

# Distribution of the Galápagoan salticid species with the description of three new *Sitticus* species (Araneae, Salticidae)

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## Abstract

Three new *Sitticus* species (*S. tenebricus* n. sp., *S. uber* n. sp. and *S. phaleratus* n. sp.) are described from the Galápagos archipelago. The distribution of the 16 salticid species occurring in Galápagos is given. Five species are newly recorded from the archipelago.

## Résumé

Trois nouvelles espèces appartenant au genre *Sitticus* sont décrites de l'archipel des Galápagos (*S. tenebricus* n. sp., *S. uber* n. sp. et *S. phaleratus* n. sp.). La distribution des 16 espèces de Salticidae vivant dans l'archipel est donnée. Cinq espèces sont citées pour la première fois.

## Introduction

The second author had the opportunity to start in 1982 an study on galapagoan spiders. This study was continued in 1986 and 1988. All major islands and volcanoes were in the course of these visits qualitatively sampled along an altitudinal gradient. The general results concerning the spider fauna are given in BAERT & MAELFAIT (1986), BAERT *et al.* (1989a, 1989b). This paper deals more explicitly with the salticid components of the araneofauna of the archipelago.

The species list of the galapagoan spiders, elaborated by ROTH & CRAIG (1970) resulting from the identification of material collected by N. & J. LELEUP (Mission zoologique belge aux les Galápagos et en Ecuador), counted five salticid species. A sixth, cited as "New genus, near Neon" was later described as *Darwinneon crypticus* by CUTLER (1971). The male has been figured in BAERT (1987). Recently GRISWOLD (1987) added a seventh species : *Habronattus encantadas* GRISWOLD, 1987. With this paper the number of salticid species occurring on the Galápagos islands is brought to 16.

## Material and methods

The collections examined are : coll. BAERT, MAELFAIT & DESENDER 1982, 1986, 1988; coll. Californian Academy of Sciences; coll. Charles Darwin Research Station; coll. FRANZ 1975; coll. Jacquemart 1974 (K.B.I.N.); coll. LELEUP 1964 (K.B.I.N.); coll. Zoological Museum Oslo; coll. PECK 1989; coll. H. & I. SCHATZ 1985, 1988.

The format of the descriptions follows GALIANO, 1963; leg spination is described as in PLATNICK & SHADAB (1975) with small changes. All measurements are in millimeters.

Abbreviations used : AME, ALE, PME and PLE; anterior median, anterior lateral, posterior median and posterior lateral eyes, respectively. v, ventral; p, prolateral; r, retro-lateral; d, dorsal; ap, apical. MACN : Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", KBIN : Koninklijk Belgisch Instituut voor Natuurwetenschappen.

## Distribution of the galapagoan salticid species.

Species labeled with an asterisk are new records for the archipelago.

### \* *Balmaceda estebanensis* SIMON, 1903 (Map 4)

*Balmaceda estebanensis* has been described from Venezuela. On Galápagos it has been found on the western islands of the archipelago : Punta Espinosa (tourist site !) in the north eastern corner of Isla Fernandina; the lower zones (alt. 0-125 m) of Volcán Wolf and in the Culture zone of Santo Tomás (alt. 450-500 m) of Volcán Sierra Negra, both sites situated on Isla Isabela.

### *Darwinneon crypticus* CUTLER, 1971 (Map 2)

This species is only known from the Galápagos and is very widespread over the whole archipelago : San Cristóbal, Española, Floreana, Santa Fé, Santa Cruz, Seymour Norte, Pinzón, Santiago, Genovesa, Pinta, Isabela (Sierra Negra, Alcedo, Darwin and Wolf) and Fernandina

(BAERT & MAELFAIT, 1986; BAERT *et al.*, 1989a; BAERT *et al.*, 1989b).

It occurs in all vegetation zones from the coast to the top.

#### \* *Evophrys vestitus* TACZANOWSKI, 1879 (Map 4)

*E. vestitus* has been described from Perú, Amable María, and has been found also in Arequipa, Huánuco and Lima. On Galápagos, this species has been found on the northern **Isabela** volcanoes (Volcán Alcedo, alt. 200 m and Beagle crater near Volcán Darwin, alt. 200 m), on **Santiago** (sub-top, alt. 260 m) and **Pinzón** (alt. 0-100 m).

#### *Frigga crocata* (TACZANOWSKI, 1879) (Map 3)

This species is also very widespread over the whole archipel. It is distributed over the central islands (**San Cristóbal**, **Santa Cruz**, **Baltra**, **Pinzón**, **Santiago**, **Isabela** (Sierra Negra, Alcedo, Darwin and Wolf) and **Fernandina**) and the southern island **Floreana** (BAERT & MAELFAIT, 1986; BAERT *et al.*, 1989a; BAERT *et al.*, 1989b). It occurs from the coastline to the top.

Zoogeographic affinities : Perú, Ecuador, Islas Marquesas, Tahiti and Australia (Queensland) (GALIANO, 1979).

#### *Habronattus encantadas* GRISWOLD, 1987

*H. encantadas* is described from Isla **Darwin** (Culpepper), the northernmost island of the archipel (GRISWOLD, 1987, BAERT *et al.*, 1989a).

#### \* *Hasarius adansonii* (AUDOUIN, 1827) (Map 5)

This species is known as a synanthropic cosmopolitan species. On Galápagos it has been found in the pampa zone of Isla **Santa Cruz** at Media Luna (alt. 600 m); on **Isabela** at Villamil and in the Culture zone around Santo Tomás (alt. 350-500 m).

#### *Helvetia insularis* (BANKS, 1902) (Map 4)

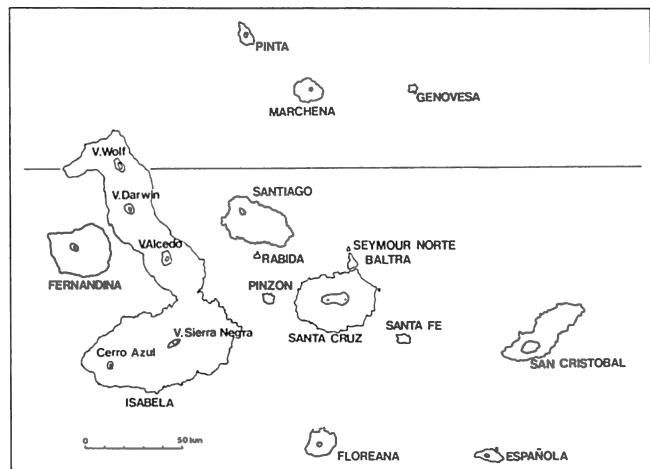
*H. insularis* has been described from a male captured at punta Mangle, south eastern corner of Isla **Fernandina** (BAERT *et al.*, 1989a). This species is also known from Argentina (described as *Helvetia otiosa* GALIANO, 1976) (GALIANO, 1989).

