

## 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    |                                                                                                                       |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Your name</b>           | Camila Deutsch                                                                                                        |
| <b>Project title</b>       | <i>Ceratophrys ornata</i> , the giant of the pampas: developing a comprehensive conservation and management strategy. |
| <b>RSG reference</b>       | 19511-1                                                                                                               |
| <b>Reporting period</b>    | 2016-2017                                                                                                             |
| <b>Amount of grant</b>     | £4954                                                                                                                 |
| <b>Your email address</b>  | deucamila@gmail.com                                                                                                   |
| <b>Date of this report</b> | 05/05/2017                                                                                                            |

**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                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Develop a comprehensive strategy to obtain the largest amount of records using several sources, including field monitoring, herpetological collections and citizen science. |              |                    |                | We gathered 137 records applying the citizen science programme, 67 records from herpetological collections and 18 records was obtained by field monitoring.                                                |
| Define a potential distribution for <i>C. ornata</i> using niche modelling.                                                                                                 |              |                    |                | We gather enough records to conduct the models. Currently, we are processing the records to obtain the distribution map and the niche model. The results will be published by the end of 2017.             |
| Gather novel data about habitat use and other natural history characteristics.                                                                                              |              |                    |                | The citizen science programme and our extensive field work have allowed us to obtain novel data on aspects of natural history of the species.                                                              |
| Obtain, using personal interviews, the perception that rural communities have of <i>C. ornata</i> and their relationship with it.                                           |              |                    |                | Personal surveys gave us valuable information about the rural community's perception of the species. This allowed us to plan outreach activities with conservation objectives.                             |
| Collect tissue samples and create the first tissue collection for future DNA analysis.                                                                                      |              |                    |                | We successfully collected DNA samples of 40 individuals from eight localities.                                                                                                                             |
| Conduct a re-evaluation of the conservation status of <i>C. ornata</i> in Argentina, including for the first-time data of the entire distributional range for this country. |              |                    |                | The results obtained so far, are showing that <i>C. ornata</i> may be experiencing population isolation. We need to know more about this issue before conducting an evaluation of the conservation status. |
| Develop a comprehensive conservation and                                                                                                                                    |              |                    |                | Some general lines of this strategy have already been established, such as the identification of the areas with                                                                                            |

|                                                                  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>management strategy aimed at protecting <i>C. ornata</i>.</p> |  |  | <p>the most abundant populations of <i>C. ornata</i>, where concrete conservation actions have already begun. We promote this action working together with several institutions (OPDS, La Pampa Natural History Museum and Campos del Tuyú National Park). We will complete the strategy once we define the conservation status. This objective will be completely achieved when we inform the strategy to the proper authorities.</p> |
|------------------------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

One of the main objectives of this proposal was to develop concrete conservation actions aimed at protecting *C. ornata*. The optimum in these cases is to propose the species as a priority issue in the political agenda to make the development of concrete conservation actions easier. *C. ornata* occurs in the Pampean Region, the most productive and modified area of Argentina. It is not expected that the economic situation of the country and the international markets will change. In fact, the economic interests are promoting an increase of the agricultural practices as well as of the cultivated surfaces. In this unsettled scenery is highly difficult to develop conservation proposals for any species or habitat. So, even when most of our work is done, our efforts with local authorities and governmental agencies will have to continue.

We also had some difficulties for conducting personal surveys. *C. ornata* has a very bad reputation among the rural settlers. This was solved by generating free outreach material containing information about the species. Informative talks were also organised to promote the importance of conserving *C. ornata*.

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

1. In a year (2016-2017) we obtained an unexpected number of records that exceed the deposited material in the herpetological collections and that comes from unknown locations for the scientific community. Some of these records also added DNA samples. Until now we have collected 40 DNA samples, an extraordinary number which represents the first tissue collection of the species.
2. We have discovered at least two sub-populations with high abundances, which contradicts previous publications. This finding allowed us to open a series of new research lines like home range studies or reproductive activity studies, which could be conducted only if these abundances remain.
3. We proved that the citizen science methodology is a very powerful tool to complement field monitoring. Citizen science methodology not only provides

data of the species occurrence, also provides valuable and new information of natural history characteristics. This has never been done with amphibians in Argentina, so it represents a new tool to be used in other species with the same characteristics and conservation issues.

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

This project is concerned to involve local communities in the study and conservation of *C. ornata*. Using several methodologies and different actors we satisfactorily obtained a positive response from farmers and citizens in general. This positive response was observed in the number of people involved in the project either by sending online records, or participating in the different courses and workshops carried out. Activities with rural communities were not only based on our project. We attempt to revalue the importance of amphibians in the environment through informative talks about amphibians in these areas. In these conferences, we also raise awareness about the importance of conserving wetlands as a reservoir of biodiversity.

