

## Carabid beetles (Coleoptera, Carabidae) of Galápagos (Ecuador) collected during the Belgian 1988-expedition

by Konjev DESENDER, Leon BAERT & Jean-Pierre MAELFAIT

### Abstract

In this second contribution to the knowledge of the Carabid beetle fauna (Coleoptera, Carabidae) of the Galápagos (Ecuador), additional data are given on 17 species based on the examination of about 2,000 individuals collected during our 1988-expedition and some other recent expeditions. All literature references on these Carabids of Galápagos are also updated.

**Key-words:** Galápagos - Carabidae - distribution.

Contribution n° 454 of the Charles Darwin Research Foundation.

### Résumé

Dans cette deuxième contribution à la connaissance de la faune carabique des Galápagos (Ecuador), des nouvelles données de distribution de 17 espèces sont énumérées. Ce travail est basé sur l'étude d'environ 2.000 individus récoltés lors de l'expédition belge effectuée en 1988 et lors d'autres expéditions récentes. Le travail est complété par des références provenant de la littérature.

**Mots-clés:** Galápagos - Carabidae - distribution.

Contribution n° 454 de la Fondation de Recherche Charles Darwin.

### Introduction

During 1988, the authors spent two months (I.II - 3.IV) in the Galápagos archipelago in the scope of their Invertebrate survey, started during 1982. Several papers were already published on the araneological fauna of the archipelago by the co-authors (see BAERT & MAELFAIT, 1986; BAERT *et al.*, 1989a, 1989b, for references).

In this paper all known data on 17 Carabid species from the archipelago are completed since our recent paper which was based on the material of our 1986-expedition and all known previous data (DESENDER; *et al.*, 1989).

In this publication we will mention for each of the discussed species:

- the literature references (except those already compiled in DESENDER *et al.*, 1989);
- the material examined: besides our material collected during 1988, the first author had the opportunity to study the specimens collected by Heinz and Irene SCHATZ (1987- and 1988-expedition), Stewart PECK *et al.* (1985- and 1989-expedition), Sandra ABEDRABBO (1986 and 1987) and specimens from the collections of the British Museum of Natural History (collected by BATESON in 1925, de VRIES in 1967, NELSON in 1966

and PERRY in 1968) and the collections of the Bishop Museum in Honolulu (collected by ASHLOCK in 1964 and kindly provided by S. PECK); Filip MORET was so kind to let us know the detailed data obtained during his short expedition during October 1985;

- in each case we will mention the number of males and females, together with the month (in roman numbers) and year of capture;
- the distribution of the species over the archipelago; the islands (or large volcanoes) marked with an asterisk were not previously mentioned for the species.

For information on habitat choice and zoogeographic affinities of these species we refer to our former paper (DESENDER *et al.*, 1989). Some genera of Carabid beetles occurring in the archipelago are only incompletely or not mentioned here because we are at the time describing or revising these species and/or complete genera. Separate systematic papers will be devoted to these species together with all distributional and ecological data. Detailed descriptions of all sampling sites from our 1988 expedition are given by BAERT *et al.* (in 1989b); these localities are situated on a map of the archipelago (Figure 1).

### Results

#### *Agonum albemarli* VAN DYKE, 1953

#### References:

See DESENDER *et al.*, 1989: pp. 56-57.

#### Other material examined:

ISABELA: Volcán Sierra Negra: ABEDRABBO 1986 (IV): 900 m (3 ind.); PECK 1989 (III): 850 m (3 ♂♂); rim, 1000 m (4 ♂♂/3 ♀♀).

#### Distribution:

Isabela (Volcán Sierra Negra).

#### *Agonum chathamii* VAN DYKE, 1953

#### References:

See DESENDER *et al.*, 1989: p. 57.

