

## The Rufford Small Grants Foundation

### Final Report

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

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. 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. 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**

#### Grant Recipient Details

<b>Your name</b>	David B. Stanton
<b>Project title</b>	Arabian Leopard Survey of the Jebel Milhan Protected Area
<b>RSG reference</b>	10206-1
<b>Reporting period</b>	December 1st 2011 – December 31st 2012
<b>Amount of grant</b>	£6,000
<b>Your email address</b>	<a href="mailto:fewyemen@gmail.com">fewyemen@gmail.com</a> (formerly <a href="mailto:david@yemenileopard.org">david@yemenileopard.org</a> )
<b>Date of this report</b>	March 8th 2013

**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
<p>Reliable baseline data on various environmental parameters at Jebel Milhan including the extent and condition of the habitat, potential prey populations, which carnivores inhabit the area and local threats to the environment and the wildlife it supports. The wildlife of Milhan, including Arabian leopards (if found), will be continually monitored for the duration of the project.</p>		X		<p>Jebel Milhan covers a quite an extensive area to the west of Sana'a. Our intentions were to comprehensively survey the entire massif, especially those regions that are less populous and therefore less frequented by people. Unfortunately, our researcher tended to deploy the trail cameras that we provided him with within a relatively short radius (i.e. half a day's walk) from his village. Therefore, though we did obtain some very useful data relating to the habitat and the mammalian diversity of the area, it is only from a comparatively small area. The fact that Nasser has thus far not obtained any pictures of Arabian leopards at Jebel Milhan does not conclusively prove that these elusive predators do not exist there. In fact, the habitat is superb and the prey base adequate to support a small population of leopards. The lack of success in this respect is more likely the result of the methodology used by Nasser including his choice of sites to position the cameras and his failure to employ the full battery of equipment to maximum effect (i.e. many nights when certain cameras were idle). It should also be mentioned that a study of this nature always entails the risk of equipment loss and we have had three of the nine cameras employed in the study stolen and/or vandalised. This is normal for a study of this nature, especially in an impoverished, relatively illiterate society such as that which exists on Jebel Milhan.</p>
<p>Nasser will log hundreds of hours of fieldwork and receive regular feedback from the project supervisor (myself). This will strengthen his capacity and commitment as a field researcher, his potential as a future trainer, and his role as an "environmental ambassador." In a country</p>		X		<p>In the course of his work, Nasser trained his son Yousuf, and his neighbour Tawfik to use the equipment. The number of potential workers at Jebel Milhan has therefore tripled, though we haven't detected a huge amount of commitment from Nasser, Yousuf, or Tawfik to the work. Having said that, just prior to the initiation of this project, the Yemeni Cabinet declared Jebel Milhan as a "protected area" in response to work that FPALY has been doing there since December 2010. For this and other</p>

<p>such as Yemen with a severe capacity shortage and so many other pressing issues, even a single, well-trained, dedicated, and experienced worker is a significant achievement. We expect Nasser to eventually pass his skills on to other Yemenis with a similar aptitude. We also expect Nasser to have a positive impact on local attitudes towards wildlife.</p>			<p>reasons, the residents of Milhan seem favourably disposed to coexisting with wildlife as they see the wildlife as the key to the designation of the protected area, and the protected area as the key to their development (NB: Jebel Milhan is a very isolated place which lags behind most of Yemen in terms of basic services such as transportation, communications, health, education, electricity, etc.). The chief exception to this is the residents' basic loathing of the common Hamadryas baboons which are very destructive of the crops and fruit trees that grow on Milhan. We have not hesitated to remind the residents of Jebel Milhan that the baboons' main predators include leopards and Verreaux's eagles.</p>
<p>This project will definitively establish the presence or absence of Arabian leopards at Jebel Milhan and its environs and the extent, if any, to which they utilize the area. Confirming the existence of a wild population of Arabian leopards at Jebel Milhan will demonstrate the area's importance for the conservation of this critically endangered subspecies. Should the project fail to prove the existence of Arabian leopards at Milhan it will still generate reams of useful data about the wildlife of the area.</p>		<p>X</p>	<p>Please see the first item in this discussion. As previously mentioned, we have neither proven nor disproven the existence of Arabian leopards in the area. We have, however, documented healthy populations of Arabian caracals, striped hyenas, Arabian red foxes, white-tailed mongooses, small-spotted genets, Indian crested porcupines, Cape hyraxes, Arabian partridges, and Hamadryas baboons. Apart from the caracals and hyenas, all of the aforementioned species are potential prey for Arabian leopards as is the Yemen monitor, an endemic species of large lizard that we have also documented during this survey. Our results indicate that not only could Jebel Milhan support a small population of Arabian leopards, but the documented biodiversity justifies the existence of the protected area.</p>

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

Contrary to expectations, Nasser proved a recalcitrant researcher and failed to deploy the trail cameras for the maximum amount of time possible (and contracted!). We dealt with this by devising a formula based on the percentage of trap-nights that he actually deployed the cameras and then multiplied this times his potential salary - i.e. we docked his pay in proportion to the number of missed trap nights. This mitigated the problem somewhat but not entirely.

