximal 0.0–1.1; medial–distal 1.0.0; distal 0.1–0.01; with two terminal spines. Very long hairs on back legs as well as at pedipalps.

Abdomen 7.5 mm long; whitish; cylindrical. Abdomen dorsal hairs 0.072 mm long, thin, curved, not compressed, blunt, with tip not enlarged, uniformly, scantly distributed.

Copulatory bulbus (Fig. 20C) T scantly smaller than DD; DD bent about 45° in lateral view. DD sclerites equally developed; internal sclerite truncated at middle part of haematodoca. DD tip (Fig. 21A–B, D) with upper and lower sheets sticking together; upper sheet not projected over lower one; straight in lateral view. C present, well-developed; located close to tip of embolus; proximal border continuously decreasing; distal border stepped; upper tip not projected, pointed; external side excavated. AC present. LF absent. L well-developed; external border not sclerotized, scantly fold, distal border divergent, continuous. LA absent. AL present, very poorly developed; proximal border fused with distal haematodoca. P (Fig. 21E) perpendicular to T in lateral view; fused to T; narrow, reduced to ridge; scantly toothed, mainly on external side, along upper margin; few teeth, about 4–6; not distally projected.

Allotype female (Figs 20D–F, 22A–C). All characters as in male except: Carapace 5.6 mm long; maximum width 4.62 mm; minimum width 2.66 mm. AME diameter 0.27 mm; PLE 0.27 mm; PME 0.21 mm. AME separated one from another about half diameter.

Chelicerae 1.63 mm long; fang 1.07 mm long. Lengths of female legs described above: fe1 3.82 mm (all measurements in mm); pa1 2.7; ti1 3.4; me1 2.79; ta1 0.74; total 13.47; fe2 3.4; pa2 2.56; ti2 3.07; me2 2.79; ta2 0.74; total 12.58; fe3 3.12; pa3 1.86; ti3 2.09; me3 2.79; ta3 0.74; total 10.62; fe4 3.96; pa4 2.33; ti4 3.02; me4 3.91; ta4 0.88; total 14.12; fe Pdp 1.86; pa Pdp 1.12; ti Pdp 0.93; ta Pdp 1.26; total 5.17; relative length IV > I > II > III. Spination: tb3v spines arranged in two bands; proximal 1.2.0; distal 1.0.0; with two terminal spines; tb4v spines arranged in four bands; proximal 1.2–1.0; medial–proximal 0.0.1; medial–distal 1.0.0; distal 0.0.1; with two terminal spines.

Abdomen 13.5 mm long; whitish; cylindrical. Abdomen dorsal hairs 0.09 mm long, thin, curved, compressed, blunt, with tip not enlarged; uniformly, scantly distributed.

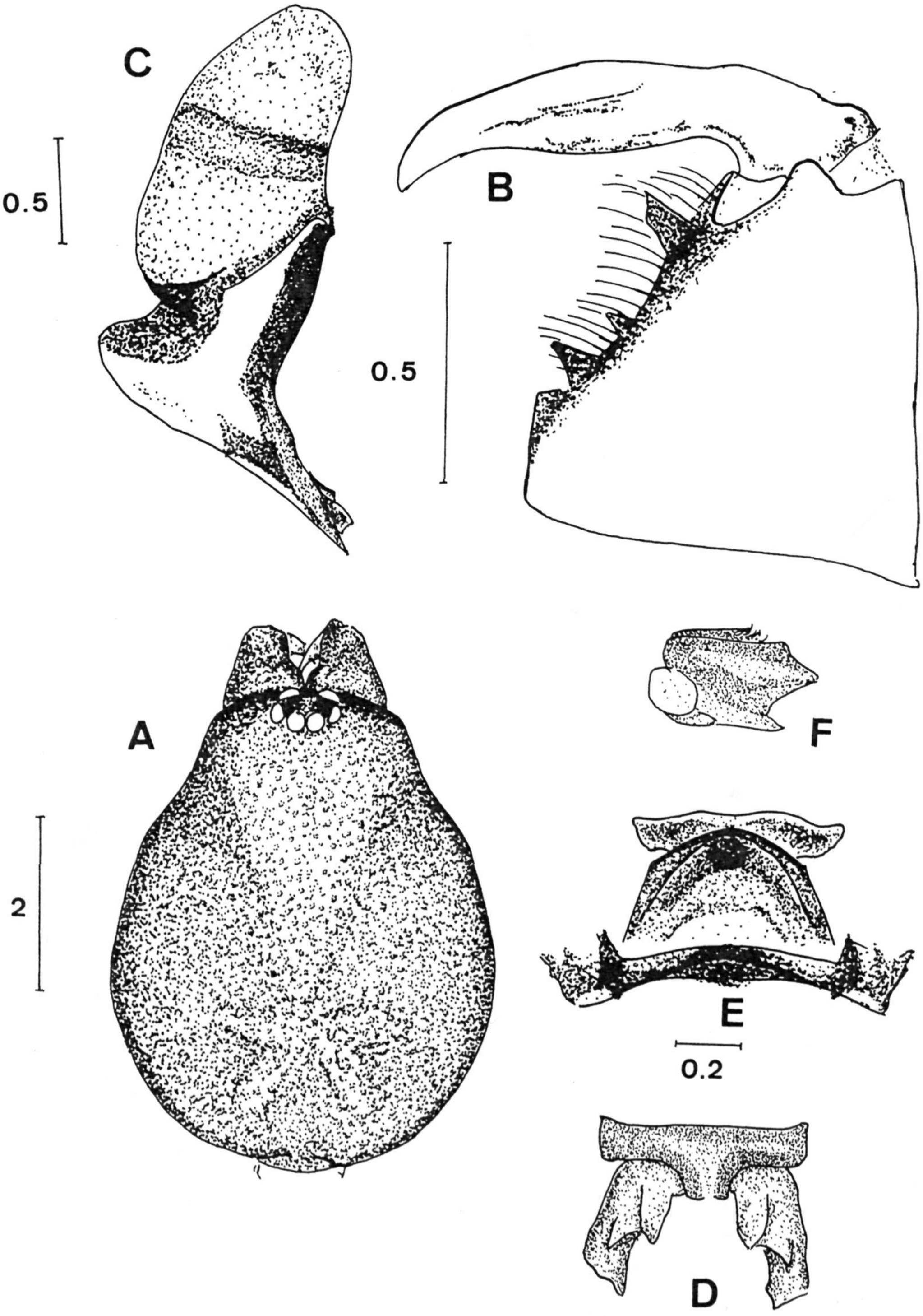


Fig. 20.—*A–F. Dysdera ramblae* sp. n.—*A.* Carapace, dorsal.—*B.* Left chelicera, ventral.—*C.* Left male bulbus, internal.—*D.* Endogyne, ventral.—*E.* Endogyne, dorsal.—*F.* Endogyne, lateral. Scale bars in millimetres.

DA (Fig. 20D–F) sclerotized around TB valva attachment as well as at ventral region; both regions completely fused, not distinguishable; DF around V wide. DA frontal border projected, pointed; lateral margins convergent in dorsal view; scantly wider than long. Ventral tooth-like projections developed from S attachment; not turned to lateral sides; shorter than lateral sclerotization of the DA; small lateral slit. S arms as long as DA; straight; tips not projected; neck as wide as arms. TB usual shape.

ALS (Fig. 22A) with piriform gland spigot in polar position; remaining piriform spigots more external than major ampulate gland spigot; 15+1 piriform gland spigots; PMS and PLS (Fig. 22B–C) with 10–15 aciniform gland spigots.

Intraspecific variation. In some male palps a projected crest tip could be observed (Fig. 21C). Spination variability in Table IV.

Distribution. An abundant species from laurel forest related habitats of La Gomera (Canary Islands).

