Greetings to all Partners!

2015 has been a busy year in all facets of the Red Siskin Initiative. We are pleased to provide this update summarizing significant progress.

The South Rupununi Conservation Society (SRCS) continues to dedicate countless volunteer hours to Siskin field research, education and capacity building in south Guyana. Smithsonian (SI) and US partners are focused on project coordination, molecular research, captive breeding and fundraising. Special credit is due our dedicated team in Venezuela who continue their remarkable progress despite turbulent times at home. Their persistence reminds us that a committed, well-organized team can prevail despite complex challenges! Last but not least, we appreciate the important contributions made in all project areas by the many new team members, advisors and supporters; thank you!

Going forward, we have elected to change the project name to Red Siskin Initiative / Iniciativa Cardenalito. This new name translates easily between English and Spanish and better expresses our hope that saving this emblematic species will inspire more urgently needed conservation across this richly biodiverse region.

Brian Coyle, Mike Braun & Kate Rodriguez-Clark

RECENT HIGHLIGHTS

• Planning workshops make headline news-p. 3
• Habitat modeling and field research-p. 2
• Research colony at SI-p. 3
• Whole genome sequencing of Red Siskin-p.2
• Genetic samples exported from Venezuela-p.4
• SI makes Siskin an exemplar genomic project-p.2
• $65,000 SI Grand Challenges award received-p.4
• $40000 Donation from Band Foundation-p.4
• "Donate Now" button launched-p.4
• Red Siskin Initiative website nearly complete-p.3
• Presentation at AZA meeting-p.4
• Siskin nominated for the AZA SAFE program-p.4

Extra! Extra! Save the Siskin! Front-page coverage of the Nov. 2014 planning meeting at Bararida zoo highlights the extraordinary public interest in conservation of Red Siskins! See p. 3 for details.

COMING UP

• More founder birds for SCBI colony-p.3
• Outreach at conservation & aviculture meetings
• New field and genetic research in Guyana-p.2
• Combating wildlife trafficking - proposals to USFWS-p.5
• Rare Community for Conservation workshop-p.4
• Important Bird Area workshops-p.4
RESEARCH

Field Research in Guyana: Estimating population parameters, capacity building
SRCS has been making regular field research trips throughout 2014/15. Activities include capture and banding of siskins to study their movements and life history, collection of blood samples for genetic analysis, characterizing seasonal variation in behavior and habitat, and delineating range boundaries. The SRCS continues to recruit motivated volunteers from surrounding communities for training in field research and ornithological skills that build local capacity for conservation and ecotourism. Future plans include export of blood samples to NMNH for genetic research and new field surveys to support IBAs (see p.4) and estimate population size and density.

Field Research in Venezuela: Estimating population parameters and habitat modeling
No studies of the Red Siskin were conducted prior to its drastic decline in the early 20th century and very few since, thus, much field research is required for recovery planning. Instituto Venezolano de Investigaciones (IVIC) and SI units are contributing to design and execution of survey protocols to estimate population size, density and distribution across the species’ historic range. This will be the most comprehensive survey of Red Siskins ever conducted. The field crew will also characterize key habitat and behavioral variables throughout the year in order to achieve a better understanding of this species.

Using GIS and historical records of siskin habitat use, we are also creating a habitat model to identify areas of suitable habitat and potential reintroduction sites. The field crew is conducting “ground-truthing” surveys to evaluate and refine model predictions. This research will inform a future population and habitat viability analysis and is critical to a well-designed management program.

Molecular Research at SI: Whole genome sequencing
We are sequencing the entire Red Siskin genome to serve as the basis of an informed genetic management program. This resource will allow us to study historic and modern genetic diversity across the species range and estimate relatedness of individuals in the captive breeding program in order to limit inbreeding and optimize genetic diversity. It will also allow us to preserve the genetic identity of the species by devising a genome scan test for genetic purity to screen potential founders of captive populations. To create this test, we will also use the genome sequence from the canary and other species known or suspected to hybridize with the Red Siskin. By comparing these genome sequences to the Red Siskin genome, we can devise an assay that will detect even small amounts of DNA from other species in “cryptic hybrids”, i.e. birds that otherwise look just like a Red Siskin.