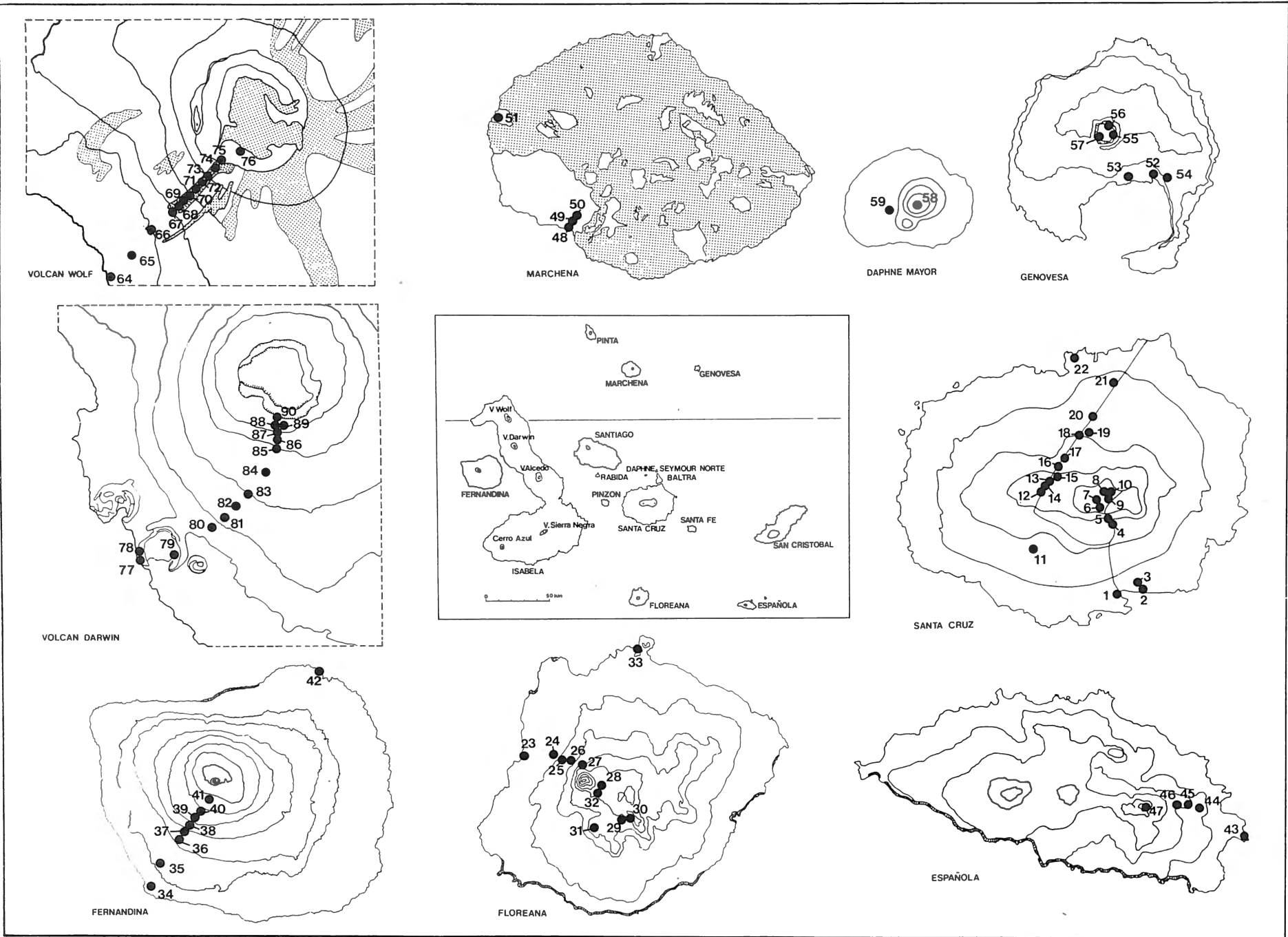


Fig. 1. - Localities sampled.

*Material sampled in 1988 :*

SAN CRISTOBAL (III) : Locality 60 (1 ♂/1 ♀).

*Other material examined :*

SAN CRISTOBAL : SCHATZ 1987 (I) : SW of El Junco, near stream (2 ♂♂/1 ♀); El Junco (4 ♀♀); MORET 1985 (X) : in the highlands, between 550 and 650 m (10 ♂♂/12 ♀♀); PECK & SINCLAIR 1989 (II) : 1 km E of El Junco, 550 m, *Miconia* ravine (6 ♂♂/4 ♀♀); El Junco, lake edge, 660 m (3 ♂♂/2 ♀♀); pampa, 500-700 m (2 ♂♂/2 ♀♀).