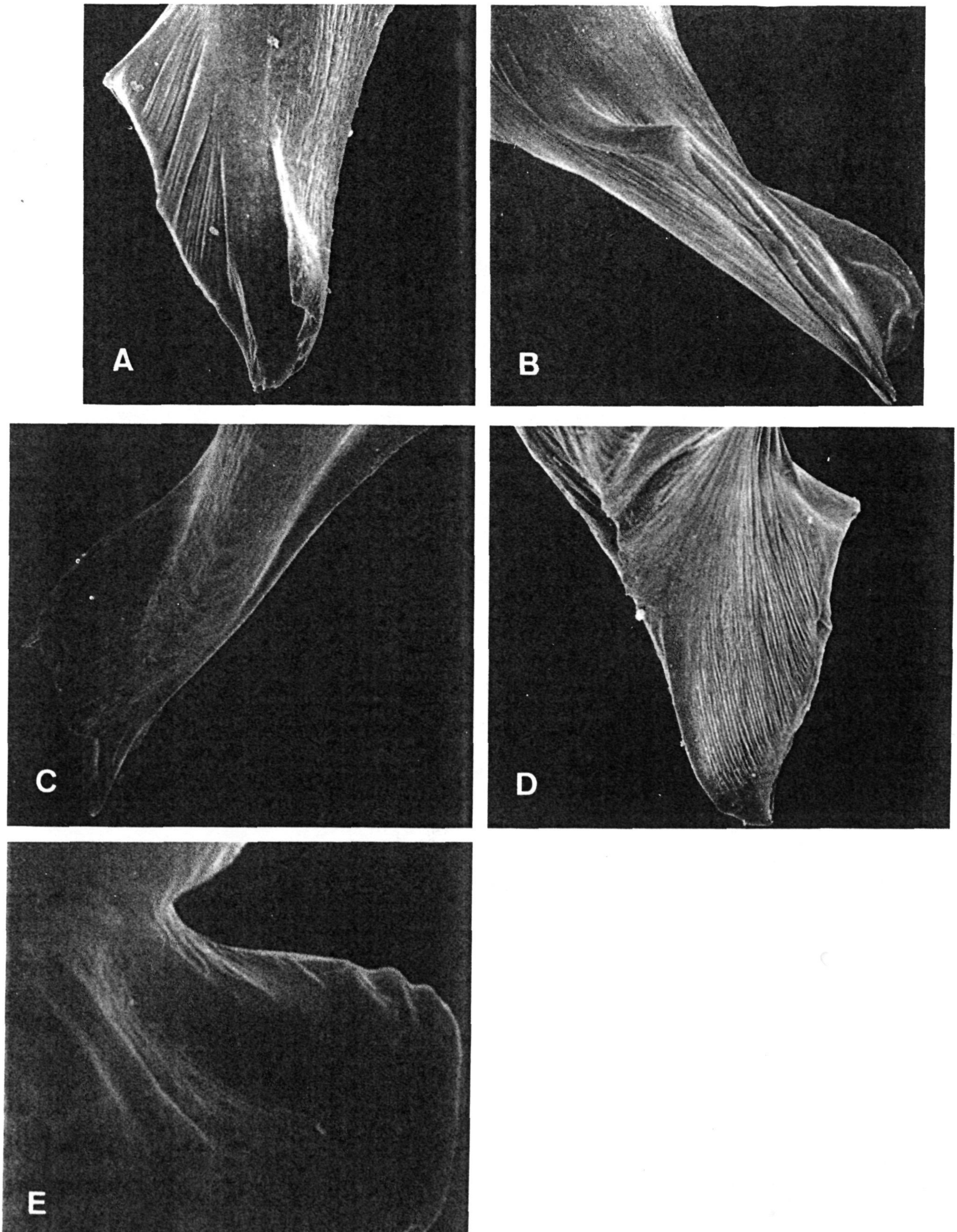


Fig. 21.—A–E. Dysdera ramblae sp. n.; right male bulbus.—*A*. DD, frontal.—*B*. DD, external.—*C*. DD, internal: C variability.—*D*. DD, posterior.—*E*. P, internal.

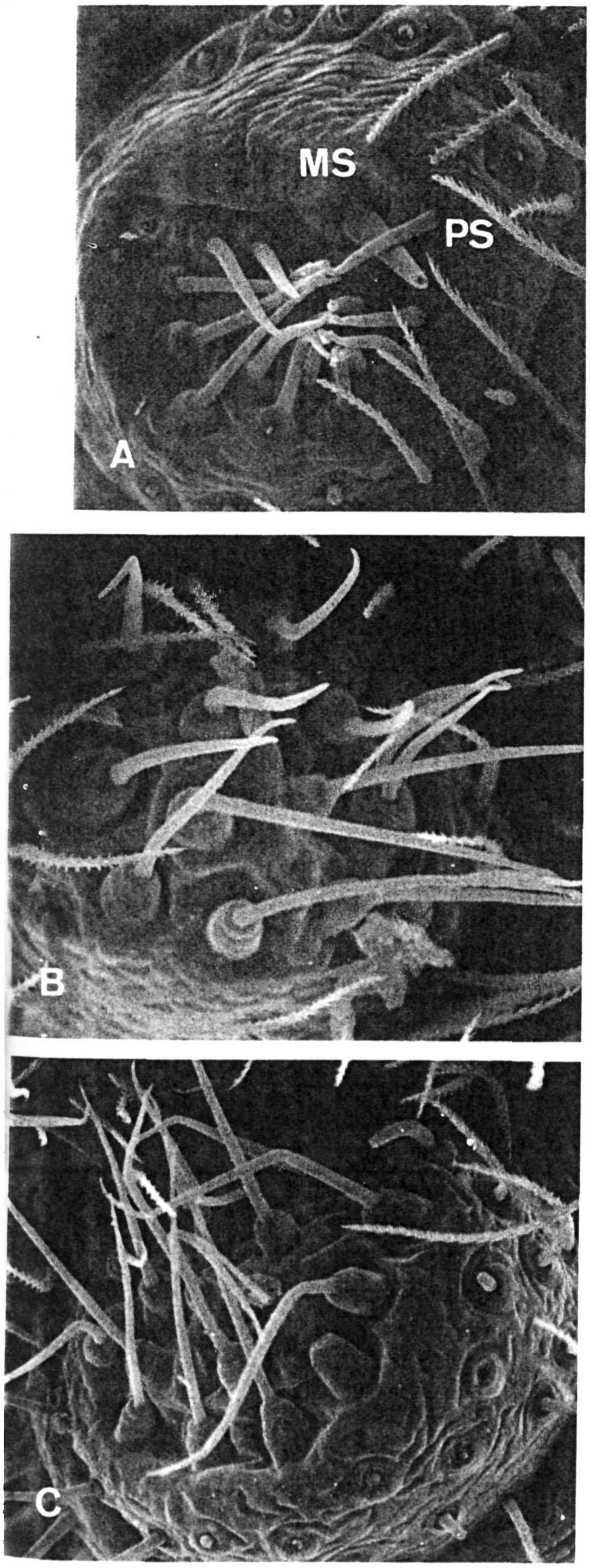


Fig. 22.—A–C. Dysdera ramblae sp. n.; female spinnerets.—*A.* Left ALS.—*B.* Left PMS.—*C.* Right PLS.

Table IV.*Spination variability of* Dysdera ramblae *sp. n.*

	Proximal	Med.–Proximal	Medial–Distal	Distal
Tibia 3 dorsal	1.0.0–1	0	0	1.0.0–1
Tibia 4 dorsal	1.0–1.0–1	0	0	1.0.1
Tibia 3 ventral	1.1–2.0	0	0	0–1.0.0
Tibia 4 ventral	1.1–2.0	0.0–1.0–2	1.0.0	0–1.0–1.0–1

	Number of rows	Number of spines
Femur 3 dorsal	0	0
Femur 4 dorsal	0	0

Dysdera ratonesis Wunderlich, 1991

Dysdera ratonensis Wunderlich, 1991: 306–307, fig. 99–100 [♀].-Arnedo & Ribera (in press), [♂,♀].

Diagnosis. Carapace nearly smooth, rhomboid, anterior lateral borders convergent. Cheliceral fang very long, basal segment scantly covered with granulations; distal tooth as big as basal and trapezoid-shaped. Bulbus C with straight distal margin. DA ventral sclerotization with inner projections scantly developed. This species can be easily distinguished by reduction in size of eyes. Very spinated legs II and IV differentiate it from similar *Dysdera curvisetae* Wunderlich, 1991.

Description. A complete redescription of this species (female redescription and male description) has been published elsewhere (Arnedo & Ribera, 1996).

Distribution. A troglobite species from lava tubes of La Palma.

Comments. This strongly eye-reduced species, represents the only known troglomorphic species of the genus in the Canaries, outside the island of Tenerife where six troglomorphic species have been described to date.

Dysdera rugichelis Simon, 1907 (Figs 23A–F, 24A–D, 25A–C)

Dysdera rugichelis Simon, 1907: 260–261, fig. 261[♂]. -Denis, 1941: 108 Schmidt, 1973: 360–361.-Wunderlich, 1987: 57, fig. 18 [♂].

Dysdera silvatica Schmidt, 1981: 89–90 [♀]; new synonymy.

Material examined. Dysdera rigichelis. Neotype, by present designation, 1♂ from Juan Adalid, Garafia, La Palma; 15/1/94; P. Oromí leg.; 2759 113 UB. La Gomera: Hermigua: Bco. de Aramaqué, near Los Aceviños; 28/4/95; Oromí & Arnedo leg.; 1♀ 2906 119 UB, 1♂ 2907 119 UB, 1♀ 2905 119 UB, 1♀ 4130 (46) Freezer UB, 1♀ 4129 (44) Freezer UB, 1 ♀ 4128 (41) Freezer UB. 1 ♂, 8/2/89; H. Enghoff leg.; 2666 109 ZMK. Bosque de El Cedro; 1♂; 13/4/75; J. M. Fernández leg.; 2782 114 UB. Las Campanas; 1/5/95; Oromí & Arnedo leg.; 1♀ 2931 120, 1♀ 4170 (126) Freezer UB. Pajarito; 29/4/95; Oromí & Arnedo leg.; 1♀ 2913 119 UB, 1♂ 2912 119 UB, 1♂ 2910 119 UB, 1♂ 4136 (69) Freezer UB, 1♂ 4134 (62) Freezer UB. Monte de Juan Tome, forest path to La Laja; 28/4/95; Oromí & Arnedo leg.; 1♂ 2894 118 UB, 1♀ 2896 118 UB, 1♀ 2897 118 UB, 1♀ 4119 (3) Freezer UB, 1♀ 4122 (19) Freezer UB, 1♂ 4120 (10) Freezer UB. Monte del Cedro, near old camping-site; 28/4/95; Oromí & Arnedo leg.; 1 ♂ 2900 119 UB, 1 ♀ 2901 119 UB, 1 ♀ 2903 119 UB, 1 ♀ 2902 119 UB, 1♀ 2904 119 UB, 1♀ 4125 (32) Freezer UB, 1♀ 4123 (24) Freezer UB, 1♀ 4126 (35) Freezer UB, 1♀ 4124 (31) Freezer UB. Vallehermoso: Chorros de Epina; 30/4/95; Oromí & Arnedo leg.; 1♀ 2917 120 UB, 1♂; 2916 119 UB, 1♂ 4141 (80) Freezer UB, 1♂ 4140 (77) Freezer UB. Forest path between Bco. Higuera and Bco. San Juan, road to Ermita de Sta.

