

CHILOPODA FROM THE AZORES AND MADEIRA¹

Compiled by Per Brinck²

Chilopoda have been collected by a number of visitors to the Azores and Madeira. The results have been dealt with in papers by e.g. Porath (1870), Latzel (1889, 1895), Attems (1933) and Demange (1959). The number of species recorded is low. Without a critical examination of the material, it is difficult to decide on the status of some of them.

The following material has been identified by Dr. Dagmar Tobias, Frankfurt am Main. Her contribution is gratefully acknowledged. I thank Mr. Göran Andersson, Göteborg for information on the general distribution and taxonomic status of certain species.

Lamyctes fulvicornis Meinert, 1868

Azores: Terceira: Lagoa do Ginjal, on shore, Loc. 66, 27.III.1957, 1♂ 3♀;

Faial: Praia do Almojarife, grassy ground, Loc. 72, 31.III.1957, 2♂;

São Miguel: Vila Franca do Campo, volcanic sand beach, Loc. 2, 28.II.1957, 1♂ 4♀; São Pópulo, 7,5 km E of Ponta Delgada, grassy ground at the sea, Loc. 10, 4.III.1957, 1♂ 1♀; Lagoa do Pau pique, at the lake, Loc. 15, 6.III.1957, 1♀; Ribeira Seca, W Ribeira Grande, dry grassy ground, Loc. 37, 18.III.1957, 3♂ 3♀; 1 km W of Ribeira Seca, W of Ribeira Grande, sandy grassy ground, Loc. 53, 22.III.1957, 1♀; Ponta Delgada, in a garden, Loc. 9, 15.III.1957, 2♀;

Santa Maria: Praia, Loc. 47, 20.III.1957, under stone 1♂; at the ponds 1 juv. ♀.

Madeira: Arieiro Mts. ca. 1700 m, Loc. 114, 21.IV.1957, 1♂ 2♀.

The species is parthenogenetic in most of its distributional area. Males were found in the Azores, Madeira and Canaries. Apparently, the parthenogenesis has increased the ability to disperse of the species considerably.

Distribution: Europe, North and East Africa, North America, Australia.

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Lithobius pilicornis Newport, 1844

Azores: Flores: Ribeira d'Além da Fazenda, Loc. 108, 14.IV.1957, on a meadow, on the steep at the stream 2♀ 1 juv., in the wet slope down to the stream 1 juv. ♀, above the mouth under stones in a rocky steep, dry grassy ground 1 juv.; Central plateau S and SE of Caldeira Comprida, Loc. 109, 14.IV.1957, at a freshwater pool 4♂, in a peat-moss, under stones and in a pool 1♂; Central plateau, at Lagoa Branca, Loc. 110, 14.IV.1957 1♂;

Terceira: Caldeira de Guilherme Moniz, Loc. 65, 27.III.1957, ♀; at Lagoa at a cold stream 1♂ 1♀, on the E side 2♂ 6♀ 3 juv. do Ginjal, at the road, Loc. 66, 27.III.1957, 1 juv. ♀;

Faial: Horta, Ribeira dos Flamengos, Loc. 85, 1.IV.1957, under stone 2♀, in the ravine around Horta 1♀ 1/2 ♂ or ♀; Praia do Almoxarife, Loc. 72, 31.III.1957, on the slope against the shore 1♂ 3 juv., grassy ground 1♂ 2 juv., on stony shore 1 juv. ♂ 1 juv.; 0,5 km WNW of Ribeirinha, Loc. 73, 1.IV.1957, under stone 2♂ 1♀ 3 juv., in decaying wood 1 ♂ 1 juv. ♂ 1 juv.; Porto da Boca da Ribeira, 1 km E of Ribeirinha, Loc. 74, 1.IV.1957 1♀ 4 juv.; Porto do Salão, on shore, Loc. 75, 1.IV.1957 2♂; Ribeira das Cabras, 1 km NE of Praia do Norte, Loc. 76, 2.IV.1957 1♂ 3♀ 1 juv.; Baía da Areia das Fontes, 1 km N of Praia do Norte, Loc. 77, 2.IV.1957, 1♂ 2 juv.; Fajã 2 km W of Praia do Norte, on ash-fields with moss, Loc. 78, 2.IV.1957 1♂; 2 km SW of Praia do Norte, Loc. 79, 2.IV.1957, under grass and moss at the road 1♂, on recent lavafields 2 juv.; Zona do Misteria, 2 km W of Praia do Norte, in detritus in a forest, Loc. 80, 2.IV.1957 2♂ 1 juv.; Costa da Nau, 3 km NW of Capêlo, Loc. 88, 4.IV.1957, under stone at the road 1 juv., in foerna 1 ♂, Erica bush 1 juv., grassy ground, under stone 1♀; Cabeço do Canto, Erica bush, in foerna, Loc. 89, 4.IV.1957 1♂ 1♀ 1 juv.; Pool 1 km ESE of Cabeço do Fogo, Loc. 90, 4.IV.1957, Erica bush foerna, 1♂ 1♀ 3 juv., grassy ground, under stone 1♂, Erica bush, under Hepaticae 1♂, Erica bush in moss 1 ♀; 3 km WNW of Pedro Miguel, under stone, on a damp meadow at the pond, Loc. 92, 5.IV.1957 1♂; Nasce Água 3 km S of Cedros, Loc. 93, 5.IV.1957, damp grassy ground at a stream 1♂ 1 juv. ♀ 1 juv., under moss on a rock with flowing water 1♂, at a stream, grassy ground, under stone 1♂ 1♀; Caldeira, Loc. 105, 10.IV.1957, under stone 3♂ 1♀ 3 juv., grassy ground, under stone 1♂ 2♀ 2 juv.;