It must be borne in mind that this project was implemented during the peak of the "Arab Spring," a time of great upheaval in the region and especially in Yemen. At a time when many foreign missions,

international NGOs, and multinationals withdrew from the country, FPALY undertook this project with a minimum of interruptions. It is probable that the FPALY vehicle was stolen as a result of the burgeoning lawlessness that Yemen saw during this period and this had a negative impact on our ability to monitor the project on-site. Nevertheless, our approach to dealing with the circumstances imposed by the Arab Spring was to act on the premise of “business as usual” and, without taking unnecessary chances just get on with things as efficiently as possible.

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

The full impact of this project is yet to be felt due primarily because of the troublesome security situation in Yemen and the fact that we have not yet “finished” the project (i.e. we still have funding for further research and the analysis of the data and technical report are yet to be written). However, it must be said that FPALY has pioneered trail camera research in this country and the fact that we have managed to generate some local “buy-in” to this methodology at Jebel Milhan is a significant outcome of this work. In short, engaging in this project has mainstreamed biological research on Milhan and this will have a knock-on effect in the area as much further study is needed. This project provides a precedent for other “Milhanis” to get involved in this kind of work and provides a baseline which other researchers can use. This project has had a minor economic impact on the local community as the funds injected into it are by local standards significant. Had it not been for the Arab Spring, this effect would have been greatly multiplied as publicising the “charms” of Jebel Milhan by reporting on the project would have proven a draw for tourists. Due to the current situation in Yemen, however, tourism to this country is at an absolute standstill so it may be some years before this benefit can be felt. Finally, and most importantly, we now have good baseline data on the biodiversity of the northeast regions of Jebel Milhan. When this data is written up, it will be shared generously with important stakeholders including the Yemen Environmental Protection Authority who will be able to use it to write a meaningful management plan for the protected area.

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

Apart from the trainer who we imported from Ibb governorate, we employed a local researcher who gained an income from the work. Nasser did this work with the approval and blessing of his neighbours and the local administration, all of whom are thus able to feel part of a larger effort. Material benefits to the local community have been minimal, but in the years to come it is possible that development of the protected area and promotion of Jebel Milhan as a tourist destination for adventurers will bring further economic benefits to the communities there (e.g. they will find employment as trekking guides and earn money by providing food, accommodation, and other services to tourists). This project helped put Jebel Milhan “on the map,” and though this is not likely to be of immediate benefit to local communities, it may eventually help them.

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

Yes, we still have some funds left over from the original grant and intend to continue the project until they run out. Until we find a better worker for Jebel Milhan, however, we will not seek additional funding for this project. In that we still believe the entire massif to be important for Arabian leopards and other endangered wildlife we do expect to do more work there in the future.

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

With funding from the report writing line item and other sources we intend to hire a consultant to do the analysis of the results as we did with the Mohammed Bin Zayed Species Conservation Fund supported *Hawf Mammal Survey*. A probable contractor may be Dr. Igor Khorozyan from Armenia as he has proven very supportive and in the past very easy for us to work with.

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

Equipment was purchased in August 2011. Training and deployment of the equipment commenced at the beginning of December 2011. We are, in fact, conducting this research for a greater length of time than we anticipated and it is ongoing.

## 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.

All purchases were made in US Dollars or Yemeni Rials. An exchange rate of GB £1.00 = US \$ 1.60 was used for the purpose of this table (US \$ 1.00 = YR 215\*).

Item	Budgeted Amount	Actual Amount	Difference	Comments
Asus Netbook Computer	£179	£171	£8	Good estimate (n.b.: We substituted Asus for the Toshiba as we were informed that the Asus Netbook was more reliable than the similar Toshiba model).
12 X 4 GB SD card	£112	£82	£30	Overestimated the cost as we found an inexpensive supplier.
6 X Bushnell TrophyCam	£933	£712	£221	Overestimated the cost/got a good discount as FPALY is a favoured customer of Trailcampro where the cameras were sourced
Garmin Etrex Venture HC GPS	£62	£54	£8	Good estimate
3 X 24-Pack Premium AA 2500 mAh NiMH Rechargeable batteries	£108	£88	£20	Gross overestimation of price. £32 of this was used to purchase non-rechargeable batteries for other cameras donated to project by a private German citizen (n.b.: Depending on vandalism and theft, we used up to nine cameras for this project rather than the six budgeted for).
3 X TN157 8 Cell AA/AAA NiMH/NiCd Battery Charger	£44	£47	£3	Good estimate, overspent
500 SeaGate External hard drive	£44	£48	£4	Good estimate, overspent