Clara; 30/4/95; Oromí & Arnedo leg.; 1♀ 2920 120 UB., 1♀ 2923 120 UB. Plain land between Bco. Higuera and Bco. San Juan, road to Ermita de Sta. Clara; 30/4/95; Oromí & Arnedo leg.; 1♀ 4145 (87) Freezer UB, 1♀ 4150 (97) Freezer UB, 1♀ 4152 (101) Freezer UB, 1♀ 4153 (102) Freezer UB. Laguna Grande; 1♀; 29/12/95; Oromí leg.; 2972 122. San Sebastián: Bco. de de Juel; 1/5/95; Oromí & Arnedo leg.; 1♂ 2925 120 UB, 1♀ 2928 120 UB, 1♀ 2927 120 UB, 1♀ 4163 (117) Freezer UB, 1♂ 4155 (107) Freezer UB, 1♀ 4156 (109) Freezer UB, 1♀ 4157 (111) Freezer UB, 1♀ 4158 (112) Freezer UB, 1♀ 4166 (120) Freezer UB, 1♀ (+ eggs) 4168 (124) Freezer UB, 1♂ 4169 (125) Freezer UB. Bco. de Majona; 1♂; 26/12/94; P.Oromí leg.; 2694 122 UB. 1♀; 9/12/94; P.Oromí leg.; 4021 Freezer UB. 1♀; ?leg.; 4830 Freezer UB. La Palma: Barlovento: Pista de Machín, Observatorio road to Garafia. 1♂; 31/10/94; Arnedo leg.; 2947 121 UB. 1juv.; 28/10/94; Arnedo leg.; 2960 122 UB. 1juv.; 31/10/94; MA Arnedo leg.; 4177 Freezer UB: Roque de Los Muchachos 1juv.; 8/3/87; H. Enghoff leg.; 2648 109 ZMK. Garafia: Juan Adalid. 1♀ (redescription); 15/1/94; P. Oromí leg.; 2799 114 UB. 1♀; ?/2/94; P. Oromí leg.; 2815 115 UB. *Dysdera silvatica*: 1juv. holotype from Mte. del Cedro, La Gomera; ?/6/1976; G. Schmidt leg.; 3483 SMF.

Diagnosis. Carapace nearly smooth, frontal lateral borders convergent, sharpened at maximum dorsal width point. Chelicera basal segment completely covered with granulation; distal tooth largest, trapezoid-shaped. DD bent about 45° in lateral view; C poorly-developed, located far from the end of the embolus. This species can be easily distinguished by well-developed AL, shared with *D. enghoffi*. Reduction in spination, different L lateral border and endogyne ventral tooth-like projections as long as lateral sclerotization with large lateral slit separate both species.

Description. Male (Figs 23A–C, 24A–D). Carapace (Fig. 23A) 4.27 mm long; maximum width 3.5 mm; minimum width 2.24 mm. Brownish orange, frontally darker and becoming lighter towards back; smooth with some small black grains mainly anterior. Frontal border more or less rounded, about 1/2 of its length; lateral borders convergent; sharpened at point of maximum dorsal width, with back lateral borders straight; back margin wide and straight. AME diameter 0.25 mm; PLE 0.27 mm; PME 0.2 mm; AME on edge of frontal border, separated one from another about half a diameter, touching PLE; PME very close to each other, less than quarter of PME diameter from PLE. Labium trapezoid-shaped, base wider than distal part; longer than wide at base; with semicircular groove at tip. Sternum orange, uniformly distributed; very scantly wrinkled, mainly between legs and frontal border; uniformly covered in slender black hairs.

Chelicerae (Fig. 23B) 1.96 mm long, about 1/3 of carapace length in dorsal view; fang 1.35 mm long; basal segment dorsal, ventral sides completely covered with granulations. Chelicera inner groove short, about 1/3 of cheliceral length; armed with three teeth and lamina at base; distal tooth largest, basal as large as medial; distal tooth trapezoid, located approximately at centre of or scantly above groove; basal tooth close to basal lamina; medial tooth close to basal. Legs orange. Lengths of male described above: fe1 3.36 mm (all measurements in mm); pa1 2.33; ti1 2.8; me1 2.94; ta1 0.65; total 12.08; fe2 3.08; pa2 2.19; ti2 2.8; me2 2.75; ta2 0.65; total 11.17; fe3 2.47; pa3 1.49; ti3 1.68; me3 2.28; ta3 0.7; total 8.62; fe4 3.31; pa4 1.86; ti4 2.61; me4 3.22; ta4 0.75; total 11.75; fe Pdp 2; pa Pdp 1.17; ti Pdp 0.98; ta Pdp 1.07; total 5.22; relative length: I > IV > II > III. Spination: Palp, leg1, leg2 spineless. Fe3d spineless; pa3 spineless; tb3d spines arranged in two bands; proximal 1.0.1; distal 1.0.0; tb3v spines arranged in two bands; proximal 1.0.0; distal 1.0.0; with two terminal spines. Fe4d spines in one row, 2–1; pa4 spineless; tb4d spines arranged in two bands; proximal 1.0.1; distal 1.0.1; tb4v spines arranged in two bands; proximal 1.1.1; distal 1.0.0; with two terminal spines. Very long hairs on back legs as well as at pedipalps.

Abdomen 4.2 mm long; grey; cylindrical. Abdomen dorsal hairs 0.054–0.072 mm long, thick, straight, not compressed, blunt, with tip not enlarged, uniformly, thickly distributed.

Copulatory bulbus (Fig. 23C) T scantly smaller than DD; DD bent about 45° in lateral view. DD sclerites equally developed; internal sclerite truncated at middle part of haematodoca. DD tip (Fig. 24A–C) with upper and lower sheets sticking together; upper sheet not projected over lower one; sloped towards back in lateral view. C present, poorly-developed; located far from end of embolus; proximal border continuously decreasing; distal border scantly stepped; upper tip not projected, rounded; external side excavated. AC absent. LF absent. L well-developed; external border sclerotized, strongly fold; distal border divergent, not continuous, with small fold at middle point. LA absent. AL present, well-developed; proximal border smooth, not fused with the distal haematodoca. P (Fig. 24D) scantly sloped forming an angle of about 135° to T in lateral view; fused to T; narrow, reduced to ridge; scantly toothed, mainly on external side, along upper margin; few teeth, about 4–6; not distally projected.

Female (Figs 23D–F, 25A–C). All characters as in male except: Carapace 4.83 mm long; maximum width 3.99 mm; minimum width 2.38 mm AME diameter 0.29 mm; PLE 0.25 mm; PME 0.2 mm.

Chelicerae 2.38 mm long, fang 1.4 mm long. Lengths of female legs described above; fe1 3.54 mm (all measurements in mm); pa1 2.47; ti1 2.89; me1 2.42; ta1 0.65; total 11.97; fe2 2.66; pa2 2.19; ti2 2.75; me2 2.61; ta2 0.65; total 10.86; fe3 2.61; pa3 1.49; ti3 1.72; me3 2.42; ta3 0.65; total 8.9; fe4 3.54; pa4 1.91; ti4 2.61; me4 3.5; ta4 0.79; total 12.35; fe Pdp 1.86; pa Pdp 1.07; ti Pdp 0.89; ta Pdp 1.17; total 4.98; relative length IV > I > II > III. Spination: Fe4d one row, 3–2; tb4d spines arranged in two bands; proximal 1.1.1; distal 1.0.1; tb4v spines arranged in two bands; proximal 1.1.1–2; distal 1.0.0; with two terminal spines.

Abdomen 6.93 mm long; grey; cylindrical. Abdomen dorsal hairs 0.24–0.3 mm long, medium-sized, straight, not compressed, pointed, with tip enlarged, uniformly, thickly distributed.

DA (Fig. 23D–F) sclerotized around TB valva attachment as well as at ventral region; both regions completely fused, not distinguishable; DF around V wide. DA frontal border projected, pointed; lateral margins approximately parallel in dorsal view; twice as wide as long. Ventral tooth-like projections developed from S attachment; not turned to lateral sides; as long as DA lateral sclerotization; large lateral slit. S arms are shorter than DA; straight; ends projected forwards; neck wider than arms. TB usual shape.

ALS (Fig. 25A) with piriform gland spigot in polar position; remaining piriform spigots no more external than major ampulate gland spigot; 11 + 1 piriform gland spigots; PMS and PLS (Fig. 25B–C) with 10–15 aciniform gland spigots.

