

CONTRIBUTIONS TO THE TERRESTRIAL ARTHROPOD FAUNA OF THE CORVO ISLAND (AZORES)

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This paper presents a summary of the Arthropods from Corvo island. Collections and/or observations were made in July and October 1993. The insects, which comprised most of the material, were found associated with their hosts. The list of records includes 44 species, belonging to 13 orders and 31 families. Some species of the orders Homoptera (3), Coleoptera (6), Lepidoptera (16) and Hymenoptera (3) are new confirmed records for this island.

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Uma lista das espécies de Artropodos recolhidos e/ou observados na ilha do Corvo, em Julho e Outubro de 1993, é apresentada. Esta inclui fundamentalmente a entomofauna que se encontrava associada com o seu hospedeiro. As 44 espécies encontradas estão distribuídas por 13 ordens e 31 famílias. Algumas espécies de Homópteros (3), Coleópteros (6), Lepidópteros (16) e Himenópteros (3) constituem primeiras citações para esta ilha.

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INTRODUCTION

The Arthropod fauna of the Corvo island (the smallest of the Azorean Archipelago (17 km², maximum altitude 718 m, situated at 36°40'N; 31°40'W) has been poorly studied. Bibliographical record are for the most part old and appear mainly in the form of general faunistical lists or single records. (e.g. DROUET 1861; GODMAN 1870; FERNANDES 1982; GAMA 1982; GOMES 1982; QUARTAU 1982; SOUSA 1985; BORGES 1990; SOUSA 1991; VIEIRA & TAVARES in press). Still fewer papers have been published on vascular flora and vegetation of the Corvo (SJOGREN 1979; HANSEN 1988). The plants are, however, much better known than their Arthropod enemies. The parasites and

predators of phytophagous Arthropods have not been studied previously.

The field work was carried out during four days (3 July and 18-20 October 1993). The general objectives were to contribute to the understanding of the ecology of the biotopes of this island and describe qualitatively and, whenever possible, quantitatively, their communities. This paper lists the material collected by the author, as well as the observations made. Some ecological notes are presented.

METHODS

Several techniques were used to collect Arthropod specimens at Corvo island (VIEIRA & TAVARES in press). Moreover, noctuid

Lepidoptera in pasture lands, specially *Noctua pronuba* (L.), *Peridroma saucia* (Hübner), *Xestia c-nigrum* (L.), *Mythimna unipuncta* (Haworth) and *Phlogophora meticulosa* (L.), were studied altogether using 20 sample plots (size 0,25 m²) per locality.

The list of records only includes the entomological fauna that was found associated with their hosts (plants or other Insects). Twenty eight species and subspecies of Lepidoptera from Corvo island were listed by VIEIRA & TAVARES (in press). From these, only the species where larval instars were observed attacking hostplants directly (in pastures, maize-fields, tomato-fields, other vegetable crops and endemic plants) are presented. The nomenclature and sequence used for the listing of the Hexapoda taxa are that of QUARTAU (1984). The families and species are listed following the order used namely by LERAUT (1980), DELVARE & ABERLENC (1989), BORGES (1990). The nomenclature of the families and species of plants and vegetation is that of SJÖGREN (1979) and HANSEN (1988).

The species marked (*) were not collected, but only observed during field work. From species listed, those marked with (#) are recorded for the first time from Corvo. Data given under each species entry conform to the format: locality, date, number of specimens (=spec./specs.), cultural area, hostplant and/or habitat, natural enemy (NE) - parasite or predator.

RESULTS

LIST OF SPECIES AND MATERIAL EXAMINED

ISOPODA

Family PORCELLIONIDAE

Porcellio sp.

Vila Nova do Corvo (Cascalho), 18-20.X.93, common. Dry to moderately damp biotopes, e.g. leaf litter, young organons of plants.

SYMPHYLA

Family SCUTIGERELLIDAE

Scutigera immaculata Newport

Vila Nova do Corvo, 19.X.93, 3 specs. *Zea mays* L. (Poaceae), *Solanum tuberosum* L. (Solanaceae), *Beta vulgaris* L. (Chenopodiaceae).

DIPLOPODA

Family BLANIULIDAE

Blaniulus guttulatus Bosc.

Vila Nova do Corvo (Cascalho), 18-20.X.93, common. *Solanum tuberosum* L. (Solanaceae), *Beta vulgaris* L. (Chenopodiaceae) and cultivated plants in areas of horticulture.

