

Descriptions of *Sitticus vanvolsemorum* sp. nov. and the male of *Sitticus tenebricus* GALIANO & BAERT, 1990 from the Galápagos Islands (Araneae: Salticidae)

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Abstract

The new species of Salticidae, *Sitticus vanvolsemorum* sp. nov., is described from the Galápagos island Española. The male of *Sitticus tenebricus* GALIANO & BAERT, 1990, has been discovered and is described.

Résumé

L'espèce inédite: *Sitticus vanvolsemorum* sp. nov., appartenant à la famille des Salticidae est décrite de l'île Española, située dans l'archipel des Galápagos. Le mâle de *Sitticus tenebricus* GALIANO & BAERT, 1990, a été découvert et est ici décrit.

Introduction

Three *Sitticus* species were described from the Galápagos archipelago in 1990 by GALIANO & BAERT: *S. phaleratus*, *S. uber* and *S. tenebricus*. The island of Española was first visited in 1991 and later on in 2000 and 2009. Each time, specimens of a new *Sitticus* species were found.

Single male of *S. tenebricus* was captured during a continuous pitfall sampling campaign carried out by Sandra Abedrabbo in the period between March 1991 and August 1995. It was captured in June or July 1991.

Taxonomy

Sitticus vanvolsemorum sp. n.

(Figs 1-5)

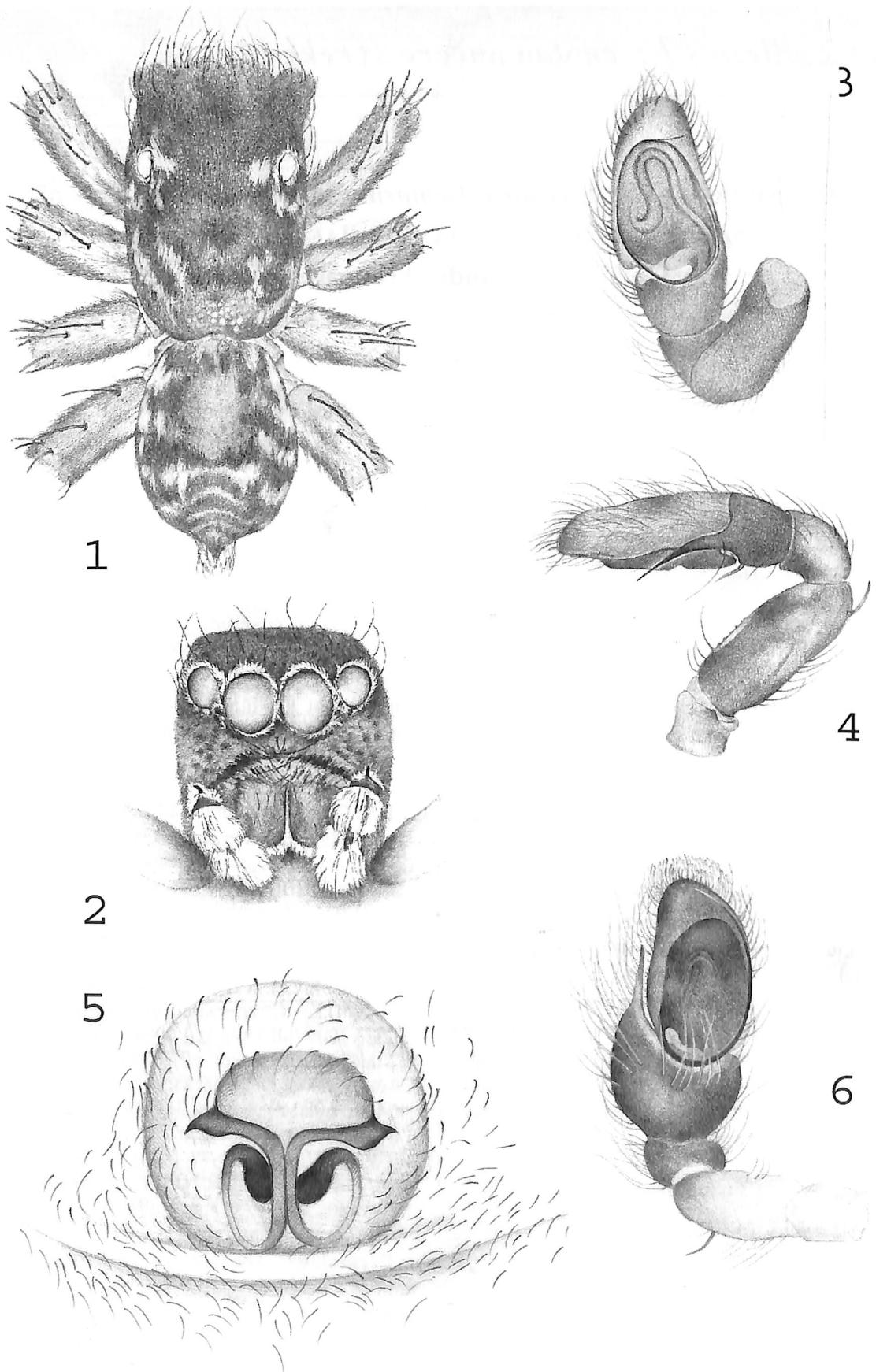
Sitticus sp. 1: BAERT, MAELFAIT, HENDRICKX & DESENDER, 2008: 62, map 115.