#### \* *Menemerus bivittatus* (DUFOUR, 1831) (Map 4)

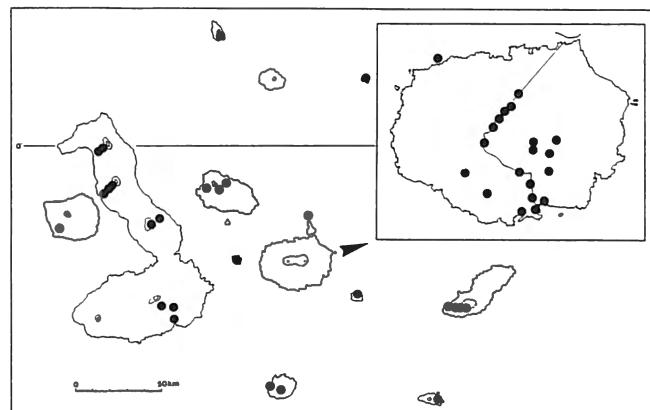
A synanthropic cosmopolit species in tropical and subtropical areas. On Galápagos it was found in the three main villages of the archipel, Puerto Ayora (**Santa Cruz**), Villamil (**Isabela**) and Puerto Baquerizo Moreno (**San Cristóbal**). Certainly introduced.

#### *Metacyrba insularis* (BANKS, 1902) (Map 5)

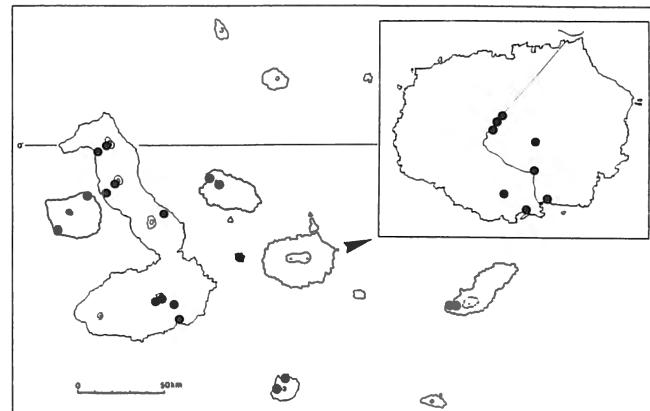
This species is distributed over the southern islands **Floreana**, **Española** and the central islands **San Cristóbal**,



Map 1. – General map of the Galápagos archipelago.



Map 2. – Distribution of *Darwinneon crypticus*.



Map 3. – Distribution of *Frigga crocata*.

**Santa Cruz, Daphne, Pinzón, Santiago, Isabela** (Darwin and Wolf) and **Fernandina** at various altitudes (BAERT & MAELFAIT, 1986; BAERT *et al.*, 1989a; BAERT *et al.*, 1989b). Only known from the Galápagos.

#### *Phanias distans* BANKS, 1924

This species has been described from **South Seymour** (Baltra) (BAERT *et al.*, 1989a).

#### *Philaeus pacificus* BANKS, 1902 (Map 6)

*Ph. pacificus* has been found on all major islands except **Santa Fé** and the eastern islands **San Cristóbal** and **Españaola**; at various altitudes (BAERT & MAELFAIT, 1986; BAERT *et al.*, 1989a; BAERT *et al.*, 1989b). Only known from the Galápagos.

#### *Plexippus paykulli* (AUDOUIN, 1827) (Map 6)

Known as a synanthropic cosmopolit species. Mentioned by BANKS (1924) from **South Seymour** (Baltra) (1 immature specimen). It was found in a shop at Puerto Ayora, **Santa Cruz**. Certainly introduced.

#### \* *Dendryphantinae*

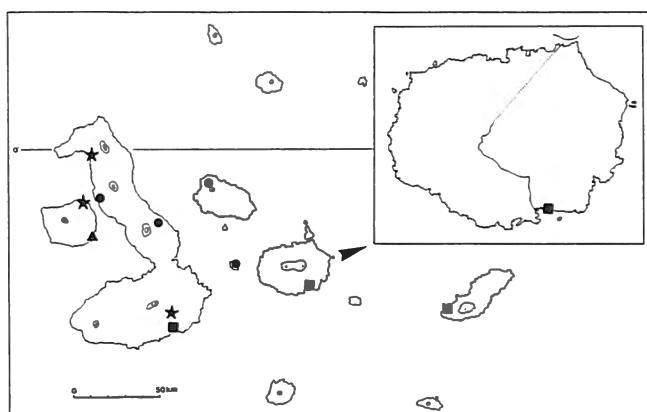
Specimens of a *Dendryphantinae*-species were found on **Santa Cruz** (in mangrove litter near Puerto Ayora and the C.D.R.S.; Casetta Occidente, alt. 170 m; highland between Media Luna and Cerro Puntudo, alt. 600-700 m), **Floreana** (Punta Cormoran), **Isabela** (Volcán Cerro Azul, Caleta Iguana) and **Pinta** (pampa, alt. 400 m).

