Final Evaluation Report

Your Details	
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Project Title	The Pampas: Creating the Grassroots to Conserve Ceratophrys ornata in the South American Grasslands
Application ID	30910-2
Grant Amount	£6000
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1. 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
Carry out a citizen science program in Brazil and Uruguay and perform extensive fieldwork to rediscover Ceratophrys ornata and increase the number of records in both countries.				Through the citizen science programme, we successfully gathered 32 new records of the species for Brazil and Uruguay. Field work and automatic acoustic monitoring did not yield positive results, as so far, no populations of this species have been detected in Brazil or Uruguay.
Conduct studies in known Argentinean populations to gather novel data of the species biology (reproductive phenology/demographic attributes). Additionally, identify the effects of habitat loss caused by agricultural activities and urban developments. Collect skin samples to detect Batrachochytrium dendrobatidis (Bd) and explore if the infection level could turn into a critical threat (chytridiomycosis disease).				Field studies in Argentina allowed us to obtain valuable information on reproductive activity, phenology and demographic aspects of the species. We are currently processing these data for publication by the end of 2021. With the results of the citizen science programme in Argentina, Brazil and Uruguay, we are working on a manuscript that will be sent to a peer-reviewed journal by the end of September 2021. In this paper we will define the current distribution of the species and analyse the effect of habitat loss on its distribution. We collected 23 skin samples from different sites that have already been sent to be analysed to detect Bd and infection patterns.
Perform public X The public engagement campaigns were Page 3 of 9 engagement campaigns in Argentina, Brazil and Uruguay to obtain a				The public engagement campaigns were effectively implemented, with the necessary modifications due to the COVID-19 pandemic. Thus, many workshops that were intended to be face-to-face were delivered remotely. With this work we were able to reach more than 30 schools (kindergartens, elementary, middle and high schools) in Argentina, Brazil and Uruguay. Finally, we have recently published a manuscript with

more accurate idea about the perception toward Ceratophrys ornata. Additionally, work to sensitize population and inspire deeper connections with nature.				the results of the study on the effects of human attitudes towards C. *ornata* (https://doi.org/10.1080/10871209.2020.1808122).
With all the information obtained from the different approaches, contribute to a conservation action plan for the species.				We are making progress in a preliminary version of the Action Plan for *Ceratophrys ornata* in Argentina. This plan includes concrete conservation actions in the territory such as the creation of new protected areas, relocation of individuals, legal protection, and educational programs.

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.

One of the main objectives of our proposal comprised extensive fieldwork in order to rediscover *Ceratophrys ornata* in Brazil and Uruguay. To achieve this goal, as detailed in the 'methods to be used' section, automatic recorders were placed in remote areas with limited access to detect reproductive choruses of the species. In March 2021, the removal of the recorders from the field was scheduled to begin the analysis of the data. Sadly, by that date the circulation in Argentina, Brazil and Uruguay was beginning to be restricted due to the COVID-19 pandemic. Many of the sites where the recorders were placed are located in protected areas which were closed and unmanned to allow access to remove the recorders. In the last months, and after much insistence, we obtained the permits to recover all the recorders from the field, but unfortunately many of them were broken and it was not possible to save the recordings.

Field monitoring to study known populations of C. *ornata* in Argentina was also affected. Specifically, field work in north-western Buenos Aires province was compromised by restrictions on movement due to the COVID-19 pandemic, reducing the number of field campaign days. To overcome this difficulty, the selection of fieldwork days was based on the highest probability of rainfall in the region to increase the probability of detecting the species.

Additionally, due to the global pandemic, the workshops to train local volunteers had to be rescheduled for early September 2020. We successfully performed both workshops, but one of them (the one corresponding to the site in the northwest of the Province of Buenos Aires) had to be conducted remotely. As a result of these workshops, we have added to the team a total of seven new volunteers who have already been trained in C. *ornata* monitoring.

Although we had to readapt the activities to the pandemic's contingencies, the isolation and the closed schools, the commitment of the schools to the project was impressive. More than 30 institutions from kindergarten, elementary, middle and high

schools worked together with the project, carrying out many educational activities remotely. The result was so positive that we are working on creating an educational booklet that will be free delivered to schools to continue the educational work. Additionally, when the quarantine regulations began to be relaxed in Argentina, we participated in several outdoor events in coordination with the local authorities and schools (four radio interviews, three television reports, and four online webinars). Including all education, promotion and communication activities, we estimate that we have reached around 2,500 people.

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

1. We established the first international initiative involving three countries (Argentina, Brazil and Uruguay) aimed to conserve *C. ornata* (https://gigantedospampas.wixsite.com/english).

2. Replicating the citizen science programme in Brazil and Uruguay proved to be an effective method as it allowed obtaining more recent records than those already reported. This information is essential to continue monitoring efforts to rediscover the species in both countries.

