MAIISG NEWSLETTER

Number 5, September 2021

HI MAIISG MEMBERS

Welcome to the second newsletter of 2021.

In this issue, Roger Key brings the exciting field guide of the Invertebrates of St Helena, with more than 1400 species from this outermost territory of the United Kingdom.

Vicky Wilkins calls your attention to the new project '*From Pseudoscorpions to crickets: securing Ascensions Island's unique invertebrates'* to be implemented at Ascension island.

Also, in this number, we have news about the ongoing 'HELP the CR Endemic Land Snails Project' at the Desertas Islands (Madeira), as well as a new monograph on the *Laparocerus* from Macaronesia in preparation by António Machado.

We also welcome the new MAIISG member, Nuria Macías, an entomologist and Associated Professor at La Laguna University (Tenerife).

Finally, we draw your attention for the SSC MAIISG membership renewal and the ongoin call for IUCN EDGE grant.

We hope you enjoy this second 2021 edition.

Vicky, Paulo and Dinarte

AT LAST! A FIELD GUIDE TO ST HELENA'S INVERTEBRATES.

By Roger Key

St Helena must be the most 'named-after' 121km^2 plot of land in the world, with no fewer than 89 species of invertebrate having 'Helena' somewhere in their name, with pride of place in names going to the pretty little golden-yellow cicadellid leafhopper *Sanctahelenia sanctaehelenae*. Six species have even been named after the island's famous connection with Napoleon Bonaparte. Known principally for the (sadly extinct) St Helena Giant Earwig *Labidura herculeana*, St Helena's invertebrate fauna has an exceptionally high degree of endemnicity, with over 420 species (out of a known fauna of around 1400 species) found nowhere else in the world. At 30%, this is a very high proportion compared with similar-sized islands that are nearer to continental land masses. Were the UK and all of its Overseas Territories considered together, St Helena supports nearly a third of all the known endemic species of invertebrates, making the island extraordinarily important in terms of the conservation of biodiversity for which the UK has sole responsibility.

After over five years of preparation, 'The Terrestrial and Freshwater Invertebrates of St Helena' by Roger Key, Liza Fowler and David Pryce is at last published and available from the NatureBureau https://www.naturebureau.co.uk/terrestrial-freshwater-invertebrates-of-st-helena.

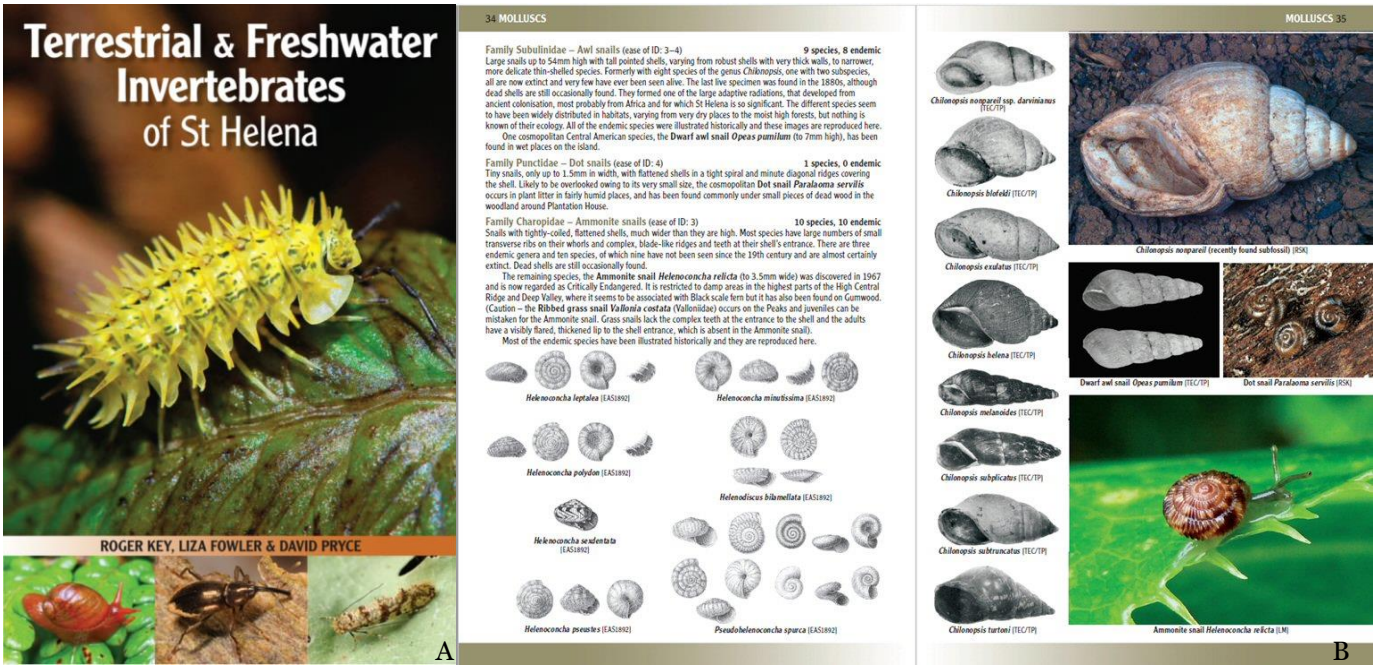
This is the first fully photographically illustrated guide to the island's invertebrates. It covers about 70% of its 1400 recorded species, including most of its endemic species and alien invasive pests. It also includes several yet-to-be identified species that have been found on the island, probably including endemics that have not yet been scientifically described.

