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Para o Professor Oromí
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COLLEMBOLA FROM TWO CAVES OF TENERIFE, CANARY ISLANDS

by

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1 - INTRODUCTION

The materials concerning this study have been sent to the senior author by Professor Oromí from University of La Laguna, Tenerife. It is integrated in a broader research project of environmental impact in Cueva del Viento, which is being carried out under the coordination of that Professor.

Until 1988, the number of species referred to the Canary Islands was 41 (GAMA, 1988).

II - MATERIALS

These materials were collected in 1994 in Cueva del Viecb and Cueva de Felipe Reventón by Professor Pedro Oromí and his collaborators, Manuel Arechavaleta and Lucas Sala.

Cueva del Viento and Cueva de Felipe Reventón are complex lava tubes situated in Icod de los Vinos, North of Tenerife, the largest of seven islands which form the Canary Archipelago. Their entrances are located at an altitude of 650 m, but the most distant points range from 500 to 900 m in Cueva del Viento, and from 650 to 750 m in Cueva de Felipe Reventón. They are long enough (nearly 20 km altogether, see HERNANDEZ *et al.*, 1995) to include different kinds of galleries, almost always absolutely dark and permanently very humid. Therefore, the environmental conditions are appropriated to hold an adapted fauna, as it has been already stated (MARTIN *et al.*, 1995).

FJELLBERG (1992, 1995) has cited for the first time to this archipelago 29 species, belonging to the families Hypogastruridae and Odonotellidae. GAMA (1996) has described a new species, *Pseudosinella oromii*, from three caves of Tenerife and from Cueva del Llano of Fuerteventura. Our present study has revealed 7 more species, which are signalized by an asterisk.

Therefore, at the present time, 78 species are known from these island.

111 - RESULTS

We have identified 15 species of Collembola from Cueva del Viento and Cueva de Felipe Reventón, being seven of them mentioned for the first time to this archipelago.

Ceratophysella denticulata (Bagnall, 1941)

Occurrence: Cueva del Viento and Cueva de Felipe Reventón. Already cited from Tenerife. Cosmopolite species, occurring accidentally in caves.

Onychiurus ghidinii Denis, 1938

Occurrence: Cueva del Viento and Cueva de Felipe Reventón. Already cited from La Gomera and El Hierro.

Atlantic - Mediterranean species, occurring sometimes in caves.

**Onychiurus cf. scotarius* Gisin, 1954

Occurrence: Cueva del Viento and Cueva de Felipe Reventón.

European species, occurring sometimes in caves.

**Onychiurus pseudostachianus* Gisin, 1956

Occurrence: Cueva del Viento

European species, occurring sometimes in caves.

**Folsomia candida* (Willem, 1902)

Occurrence: Cueva del Viento.

Species of wide distribution, troglophile.

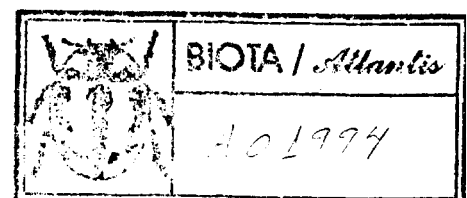
Sinella coeca (Schott, 1896)

Occurrence: Cueva del Viento and Cueva de Felipe Reventón. Already cited from Tenerife.

Species of wide distribution, trogiophile.

Heteromurus nitidus (Templeton, 1835)

Occurrence: Cueva del Viento and Cueva de



Felipe Reventón. Already cited from La Palma.
Species of wide distribution. troglophile.

Lepidocyrtus flexicollis Gisin, 1965

Occurrence: Cueva del Viento and Cueva de Felipe Reventón. Already cited from Tenerife and El Hierro.

Endemic species from Canary Islands, occurring in caves and as edaphic.

Pseudosinella oromii Gama, 1996

Occurrence: Cueva del Viento and Cueva de Felipe Reventón.

Endemic species from Canary Islands (Tenerife and Fuerteventura), in caves.

****Troglopedetes vandeli*** (Cassagnau and Delamare, 1955)

Occurrence: Cueva del Viento and Cueva de Felipe Reventón.

Lebanon and Tenerife. in caves.

****Troglopedetes cavernicola*** Delamare, 1944

Occurrence: Cueva del Viento and Cueva de Felipe Reventón.

South of Portugal and Tenerife, in caves. Barrocal Algarvio, in soil.

Cyphoderus canariensis Gama, 1988

Occurrence: Cueva del Viento. Already cited from Tenerife.

Endemic species from Canary Islands, in caves.

****Neelus murinus*** Folsom, 1896

Occurrence: Cueva del Viento.

Species of wide distribution, troglophile.

****Arrhopalites elegans*** (Cassagnau and Delamare, 1953)

Occurrence: Cueva del Viento and Cueva de Felipe Reventón.

European species, occurring frequently in caves.

Disparhopalites panizii (Cassagnau and Delamare, 1953)

Occurrence: Cueva del Viento and Cueva de Felipe Reventón. Already cited from Tenerife.

European species, occurring mainly in caves.

IV - CONCLUSIONS

Among the studied species, it is interesting to emphasize some of them: *Troglopedetes vandeli*, the best represented species in these caves, and *Troglopedetes cavernicola* present a high level of troglomorphy, the former was known from one cave of Lebanon (CASSAGNAU and DELAMARE, 1955; THIBAUD and NAJT, 1988) and the second has been found before in three caves in the South of Portugal (GAMA and AFONSO, 1994) and later in

soil in the Barrocal - Algarve (GAMA *et al.*, 1997, 1998, 2000). *Pseudosinella oromii* is also a cavernicolous species, possibly endemic to Canary Islands. It was described from three caves of Tenerife Island (Cueva del Viento, Cueva de Felipe Reventón and Cueva del Bucio) and from Cueva del Llano in Fuerteventura Island (GAMA, 1996). *Lepidocyrtus flexicollis* and *Cyphoderus canariensis* are also endemic to this archipelago (GAMA, 1988).

Five of the other species present an European distribution and five are possibly cosmopolite species.

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ABSTRACT

The study of 116 samples of Collembola from two caves of Tenerife Island (Cueva del Viento and Cueva de Felipe Reventón) has revealed the existence of 15 species, among which 7 are reported for the first time to this archipelago, being 3 probably endemic.

RÉSUMÉ

L'étude de 116 échantillons de Collemboles provenant de deux grottes de l'île de Tenerife (Cueva del Viento and Cueva de Felipe Reventón) a révélé l'existence de 15 espèces, parmi lesquelles 7 sont citées pour la première fois pour cet archipel, 3 étant probablement endémiques.

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