3. All the information and experience obtained during this year of intense work across the three countries, allowed us to begin to outline the first Conservation Action Plan for *C. ornata* in Argentina. The implementation of the actions proposed in the plan will be the next step to be taken during the next breeding season. We are confident that we will observe positive results in the areas reported as priority areas for conservation in Deutsch et al. 2017.

4. What do you consider to be the most significant achievement of this work?

5. Briefly describe the involvement of local communities and how they have benefitted from the project.

The involvement of local communities is one of the main objectives of this project. By means of both, the citizen science programme and public engagement campaigns, local community members were able to adopt the ideas from the conservation project, making them their own, which not only increased their knowledge about *C. ornata*, amphibians and the environment, but also produced a change in their attitude towards these species. This positive response was observed in the number of people reached by the project (~2500 people) either by sending online records or participating in the different courses and workshops. 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.

Additionally, during the workshops for local volunteers (one on-site and one remote) we trained participants in amphibian monitoring, incorporating key concepts about the environment, native species and conventional monitoring techniques. Thus, 26 people were trained and seven of them formally became volunteers in the project.

Finally, to promote a future commitment by government agencies to the conservation of *C. ornata*, we have signed agreements with two Districts of Buenos Aires province (La Costa and General Lavalle). In coordination with the education departments of these districts we are working on different educational proposals for the next school year.

6. Are there any plans to continue this work?

Our project will continue with the implementation of effective conservation actions in the Argentine territory:

1. Translocation Strategy. Our goal will be to relocate individuals occurring in peri-urban or recently urbanised areas to pre-established natural areas. This strategy arose from the increasing occurrence of *C. ornata* individuals appearing in urbanised areas where they are at risk (e.g., roadkill, attack by domestic animals and people, etc.). We are working with local authorities and moving forward in the design of the protocols to carry out the translocation strategy.

2. Protected Areas Network to conserve *C. ornata*. The extensive work of all these years has allowed us to delimit key areas for the conservation of *C. ornata* in the northern portion of the Atlantic coast (Argentina). In this regard, we are moving forward, together with authorities of the province of Buenos Aires and NGOs in the creation of a network of protected areas to conserve native grasslands and wetlands where *C. ornata* occurs. This network will primarily include existing private, municipal, provincial and national reserves.

3. Complete the elaboration and publish the Conservation Action Plan for the species.

4. We will continue the fieldwork and citizen science programme in Brazil and Uruguay, with the hope of finding relictual populations in the next few years.

5. Finally, we will continue the work started in 2016, including monitoring in native populations

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

We are currently working on three manuscripts that will be submitted this year to three different peer-review journals to share with the scientific community.

In addition, we will participate with an oral session at the XXI Argentine Congress of Herpetology in October of this year. At this meeting we will talk about our work on the perception of local communities towards *C. ornata*.

Also, all our work will be shared through our social networks (Facebook, Instagram, Twitter and YouTube) and radio and TV interviews. We have already published our work in some scientific popularisation magazines (please see Revista Chicos 1 and 2; and Exactamente).

8. Timescale: Over what period was the grant used? How does this compare to the anticipated or actual length of the project?

We used 2nd Rufford Small Grant during the early stages of this proposal. Fortunately, there were no significant unforeseen expenses beyond what was agreed and budgeted in the proposal to RSG. Most of the funds were used to purchase equipment and supplies for fieldwork campaigns.

9. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Gasoline	450	510	+60	In the period from 2020 to 2021 Argentina suffered an increase of almost 25% in the price of gasoline.
Lodging	150	340	+190	The consequences of the COVID-19 pandemic made it impossible for us to stay in the places provided by the districts of La Costa and Lavalle (as detailed in the budget sent). Therefore, we had to rent an accommodation.
Fieldwork food	2060	2270	+210	Argentina is going through an economic crisis and has a devaluation of 28.8% so some goods, materials and equipment are more expensive than a year ago
Multiparameter	385	190	-195	This equipment was co-financed with ASA Conservation Grant and PICT2018-00839
30 automatic acoustic	1380	1380		

recorders				
5 data loggers	575	420	-155	This equipment was co-financed with ASA Conservation Grant and PICT2018-00839
50 PIT tags	70	200	+130	
Non-expendable equipment	150	150		
Bd diagnosis	400	270	-130	Diagnosis for 23 skin samples
Printing graphic materials	160	200	+40	
Hosting for webpages	40	40		
Administration	80	180		
TOTAL	**6000**	**6150**	**+150**	Currency exchange: £1 = 132.7 ARS = 58.93 UYU = 7.38 BRL

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

1. Strengthening work in the northwest of Buenos Aires Province. After almost 6 years of continuous monitoring, the results obtained so far, indicate that of *C. ornata* is currently distributed only in Argentina. Within Argentina, the status of the species is not homogeneous: in some areas there are well-preserved populations and in other areas, local extinctions have been identified. As already mentioned, we recognised two priority conservation areas for the species, the northern portion of the Atlantic coast and the northwest of the province of Buenos Aires. Our work in the northwestern territory of the Buenos Aires province was severely affected and limited by the restrictions of the COVID-19 pandemic. Thus, we consider extremely necessary to focus on deepening the field studies in this populations, as well as on strengthening the bonds with the local communities.