#### Description of the *Sitticus* species

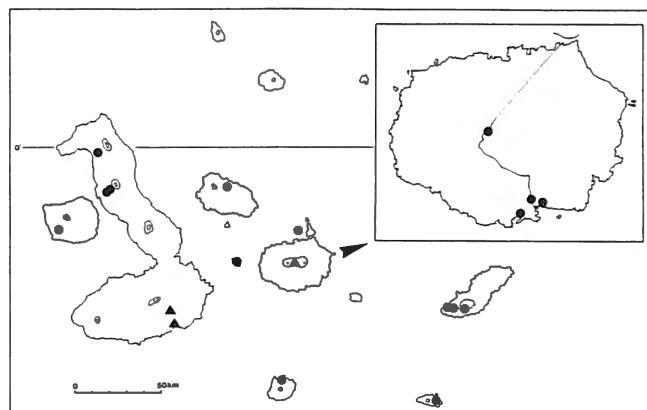
##### Genus *Sitticus* SIMON, 1901

The three species of *Sitticus* here described belong to a complex of several related species, some of them described as members of *Tomis* CAMBRIDGE, 1901. The group, into which the three new species are incorporated, is formed by *Sitticus mazorcanus* CHAMBERLIN, 1920, *Tomis palpalis* CAMBRIDGE, 1901, *Tomis jonesae* BRYANT, 1948 and *Tomis canus* GALIANO, 1977. It is believed that *Sitticus* and *Tomis* are synonyms; the corresponding synonymy and the discussion of the matter will be dealt with in another paper. The palps of the seven species are very much alike and only differ in small changes of the shape of the palpal tibia, tibial apophysis, bulb, and sometimes in colour pattern. It seems that the differentiation of the species could be better done on the basis of epigynal structures as is evident from the comparison of *Sitticus uber*, *S. phaleratus* and *Tomis canus*, the last one being the only continental species whose females have been described.

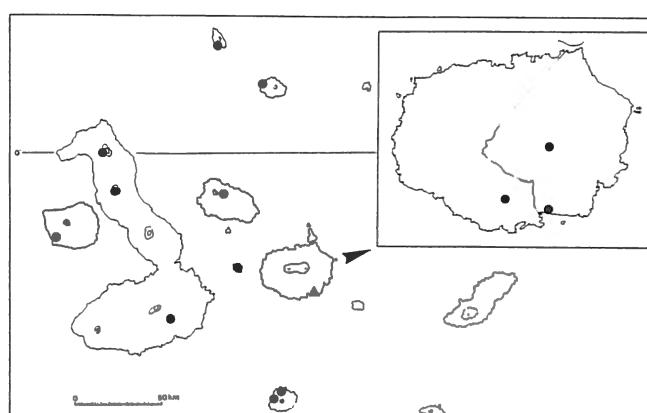
The group is defined by the following state of characters : maxillae unmodified; cymbium narrow and dorsally flattened; bulb oval and flattened; embolus long, thin, cylind-



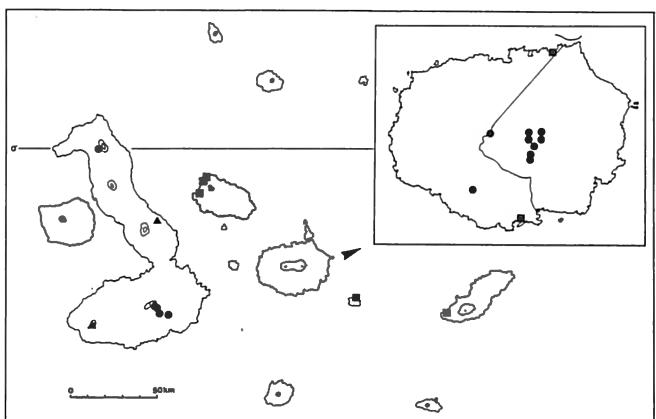
Map 4. – *Distribution of Evophrys vestitus* (●), *Helvetia insularis* (▲), *Menemerus bivittatus* (■) and *Balmaceda estebanensis* (★).



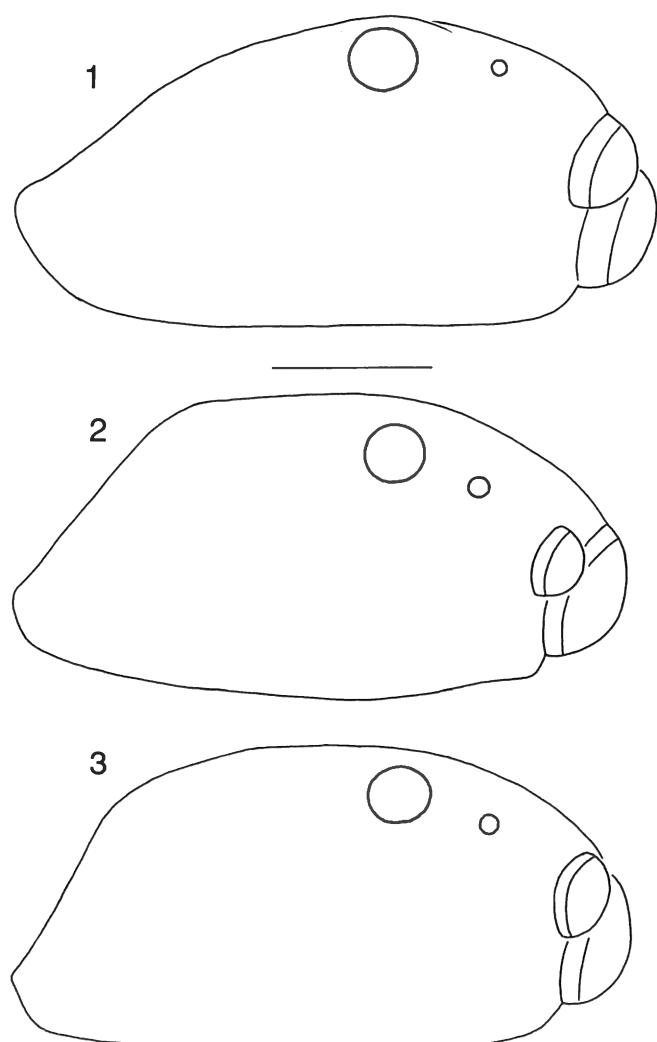
Map 5. – *Distribution of Metacyba insularis* (●) and *Hasarius adansonii* (▲).



Map 6. – *Distribution of Philaeus pacificus* (●) and *Plexippus paykulli* (▲).



Map 7. – Distribution of *Sitticus tenebricus* (▲).  
*Sitticus uber* (●) and *Sitticus phaleratus* (■).



Figs. 1-3 – Carapaces, lateral view. 1. *Sitticus tenebricus* ♀; 2. *Sitticus uber* ♂; 3. *Sitticus phaleratus* ♂. Scale lines = 0.5 mm.

drical, beginning at the basal or retro-basal border of bulb, then directed prolaterally and dorsally; tibial apophysis long, pointed, parallel to the cymbium.