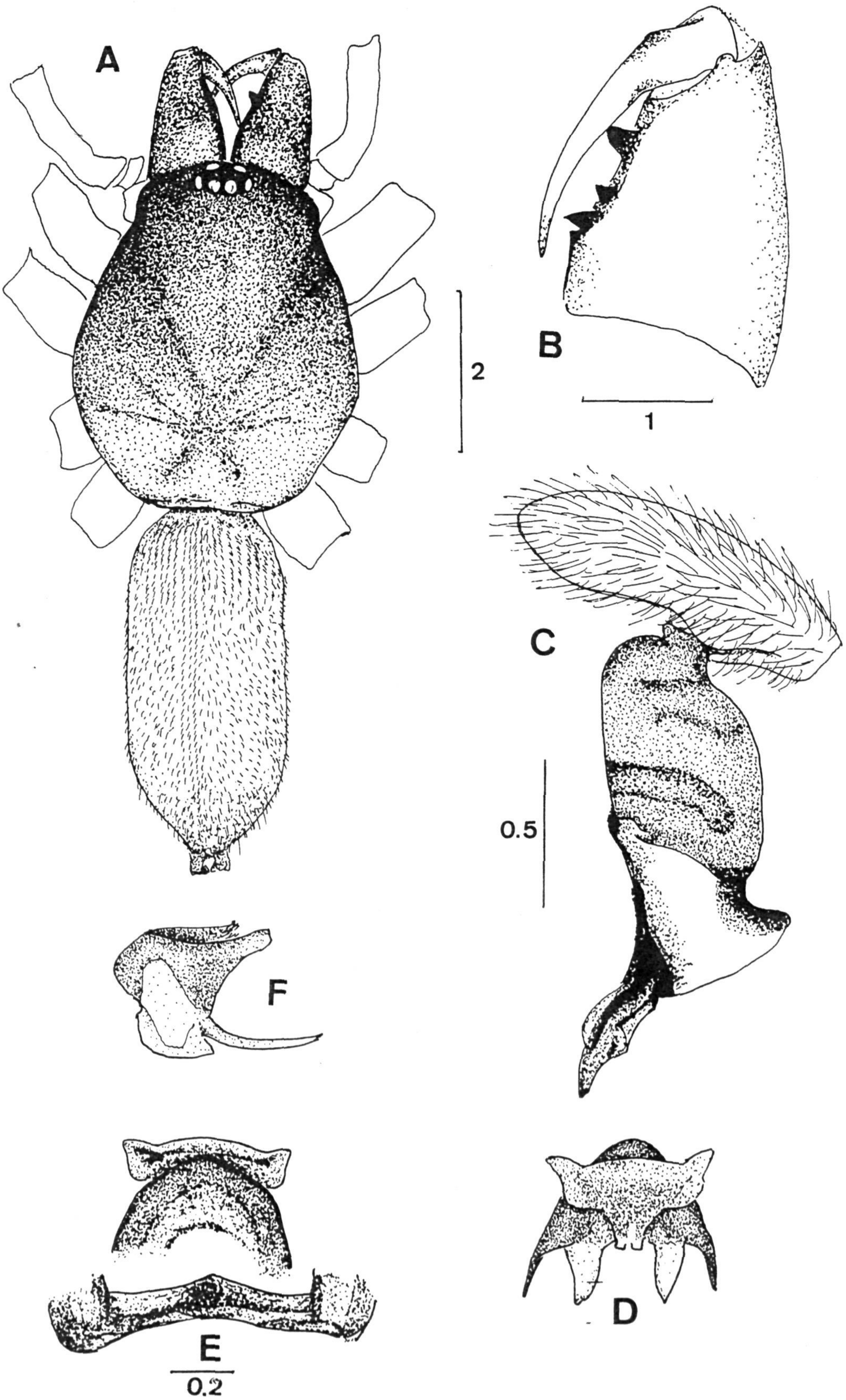


Fig. 23.—A–F. Dysdera rugichelis Simon, 1907.—*A*. Carapace and abdomen, dorsal.—*B*. Left chelicera, ventral.—*C*. Left male bulbus, external.—*D*. Endogyne, ventral.—*E*. Endogyne, dorsal.—*F*. Endogyne, lateral. Scale bars in millimetres.

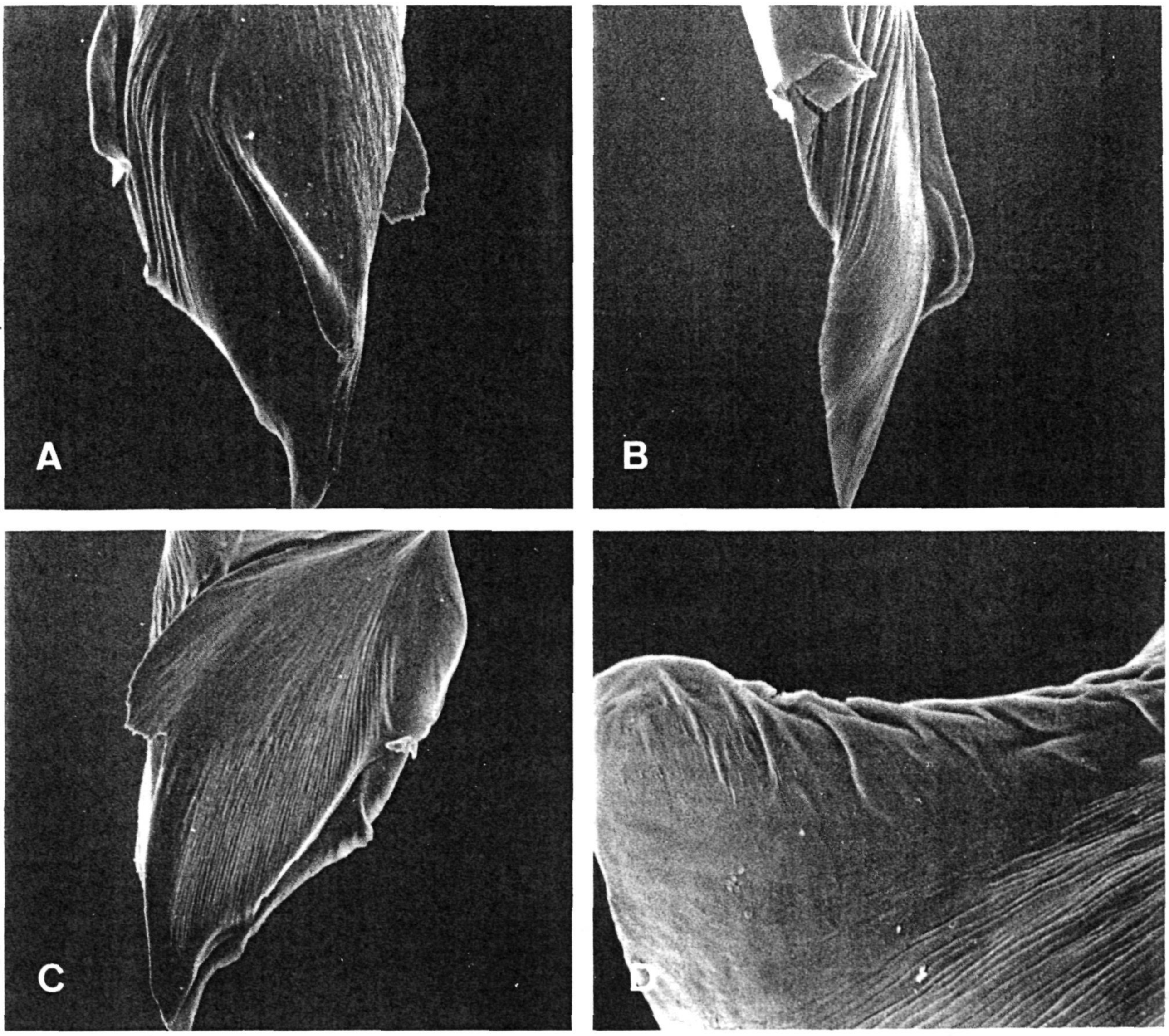


Fig. 24.—A–D. Dysdera rugichelis Simon, 1907; right male bulbus.—*A*. DD, frontal.—*B*. DD, external.—*C*. DD, posterior.—*D*. P, external.

Intraspecific variation. AME distance may be greater, about 2/3 diam in other specimens from La Palma. Specimens from La Gomera are slightly larger (carapace 5.0–5.9 mm long). Sometimes carapace darker and uniformly coloured. Eye separation variable: AME from 0.5 to 1 diam and PLE–PME from 1/4 to 1/3 diam. Sternum wrinkled. Some specimens show a reduction in chelicera granulation. In general, greater number of spines mainly on tb3 and fe4. Nevertheless, in both islands male and female genitalia are quite uniform. Spination variability in Table V.

Table V. *Spination variability of* Dysdera rugichelis

	Proximal	Med.–Proximal	Medial–Distal	Distal
Tibia 3 dorsal	1.0–3.1	0–1.0.0	0	1.0.0
Tibia 4 dorsal	1.0–1.1–2	0	0	0–1.0.1
Tibia 3 ventral	1.0–2.0–1	0	0	1.0.0
Tibia 4 ventral	1–2.0–1.1–2	0	0	1.0.0

	Number of rows	Number of spines
Femur 3 dorsal	0	0
Femur 4 dorsal	2	0–1/2–4

Distribution. A very abundant species distributed all over La Palma and La Gomera (Canary Islands). Schmidt (1975) cites this species from Monte Aguirre on the island of Tenerife. This specimen could not be examined.

Comments. The holotype of *D. silvatica* was examined and found to be a juvenile, not a female as originally described, indistinguishable from the rest of specimens assigned to *D. rugichelis*.