Material examined: ECUADOR: GALAPA-GOS ISLANDS: Isla Española: *Holotype male*: B.91/739, Supra-littoral zone in *Cryptocarpus* vegetation, 16-27/4/1991; *Female Allotype*:

B.91/731, 50 m altitude, 17-27/4/1991; *Paratypes*: ♂: B.00/062, Islete Bahía Gardner, 24/3/2000; ♂: B.91/741, Arid zone near coast, 16-27/4/1991; SA♂: B.91/675, 100 m altitude, 17/4/1991; ♂: B.91/674, 50 m altitude, 17/4/1991; ♂: B.09/018, Playa Manzanilla, 21-22/3/2009; ♀ & SA♂: B.09/022, Bahía Gardner, 22/3/2009; SA♀: B.09/014, Caleta Bahía Manzanilla, 21/3/2009; ♀: B.09/013, Camp site at Bahía Manzalilla, 21/3/2009 (all 1991 and 2000 captures: leg. Baert, Maelfait & Desender; all 2009 captures: leg. Baert, Hendrickx & Dekoninck); ♂ & ♀: P.92/145, Bahía Manzanilla, Arid zone, 3m, 25/4-2/5/1992 (leg. S. Peck); Isla Gardner near Española, 20 m altitude, 17/2/1977; ♂: 2 km W Punta Cevallos, 8/2/1977; ♂: Punta Suarez, 22/1/1977; ♂: beach of Punta Cevallos, 9/2/1977 (leg. W. Reeder).

Etymology: The species is dedicated to the family Vanvolsem, especially to my dear wife Martine member of this family; noun (name) in genitive case, plural.

Diagnosis: The male differs from the other Galapagoan *Sitticus* species *phaleratus*, *tenebricus* and *uber* by the down curved palpal tibial apophysis and the thin embolus. The



Figs 1-6: *Sitticus vanvolsemorum* sp. n.: (1) general habitus of male, dorsal view; (2) frontal view of male; (3) left male pedipalp, ventral view (4) left male pedipalp, retro-lateral view; (5) female, ventral view of epigynum. *Sitticus tenebricus* GALIANO & BAERT, 1990: (6) male right pedipalp, ventral view.

female is characterized by the course of the copulatory ducts and by the position of the copulatory openings.

Description:

Male Holotype: Total length: 3.30 mm; carapace length: 1.70 mm, width: 1.28 mm, height: 0.82 m; Abdomen length: 1.60 mm; Ocular quadrangle: width: row I (AE) 1.12 mm, row II (PME) 1.08 mm, row III (PLE) 1.14, AME 0.32 mm, ALE 0.20 mm, PLE 0.20 mm; distance ALE-PLE 0.76 mm; ratio row I/ALE-PLE 1.47.

Colour: Cephalothorax: covered with black and white hairs, Cephalic region between ocular quadrangle chestnut brown; clypeus, sides and thoracic region light-brown; a stripe of white hairs starting from behind posterior eyes, running backwards slightly converging; anterior eyes (others in lesser extent) surrounded by row of short white hairs; with row of long dark hairs just behind anterior eye row. Chelicerae: yellow-brown. Sternum: light yellow slightly suffused with black. Legs: femora dark with dorsal longitudinal light stripe, other segments clearly annulated. Abdomen: sepia, sides with unclear pattern of longitudinal creamy stripes covered with white hairs; dorsum blotted with creamy spots, two caudo-lateral whitish spots followed by median creamy bows, venter creamy. Pedipalp black, dorsally densely covered with white hairs.

