

Red Siskin Recovery Project

Past Perspectives and Future Directions



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The American Federation of Aviculture created the Red Siskin Recovery Project (RSRP) in response to the conservation needs of the highly endangered Red Siskin (*Carduelis cucullata*). This species has experienced extreme pressure on wild populations due to its popularity as a caged bird. The RSRP is striving to assist in the conservation efforts of this species by supporting scientific studies and domestic avicultural production. This discussion will detail some of the history of the Project and outline the challenges presently facing the program.

The Red Siskin is the national bird of Venezuela where it is colloquially known as "el cardenalito" or "little cardinal." Prior to heavy exploitation due to the caged bird trade, the Red Siskin enjoyed a wide range that extended from northeastern Colombia, across northern Venezuela, and on to Trinidad. Some current field studies reveal only two areas of habitat left in Venezuela, a small colony in Colombia, and a scattered feral population in Puerto Rico. The birds are semi-nomadic throughout the year, and will range up and down mountain slopes in their search for food. Red siskins have even been observed at high altitudes in evergreen forests, where cool zones of fog and rain persist all year. However, much of the activity of this species occurs in the deciduous forests of the lowlands.

The Red Siskin became increasingly threatened in Venezuela and so in 1944, it became the first bird in the world to be protected by law. The Red Siskin has been kept as an avicultural specimen for some time, but its prima-

ry use is in the production of red factor canaries. Originally, canary-siskin hybrids were produced in the mid-1920's. Canary-siskin hybrid males were produced in the first generation, some of which were fertile. These hybrid males were then paired back with canary hens until in the fourth generation, fertile hens that carried the red factor trait were produced. Selective breeding intensified the color, however breeding Red Siskin males to female red factor canaries results in the most intense coloration. The use of Red Siskins to produce these color-type canaries along with extirpation in their home range for caged birds has severely reduced the populations in the wild. Although no legal export from Venezuela has occurred, internal pressure from poaching for the local trade, smuggling, and habitat destruction still take their toll. This bird is protected by the U. S. Fish and Wildlife Service's Endangered Species Act; so inter-state commerce is regulated by a permit process.

In 1985, the Venezuelan Audubon Society's Conservation Committee approached the American Federation of Aviculture about assisting in conservation efforts of the Red Siskin. In 1989, the AFA began compiling studbook data and laying the groundwork for a captive breeding program. The American Federation of Aviculture's Red Siskin Recovery Project was then formed. The Project has three main goals:

- To create a sustaining and stable captive breeding population of Red Siskins to meet the needs of commercial aviculture and thus relieve pressure on populations in the wild.
- To promote and assist in the con-

servation of this species by public education and support of ornithological scientific endeavors.

- To work with ornithologists and field biologists to provide research subjects and supply captive bred specimens for potential re-introduction programs.

The RSRP is a consortium consisting of volunteers including individual aviculturists and zoological institutions operating under the aegis of the American Federation of Aviculture. These participants contribute a portion of their offspring to the program for propagation purposes. The breeding stock is composed of privately held birds and those on loan for the AFA-RSRP. Project participants must meet an established set of requirements before being permitted to join the program. These requirements include: being a member in good standing with the AFA, possessing breeding experience with passerines, knowledge and experience of proper aviary and flock management, a working relationship with a qualified avian veterinarian, and the sincere desire to assist in the recovery of the species. The flock record and studbook are maintained using a computerized database by Dr. Orland Baker, who has been the studbook keeper since the Project's inception.

One of the biggest challenges facing the RSRP and preventing further expansion of the program is control of specific diseases. The greatest danger is from avian tuberculosis, which is an insidious and difficult to diagnose disease caused by a group of slow growing bacteria called *Mycobacterium avium* and *Mycobacterium genovense*. The magnitude of infection by this pathogen is unknown but it has caused death and loss of production throughout the Project. This disease is not specific to the Red Siskin, but is a threat to birds in aviculture worldwide and is a major problem in zoos and aviaries. The signs of infection are typically "going light" despite a ravenous appetite, poor quality plumage, malaise, imbalance and/or difficulty in moving, and chick death. Avian tuberculosis can be occult for years before beginning to cause clinical disease;

typically after a stressful event such as breeding or movement to another aviary. Often, the offspring die followed by clinical disease in one or both of the parents.