*Distribution :*

San Cristóbal.

*Morphological remark :*

According to MORET (in litt.), this and the following "species" most probably are two morphs of one species only; for the matter of completeness the data collected by Moret (1985, in litt.) are mentioned here but do not discriminate between both morphs or "species". We have not yet performed detailed morphological studies on these beetles; a first examination of the male external genitalia revealed no apparent differences.

#### **Agonum darwini** VAN DYKE, 1953

*References :*

See DESENDER *et al.*, 1989 : p. 57.

*Material sampled in 1988 :*

SAN CRISTOBAL (III) : Locality 60 (3 ♂♂/2 ♀♀).

*Other material examined :*

SAN CRISTOBAL : SCHATZ 1987 (I) : SW of El Junco, near stream (1 ♂/1 ♀); PECK 1989 (II) : 1 km E of El Junco, 550 m, *Miconia* ravine (3 ♂♂/2 ♀♀); 2 km NW of El Junco, 620 m, *Miconia* ravine (1 ♂); El Junco, lake edge, 660 m (1 ♀); pampa, 500-700 m (4 ♂♂/3 ♀♀).

*Distribution :*

San Cristóbal.

#### **Bembidion equatoriale** VAN DYKE, 1953

*References :*

See DESENDER *et al.*, 1989 : p. 57.

*Other material examined :*

SAN CRISTOBAL : MORET 1985 (X) : El Junco (4 ♂♂/5 ♀♀); PECK 1989 (II) : 2 km NW of El Junco, 620 m, *Miconia* ravine (1 ♀).

*Distribution :*

Espanola, Isabela (Volcán Sierra Negra, Volcán Cerro Azul), San Cristóbal, Santiago.

#### **Bembidion galapagoensis** (G.R. WATERHOUSE, 1845)

*References :*

See DESENDER *et al.*, 1989 : p. 58.

*Material sampled in 1988 :*

FERNANDINA (II) : Locality 41 (5 ♂♂/7 ♀♀).

ISABELA : Volcán Darwin (III) : Locality 86 (1 ♂), Locality 87 (1 ♂), Locality 89 (6 ♂♂/4 ♀♀); Volcán Wolf (III) : locality 73 (2 ♂♂/2 ♀♀), Locality 74 (1 ♂/2 ♀♀), Locality 75 (1 ♀).

*Other material examined :*

ISABELA : Volcán Alcedo : SCHATZ 1988 (III) : southern crater rim, 1030-1100 m (60 ♂♂/57 ♀♀); southwestern crater rim, 1060 m (11 ♂♂/13 ♀♀); eastern crater rim (4 ♂♂/4 ♀♀); southeastern crater rim (7 ♂♂/9 ♀♀); crater bottom, 750-770 m (5 ♂♂/2 ♀♀); eastern base of crater, 880 m (1 ♂); fumarole, 870-910 m (8 ♂♂/3 ♀♀).

Volcán Sierra Negra : ABEDRABBO 1986 : 900 m : (II) : (1 ♂/1 ♀), (IV) : (7 ♂♂/5 ♀♀), (VII) : (2 ♂♂/2 ♀♀), (IX) : (37 ♂♂/31 ♀♀), (XII) : (92 ♂♂/27 ♀♀); ABEDRABBO 1987 : 900 m : (II) : (14 ♂♂/2 ♀♀), (IX) : (2 ♂♂/1 ♀); SCHATZ 1987 (II) : burnt area, 900 m (3 ♂♂/9 ♀♀); Southern crater rim, 1000 m (5 ♂♂); Crater rim above Cerro de los Chanchos, 1000 m (3 ♂♂); Eastern crater rim towards Volcán Chico, 1000 m (1 ♂). PINTA ; SCHATZ 1988 (III) : forest below summit, 550 m (1 ♂).