2. Conservation actions in the northern portion of the Atlantic coast. Since the northern portion of the Atlantic coast hosts one of the best-preserved populations of *C. ornata*, we are proposing to implement two concrete conservation actions: a translocation strategy and a network of protected areas in the region. We believe that it is time to move forward definitively on these management measures necessary to preserve the species. We know the main objective of the translocation strategy is to mitigate the effects of habitat loss due to urbanisation. Thus, individuals of *C. ornata* rescued from urban areas will be relocated in remote areas predetermined as suitable for the species. We are working together with the authorities and government agencies to approve all permits to carry out the translocation strategy next reproductive season. Related to this strategy, we started having meetings with environmental NGOs and governmental agencies to promote the creation of a network of protected areas. This network will include existing private, municipal, provincial and national reserves, with the hope of adding

new areas to the system in the near future. In this way we hope not only to guarantee safe sites to relocate individuals with the translocation strategy, but also to protect the last remnants of native grassland and wetlands that remain in the region. that these are ambitious goals, but we are confident in our ability to achieve them.

3. Conservation Genetics Studies. As detailed in the final report of the 1st Rufford Small Grant, we have collected a significant number of tissue samples (over 40) for population genetic studies. Nevertheless, since *C. ornata* is octoploid, all the studies that we had planned were more difficult than expected. The first barrier we face is the economic one. To analyse these samples, we must develop a primer that can only be manufactured in China on request. This procedure far exceeds the availability of project funds and has therefore been suspended. Now we are managing new funds specifically to be able to meet those expenses and finally to be able to develop population genetics studies. The results of these studies will enable us to continue deepening management actions to obtain better and more effective results for the conservation of this species.

4. Legal protection. As a result of the work agreements signed with two Districts of the Province of Buenos Aires (La Costa and General Lavalle), we are making progress in a proposal to declare the species with the title of Provincial Interest. In Argentina, this declaration can facilitate and motivate the legislation of policies that are aimed to the legal protection of the species and the environments it inhabits. We hope that in the near future we can include *C. ornata* in the political agenda of the Province of Buenos Aires.

5. Measurement of conservation efforts. We are now conducting post-public engagement campaign interviews to test whether education and communication strategies applied so far has a positive effect in changing people's behaviour towards *C. ornata*. Preliminary results indicate that public engagement campaigns are effective tools in changing community perceptions of this species. Additionally, through educational workshops, web page (https://gigantedospampas.wixsite.com/english), radio and television interviews, printed materials and multimedia content, we hope to continue raising awareness of the ecological, cultural, and intrinsic value of *C. ornata* and its habitat.

6. We are working on the Conservation Action Plan that will contain the first conservation actions to recover the populations in the Argentine territory. A first online meeting with specialists and members of the IUCN ASGs has already taken place in April 2021.

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

We used the RF 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, banner and poster).

12. Please provide a full list of all the members of your team and briefly what was their role in the project.

Dr. Gabriela Agostini. Gabriela has been a great support and guide for me in the project. She has been behind every difficult decision and has helped me through her experience. Her role was the general coordinator of the project.

Dr. David Bilenca. He is my academic tutor and advised me on sampling design and data analysis.

Dr. Raúl Maneyro. He was coordinating the team in Uruguay, conducted the field work and the citizen science program.

Dr. Andreas Kindel. He was coordinating the work teams in Brazil, coordinating field work and educational activities.

MSc. Luis Fernando Marin da Fonte. Responsible for communication and coordination between the three countries, as well as with other international organizations such as IUCN, the Amphibian Specialist Group and the Amphibian Survival Alliance.

Msc. Alexandre Krob. He was in charge of articulating and promoting various partnerships between public and private institutions in Brazil for the implementation of the conservation project.

Sofía Micaela Perrone. Sofia is a biology undergraduate student at the Faculty of Exact and Natural Sciences of the University of Buenos Aires. During 2020 she approached the project to participate as a volunteer and we could notice a great commitment and desire to continue working as an active member of the Giant of the Pampas team. Sofia is now taking her first steps as a conservation biologist and will be in charge of the next stages of the project.

All of the team members mentioned above are collaborating in the creation of the Conservation Action Plan for C. ornata.

13. Any other comments?

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