

CEPF Final Completion and Impact Report

Organization's Legal Name: Project Title: Grant Number:	Fauna & Flora International - HQ Implementing the Action Plan for the Critically Endangered Principe Thrush CEPF-103778
Hotspot: Strategic Direction:	Guinean Forests of West Africa 3 Safeguard priority globally threatened species by identifying and addressing major threats and information gaps
Grant Amount: Project Dates: Date of Report:	\$99,999.09 July 01, 2018 - March 31, 2021 January 28, 2022

IMPLEMENTATION PARTNERS

Fauna & Flora International (FFI) – The lead partner of this project, FFI provided project oversight and management, capacity building, human resources and communications support on their social media platforms.

Fundação Príncipe (FP) – the key implementation partner for the project. The project manager was seconded from FFI to FP and is based in the FP offices in Príncipe. In addition, four local field staff employed by FP conducted all activities on the ground including community engagement, fieldwork to monitor the thrush, camera traps, reporting, public presentations and interviews, as well as receiving training to increase local capacity.

PNP – The Príncipe Natural Park was a major partner in developing the updated action plan and delivering the activities such as fieldwork. The PNP Director was directly involved in the Thrush Action Plan revision process. PNP field staff received in capacity building such as training in use of camera traps, bird and snail monitoring and data input techniques, and were involved in all monitoring excursions.

Regional Government of Príncipe – Other members of the Regional Government including the Secretary of Environment, the Director of the Biosphere reserves and Director of the Forestry Department were involved in and endorsed the project and various activities since the initiation of the project in 2018 until now. The Regional President was also actively supportive of the project and attended several events held by the project. Most notably, he was the keynote opening speaker for the Príncipe Thrush Action Plan Workshop on 18th March 2021.

Instant Wild (ZSL) - Zoological Society of London has collaborated with us to process our camera trap data. Species and threats were identified by volunteers under their citizen science program, Instant Wild.

CONSERVATION IMPACTS

Planned Long-Term Impacts: 3+ years (as stated in the approved proposal)

	Impact Summary
One conservation-related policy is created or updated as a result of data, generated with support of CEPF, being shared with national government	The Conservation Action Plan for the Príncipe Thrush (2014-2018) was reviewed and updated for 2021- 2025, in collaboration with multiple international and national stakeholders. The government approved internally the Action Plan as government officials were in the workshop and were involved in the process. The Action Plan was submitted in person to the President of Príncipe Regional Government, on 30th March 2021 (see attachment: "6_Plano_acao_tordo_principe_2021-2025") and is now awaiting a General Assembly for it to be approve by all parties as well, and be transformed into a policy.
One critically endangered species (Principe Thrush, Turdus xanthorhynchus) has a stable population, by 2020	This impact was revised in the amendment: One critically endangered species (Príncipe Thrush) population baseline is known (estimated) and monitoring system in place to detect long term trends, by 2021. The exact population size is very difficult to estimate given the rarity of sightings, but, based on 95% confidence intervals, it is estimated that there are currently between 40 - 494 individuals using Jul & Dec 2019 data (see attachment 1). Despite ongoing monitoring, it has not been possible to determine if the population is stable, due to the rarity of sightings. However, the current population estimates are within a similar range of the 2007 estimate, indicating the population could be stable or declining. More importantly, the threats (mainly invasive species and habitat loss) facing this species have been identified through camera trapping surveys and the community engagement activities carried out in this project (see attachment "5_CEPF_Final_Project Report") and plans to continue working on these issues are being developed. Increased fieldwork in March 2021 has allowed the field team to find evidence of new nest sites (see attachment 5).This will provide fantastic insight into habitat requirements for the species and help determine its stability in the future.
One species from a poorly-assessed taxonomic group (Principe Thrush, Turdus xanthorhynchus) has had its Red List status assessed and updated, by 2021.	Recommendations for a 2020 Red List review for the Príncipe thrush were submitted to Birdlife International in March 2020. Birdlife submitted the assessment to the IUCN in March 2020, but the