Although a very accessible field guide, rather than a definitive identification work with keys, it does cover all groups of terrestrial

and freshwater species known from the island. It also gives an indication of the ‘Ease of Identification on a 1-5 scale at the family level in order to enable the user to gauge a level of confidence in using it to name species. An extensive ‘Further Reading’ includes references to most significant works to enable the user to identify some of the more difficult taxonomic groups on the island.

The guide also includes sections on the invertebrates’ habitats and all the threats to them, their conservation needs and an account of conservation work to date, and the history of invertebrate study from the 18th century to the present. It even covers their depiction on the island’s commemorative stamps.

Hopefully the guide will stimulate more interest in St Helena’s unique insect fauna, both on and off island. It’s launch coincides with biological recording and bar-coding initiatives and a project to control three invasive predatory invertebrates that threaten the island’s endemics.



‘Known principally for the (sadly extinct) St Helena Giant Earwig Labidura herculeana, St Helena’s invertebrate fauna has an exceptionally high degree of endemicity, with over 420 species (out of a known fauna of around 1400 species) found nowhere else in the world.’

ASCENSION ISLAND'S BRAND-NEW INVERTEBRATE CONSERVATION PROJECT

By Vicky Wilkins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Ascension Island's brand-new invertebrate conservation project started in July 2021, funded by the UK government's Darwin Plus Initiative. This 3-year project is titled 'From Pseudoscorpions to crickets: securing Ascensions Island's unique invertebrates' and is being led by Ascension Island Government's Conservation and Fisheries Department (AICFD), with partners including MAIISG (via the Species Recovery Trust), the UK Centre for Hydrology and Ecology and the Natural History Museum (UK).

The project will provide the first strategically-planned survey of Ascension's endemic and native terrestrial invertebrates; and fill a major knowledge gaps for the island's globally-threatened biodiversity. The data generated for endemic species will be embedded into the National Biodiversity Action Plan and implemented by AICFD, and will be used for IUCN red listing. High-risk invasive non-native invertebrates will be identified, and training plus support materials established to allow targeted monitoring and control. Engagement resources and activities will raise the profile of Ascension's endemic invertebrates. The project is currently finalising the recruitment of a Project Coordinator and so is at very early stage but we will continue to provide updates as the project progresses.

> *'The project will provide the first strategically-planned survey of Ascension's endemic and native terrestrial invertebrates; and fill a major knowledge gaps for the island's globally-threatened biodiversity.'*

UPDATE ON THE MAIISG PROJECT 'HELP RESCUING THE DESERTAS ENDEMIC CR LAND SNAILS SPECIES FROM EXTINCTION'

By Dinarte Teixeira


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After five months of project implementation, the vast majority of the "HELP Project" actions are in due course. The founder specimens of two of the four target species were collected and are currently part of an ongoing captive breeding program at the Chester Zoo and Bristol Zoo Gardens.

Moreover, the mice control action has been in place in the vicinity of the known target species distribution area—a bi-monthly monitoring scheme ongoing since June 2021.

Also, a workshop for species conservation planning will take place at Funchal on November/21, which will be the antechamber for the Multispecies Conservation Plan to be finalised until December/21.

> *'The vast majority of the Help Desertas CR species project actions are in due course.'*

NEW MONOGRAPH ON THE LAPAROCERUS FROM MACARONESIA IN PREPARATION

By António Machado


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During this particular period of semi-confinement, I have concentrated on preparing a monograph on the *Laparocerus* from Macaronesia. *Laparocerus* are endemic weevils to this region, with two species on NW Morocco (back-colonisation).
I have been studying them for 20 years, describing more than 100 new taxa. It is an extraordinary example of island evolution, and the genus holds the record of diversity in our region (25 subgenera, ca 240 species & subspecies).
The monograph is likely to be finished next year. It covers anatomy, natural history, taxonomy (description, photographs of imago, and line drawings of internal anatomy), phylogeny (5 genetic markers), faunistics, biogeography and evolution, with some comments on conservation (a few taxa considered extinct and some threatened).

