

XLV.—ASPECTS OF THE FAUNA AND FLORA OF THE AZORES.  
V. CRUSTACEA.

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INTRODUCTION.

Of publications on the crustacean fauna of the Azores only Barrois (1888), Chevreux (1888) and Dollfuss (1888) deal largely with the littoral species. Other publications on Azorean crustacea are those of Milne-Edwards & Bouvier (1894 & 1899). Barrois lists 111 species, including 48 decapods, 35 amphipods, 19 isopods, 4 copepods and 5 cirripedes, many more than the 21 species mentioned by Nobre (1930) and more than were collected in 1952. A list of this material is set out below with brief ecological and taxonomic notes where appropriate.

We should like to thank Drs. I. Gordon and J. P. Harding of the British Museum (Natural History) for giving us facilities for working there, for help and for the identification of certain species. Monsieur. J. Forest of the Paris Museum was kind enough to identify the hermit crabs.

COPEPODA (HARPACTICOIDA).

*Parastenhelia spinosa* (Fischer). No. 223.

*Harpacticus littoralis* Sars.

*Lourinia armata* (Claus.).

*Paradiosaccus varicolor* (Farran.).

*Metis ignea* Phillipi.

All these species were inhabitants of the dense coralline alga zone, a study of the population of which is in preparation.

COPEPODA (LERNAEOIDA).

Family *Lernaeidae*.

*Penella balaenopterae*.

Fayal, Porto Pim whale factory. On sperm whale. Presented.

CIRRIPEDIA (THORACICA).

Family *Lepadidae*.

*Lepas anatifera* L. No. 472.

Fayal, Feteira. Stranded.

Fayal, Capelos. Mooring buoy.

*Conchoderma aurita* (L.). No. 303.

Fayal. From teeth of sperm whale with deformed mandible.

Family **Balanidae**.

*Balanus tintinnabulum* (L.). No. 559.

Pico, Madalena, Madalena Rocks.

*Chthamalus stellatus* (Poli).

The common barnacle above H.W.M.

AMPHIPODA (GAMMARIDEA).

Family **Gammaridae**.

*Elasmopus rapax* Costa. No. 328.

Fayal, Pasteleiro, L.W.M.

Family **Talitridae**.

*Talitrus saltator* (Montagu). No. 472.

Fayal, Pim Bay. Above H.W.M. on sandy shore.

*Hyale perieri* (Lucas). No. 434.

Fayal, Horta bay. On *Ulva*.

AMPHIPODA (CAPRELLIDEA).

Family **Caprellidae**.

*Cyamus globicipitis* Lütken. Nos. 296 and 1932.

Fayal. On tail-flukes of sperm whale.

ISOPODA (FLABELLIFERA).

Family **Anthuridae**.

*Paranthurus nigro-punctata* (Lucas). Nos. 87 and 147.

Fayal, Pasteleiro. Below L.W.M.

Feteira. M.W.

ISOPODA (ONISCOIDEA).

Family **Ligiidae**.

*Ligia italica* Fabricius. Nos. 142, 399 and 400.

The specimens agree with specimens so identified in the Norman collection from Madeira, but are generally larger and the antennæ and uropods are relatively longer than those of specimens from the Mediterranean in the Budde Lund collection. Body dimensions, female: length 12 mm., width 5.5 mm., uropods 10 mm., flagellum of antennæ with > 20 segments, often 24. (See Jackson (1922).)

Fayal, Pasteleiro. Above H.W.M.

DECAPODA (NATANTIA).

Family Hippolytidae.

*Lysmata* sp. Nos. 367, 372 and 523.

The specimens are small but are probably *L. intermedia* (Kingsley), which has been recorded from the Azores.

Fayal, Horta. On rocks brought to the surface by a diver working in the harbour.

Family Alpheidae.

*Alpheus macrocheles* Hailstone. Nos. 36, 347, 373 and 527.

Fayal, Pasteleiro. L.W.M.

Fayal, Horta. On rocks brought to the surface by a diver working in the harbour.

Family Palaemonidae.

*Palaemon (Palaeander) elegans* Czerniasky. Nos. 168 and 264.

Fayal, Feteira. M.W.

Fayal, Capelos. Rock pools.

DECAPODA (REPTANTIA).

Family Scyllaridae.

*Scyllarus arctus* L. No. 326.

Fayal, Pasteleiro. L.W.M.

Almost certainly this species but juvenile.

Family Paguridae.

*Clibanarius misanthropus* Risso. Nos. 61 and 169.

Fayal, Feteira. M.W.

*Calcinus ornatus* Roux. No. 17.

Fayal, Castelo Branco.

*Pagurus calidus* Risso. No. 93.

Fayal, Porto Pim.

*Eupagurus cuanensis* Thompson. No. 270.

Fayal, Feteira.

