IUCN SSC Species Survival Commission

Species

ISSUE 62

2022 Report of the IUCN Species Survival Commission and Secretariat

Stand-alone report
IUCN SSC Mid-Atlantic Islands Invertebrate Specialist Group

The IUCN Species Survival Commission (SSC)

The IUCN Species Survival Commission (SSC) is a science-based network of thousands of volunteer experts from almost every country of the world, all working together toward achieving the vision of "a just world that values and conserves nature through positive action to both prevent the loss and aid recovery of the diversity of life on earth."

Members of SSC belong to one or more of near 200 Specialist Groups, Red List Authorities, Action Partnerships, Task Forces, and Conservation Committees that make up the Network, each focusing on a taxonomic group (plants, fungi, mammals, birds, reptiles, amphibians, fishes, and invertebrates), national species, or a disciplinary issue, such as sustainable use and livelihoods, translocation of species, wildlife health, climate change, and conservation planning.

Framed by the Species Conservation Cycle, SSC's major role is to provide information to IUCN on biodiversity conservation, the inherent value of species, their role in ecosystem health and functioning, the provision of ecosystem services, and their support to human livelihoods. This information is fed into the IUCN Red List of Threatened Species.

2021-2025 Species Strategic Plan

The IUCN Species Strategic Plan encompasses the joint work of the IUCN Species Survival Commission and a number of partnerships to achieve more than 2,700 targets proposed by the Network during the 2021-2025 quadrennium.

To accomplish those targets, the Species Conservation Cycle was established, which is the conceptual framework for the Network activities. The Species Conservation Cycle's main purpose is to guide efforts for valuing and conserving biodiversity through three essential components that are linked to each other:

ASSESS: Understand and inform the world about the status and trends of biodiversity.

PLAN: Develop collaborative, inclusive and science-based conservation strategies, plans and policies.

ACT: Convene and mobilise conservation actions to improve the status of biodiversity.

Their implementation requires two transversal components:

NETWORK: Enhance and support our immediate network and alliances to achieve our biodiversity targets.

COMMUNICATE: Drive strategic and targeted communications to enhance our conservation impact.

SSC Species Report

Annual progress in the implementation of the 2021-2025 Species Strategic Plan is documented in the *SSC Species Report*, which consists of a comprehensive description and analysis of the activities and results generated by the members of the SSC Network each year. Each SSC Group contributes to this document by providing a yearly summarised description of their achievements, which is presented in stand-alone reports.

Structure of the IUCN SSC Stand-alone Report

Stand-alone reports summarize the activities conducted and results generated by each group member of the SSC. Following, is the structure of the stand-alone report and the contents under each session.

Title of the SSC Group

Photograph(s) of the Chair / Co-Chairs

Group information
Includes names of Chair / Co-Chairs, Vice-Chairs, Deputy Chairs, Red List Authority Coordinators and Program Officers, their institutional affiliations, number of members and social networks currently active.

Logo of the SSC Group

Mission statement
Includes the mission of the group.

Projected impact for the 2021-2025 quadrennium
Includes the description of the impact on species conservation resulting from the implementation of the targets formulated by the group for the 2021-2025 quadrennium.

Targets for the 2021-2025 quadrennium
Includes the targets planned by the SSC Group for the 2021-2025 quadrennium ordered alphabetically by component of the Species Conservation Cycle. Each target is labeled with a numerical code (e.g., T-001, T-012) that identifies it in the SSC DATA database and its status for the reported year is indicated (Not initiated, On track or Achieved).

Activities and results
Includes the targets for which activities were conducted and results were generated during the reported year, ordered alphabetically, first by component of the Species Conservation Cycle, and second by Activity Category. Description of activities and results includes the indicator that best describes progress, its associated quantitative or qualitative result, and the narrative description of the activity conducted or result obtained. Each activity or result reported is linked to the Key Species Result to which it is mainly associated (e.g., KSR#1, KSR#5).

Acknowledgements
Includes the acknowledgements to funding agencies, partners, and persons who contributed to the progress of the targets of the group.

Summary of achievements
Summarises information of the group's strategic plan for the quadrennium and progress achieved implementing targets for all the components of the Species Conservation Cycle during the reported year.