Remark: All males in this study differ considerably from one another in colour, being darker or lighter, with variable number of abdominal greyish spots, variably covered with white hairs, legs more or less annulated.

Legs: Measurements: I: Fe 0.90 mm, Pa 0.52 mm, Ti 0.52 mm, Mt 0.52 mm, Ta 0.34 mm; II: Fe 0.84 mm, Pa 0.48 mm, Ti 0.52 mm, Mt 0.46 mm, Ta 0.36 mm; III: Fe 0.84 mm, Pa 0.40 mm, Ti 0.44 mm, Mt 0.48 mm, Ta 0.40 mm; IV: Fe 1.30 mm, Pa 0.54 mm, Ti 0.86 mm, Mt 0.64 mm, Ta 0.52 mm.

Pedipalp (Figs 3-4): Tibial apophysis thin and curved downwards. Embolus very thin with sharp tip. Measurement: Ti + Cymbium 0.62 mm.

Female Allotype: Total length: 4.44 mm; carapace length: 1.90 mm, width: 1.50 mm, height: 1.04 mm; abdomen length: 2.54 mm. Ocular quadrangle: width: row I (AE) 1.34 mm, row II (PME) 1.28 mm, row III (PLE) 1.40, AME 0.40 mm, ALE 0.24 mm, PLE 0.22 mm;

distance ALE-PLE 0.90 mm; ratio row I/ALE-PLE 1.49.

Colour: Paler than male. Not covered with white hairs. Femora yellowish with dark apex.

Legs: Measurements: I: Fe 0.96 mm, Pa 0.62 mm, Ti 0.60 mm, Mt 0.48 mm, Ta 0.48 mm; II: Fe 0.98 mm, Pa 0.62 mm, Ti 0.56 mm, Mt 0.44 mm, Ta 0.44 mm; III: Fe 0.92 mm, Pa 0.52 mm, Ti 0.56 mm, Mt 0.58 mm, Ta 0.46 mm; IV: Fe 1.52 mm, Pa 0.68 mm, Ti 1.06 mm, Mt 0.84 mm, Ta 0.54 mm.

Epigynum (Fig. 5) : Copulatory openings situated near lateral edges of epigynal plate; copulatory ducts run straight towards centre of vulva, then straight backwards to reach epigynal fold, making a U-turn to enter apically the central located receptaculae.

Distribution: Only known from Isla Española where it occurs in the arid zone from coast to summit (130 m) of the island.

Sitticus tenebricus GALIANO & BAERT, 1990 (Fig. 6)

Sitticus tenebricus: GALIANO & BAERT, 1990: 126, figs 1, 19-20, map 7 (♀).

Sitticus tenebricus: BAERT, MAELFAIT, HENDRICKX & DESENDER, 2008: 61, map 113.