Pico: Volcão Pico W side, Loc. 95, 8.IV.1957, ca. 1000-1100 m, Erica bush on the snow line 1♀, 900 m, Loc. 96, in a decaying tree trunk 1♀ 1 juv., ca. 800 m, Loc. 97, under stone 1 juv. ♂ 2♀ 1 juv. ♀ 1 juv., ca. 350 m, Loc. 99, under stone 1♀ 5 juv., ca. 350 m, in a forest 1♀ 1 juv.; 4 km WNW of Lajes, in a forest, Loc. 101, 9.IV.1957, 3 juv., 10 km NNW of

Lajes, Erica bush, 9.IV.1957, Loc. 102, 1♀ 5 juv.; São João, rocky shore in volcanic gravel, 9.IV.1957, Loc. 103, 2 juv.;

São Miguel: Ribeira Grande, in dunes, at the edge, Loc. 1, 27.II.1957, 1 juv. ♂; Vila Franca do Campo, volcanic sand beach, Loc. 2, 28.II.1957, 1♂; Charco do Madeira, 6 km N of Ponta Delgada, on shore, Loc. 4, 1.III.1957, 2♂ 1♀; Sete Cidades, at Lagoa Verde, on shore, Loc. 8, 2.III.1957, 2♀; Fonte Grande SE Feteiras, at a spring, Loc. 12, 6.III.1957, 2♂ 3♀; Caldeira das Sete Cidades, Loc. 18, 8.III.1957, under moss and dead plants 1 juv., in Cryptomeria plantation, 1♀ 1 juv., in the outer tunnel-mouth, under stones 1♀, rocky ravine 2♂ 1♀, mountain ravine 1♀; 1 km WSW of Porto Formoso, stone pit, Loc. 21, 9.III.1957, 2 juv.; at Lagoa das Furnas, Loc. 22, 10.III.1957, under stone near the hot spring, 1♀, in Cryptomeria plantation 3♂ 3♀; Caldeiras 5 km SE of Ribeira Grande, on a meadow, under stone, Loc. 28, 14.III.1957, 1♀; River 5 km SSE of Ribeira Grande, at the pond of the power installation, Loc. 29, 14.III.1957 1♀; Fonte at Casas Telhadas, SW of Ribeira Grande, Loc. 36, 18.III.1957, under stone 1♂ 1 juv. ♀, grassy ground, under stone 1♂ 1 juv. ♀; at Lagoa do Fogo, Loc., 54, 22.III.1957, on shore 1♀, on the crater edge 1♀; Pico Verde, heath, Loc. 61, 24.III.1957, 1♀, 3 km S of Pico da Pedra, Loc. 64, 25.III.1957, among bushes, under stone 1♀, in scrub 2♂ 1♀ 1 juv.;

Santa Maria: 2 km ENE Almagreira, 440 m, Miradouro dos Picos, under stones and dead plants, Loc. 39, 19.III.1957 2♀ 1 juv.; Pico Alto, Loc. 41, 19.III.1957, 575 m, under stone on the top 1 juv.; Ibidem, 550 m, Loc. 42, under stone on the top 1♂ 1 juv. ♂.

Distribution: Western Europe, western Mediterranean, Canaries, Madeira and the Azores.

Lithobius borealis Meinert, 1868

Azores: Flores: Ribeira d'Além da Fazenda, on a meadow, on slope at stream, Loc. 108, 14.IV.1957, 1♂ 1 juv. ♀;

Terceira: at Lagoa do Ginjal, at the road, Loc. 66, 27.III.1957, 1♀;

Faial: Baía da Areia das Fontes, 1 km N of Praia do Norte, Loc. 77, 2.IV.1957, under stone 1♀, on shore, grassy ground, under stone 1♀; Costa da Nau, 3 km NW of Capêlo, on an ash-field, Loc. 88, 4.IV.1957, 1♀; 1 km WNW of Pedro Miguel, Loc. 92, 5.IV.1957, under stone, on a damp meadow at the pond 1♂, under stone, grassy ground 1♀;

Pico: São João, Loc. 103, 9.IV.1957, rocky shore in volcanic gravel, 1♂ 2♀, volcanic sand beach, rocky shore 1♂ 1♀;