Animalia

Fungi

Plantae

National Species

Disciplinary

Action Partnership

Task Force

Red List Authority

Committee

Center for Species Survival

Example for the recommended citation:
Wilkins, V and Borges, PAV. 2023. 2022 Report of the Mid-Atlantic Islands Invertebrate Specialist Group. In: Nassar, JM, García, L, Mendoza, L, Andrade, ND, Bezeng, S, Birkhoff, J, Bohm, M, Canteiro, C, Geschke, J, Henriques, S, Ivande, S, Mileham, K, Ramos, M, Rodríguez, A, Rodríguez, JP, Street, B, and Yerena, E (Eds.). 2022 Report of the IUCN Species Survival Commission and Secretariat. International Union for Conservation of Nature. 10 pp.

2022 Report

IUCN SSC Mid-Atlantic Islands Invertebrate Specialist Group

SOCIAL MEDIA AND WEBSITE
Website: https://www.maiisg.com

CO-CHAIR
Vicky Wilkins
Independent freelancer working with a range of NGOs, UK

CO-CHAIR
Paulo A.V. Borges
cE3c – Centre for Ecology, Evolution and Environmental Changes/Azorean Biodiversity Group and University of the Azores, Azores, Portugal

RED LIST AUTHORITY COORDINATOR
Dinarte Teixeira
Conservação da Natureza e Bio(Geo) Diversidade, Instituto das Florestas e Conservação da Natureza, IP-RAM, Madeira, Portugal

NUMBER OF MEMBERS
50

Mission statement

To increase the evidence and action for invertebrate conservation on the islands of: Gough, Tristan, St Helena, Ascension, Cabo Verde, Canaries, Madeira, Azores, and São Tomé and Príncipe.

Projected impact 2021–2025

Increased awareness of the Mid-Atlantic Islands endemic invertebrate importance and threat status, plus progress on species recovery, through increased research and recording, new and updated Red List assessments, evidence-based planning exercises, and targeted and coordinated conservation action.

Targets 2021–2025

ASSESS

T-004 Assess 20 endemics for Ascension Island.
Status: On track

T-008 In Tristan and Gough, compile historic records of invertebrates and conduct conservation needs assessment.
Status: On track

T-011 Carry out ongoing monitoring of *Pieris cheiranthi* and other endemic butterflies in the Canary Islands.
Status: On track

T-013 Assess existing knowledge of invertebrates in Cabo Verde.
Status: Not initiated

T-014 Reassess *Archachatina bicarinata*.
Status: On track

T-015 Reassess six Canary Islands land snails.
Status: On track

T-025 Reassess 111 endemic land mollusc species from Madeira archipelago.
Status: On track

T-028 Search for ghost endemic land mollusc species from Madeira Island.
Status: On track

T-032 Conduct citizen science project directed toward Endangered Madeiran land mollusc species.
Status: Not initiated

T-037 On Sao Tome and Principe, list the land snails *Aporachis dohrnii*, *Rhysotina hepatizon*, *Pseudoveronicella forcarti* and *Columna columna*.
Status: On track

T-042 Conduct Red List assessments for 65 endemic Canarian spider species.
Status: Not Initiated

T-044 Conduct green listing of *Trechus terrabravensis*.
Status: Achieved

T-046 Conduct red listing for the Scaly Crickets of Ascension Island.
Status: Not initiated

PLAN

T-002 Update the St Helena Spiky Yellow Woodlouse Plan.
Status: Achieved

T-016 Complete conservation planning for seven threatened Canary land snails: *Xerotricha garachicoensis*, *Plutonia reticulata*, *Napaeus teobaldoi*, *Hemicycla mascaensis*, *Hemicycla plicaria*, *Atlantica engonata* and *Hemicycla modesta*.
Status: On track

T-019 Elaborate a species management and conservation plan directed toward Critically Endangered Desertas land mollusc species.
Status: On track

T-020 Update the St Helena Invertebrate Strategy.
Status: On track

Azores Cone-head *Conocephalus chavesi* is endemic to the Azores archipelago in Portugal. This species is assessed as Endangered
Photo: Paulo Borges

