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XCVIII.—ASPECTS OF THE FAUNA AND FLORA OF THE AZORES.
VIII. ORTHOPTERA.

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THERE have been a number of studies of the Orthoptera of the Azores (Bolivar, 1891, 1894, 1905; Chopard, 1932, 1942, 1946; Uvarov, 1948) and like the other insect groups the number of species is remarkably low. The reason for the poverty of the Orthopteran fauna may lie in the humidity of the atmosphere or some undetermined ecological factor, but it is striking that while these insects are poorly represented in the Azores, the richness of this part of the fauna increases as the African coast is approached via Madeira and the Canary Islands. The suggestion that the Azores were separated from the Continent at an earlier time than these other two groups of islands may explain the comparative paucity of species (Chopard, 1946).

The Orthoptera which are found in the islands may be described as representing an impoverished Mediterranean fauna with a number of cosmopolitan species added. The presence of *Oxyhaloa murrayi*, recorded here for the first time, is particularly interesting as it has previously been reported only from East Africa and Nigeria. The influence of N. America is shown, however, in the endemic *Conocephalus chavesi* Bol., which seems closer to N. American forms than Mediterranean ones. On the other hand *Hololampra chavesi* Bol., also endemic in the islands, has affinities with Canary Island and Madeiran species.

The material was collected by the author as a member of the Queen Mary College Expedition to the isles of Pico and Fayal, Azores, from August 1st to September 16th, 1952 (Chapman, 1954, Carthy, 1955). The author is indebted to Dr. D. R. Ragge of the Department of Entomology, British Museum (Natural History) for his willing help in checking the identifications and in many other ways.

Where insects have previously been reported from either Fayal or Pico, a note is made; otherwise it may be taken that the record is a new one for these two islands.

DERMAPTERA.

Labiduridae.

Labidura riparia Pall.

1 ♂ beneath dead Shearwater in valley above Capelo, W. Fayal,
30. viii.

Also Chopard (1932), Fayal, common under *Fucus* on shore.

Distribution.—Cosmopolitan.

Anisolabis annulipes Luc.

3 ♀♀, 6 nymphs, bungalow garden, Horta, Fayal, 14-30. viii.

Also Chopard (1932), Fayal, common.

Distribution.—Cosmopolitan.

Forficulidae.

Forficula (s. str.) *auricularia* L.

1 ♂, 1 ♀, bungalow garden, Horta, Fayal, 14–30. viii.

Also Chopard (1942), Horta, Fayal.

Distribution.—Cosmopolitan.

DICTYOPTERA.

Blattidae.

Hololampra chavesi Bol.

2 ♂♂, 1 ♀ top of ravine, 750 ft. above floor of Cakleira, Fayal, in wet moss, 29. viii; bungalow garden Horta, Fayal, 14–30. viii.

Distribution.—Azores (S. Miguel).

Oxyhaloa murrayi Brunn.

1 ♂, bungalow garden, Horta, Fayal, 14–30. viii. Not previously found in the Azores.

Distribution.—E. Africa and Nigeria.

SALTATORIA.

Acrididae.

Locusta migratoria L., ph. *solitaria*.

2 ♀, pasture, 2,500 ft. above Caes, Pico, 3. ix; 2 ♂ nymphs, field, 3,000 ft. above Madalena, Pico, 12. viii; 1 ♂, field 3,000 ft. above Madalena, Pico, 18. viii; 2 ♀, 4 ♂, roadside 1 m. W. of Horta, Fayal, 26. viii; 1 ♀, 6 ♂, 2 ♂ nymphs, cliff top, above whaling station, Capelo, Fayal, 30. viii; 3 ♀♀, 1 ♂, 3 ♂ nymphs, bungalow garden, Horta, Fayal, 14–30. viii.

Also Uvarov (1948), Pico and Fayal.

Distribution.—Europe, Africa, Asia, Azores.

Oedipoda fuscocincta Luc. ssp. *coerulea* Sauss.

The specimens agree with other examples of this subspecies except that the clear area at the tip of the wing is smaller and the extension of the black area towards the wing-base longer.

3 ♀♀, 7 ♂♂, roadside 1 m. W. of Horta, Fayal, 26. viii; 1 ♀, 1 ♂, cliff top by whaling station, Capelo, Fayal, 30. viii; 1 ♀, bungalow garden, Horta, Fayal, 14–30. viii.

Distribution.—Corsica, Spain, Azores.

Oedipoda canariensis Kr.

Found on Pico and Fayal by Frey and Storå (Uvarov, 1948). Not found on this expedition.

Tettigoniidae.

Phaneroptera quadripunctata Br.

1 ♂, 1 ♀ nymph, bungalow garden, Horta, Fayal, 11. ix; 1 ♂, bungalow garden, Horta, Fayal, 16. ix; 1 ♂, bungalow garden, Horta, Fayal, 1–8. viii.

Distribution.—S. Europe, Syria, Azores.

Platycleis falx F.

1 ♂, grass beside track at 200 ft. above Caes, Pico, 3. ix. Chopard (1932), Fayal, common, especially low down.

Distribution.—Mediterranean, Madeira, Azores.

Conocephalus chavesi Bol.

1 ♀, 1 ♂, 1 ♀ nymph from bracken by track, 1,000 ft. above Caes, Pico, 6. ix.

Distribution.—Azores.

Gryllidae.

Gryllus bimaculatus de Geer.

1 ♀ nymph, bungalow garden, Horta, Fayal, 14–30. ix; four early stage nymphs, 2 ♂ older nymphs and 5 ♂♂, 4 ♀♀ adults, Horta, Fayal, 14. viii–13. ix.

Chopard (1932), Fayal.

Distribution.—Mediterranean, Africa, Asia, Azores.

PHASMIDA.

Phasmidae

Clonopsis gallica var. *occidentalis* Bol. (= *Bacillus gallicus* var. *occidentalis*, Bolivar, 1894, Actas. Soc. esp. Hist. nat. xxiii, 73).

2 ♀♀, Horta, Fayal, 14–30. viii.

Chopard (1942), Horta, Fayal.

Distribution.—Azores.

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