Impact Description	Impact Summary
	status (CR) remains the same. (see attachment: "2_Turdus xanthorhynchus_RedList_Mar_2020")
At least 5 species evaluated for the first time by the IUCN Red List, by 2022, using data generated from this project.	Botanic data collected during 760 bird point count surveys (inc. tree ID and DBH measurements) were shared with colleagues from FFI & Fundação Príncipe, and used to support the first Red Listing of 4 previously unlisted tree species from Príncipe (1 least concern and 3 vulnerable, including one species new to science) (See attachment 5, section 5.1). These preliminary assessments have been submitted to the IUCN in June 2021 and publication is expected by early 2022 on the Red List data book of the plant species endemic to São Tomé and Principe. The final assessment will be officially submitted to the IUCN with the complete information regarding the species. FFI and FP are happy to share these once available.

Planned Short-Term Impacts: 1 to 3 years (as stated in the approved proposal)

Impact Description	Impact Summary
By 2020, one Key Biodiversity Area (Parque Natural Obô do Príncipe) will have strengthened capacity to manage the Park, through access to new data on species within the Park and a new monitoring protocol.	The Parque Natural do Príncipe (PNP) management has benefited from our technical input to the two METT assessments that were carried out in 2019 & 2020. A scientific report including species distributions (birds) and new records (molluscs) was shared with PNP in November 2019 (see attachment: "11_Understanding the Remarkable Biodiversity of Príncipe Island – Scientific Report"). In addition, we provided technical and editorial contributions to the draft revised management plan (ongoing). We established a monitoring protocol for the Príncipe Thrush and Obô Land Snail in 2019 (see attachment: "3_Príncipe Thrush & Obô land snail Monitoring Protocol"), and continue to conduct monitoring together with rangers from PNP. We have also strengthened the capacity of PNP staff, who have received training in monitoring transects, camera traps, bird and reptile point counts and use of GPS units (see attachments: "12_Sampaio_reportSPEA_Jul2019_final" and "13_Kagan_GIS Consultancy Report Mar 2021")
One participatory management plan for Parque Natural Obô do Príncipe is updated, by July 2020	We submitted a scientific report on biodiversity to the PNP management team in Dec 2019, and have provided data and recommendations for the revised management plan. The 2021-2025 management plan for Parque Natural do Príncipe is still under review and will be published by the end of 2021. The review process was delayed due to the global Covid- 19 pandemic.

Impact Description	Impact Summary
Priority actions in one existing critically endangered species (Principe Thrush, Turdus xanthorhynchus) Action Plan are implemented, including development of a revised future action plan, by 2020	The priority actions in the 2014-2018 Species action plan (SAP) were implemented over the project cycle, including [CEPF project activity codes are given in brackets]:
	SAP 1.1.b – Research on ecology and analyses of data [1.1.3, 6.1.3] SAP 1.1.d – Threat assessment [1.1.1, 3.3.3, 6.1.3] SAP 1.2(a,c) – Training and implementing monitoring protocol [3.3.1] SAP 1.2b – Updated population estimate [1.1.3, 3.3.3]
	SAP 1.3c – Update central records [1.2.1] SAP 2.4 – Support PNP – METT & management plan revision [3.1.2, 5.1.1] SAP 3.1(a, b, c) – awareness and engagement with local communities and other stakeholders [2.1.1,2.1.5, 2.1.6, 3.2.2, 4.1.3, 4.1.4, 4.1.5, 4.1.7]
	A Revised Species Action Plan for 2021-2025 was developed and submitted to the Regional Government in March 2021 (see attachment: "6_Plano_acao_tordo_principe_2021-2025").
Three species from a poorly-assessed taxonomic group (including Principe Thrush, Turdus xanthorhynchus) has had data submitted to the IUCN Red List for assessment and update, by 2020	Recommendations and distribution data for a Red List review for six species (Príncipe thrush, Grey parrot, Sao Tome Bronze Naped Pigeon, Principe Speirops and Príncipe white-eye), were submitted to Birdlife International in March 2020 (see attachment: "2_Turdus xanthorhynchus_RedList_Mar_2020"). Updated data for the Obô giant land snail have been submitted to the MAIISG in December 2020, and an assessment (recommendation to up-list from VU to EN) is still ongoing, expected June 2021.
By 2020, illegal hunting of the thrush reduced by 50% compared to baseline (target to be confirmed according to the results of the social research component of this project).	In 2019, we interviewed 138 men and women with the intention of determining a baseline for illegal hunting. Results of the questionnaire based study indicated very low rates of hunting amongst forest users, and most users (80%) had never seen the species (See attachment: "5_CEPF_Final_Project Report", section 2.1). It was therefore not possible to establish a clear baseline and the target was set at 'less than 2 hunters have actively hunted the species'. Overall, the threat of illegal hunting is significantly lower than previously expected, so this impact was considered no longer directly relevant in the context of reducing threats to the thrush. Instead, other threats, namely deforestation and invasive species were identified as likely to be more problematic. Research on invasive species and charcoal extraction are ongoing under other projects