T-022 Complete the St Helena invertebrate guide.
Status: Achieved

T-026 Carry out conservation planning for the Endangered land mollusc *Geomitra moniziana*.
Status: Not initiated

T-031 Complete the Desertas land snails guide.
Status: Not initiated

ACT

T-001 Initiate the Ascension project on endemic invertebrate conservation.
Status: On track

T-009 Establish a conservation project for the Madeiran threatened butterflies Madeiran Brimstone (*Gonepteryx maderensis*), Madeiran Speckled Wood (*Pararge xiphia*) and Madeiran Large White (*Pieris wollastoni*).
Status: Achieved

T-010 Establish a conservation project for *Pieris cheiranthi* on the Canary Islands.
Status: On track

T-012 Implement the plan for *Archachatina bicarinata* on Sao Tome and Principe; increase understanding of ecology, population, genetics, and threats; support legal mechanisms to address threats and ensure protection; and implement environmental awareness and public involvement strategies.
Status: On track

T-017 Rescue two Critically Endangered land mollusc species from Desertas from the wild to prevent their extinction.
Status: Achieved

T-018 Implement a captive breeding programme to prevent the extinction of the Desertas Critically Endangered land mollusc species.
Status: Achieved

T-021 Reduce the impact of invasive invertebrates on endemic invertebrates on St Helena.
Status: On track

T-024 Implement a captive breeding programme targeting the Endangered Madeiran land snail *Geomitra moniziana*.
Status: Not initiated

T-027 Translocate two Critically Endangered land mollusc species to prevent their extinction.
Status: On track

T-034 Implement monitoring, a management plan and action for the Ironclad Beetle (*Tarphius floresensis*) on Flores Island.
Status: On track

T-035 Implement monitoring and a management plan for the Laurocho (*Pseudanchomenus aptinoides*) from Pico Island.
Status: On track

T-036 Implement monitoring and a management plan for *Trechus terrabravensis* from Terceira Island.
Status: On track

T-038 On Sao Tome and Principe, carry out endemic invertebrate species conservation projects focused on beetles, butterflies, aquatic invertebrates and snails.
Status: Not initiated

T-039 On the Canary Islands, implement conservation actions and raise awareness for *Pieris cheiranthi*.
Status: On track

T-040 On Santa Maria in the Azores, initiate an Endemic Land Snail Project.
Status: On track

T-041 On the Canary Islands, initiate planning, and project actions on top priority endemic pollinator species.
Status: On track

T-043 Conservation actions defined and implemented for the endemic Scaly Crickets of Ascension Island.
Status: On track

First ever photo of endemic genera of Scaly Cricket *Discophallus* sp. by Ascension Island Invertebrate Project
Photo: Adam Sharp

T-045 Maintain the *ex situ* population of *Archachatina bicarinata* to 1. Keep studying the ecology of the species and disease outbreak; 2. Enable future reintroductions; 3. Keep engaging local people on the conservation of this species.
Status: Not initiated

NETWORK

T-023 Increase partnerships with potential funders.
Status: On track

T-029 Organise yearly Red List Training webinars.
Status: On track

COMMUNICATE

T-030 Disseminate the group newsletter.
Status: On track

T-033 Organise a public awareness campaign addressing the Endangered Madeiran land mollusc species.
Status: On track

Activities and results 2022

ASSESS

Red List

T-004 Assess 20 endemics for Ascension Island. (KSR 6)

Number of new global Red List assessments completed: 2

Result description: Two (2) species have been red-listed and reviewed so far *Discophallus phillipi* and *Discophallus amplus*, there is one species of pseudoscorpion awaiting review, and then will be published. The rest of the species have data collated this year to be listed in 2023.

T-014 Reassess *Archachatina bicarinata*. (KSR 6)

Number of global Red List reassessments completed: 1

Result description: Reassessment has been edited and reviewed, and now will be listed as Endangered (EN), this will be published shortly.

T-037 On Sao Tome and Principe, list the land snails *Aporachis dohrnii*, *Rhysotina hepatizon*, *Pseudoveronicella forcarti* and *Columna columna*. (KSR 6)

Number of new global Red List assessments completed: 1

Result description: Mary Seddon has opened a project in SIS to assess some of the species that are on this target's objective. These are included in the project application we are writing along with Dinarte Teixeira (RLA Coordinator) is giving advice on the matter.