'I have been studying them for 20 years, describing more than 100 new taxa. It is an extraordinary example of island evolution, and the genus holds the record of diversity in our region (25 subgenera, ca 240 species & subspecies).'

NEW MAIISG MEMBER

By Dinarte Teixeira


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We welcome to our group Nuria Macías, an entomologist and an Associated Professor from the Department of Animal Biology, Geology and Edaphology of the University of La Laguna since 2019. Nuria's main research interests are the study of evolutionary biology, with a particular focus on adaptive radiations, through molecular and morphological approaches and using spiders as a model organism.
On her PhD, she has extensively worked towards understanding the evolution of the spider genus *Dysdera* in the Canary Islands, trying to decipher the patterns behind their exceptional adaptive radiation. She has been awarded two postdoctoral fellowships to conduct research at Aarhus University (Denmark) and the University of Kentucky (USA) to study the factors that promote morphological diversification due to food specialisation in Dysdera.
As a postdoctoral researcher was funded by a Marie Skłodowska Curie Fellowship working on a project that aims at revealing the main drivers of biodiversity in different biogeographical areas and ecosystems (islands vs. continents) by analysing the different components of biodiversity (taxonomic (TD), phylogenetic (PD) and functional diversity (FD), using spiders as model organisms.

'*Nuria's main research interests are the study of evolutionary biology, with a particular focus on adaptive radiations, through molecular and morphological approaches and using spiders as a model organism.*'

IUCN SSC MAIISG MEMBERSHIP RENEWAL

By Vicky Wilkins and Paulo Borges

The IUCN SSC MAIISG membership renewal is now ongoing.
Included in the IUCN SSC Species Conservation Cycle 2021-2024, the members of the SSC MAIISG will be consulted about their availability to continue as an SSC MAIISG member for this new cycle.
For this reason, pay particular attention to your email box. In the case of not being contacted by the IUCN, please let us know.

> *'The IUCN SSC MAIISG membership renewal is now ongoing.'*

SECOND ROUND OF THE SSC EDGE INTERNAL GRANT

By Vicky Wilkins and Paulo Borges

We are happy to announce the second round of The SSC EDGE Internal Grant is open.

The SSC EDGE internal grants aim to contribute to halting the loss of evolutionarily distinct lineages through improving assessment and planning for these species, as well as promoting the involvement of range-country conservationists and scientists during the process. In addition, these grants will support priorities of IUCN SSC Species Conservation Cycle established in the Species Strategic Plan 2021-2024 funding the following activities relating to EDGE species:

- Assess highly Evolutionarily Distinct species that do not yet have a Red Listing;
- Assess EDGE species with out of date Red Listings;
- Develop conservation action plans for EDGE species where these do not exist or are in genuine need of updating.

This round will be open until October 16th, 2021 —11:59 PM (GMT-4) Caracas, Venezuela, and approvals will be announced in early November. SSC Groups can apply for up to $10,000.

For further information about species eligibility, requirements, and how to apply, please use the following link: https://www.iucn.org/commissions/species-survival-commission/get-involved/ssc-edge-internal-grant

> *'We are happy to announce the second round of The SSC EDGE Internal Grant is open.'*

FINAL REMARKS

We wish to thank the members who contributed to September's newsletter.

We look forward to more news and developments about the ongoing projects that most of you are currently involved in. We would love to include those contributions in the December 2021 newsletter.

Until then, stay safe.

Vicky, Paulo and Dinarte

Image credits:

A. *Cover page of the 'Field Guide of St. Helena Invertebrates Invertebrates'* (© Roger Key, Liza Fowler, David Pryce).

B. *Example of the Molluscs chapter of the 'Field Guide of St. Helena Invertebrates Invertebrates'* (© Roger Key, Liza Fowler, David Pryce).

C. Coastline view of Ascension Island (© Vicky Knight).

D. *Discula lyelliana* (Lowe, 1852), one of the endemic land snails species targeted by the '*Help Recovering the Desertas CR Endemic Land Snails Species from Extinction' project* (© Dinarte Teixeira).

E. *Laparocerus lamellipes (*Wollaston, 1854), endemic species from Madeira Island (© António Machado).

F. *Portrait of Nuria Macías* (© Nuria Macías).