*Distribution :*

Fernandina, Isabela (Volcán Sierra Negra, Volcán Cerro Azul, Volcán Alcedo, Volcán Darwin \*, Volcán Wolf \*), Santa Cruz, Santiago, Pinta.

#### **Calosoma granatense** GEHIN, 1885

*References :*

*Calosoma darwinia* : PAPP, 1954 : pp. 170-171.

*Calosoma galapageium* : PAPP, 1954 : pp. 172-173, plate 45, 46 (non HOPE).

*Calosoma howardi* : PAPP, 1954 : p. 171.

*Castrida granatense* : MORET, 1987 : pp. 92-93.

DESENDER & DE DIJN, 1989.

See DESENDER *et al.*, 1989 : pp. 58-59.

*Material sampled in 1988 :*

ESPANOLA (III) : Locality 43 (1 ♂ + fragments of 4 specimens), Locality 45 (fragments of 2 specimens), Locality 46 (fragments of 4 specimens), Locality 47 (1 ♂ + fragments of 2 specimens).

FERNANDINA (II) : Locality 35 (fragments of at least 7 specimens), Locality 41 (fragments of 1 specimen).

GENOVESA (III) : Locality 55 (fragments of 2 specimens), Locality 56 (fragments of 1 specimen).

ISABELA : Volcán Darwin (III) : Locality 78 (fragments of 2 specimens), Locality 79 (fragments of 2 specimens),

Locality 81 (fragments of 1 specimen), Locality 82 (fragments of 1 specimen), Locality 84 (fragments of 2 specimens), Locality 89 (2 ♂♂/1 ♀), Locality 90 (fragments of 2 specimens).

Volcán Wolf (III) : Locality 65 (fragments of at least 10 specimens), Locality 71 (fragments of 1 specimen), Locality 76 (fragments of 1 specimen).

MARCHENA (III) : Locality 48 (1 ♂/1 ♀ + fragments of 2 specimens), Locality 49 (fragments of 1 specimen), Locality 50 (fragments of 1 specimen), Locality 51 (fragments of 2 specimens).

SANTA CRUZ (II-III) : Locality 8 (1 ♂), Locality 15 (1 ♀), Locality 16 (64 ♂♂/36 ♀♀), Locality 17 (4 ♂♂), Locality 18 (51 ♂♂/22 ♀♀), Locality 19 (18 ♂♂/1 ♀).

#### Other material examined :

EDEN : BATESON 1925 (II) : (3 ♂♂/1 ♀) instead of 3 specimens (cfr. DESENDER *et al.*, 1989).

ESPANOLA : PECK 1985 (VI) : Bahia Manzanilla (1 ♀). FLOREANA : MORET 1985 (IX) : Puerto Velasco Ibarra (1 elytron); PECK 1989 (III) : Black Beach, arid zone (1 ♂/3 ♀♀); 5 km E of Black Beach, 250 m (2 ♀♀).

ISABELA : Volcán Alcedo : SCHATZ 1988 (III) : 280 m (1 ♀); 590 m (1 ♂); 780 m (10 ind.); southern crater rim, 1040-1090 m (10 ♂♂/2 ♀♀); southeastern crater rim, 1100 m (3 ♂♂/3 ♀♀); eastern crater rim, 1100 m (17 ind.); crater rim + fumarole, 900-1170 m (12 ♂♂/8 ♀♀).