Diagnosis in the live bird is very difficult due to the low numbers of bacteria being shed, and intermittent shedding habits making culture or special stains not very useful. Most veterinarians make the definitive diagnosis on histopathology in the dead bird. Although the disease can be treated, it is an intensive and time-consuming process and, furthermore, it is unknown whether the infection has been cleared or simply suppressed. What is needed are accurate and reliable tests to screen potentially infected birds and prevent the disease from entering the aviary. Now, here's the good news.

In July of this year, the American Federation of Aviculture in conjunction with Texas A&M University College of Veterinary Medicine and the Schubot Center for Exotic Bird Research; the University of California at Davis College of Veterinary Medicine; and the Lincoln Park Zoo received seed grant money from the Pet Care Trust, Inc. to research and develop tests for avian tuberculosis in the live bird. The Red Siskin will be the flagship species for this research effort. Each of the research institutions will provide some degree of matching funding thus augmenting the research efforts. The Texas A&M/Schubot Center group will be developing serological antibody tests; the UC-Davis group is developing gene probes (PCR); and the Lincoln Park Zoo is working on serological antigen (bacterial protein) tests. The AFA is supplying the funding for necropsies and helping to monetarily support the research efforts.

The AFA's portion of the funding was generously donated by the Dallas Cage Bird Society in Texas and the West Pasco Bird Club in Florida and I want to gratefully acknowledge these groups for their support. Once these tests are perfected, then they will act as reliable screening methods for avian tuberculosis benefiting aviculture on a global basis. This valuable and highly fundamental research should be vigorously supported by the members of

AFA and aviculturists everywhere. It is only through joint efforts such as this that we can continue to improve the area of avian health. Until these tests are completed, the RSRP will explore husbandry and pharmaceutical regimens to control the disease within the flock.

Other projects for the RSRP under scrutiny are in conjunction with the Center for the Study of Tropical Birds (CSTB) in San Antonio, TX. The CSTB conducts ornithological research on neotropical birds and has been examining sites for future release of captive-bred Red Siskins. The CSTB is also seeking participants in a current scientific research effort involving behavior studies of captive siskins. If you are a siskin breeder, please help them in their work by using the following contact information:

Center for the Study of
Tropical Birds, Inc.
Jack Clinton Eitniece, Director
218 Conway Drive
San Antonio, TX 78209-1716
Phone: 1-800-858-CSTB (2782)
Email: Siskinproject@cstbinc.org

The RSRP also wants to research the genetic purity of the breeding stock we are holding. Over time, hybridization has occurred with canaries and there is some question regarding the genetic purity of the breeding stock. This project will be a future goal for the RSRP help ensure we have the best possible foundation stock.

In an astonishing development, a new population of Red Siskins was discovered in April of this year in a yet to be disclosed location in South America. The location of the birds is being kept confidential to protect the population and allow time for scientific study. The population is geographically isolated and is speculated to been separated from any of the presently known groups for at least 8,000-10,000 years. There is a possibility that this population may be a distinct subspecies since it occupies a different habitat compared with other known populations. Preliminary field work has made initial population estimates but more study is needed. The research is being conducted as a multi-institutional effort over-

seen by the University of Kansas department of ornithology and museum of natural history. However, your support and interest is needed to fund research efforts. The researchers are seeking funding through various governmental and conservation agencies but these funds are not sufficient to cover all costs. The researchers estimate that about \$10,000 are needed to send a team to the remote location late this fall and spend about three weeks surveying the population and taking measurements.

The information gathered will be published in peer-reviewed journals and shared with other conservation agencies to help manage this population. The time window is critical to perform the work during the dry season since weather will not permit the scientists to reach the birds in this remote location later in the year. The members of the RSRP and the American Federation of Aviculture need to dedicate their interests and money to worthwhile scientific endeavors such as this project. It is a chance to demonstrate the professionalism of the organization and our commitment to conservation efforts.

The AFA-RSRP encourages participation and support of these noble efforts through your involvement and contributions. You may contact the AFA-RSRP by the following methods:

E-mail: dstyles@webtv.net

or U.S. Mail to:

American Federation of Aviculture
Red Siskin Recovery Project
c/o Dr. Darrel K. Styles
P.O. Box 56218
Phoenix, AZ 85079-6218

We also have a website with the International Carduelian Society and the URL is:

<http://www.afa.birds.org/redsiskin.htm>

We strongly encourage contributions to these efforts. Please make your tax-deductible donation to the American Federation of Aviculture; and in the note section on the check, write Red Siskin Recovery Project or RSRP. 