Impact Description	Impact Summary
	and the development of a mitigation strategy for these two threats is now a priority objective under the Conservation Action Plan for the Principe Thrush 2021-2025 [Action 2.4a]
There is an 80% increase in media presence of the Principe Thrush at the end of the project compared to the beginning of the project.	Prior to the project there was no media presence for this species, so there is no baseline. Over the course of the 3-year project 23 posts have been published in social media (Facebook), including a livestream video of the opening for the Príncipe Thrush Action Plan Workshop (see attachment: "7_Thrush_Project media mentions 2018-2021"). Yodi Santos, a key member of the project staff has been interviewed three times by National and Regional TV channels. In addition, the project has featured on Príncipe regional radio on a couple occasions, although the Biosphere Hour was terminated.

Unexpected impacts (positive or negative)?

Through our community engagement activities (2.1.2, 2.1.5 & 4.1.3), we understood that hunting pressure is unlikely to be the biggest threat to the species, although monitoring and continued outreach is needed to make sure this threat does not increase in the future. Due to increased fieldwork over the last few months of the project, we were able to survey a part of the natural park previously not sampled, and discovered an active Thrush nest site. This was a very positive finding because a) it confirmed suspicions that there is a breeding season in March-June and b) provided greater insights in to the breeding ecology of this species. This is the third nest site found to date for this species. This will have an impact on future research for the species, which can now target the appropriate breeding season.

Another unexpected impact was that we also now know of a second sub-population of the endangered and Endemic, Príncipe Scops Owl (being described), in the northern section of the park near Rio Papagaio, where previously it was only known to exist in the far southern part of the park.

Obviously, Covid-19 has had an impact on our fieldwork and outreach activities, but thanks to the resilience and flexibility of the team, and thanks also due to the no cost extension granted by CEPF, we have managed to deliver almost all our deliverables and overall the project has achieved all the desired impacts. The two main deliverables that were not achieved were the visits to schools and the Thrush day event. Both of which were prevented due to Covid-10 restrictions limiting school activities and crowd numbers. Nevertheless, we still have the materials for the school activities (See attachment "5_CEPF_Final_Project Report") and once schools resume in October we should be able to deliver this activity outside of the project cycle; FP will provide staff time in kind to achieve this.

PROJECT RESULTS/DELIVERABLES

Overall results of the project:

Overall, this project has created a significant positive impact for conservation of the Principe Thrush. The species is now much better known and appreciated, both locally and internationally. Much more is known about distribution and biology of the species, including the production of a new distribution map (see attachment: "1_Rebelo_Thrush Distribution_Report_28_12_20"), several direct observations of nest building, and vocalisations. We have also updated the population estimates, although it has proven

challenging to determine a population trend for this rarely observed species. We submitted our data and recommendations to Birdlife International for an updated Red List listing in March 2020, and the species remains as Critically Endangered due its small population number and continued presence of threats (see attachment: 2_Turdus xanthorhynchus_RedList_Mar_2020)