Volcán Sierra Negra : PECK 1985 (VII) : 640 m (1 ♀); 830 m (1 ♂); MORET 1985 (IX) : near Santo Tomas 180-200 m (3 ♂♂/1 ♀); 490 m (2 ♂♂/3 ♀♀); 680-950 m (26 ♂♂/7 ♀♀); ABEDRABBO 1986 : 900 m (II) : (305 ind.); (IV) : (239 ind.); (VII) : (18 ind.); (IX) : (30 ind.); (XII) : (77 ind.); ABEDRABBO 1987 : 900 m : (II) : (1 ♂); (IX) : (1 ♂); SCHATZ 1987 (II) : near "El Porvenir" (5 ♂♂/1 ♀); Southern crater rim, 1000 m (9 ♂♂/10 ♀♀); Eastern crater rim towards Volcán Chico, 1000 m (1 ♂/3 ♀♀); PECK, LANDRY & SINCLAIR 1989 (III) : Villamil, arid littoral zone, 0-5 m (4 ♂♂/2 ♀♀); 1.5 km NW of Villamil, forest on cinders, 3 m (1 ♂); 12 km NW of Villamil, Jaboncillo forest, 150 m (1 ♂); Santo Tomas, 300-350 m (1 ♂/1 ♀); pampa, 700 m (7 ♂♂/8 ♀♀); pampa, 750 m (2 ♂♂); pampa, 1000 m (14 ♂♂/6 ♀♀); Volcán Chico trail, 1000 m (5 ♀♀).

PINZON : de VRIES 1967 (III) : (3 ♂♂).

SAN CRISTOBAL : PECK & SINCLAIR 1989 (II) : littoral arid zone, 0-10 m (7 ♂♂/2 ♀♀); Puerto Baquerizo, 10 m (21 ♂♂/12 ♀♀); 3 km E of Puerto Baquerizo, 100 m (4 ♂♂/6 ♀♀); 4 km E of Puerto Baquerizo, 150 m (4 ♂♂/1 ♀); 1 km E of El Progreso, guava ravine, 370 m (1 ♀); pampa, 500-700 m (1 ♂/1 ♀).

SANTA CRUZ : BATESON 1925 (II) : (5 ♂♂/2 ♀♀); ASHLOCK 1964 (II) : Academy Bay (16 ♂♂/16 ♀♀); PECK 1985 (V-VI) : CDRS, Academy Bay (1 ♀); MORET 1985 (IX) : South-West of Santa Rosa, 170-200 m (7 ♂♂/5 ♀♀); 1.5 km from Bella Vista, 180 m (6 ♂♂/5 ♀♀); SCHATZ 1987 (I) : CDRS (14 ♂♂/4 ♀♀); (III) : CDRS (11 ♂♂/4 ♀♀); below Media Luna (1 ♂); PECK, LANDRY & SINCLAIR 1989 : (I) : CDRS (2 ♂♂); Media Luna,

600 m (1 ♂); (II) : CDRS (5 ♂♂/5 ♀♀); tortoise reserve, 180 m (13 ♂♂/2 ♀♀); 3 km W of Bella Vista (1 ♂); Los Gemelos, 610 m (1 ♀); Puntudo, 650 m (1 ♂/2 ♀♀); (III) : Santa Rosa, Finca Devina (3 ♀♀); Puntudo, 650 m (1 ♀); (IV) : Los Gemelos, 600 m (3 ♀♀); 1 km N of Puntudo, 650 m (1 ♂).

SANTIAGO : BATESON 1925 (I) : (5 ♂♂/3 ♀♀ + 2 specimens) instead of (II) 6 ind. (cfr. DESENDER *et al.*, 1989). SEYMOUR (II) : SCHATZ 1987 (2 ♂♂).

#### Distribution :

Baltra, Darwin, Eden, Espanola, Fernandina \*, Floreana, Genovesa, Isabela, Marchena \*, Pinta, Pinzon, Pitt, San Cristóbal, Santa Cruz, Santa Fe, Santiago, Seymour \*.

### Calosoma galapageium HOPE, 1938

#### References :

*Castrida galapageium* : MORET, 1986 : p. 94.  
DESENDER & DE DIJN, 1989.  
See DESENDER *et al.*, 1989 : p. 60.

#### Other material examined :

SANTIAGO : Perry 1968 (IV) : (2 ♂♂).

#### Distribution :

Santiago.

### Calosoma leleuporum (BASILEWSKY, 1968)

#### References :

*Castrida leleuporum* : MORET, 1986 : pp. 93-94.  
DESENDER & DE DIJN, 1989.  
See DESENDER *et al.*, 1989 : p. 60.

#### Material sampled in 1988 :

SANTA CRUZ (II-III) : Locality 6 (1 ♀), Locality 7 (3 ♂♂/2 ♀♀), Locality 8 (48 ♂♂/18 ♀♀), Locality 10 (15 ♂♂/13 ♀♀).

