

## The Rufford Foundation Final Report

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Congratulations on the completion of your project that was supported by The Rufford Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other format. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to [jane@rufford.org](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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Grant Recipient Details	
Your name	Rodet Rodriguez Silva
Project title	Education of local communities applying a pilot program aimed to the conservation of vulnerable freshwater fish species in Cienaga de Zapata National Park, Cuba
RSG reference	17394-B
Reporting period	From May 2015 to May 2016
Amount of grant	£ 10000
Your email address	<a href="mailto:rodet@ecologia.cu">rodet@ecologia.cu</a> and <a href="mailto:rodetrodriguezsilva@gmail.com">rodetrodriguezsilva@gmail.com</a>
Date of this report	May 2 <sup>nd</sup> , 2016

**1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.**

Objective	Not achieved	Partially achieved	Fully achieved	Comments
To educate local communities for catching and breeding foreign fish species for their diet instead fishing vulnerable endemic species			X	
To link local team members in a pilot program aimed to save threatened fish species in Cienaga de Zapata National Park			X	As we plan in the project proposal, the first actions related to this objective where done. However, we consider that this pilot programme should be extended to other human communities inside the national park.

**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

The main problem arose during the project was related with difficulties for transportation along study sites (mainly in complex network of canals) inside the national park. Despite having support from the Conservationist Board at Cienaga de Zapata National Park, they had a limited number of vessels for transportation. However, local people were very kind all the time and they helped us carrying among study sites using their own rowing boats.

**3. Briefly describe the three most important outcomes of your project.**

I consider this project had encouraging outcomes regarding to the conservation of native freshwater fish fauna occurring in Cienaga de Zapata National Park, Cuba. We can summarise the main achievements reached during the project in three important topics:

1. Identification of vulnerable and suitable fish species for captive breeding and reintroduction: We was able to identify at least five fish species with a vulnerable conservation status in Cienaga de Zapata National Park. In addition, we had success in the captive breeding of these species for reintroduction purposes.
2. Involvement of local communities in conservation tasks: Local communities were linked to the project activities all the time. They supported us during the fieldwork as well as in preparations of talks on conservation topics. Local people constantly were motivated to participate in the project tasks.

3. Education of local people for a better use of biodiversity: The activities for education of local communities were a direct impact on the conservation of endemic fish, mainly those species using by humans as diet. It is clearly evidenced because freshwater fishermen have increasing catch frequency on alien fish species like African cichlids and African catfish.

**4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).**

As I stated previously, one of the most important outcomes of this project was the involvement of local communities in conservation activities. Local people show their collaboration with us constantly and they were very receptive with our suggestions and comments on conservation topics. On the other hand, we learned about their lifestyles, which is essential to design right conservation policies avoiding conflicts between natural resources and human communities' interests. In addition, we motivated and supervised local people in the construction of their own breeding artificial systems to keep fish species for their diet using natural resources and an insignificant capital investment.

We trained local people on effective methods for fishing alien fish species inhabiting the area for their diet. Beside we gave specific fishing items to help those fishing foreign species. It is clearly evidenced that local people have been increasing consume of alien fish species in comparison with catch of endemic fish species.

**5. Are there any plans to continue this work?**

Yes, there are. We are planning to continue this work because it is very important to monitor the catch of endemic species in order to check the effectiveness of previous actions in favour of the conservation of vulnerable fish species. In addition, would be very important to monitor population parameters in fish communities where reintroductions of endemic fishes were accomplished during this project. Educational and training activities should be systematised to prepare local team members for long-term conservation of native fish.

**6. How do you plan to share the results of your work with others?**

Information resulting from this project has been shared with conservation authorities from the national park. In addition, we have sent a scientific manuscript entitled: "Checklist of freshwater ichthyofauna occurring in human populated environments in Ciénaga de Zapata National Park, southwestern Cuba" for publication in a scientific journal. This publication tries to focus attention on the conservation problems facing up native fishes associated to local human communities. Besides, we will share results derived of our work in scientific meetings taking place around the middle of 2016.

**7. Timescale: Over what period was The Rufford Foundation grant used? How does this compare to the anticipated or actual length of the project?**

The Rufford Foundation grant was used over 1-year period as we originally planned. Expected results of this project were obtained during this time. However, the publication of scientific articles will delay one-month period because revision processes required by the journal editorial board (this manuscript is accepted for publication).

