Welcome to the first MAIISG newsletter of 2020, we have some great articles for the start of this year, including updates on progress of invertebrate surveys on St Helena, new identification guides for the Azores and Madeiran butterflies; as well as a new longhorn beetle species on Madeira. Hope you enjoy this first 2020 edition. Vicky, Paulo and Dinarte.

St Helena Invertebrate Surveys *Liza Fowler*

St Helena's Invertebrate Team have been surveying areas of endemic habitats, including the Cloud Forest at Diana's Peak National Park and High Peak, as well as Gumwood *Commindendrum robustum* forests at Peak Dale and Millennium Forest, plus the Scrubwood *Commidendrum rugosum* habitats at Blue Point and Flagstaff.

These surveys are answering questions such as: what endemic invertebrates are occupying non-native plant species? What invertebrates are pollinating endemic plants, and what is the abundance of the invasive Common Wasp *Vespula vulgaris* in areas of endemic plants? In the habitat of Diana's Peak the team are also surveying the ecology of a tiny endemic moth, the St Helena Elachistid Moth *Elachista trifasciata*, this is associated with the Diana's Peak grass *Carex diana*, as very little is known about their distribution, abundance or even seasonality.

The team also continues to work on increasing knowledge of the hundreds of endemic invertebrates and to identify conservation actions for their benefit.

St Helena Elachistid Moth *Elachista trifasciata* and Diana's Peak grass *Carex diana* © Liza Fowler

Butterflies of Madeira update *Sérgio B. Marques Teixeira*

On Madeira Sérgio B. Marques Teixeira, Martin Wiemers and Adam Cotton are about to publish a paper about a Lepidopteran first record in Madeira Island. Additionally, Sérgio B. Marques Teixeira company Madeira Fauna & Flora, which runs the Madeira Butterfly Monitoring Scheme is planning a field guide of all Madeiran Butterflies in partnership with Butterfly Conservation Europe. Further updates on the butterflies of Madeira in future newsletters.

New field guide for the Azores *Paulo A.V. Borges*

Savigniorrhipis acoreensis © Paulo Borges

The first of a series of Field Guides that "Instituto Açoriano da Cultura" describing 201 animal species of the Azores is now available. Gabriel R. & Borges P.A.V. (Eds.) (2019). Guia Prático da Fauna Terrestre dosAçores / Field Guide of Azorean Terrestrial Fauna. Instituto Açoriano de Cultura,Angra do Heroísmo. Including 108 arthropod species (mostly spiders and insects), 32 species of molluscs and 61 species of vertebrates, including 50 birds. Most of the species or subspecies are endemic to the archipelago (113), but some are native non-endemic (67) or introduced (21). In addition to the main 201 files, there are 95 photos representing other species commonly found in Azores. It is impossible to cover all the Azorean animal biodiversity in detail and readers may also rely on the AZORESBIOPORTAL http://azoresbioportal.uac.pt/ to complement this book.

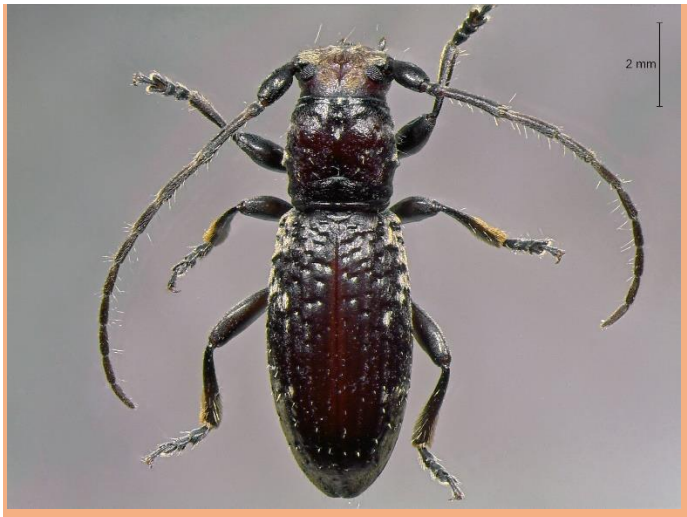
In each of the main 201 species files, provides information on different topics, namely the species common names, their colonization status (i.e., endemic, native non-endemic, introduced), their distribution in the archipelago, some morphological diagnostic characters, the main habitats where the species occur, their biology, IUCN conservation status (via MAIISG) and finally some hints on how to find the species in nature; and at least one photo per species.

This book was written to aid both public and experts in identifying many of the most striking Azorean endemic and native animal species. It is the first pocket guide on Azorean fauna and may be used by all who love nature, including locals and tourists. We would like to acknowledge the 19 authors of the species files and the 21 photographers for their contribution to this book.

New Lamiine longhorn-beetle from Madeira and a key to the Macaronesian Parmenini

Jiří KrátKý and António Miguel Franquinho Aguiar have published a paper describing a new Lamiine longhorn beetle *Paradeucalion maderense* sp. n of the tribe Parmenini from Madeira. Morphologically it seems to be close to *Paradeucalion desertarum* (Wollaston, 1854) from Desertas Islands and related also to *Deucalion oceanicum* Wollaston, 1854 from the Selvagens. The new species was found at night on plants of the genus Rubus or hiding inside dead shrubs or below the bark of several trees. This paper also provides a key to the Macaronesian. Paper reference is:

Parmenini. Jiří KrátKý & António Miguel Franquinho Aguiar A new Lamiine longhorn-beetle from Madeira and the key to the Macaronesian Parmenini (Coleoptera: Cerambycidae). Bocagiana (2019) 246: 1-9



Female holotype of the new *Paradeucalion maderense* © Antonio Miguel Franquinho Aguiar

Wild bee-plant network of Madeira Island

A new study has analysed the wild bee-plant interactions in Madeira Island and constructed a network structure covering the largest parts of the island and most altitudes and habitat types. Samples were taken from 179 localities between 1989 to 2012 and additionally, data were used from the collections of the Laboratório Agrícola da Madeira, Camacha (ICLAM) and the Museu de História Natural do Funchal, Madeira, Portugal. The dataset included 637 data points of bee-plant interactions. Twelve wild-bee species (the complete species pool of permanently established Madeiran wild-bee species) were collected or observed on 81 plant taxa. In contrast to most of the mainland networks of temperate and Mediterranean ecosystems with more wild-bee than plant species, the bee-plant networks demonstrate high asymmetry, with many more plant than bee species. Wild-bee species and plant species were highly interconnected within the network, showing that even under difficult and strong climatic conditions with unequal resource availabilities, there were enough alternatives for obtaining food resources.

The plant families with the highest importance as food resources are in the orders Asteraceae (51%), Brassicaceae (14%), Fabaceae (8%) and Boraginaceae (8%). These offer different flower types (actinomorphic, zygomorphic, Asteroideae and Cichorioideae types) and a variability of flower types for wild bee species of different body sizes and foraging behaviour. Most of the foraged plant species were endemic or native species. Introduced and cultivated plant species were mostly of minor importance. We found no effect on the network caused by the introduced masked bee *Hylaeus s. signatus* and the probably introduced bumblebee *Bombus r. ruderatus*. The paper's reference is: A. Kratochwil, A. Schwabe, J. Smit & A. F. Aguiar (2019) Wild bee-plant network of Madeira Island with a comparison to Porto Santo (Madeira Archipelago, Portugal) Boletim Museu de Historia Natural Do Funchal Vol. LXIX, 354: 13-32.