Research activities

T-008 In Tristan and Gough, compile historic records of invertebrates and conduct conservation needs assessment. (KSR 5)

Number of publications produced in internal journals of SSC groups: 1

Result description: Invertebrate species list for the Tristan and Gough islands has been started.

T-011 Carry out ongoing monitoring of *Pieris cheiranthi* and other endemic butterflies in the Canary Islands. (KSR 5)

Number of publications produced in internal journals of SSC groups: 0

Result description: We can indicate that this monitoring is still active on the islands of Tenerife and La Palma. In both islands, the populations of *Pieris cherianthi* and other endemic butterfly species are monitored by volunteers and coordinated by ZERYNTHIA. However, it would be of great help to have support for the establishment of a larger number of stations on other islands to study seriously threatened species, such as *Hipparchia bacchus*, on El Hierro. The support from the Cabildos is punctual and many of the actions are carried out by ZERYNTHIA through its own personal and economic means. We can also mention that in June 2022 several training sessions were carried out for the volunteers and rangers who participate in monitoring butterflies on La Palma.

T-44 Conduct green listing of *Trechus terrabravensis*. (KSR 5)

Number of publications produced in internal journals of SSC groups: 1

Result description: Green list complete for *Trechus terrabravensis*. Reference associated: Borges, P.A.V. (2022). '*Trechus terrabravensis* (Green Status assessment)'. The IUCN Red List of Threatened Species 2022: e.T97126159A9712615920221. More information at: https://www.iucnredlist.org/species/97126159/99166599#green-assessment-information.

PLAN

Planning

T-016 Complete conservation planning for seven threatened Canary land snails: *Xerotricha garachicoensis*, *Plutonia reticulata*, *Napaeus teobaldoi*, *Hemicycla mascaensis*, *Hemicycla plicaria*, *Atlantica engonata* and *Hemicycla modesta*. (KSR 8)

Number of conservation plans/strategies developed: 1

Result description: An inventory took place in February 2022, at Tenerife Island (Canary Islands), addressing six Critically Endangered (CR) endemic land snails species of Tenerife (*Keraea garachicoensis*, *Plutonia reticulata*, *Napaeus teobaldoi*, *Hemicycla mascaensis*, *Hemycicla plicaria* and *Hemycicla modesta*). It involved 3 MAIISG experts (Klaus Groh, Marco Neiber and Dinarte Teixeira) along with local experts (Carolina Castillo Ruiz and Penelope Cruzado-Caballero), media and biology students from La Laguna University. The local cabildos of Santa Cruz de Tenerife and Candelaria, with the support of the Loro Park Fundacion, have financially supported the inventory. The target species were reassessed, and the results were discussed in a seminar in November 2022, at Tenerife, involving the local authorities, conservation managers, experts and the MAIISG

First photo of endemic moth Gray's moth
Erechthias grayi by Ascension Island Invert Project
Photo: Adam Sharp

expert team (K. Groh, M. Neiber and D. Teixeira). The February results can be found in the following references: (1) Portolés, J. and Delponti, P. (2022). 'Re-evaluación de seis especies de caracol críticamente amenazadas en Tenerife'. Universidade de La Laguna, p.81; (2) Neiber, M.T *et al*. (in press). 'Report on the search for populations of six land snail species from the Canary Island, Tenerife classified as "Critically Endangered" in the European Red List'. *Mitt. dtsch. malakozool. Ges.*, 107, Frankfurt A.M.

T-019 Elaborate a species management and conservation plan directed toward Critically Endangered Desertas land mollusc species. (KSR 8)

Number of conservation plans/strategies developed: 0

Result description: The species conservation plan was postponed to 2023.

T-020 Update the St Helena Invertebrate Strategy. (KSR 8)

Number of conservation plans/strategies updated: 0

Result description: The new plan is delayed while attempting to secure feedback from the St Helena Government.

T-031 Complete the Desertas land snails guide. (KSR 8)

Number of technical documents to support the development of conservation plans/ strategies: 0

Result description: The release of the Desertas land snails guide was postponed to 2025.

