

The Rufford Foundation

Final Report

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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details

Your name	Louw Claassens
Project title	Ecology of <i>Hippocampus capensis</i> (Pices: Syngnathidae) with specific focus on site fidelity, home-range extent and habitat availability
RSG reference	21707-2
Reporting period	1 June 2017 – 30 July 2018
Amount of grant	£3065
Your email address	Kyss.louw@gmail.com
Date of this report	2 July 2018

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
Site fidelity assessment				Owing to initial difficulty in receiving permission to tag the seahorses, this project only started in February 2018. In addition to this, we were limited in our sampling extent owing to permit restrictions and were only able to tag a suitable number of seahorses at one site. The focus of the project has thus shifted somewhat, to focusing on seahorse site fidelity and home-range within artificial habitat. Since February 2018, we have had great re-sighting success, and we are confident that the outcomes will be achieved by February 2019.
Home-range assessment				Please see above.
Habitat monitoring				The purchase of the OpenROV took considerable time (owing to production limitations), and the device was only received in March 2018. We also decided to extent the mapping approach to include the entire Knysna estuary, and in doing so, have taken on an honours student to conduct the mapping as part of his degree. We have completed most of the mapping to date, and the student will complete the project by November 2018.

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

The major problem we experience was receiving permission from the relevant conservation authority for the Knysna estuary. This was despite support from the IUCN Seahorse, Pipefish and Stickleback Specialist Group and complete confidence in our approach of using VIFE tags. Owing to the restrictions placed on us in terms of the number of animals we were allowed to tag, we decided to focus all our efforts

on one site and tag enough animals to ensure statistical rigour of our results – this was especially important in terms of ensuring a high enough re-sighting rate.

Another problem was the purchasing of the OpenROV – this was owing to production timeframes.

We have tackled all these problems by continuing with the research as far as possible, adjusting our research approach and ensuring that the outcomes of the project will be achieved, regardless of the issues experienced. We are confident that all outcomes will be achieved by February 2019.

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

At this stage we are still in the process of achieving all our outcomes.

In the first instance, an understanding of the movement, growth rate, and site fidelity of this species will be known (for the first time), which will directly be used for conservation actions. This is also the first time that this species is monitored using VIFE tags and from our results thus far, the use of this methods is quite successful, which will hopefully facilitate future permit applications.

The habitat mapping part of the project will provide baseline data of subtidal habitats found in the Knysna estuary – the first time this is being done. In addition, we are testing the mapping approach used, which will be developed and presented as a standard tool to use in estuarine habitat mapping projects.

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

We work closely with conservation and management authorities in the area, and all data, tools and resources developed through these projects will be used to guide and assist these organisations to achieve successful conservation.

In addition to this, we share our findings with local communities through estuarine outings and school visits. We are also actively working towards the promotion of the Knysna seahorse and its habitats through various media e.g. <https://www.beautifulnews.co.za/stories/louw-claassens>

5. Are there any plans to continue this work?

The work will be continued until at least February 2019, where the findings will be developed into a publishable research article. The work will then continue, with the aim of expanding to surrounding estuaries (Keurbooms and Swartvlei estuaries), as well as to other habitat types.

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

Our results will be shared via our website (www.knysnabasinproject.co.za); Facebook page (<https://www.facebook.com/knysna.basin.project/>); our newsletter and through peer reviewed journal articles.

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 grant was used from December 2017 and is still being used currently. We envision using the funds until the completion of the seahorse population project in February 2019. We are essentially 8-9 months behind the original schedule.

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
Fuel for boat	£ 656,25	£ 300.00	£ 356,25	We still have about 8 months of monitoring to do, and the rest of the fund will be spent by Feb 2019.
VIFE tags and equipment	£ 251,13	£ 251,13	£ 0	
SCUBA air	£ 703,13	£ 350.00	£ 352.13	We still have about 8 months of monitoring to do, and the rest of the fund will be spent by Feb 2019.
Monitoring gear	£ 51,88	£ 51,88	£ 0	
Trident OpenROV	£ 1 062,50	£ 1671.97	£ 609.47	We bought a tether and remote with the ROV, which cost more, and we also had to pay £ 205.17 import tax.
GPSMAP® 78s	£ 343,75	£ 343,75	£ 0	

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

The most important next step is to complete the monthly monitoring work and the habitat mapping project and produce the relevant scientific articles and documents to be used by management and conservation authorities.

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

Yes, the Rufford logo was used in all presentation given (mostly to local community members and schools). In addition to this, mention will be made to the Rufford foundation in all reports and/or scientific journal articles that will be produced.

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

Dr David Harasti – seahorse project collaborator, and provides guidance with regards to seahorse monitoring etc.

Johan Wasserman – Honours student responsible for the habitat mapping project.

Dr Louw Claassens – responsible for the seahorse monitoring, tagging and supervision of the habitat mapping project.

Prof Janine Adams – main supervisor for the Habitat mapping project.

12. Any other comments?

More information with regards to the habitat mapping project can be found here: <http://knysnabasinproject.co.za/what-lies-beneath/>

I also attach our newest seahorse publications from our earlier work (our first project funded by the Rufford Foundation).

I would again like to thank the ongoing support of the Rufford Foundation, without which the ongoing research and conservation work on the Knysna seahorse would not have been possible!