The presence of the next species in the western islands is considered to be doubtful, has not yet been confirmed, or is rejected.

Dysdera gomerensis Strand, 1911, *nomen dubium*

Dysdera insulana Simon, 1883 var. *gomerensis* Strand, 1911: 190.
Dysdera insulana ssp. *gomerensis* Strand, 1911 nec. Denis, 1941: 108.-Schmidt, 1973: 360–361.-Wunderlich, 1991:67, 294.
Dysdera gomerensis Strand, 1911 nec. Wunderlich, 1991: 294.

Distribution. La Gomera (Strand, 1911)

Comments. Dysdera gomerensis was originally described by Strand as a variety of *Dysdera insulana* and erroneously

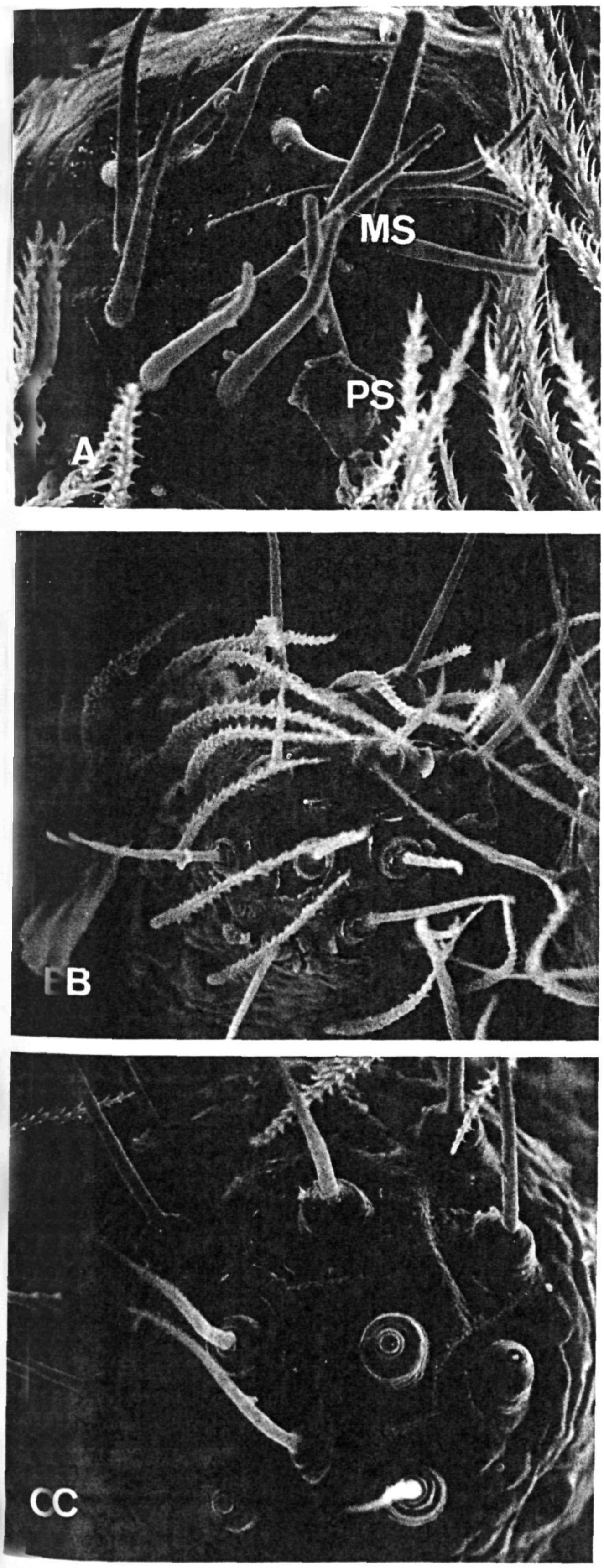


Fig. 25.—A–C. Dysdera rugichelis Simon, 1907; female spinnerets.—*A.* Left ALS.—*B.* Right PMS.—*C.* Right PLS.

listed as a subspecies by Denis (1941). Subsequently, Wunderlich (1991) considered it a different species on the grounds that no other case of subspecies of Canarian endemic *Dysdera* was know to him. Nevertheless, in a subsequent comment he raises the possibility of a synonymy with *D. insulana.*

The female specimen described was lost. The original description, which lacked any drawing, is so unspecific that more than one species collected in La Gomera could fit it. Moreover, none of the specimens from La Gomera that have been available for the present study seem to be similar to *D. insulana*. Therefore, it is proposed that this species is rejected.

Dysdera insulana Simon, 1883

Dysdera insulana Simon, 1883: 294–295, fig. 19 [♂] (♂, nec ♀).- Simon, 1907: 257–258, fig A [♂].-Strand, 1911:190.-Reimoser, 1919.- Denis, 1941: 108.-Denis, 1953: 2.-Schmidt, 1973: 360–361.-Wunderlich, 1991: 67, 296. *Dysdera insulana gomerensis* Strand, 1911.-Wunderlich, 1991: 64, 294.

Distribution. La Palma and Lanzarote (Simon, 1907), El Hierro (Wunderlich, 1991), Tenerife (1♀, Denis, 1953).

Comments. The original description of the species (Simon, 1883) lacked any information regarding the island where the specimens were collected. In a subsequent redescription, the locations were known from newly collected material (Simon, 1907). Male material of that species, which was supposed to be stored at the MNHN, seems to have been lost. The only material of that species that could be found and examined consisted of three females from the MNHN at Paris. Because that material was collected by Dr Verneau, they are the females that Simon used in his original description of the species (Simon, 1883) and that he synonymized to *Dysdera nesiotes* Simon, 1907 (Simon, 1907). Nevertheless on examination of that material, they are considered not to be *D. nesiotes.* They strongly resemble the endemic *Dysdera obscuripes* Wunderlich, 1991 a relatively abundant species known only from Tenerife. Moreover, this species fits well with both Simon's descriptions and his drawings, although they are unspecific enough to correspond to more than one Canarian species.

Regarding the locations, some of them are thought to be doubtful. Specimen collected in La Palma, Lanzarote or El Hierro have failed to fit this species description. The endemic species known from the eastern islands (Fuerteventura and Lanzarote) represent a different clade from the ones of the Western Islands (Arnedo & Ribera, unpublished data) with quite different characters, mainly at the male bulbus. Simon's drawings show the typical western pattern, with a small apophysis at the bulbus tip. No species with that pattern have been found in Lanzarote to date. Wunderlich (1991) notes the presence of that species in El Hierro, through the study of two specimens, stored in his personal collection but which unfortunately could not be available for study. Even though these specimens had been determined as *D. insulana*, their status was considered to be doubtful. They seem to be very similar to a male specimen from La Gomera (Wunderlich, 1991) that has subsequently been determined as *D. rugichelis.* About 45 *Dysdera* specimens from El Hierro have been collected and examined. All of them belong to the endemic species *D. clavisetae.* As far as most of the island habitats were sampled in that collection (from laurel forest to lava tubes) the presence of *D. insulana* in El Hierro is considered to be doubtful. Finally, the citation of that species in Tenerife (Denis, 1953) could be due to the resemblance of the original descriptions with *D. obscuripes*, if they are not actually the same species.

Dysdera macra Simon, 1883

Dysdera macra Simon, 1883:295–296, Fig. 18 [♂].-Simon, 1907: 259–260, fig. D [♂].-Strand, 1911.-Reimoser, 1919: 200.-Denis, 1941: 108.-Schmidt, 1973: 360–361.

Distribution. La Gomera (Strand, 1911).

Comments. As in the former species, the type locality was assigned afterwards. Male material of that species, which was supposed to be stored at the MNHN, seems to have been lost. The only material of that species that could be examined, was a juvenile from the MNHN at Paris, which was considered after examination to belong to the cosmopolitan species *Dysdera crocota.* This specimen probably corresponds to the, supposedly, female material used in the original description. Nevertheless, it turned out to be neither a female, nor an endemic species. Both description and drawings of the male strongly resemble some closely related species endemic to Tenerife: *D. brevisetae, Dysdera pergrada* Wunderlich, 1991; *Dysdera pseudopergrada* Wunderlich, 1991; *Dysdera tabaibaensis* Wunderlich, 1991 and *D. teideensis.* All these species share some features which are quite uncommon in canarian *Dysdera*: oval-shape carapace, spineless legs, a very short T, strong sclerotization of the DD external sclerite and a short, distally projected P. None of these species possesses a double-toothed posterior apophysis in the male bulbus. The female originally described as well as the one described by Strand (1911) had spines at the femur IV and tibia III–IV. It would seem likely that neither simon's nor strand's belong to that species. Because the locality of that species was only known from strand record, its presence of that species in La Gomera is considered to be doubtful. Therefore, this species lacks any known locality.

Dysdera nesiotes Simon, 1907

Dysdera wollastoni Blackwall, 1864 nec. Kulczynski, 1899: 23–26. fig 22–24 [♂].
Dysdera insulana Simon, 1883: 297–298 (♀, non ♂).
Dysdera nesiotes Simon, 1907:260–261, fig. 4G [♂].-Reimoser, 1919:200.-Denis, 1963: 37–38.-Schmidt, 1973: 360–361.-Rambla, 1978:132–133.
Dysdera wollastoni nesiotes Simon, 1912: 59–60.-Denis, 1941: 108.