ACT

Conservation actions

T-001 Initiate the Ascension project on endemic invertebrate conservation. (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 1

Result description: The project is in full swing; a comprehensive survey of islands invertebrates was done and discussions on new protected areas for endemic invertebrates on Ascension are still underway.

T-009 Establish a conservation project for the Madeiran threatened butterflies Madeiran Brimstone (*Gonepteryx maderensis*), Madeiran Speckled Wood (*Pararge xiphia*) and Madeiran Large White (*Pieris wollastoni*). (KSR 10)

Number of species with increased or prevented decrease in population or range size, as a result of conservation actions: 2

Result description: We have set a baseline distribution and density data, we also made SDM on all the species recorded, Area of occupancy (AOO), and probability maps. To date, 3 action plans (one per target species) have been written; the Madeira monitoring scheme (maBMS) was integrated into the eBMS; 20 transects were selected to identify Key Butterfly Areas to be monitored by a group of 25 volunteers, who will collect data monthly. Additionally, almost 200 technicians and other stakeholder groups such as farmers and tourism guides were capacitated. We also printed 2000 copies of the Madeira Butterfly field guide, both as hard copies and as online versions. These are available in Portuguese and English.

T-010 Establish a conservation project for *Pieris cheiranthi* on the Canary Islands. (KSR 10)

Number of threatened species benefiting from *in situ* conservation action: 1

Result description: We can indicate that this monitoring is still active on the islands of Tenerife and La Palma. In both islands, the populations of *Pieris cherianthi* and other endemic species are monitored by volunteers and coordinated by ZERYNTHIA. However, it would be of great help to have support for the establishment of a larger number of stations on other islands to study seriously threatened species, such as *Hipparchia bacchus*, on El Hierro. The support from the Cabildos is punctual and many of the actions are carried out by ZERYNTHIA through its own personal and economic means. We can also mention that in June 2022 several training sessions were carried out for the volunteers and rangers who participate in monitoring butterflies on La Palma.

T-012 Implement the plan for *Archachatina bicarinata* on Sao Tome and Principe; increase understanding of ecology, population, genetics, and threats; support legal mechanisms to address threats and ensure protection; and implement environmental awareness and public involvement strategies. (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 3

Result description: This part is done and completed. The ecology was assessed, and population estimates are hard to estimate because individuals in nature are too scarce, so we used other measures for the IUCN reassessment, the genetics has been analysed (the paper draft is completed and delivered to Mossy Earth). Unfortunately, after a disease, the snails in the centre are not reproducing anymore, we are still voluntarily paying for the food for snails, maintenance of the small structure and the keeper that takes care of them, that is also why searching for funding with urgency for this component is underway. The information on this species has been endorsed in the new management plan for the Obô Natural Park this year. The next useful step would be to create a specific law that forbids the trade of this species. Additionally, the United Nations in Sao Tome will finance the printing of our children's book "The Forest Giant", to distribute in schools.

T-017 Rescue two Critically Endangered land mollusc species from Desertas from the wild to prevent their extinction. (KSR 10)

Number of conservation translocations conducted: 1

Result description: Our target in 2022 was to collect enough specimens in the wild from *Atlantica calathoides* and *Geomitra coronula* to start an *ex situ* captive breeding program. As a result, we collected a founder population of *Atlantica calathoides* (37

specimens) in March 2022, which enabled the start of a captive breeding program at the Chester Zoo (UK). Unfortunately, we didn't find enough specimens of *G. coronula* in the wild on both attempts made in March 2022 (3 specimens) and November 2022 (4 specimens) to enable the start of a captive breeding program. We will try again in the Spring and Autumn of 2023.

T-018 Implement a captive breeding programme to prevent the extinction of the Desertas Critically Endangered land mollusc species. (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 2

Result description: Our target in 2022 was to collect enough specimens in the wild from *Atlantica calathoides* and *Geomitra coronula* to start an *ex situ* captive breeding program. As a result, we collected a founder population of *Atlantica calathoides* (37 specimens) in March 2022, which enabled the start of a captive breeding program at the Chester Zoo (UK). Unfortunately, we didn't find enough specimens of *G. coronula* in the wild on both attempts made in March 2022 (3 specimens) and November 2022 (4 specimens) to enable the start of a captive breeding program. We will try again in the Spring and Autumn of 2023.