***Sitticus tenebricus* n. sp.**  
(Figs. 1, 8, 19, 20. Map 7)

*Diagnosis :*

*Sitticus tenebricus* can be differentiated from other females of the group by the shape of epigynum; from *S. uber* and *S. phaleratus* by the first row of eyes larger than the third and by the position of the thoracic declivity.

*Description (♀) :*

Carapace : width/length 0.72-0.74; height/length 0.50-0.53. Dorsal surface of the cephalic region gently convex with the eyes in low tubercles; thoracic region in continuous declivity from PLE (Fig. 1). Apex of thoracic groove at the same level of the posterior margin of PLE. Ocular quadrangle wider than long (width/length 0.68-0.69) occupying 0.47-0.51 length of carapace. Eyes big, ocular hairs long. First row a little wider than third (first/third 1.04). Height clypeus/AME diameter 0.32. Chelicerae with four promarginal teeth, no retromarginal tooth. Leg spination (variation in parentheses) : Femora I, II d 1-1-1, p 2; III d 1-1-1, p 2, r 1 (r 2); IV d 1-1-1, p 2 (r 2). Patellae I, II p 1 (p 2); III, IV p 1, r 1. Tibiae I v 2-2-2, p 1-1-1 (p 1-1); II v 1r-2-2 (v 2-2-2) p 1-1-1; III d 1, v 1p-2 (v 1p-2-2), p 1-1-1, r 1-1-1; IV d 1-1, v 1p-2, p 1-1-1, r 1-1-1. Metatarsi I v 2-2, r 1 (r 0); II v 2-2; III v 2-2 (v 1p-2), p 1-2, r 1-1-2; IV v ap 1, p 1-1-2, r 1-1-2.

*Female holotype :*

Estimated total length 4.80. Carapace length 2.00, width 1.43, height 1.00. Clypeus height 0.13. Ocular quadrangle length 0.93; first row width 1.37; third row width 1.30. Distances ALE-PME 0.28; PME-PLE 0.18. AME diameter 0.42; ALE 0.30. Epigynum : Figs. 8, 19, 20.

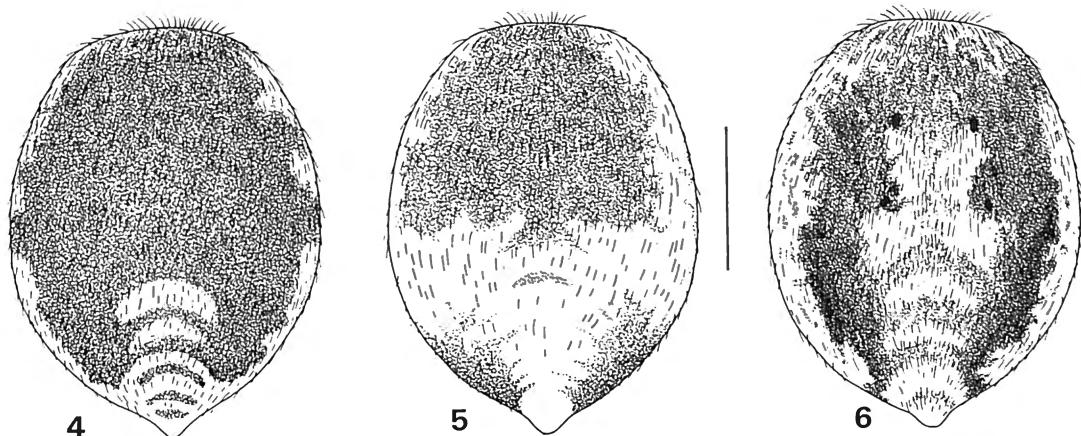
*Leg measurements :*

	Fe	Pa	Ti	Mt	Ta	Total
I	1.22	0.68	0.68	0.57	0.42	3.57
II	1.12	0.62	0.65	0.58	0.40	3.37
III	1.05	0.53	0.67	0.67	0.47	3.39
IV	1.50	0.68	1.03	0.90	0.50	4.61

*Colour :* carapace dark brown, shiny, with most of the hairs rubbed off. The remaining hairs reddish brown. Abdomen blackish, with mixed black, brown and whitish hairs. Legs dark brown, darker at the distal end of the articles. Palp dark brown, with distal half of patella and tarsus somewhat lighter. Few yellow hairs on dorsal apical tibia and some white hairs mixed with brown hairs in the other articles.

*Etymology :*

From the Latin, meaning dark, hidden.



Figs. 4-6 – Abdominal pattern, dorsal view. 4, 5. *S. uber* ♂; 6. *S. phaleratus* ♀.

#### Type locality :

Female holotype (KBIN) and female paratype (MACN) : Isla Isabela, Cerro Azul, alt. 1450-1650m, 23 February 1986.

#### Material examined

Non-typic material : ISABELA : Volcán Alcedo, alt. 280m, Dry arid zone, 26 March (♀) (SCHATZ, 1988).

#### *Sitticus uber* n. sp.

(Figs. 2, 4, 5, 9-11, 13, 15, 16. Map 7)

#### Diagnosis :

*Sitticus uber* may be distinguished from *S. mazorcanus* by the shorter and narrower palpal tibia; the tibial apophysis longer and thinner, somewhat sinuous in lateral view; by the basal loop of the palpal duct more proximal. It differs from *Tomis palpalis* by the first row of eyes narrower than the third and from *T. canus* by the position of the thoracic declivity. From the three mentioned species differs also by the colour pattern.

