



The Caribbean Seabird Initiative: Invasives

July 2013

CSI: Invasives is a project that seeks to increase regional capacity, support, and funding for invasive species work to benefit seabirds in the Caribbean region.

Invasives Session at SCSCB Regional Meeting in Grenada

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The biennial regional meeting of the Society for Conservation and Study of Caribbean Birds (SCSCB) in Grenada, July 29-31, 2013 will include a symposium "*Invasive alien species in the Caribbean: Recent advances and best practices in prevention, control, eradication and monitoring to restore habitats and minimize impacts for birds*" organized by Kirsty Swinnerton, Island Conservation, Jennifer Wheeler (USFWS) and David Wege (BirdLife International). The intent of the symposium is to continue to continuing to raise awareness and share guidance/tools to address the serious threat of invasive species to Caribbean birds (not just seabirds, though those and rare endemics are especially at risk). Visit <https://sites.google.com/site/scscbmeeting2013/program> for more information on the meeting.

Allen Cay Declared Mouse-Free

Located within the Allen Cays in the northern portion of the Exuma Islands in the Commonwealth of the Bahamas, this limestone island of approximately 1 km in length and 50-100 m in width supports a significant breeding population of Audubon's Shearwaters as well as the endangered and endemic Allen Cay Rock Iguana. The presence of introduced house mice provided an artificially elevated food source for predatory Barn Owls that also killed shearwaters and other island species. In May 2012, multiple cooperators worked to eradicate the mice to reduce hyper-predation by owls, permit the recovery of the shearwater population and benefit other native species. In June 2013, a survey by team members found no sign of mice. Subsequent work to enhance breeding habitat will increase recruitment and recovery of the iguana population. This project is overseen by the Bahamas National Trust, in consultation with Island Conservation and in cooperation with Dr. John Iverson (Earlham College), and Dr. Will Mackin, and support from National Fish and Wildlife Foundation's Recovered Oil Fund for Wildlife, Powerboat Adventures and the John G. Shedd Aquarium. Contact Vanessa Haley-Benjamin, Bahamas National Trust, vhaley-benjamin@bnt.bs or Boris Fabres, Island Conservation, boris.fabres@islandconservation.org.



A breeding Audubon's Shearwater, expected to be more numerous on Allen Cay following the removal of mice.

Alas, Rats Remain on Desecheo

Desecheo National Wildlife Refuge is a 385-acre uninhabited island located 13 miles off the northwest shores of Puerto Rico, which historically supported seven breeding seabird species, and hosts three endemic reptiles, three endemic invertebrates, and the federally listed higo chumbo cactus. In March 2012, following several years of planning by the US Fish and Wildlife Service (USFWS) in partnership with Island Conservation, a project was implemented to remove invasive rats from the island (reported in CSI Newsletter April 2012). This project is part of a larger effort to help restore Desecheo's natural systems and wildlife by removing damaging invasive species. In March 2013, one year after the operation, biologists working on the island discovered that rats are still present on Desecheo. Preliminary genetic testing indicates that this is not a result of a rat reintroduction, but that not all rats were eradicated from Desecheo Island during the 2012 activities.



Desecheo Island, Puerto Rico

This is disappointing news for project partners and island restoration practitioners, especially since a handful of high-profile projects on tropical islands in other parts of the world have also failed in recent years. For this reason, leading practitioners are convening a comprehensive review of these projects to identify why rats remained and how to redesign and repeat the rat-removal projects on tropical islands with much greater chance for success.

Partners for Desecheo remain optimistic that they can learn from their experiences, adapt their management, and successfully remove rats from Desecheo once and for all. They are committed to a rat-free future for Desecheo, especially since observations from the follow-up visit did provide positive indications that the reduction in rat densities has had a beneficial effect on this island ecosystem, evidenced by densities of lizards, hermit crabs, and tree seedlings, and less gnaw marks. Contact Susan Silander, USFWS Susan_Silander@fws.gov or Brad Keitt, Island Conservation, brad.keitt@islandconservation.org.

CIASnet Up and Running

The Caribbean Invasive Alien Species Network (www.CIASNet.org) is intended to be a one stop shop for information on IAS in the Caribbean. This site documents some of the key actions to addressing this issue by showcasing results, a good way to promote action. It also gives details on a range of IAS of importance to the Caribbean while highlighting the people and organizations that are pioneering the work with these species that can potentially threaten the Caribbean's human health and livelihoods; disrupt both intra-regional and international trade and impact the environment by threatening native and endemic Caribbean biodiversity. The site is the product of the efforts of three members groups of the many entities tackling the issue of IAS in the Caribbean and reflects the importance of collaborative effort. Currently, the site focuses on agricultural and marine IAS; however, the site could be expanded to include more on vertebrates, the primary threat to birds.