Genomic research will be facilitated by the recent selection of the Red Siskin Initiative as an exemplar project of the new Smithsonian Institute for Biodiversity Genomics. This institute aims to provide global leadership in genomics research and sustainability in support of biodiversity research and conservation action across the planet.
**Captive Breeding at Smithsonian Conservation Biology Institute (SCBI): First birds arriving soon!**

SCBI will soon be receiving our first two Red Siskins to start a research population at their world-class captive breeding facility in Front Royal, VA. This population will be a vital resource for research on behavior, husbandry, management, care, and, eventually, techniques for release. These birds, generously provided by the Toledo Zoo, will be joined by up to 10 more breeding pairs this year. National Finch and Softbill Society (NFSS) and US Fish and Wildlife are assisting efforts to acquire more birds from private breeders.

**PLANNING**

**November Meetings Exceed Expectations and Attract Media Attention!**

Following up on a conservation-planning workshop held at SCBI in July 2014, two meetings were convened in Venezuela in November. The meetings were held at Parque Zoológico y Botánico Bararida (PZBB) in Barquisimeto and Parque Zoológico El Pinar in Caracas. The main topics addressed were establishing captive breeding programs, expanding education programs, laying the groundwork for the “Bird Friendly Coffee” reintroduction strategy and combating wildlife trafficking. The larger Bararida meeting, with over 40 attendees, was covered by TV, radio, internet and newspaper media reflecting the strong societal interest in and support for this iconic bird. This remarkable attention will help create public awareness that is so important to the success of any conservation effort.

Meeting attendees toured two shade coffee farms, including one that is already certified as “Bird Friendly” by Smithsonian. Team members are preparing a document to summarize meeting outcomes and priorities that will be merged with the earlier SCBI workshop document to create a draft plan for species recovery. The meetings were supported by the Venezuelan zoos, IVIC and Smithsonian Grand Challenges Consortia.

**Architectural Design of PZBB Breeding Facility**

In February, team member Will Ruhl of RuhlWalker Architects visited PZBB to advance planning and design of the future Red Siskin conservation breeding and education center. Will also met with representatives of El Pinar zoo to consult on their ongoing plans for park-wide renovations that include a dedicated Red Siskin breeding facility.

**MORE NEWS**

**Website and Conservation Campaign Design:** [www.RedSiskin.org](http://www.RedSiskin.org)

Marcelo Arancibia and his design team at Merlin Interactive, Innovative design and development firm, have been creating a project website in both English and Spanish. The website is in the final phase of construction and will be ready soon for an official launch. The Merlin staff is also designing a new project logo, brochures and other great visual materials that will be used for fundraising, education and outreach.
Import of Blood Samples from Venezuela: Not easy!

In November 2014, after 4 years of persistent effort, Kate Rodriguez-Clark and the team at IVIC succeeded in exporting Red Siskin blood samples to National Museum of Natural History (NMNH). Thanks also to the US Fish and Wildlife Service for assistance on the US import permit. These valuable genetic samples will help us to understand the history of this bird and develop tools for breeding management. Genetic sampling will continue as the field crew makes visits to new areas throughout Venezuela.

Outreach to Zoos, Conservation Centers and the Avicultural Community

Warren Lynch, SCBI, and Brian Coyle, NMNH, gave presentations on the project at the Association of Zoos and Aquariums mid-year conference in March. The objective was to raise awareness of the Red Siskin Initiative and encourage member institutions to consider partnering in conservation of this species. Curators from several institutions expressed interest in joining a breeding network and even more were interested in Red Siskin exhibition and education. We will increase and expand the effort at future meetings and events.

Brian will also present the project at the Conservation Centers for Species Survival meeting this May and has applied to present at the American Federation for Aviculture convention in July.