#### Other material examined :

SANTA CRUZ : PECK 1985 (VII) : Los Gemelos, 570 m (4 ♀♀); Media Luna, 620 m (1 ♂); MORET 1985 (IX) : Los Gemelos, Scalesia forest (3 dead specimens, among which 2 ♀♀); SCHATZ 1987 (III) : N side, Scalesia forest (9 ♂♂/9 ♀♀); SCHATZ 1988 (III) : below Cerro Crocker, 850 m (1 ♂); PECK & SINCLAIR 1989 : Puntudo, 650 m : (II) : (3 ♂♂); (III) : (6 ♂♂/3 ♀♀); (IV) : 1 km N of Puntudo, 650 m (1 ♂).

#### Distribution :

Santa Cruz.

### Calosoma linelli MUTCHLER, 1925

#### References :

PAPP, 1954 : pp. 173-174.

*Castrida linelli* : MORET, 1986 : p. 94.  
 DESENDER & DE DIJN, 1989.  
 See DESENDER *et al.*, 1989 : p. 60.

*Other material examined :*

SAN CRISTOBAL : MORET 1985 (X) : between El Junco and Cerro San Joaquin (19 ♂♂/17 ♀♀); SCHATZ 1987 (I) : El Junco (4 ♂♂); PECK 1989 (II) : Cerro Mundo, 550 m (1 ♀); 1 km E of El Junco, *Miconia* (1 ♀); pampa, 500-700 m (6 ♂♂/12 ♀♀).

*Distribution :*  
 San Cristóbal.

***Cicindela galapagoensis* HORN, 1915**

*References :*

See DESENDER *et al.*, 1989 : pp. 60-61.

*Material sampled in 1988 :*

FERNANDINA (II) : Locality 34 (4 ♂♂/1 ♀).  
 GENOVESA (III) : Locality 52 (17 ♂♂/15 ♀♀).  
 ISABELA (III) : Volcán Wolf : Locality 64 (4 ♂♂/5 ♀♀).  
 MARCHENA (III) : Locality 48 (1 ♀).  
 SANTA CRUZ (III) : Locality 22 (3 ♂♂).

*Other material examined :*

GENOVESA : NELSON 1966 (V-VII) : (1 ♂).  
 SANTA CRUZ : ASHLOCK 1964 (I) : Academy Bay (1 ♂/2 ♀♀).

*Distribution :*

Fernandina \*, Floreana, Genovesa, Isabela (Volcán Wolf), Marchena \*, Santa Cruz.

***Pterostichus calathoides* (G.R. WATERHOUSE, 1845)**

*References :*

See DESENDER *et al.*, 1989 : p. 61.

*Material sampled in 1988 :*

SAN CRISTOBAL (III) : Locality 60 (11 ♂♂/18 ♀♀), Locality 61 (2 ♂♂/14 ♀♀).

*Other material examined :*

SAN CRISTOBAL : MORET 1985 (X) : highlands (550-710 m) (19 ♂♂/4 ♀♀); SCHATZ 1987 (I) : El Junco (18 ♂♂/17 ♀♀); SW of El Junco, near stream (4 ♂♂/4 ♀♀); PECK 1989 (II) : pampa, 500-700 m (21 ♂♂/17 ♀♀); 1 km E of El Junco, *Miconia* ravine, 550 m (6 ♂♂/5 ♀♀); caseta, pampa, 560 m (5 ♀♀); El Junco, pampa, 600 m (1 ♂); 2 km NW of El Junco, *Miconia*, 620 m (2 ♂♂/1 ♀); Cerro San Joaquin, 700 m (1 ♀).

*Distribution :*  
 San Cristóbal.

***Pterostichus duncani* (VAN DYKE, 1953)**

*References :*

See DESENDER *et al.*, 1989 : p. 62.

*Other material examined :*

PINZON : SCHATZ 1987 : (I) : Central Valley, 270 m (1 ♂/6 ♀♀); South of caldera (2 ♂♂); (II) : central valley, eastern part, 290 m (1 ♀); 370 m, above crater, *Scalesia* zone (1 ♀); summit, 460 m (1 ♂); South of caldera (1 ♀).