Voluntary Code Of Conduct For The Tourism Sector Designed To Reduce Spread of IAS

The Saint Lucian branch of GEF-funded project "Mitigating the Threats of Invasive Alien Species in the Insular Caribbean" organized three workshops, during which public-private working groups developed a Voluntary Code of Conduct for the Tourism Sector (TS VCoC). The TS VCoC promotes visits to Saint Lucia's off-shore islands as a unique "edutainment" experience in a safe and clean environment. The TS VCoC provides guidelines for ecologically sound business practices for stakeholders involved in outdoor tourism (hoteliers, tour operators, guides, wardens, dive instructors, drivers, watersports, beach and grounds personnel, etc.), with particular emphasis on invasive alien species (IAS). Since prevention is particularly crucial for conserving globally threatened and rare species on Saint Lucia's off-shore islands, prevention and communication/education/public awareness are given priority in the code, followed by management approaches summarized as "mitigating measures". Contact Dr. Ulrike Krauss, Invasive Species Coordinator, Forestry Department of Saint Lucia, saintlucia.ias@gmail.com.



Dive operation in St. Lucia: one of the stakeholders in the development of the new Voluntary Code of Conduct for the Tourism Sector.

OICP Expands To Include Redonda

The purpose of the Offshore Islands Conservation Program (OICP) is to conserve the offshore islands of Antigua and Barbuda, especially the many small coralline islands that fringe Antigua's northern and eastern coastline, forming an Important Bird Area, Alliance for Zero Extinction site, and a Critical Ecosystem Partnership Fund (CEPF) Key Biodiversity Area. The OICP has recently expanded to include Redonda, a volcanic island 30 miles (48 kilometers) west of Antigua, which is the country's largest uninhabited island, an Important Bird Area and notable for its threatened endemic herpetofauna. The Redonda Restoration Project aims to scale up the techniques devised by the Antiguan Racer Conservation Project to permanently remove invasive rats and feral goats from Redonda, which is considered necessary to enable the recovery of its native flora, endemic reptiles, and globally important seabird colonies. This project is still in the planning and fund-raising stage. In 2012, a detailed feasibility study for eradicating rats was carried out to help inform and guide future planning. The study produced firm proof (both direct observations and analysis of rat stomach contents) that the rats are preying heavily on seabird eggs and chicks. The OICP is co-managed by the Environmental Awareness Group (EAG), which serves as the programmatic headquarters, and, many partners. Contact Natalya Lawrence, OICP Project Coordinator skn_h@yahoo.com.



The steep topography of Redonda Island, photographed by Ruleo Camacho.

Database of Island Invasive Species Eradications Release

The DIISE can be found at <http://eradicationfdb.fos.auckland.ac.nz/> and is a publicly available resource to help land managers and conservation practitioners learn more about invasive vertebrate eradication projects. The database provides detailed information on individual eradication projects and also provides opportunities to analyze trends in past eradication projects. It is evidence that protection of threatened biodiversity by removing invasive vertebrates from islands is becoming a powerful and widely used conservation tool. To date over 1,000 successful eradications of invasive vertebrates on almost 800 islands have been documented. The database will be maintained and updated regularly to incorporate new eradication projects. Users are encouraged to review the database and submit edits to existing data or new projects not currently in the database. Details on how to submit comments are provided on the DIISE website. The DIISE is a collaborative partnership comprising Island Conservation, the IUCN SSC Invasive Species Specialist Group, the Coastal Conservation Action Lab at the University of California, Santa Cruz, Maanaki Whenua-Landcare Research, and the University of Auckland, New Zealand. Contact Brad Keitt or Nick Holmes, Island Conservation, Brad.Keitt@islandconservation.org ; Nick.Holmes@islandconservation.org.

Eradicating Multiple Invasive Species on Inhabited Islands

Many seabirds select to breed on uninhabited islands, but some very important colonies occur on inhabited islands. Projects occurring there have some special considerations, as raised in a recent article by Glen et al. 2013 Eradicating multiple invasive species on inhabited islands: the next big step in island restoration? (Biological Invasions, doi: 10.1007/s10530-013-0495-y). The abstract reads: "Invasive species are the greatest threat to island ecosystems, which harbor nearly half the world's endangered biodiversity. However, eradication is more feasible on islands than on continents. We present a global analysis of 1,224 successful eradications of invasive plants and animals on 808 islands. Most involve single vertebrate species on uninhabited islands, but plant and invertebrate eradications occur more often on inhabited islands. Inhabited islands are often highly modified and support numerous introduced species. Consequently, targeting a single invasive species can be ineffective or counterproductive. The impacts of other pests will continue and, in some cases, be exacerbated. The presence of people also creates regulatory, logistical and socio-political constraints. Real or perceived health risks to inhabitants, pets and livestock may restrict the use of some eradication tools, and communities or individuals sometimes oppose eradication. Despite such challenges, managing invasive species is vital to conserve and restore the unique biodiversity of many inhabited islands, and to maintain or improve the welfare and livelihoods of island residents. We present a brief case study of the Juan Fernandez Archipelago, Chile, and discuss the feasibility of eradicating large suites of invasive plants and animals from inhabited islands while managing other invaders for which eradication is not feasible or desirable. Eradications must be planned to account for species interactions. Monitoring and contingency plans must detect and address any 'surprise effects'. Above all, it is important that the local community derives social, cultural and/or economic benefits, and that people support and are engaged in the restoration effort."

Find this newsletter posted at <http://wicbirds.net>. Contact Jennifer_A_Wheeler@fws.gov, editor.



CSI: Invasives is an initiative of Waterbird Conservation for the Americas, a partnership with the vision that the distribution, diversity and abundance of populations and habitats of breeding, migratory and non-breeding waterbirds are sustained or restored throughout the lands and waters of the Americas.
www.waterbirdconservation.org