#### Description (♂/♀) :

Total length 2.80-4.00 in males, 3.33-4.45 in females. Carapace : width/length 0.71-0.79 in males, 0.77-0.84 in females; height/length 0.46-0.55 in males, 0.50-0.54 in females. Dorsal surface of cephalic region gently convex; posterior declivity well behind PLE (Fig. 2). Apex of the thoracic groove a little behind posterior margins of PLE. Ocular quadrangle wider than long (length/width 0.60-0.64) occupying 0.40-0.49 length of carapace. Third row of eyes a little wider than first (first/third 0.94-0.99) exceptionally equal. Height clypeus/AME diameter 0.24-0.37. Clypeus with few brown hairs. Chelicerae in both sexes with three promarginal teeth, no retromarginal tooth (Fig. 9). Abdomen of males with a weakly sclerotized dorsal scutum. Leg spination (variation in parentheses), males : Femora I, II d 1-1-1, p 1 (r 1); III d 1-1-1, p 1, r 1 (p 2); IV d 1-1-1, p 1, r 2 (r 1). Patellae I p 1; II, III, IV p 1, r 1. Tibiae I v 2-2-2 (v 1r-2-2) p 1-1 (p 1-1-1); II v 1r-2-2 (v 1r-1r-2), p 1-1 (p 1-1-1); III d 1, v 1p-2 (v ap 2),

p 1-1-1, r 1-1-1; IV d 1-1 (d 1), v 1p-2, p 1-1-1, r 1-1-1. Metatarsi I v 2-2, p ap 1 (p 0); II v 2-2, p 1-1 (p ap 1, p 0); III v 1p-2 (v ap 1), p 1-2, r 1-1-2 (r 2-2); IV v ap 1 (v 1p-2, v ap 2), p 1-1-2 (p 1-2), r 1-1-2. Females : Femora I, II d 1-1-1, p 1; III d 1-1-1, p 1 (r 1); IV d 1-1-1, p 1, r 1 (p 0, r 0). Patellae I, II p 1; III, IV p 1, r 1. Tibiae I v 2-2-2, (v 1r-2-2), p 1-1, (p ap 1); II v 1r-1r-2, p 1-1; III d 1, v 1p-1p (v 1p-2, v ap 2); p 1-1-1, r 1-1-1; IV d 1-1, v 1p-2 (v 1p-1p-2), p 1-1-1, r 1-1-1. Metatarsi I, II v 2-2; III v 1p-2, (v 1p-1p, v ap 1), p 1-2, r 1-1-2; IV v ap 1 (v ap 2), p 1-1-2, r 1-1-2.

#### Male holotype :

Total length 3.60. Carapace length 1.70, width 1.34, height 0.87. Clypeus height 0.12. Ocular quadrangle length 0.76; first row width 1.18; third row width 1.20. Distances ALE-PME 0.17; PME-PLE 0.15. AME diameter 0.38; ALE 0.22. Palps : Figs. 11, 13.

#### Leg measurements :

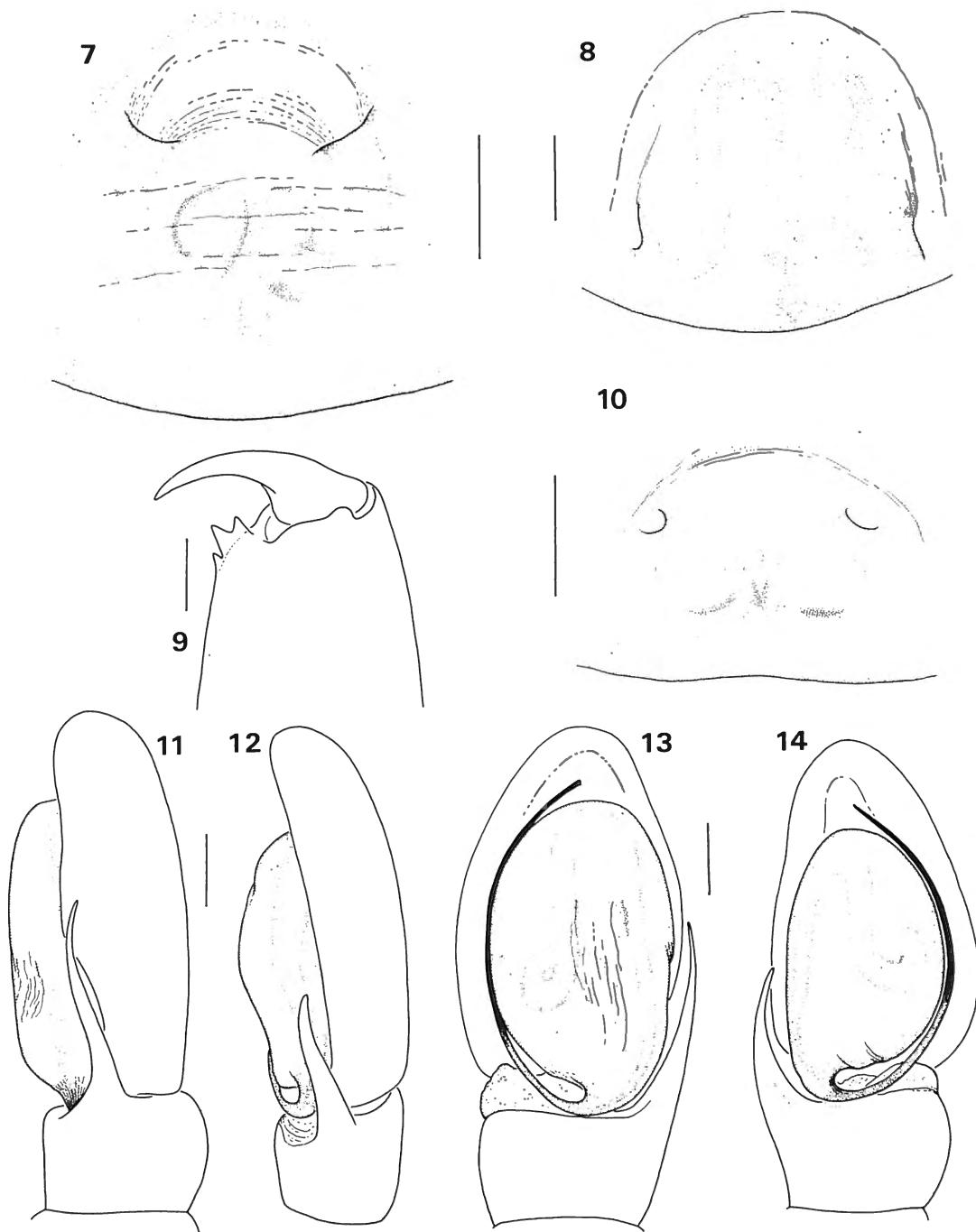
	Fe	Pa	Ti	Mt	Ta	Total
I	1.25	0.67	0.92	0.83	0.50	4.17
II	0.83	0.52	0.50	0.52	0.38	2.75
III	0.87	0.43	0.48	0.57	0.38	2.73
IV	1.25	0.53	0.82	0.75	0.43	3.78

#### Female allotype :

Total length 3.33. Carapace length 1.67, width 1.35, height 0.90. Clypeus height 0.10. Ocular quadrangle length 0.77; first row width 1.22; third row width 1.24. Distances AME-PME 0.20; PME-PLE 0.17. AME diameter 0.38; ALE 0.22. Epigynum : Figs. 10, 15, 16.