A standardised Monitoring protocol is now in place and is being implemented by Fundação Principe (FP) and Parque Natural do Príncipe (PNP) field staff on a biannual basis (see attachment: "3 Príncipe Thrush & Obô land snail Monitoring Protocol"), and a central database for thrush sightings was established. As of 30th March 2021, 222 sightings of Principe thrush have been added to the 'Tur-xan database'. Monitoring will directly contribute to determining population trends in the next few years. We also established an advisory committee that will be able to utilise and analyse these data to determine trends and ensure monitoring is effective moving forward. Funding is also now in place to support this activity until 2025 under ECOFAC6 in partnership with Birdlife. Thanks to the CEPF project, the establishment of this monitoring program provides a consistent, reliable tool to continue monitoring this critically endangered species beyond the project cycle, which in turn provides a useful biodiversity indicator for the PNP, a Key Biodiversity Area (see attachment: "4_PNP METT 2019-2020"). In addition, PNP staff and FP staff received in person training in monitoring, use of camera traps, GPS units, survey123 and tablets, database management and bird monitoring techniques, which has significantly raised their professional capacity and improving protection of natural resources in the park.

15 communities and more than 385 local people were engaged in the project over a period of three years. In individual interviews, only 20 % (n=27) of participants knew about the species, of which 82% were men, since women rarely enter the park. Thanks to our outreach activities and presentations given to each of the 15 communities during 2020, over 347 men and 152 women now know about the Principe thrush, including their appearance, distribution, importance to global biodiversity, and the threats facing them. In addition, these same communities participated in group discussions regarding potential collaborative solutions for mitigating threats (invasive species, habitat loss and hunting). These results (see attachment: "5_CEPF_Final_Project Report") were used to inform the second Conservation Action Plan for the Principe Thrush 2021-2025.

Through individual interviews with community members conducted in 2019, the direct threat of hunting was identified as being less of a threat than previous expected (although this could be due to retreat/removal of the species from vulnerable/accessible hunting areas in the past). Moreover, hunting was identified as a potential tool for removing invasive predators such as monkeys and civet. Hunting within the park is illegal, but there appeared to be strong support for lethal control of monkeys and civets, which in turn could provide a protein source and a potential livelihood options if managed effectively. In addition, there was strong support across all communities for lethal control of rats that threaten their food security as well as the thrush. Castration was supported as a desperately needed solution for the rapid expansion of cat and dog populations on the island. Issues of habitat destruction are more complex since they include potential developments within the protected areas, and/or small-scale extraction e.g. for charcoal from the buffer zone and edges of PNP. All these threats require further discussions with all stakeholders to develop a sound mitigation strategy. These efforts are ongoing and will continue to be developed under complimentary projects such as the MBZ grant to investigate invasive species, and a new GEF funded project led by Birdlife in partnership with FP to improve infrastructure, enforcement and monitoring capacity and management systems for PNP. Major milestones in understanding the ecology of this species were achieved during this project, and in particular during the no cost extension (due to restricted field activities in

Template version: 1 June 2020

2020): two new nest sites were found in 2021, including one in a previously un-explored area of the park (upper Rio Papagaio). A breeding pair was observed mating and building a nest at a site near Rio Banzu on the Pico Principe transect trail; rarely heard vocalisations were also recorded. A third fallen nest was found and has been collected near Rio Banzu, and appears to be made from a combination of mosses, ferns and roots. The nest is being investigated by botanists to see which species were used, which will provide some important information regarding habitat requirements for the thrush. In addition, we now have conclusive evidence of a breeding season beginning in March, which will allow future researchers to study the breeding season in more detail. All of the data generated during the CEPF project cycle have contributed considerably to better understanding the needs of this previously little known and rarely observed species, and ultimately this improves our ability to effectively conserve the Principe Thrush.