Distribution. Selvaghens Islands (Kulczynski, 1899, Rambla, 1978), La Palma and Tenerife (Simon, 1907)

Comments. The species *Dysdera nesiotes*, which supposedly inhabited La Palma and Tenerife, is considered not to be present in these islands. Using both Simon's (1907) descriptions and drawings of the male bulbus and Kulczynski's (1899) redescription and drawings, specimens belonging to this species are easily identifiable. Nevertheless, all the specimens identified as *D. nesiotes* after Simon's original description have been collected on the island of Lanzarote, the rocky islands of Graciosa, Montaña Clara and Alegranza and the Selvaghens Islands. Endemic *Dysdera* fauna (five species) of these islands together with Fuerteventura differ strongly from the western endemics. Their presence in La Palma and Tenerife would be extremely strange. A complete redescription of this species as well as an exhaustive list of locations where it has been collected will be published in a paper devoted to the Eastern islands.

Ecology

Both distribution and plant composition of the different terrestrial ecosystems in the Canaries, as well as in most oceanic archipelagos, are closely related to altitude and humidity. In the case of the Canary Islands, the northern slopes are the most humid. Due to the effect of the moist trade winds from the northeast at low altitude, and from the northwest at a higher one, an approximately permanent cloud belt can be found between 600 and 1000 m, and is the wettest place on the islands. Vegetation can be divided into several layers according to elevation and orientation. Coastal vegetation is mostly halophitic. Up to 600 m many different kinds of xeric shrubs can be found. The laurel forest is present on the northern slopes between 600–1000 m. The most abundant tree species in the laurel forest, a kind of subtropical forest, are: *Persea indica, Laurus azorica, Picconia excelsa.* Above this forest, in drier or rugged areas, these species are replaced mainly by *Erica arborea* and *Myrica faya*, which form the so-called 'fayal-frezal'. The same species are dominant in transition or in rugged areas of the laurel forest. The highest parts of the islands (above 1200 m) are usually covered with xeric subalpine shrubs. The situation on the south-western slopes is quite different. The transition areas between the plant associations are usually higher, and the laurel forest is replaced by the *Pinus canariensis* forest (800–2000 m). This model fits well with the situation in the Western islands as well as in Tenerife and Gran Canaria. The Eastern islands are low and are eroded. They are usually influenced by the east winds from the Sahara. Most areas are dry lowlands and the situation is quite different. Finally, a completely different habitat, not related to elevation, is the hypogean environment: the lava tubes and the so-called MSS (mesocavernous shallow stratum) (Juberthie *et al.*, 1980,1981), more precisely the volcanic MSS (Oromí *et al.*, 1986; Medina, 1991).

Dysdera species are usually collected under relatively wet leaf-litter, under log bark (*D. levipes*) or beneath stones, where they build silk cocoons to rest in during daylight.

All the species found in La Gomera were collected in the laurel forest or in the fayal-brezal forest, except *D. orahan*, known from a dry halophytic locality, the only place in this island with organogenic sands.

While some of the species seem to be exclusive to the native forests (*D. ramblae, D. calderensis, D. levipes*) others have been collected in very rugged places such as reforested woods or deforested areas (*D. clavisetae, D. enghoffi, D. hirguan, D. rugichelis*). Curiously, *D. calderensis*, closely related to the humid forest in La Gomera, was found in very dry, halophytic places in La Palma as well as in pine forest and in lava tubes. The same thing occurs with *D. rugichelis*, which shares most of *D. calderensis's* locations in La Palma having also been above 2000 m, and with *D. clavisetae*, which is distributed all over El Hierro.

Affinities

All the endemic *Dysdera* species from the Canaries (with the exception of *D. lancerotensis*, which is closely related to *D. crocota*) belong to two different monophyletic groups whose joint monophyly remains uncertain (Arnedo & Ribera, unpublished data). The biogeographical distribution of these two clades corresponds to the Eastern islands (Lanzarote and Fuerteventura) and the Western ones (Gran Canaria, Tenerife, La Gomera, La Palma and El Hierro). The most important synapomorphy of the western clade is the presence of a crest (C) at the frontal tip of the male bulbus. Even though all the species that have colonized the westernmost islands belong to the western clade, they are not a monophyletic group. Their morphologically closest species are endemics to Tenerife and Gran Canaria.

Dysdera calderensis' most similar species are *D. cribellata* from Tenerife and *D. tilosensis* Wunderlich, 1991 from Gran Canaria. These three species share a very similar carapace shape, with characteristic ornamentation, a common spination pattern and a copulatory bulbus with the DD bent about 45° from the T, a well-developed C with its distal tip projected and pointed, and a continuous, divergent L.

Dysdera levipes is closely related to the troglomorphic *D. gollumi* from Tenerife. Both species are spineless and their legs are typically bicoloured. They share a greatly granulated and hairy carapace and their chelicerae are very small.

Dysdera ratonensis together with *D. curvisetae* and an undescribed species from Gran Canaria, form a similar group of species. Carapace shape and spination pattern are their common features. *D. clavisetae* bears some degree of similarity to the former species. Nevertheless, it shares a parallel, not divergent, margin of bulbus L, a relatively uncommon character-state, with *D. brevispina* from Tenerife.

Dysdera ramblae and *D. orahan* share some similarities, mainly related to carapace and chelicera characters. Ventral sclerotization of the endogyne is very similar in *D. ramblae* and *D. obscuripes* from Tenerife, with small tooth-like projections bent towards the external sides.

Maybe the most morphologically divergent species in the western islands are *D. enghoffi*, *D. hirguan* and *D. rugichelis*. Characteristic features of these closely related species are: carapace shape, tooth-like ventral sclerotization of the endogyne, and male bulbus pattern, with a triangular shape of the tip in frontal view, a poorly developed C, a folded L external margin and a greatly developed AL (*D. hirguan* male is unknown). Their external relationships are uncertain. Their ventral endogyne pattern is uncommon in the remaining species, although *D. ambulotenta* Ribera *et al.*, 1985 and *D. gibbifera* Wunderlich, 1991 from Tenerife, display a moderately developed AL in the copulatory bulbus, although not so conspicuous as in the former species.

Even though from the point of view of morphological similarity the colonization of the western islands seems to have taken place more than once, this result should be tested in a phylogenetic framework. Preliminary results of a cladistic analysis performed on a sample of Canarian *Dysdera* species (Arnedo & Ribera in prep.) support a polyphyletic origin of the Western Islands species.

The colonization between the three islands (La Gomera, La Palma and El Hierro) is perhaps more straightforward. As far as species of both El Hierro and La Palma (with the exception of the cave-dwelling species *D. ratonensis*) are present in La Gomera, the emerging pattern seems to suggest a diversification of species in La Gomera followed by independent colonization events in El Hierro and La Palma. Only one species is considered to inhabit El Hierro, therefore a single colonization could account for it. La Palma holds three different species. In this case, at least three different processes could have occurred. Four colonization events are the minimum estimation since more than one individual of each species could have independently colonized the islands. Although morphological data do not seem to support this possibility, genetic data would be necessary to reject it definitively. Absence of any close relative to *D. ratonensis* in La Gomera could be explained as inconclusive—they do exist but have not been found—, or as a real fact. In the second case, extinction of its relative in La Gomera or direct colonization from Tenerife, which is inhabited with similar species, should be hypothesized.

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4.1.1.1. Addenda

Amb posterioritat a l'elaboració i publicació de la revisió dels endemismes de les illes occidentals, es va tenir la possibilitat d'estudiar nou material recol.lectat a aquestes illes. La dada més interessant aportada per aquests exemplars és la presència a la illa d'El Hierro de l'espècie *D. orahan*, la qual només era coneguda de La Gomera. A més, en aquesta addenda també s'inclou la redescripció de *D. ratonensis*, l'única espècie troglomorfa de *Dysdera* canària coneguda fora de Tenerife, la qual va ser publicada amb anterioritat a la realització de la revisió de la resta d'endemismes occidentals (Arnedo i Ribera 1996). La present redescripció inclou nou material, així com caràcters definits amb posterioritat a l'el.laboració de la versió anterior.

Dysdera orahan Arnedo, Oromí & Ribera, 1996

Dysdera orahan Arnedo, Oromí & Ribera, 1996: 261-263, Figs 17-18 [♂].

Material examined.- El Hierro: Frontera: Mirador de Bascos; 1♂; 3/2/97, P. Oromí leg.; num. 3200 stored at UB.

Distribution.- Very rare species from La Gomera and El Hierro.

Comments.- The presence of this species in the island of El Hierro is reported for the first time. Previous knowledge of *D. orahan* was restricted to a single male from Punta Llana, La Gomera. The same biogeographical pattern, i.e. populations of the same species inhabiting both La Gomera and El Hierro, is exhibited by *D. liostethus* Simon, 1883 (=*D. clavisetae* Wunderlich, 1991).

Dysdera ratonensis Wunderlich, 1991
(Figs 23A-G, 24A-F)

Dysdera ratonensis Wunderlich, 1991: 306-307, Figs 99-100 [♀].- Arnedo & Ribera, 1996: 109-122, Figs. 1-14 [♂,♀].

Types.- Holotype female (a cephalotorax and some legs), label states 'Dysdera ratonensis WUNDERLICH, Holotype female'. Cueva del Ratón, Fuencaliente, La Palma; 17/8/86, J.L. Martín leg.; num. P-RA-36. Stored at UL. Examined.