*Distribution :*  
 Pinzon.

***Pterostichus leleuporum* REICHARDT, 1976**

*References :*

See DESENDER *et al.*, 1989 : p. 62.

*Material sampled in 1988 :*

SANTA CRUZ (II-III) : Locality 8 (2 ♂♂), Locality 10 (2 ♂♂/2 ♀♀).

*Other material examined :*

SANTA CRUZ : SCHATZ 1987 (III) : N side, *Scalesia* forest (10 ♂♂/4 ♀♀); *Scalesia* forest near Cerro Crocker, 700 m (1 ♂); PECK 1989 (I) : pampa, Puntudo, 700 m (2 ♂♂/3 ♀♀); (II) : pampa, Puntudo, 700 m (4 ♂♂/6 ♀♀).

*Distribution :*  
 Santa Cruz.

***Pterostichus williamsi* (VAN DYKE, 1953)**

*References :*

See DESENDER *et al.*, 1989 : p. 62.

*Material sampled in 1988 :*

SANTA CRUZ (II-III) : Locality 18 (64 ♂♂/74 ♀♀), Locality 19 (6 ♂♂/14 ♀♀), Locality 20 (2 ♂♂/1 ♀), Locality 21 (1 ♂/1 ♀).

*Other material examined :*

SANTA CRUZ : PECK 1985 (V) : CDRS, Academy Bay (1 ♂); Tortuga Bay (1 ♂).

*Distribution :*  
 Santa Cruz.

***Scarites williamsi* REICHARDT, 1976**

*References :*

See DESENDER *et al.*, 1989 : p. 62.

*Other material examined :*

ISABELA : Volcán Sierra Negra : PECK 1985 (VII) :

830 m (1 ♀); ABEDRABBO 1986: 900 m: (II): (3 ♂♂/3 ♀♀); (IV): (3 ♂♂/1 ♀ + 2 ind.); (VII): (2 ♂♂); (IX): (2 ♂♂/2 ♀♀); (XII): (1 ♀); ABEDRABBO 1987: 900 m: (II): (1 ♂/4 ♀♀); (IX): (1 ♀); PECK 1989 (III): 750 m (1 ♂); 1000 m (3 ♂♂/1 ♀).

*Distribution :*

Isabela (Volcán Cerro Azul, Volcán Sierra Negra).

**Tachys erwini** REICHARDT, 1976

*References :*

See DESENDER *et al.*, 1989 : p. 63.

*Material sampled in 1988 :*

GENOVESA (III) : Locality 52 (3 ♂♂/3 ♀♀), Locality 56 (2 ♂♂/2 ♀♀).

ISABELA : Volcán Alcedo (III) : Locality 91 (1 ♀); Volcán Wolf (III) : Locality 64 (1 ♀).

*Other material examined :*

DARWIN : ASHLOCK 1964 (I) : (1 ♀).

SANTA CRUZ : ASHLOCK 1964 (II) : Academy Bay (1 ♀).

SEYMOUR : PECK 1989 (I) : arid zone, 10 m (16 ♂♂/16 ♀♀).

*Distribution :*

Darwin, Fernandina, Genovesa \*, Isabela (Volcán Alcedo \*, Volcán Darwin, Volcán Wolf \*), Pinta, Santa Cruz, Seymour \*.

**Tachys vittiger** LECONTE, 1851

*References :*

See DESENDER *et al.*, 1989 : pp. 63-64.

*Material sampled in 1988 :*

FLOREANA (II) : Locality 33 (36 ♂♂/32 ♀♀).

GENOVESA (III) : Locality 52 (5 ♂♂/5 ♀♀), Locality 56 (10 ♂♂/19 ♀♀), Locality 57 (1 ♀).

ISABELA : Volcán Alcedo (III) : Locality 91 (1 ♂/3 ♀♀); Volcán Sierra Negra (III) : Locality 92 (25 ♂♂/

27 ♀♀); Volcán Darwin (III) : Locality 77 (1 ♀).