Without doubt, the most significant achievement of this project was the revision and publication of the Second Conservation Action Plan for the Principe Thrush 2021-2025 (see attachment: "6_Plano_acao_tordo_principe_2021-2025"). We engaged over 40 stakeholders over a 3-month participatory planning process, including international species experts and researchers, conservation and planning experts, international and local NGOs, regional government and community representatives. During a one-day workshop with both local and international (via Zoom) stakeholders, the Regional President of Principe opened proceedings and highlighted the importance of the species and the CEPF project. Stakeholders worked together in three thematic groups (monitoring and research, legal protection and enforcement, and stakeholder engagement and education) to develop the action plan for 2021-2025, identifying activities and assigning priorities, responsibilities and desired timeframes. The results of this workshop were incorporated into the final action plan, which was submitted to the Regional President in person on the 30th March 2021.

Overall, our field activities, research findings, social media outreach, presentations and stakeholder engagement have led to a significant increase in presence of the Príncipe Thrush in media and social media, as well as increased awareness in regional, governmental, community level, international conservation and research communities (see attachment: "7_Thrush_Project media mentions 2018-2021").

Results for each deliverable:

Com	Component		Deliverable		
#	Description	#	Description	Results for Deliverable	
1.0	Increased understanding of ecology, population size and distribution of the Príncipe thrush	1.1	Species distribution maps for the thrush within the PNP	A species distribution map for the thrush has been modelled using the monitoring data and opportunistic sightings data in a GLM model, by a Master student at the University of Lisbon (see attachment: "1_Rebelo_Thrush Distribution_Report_28_12_20"). This map has been incorporated into the Thrush Action Plan and is due for publication in Oryx by the end of 2021.	
1.0	Increased understanding of ecology, population size and distribution of the Príncipe thrush	1.2	Review of Principe thrush Red List status based on data submitted to IUCN within their criteria	The review of the red list status was conducted in early 2020 in collaboration with BirdLife International. The data and recommendations were submitted to the IUCN in April 2020. The status of the Thrush remains Critically Endangered (see attachment: "2_Turdus xanthorhynchus_RedList_Mar_2020")	
1.0	Increased understanding of ecology, population size and distribution of the Príncipe thrush	1.3	Population trends and seasonal fluctuations of the Principe thrush are understood based on camera trap pictures and other methods	Population estimates were generated for May- Jul and Oct-Dec periods and suggest a strong seasonal fluctuation, with more sightings recorded in the latter season (see "1_Rebelo_Thrush Distribution_Report_28_12_20"). These findings would benefit from reassessment once a few more years of data have been collected using the biannual monitoring methods. During its suspected breeding periods from April to June and October to December, the thrush was heard calling and	

Component D		Delive	Deliverable		
#	Description	#	Description	Results for Deliverable	
				has been observed feeding, mating and collecting nest material on the ground. Camera traps captured the birds in nearly all locations during these periods, (see attachment: "5_CEPF_Final_Project Report", section 1.2) . Outside of these periods, they tended not to call and were more difficult see or detect.	
2.0	Social context and engagement	2.1	Understanding of the importance of the Thrush to men and women of the local communities based on social questionnaires and minutes of meetings	Questionnaire based surveys of awareness and attitudes towards the Príncipe Thrush in 15 communities (n=138) were completed in 2019 (see "5_CEPF_Final_Project Report", section 2.1). Overall, the results suggest a fairly low level of awareness about the Príncipe Thrush; only 20% of interviewees could recognise the thrush and of those, only 23% were women. Of the positive responders, 66% thought there had been a population decline in the last one or two decades. A second round of meetings in 2020 was well attended by both men (256) and women (92), and demonstrated a willingness to contribute to participatory planning meetings to identify potential mitigation strategies to reduce threats. The "5_CEPF_Final_Project Report" provides more details of this analysis.	
3.0	Support the legal mechanisms to halt the main threats and include legal protection for the thrush	3.1	A revised PNP Action Plan containing up to date information on the social aspects of thrush conservation is drafted	The revised PNP Management Plan contains the results of the community questionnaire (see activity 2.1.2) and the community planning meetings (activity 2.1.5) and the	