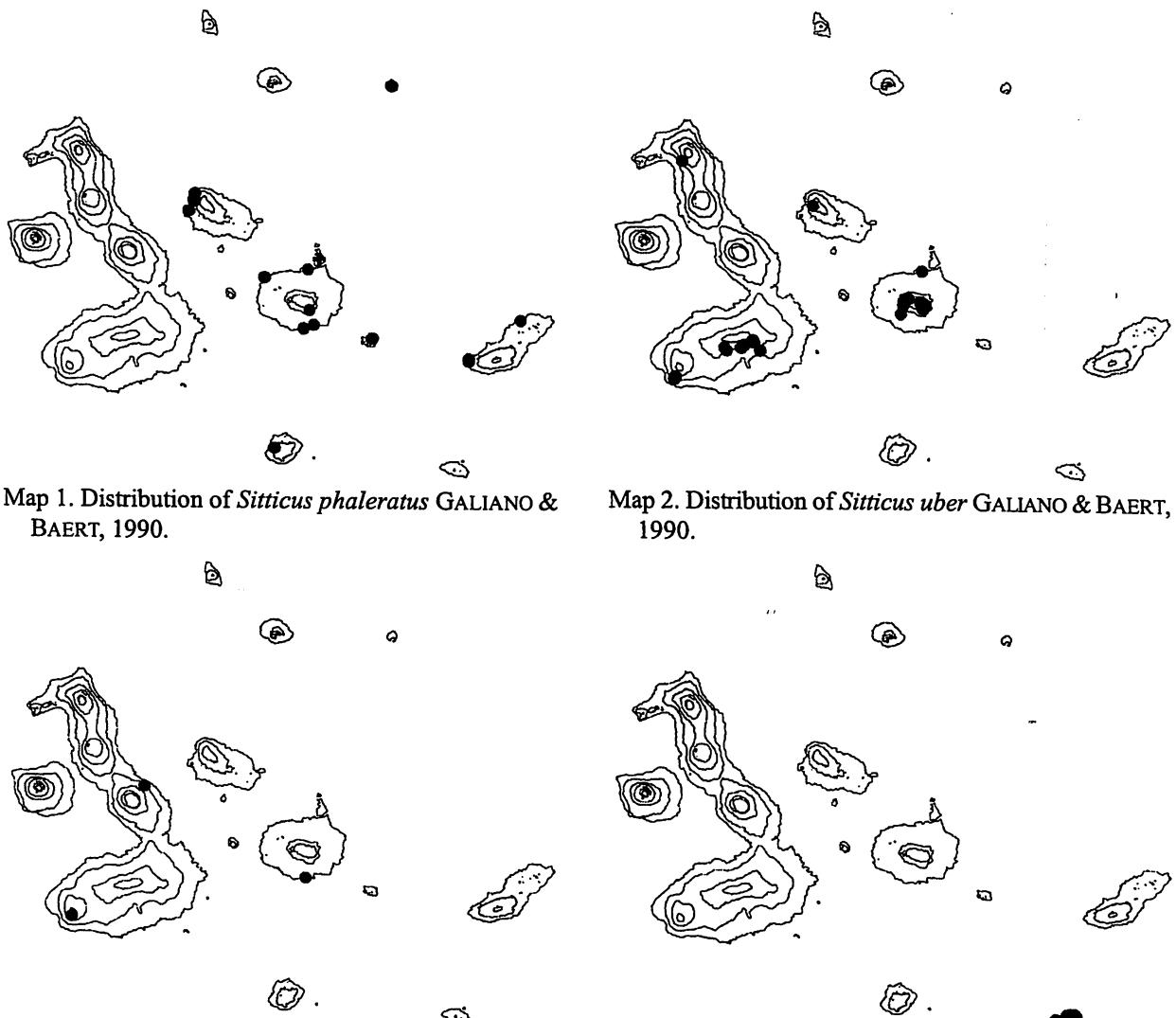
Material examined: ECUADOR: GALAPAGOS ISLANDS: Isla Santa Cruz: ♂ : Bahía Tortuga, pitfall, 16/6-25/7/1991, leg. S. Abedrabbo.

Diagnosis: Male differs from the other Galapagoan species *phaleratus*, *uber* and *vanvolsemorum* sp.n. by the swollen palpal tibia.

Description:

Male Holotype: Total length: 3.60 mm; carapace length: 1.90 mm, width: 1.42 mm, height: 1.02 m; Abdomen length: 1.70 mm; Ocular quadrangle: width: row I (AE) 1.24 mm, row II (PME) 1.16 mm, row III (PLE) 1.24, AME 0.36 mm, ALE 0.22 mm, PLE 0.20 mm; distance ALE-PLE 0.77 mm; ratio row I/ALE-PLE 1.61.

Colour: Cephalothorax: Cephalic region with chestnut brown ocular quadrangle; clypeus, sides and thoracic region light-brown sparsely covered with white hairs; clypeus densely covered with long white hairs partly covering base of chelicerae; anterior eyes (others in lesser extent)



Map 1. Distribution of *Sitticus phaleratus* GALIANO & BAERT, 1990.

Map 2. Distribution of *Sitticus uber* GALIANO & BAERT, 1990.

Map 3. Distribution of *Sitticus tenebricus* GALIANO & BAERT, 1990.

Map 4. Distribution of *Sitticus vanvolsemorum* sp. nov.

surrounded by row of short white hairs; with row of long dark hairs just behind anterior eye row. Chelicerae: yellow-brown. Sternum: yellow-brown. Legs: yellowish-brown lightly suffused with black. Abdomen: sepia with creamy markings and sparsely covered with short black and white hairs; apical lanceolate creamy marking present, venter creamy.

Pedipalp: Fe yellowish-brown with retro-lateral row of white hairs, Pa black with retro-lateral and pro-lateral row of white hairs, Ti and Cymbium black with pro-lateral row of white hairs.