T-021 Reduce the impact of invasive invertebrates on endemic invertebrates on St Helena. (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 1

Result description: Successful trials for both *Vespula vulgare* and *Pheidole megacephala* have occurred on the island with both invasive species showing levels of decline after toxins have been applied, together with checking mitigation for non-target impacts as well as assessing positive endemic impacts. This project will finish in 2023 but will be integrated into a bigger project to continue benefits.

T-024 Implement a captive breeding programme targeting the Endangered Madeiran land snail *Geomitra moniziana*. (KSR 10)

Number of species with increased or prevented decrease in population or range size, as a result of conservation actions: 0

Result description: This conservation action was cancelled due to the non-approval of the SOS *Geomitra moniziana* project application to the LIFE4BEST program.

T-027 Translocate two Critically Endangered land mollusc species to prevent their extinction. (KSR 10)

Number of conservation translocations conducted: 0

Result description: This action is delayed. In 2022, a baseline inventory was produced to evaluate the distribution and abundance of the two Critically Endangered (CR) land snail species of Santa Maria. In 2023, the LIFE SNAILS molluscs expert team will extend and continue the inventory and implement a monitoring scheme to collect the target species' climatic, biotic, and ecological data and their habitat to prepare the potential captive breeding program if found necessary.

T-034 Implement monitoring, a management plan and action for the Ironclad Beetle (*Tarphius floresensis*) on Flores Island. (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 1

Result description: Improvement of habitat quality for Ironclad Beetle delivered by 50%. Life project is continuing. Related references: (1) Stephenson, P, *et al*. (2022). 'Measuring the impact of conservation: the growing importance of monitoring fauna, flora and funga'. *Diversity*, 14, 824. DOI: 10.3390/d1410082; (2) Lhoumeau, S, *et al*. (2022). 'SLAM Project - Long Term Ecological Study of the Impacts of Climate Change in the natural forest of Azores: V - New records of terrestrial arthropods after ten years of SLAM sampling'. *Biodiversity Data Journal*, 10: e97952. DOI: 10.3897/BDJ.10.e97952.

T-035 Implement monitoring and a management plan for the Laurocho (*Pseudanchomenus aptinoides*) from Pico Island. (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 1

Result description: Improvement of habitat quality for Laurocho is at 50% delivery. Still being delivered through the LIFE Project and relevant references are: (1) Lhoumeau, S, *et al*. (2022). 'SLAM Project - Long Term Ecological Study of the Impacts of Climate Change in the natural forest of Azores: V - New records of terrestrial arthropods after ten years of SLAM sampling'. *Biodiversity Data Journal*, 10: e97952. DOI: 10.3897/BDJ.10.e97952; (2) Stephenson, P, *et al*. (2022). 'Measuring the impact of conservation: the growing importance of monitoring fauna, flora and funga'. *Diversity*, 14, 824. DOI: 10.3390/d1410082.

T-036 Implement monitoring and a management plan for *Trechus terrabravensis* from Terceira Island. (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 1

Result description: Improvement of habitat quality for *Trechus terrabravensis* being delivered through the LIFE Project and relevant references are: (1) Borges, PAV. (2022). '*Trechus terrabravensis* (Green Status assessment)'. The IUCN Red List of Threatened Species 2022: e.T97126159A9712615920221.Accessed on 30 September 2022; (2) Tsafack, N, *et al*. (2023). 'Edge effects constraint endemic but not introduced arthropod species in a pristine forest on Terceira (Azores, Portugal)'. *Forest Ecology and Management*, 528: e120646. DOI: 10.1016/j.foreco.2022.120646; (3) Stephenson, P, *et al*. (2022). 'Measuring the impact of conservation: the growing importance of monitoring fauna, flora and funga'. *Diversity*, 14, 824. DOI: 10.3390/d1410082; (4)

Borges, PAV, *et al*. (2022). 'SLAM Project – Long-Term Ecological Study of the Impacts of Climate Change in the Natural Forest of Azores: III - Testing the impact of edge effects in a native forest of Terceira Island'. *Biodiversity Data Journal*, 10: e85971. DOI: 10.3897/BDJ.10.e85971; (5) Lhoumeau, S, *et al*. (2022). 'SLAM Project - Long Term Ecological Study of the Impacts of Climate Change in the natural forest of Azores: V - New records of terrestrial arthropods after ten years of SLAM sampling'. *Biodiversity Data Journal*, 10: e97952. DOI: 10.3897/BDJ.10.e97952.