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

First, this proposal will continue with the population genetics studies, processing and analyzing the obtained samples. Then, we will be able to define the conservation status of *C. ornata*. In the following years, we will work with the sub-populations mentioned above and we will carry out studies of home range and reproductive activity of the species.

Once all the previously mentioned objectives have been fulfilled, we will finally complete the application of the comprehensive conservation and management strategy aimed at protecting *C. ornata*.

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

We are currently working in a manuscript that will present the results of the first stage of this proposal called "In Search of the Horned Frog (*Ceratophrys ornata*): The First Amphibian Citizen Science Program in Argentina as a Successful Complement for Field Monitoring" (authors: Camila Deutsch, Gabriela Agostini and David Bilenca) and that will be published in the "Herpetological Conservation and Biology" scientific journal. Also, the niche modelling manuscript expected to be sent for peer-review journal on December 2017. In July 2017, we will present this work in the XI Latin American Congress of Herpetology by an oral presentation. This work was also shared through conferences and courses that we made in the period 2016 to 2017 (please see the attached photos: STF Conference, MHNP Workshop and Talk with rural community). Part of this work was published in two Argentine outreach journals: Boletín Biológica and Fundación Vida Silvestre (please see the attached file: FVS and Boletín Biológica).

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

We used The Rufford Foundation grant during the early stages of this proposal, and fundamentally during field monitoring. These activities represent 80% of the duration of the project submitted to The Rufford Foundation.

**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                                                                                                                                                                                                                         |
|--------------------------------------------------------|-----------------|---------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gasoline                                               | 600             | 610           | -10        | You will notice in some items that we spent more than stipulated. This is because Argentina is going through an economic crisis and has a devaluation of 40% so some materials and equipment are more expensive than a year ago. |
| Food                                                   | 1900            | 2150          | -250       |                                                                                                                                                                                                                                  |
| Tent                                                   | 470             | 430           | +40        |                                                                                                                                                                                                                                  |
| Sleeping bags                                          | 210             | 300           | -90        |                                                                                                                                                                                                                                  |
| Field meteorological station                           | 220             | 220           | 0          |                                                                                                                                                                                                                                  |
| Headlamps                                              | 220             | 220           | 0          |                                                                                                                                                                                                                                  |
| Cooler                                                 | 25              | 30            | -5         |                                                                                                                                                                                                                                  |
| Surgical scissors                                      | 18              | 20            | -2         |                                                                                                                                                                                                                                  |
| Gloves                                                 | 8               | 8             | 0          |                                                                                                                                                                                                                                  |
| Alcohol                                                | 18              | 18            | 0          |                                                                                                                                                                                                                                  |
| Eppendorf                                              | 20              | 20            | 0          |                                                                                                                                                                                                                                  |
| Batteries                                              | 75              | 75            | 0          |                                                                                                                                                                                                                                  |
| Field notebooks and pencils                            | 30              | 30            | 0          |                                                                                                                                                                                                                                  |
| Printed materials                                      | 100             | 100           | 0          |                                                                                                                                                                                                                                  |
| Laptop                                                 | 650             | 670           | -20        |                                                                                                                                                                                                                                  |
| Distribution Probabilistic Models Training Course      | 120             | 120           | 0          |                                                                                                                                                                                                                                  |
| Membership for the Argentinean Congress of Herpetology | 70              | 132           | -62        | We decided to present the results at the XI Latin American Congress of Herpetology instead of presenting them at the Argentine Congress of Herpetology.                                                                          |
| Printing of Technical Report                           | 200             | 0             | +200       | We have not printed the technical report yet.                                                                                                                                                                                    |
| <b>Total</b>                                           | 4954            | 5153          | -199       |                                                                                                                                                                                                                                  |

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

The next steps will be: to carry out the corresponding population genetics studies; then, if necessary, perform the re-evaluation of the conservation status; and finally, develop a comprehensive conservation and management strategy aimed at protecting *C. ornata*, and the South American grasslands.

**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?**

We will use the The Rufford Foundation logo on the presentation to be held at the XI Latin American Congress of Herpetology and The Rufford Foundation will be mentioned in the corresponding published manuscripts. Also, we used the RSG logo in many materials produced in relationship with our project like project publicity as flyers, Facebook notes and posters (please see the attached files: Flyer, Printed material, Poster and Cartoon).

**11. Any other comments?**

All the files that are mentioned in this final report will be attached in this mail and some images that we want to share with you.