RED SISKIN RESEARCH PROJECT

Study ecology, estimate population, and ensure long-term protection of the Red Siskin (*Carduelis Cucullata*)

Conducted by the South Rupununi Conservation Society

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I. ABSTRACT

The SRCS (South Rupununi Conservation Society) has been involved in the monitoring of a population of Red Siskins discovered in the southern region of Guyana. In 2005 they received funding to conduct a year-long study to estimate the population, gather baseline data of the bird, monitor their presence, and spread awareness within the communities of the importance of preserving not only the Siskin, but also all of its wildlife and habitat. From January 2006 to January 2007, the SRCS ran weekly surveys on the eastern and western extremities of their range. Both of the ranges were known as nesting areas. Additional surveys were led by members into areas with similar habitat to ascertain the range of the population. New nesting sites were found and the range significantly extended, though further surveys into Brazil and northern Rupununi will be needed. Working with the district council (administrative body of the Amerindian villages of the south, or all of the village chiefs) and teachers of the various communities, the SRCS held talks and formed wildlife groups for schools along with creating mini projects for these groups. Students would also be taken on Siskin surveys near to their communities as encouragement for the younger residents of the villages. Monitoring of the birds, especially the knowledge of any trapping of the species, is done by a network of villages and meeting with trappers and influential members of communities. As of yet, there is no trade of the species in this region. The population seems stable and is not in decline, though constant attention is needed in a country where wildlife trading and other such activities are often turned a blind eye on by the people with the authority to stop it.

II. INTRODUCTION AND MAP

The South Rupununi Conservation Society emerged from a group of friends who grew up in the southern Rupununi of Guyana. All of its members are from the ranches and Amerindian villages in the area. It is a remote region of Guyana, and work and income is difficult to come by. To this day, the way of life in this region depends on hunting, farming, and the rearing of animals as food sources; and so its natural resources are essential to the livelihoods of the people who live here. These include the bird trade, pet trade, and commercial sale of fish and wild animals. The depletion of wildlife in coastal and other more accessible areas has led to demand extending further into the interior. Over the last ten years, we have noticed a marked decrease in many birds that are trapped for the bird trade including the Oryzoborous species, which have suffered huge losses over the years.

This decline in a variety of Rupununi's wildlife caused concern to many of the younger generation who then became motivated to try to halt the reduction of species' populations. Since the forming of the society, many members have given up hunting and dedicated themselves to the preservation of wildlife through talking to local people and creating projects. These projects aim to challenge the way in which people think of exploiting their precious resources and include the Siskin project, a freshwater turtle rehabilitation project, and an Ite Palm replanting project.

Alternative sources of income, such as tourism and the rearing of wildlife, have become available as a result of the society's activities. It is an interesting and exciting time for the Rupununi, which abounds with the opportunity and potential to make a change and example for the better.

Mark Robbins and a team of researchers from the Smithsonian Institution discovered Red Siskins on the 12th of April 2000 during an expedition in

the eastern part of the south Rupununi savannahs, for which the SRCS were acting as guides and assistants.
The rarity and significance of the Siskin was well known by the Smithsonian, and discussions on the future of the species began almost immediately. With encouragement from the manager of Dadanawa Ranch, Duane De Freitas, and members of the Smithsonian expedition, the SRCS began to look for the birds using their network of friends who, as hunters and farmers, were able to locate the species.