Legs: Measurements: I: Fe 0.86 mm, Pa 0.62 mm, Ti 0.62 mm, Mt 0.44 mm, Ta 0.42 mm; II: Fe 0.84 mm, Pa 0.54 mm, Ti 0.50 mm, Mt 0.42 mm, Ta 0.40 mm; III: Fe 0.92 mm, Pa 0.48 mm, Ti 0.48 mm, Mt 0.48 mm, Ta 0.46 mm; IV: Fe 1.36 mm, Pa 0.60 mm, Ti 0.84 mm, Mt

0.70 mm, Ta 0.58 mm.

Pedipalp (Fig. 6): Tibia swollen with thin retro-lateral apophysis. Pa+Ti+Cymbium 1.06 mm.

Distribution: Isla Isabela (Volcán Alcedo and Volcán Cerro Azul) and Isla Santa Cruz (BAERT, MAELFAIT, HENDRICKX & DESENDER, 2008).

Distribution (maps 1-4)

The distribution ranges of the four species are clearly separated. *Sitticus phaleratus* (map 1) lives in the lower arid zone beneath 350 m of altitude. *Sitticus uber* (map 2) lives mainly in the higher vegetation zones above 400 m of altitude (*Scalesia*-zone, *Miconia*-zone and Fern-sedge zone or pampa). *Sitticus tenebricus* (map 3) occurs in the lower arid zone of Isla Santa Cruz (ca. 2m) and of Volcán Alcedo (ca. 200m), as

well as in the upper arid zone (ca. 1530 m) of Volcán Cerro Azul (Isla Isabela).

Sitticus tenebricus is found in the western part of the archipelago (Isla Isabela and exceptionally Bahía Tortuga South of Isla Santa Cruz) while *S. phaleratus* has a more eastern distribution (Isla Santiago, Isla Santa Cruz, Isla Marchena, Isla Santa Fé, Isla Floreana and Isla San Cristóbal). *Sitticus uber* has a central distribution (Isla Santa Cruz and Isla Isabela). The new species, *Sitticus vanvolsemorum*, is confined to the south-eastern island Española (map 4).

Acknowledgements

Excellent cooperation and field logistic support were provided by the Charles Darwin Research Station (CDRS, Isla Santa Cruz, Galápagos, Ecuador), the directors M. Cifuentes, F. Koestner, G. Reck, D. Evans, C. Blanton, R. Bensted-Smith, J. Gabriel López and their staff; the Galápagos National Park Service (SPNG Superintendents M. Cifuentes, IR. H. Ochoa, F. Cepeda, A. Izurieta, E. Cruz, E. Muñoz), Department of Forestry, Ministry of

Agriculture of Ecuador; TAME airline kindly issued reduced price for travel tickets. Our investigations and field work were financially supported by (1) BELSPO (former Belgian DWTC), (2) the Fund for Scientific Research and (3) the Léopold III Foundation. Help in the field was provided by J.-P. Maelfait†, K. Desender†, S. Peck (Canada), F. Hendrickx and W. Dekoninck. The drawings were made by Marylise Leclercq. I thank Rudy Jocqué for his useful comments.

References

- BAERT L., MAELFAIT J.-P., HENDRICKX F. & DESENDER K. - 2008 - Distribution and habitat preference of the spiders (Araneae) of Galápagos. *Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen: Entomologie*, 78: 39-111.
GALIANO M.E. & BAERT L. - 1990 - Distribution of the Galapagoan salticid species with the description of three new *Sitticus* species (Araneae, Salticidae). *Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen, Entomologie*, 60 : 123-132.

Bulletin S.R.B.E./K.B.V.E., 147 (2011) : 67-70

Two new species of *Ommatomyia* Scarbrough and Tomasovic 2010 from Thailand (Diptera: Asilidae)

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Summary

Two new species of *Ommatomyia*, *O. grootaerti* n. sp. and *O. maculata* n. sp. from Thailand are described. The male genitalia and wings of each species are illustrated. These species are the first records of the genus in Thailand. A key is given for the three currently recognized species.

Keywords: Asilidae, Ommatiinae, *Ommatomyia*, Thailand, new species.

Résumé

Deux nouvelles espèces d'*Ommatomyia* de Thaïlande, *O. grootaerti* sp.n et *O. maculata* sp.n sont décrites. Leurs genitalia mâles ainsi que leurs ailes sont illustrés et une clé des trois espèces connues d'*Ommatomyia* est fournie.