São Miguel: Vila Franca do Campo, volcanic sand beach, Loc. 2, 28.II.1957, 3♂ 2♀ 1 juv.; São Pópulo, 7.5 km E of Ponta Delgada, sandy grassy ground, Loc. 3, 1.III.1957, 1♂ 1 juv.; Ibidem, grassy ground at the sea, Loc. 10, 4.III.1957, 1♀ 2 juv.: Charco do Madeira, 6 km N of Ponta Delgada, on shore, Loc. 4, 1.III.1957, 1♂ 1♀ 1 juv.; Sete Cidades, at Lagoa Verde, Loc. 8, 2.III.1957, under stone, on shore 1♀, under the bark of a stub 1♂; Ponta Delgada, in the Park, Loc. 9, 3.III.1957 1♀; Caldeira das Sete Cidades, in the outer tunnel-mouth, Loc. 18, 8.III.1957, 2♂ 3♀ 1 juv. ♀; Caldeira das Sete Cidades, at a bay, Loc. 18, 8.III.1957 1♂; 1 km S of Porto Formoso, among decaying leaves, Loc. 21, 9.III.1957, 1♀; at Lagoa das Furnas, Loc. 22, 10.III.1957, on burnt heath land 1♂, in Cryptomeria plantation 2♂, drift material 1♀; Valley of Ribeira Quente, 2 km SE of Furnas, Loc. 23, 11.III.1957, on shore, under stone 1♀, under stone and dead plants, river ravine 4♀; 3 km N of Furnas, heath, Loc. 25, 11.III.1957, 1♂; Relva, tanque da Rocha Quebrada, Loc. 31, 15.III.1957, on shore of a freshwater lake 2♂ 2♀, under stone 2♀; Relva, nascente dos Lagos, Loc. 32, 15.III.1957, 1♂ 1♀; Tanque (pond) 1 km SE of Lagoa do Congro, Loc. 33, 16.III.1957, 2♂; Fonte at Casas Telhadas, SW of Ribeira Grande, Loc. 36, 18.III.1957, under stone 1♂, grassy ground, under stone 2♂ 2♀; Ribeira Seca, W Ribeira Grande, Loc. 37, 18.III.1957, in dunes 1♀, drift material on a sandy shore 1♂; 1 km W of Ribeira Seca, W of Ribeira Grande, under stone, sandy grassy ground, Loc. 53, 22.III.1957, 1♀; at Lagoa do Fogo, on the crater edge, Loc. 54, 22.III.1957, 1 juv. ♀; 1 km N of Povoação, Ribeira dos Lagos, Loc. 60, 24.III.1957, 1♀; 3 km S of Pico da Pedra, Loc. 64, 25.III.1957, under stone 1♂, in scrub, 25.III.1957, 1♀;

Santa Maria: 3 km NE Vila do Porto, Fonte do Mourato, in a garden, Loc. 38, 19.III.1957 3♂; 2 km ENE Almagreira, 440 m, Miradouro dos Picos, under stone and dead plants, Loc. 39, 19.III.1957 2♂ 1♀; Pico Alto, Loc. 40, 19.III.1957, 590 m, in the top vegetation 3♀; Ibidem 575 m, Loc. 41, under stone, Calluna-heath 1♀; Ibidem, 550 m, Loc. 42, under stone on the top 1♂; Águas dos Mouros, SE of Pico Alto, Loc. 43, 19.III.1957 1♀.

Madeira: Ribeiro Seco, ravine, Loc. 111, 19.IV.1957 2♀; Arieiro Mts. ca. 1700 m, Loc. 113, 21.IV.1957, under stone 1♂ 1♀ 1 juv., stream 2♀; Serra de Água, Powerstation, 600 m, grassy ground, Loc. 120, 23.IV.1957 1♀; Casa das Queimadas, 880 m, ravine, Loc. 122, 24.IV.1957 1♀; ravine near Ribeira das Cales, 1200 m, forest, Loc. 127, 26.IV.1957 3♂ 3♀ 1 juv. ♀; Boca do Serrado, at Gr. Curral, 1000 m, Loc. 131, 27.IV.1957 3♂ 4♀; Ribeira da Lapa, E of Pico do Serrado, 900 m, under stone, ravine, Loc. 132, 27.IV.1957 1♂ 2♀ 1 juv.; Boca da Encumeada, 1000 m, Loc. 134, 28.IV.1957 1♂; 1 km E of Encumeada, ca. 800 m, Loc. 135, 28.IV.1957 1♀.

Taxonomic note: *L. borealis* belongs to a species complex which has not been completely analysed. In accordance with Eason (Zool. J. Linn. Soc. 55: 1-52) it seems probable that the populations of Madeira and the Azores belong to a Mediterranean taxon.

Distribution: *L. borealis* has been recorded from Europe, the Mediterranean, Madeira and the Azores.

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