**8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.**

Item	Budgeted Amount	Actual Amount	Difference	Comments
2 Nylon Minnow Seine	£ 200	£144	£56	We found a cheaper offer for this item fitting the requirements for our purposes
1 Multifilament Gill Net (50 x 2 metres)	£ 0	£105	£-105	We bought an additional multifilament gill net (stronger than monofilament gill net we had from another project) because it was needed for catch fish in biotopes with rocky bottoms.
10 Baitwell Nets	£ 180	£ 192	£-4	
10 Replacing Nets	£ 60	£ 120	£ -60	It was needed to buy more replacement nets because these kinds of nets were constantly damage when we collected in habitats with non-homogenous bottoms (e.g. with rocks and/or wood dead)
2 Sleeping Bags	£ 46	£ 52	£ -6	
1 Tent	£ 60	£ 60	£ 0	
2 Rucksacks	£ 70	£ 103	£ -33	We bought another medium sized backpack for transporting specific items to collect fish.
3 Head Lamps	£ 135	£ 400	£ -65	It was necessary to buy rechargeable batteries and one electric charger too.
All-Weather Copier Paper (200 white sheets)	£ 28	£ 28	£ 0	
Diving Boots (4 pairs)	£ 112	£ 100	£ 12	We found a cheaper offer
Men's Hiking Boots (2 pairs)	£ 140	£ 280	£ -140	We were needed to buy two additional hiking boots (two pairs) for two local people whom worked with us as voluntaries during field work activities and construction works too.
Insect Repellent	£ 25	£ 30	£ -5	
Ticket Travel Costs	£ 1100	£ 950	£ 150	We save some money here because we do not need additional expeditions to accomplish proposed activities (weather conditions make field work possible almost the time). In addition, we obtained some logistical support from the Conservation Board of the National Park.
Diesel	£ 800	£ 730	£ 70	
Food	£ 700	£ 580	£ 120	
Fishing Supplies for alien fish species (lines, hooks, baits)	£ 600	£ 450	£ 150	We bought some specific items to provide local people needed tool for

and others)				fishing alien species. However, they were able to construct handcrafted fishing items reducing costs too.
Aquarium Construction	£ 2500	£ 1800	£ 700	We save money in this activity because we were able to work together local people during construction works (we not used money to pay any worker). Besides we used natural resources in the construction of ponds (e. g. natural rocks to construct safety border parapets)
Breeding Artificial System Construction	£ 700	£ 1400	£ -700	We spent additional money to construct an alternative breeding artificial system to breed two species ( <i>Cubanichthys cubensis</i> and <i>Alepidomus evermanni</i> ) with special requirements for reproduction (special water treatment, water temperature control, etc.)
Aquarium Supplies	£ 1200	£ 1200	£ 0	
Educative materials publishing	£ 800	£ 730	£ 70	We save some money in this item because we used some educative material produced before (2nd RSG) to do educational activities.
Laptop Computer	£ 500	£ 495	£ 5	
<b>Total</b>	<b>£ 9956</b>	<b>£9949</b>	<b>£ 7</b>	

### 9. Looking ahead, what do you feel are the important next steps?

Although we had success during the execution of this project, we think that there are some pending activities/tasks to take into consideration for future works. Hence, we feel that there are some important next steps:

1. Captive breeding programme and reintroduction of vulnerable fish species in natural habitats should be arranged/systematised with local conservationist authorities as a key measure to save threatened fish species.
2. Monitoring programs should be implemented to assess the conservation status of vulnerable species in natural biotopes where reintroduction actions take place.
3. It will be very important a systematic monitoring on catch of endemic species in order to check the effectiveness of the actions implemented in this project in favour of the conservation of vulnerable fish species.
4. Training activities in local communities should be continued because this is an effective method to prepare local people for the conservation of linked biodiversity.

**10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?**

The Rufford Foundation logo has been used in talks and presentations showing results of this project. We have stated that the foundation provided financial support to accomplish all activities related with this project. In addition, we acknowledged to The Rufford Foundation for the support to execute expeditions and field work in the submitted scientific manuscript. We are producing a media material on the conservation of freshwater fish at Cienaga de Zapata in which the RSGF will receive publicity too.

**11. Any other comments?**

Our work team is very grateful to The Rufford Foundation for supporting this important project. The Rufford Foundation has contributed once again to the conservation of the native fauna from our archipelago. Several Cuban colleagues are accomplishing other important conservation projects thanks to the foundation too.

As in past opportunities, we are very pleased to work with The Rufford Foundation and eager to continue our work with the foundation in other future projects. In addition, we want to give our most sincere thanks to the local communities involved in the project, conservation authorities from Cienaga de Zapata National Park and technical conservation staff.