#### Leg measurements :

	Fe	Pa	Ti	Mt	Ta	Total
I	0.92	0.60	0.57	0.48	0.32	2.89
II	0.83	0.50	0.48	0.45	0.32	2.58
III	0.87	0.43	0.50	0.45	0.32	2.57
IV	1.35	0.58	0.92	0.77	0.43	4.05

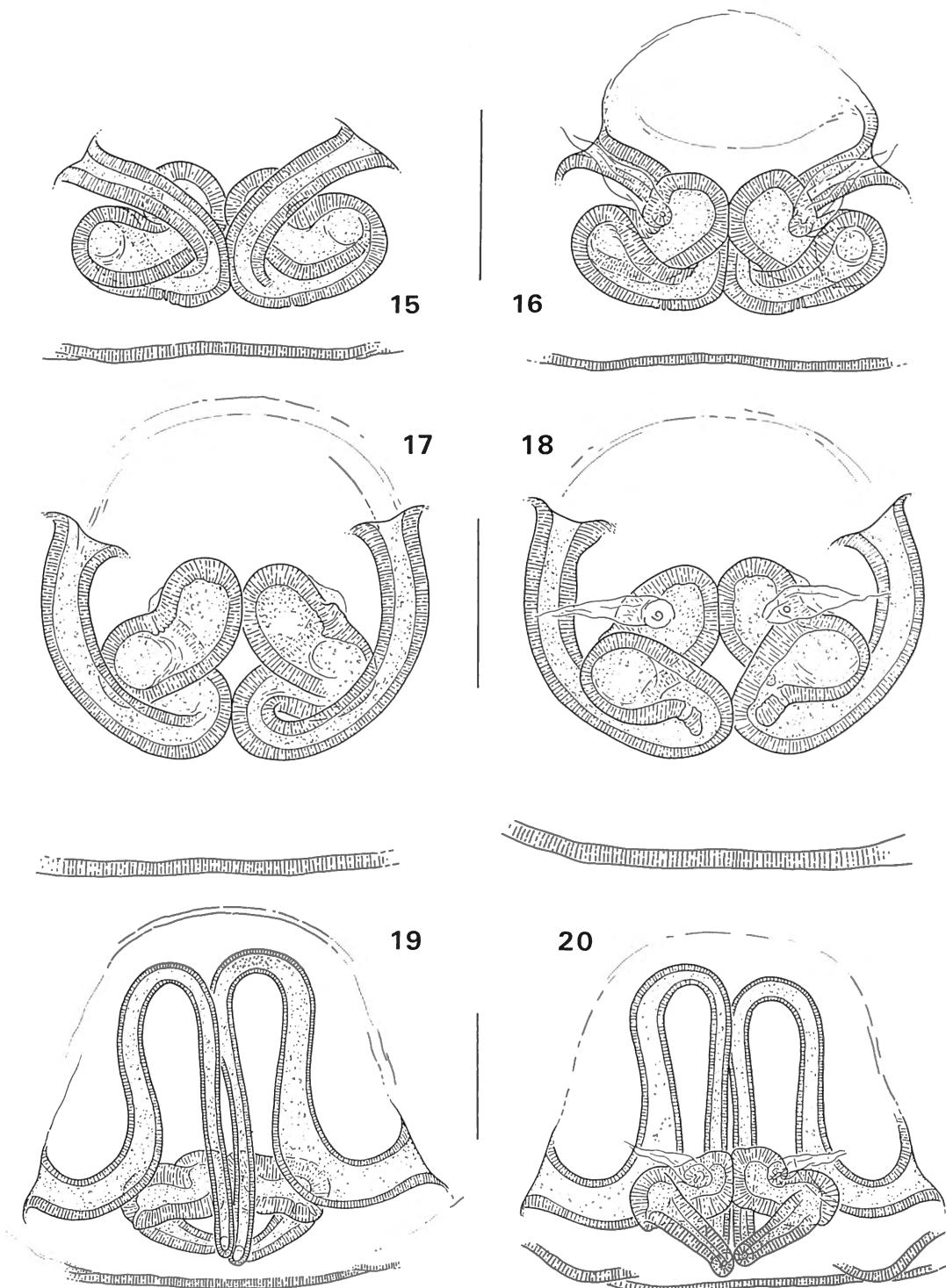


Figs. 7-14 – 7. *S. phaleratus*, epigynum; 8. *S. tenebricus*, epigynum; 9-11. *S. uber*: 9. ♂ chelicera; 10. epigynum; 11. ♂ palp, retrolateral view; 12. *S. phaleratus*, palp, retrolateral view; 13. *S. uber*, palp, ventral view; 14. *S. phaleratus*, ♂ palp, ventral view. Scale lines = 100 m.

Colour : males, carapace brown with a narrow black marginal band. Cephalic region dark brown, with black and reddish brown hairs. Brown and orange ocular hairs. Two lightbrown longitudinal bands bearing white hairs from each PLE to halfway down the declivity. Some white hairs in the space between PLE and PME, at the inner margins of PLE and near the anterior border of carapace. Declivity with black hairs between the bands. Some males have the thoracic bands very small and with few white hairs. Abdomen black or dark brown with black and reddish brown

or yellow mixed hairs. There is a gradual addition of yellow spots and white hairs to the abdominal pattern from almost entirely dark specimens to lighter ones. Some individuals have small yellow spots at the sides and apical transverse chevrons and others show big coalescing lateral spots forming broad bands that sometimes fuse caudally (Figs. 4,5).