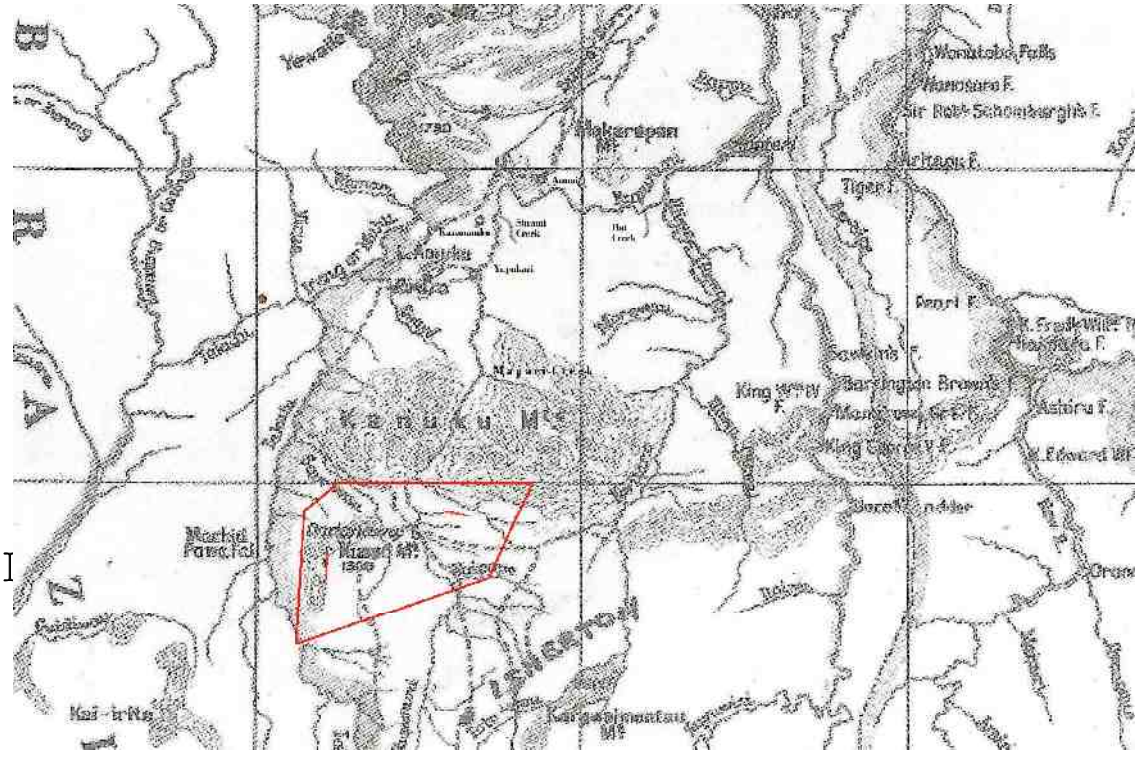
The issues surrounding the bird involved the following points:
• What is the population?
• Are they being threatened, and if so, by what?
• What is their range?
• What steps would be needed to protect them?
• Were they genetically similar to the threatened population in Venezuela?

After discussions with various entities the following steps were decided upon and taken:
• Conduct a year-long survey in various localities to estimate population and study the Siskins' behavior.
• Investigate probable threats including fires and cage-bird trade.
• Establish their range through surveys of similar habitat in new areas.
• Create a simple and effective management plan to protect them.
• Genetically sample and test species' DNA for similarity to Venezuelan population.

Mike Braun of the Smithsonian, Brigadier Joe Singh, and others approached the EPA (Environmental Protection Agency) and the wildlife division to upgrade the status of the bird in Guyana to protected species. Upon completion of this, the SRCS signed a memorandum of understanding with the EPA to be the lead agency for the protection and management of the Siskin population.

The American Bird Conservancy assisted the initial range surveys of the bird. In 2005 we received a grant from the BPCP (British Petroleum Conservation Program) to conduct a year-long survey of the Red Siskin. This would include educational awareness campaigns and protection measures.

The SRCS then selected and trained persons in detection and survey techniques. Though Amerindians are skilled in the art of observation, it was no easy task to prepare researchers, as Siskins are incredibly hard to locate and survey due to their rapid movements and small size. This led to a delay in our commencement, as we had to be certain of our researchers' abilities. The training took four months before members were satisfactorily ready.



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All members of this group are from indigenous communities in the south Rupununi and have no extended post secondary education. Instead, they have an extensive knowledge of their natural environment.

Some Members of the Research Team With Anaconda

IV. FIELD WORK AND RESEARCH

A. BACKGROUND, PLANNING, AND AIMS

The Red Siskin has been the object of intense trapping for the international cage-bird trade for over 150 years (coats and Phelps 1985, collar et al. 1992, The Auk 120 (2) April 2003). Previously occurring in eastern Columbia and the northern coastal Venezuela, the species has been trapped to the verge of extinction for the cage-bird trade.
Recent surveys of the bird in Venezuela have discovered the bird hybridizing. This is supposedly a sign of desperation of a species on its last legs. Upon its discovery in Guyana, steps were taken to preserve this species in a habitat where it has not previously been introduced. Suggestions have been made that the Guyanese population is the result of the Venezuelan cage-bird trade, which has resulted in previous populations in Trinidad, Puerto Rico, and the United States. Surveys in Guyana and the population discovered lean towards a different conclusion.

The South Rupununi Conservation Society, Ornithologists from the Smithsonian Institute, members of the American Bird Conservancy, Dadanawa Ranch, and others came up through multiple discussions with a plan to achieve these goals.

Aims for the project were:

- Estimate population
- Create a system to protect population
- Educate communities of the importance of this species
- Create a management plan for preservation of species

Areas chosen for study were divided into two categories:

I. Establishment of weekly transects
II. Surveys of range distribution

The weekly surveys were established on the western and eastern known extremities of the species range. Both of these areas have been identified as breeding grounds for the species. The eastern transect is known as the Ikwitau and Wiwitau area, this area being small, isolated ranges of mountains approximately ten kilometers south of the Kanuku range. The western transect (Kusad) is located one kilometer from the Brazilian border. This is an isolated mountain range six kilometers long and is home to many species that exist in the deeper forest.

B. METHODS: FIELDWORK AND FOLLOW UP

Since the project involved different aspects of attribution, it is necessary to discuss the various methods in aspect.

1. RESEARCH ON TRANSECT METHODS

- Teams of two ran the transects weekly and on the same days.
- The eastern transect is divided into two separate mountains that run parallel to each other from east to west.
- The length of the transects are four miles each and circle the mountains at the foot.
- The western transect runs along the eastern and northern flank of the Kusad mountain range and is three miles in length. Because of the size of the range, it was not possible to circle the mountain but only use a side of it. Because of the terrain of both localities, these surveys are done on foot.
- The teams would run the transects starting at dawn, counting sightings and recording observations on a devised data sheet.

2. SISKIN RANGE SURVEY METHODS

A team of six researchers would travel to areas without recordings of Siskin sightings in an attempt to add to the known range of the species. These surveys included forays into neighboring Brazil and the north Rupununi savannahs. Information would also be gathered through word of mouth by an interconnected network of friends and interested community persons whereupon the team would survey the locations to confirm the bird's presence. The Brazilian survey was done using a team of Brazilian indigenous community members along with a researcher from the society. Surveys were conducted using various forms of transportation including jeeps, motorbike, bicycle, bullock cart, horse, and foot.

3. EDUCATION AND AWARENESS PROGRAM METHODS

Using teachers to promote importance of protecting the species and community role models to encourage community trappers not to target the bird for the trade.
Attendance of important village and district council meetings to discuss issues surrounding the bird would allow the political protection of the species.

4. TRANSECT RESEARCH

It was decided to run the transects as much as possible on the same day to prove indefinitely that the population of Siskins in the Rupununi were not a single flock traveling around the savannahs. Sightings of Siskin groups on the opposite ends of the range on the same day around the same time

would prove them to be of two separate groups. The Rupununi has mainly two meteorological seasons: a dry season that usually begins in September and finishes in April, and a rainy season that begins in May and ends in August. During the dry season, travel is far easier due to creeks and marshes allowing easy passage; whereas in the rainy season, creeks are often flooded far over their banks, and large amounts of usually traversable land are inundated with water, which makes even getting to the transects a challenge. At times researchers would have to swim hundreds of meters to get to transects. Parts of the transect also get flooded, and researchers wade through chest-deep water in search of Siskins. During the extreme dry periods, birds of various species, including Siskins, would flock together regularly at limited water sources giving a better chance of estimating the number of the species within an area. The estimation of local population is very difficult as birds can be seen traveling in small groups heading in various directions and at high speeds. The research main team consists of persons from as close to the transects as possible for access purposes. Over a three-month period, trainee observers would accompany the main team so as to learn the techniques and strengthen the local research team. This would create more researchers and allow more areas in the future to be surveyed by accomplished observers. Another challenge faced by the transect team was the length of time required to properly train researchers, as the Siskin can be very elusive. This makes it essential to learn and distinguish Siskin voice from a few other species that can sound remarkably similar.

Recordings were taken, but playback was not used for fear of disturbing present population. Over the period of one year, 52 surveys on each site were conducted.

5. SISKIN RANGE SURVEYS

The Rupununi savannahs are divided almost in half by a mountain range called the Kanuku Mountains. The current presence is in the southern savannahs. The team led four surveys at three-month intervals to get a cross-section according to season. This was to establish whether they would travel to the area dependent on the season. The Brazilian section was only surveyed once in the month of April. Further surveys into Brazil would be necessary in the future as the terrain is very similar, and its proximity to our eastern range would suggest their presence. This would involve some cross-national agreements since security of the Brazilian-Guyanese border has tightened over the last few years, although an easily crossable river, the Rio Tacutu, only borders the area.
Depending on the type of terrain, our transportation methods ranged widely. Motorbikes prove to be the best method as they can traverse rough terrain quickly and are light on fuel.

6. EDUCATION AND AWARENESS

A few of the communities close to the transect areas were targeted by establishing a school wildlife group. Members of this school group have been on transect surveys to learn observational skills and the use of relevant equipments. The society attended three district council meetings (district council being the chiefs of all the communities that sit on a panel to discuss larger than community-level issues) to discuss the protection of the bird. On these sittings the society also asked to be linked to the council as an environmental branch. Permission was requested for the Society to have liberal access to all community-owned land with regard to research and monitoring of the Red Siskin. On several occasions the society attended village meetings to promote the project. The society met with farming groups within communities and gave training courses to selected

persons to observe Siskin presence along with other birdlife in general within their farming areas.

Students Conducting Research Training

C. RESULTS

1. TRANSECT SURVEY

By conducting surveys on a same-day basis, the graphs lead to show it is certain the Siskin presence is not a single group moving from area to area. Siskin presence was proven at the two localities on most occasions (see graphs). Both the eastern and western transects seem to show the highest Siskin activity twice a year between February and April and between October and November. Notably these coincide with the two main nesting seasons for the species. The eastern transect had 214 sightings for the year, while the western transect had 253.

2. BEHAVIOURAL OBSERVATIONS

a) Nest building

In the eastern transect, a pair of Siskins were observed in the starting stages of building a nest. The male stood by on the highest branch of a 15-foot Curatella Americana tree. The female Siskin continuously flew to the ground and picked freshly dried leaves from the local savannah grass (*Trachypogon Plumosus)*. For five hours the bird was observed tirelessly building the nest, and had almost wholly completed it at the end of the afternoon. All the while, the male stood guard and fought or chased off two other males who were attempting to land near the site of the nest being built. This behavior has also been noted once in the western section. No other females were seen building the nest. The particular tree that the nest was being built in has been used every year since casual observation has been built. Whether they are the same birds is unclear and may need banding of the parent birds to prove this. The Siskin nests are mostly built

in Curatella trees between 10 and 20 feet, usually in the top of the highest branch hidden between the leaves. Interestingly enough, in the Mirror Mountain area, nests were found active 3 to 4 feet above the ground. In none of the other known nesting sites have they been found so low. In the Rupunau farm area a nest was found in the Cookerite Palm approximately 35 feet off the ground. None of the nests were observed daily from completed nest to weaning, yet based on an average taken from weekly visits, the birds leave the nest after 23 to 26 days.

b) Whistling and Movement

In the Rupunau farm area in early February, a large flock of Siskins ranging between 90 to 120 birds was observed. Over the space of a few hours, they collected in a large tree without leaves. They were chasing each other and disbanding, chasing each other, and then again returning to the large tree. This leads us to suggest flocking of the birds prior to nesting. They were observed in the farm on and off behaving in a similar fashion for six days. They then were only seen in the following weeks in pairs and randomly. At this stage they seemed to become more secretive and not as willing to be seen. Generally when being observed, they are not shy birds. In the farm when a radio is turned on, the Siskins would start to sing. Siskins have some of the longest whistling runs, even outlasting the more famous Oryzborous species. One Siskin was observed whistling for four continuous hours. Within that time, the bird imitated perfectly a Finsch's Euphonia and also Plumbeous Seedeater. The imitation throws light on how maybe we misinterpret the Euphonia sound when it may be a Siskin. A trapper who returned a Siskin to us reported that while held in one of his cages, the Siskin proceeded to continuously whistle until an Oryzborous Crassirostris, which was the trapper's calling bird, died of aggravation. Siskins can travel quite quickly over a few miles. Observing from the Ikwitau mountaintop, Siskins have been seen flying to and from the Wiwitau Mountain in very little time. Researchers would hear them

approaching from the mountain top where many times they would land on a dry tree for a brief stop before flitting off to the top of another mountain. Siskins utilize the entire mountain and tend to retire into the forested areas as the sun gets hot. It is often during this period of day when they nestle into the parasitic bird vine and whistle their lively songs. Though they seem to prefer the edge of the savannah and forest near isolated mountains, they have been seen in farms up to four miles into the jungle. They feed on many of the secondary growth that pops up in parts of the unused farm area. Twice in the dry season Siskins were found sleeping in open savanna on an isolated tree during the night. They were at least ten miles away from any of the granitic mountains they inhabit. The first group had 13 and was comprised of adult male, adult female, and juveniles. We believe they were moving from dome to dome and the juveniles tired.

Siskins were sighted eating over 20 species of plant fruits , flowers and seeds ranging from grasses and sedges to ficus fruits on large trees. They have been seen eating caterpillars, moths and other small insects.

3. SISKIN RANGE SURVEY

a) North Rupununi

The first northern survey was conducted during mid-February 2006. This survey ran from the western-most tip of the Kanuku Mountain range proceeding northeast along the edge where the jungle meets the savannah. The survey was run for two days and terminated east of Quarry village, approximately 14 miles from the westernmost tip. No Siskins were either heard or seen, though a sighting of a Hooded Siskin was noted. The second survey, done in May of 2006, concluded with no sightings or hearings of the Red Siskin. The same conclusion was attained in the third survey done in September of 2006 and the fourth survey done in December of 2006.

b) Brazil Survey

This survey was conducted in April of 2006 lasting three days, and using two Wapaishana Indians who reside in Brazil as guides. Four mountains of unknown names to us were surveyed. Though they appeared to be of ideal Siskin habitat, no sightings or hearings of the species were recorded.

c) South Rupununi Survey

In the south Rupununi, 16 surveys in total were made. They were all made in localities out of the then-present-known range. Recorded here are the surveys that found new Siskin presence outside of their range. Siskins have also been found in new locations but within their known range; these have been excluded from this list.

February 13 and 14, 2006:

Red Siskin presence was noted four miles northwest of Shulinab village on Mirror Mountain as a previously unrecorded area. Siskins were spotted traveling in a group of 18, 10 of which were adult females, and 8 of which were adult males. The birds were flying along a shallow rocky creek with much singing and fast furtive movements from high in leafless trees to thick viny entanglements 5 to 6 feet off the earth.

March 2006:
Approximately 12 miles east of the eastern transects, 25 Siskins were found, making it the most eastern-known locality for the species. Conditions for the bird were ideal: large granitic dome, partially forested with savannah sloping off the edges of the hill. A large mixed flock was seen chasing each other through a patch of Curatella Americana, which at the time was fruiting abundantly.

September 2006:
Siskins spotted between the two hills northeast of Wari Wau outstation. These hills were savannah hills with partial tree coverage. They were seen feeding on the fruit of Curatella, flying from tree to tree. After a few minutes they flew off in a northerly direction. This is the southernmost of their known range.

These were the only out-of-range sightings for the 2006 year.

D. EDUCATION, AWARENESS AND MONITORING

Wildlife groups were established in Rupunau, Sawariwau, and Katoonarib villages. Students from the Katoonarib School accompanied research teams on three occasions to the eastern transect and learned binocular, walkie-talkie, and GPS techniques. They also learned to record observations in the data sheets. The school wildlife group was given a bird identification guide and a pair of binoculars. The group then constructed

their first project, which was to create a bird list for their village. Members of the Society would assist them periodically over the years in this and other projects. Another project between the Society and the school was also constructed, which entitled the planting of the palm *Mauritiana Flexuosa* in parts of the village where they had been harvested and no longer grow. 300 of these plants have been grown by the school and are growing healthily. The palm is one of the main sources of food and habitat for macaws, parrots, and toucans. Sawariwau School is launching a project to database flora and fauna within their inner-village area. Further tree planting projects are being worked upon at the moment. Rupunau school representatives also have received a bird guide and a pair of binoculars. Members of the community who are also society members have taken some students to farm areas to view the Siskin and other birds, thus peaking interests at a young age.

With regard to the more serious aspect of protection the District Council agreed to let the Society represent and work with it on matters pertaining to the environment within the Rupununi. This is a great boon to the society as we can freely monitor the birds where other interested individuals or groups would have to follow complex procedure of applying to the Ministry of Amerindian Affairs, the EPA, and to the villages themselves. Protecting anything with that much restriction is very difficult. The District Council also unanimously agreed to protect the bird in all Amerindian communities within the area.
This was seen as a big step for the bird, as the Amerindian Act for Guyana allows Amerindians to capture wildlife within their titled land for their own use. Through meetings with villages and independent meetings with local people, the Society has established considerable support for the species. It has been widely supported and is looked upon as something special within the communities. Because of this support, the communities have become a huge input of information into the happenings in the bird trade, not only Siskin, but all of the other bird species that are actively being sent out of the region. As a result, the Society can monitor the known trappers and buyers

to let us know when there is a threat. Similar information brought to the Society by passers-by through the headquarters lead us to retrieve six Red Siskins from a trapper who was unaware of the illegality of shipping the bird. The birds were tagged and released from the area where they were caught. Members of the Katoonarib School were on hand to witness and participate in the banding and release.

The Society has recruited some of the major young bird catchers. They are already very good at identifying the various species, and as an added bonus, subtract from the trappers' population.

1. FARMING COMMUNITIES (POST 2006 WORK)

In 2007, the Society, after many independent farmers reports, formed a partnership with a farming community in Rupunau. They also acted as an excellent source of local information including alerts to Siskin flocks that go to the farms for food. It was in this farming groups' farm we found the largest ever seen flock in Guyana, which was between 90 and 120 Siskins.

Shulinab Farming Area

E. Discussion and Conclusion

From the transect surveys we know that the Siskin population is comprised of more than one group. To ascertain how many groups would require a more in-depth research project including a large-scale banding program and colour coding to five or six area localities.
This way, researchers in different zones would be able to record movements of the different groups between areas.

The longest distance within the established range a bird would have to fly to switch location would be approximately 70 miles as the crow flies. This should be fairly easy to achieve, and points out that the bird's presence in Brazil is highly likely. A joint effort to run a series of surveys on the Brazilian side should follow this project to determine their presence there and further establish their true range.

We propose the Siskins are constantly moving throughout the year depending on a variety of factors with the main ones being:

Food – There are many different foods they use, but at certain times of year food in some areas is practically non-existent. It coincides at the times of year when the savannah domes are short of food, the birds move north towards the Kanuku mountain range where there is a larger supply of food. Also there are many farms along the edge of the Kanuku, and they would supply food most of the year.
This factor is mostly natural and needs no serious involvement from the group; although, farming groups could be persuaded to leave a section of their farm, even planting it with the plants that these birds like to feed on, thus creating a safety food supply for rough times.

Fire – Many raptors like fire. They forage at the edges for snakes and other small animals. Birds that feed on seeds and fruits, however, suffer from the effects of it.

Fire, when it passes through an area, destroys all of the grass and the fruits and seeds on the trees. The birds in this case would probably then go seeking for unburned areas to stay for a while. If the fire damage is only to a small part of the habitat, they may just use the unburned part, but if the fire is extensive, they move to another hill. After time the area regains its grass, trees fruit, and the birds can return. This can take weeks to months. This factor is man-made, and steps by the Society and communities need to be taken to see how best we can solve the problem.

Water – During the dry season some of the hill areas dry up completely. In those cases it is unlikely for them to remain and would go looking for hills that would have water.
This is a natural factor and cannot be helped without considerable effort.

Breeding season – Though Siskin presence is recorded in over 20 separate hills and areas, only six have been identified as a breeding area. The nesting sites seem to be used every year. Not necessarily in the same tree, but always within a few meters of the area. The society aims to work with villages to establish tiny bird protection zones surrounding the breeding areas.

Trapping activity – Intense trapping in an area is likely to cause birds to leave. Often trappers would work an area until they cannot catch sufficient quantities to make it worth their while. Once again, along with villages, we can educate trappers and push village rules to include quotas and manner of practice. Some work has been done on this by the Society, and villages are beginning to create village laws pertaining to wildlife on the whole. Guyana's regulations on wildlife need to be addressed and enforcement powers be given to groups within the area.

1. MONITORING AND THREATS

Most trapping in Guyana is for birds that can whistle. On the coastal plains of Guyana, birds are used in whistling competitions, where they "race" against each other to see who will outlast the other. For more information read "Bird Racing in Guyana" by Aiesha Williams, 15 September 2004. The Siskin is not one of those sought for this trade, though with development on the Brazilian border, greater attention is being paid by people moving from the coast and settling in the border town of Lethem looking for ways to make money. There have been inquiries by various people about buying birds, and two birds had been caught and sent to Georgetown. The Society alerted the village captain and the various national authorities. Since this time, the village in question has become very serious in monitoring the bird and has prohibited its capture even by members of the village.

The most important area of focus must be within the communities themselves. They remain the most effective way of dealing with the trade by banning trappers from their lands. These communities also provide the best information on any trapping activity taking place on state lands.

The government of Guyana is now attempting to make the country green, so one would hope there will be strengthening of the Environmental Regulations Act and maybe, as in Brazil, a special branch of the police assigned to enforcing its laws and policies.

Currently in the Rupununi there is an ongoing project to develop local environmental policies. Members of the Society contribute to this process by sharing information on environmentally related topics in Guyana and other countries.

2. FARMING AND SISKINS

Farming in the Rupununi is mostly subsistence agriculture. People clear a plot in the forest; burn the cut trees, which provides the nutrients for the soil; and plant it with mainly cassava and a variety of other tubers and fruit

trees. After a few weeks, all sorts of native shrubs and trees begin to grow. Many species of birds love to feed on these as they contain tiny fruits in different varieties.
In relation to the Siskins, this farming has a positive effect as a source of food and water.
Farming areas are always close to a water source. Farms have become one of the easiest places to see Siskins. Some farmers now supplement their income by allowing tourists to come to their farm to look at Siskins. In Rupunau they have begun using a farm as a nesting area. This is the only known farm where this occurs.
Encouraging farming groups to observe and take data can yield much information into aspects of their behavior, as farmers are in their field throughout the year.

3. TOURISM

Tourism has been growing slowly in Guyana and slower in the south because of the air service link or lack of it in the south.
Some communities have already benefited from tourism in the form of bird watching and other nature lovers. The Siskins have brought people specifically to see them. Tourism at the same time can have negative impacts on the environment if not conducted in the right manner. Any tourism surrounding the Siskins should be done through the Society, who is legally recognized partners with the EPA in protecting the species.

4. SCHOOLS

Much more work is required with schools. There is need to establish long-term training and creation of serious school projects.
At present the school curriculum does not contain environmental studies. The Society aims to approach local government and the Education Ministry

to consider entering such pertaining subjects into the curriculum.
Teachers and students are willing and very enthusiastic about this proposal. This would require much effort and dedication and cannot be treated as a side project but as an entity on its own.
Conservation international has run some wildlife club programs in the communities surrounding the proposed protected area of the Kanuku Mountains and can be sought for assistance in design and implementation of such programs.

V. CONCLUSIONS

If we were to sum up what this project did for us it would be to say that it provided us with a huge learning experience not only for the Society, but also for a large number of the population of south central Rupununi.
The project played a huge role in making the people of the area open their eyes to how serious the threat is to the wildlife of the Rupununi and not just exclusively the Red Siskin.
It has led to discoveries that there are other birds that are under as much threat locally as the Siskin. A few examples are the Oryzborous Seed Finches, which in the region have been relentlessly caught for the wild bird market. Other species being extracted with little or no monitoring system in place are Macaws, Seedeaters, and Parrots.
A far cry from solving the problem, the project has served to awaken ideas within the villages to raise the concerns of what is happening in front of our eyes without us knowing.
As in most parts of the world, conservation of species depends largely on the people on the ground level, these being local people who dwell amongst these species all the time.

Therefore, we need not only to target the higher level lawmakers, but the village level, who also have the power to legally monitor and protect species within their land.

With regard to the monitoring and protection of the species, these are the main outcomes of the project.

The villages are developing village environment laws. Rangers from communities have been trained to look out and monitor trappers and movers of wildlife. Between 25 and 30 people have been trained as field researchers. This is an excellent team for assisting with local, national, and international conservation efforts within the region and the country.
The distict toshaos' council is in full support of protection of the species with a ban on keeping the bird.
A network of people throughout the region keeps an eye out for activities and reporting of such.

Due to a rapid development of the township of Lethem, 30 miles from Siskin territory; inevitably, as comes with so-called progress, there will be an increased pressure on people of our area to capture and sell rare birds.

Some things we would like to happen with regards to the future are:
- Training of a high-quality monitoring group with such skills as banding of birds, GPS use, identification skills, and empowerment to stop illegal activities.
- Development of administrative body to assist this group with reporting and database of collected information, which can link to national and international partners.

Rescued Siskin With Bands

A. AWARENESS

We feel we could have done better in this division of the project, specifically where schools are concerned. A lack of available personnel to run this program as it should be was just not there. Any school program that is serious should be a project in its own right and not have to be dealt with as a side issue. Yet on the scale of councils, farming groups, and members of the population, we feel that we got the response and level of awareness we were looking for.
Stakeholder communities have been identified and are willing to participate in further work surrounding the Siskin or any other environmental project.

We would like to see:

- Introduction into the school curriculum environmental science and conservation.
- Training teachers to teach the subject.
- At the very least, availability of resources that can enable communities to educate themselves.

B. BASELINE INFORMATION

Baseline information on the bird was done according to a carefully designed data sheet that provides 52 days one week apart in two localities of information pertaining to sightings of adults, juveniles, and the habitat conditions during those sightings and are available for use by interested persons in academia, conservation, or national concern.

VI. ACKNOWLEDGEMENTS

We would firstly like to thank the people of the south Rupununi for their support, interest, and their continual voluntary actions. The district council of south central and the villages of south Rupununi for their assistance. Secondly, the BPCP crew: Marianne Carter, Robyn Dalzen, Jennifer Sevin, and a special mention for the late Kate Stokes; thank you for your patience and help. Of course, the Smithsonian Ornithological Department including Michael Braun, Mark Robbins, and Brian O'Shea for their encouragement. Thank you to Davis Finsch for inspiring our interest in bird watching. To Conservation International, and especially to Eustace Alexander, for introducing us to the BPCP funding application. To the American Bird Conservancy including George Wallace and Mike Parr for their interest and help. Our heartfelt thanks to Dadanawa Ranch for being our lifeline for the rough times. Lastly, we'd like to extend our gratitude to all of those who made it happen.

VII. APPENDICES

Raw data can be made available by contacting the South Rupununi Conservation Society.

VIII. WEB LINKS

To view the maps we've used in this report, go to www.rupununi.com and www.rupununilearners.com.

Siskins and Burnished-Buff Tanager

Nest With Young

Stalking Siskins

Siskins and Bananaquit

Female
Red
Siskin

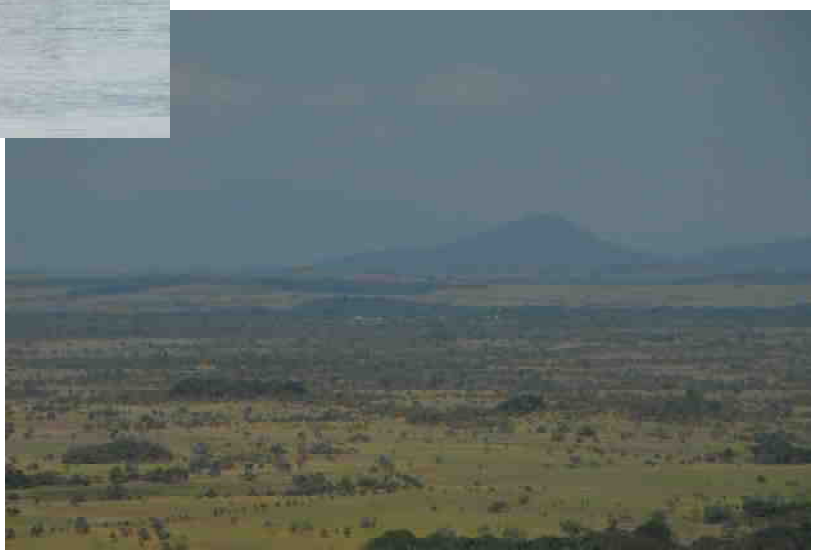
Ikwitau Transect

Enoying the Fresh Air After a Bath

Male Red Siskin

The
Siskin
Mobile

Going to the Transect –
Rainy Season Style



Savanna View

IX. Budget

Transect Team – 52 days x 2 people at $10 US per day = $1,040
Transect Team #2 – 52 days x 2 people at $10 US per day - $1,040
Siskin Range Survey Team – 48 days x 6 people at $5 US per day = $1,440
Binoculars x 6 at $300 US per pair = $1,800
Food Supplies = $260 US
All transportation was voluntary. Dadanawa Ranch supplied transportation for Siskin Range Team. Researchers walked or rode horses to sites. Communities aided with food.