SANTIAGO (III) : Locality 63 (13 ♂♂/13 ♀♀).

*Other material examined :*

ISABELA : Volcán Sierra Negra : PECK 1989 (III) : Villamil (1 ♂).

SAN CRISTOBAL : PECK 1989 (II) : Puerto Baquerizo (7 ♂♂/10 ♀♀).

SANTA CRUZ : ASHLOCK 1964 (I) : Academy Bay (1 ♂); PECK 1985 (V) : Academy Bay (21 ♂♂/19 ♀♀); SCHATZ 1987 (III) : above Bella Vista, 400 m (1 ♀); Los Gemelos, 590 m (1 ♂); PECK 1989 : (I) CDRS (1 ♂/3 ♀♀); (II) : CDRS (14 ♂♂/15 ♀♀); lagoon, 2 km E of CDRS (3 ♂♂/4 ♀♀).

*Distribution :*

Balra, Floreana \*, Genovesa \*, Isabela (Volcán Alcedo \*, Volcán Cerro Azul, Volcán Darwin, Volcán Sierra Negra), Rabida, San Cristóbal \*, Santa Cruz, Santiago.

**Acknowledgements**

These investigations were financed by (1) the Belgian Ministry of Education, (2) the National Foundation for Scientific Research (NFWO) and (3) the Leopold III Foundation. We are very grateful for the support of these Institutions. We received excellent cooperation from the CDRS (dir. G. RECK and his staff) and the National Park Service of the Galápagos (Intendente Ir. H. OCHOA). We are further indebted to Mrs. M.-A. GALARZA for her valuable help in the field. We would also like to thank M. WILSON (CDRS), Prof. G. ONORÉ (Univ. Catol., Quito, Ecuador), Dr. H. and I. SCHATZ (Austria), Prof. S. PECK (Canada), F. MORET (Spain) and M. BRENDILL (British Museum Natural History) for the loan of material.

**References**

- BAERT, L. & MAELFAIT, J.-P., 1986. A contribution to the knowledge of the spider fauna of Galápagos (Ecuador). *Bulletin de l'Institut royal des Sciences Naturelles de Belgique : Entomologie*, 56 : 93-123.
- BAERT, L., DESENDER, K. & MAELFAIT, J.-P., 1989a. Results of the Belgian 1986-expedition : Araneae, and provisional checklist of the spiders of the Galápagos archipelago. *Bulletin de l'Institut royal des Sciences Naturelles de Belgique : Entomologie*, 58 : 29-54.
- BAERT, L., DESENDER, K. & MAELFAIT, J.-P., 1989b. Results of the Belgian 1988-expedition to the Galápagos islands : Araneae. *Bulletin de l'Institut royal des Sciences Naturelles de Belgique : Entomologie*, 59 : 5-22.
- DESENDER, K., BAERT, L. & MAELFAIT, J.-P., 1989. Contribution to the knowledge of the Carabid beetles of Galápagos (Ecuador). *Bulletin de l'Institut royal des Sciences Naturelles de Belgique : Entomologie*, 58 : 55-65.
- DESENDER, K. & DE DIJN, B., 1989. The *Calosoma* species of the Galápagos archipelago. I. Redescriptions and distribution of the species. *Bulletin de l'Institut royal des Sciences Naturelles de Belgique : Entomologie*, 59 : 131-144.
- MORET, P., 1986. El género *Castrida* en el Ecuador (Coleoptera, Carabidae). *Publicaciones del Museo Ecuatoriano de Ciencias Naturales - Serie : Revista*, nº 5 : 91-95.
- PAPP, C.S., 1954. New record for *Calosoma galapageium* Hope (Coleoptera : Carabidae). *Bulletin Society of the California Academy of Sciences*, 53 : 169-174.

Konjev DESENDER,  
Leon BAERT &  
Jean-Pierre MAELFAIT,  
Dept. Entomology,  
Koninklijk Belgisch Instituut  
voor Natuurwetenschappen,  
Vautierstraat 29,  
B-1040 Brussel, Belgium.