Diagnosis.- Carapace nearly smooth, rhomboid, anterior lateral borders convergent (fig. 23A). Cheliceral basal segment proximal side covered with granulations; distal tooth as big as basal and trapezoid-shaped (fig. 23B). DA ventral sclerotization with tooth-like projections slightly developed (fig. 23F). This species can be easily distinguished by reduction in size of eyes (fig. 23A).Very spinated legs 3 and 4 differentiate it from similar *Dysdera curvisetae* Wunderlich, 1991.

Description.- *Male* (figs 23A-D, 24A-D): Carapace (fig. 23A) 6.72 mm long; maximum width 5.27 mm; minimum width 3.5 mm. Dark red, frontally darker, becoming lighter towards back; slightly foveate at borders, slightly wrinkled with small black grains mainly at front. Frontal border roughly straight, from 1/2 to 3/5 carapace length; anterior lateral borders convergent; sharpened at maximum dorsal width point, back lateral borders straight; back margin narrow, straight. Eyes markedly reduced but all present; AME diameter 0.144 mm; PLE 0.177 mm; PME 0.072 mm; AME separation 0.396 mm; AME-PLE separation 0.072 mm; PLE-PME separation 0.18 mm; PME separation 0.099 mm. Labium trapezoid-shaped, base wider than distal part; longer than wide at base; semicircular groove at tip. Sternum reddish orange, frontally darker becoming lighter towards back; very slightly wrinkled, mainly between legs and frontal border; uniformly covered in slender black hairs.

Chelicerae (fig. 23B) 3.15 mm long, about 2/5 of carapace length in dorsal view;

fang medium-sized, 1.82 mm; basal segment proximal border of dorsal side strongly covered with piligerous granulations. Chelicera inner groove short, about 1/3 cheliceral length (0.38 mm); armed with three teeth and lamina at base; D=B>M; D trapezoid, located roughly at centre of groove; B close to basal lamina; M close to B. Front legs dark orange, back legs yellow. Lengths of male described above: fe1 6.23 mm (all measurements in mm); pa1 4.06; ti1 6.09; me1 5.53; ta1 1.05; total 22.96; fe2 5.74; pa2 3.57; ti2 5.74; me2 5.25; ta2 1.05; total 21.35; fe3 4.55; pa3 2.52; ti3 3.36; me3 4.13; ta3 0.91; total 15.47; fe4 5.95; pa4 3.22; ti4 4.83; me4 5.67; ta4 1.19; total 20.86; fe Pdp 3.15; pa Pdp 1.82; ti Pdp 1.47; ta Pdp 1.68; total 8.12; relative length: 1>2>4>3. Spination: palp, leg1, leg2 spineless. Fe3d spines in one row: 2; tb3d spines arranged in three bands: proximal 0.0.1; medial-proximal 1.2.1; distal 1.0.1; tb3v spines arranged in two bands: proximal 1.2.0; distal 1.0.0; with two terminal spines. Fe4d spines in two rows; forward 1-0, backward 4-3; tb4d spines arranged in four bands: proximal 1.0.1; medial-proximal 1-0.1.1; medial-distal 2-0.0-1.0; distal 1.0.1; tb4v spines arranged in three bands: proximal 0.0.0-1; medial-proximal 1-0.2-0.1; distal 1.0-1.1; with two terminal spines. Dorsal side of frontal legs covered with small piligerous grains; ventral side covered with hairs. Claws with 10-14 teeth.

Abdomen 6.65 mm long; whitish; cylindrical. Abdominal dorsal hairs 0.018-0.054 mm long; medium-sized, roughly straight, not compressed, blunt, tip enlarged; uniformly, scantly distributed.

Male copulatory bulbus (fig. 23C-D) T as long as DD; external, internal distal borders sloped backwards. DD slightly bent in lateral view, clearly less than 45º; internal distal border not expanded. ES more sclerotized than IS; IS truncated at DD middle part. DD tip (figs 24A-C) straight in lateral view. C present, short; distal end on DD internal tip; well-developed; located close to DD distal tip; proximal border sharply decreasing; distal border stepped, upper tip projected, pointed, external side hollowed. AC present. L well-developed; external border not sclerotized, laterally slightly folded; distal border divergent, most external part perpendicular, continuous. AL present, hardly visible except for a small notch; proximal border in posterior view fused with DH. P (fig. 24D) fused to T; perpendicular to T in lateral view; lateral length from 2/3 to as long as T width; ridge present, perpendicular to T, not expanded; upper margin slightly toothed, mainly on external side, along its extent, few teeth (4-6); not distally projected; back margin not folded.

Female (figs 23E-G, 24E-F): All characters as in male except: Carapace 6.16 mm long; maximum width 5.32 mm; minimum width 3.64 mm. AME diameter 0.171 mm; PLE 0.162 mm; PME 0.126 mm; AME separation 0.432 mm; AME-PLE separation 0.036 mm; PLE-PME separation 0.162 mm; PME separation 0.054 mm.

Chelicerae 3.22 mm long; fang 2.38 mm. Lengths of female described above:; fe1 6.3 mm (all measurements in mm); pa1 4.2; ti1 5.6; me1 5.25; ta1 1.05; total 22.4; fe2 5.32; pa2 3.64; ti2 5.18; me2 4.97; ta2 0.84; total 19.95; fe3 4.55; pa3 2.59; ti3 3.5; me3 4.34; ta3 0.84; total 15.82; fe4 5.81; pa4 3.15; ti4 4.48; me4 5.81; ta4 1.05; total 20.03; fe Pdp 2.8; pa Pdp 1.4; ti Pdp 1.54; ta Pdp 2.1; total 7.84; relative length 1>4>2>3. Spination: palp, leg1, leg2 spineless. Fe3d spines in one row: 1; tb3d spines arranged in three bands: proximal 0.0.0-1; medial-proximal 1.2.1; distal 1.0.1; tb3v spines arranged in two bands: proximal 1.2.1; distal 1.0.0; with two terminal spines. Fe4d spines in two rows: forward 1, backward 6-5; tb4d spines arranged in four bands: proximal 1-0.0.2; medial-proximal 1-0.1.1; medial-distal 2-0.2-0.0; distal 1.0.1; tb4v spines arranged in three bands: proximal 0-1.3.1-0; medial-proximal 1.2-1.1; medial-distal 0; distal 1.1.1; with two terminal spines.

Abdomen 7.7 mm long; whitish; cylindrical. Abdominal dorsal hairs 0.018-0.032 mm long; medium-sized, roughly straight, not compressed, blunt, tip enlarged; uniformly, scantly distributed.

Endogyne (fig. 23E-G) DA not distinguishable from VA; arch-like, frontally rounded; DA slightly wider than long; DF wide in dorsal view. MF margins fused, sheet-like, well-developed, completely sclerotized. VA frontal region completely sclerotized; posterior region sclerotized at most anterior area; small scale on back border internal part; AVD cleraly recognizable. S attachment not projected under VA; arms as long as DA, slightly curved; ends projected forwards; neck as wide as arms. TB usual shape.

ALS (fig. 24E) with PS; remaining piriform spigots more external than MS, arranged in three rows; 10+1 piriform gland spigots; PMS, PLS (fig. 24F) with more than 20 aciniform gland spigots.

Material examined.- La Palma: Barlovento: Cueva Honda de Gallegos; 1 juv.; 5/9/86, J.L. Martín leg.; num. 2756 stored at UL. El Paso: Cueva Tacande; 1♀; 11/6/95, R. García leg.; num. 3176 stored at R. García p. col.. Fuencaliente: Cueva Arreboles; 1♀, 2 juv.; 5/11/95, R. García leg.; num. 3177 stored at R. García p. col.. Cueva de los Palmeros; 1♂; 27/11/93, R. García leg.; num. 2579 stored at R. García p. col.. 1♂ (description), 1juv.; 6/9/91, R. García leg.; num. 2578 stored at UL. 2juv. num. 2946/2956, some remains num. 2830, 1♀ (redescription) num. 2824; 26/10/94, MA. Arnedo, C. Ribera & A. Serra leg.; stored at UB. Cueva del Ratón; 3 juv. num. 2753-2755, 3 carapaces num. 2702, 2711-2712; 17/8/86, J.L. Martín leg.; stored at UL. Garafía: Cueva Honda de la Fajanita; 1♂ subad.; 10/11/95, R. García leg.; num. 3178 stored at R. García p. col.. Villa de Mazo: Cueva Callejones; 1♂ subad., 1 juv.; 3/4/96, R. García leg.; num. 3175 stored at R. García p. col.. Cueva del Canal; 1 juv.; 28/11/94, R. García leg.; num. 3179 stored at R. García p. col.. Cueva del Salto del Tigalate; 1♂, 1juv.; 7/8/94, R. García leg.; num. 2807 stored at R. García p. col.. Some remains; 1/11/94, M.A. Arnedo & R.F. García leg.; num. 2830 stored at R. García p. col..

Intraspecific variation.- Male cephalotorax ranges in length from 5.74 to 6.09 mm, female from 5.81 to 6.51 mm. In the specimens from Cueva Honda de La Fajanita and ueva Honda de Gallegos eye reduction is very slightly, nearly absent.