Family Galatheididae.

*Galathea squamifera* Leach. Nos. 368 and 513.

Fayal, Horta. On rocks brought to the surface by a diver working in the harbour.

Family **Dromiidae**.

*Dromia vulgaris* Milne-Edwards. Nos. 68, 319, 325 and 389.

Fayal, Pasteleiro. L.W.M.

All the specimens taken were females, some in berry and none wider across the carapace than 15 mm.

Family **Calappidae**.

*Calappa granulata* L. No. 471.

Fayal, Horta harbour.

Family **Portunidae**.

*Portunus marmoreus* Leach. Nos. 112 and 159.

Fayal, Pim Bay. On fine black sand in 6-7 fathoms of water. The animal appeared to match its surroundings very closely.

*Neptunus hastatus* L. No. 576.

Fayal. Presented. Locality unknown.

*Neptunus sayi* Gibbes. No. 112.

Fayal, Pim Bay. In 6-7 fathoms of water.

Family **Xanthidae**.

*Xantho floridus* Montagu. Nos. 33, 70, 154, 314 and 569.

Fayal. Pasteleiro. L.W.M.

Fayal, Feteira. L.W.M.

*Leptodius* sp., juv. No. 337.

Fayal, Horta. On rocks brought to the surface by a diver working in the harbour.

*Eriphia spinifrons* Herbst. Nos. 48, 160 and 144.

Fayal, Feteira. L.W.M.

Fayal, Pasteleiro.

*Micropanope granosa* (Milne-Edwards and Bouvier). Nos. 70, 154, 337 and 378.

Fayal, Pasteleiro. L.W.M.

Fayal, Feteira. L.W.M.

Fayal, Horta. On rocks brought to the surface by a diver working in the harbour.

The specimens agree with the description of *Micropanope granosa* given in Monod (1933) and with the *Xanthias granosus* of Bouvier (1940), and with the *Xanthodes granosus* of Milne-Edwards and Bouvier (1899). Females in berry, 10 mm. or less in width of carapace.

Family **Grapsidae.**

*Pachygrapsus marmoratus* Fabricius. No. 445.

Fayal, Pasteleiro. M.W.

*Pachygrapsus maurus* Lucus. No. 406.

Fayal, Almoxarife.

*Grapsus grapsus* L. No. 435.

Fayal, Espalamaca.

This is probably the *Grapsus pictus* of Nobre (1930).

*Planes minutus* L. No. 614.

Fayal, Capelos. Mooring buoy.

This is a pelagic crab which is frequently associated with *Sargassum* weed. Large quantities of this alga are often cast up in the Azores.

*Percnon gibbesi* (Milne-Edwards). Nos. 67, 359, 537 and 588.

Fayal, Pasteleiro. L.W.M.

This crab is chiefly a Caribbean species but is listed from the Cape Verde Islands by Milne-Edwards and Bouvier (1899) as *Leiolophus planissimus*. It has once been reported from the Azores, in 1893, when one male was collected (Rathbun, 1918).

Family **Maiidae.**

*Maia squinado* Rondelet. No. 385.

Fayal, Porto Pim fish-market. Purchased.

*Herbstia rubra* Milne-Edwards. Nos. 32, 337 and 389.

Fayal, Pasteleiro. L.W.M.

Fayal, Horta. On rocks brought to the surface by a diver working in the harbour.

*Eurynome aspera* Pennant. No. 514.

Fayal, Horta. On rocks brought to the surface by a diver working in the harbour.

*Acanthonyx lunulatus* var. *brevifrons* Risso. Nos. 47, 71, 149, 418 and 567.

This species is well known from its European and Atlantic distribution and the specimens collected agree with the descriptions given by Milne-Edwards and Bouvier (1899), Balss (1922) and Monod (1933) and with the British Museum material 1954.12.24.45 and 76.2 from Madeira, except that a third lateral spine on the carapace is lacking. This character caused Milne-Edwards and Bouvier (1894) to separate the animals, which they collected with this character in Azorean waters as a separate species, *A. brevifrons*. Neither Balss nor Monod considers that the two

types warrant separate specific rank although there is no doubt that the two types do occur. The present Azorean specimens (including some females in berry) are somewhat smaller than those from Madeira and smaller than the dimensions given in the descriptions. It would thus appear best to call the Azorean material *Acanthonyx lunulatus* var. *brevifrons*. The crab occurs in the Azores typically associated with the spiny alga *Cystoseira abrotanifolia*, which it resembles very closely in colour and form.

Fayal, Pasteleiro. L.W.M.

Fayal, Feteira. L.W.M.

Fayal, Almoxarife.

Pico, Madalena.

*Inachus leptochirus* Leach. No. 514.

Fayal, Horta. On rocks brought to the surface by a diver working in the harbour.

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