An application was also submitted in March to the AZA’s new Save Animals From Extinction (SAFE) program. This program was developed to focus the collective resources and expertise of AZA member institutions on ten species to maximize conservation impact. The end goal is to create sustainable wild populations for all SAFE species.

Collaborating with BirdLife International on Important Biodiversity and Bird Areas

The IBA program has a four-decade legacy of identifying and protecting areas that are important for survival of birds and other wildlife. We are collaborating with BirdLife International to advance the IBA process for proposed sites in Guyana, including Red Siskin habitat. We will convene a workshop to address data collection and stakeholder participation and to plan next steps.

Proposed Community for Conservation Workshop in Guyana: http://www.rare.org/

Rare (originally Rare Animal Relief Effort) trains local leaders in social marketing techniques to promote sustainable behaviors and community pride in natural heritage. We are now preplanning and fundraising for a ten-day workshop to train 25 participants to conduct social marketing campaigns related to Red Siskin conservation.

GRANTS and FUNDRAISING

Recent Grants

Smithsonian Grand Challenges Consortia Level II Award

Award: $65,000

Title: Coffee to the Rescue: Using Captive Breeding, Conservation Genomics & Sustainable Agroforestry to Recover an Endangered Bird in Venezuela

Principal Investigator: Michael Braun (NMNH). Co-Principal Investigators: Brian Coyle (NMNH), Scott Derrickson (SCBI), Warren Lynch (SCBI), Jesus Maldonado (NMNH/SCBI), Paul Marinari (SCBI), Robert Rice (SCBI), Brandie Smith (NZP), Sunshine Van Bael (STRI). Participants: Natalia Agudelo (NMNH), Kayla DeFreitas (SRCS), Leroy Ignacio (SRCS), Jhonathan Miranda (IVIC), Leonel Ovalle (PZBB), Kate Rodriguez-Clark (IVIC), Will Ruhl (RuhlWalker Architects), Thomas Brandt Ryder (SCBI-SMBC), Ana Sanchez-Mercado (IVIC), Scott Sillett (SCBI-SMBC), Bibiana Sucre Smith (Provita)

Donations

Private donation of $40000 announced in March

We are very grateful for this expression of support and generous contribution from the Band Foundation that will support field and lab research, project coordination and more.
National Finch and Softbill Society website donation button
NFSS placed a donation button on their Finch Save website in August 2014. Combined contributions from numerous individuals have funded several weeks of critical field research. Even small donations help make important work possible http://nfss.org/tag/finch-save/

Pending or In-Progress Proposals
Association of Zoos and Aquariums - Save Animals From Extinction program
Award: AZA will commit extensive resources to create sustainable wild populations of ten species through comprehensive conservation planning and action and fundraising.
Submitted: March 30, 2015

US Fish & Wildlife – Wildlife Without Borders Program, South America Program
Request: ~ $50000. Final budget request TBD
Submission deadline: May 15, 2015

US Fish & Wildlife - WWB Critically Endangered Animals Conservation Fund
Request: ~ $25000. Final budget request TBD
Submission deadline: June 19, 2015

Project Member Organizations

Environmental Protection Agency, GY
Instituto Venezolano de Investigaciones Científicas, Caracas VE
Merlin Interactive, VE
National Finch and Softbill Society, USA
Parque Zoológico y Botánico Bararida, VE
Parque Zoológico El Pinar, VE
Provita – Conservation NGO, VE
Ruhl Walker Architects, USA
Smithsonian, USA
• National Museum of Natural History
• National Zoological Park

• Conservation Biology Institute
  -Center for Cons and Ecol Genetics
  -Center for Species Survival
  -Migratory Bird Center

• Tropical Biology Institute
South Rupununi Conservation Society, GY
Universidad Central de Venezuela, VE

Collaborators and Supporters
American Bird Conservancy, USA
Bird Life International, International
Scion Foundation, USA
Smithsonian Exemplars in Genomics Project, USA