Legs lightbrown or yellow with brown or blackish basal and apical annulations; relatively few hairs. Palp : femur dorsal-retrolateral yellow, inferior-prolateral black, with



Figs. 15-20 – Epigynes after clearing. 15-16. *S. uber* : 15. ventral view; 16. dorsal view; 17-18. *S. phaleratus* : 17. ventral view; 18. dorsal view; 19-20. *S. tenebricus* : 19. ventral view; 20. dorsal view. Scale lines = 100 m.

long white hairs on apical dorsal half. Patella black, dorsally yellow; tibia black, apophysis yellow; cymbium dark brown or black. Dorsum of these three articles with dark brown and lightbrown or yellowish hairs, not very compact, more dense on cymbium dorso-prolaterally.

Females as males, but generally lighter. The thoracic bands are more evident. Palp yellow with a inferior apical black spot in femur. In some specimens, tarsus lightbrown.

#### *Etymology :*

From the Latin, meaning abundant, plentiful.

#### *Type locality :*

Male holotype and female allotype (KBIN) : Isla Santa Cruz, *Miconia* zone, alt. 500m, 15 February - 08 March 1988 (BAERT, DESENDER & MAELFAIT).

### Material examined

Paratypes : SANTA CRUZ : Media Luna trail, *Miconia* zone, alt. 540 m, 10 March (1 ♂, KBIN). Los Gemelos, pampa, alt. 570 m, 13 March (1 ♀, KBIN & 1 ♀ MACN). Media Luna, pampa : alt. 640 m, 8 March (1 ♀ KBIN & 2 ♀ MACN); alt. 650 m, 10 February (1 ♀ KBIN) (BAERT & MAELFAIT, 1982). Los Gemelos, *Scalesia* : alt. 570 m, 15 February (1 ♀ KBIN); 25 March (1 ♂, 2 ♀ MACN). Media Luna, pampa, alt. 600 m, 13 March (1 ♀ KBIN). Media Luna trail, *Miconia* : alt. 500 m, 1 March (1 ♂ KBIN); alt. 520 m, 13 March (1 ♂, 1 ♀ MACN) (BAERT, MAELFAIT & DESENDER, 1986). Media Luna trail, *Miconia* : alt. 500 m, 8 March (3 ♂ KBIN), 2 April (1 ♀ KBIN); alt. 550 m, 2 April (1 ♀ KBIN). Los Gemelos : *Scalesia*, alt. 570 m, 7 March (1 ♂, 1 ♀ MACN), 2 April (1 ♀ KBIN); pampa, 7 March (1 ♂, 1 ♀ MACN). Cerro Crocker : alt. 700 m, 2 April (1 ♀ KBIN), 15 February (1 ♀ KBIN); alt. 825 m (*Sphagnum*), 8 March (1 ♀ KBIN) (BAERT, DESENDER & MAELFAIT, 1988). ISABELA : Volcán Sierra Negra, alt. 450-500 m, 20 February (1 ♀ MACN) (BAERT, MAELFAIT & DESENDER, 1986). Volcán Wolf, alt. 825 m, 22 March (1 ♂ KBIN) (BAERT, DESENDER & MAELFAIT, 1988). Volcán Sierra Negra, alt. 900 m, (2 ♀ QUITO) (ABEDRABBO, 1986). Volcán Sierra Negra, Cuesta cerca de la Bocanilla, 30 May (2 ♀ at WIEN) (FRANZ, 1975). Non-typic material : SANTA CRUZ : Tortoise reserve, Transition zone, alt. 180 m, 7 February (♂, ♀). Los Gemelos, *Scalesia*, alt. 600 m, 30 March (2 ♂), 9 April (♂). Media Luna trail, *Miconia* : alt. 500 m, 29 February (79 ♂, ♀); alt. 550 m, 8 February (2 ♂), 30 March (2 ♂). Media Luna/Cerro Puntudo trail, pampa, alt. 600 m, 8 February (♂). Cerro Puntudo : *Scalesia* forest, alt. 650 m, 29 February (5 ♂), 30 March (♂); pampa, alt. 700 m, 2 February (♂, ♀) (PECK, 1989). ISABELA : Volcán Sierra Negra : alt. 850 m, 5 March (♀); pampa, alt. 1000 m, 12 March (♂) (PECK, 1989). Volcán Sierra Negra, pampa, alt. 900 m, September (2 ♂) (ABEDRABBO, 1987).

### *Sitticus phaleratus* n. sp. (Figs. 3, 6, 7, 12, 14, 17, 18. Map 7)

#### Diagnosis :

*Sitticus phaleratus* can be recognized by the two white longitudinal bands covering the entire length of carapace; the big spot of white hairs on dorsal cymbium; the shorter and slightly curved tibial apophysis. The shape of epigynum is diagnostic.

#### Description (♂/♀) :

Total length 3.07-3.25 in males, 3.56-4.45 in females. Carapace : width/length 0.73-0.81 in males, 0.76-0.87 in females; height/length 0.52-0.56 in males, 0.47-0.58 in females. Posterior declivity well behind PLE (Fig. 3). Apex of thoracic groove at the same level or a little forward the posterior margins of PLE. Ocular quadrangle

wider than long (length/width 0.62-0.64), occupying 0.42-0.49 length of carapace. Third row of eyes a little wider than first row (first/third 0.93-0.94 in males, 0.90-0.96 in females) exceptionally equal in small males. Height clypeus/AME diameter 0.36-0.48. Clypeus with few brown hairs in males; with some long convergent hairs at the margin in females. Chelicerae in both sexes with three promarginal teeth, no retromarginal tooth. Abdomen of males with a weakly sclerotized dorsal scutum. Leg spination (variation in parentheses) : Males : Femora I-IV d 1-1-1, p 2, r 2 (p 1, r 1). Patellae I-IV p 1, r 1. Tibiae I d 1, v 1r-1r-2, p 1-1-1, r 1-1; II v 1p-2 (v 1r-2-2, v 1r-1r-1r), p 1-1-1, r 1-1-1 (r 1-1); III d 1-1, v 1p-2, p 1-1-1, r 1-1-1; IV d 1-1, v 1p-2, p 1-1-1, r 1-1-1. Metatarsi I, II v 2-2, p 1-1, r 1-1; III v 1p-2, p 1-2, r 1-1-2; IV v ap 2, p 1-1-2, r 1-1-2. Females : Femora I d 1-1-1, p 2 (p 1); II d 1-1-1, p 2, r 1 (r 2, r 0); III d 1-1-1, p 2, r 1 (r 2); IV d 1-1-1, p 2, r 2. Patellae I, II 0 (p 1); III, IV p 1, r 1. Tibiae I v 1r-1r-1p (v 0-1r-1p, v 0-2-2, v 1r-2-1p); p 1 (p 1-1); II v ap 1 (v 0-1r-1p, v 0-1r-0), p 1-1 (p 0, p 1); III d 1, v 1p-2 (v 1p-1p), p 1-1-1, r 1-1-1 (r 1-1); IV d 1-1, v 1p-2, p 1-1-1, r 1-1-1. Metatarsi I, II v 2-2; III v 1p-2, p 1-2, r 1-1-2; IV v 1p-1p (v ap 2), p 1-1-2, r 1-1-2.