T-038 On Sao Tome and Principe, carry out endemic invertebrate species conservation projects focused on beetles, butterflies, aquatic invertebrates, and snails. (KSR 10)

Number of threatened species benefiting from *in situ* conservation action: 1

Result description: CIBIO collected some data on beetles and butterflies, the most recent information on several taxa was published recently in this book, where most of us researchers contributed with the most recent information on the biodiversity of the islands (https://link.springer.com/book/10.1007/978-3-031-06153-0). As we are aware, no specific conservation project currently targets these groups, but there is research to increase knowledge on what occurs on the islands. There is a project from BirdLife on butterflies and we think that they are going to build a butterfly centre to reproduce some species and sell them to collectors to fundraise for the park.

T-039 On the Canary Islands, implement conservation actions and raise awareness for *Pieris cheiranthi.* (KSR 10)

Number of threatened species benefiting from *in situ* conservation action: 1

Result description: We are waiting for the Canaries Pollinator Plan to be finalised.

T-040 On Santa Maria in the Azores, initiate an endemic land snail project. (KSR 10)

Number of threatened species benefiting from *in situ* conservation action: 1

Result description: The monitoring started in September 2022, but no results yet.

T-041 On the Canary Island, initiate planning and project actions on top priority endemic pollinator species. (KSR 10)

Number of threatened species benefiting from *in situ* conservation action: 1

Result description: Canaries Pollinator Plan will help to do this once it is finalised.

T-043 Conservation actions defined and implemented for the endemic Scaly Crickets of Ascension Island. (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 1

Result description: Two (2) species on an isolated islet have been red-listed and reviewed and will be published next year. The other species on the main island have a funding application for focused work and, they are starting to be picked up by the island-wide survey.

NETWORK

Synergy

T-023 Increase partnerships with potential funders. (KSR 1)

Number of 'funding' partners established and maintained: 2

Result description: Mossy Earth has funded both Obo Snail in Sao Tome and Principe, and Snail Rescue work on Desertas in Madeira. Also used IUCN funding as well as Indianapolis Zoo application is in for Ascension.

Capacity building

T-029 Organise yearly Red List Training webinars. (KSR 2)

Number of Red List Training Webinars realized: 1

Result description: One webinar and two face-to-face sessions were planned for 2022. The webinar was part of the Forward project, which was cancelled due to the lack of a minimal number of attendees (10). The face-to-face sessions were planned for master's and PhD students and conservation managers to be held in Madeira (Madeira archipelago) and Tenerife (Canary Islands). The first was postponed for 2023 due to the lack of a minimal number of attendees, while the second took part on the 10th and 11th of November 2022, at the La Laguna University, with 21 attendees.

COMMUNICATE

Communication

T-030 Disseminate the group newsletter. (KSR 12)

Number of newsletters produced: 2

Result description: There have been two newsletters in 2022 these are available on the website: http://www.maiisg.com/news/.

T-033 Organise a public awareness campaign addressing the Endangered Madeiran land mollusc species. (KSR 13)

Number of digital communication outputs developed in relation to specific taxonomic groups: 0

Result description: The public awareness program was postponed to 2023.

Acknowledgements

The Mid-Atlantic Islands Invertebrate Specialist Group would like to acknowledge the ongoing hard work, support, and enthusiasm of its fantastic membership.

Summary of achievements

Total number of targets 2021–2025: 42

Geographic regions: 15 Africa, 28 Europe

Actions during 2022:

Assess:	6 (KSR 5, 6)
Plan:	4 (KSR 8)
Act:	17 (KSR 10)
Network:	2 (KSR 1, 2)
Communicate:	2 (KSR 12, 13)

Overall achievement 2021–2025: