

RESUMEN FINAL DEL PROYECTO

Title of project: Follow us and you will learn how to protect birds. Actions that promote the need to conserve and protect birds with children, youth and community members in general in the communities near the Estrella Aguadores Protected Natural Landscape.

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Resumen

The execution of the project: Follow us and you will learn how to protect birds. Actions that promote the need to conserve and protect birds with children, youth and community members in general in the communities near the Estrella Aguadores Protected Natural Landscape, responds to the importance of carrying out actions to encourage children, youth and residents in general, the need for the care and protection of birds and thereby reduce the effects of illegal hunting, the commercialization of the same, which brings with it the decrease of the populations of different species, since very frequently it is observed, especially adults, making these mistakes. We were able to establish working links between the Flora and Fauna Company and three communities located in the Estrella Aguadores Protected Natural Landscape through the environmental education activities carried out. Before starting the project, we carried out a census to be able to know the most captured bird species in the area, this helped to better guide the environmental education actions that we had to carry out. The results of this project became experiences to better focus the work of environmental education in the schools of the territory. We can highlight among the key actions: the training of teachers and students with issues such as the rapid increase in illegal wildlife trade and trafficking in Cuba and the very important role, as conservationists that we are, that we must fulfill to try to reduce or minimize this situation that harms the survival of biodiversity. Among the actions carried out in this project we can mention some: Conversations, talks and workshops with teachers, children and young people, Distribution of informative materials, Cleaning of the coast, a cactus and succulent festival, bird observations, three contests for children of 7 up to 15 years of age with titles: **“The water to protect the birds”**, **“Letters and Colors with Wings”**, and the Magazine **“My favorite Bird”**, where they will recreate all their imagination with the bird that most caught their attention and explain the actions they must carry out to protect birds, among other aspects, something very important to highlight that the discussion of the magazines was part of the award ceremony

Keywords: Birds, Environmental education, Estrella Aguadores Protected Natural Landscape

Introducción

Environmental Education programs constitute a very important strategy since it provides tools to individuals in such a way that they can maintain a friendly behavior with the environment and therefore can replicate this knowledge with other people, that is why it becomes more effective. The work and this implies that the expected result contributes to raising the environmental awareness of the inhabitants of the communities. Birds, like other groups of vertebrates, are exposed to many threats, either directly or indirectly, such as indiscriminate hunting, habitat destruction due to illegal logging, forest burning, and commercialization, among other causes. Every year in Cuba we do not have to travel very far, in our fields and cities during bird migrations, sadly, many people can be seen with birds in cages and keep them in captivity for the purpose of illicit commercialization, specimens such as: (Butterfly , Azulejo, Negritos, Degollados, among others) and do not take into account during the capture if they are overcrowded or the minimum conditions. These captured birds and many more belong to the heritage not only of Cuba but also of other countries that also fight to protect them. Species that reproduce in our country such as Parrots, Parakeets or Cateyes, Tomeguines de la Tierra and El Pinar, Aparecidos de San Diego, Mockingbirds, Negritos, Goats, among others, are also captured. The Flora and Fauna Company of Santiago de Cuba maintains sustained work for several years related to the protection of biodiversity in general, throughout the country, contributing with its actions to make people aware of the need for children, youth and adults. imperative to protect birds, those charismatic species that provide so many goods and services to human beings, as well as the protection of all species of flora and fauna. In areas close to the Estrella Aguadores Protected Natural Landscape, some sources of illegal bird extraction have been observed on occasions. One of the objectives of this protected area is to protect and conserve birds through the implementation of an environmental education program that takes place both in primary and secondary schools and in the surrounding communities, in order to reduce imminent threats to birds. that birds and biodiversity in general are subjected to.

Área de intervención

It is located south of the city of Santiago de Cuba, just on the eastern slope of the mouth of the stock market bay of the city that gives it its name. It forms a strip of the eastern coastal edge of the Sierra Maestra, in a sector called Mar Verde Baconao coastal terraces (Nuñez and Viña, 1976). It has an area of 210.30 ha (all land) and is part of the coastal terraces of the Sierra Maestra. The main access to the area is by the road that leads to the Castle of San Pedro de la Roca (World Heritage Site), also having an access by the road that accesses the Aguadores beach from the previous one.

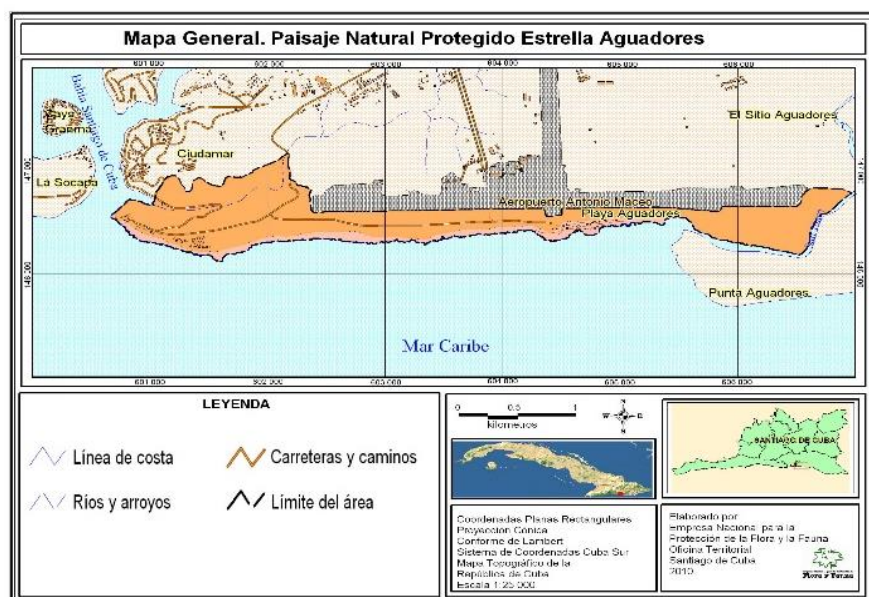


Fig. 1 General map of the Estrella Aguadores Protected Natural Landscape

Two communities are located within the area (La Estrella with a total of 68 inhabitants and Aguadores with a total of 203 inhabitants), which act directly and indirectly on the entire area, exerting great anthropic pressure on it.

Resultados

Birds are one of the faunal groups that attract the most attention to all people from children to adults, since we can observe them every day at every step from our homes, schools or simply in our daily obligatory transit we can delight ourselves with their beautiful colors, their songs and there is never a lack of amazement when you see them building their nests, like the most delicate builder. I believe that this facilitates the way of teaching students, whether they are children or young people or simply adults, since they generally have experiences, stories, a song or a story that can connect their previous knowledge with the new ones that we can provide them in our talks and environmental education workshops and make them moments of feedback and facilitate much more the acquisition of knowledge. That is why the first actions we carried out in this project were talks, workshops and video debates in which the characteristics of the study area were explained to them, the birds were presented to them for identification either by their song, their silhouettes or simply the image, participatory games later they began field trips to make direct observations.



Fig. 2 Participation workshops and games.

For the execution of the project we used some lessons from the Detective Bird International curriculum of the Cornell Laboratory of Ornithology for the development of a series of activities such as:

1) Observation of land and sea birds that use the area as a route for their migration or wintering sites, describe their most outstanding characteristics, as well as compare and contrast the characteristics of local bird species



Fig. 3 Familiarization and training for the use of optical instruments



fig.4 Birdwatching in the La Estrella community.

2) During the course of the project, we organized Drawing and Poetry Contests for children, adolescents, and adults, emphasizing endemic and migratory birds that require protection.

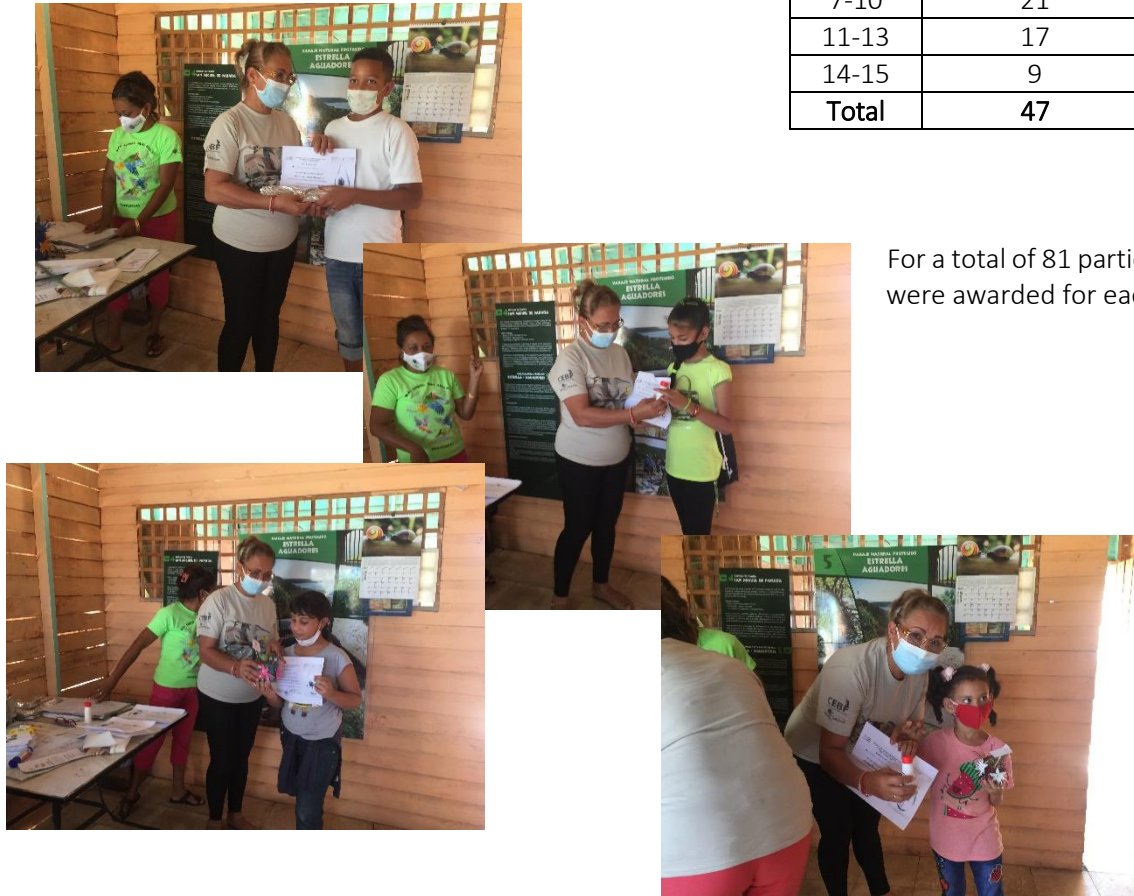
La Empresa Flora y Fauna Santiago de Cuba , los invita a participar en el concurso: "El agua para proteger a las aves".

- Pueden participar niños y jóvenes entre 7 y 15 años
- Podrán recrear su imaginación para escribir poesías y hacer dibujos en los que reflejen cómo con el agua pueden protegerlas .
- Se deben entregar los siguientes datos en la parte posterior de los trabajos.
- Nombre completo del autor.
- Grado escolar que cursa
- Nombre de la escuela.
- Dirección particular y teléfono para su localización.
- La fecha de admisión de los trabajos cerrará el 15 de marzo del 2022 en la Empresa , cito en Avenida de los libertadores # 101 / Paseo Martí y calle 2 de Sorribes. Santiago de Cuba.

Logos: EMPRESA FLORA Y FAUNA SANTIAGO DE CUBA, CAVE GOD BIRD CLUB

Fig. 5 Announcement of the Contest "Water to protect birds"

Age	Category Drawing	Poetry Category
7-10	21	19
11-13	17	11
14-15	9	4
Total	47	34



For a total of 81 participants, 3 prizes were awarded for each category.

Fig.6 Photos of the award ceremony for the contest "Water to protect birds"

"LAS AVES CONECTAN NUESTRO MUNDO"

La Empresa Flora y Fauna Santiago de Cuba , los invita a participar en el concurso de poesía y dibujo *"Letras y Colores con alas"*

- Pueden participar niños y jóvenes entre 7 y 15 años
- Podrán recrear su imaginación para escribir poesías sobre las aves y cómo protegerlas , al igual que en los dibujos.
- Se deben entregar los siguientes datos en la parte posterior de los trabajos.
- Nombre completo del autor.
- Grado escolar que cursa
- Nombre de la escuela.
- Dirección particular y teléfono para su localización.
- La fecha de admisión de los trabajos cerrará el 21 de junio del 2022 en la Empresa , cito en Avenida de los libertadores # 101/ Paseo Marti y calle 2 de Sorribes. Santiago de Cuba.

"Creemos que los pájaros enjaulados cantan, cuando en realidad lloran"
John Webster

Fig. 7 Announcement of the Contest "Letters and colors with wings"

A total of 143 children and youth as shown in the table

Age	Category Drawing	Poetry Category
7-10	52	17
11-13	34	16
14-15	17	7
Total	103	40



Fig. 8 Photos of the award "Letters and colors with wings"

winning poetry

One day in my garden
I felt great commotion
And it was a meeting
That the birds of the region
They had planned.

Colibri spoke first
And he said that over there
There were evil children
That their young had stolen.

Then the **Mariposa** said
That, to her, to **Tomeguín**
And to the Negrito, they wanted to cage them
And that is not pretty!

And so they kept counting
The **Zunzún**, the Dove,
The parrot and the **Solivio**
Upset and worried.

And what about the **Sinsonte**
who said that in the middle
from the mountain too
They wanted to catch him.

Total silence was heard
When suddenly the **Tocororo**
Along with **Cartacuba** in chorus
They said Cage, no more!



We'll come up with a plan
Along with all the pioneers
And so we will show them
That the cages do NOT want.

"The birds, the freer, the more beautiful"

Best Drawings



"LAS AVES CONECTAN NUESTRO MUNDO"

La Empresa Flora y Fauna Santiago de Cuba , los invita a participar en el concurso: **"Mí ave Favorita"**

- Pueden participar niños y jóvenes entre 7 y 15 años
- Podrán recrear su imaginación para describir su ave favorita en cuento a: su forma, colores, Hábitat , alimentación y cómo podría ayudar a protegerlas.
- Puede además escribir una poesía o hacer un dibujo.
- Se deben entregar los siguientes datos en la parte posterior de los trabajos.
- Nombre completo del autor.
- Grado escolar que cursa
- Nombre de la escuela.
- Dirección particular y teléfono para su localización.
- La fecha de admisión de los trabajos cerrará el 21 de junio del 2022 en la Empresa , cito en Avenida de los libertadores # 101 / Paseo Martí y calle 2 de Sorribes. Santiago de Cuba.

Fig. 9 Announcement of the Contest "My favorite bird"

Age	Participants
7-10	13
11-14	9
15-20	12
Más de 20	
Total	34



Fig.10 Photos of the "My Favorite Bird" contest award ceremony

Among other activities carried out we can mention:

- **Distribution of brochures, bulletins and flyers**, in which the characteristics of the area and the actions carried out in favor of birds were reflected, with a total of 72 people participating.

Age	Participants
7-10	27
11-14	23
15-20	9
Más de 20	13
Total	72

- **Coastal cleanups**: 6 coastal cleanups were carried out With the participation of children, youth and adults for a total Of 105 participants, we must highlight that before starting the collection, the importance of the activity for both aquatic and terrestrial birds and for other groups of fauna that live in the ecosystem was always explained.