COLLEMBOLA

Family ENTOMOBRYIDAE

* *Entomobrya multifasciata* (Tullberg)

Vila Nova do Corvo, 18-20.X.93. On house walls.

DERMAPTERA

Family FORFICULIDAE

Forficula auricularia L.

Vila Nova do Corvo and Rebentão, 18-20.X.93, common. *Zea mays* L. (Poaceae), bulbs, and beet (*Beta vulgaris* L. (Chenopodiaceae)).

ORTHOPTERA

Family GRYLLIDAE

Gryllus bimaculatus (De Geer).

Vila Nova do Corvo (Cascalho), 19.X.93, 1 spec. In cultivated lands and pastures.

Family ACRIDIDAE

Locusta danica (L.)

Vila Nova do Corvo, 18-20.X.93, common. Cereal crops (*Zea mays* L., *Avena* sp. (Poaceae)), potato (*Solanum tuberosum* L. (Solanaceae)), beet (*Beta vulgaris* L. (Chenopodiaceae)) and

flowers in marginal areas of cultivated lands and pastures.

HOMOPTERA

Family MARGARODIDAE

≠ *Icerya purchasi* (Maskell)

Vila Nova do Corvo, 18-20.X.93, common. Adults in shadow zones of branches of *Pittosporum tobira* (Thunb.) Ait. (Pittosporaceae) and *Ficus carica* L. (Moraceae). NE: *Rodolia (Vedalia) cardinalis* Muls. (Coleoptera, Coccinellidae).

Family DIASPIDIDAE

≠ *Aspidiotus nerii* Bouché

Vila Nova do Corvo, 18-20.X.93, common (males and females). Branches and leaves of *Pittosporum tobira* (Thunb.) Ait. (Pittosporaceae).

Family COCCIDAE

≠ *Coccus* aff. *hesperidum* L.

Vila Nova do Corvo, 18-20.X.93, common. Branches, leaves and fruits of *Pittosporum tobira* (Thunb.) Ait. (Pittosporaceae).

HETEROPTERA

Family MIRIDAE

Ligus apicalis Fieb.

Vila Nova do Corvo, 18-20.X.93, 4 specs. In pasture lands.

Family PENTATOMIDAE

Nezara viridula (L.)

Vila Nova do Corvo, 18-20.X.93, common. *Trifolium* sp. (Leguminosae) and *Lycopersicon esculentum* Mill. (Solanaceae) in cultivated lands and pastures.

NEUROPTERA

Family CHRYSOPIDAE

Chrysoperla sp.

Zimbral, 19.X.93, 1 spec. *Erica scoparia* L. ssp. *arctica* (Hochst.) D. A. Webb (Ericaceae).

COLEOPTERA

Family CARABIDAE

Pseudophonus rufipes (De Geer)

Vila Nova do Corvo, 19.X.93, 4 specs.

Family COCCINELLIDAE

Scymnus interruptus (Goeze)

Vila Nova do Corvo, 19.X.93, 3 specs. *Pittosporum tobira* (Thunb.) Ait. (Pittosporaceae).

Scymnus sp.

Vila Nova do Corvo, 19.X.93, 2 specs. The *Scymnus* sp. larva was observed to be cannibal. *Pittosporum tobira* (Thunb.) Ait. (Pittosporaceae).

Rodolia (Vedalia) cardinalis (Mulsant)

Vila Nova do Corvo, 18-20.X.93, 1 pupa. Predator of *I. purchasi*.

Family CHRYSOMELIDAE

Chrysolina (Chrysomela) banksi (Fabricius)

Vila Nova do Corvo, 20.X.93, 3 specs. In pastures.

Family RHYNCHOPHORIDAE

Sitophilus zeamais Motschoulsky

Vila Nova do Corvo, 18.X.93, Zimbral, 19.X.93, and Rebentão, 19.X.93, common. Adults on maize cobs (*Zea mays* L., Poaceae).

Family CURCULIONIDAE

Otiorhynchus sp.

Vila Nova do Corvo, 18.X.93, 1 spec. On field stone walls.

DIPTERA

Family SYRPHIDAE

Metasyrphus corollae (Fabricius)

Vila Nova do Corvo, 19.X.93, 1 spec. *Tripholium* sp. (Leguminosae) and *Lavatera cretica* L. (Malvaceae).