Sony digital camera and case	£60	£42	£18	Found a very good deal on a camera
Generator - Gas Can - Electrical Cable - Socket	£74	£61	£13	Reasonable estimate (n.b.: Note, a replacement generator had to be purchased when the original one burned out. This was paid for from the contingency fund).
Miscellaneous equipment repair, equipment, etc.	£84	£82	£2	Very good estimate
Compensation for Nasser	£2530	£1406	£1124	Nasser was started on a probationary salary with the intention of bumping it up in proportion to his performance. Unfortunately, he has disappointed us on a number of fronts (see discussion). We finally worked out a formula whereby he is paid as a proportion of the "trap nights" that he deploys the cameras.
Writing and generating reports, including Jebel Milhan Conservation Strategy	£830	£32	£798	Management of this project has been provided as an in-kind contribution of FPALY. When we finally terminate the project, most of the funds allocated for this purpose will be used to write a technical report for publication in a peer-reviewed journal such as <i>Zoology of the Middle East</i> . The £32 spent was spent on translation from English to Arabic of several documents necessary to the project (e.g. research protocol, TORs, contract, etc.).
Purchases of fuel and other necessities for site visits	£600	£390	£210	We engaged in only one site visit as the FPALY vehicle was stolen in February 2012. The bulk of this money was spent transporting Nasser to and from Sanaa on a monthly or bimonthly basis for uploading of images, debriefing, and payment of his salary. This item also includes fuel purchases for and maintenance of the project generator.
Contingency Fund	£340	£288	£52	We had to purchase a replacement generator when the first one burned out. Otherwise, the approximately 5% contingency fund is a fair estimate as we may accrue additional expenses in the future of the project.
<b>TOTAL</b>	<b>£6000</b>	<b>£3503</b>	<b>£2497</b>	Grant remaining

\* Since we applied for the grant, the Yemeni Rial has stabilized at around YR 215/US \$1.00. At the time of application calculations were made at a rate of YR 224/US \$1.00

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

FPALY regularly starts new field research projects and though we like to employ locals for these projects we have found this to be fraught with pitfalls. Our most successful research is undertaken by university graduates who are motivated by a love of the work rather than by strictly economic concerns. With this in mind, we are actively recruiting for someone from the area with a university education who is willing to continue and expand the work at Jebel Milhan. We still feel that this research is a high priority but we believe that Nasser is the weak link in this project. Organizing and analyzing the data collected so far is another high priority.

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

Yes, we have mentioned RSGF support in at least four of our newsletters (Nos. 19, 21, 24, and 25) and used the RSGF logo in all of these newsletters except for No. 25. Links to the appropriate newsletters have been pasted into this report below.

[http://www.yemenileopard.org/files/cms/news\\_articles/No. 19 June 30 2011 English.pdf](http://www.yemenileopard.org/files/cms/news_articles/No.19_June_30_2011_English.pdf)

[http://www.yemenileopard.org/files/cms/news\\_articles/No. 21 August 31 2011 English.pdf](http://www.yemenileopard.org/files/cms/news_articles/No.21_August_31_2011_English.pdf)

[http://www.yemenileopard.org/files/cms/news\\_articles/No. 24 November 30 2011 English final.pdf](http://www.yemenileopard.org/files/cms/news_articles/No.24_November_30_2011_English_fin_al.pdf)

[http://www.yemenileopard.org/files/cms/news\\_articles/No. 25 December 31 2011 English 8.0.pdf](http://www.yemenileopard.org/files/cms/news_articles/No.25_December_31_2011_English_8.0.pdf)

All of our newsletters can be viewed at the following page:

<http://www.yemenileopard.org/all-of-our-newsletters.html>

### **11. Any other comments?**

After 21 years in Yemen I have had ample opportunity to see how “development” funds are spent in this country. There are scores of foreign missions, development NGOs, and other organisations which annually spend hundreds of millions of pounds in Yemen and the criterion that is often used to evaluate a project’s “success” is whether or not all of the budget has been spent. In fact, in many cases any money that is not spent has to be returned, which creates pressure to use up funding without regard to the results. As funding for conservation is by contrast much scarcer, FPALY takes a very conservative approach to spending the grants we receive. After almost 2 years we still have more than 42% of the grant that we received from Rufford. I believe that this represents fiscal responsibility rather than imprecision or an inability to do what we contracted to do. In short, I believe that though this project has not been without challenges, that Rufford is getting good value for its investment.