Age	Participants
7-10	34
11-14	19
15-20	13
Más de 20	39
Total	105

- **Carrying out 4 workshops for the manufacture of articles with recyclable materials**, generally obtained in waste collection on the coast, a total of 67 participants.

Age	Participants
7-10	26
11-14	17
15-20	9
Más de 20	15
Total	67

- **Video debates 4**, these were very productive since the children themselves told their own stories and experiences and each time they felt more identified with the protection of birds, with a total of 56 participants.

Age	Participants
7-10	27
11-14	13
15-20	7
Más de 20	9
Total	56

- **Participation games 5**, these were moments exciting to see how they knew the names of birds, the actions they must take to protect them, among other things, with a total of 73 participants.

Age	Participants
7-10	32
11-14	17
15-20	13
Más de 20	11
Total	73

- Exhibitions, 3 were held, with a total of 76 participants

Age	Participants
7-10	37
11-14	21
15-20	7
Más de 20	11
Total	76

- **Commemorations of environmental dates**, it was carried out every month, it was done in the mornings and the enrollment of the entire school participated.

- **Instead of holding the seed festival, we held a cactus and succulent festival.** It was a very special moment in which we had the opportunity to exchange with community members interested in the subject and we dedicated the award ceremony to hold a discussion about the ways to help birds. With a total of **65** participants.

Age	Participants
7-10	12
11-14	7
15-20	5
Más de 20	41
Total	65

- Bird observations, 6 were made, in this activity had the opportunity to recreate observing the beauty of the birds, responded to the action that the birds were carrying out. birds at all times and each wrote down in his book of field the birds observed. With a total of **133** participants.

Age	Participants
7-10	42
11-14	31
15-20	27
Más de 20	33
Total	133

After carrying out all the actions programmed in this project, we were able to involve a total of people, broken down as follows:

Amount of people	Adults	Youths	kids	girls
896	172	130	273	321

3 television programs and **4** radio programs were made

We have managed to capture the interest of many people because we have had a greater reach with radio and television interventions, the message has been taken to the entire province, this has repercussions in the acquisition of greater knowledge regarding the need to protect birds and that there are always many more who can say "**No to birds in cages**" and perceives the change in behavior when relating to the environment, assuming a series of respectful behaviors with it. We managed to incorporate environmental values through reflection on existing environmental problems in the area and in everyday life in general, especially regarding the treatment given to birds. All people, children, youth and adults, were very motivated by these activities and more and more people joined, resulting in greater knowledge about the need to protect and conserve birds in their natural environment.

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Breakdown of budget used during activities

Equipment and materials	U/M	Quantity	Cost of National Currency	Total	Cost USD (Exchange rate 1 USD x 24 MN)	Total	Purchase source
Newsletter printing	U	100	25.00	2500.00	104.16	104.16	Centros de impresiones
Folding printing	U	100	30.00	3000.00	125.00	125.00	Centros de impresiones
Crayons	Caja	40	80.00	3 200.00	133.33	133.33	Tiendas nacionales
Colored pencils	Caja	40	100	4 000.00	166.66	166.66	Tiendas nacionales
Leaves	Paquete	3	1000.00	3 000.00	187.50	120.00	Tiendas nacionales
plastic caps	U	6	110.00	660.00	27.50	27.50	Tiendas nacionales
markers	Caja	2	250.00	500.00	20.83	20.83	Tiendas nacionales
erasers	U	40.00	8.00	320.00	13.33	13.33	Tiendas nacionales
rules	U	20	14.00	280.00	11.66	11.66	Tiendas nacionales
spokes radios	U	6	40.00	240.00	10.00	10.00	Tiendas nacionales
cases estucheras	U	20	12.00	240.00	10.00	10.00	Tiendas nacionales
Logistics and transportation for activities						257.53	Tiendas nacionales
Total						1 000.00	