Spination variability:

	Proximal	Med.-Proximal	Med.-Distal	Distal
Tibia 3 dorsal	0-1.0.1	1.2.1	0	1.0-1.1
Tibia 4 dorsal	0-1.0-1.1-2	0-1.1.1	0-2.0-2.0-1	1.0.1
Tibia 3 ventral	1.2.0-1	0	0	1.0.0-1
Tibia 4 ventral	0-1.0-3.0-1	2-0.0-2.0-1	0	1.0-1.1

	Number of rows	Number of spines
Femur 3 dorsal	1	1-2
Femur 4 dorsal	2	0-1/3-6

Distribution.- Endemic species from the lava tubes of the island of La Palma.

Comments.- This markedly eye-reduced species, represents the only known troglomorphic species of the genus in the Canaries outside the island of Tenerife, where 6 troglomorphic species have been described to date. Nevertheless the recent discovery of a juvenil specimen of *D. ratonensis* without a clear eye reduction, may suggest that both epigean and troglobitic populations of these species coexist in La Palma. Additional data should be provided to confirm this hypothesis.

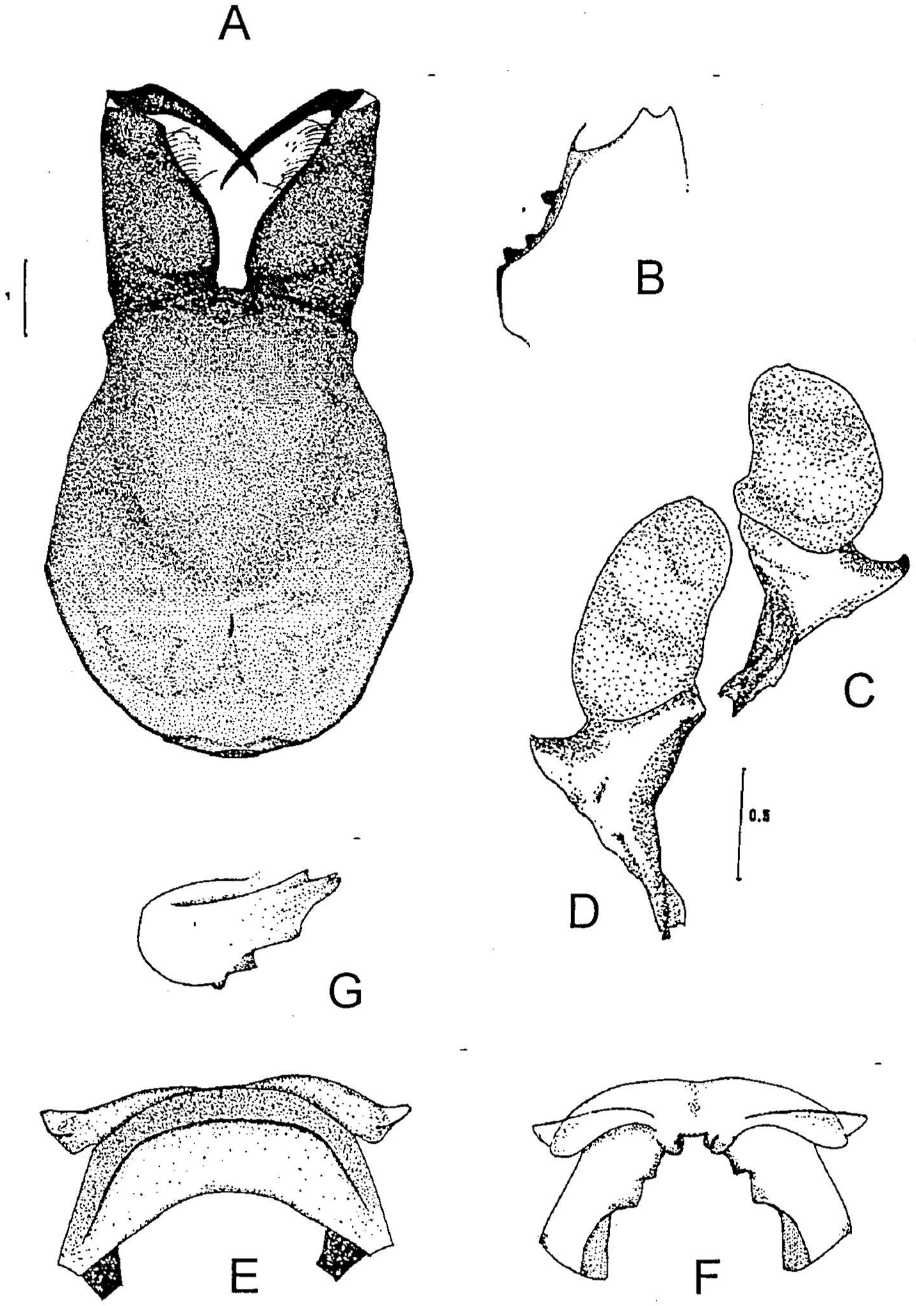

Figure 23.-A-F. *Dysdera ratonensis* Wunderlich, 1991.-**A.** Carapace dorsal.-**B.** Left chelicera, ventral.-**C.** Left male bulbus, external.-**D.** Left male bulbus, internal.-**E.** Endogyne, dorsal.-**F.** Endogyne, ventral.-**G.** Endogyne, lateral.

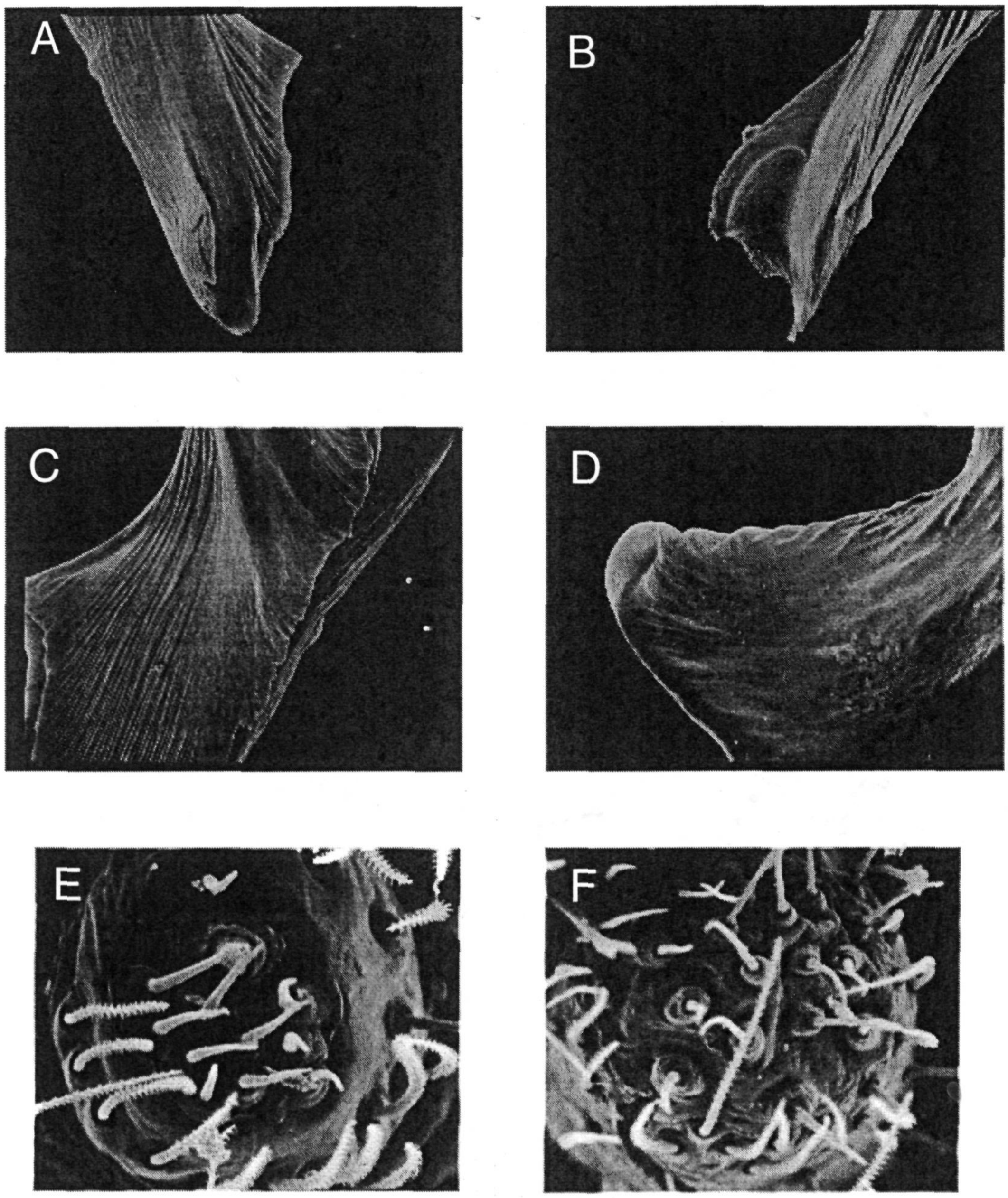

Figure 24.-A-F. *Dysdera ratonensis* Wunderlich, 1991.-**A.-D.** Left male bulbus.-**A.** DD, frontal.-**B.** DD, external.-**C.** DD, posterior.-**D.** P, external.-**E-F.** Female spinnerets.-**E.** ALS, right.-**F.** PMS, right.