#### Male holotype :

Total length 3.07. Carapace length 1.67, width 1.30, height 0.90. Clypeus height 0.15. Ocular quadrangle length 0.77; first row width 1.12; third row width 1.20. Distances ALE-PME 0.22; PME-PLE 0.16. AME diameter 0.33; ALE 0.22. Palps : Figs. 12, 14.

#### Leg measurements :

	Fe	Pa	Ti	Mt	Ta	Total
I	0.85	0.52	0.53	0.43	0.33	2.66
II	0.83	0.48	0.47	0.42	0.25	2.45
III	0.85	0.42	0.43	0.50	0.32	2.52
IV	1.33	0.53	0.85	0.70	0.40	3.81

#### Female allotype :

Total length 4.27. Carapace length 1.90, width 1.63, height 1.03. Clypeus height 0.15. Ocular quadrangle length 0.90; first row width 1.33; third row width 1.47. Distances ALE-PME 0.22; PME-PLE 0.15. AME diameter 0.42; ALE 0.25. Epigynum : Figs. 7, 17, 18.

#### Leg measurements :

	Fe	Pa	Ti	Mt	Ta	Total
I	1.02	0.67	0.55	0.50	0.32	3.06
II	1.00	0.67	0.53	0.47	0.33	3.00
III	1.03	0.52	0.55	0.50	0.33	2.93
IV	1.63	0.70	1.08	0.87	0.48	4.76

Colour : males : carapace brown, cephalic region almost black with reddish brown and a few scattered white hairs.

Two longitudinal bands of white hairs from the space between the AME-ALE on each side at the anterior border till near the posterior margin of carapace. The bands are narrow in the cephalic region, where the integument is black, but they widened in the thoracic declivity where the integument of the bands is lightbrown. Black hairs between the bands in the thoracic slope; ocular hairs lightbrown; white at the inner border of ALE and outer border of AME. Abdomen brown with three or four apical chevrons, densely covered with white and yellow hairs. Some specimens have dark abdomen with dark brown hairs; other have lateral or central yellow bands, sometimes fused caudally. Legs lightbrown or yellow with dark spots and annulations; abundant long, white hairs, especially covering the light parts. Palp : femur with distal half lightbrown and dorsal white hairs; patella and tibia brown, dorsum yellow with compact white hairs; cymbium dark brown with a dorsal area of dense white hairs; apex and lateral sides of cymbium with brown or black hairs.

Females : as in males, except that there are more white hairs in the longitudinal bands and in the horizontal part of the dorsal carapace. Abdomen brown with yellow spots and apical chevrons (Fig. 6) Some females have broad lateral and central yellow bands. Legs as in males, but more hairy. Palp yellow, with inferior side of femur black brown, and black spots at dorsum of tibia and tarsus, which sometimes is dark brown.

#### *Etymology :*

From the Latin, meaning adorned, decorated.

#### *Type locality :*

Male holotype (KBIN) : Isla Santa Cruz, Bahía Tortuga, 14 March 1986 (BAERT, MAELFAIT & DESENDER), female allotype (KBIN) : Isla Santa Cruz, Bahía Tortuga, 18 February 1982 (BAERT & MAELFAIT).

#### *Material examined*

Paratypes : SANTA CRUZ : Bahía Tortuga, 13 February (1 ♀ MACN), 18 February (1 ♂, 3 ♀ KBIN), 16 March (1 ♀ KBIN) (BAERT & MAELFAIT, 1982). Playa Bachas, 15 March (1 ♂ MACN) (BAERT, DESENDER & MAELFAIT, 1988). SANTIAGO : Bahía James, alt. 10 m, 26 February (1 ♀ KBIN, 1 ♀ MACN). Bahía Espumilla/Cerro Cowan,

alt. 150 m, 7 April (1 ♀ KBIN). Caleta Bucanero, alt. 5-10 m, 6 April (1 ♀ KBIN), 9 April (1 ♀ MACN). Puerto Egas, alt. 5-10 m, 20 April (1 ♀ MACN) (BAERT & MAELFAIT, 1982). Arid zone, 17 March (1 ♀ KBIN) (JACQUEMART, 1974). SAN CRISTOBAL : Puerto Baquerizo Moreno, alt. 1-2 m, 5 March (1 ♂ MACN) (BAERT & MAELFAIT, 1982). SANTA FE : 27 March (1 ♂ KBIN) (BAERT, MAELFAIT & DESENDER, 1986).

Non-typic material : SAN CRISTOBAL : Puerto Baquerizo Moreno : Beach, 12 February (♀); alt. 10 m, 12 February (♂ ?) (PECK, 1989).

#### *Ecological considerations*

*Sitticus phaleratus* has only been captured in the littoral and coastal arid zones of the central islands Santiago, Santa Cruz, Santa Fé and on the eastern island San Cristóbal. *Sitticus uber* also occurs on Santa Cruz but in the moister and cooler higher vegetation zones, e.g. *Scalesia*, *Miconia* and fern-sedge (one single locality in the Transition zone, Tortoise reserve). This last species also occur at higher altitude on the southern Isabela volcano Sierra Negra (from the Culture zone around Santo Tomás, alt. 450-500 m, to the top) and the northern Isabela volcano Wolf (alt. 825 m). A third species, *Sitticus tenebricus*, was found on the southern Isabela volcano Cerro Azul, next to Volcán Sierra Negra, above 1450 m of altitude. This top zone show the same xerophytic characteristics as the lower arid zone.

Their distribution is given on Map 7.

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