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
				plan is currently being drafted. Due for completion in Dec 2021.
3.0	Support the legal mechanisms to halt the main threats and include legal protection for the thrush	3.2	A revised Príncipe Thrush Action Plan is in place	The Second Single Species Action Plan for the Príncipe Thrush 2021-2025 was produced through a 3-month stakeholder participation process sled by Fundação Príncipe, SPEA, FFI and Birdlife International (see attachment: "6_Plano_acao_tordo_principe_2021-2025"). The process included an online contribution phase from international species experts and other relevant contributors, followed by translation to Portuguese, and distribution to local stakeholders. The local stakeholders including the Regional Government, private sector and community representatives (together with a few international participants online) took part in a full-day action plan workshop on 18th March 2021, to work through the priority actions and objectives and to update the threat analysis. Following the workshop, the Action Plan was amended and submitted to the President of the Regional Government of Príncipe for approval and formal endorsement on 30th March 2021.
3.0	Support the legal mechanisms to halt the main threats and include legal protection for the thrush	3.3	A standardised monitoring protocol for the PNP is developed, funded and implemented	A monitoring protocol for the Príncipe Thrush and Obô land snail within the PNP was finalised in October 2019, based on transects and distance sampling techniques (see attachment "Príncipe Thrush & Obô land snail Monitoring Protocol"). A first round of monitoring was completed during June-July

Component		Deliverable			
#	Description	#	Description	Results for Deliverable	
4.0	Enhance appreciation of the value of the endemic species to the public	4.1	Environmental awareness tools and resources are in use on Principe (as demonstrated by new sightings recorded to e-bird, number of followers on social media and events) and coincide with existing initiatives to maximise the impact of the project	 2019 (see attachments: "14_Relatório de Monitoramento do Príncipe Thrush & Obô Land Snail Julho 2019"), and a second round was completed during December 2019 (see attachment: "15_Relatório de Monitoramento do Príncipe Thrush & Obô Land Snail Decembro 2019"). The third round for July 2020 was cancelled due to the Covid-19 restrictions. Monitoring was resumed in December 2020 (see attachment: "16_Relatório de Monitoramento do Príncipe Thrush & Obô Land Snail Decembro 2020", and funding was secured to continue to support this activity until 2023. Our social media presence has grown over the last 3 years, with 5,444 Facebook followers on 1st April 2019 (earliest available data) to 7,118 in 31st March 2021. Our posts often gained a reach of 1000-1500 viewers (see attachment: "7_Thrush_Project media mentions 2018-2021"). Our thrush posters are on display permanently and prominently in every community centre, and guides received training in recording thrush sightings to e- bird. During the pandemic very few guides and tourists entered the park, however, the most recent tourist thrush record was submitted to e-bird in Morro Leste in 	

Component		Deliverable			
#	Description	#	Description	Results for Deliverable	
5.0	CEPF project management and monitoring for compliance	5.1	Management effectiveness of PNP improved as demonstrated by comparison of Management Effectiveness Tracking Tool scores at project start and end	The METT tracking tool was scored in early 2019 and at the end of 2020, and demonstrated an increase in management effectiveness of 5 points, from 41 -46. (see attachment: "4_PNP METT 2019-2020").	
6.0	Thrush monitoring plan prepared through subgrant to SPEA	6.1	A simple, appropriate field methodology is developed with a team of consultants from SPEA/BirdLife and at least 5 local teams are trained in situ, with a training in the island, evidenced by pre- and post- training assessments and pictures of the training	A consultant from SPEA ran a training workshop on 'bird watching and species monitoring' in July 2018 that was attended by a large group (~20) of FP and PNP staff and members of the guides association. The consultant returned in February/March 2019 and delivered training on the use of camera traps for monitoring bird nests and threats to breeding birds, which was attended by a smaller group (~6) of FP and PNP staff and members of the guides association (reported on during previous period). During September 2019, whilst in Príncipe for a separate project, the consultant completed a post training assessment based on a repeated field skills test, and the results of the camera trapping from March-June 2019 (see attachment: "20_post training reportSPEA_Jan2020").	
2.0	Social context and engagement	2.2	Decision-makers have access to information on the socio-cultural significance of the thrush through maps and workshops' minutes	The results of the community questionnaires (Activity 2.1.2) and the community planning meetings (Activity 2.1.5) were incorporated into the updated conservation action plan (in Portuguese) and distributed to all participating stakeholders prior to the Action plan	

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
				workshop. In addition, the results are presented in the "5_CEPF_Final_Project Report".
5.0	CEPF project management and monitoring for compliance	5.2	Two signed agreements that meet CEPF requirements	Two consultancy contracts with SPEA (to provide training on thrush nesting surveys), and a GIS consultant (to provide GIS & GPS training and analysis). In addition, a collaboration agreement with Zoological Society of London was signed to provide camera trap data for citizen science identification under their Instant Wild programme. (see attachments: "17_2019-02 Hugo Sampaio Consultancy contract thrush 445-CEP2", "18_2021-02 GIS consultancy 445-CEP2 signed FFI", and "19_Instant Wild collaboration agreement - Principe Thrush")
5.0	CEPF project management and monitoring for compliance	5.3	Updated Process Framework and approved Health and Safety plan effectively implemented and monitored as evidenced by the programmatic report submitted every July and January to CEPF	The Grievance process framework was effective implemented at the start of the project and was updated (and reported on) throughout the reporting period (see attachment: "8_Fundação Príncipe Grievance Mechanism"). No grievances relating to the project were recorded during the project period. A Health and Safety plan was also published and is in place (see attachment: "10_Updated Health-and-Safety-Plan with supporting docs").
5.0	CEPF project management and monitoring for compliance	5.4	Project impacts monitored and reported online at project end as evidenced by the Final Completion Report	Project impacts were monitored and reported online in this final completion report

Component		Deliverable			
#	Description	#	Description	Results for Deliverable	
5.0	CEPF project management and monitoring for compliance	5.5	Communication materials are shared with the RIT per email or other online data transfer software	A scientific report from a co-funded project, the finalised monitoring protocol, our annual monitoring reports, the Thrush action plan, and posters and education brochures have been shared with the RIT over the duration of the project. These materials were also summarised in the "5_CEPF_Final_Project Report".	

Tools, products or methodologies that resulted from the project or contributed to the results:

1) The Príncipe "3_Príncipe Thrush & Obô land snail Monitoring Protocol" – including a reporting framework and advisory committee (see attachment: "3_Príncipe Thrush & Obô land snail Monitoring Protocol")

2) Knowledge assessment questionnaire – which can be used again in the future to monitor change in attitudes over a long time frame (ODK questionnaire, not available online)

3) The 2nd Species Conservation Action Plan for the Príncipe Thrush 2021-2025 – including a summary of all current knowledge about the species, together with an action plan framework that will help to steer priority activities and responsible parties, for the next 5 years. A follow up protocol for monitoring achievements and activity is included in the action plan. (see attachment: "6_Plano_acao_tordo_principe_2021-2025")

PORTFOLIO INDICATORS

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
3.3	Number of species from poorly assessed taxonomic groups with their global conservation status updated or assessed for the first time on the IUCN			6	Botanic data collected during 760 bird point count surveys (inc. tree ID and DBH measurements) were shared with colleagues from FFI & Fundação Príncipe, and used to support the first Red Listing of 4 tree species from Príncipe (1

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
	Red List (target: at least 100).				least concern and 3 vulnerable, including one species new to science). Assessments are being submitted to IUCN and publication is expected 2021. Recommendations for a 2020 Red List review for the Príncipe thrush and Príncipe white-eye have were submitted to Birdlife International in March 2020.
3.1	Number of Critically Endangered and Endangered species with priority actions identified in Conservation Action Plans being implemented (target: for at least 15).			2	The priority actions in the 2014-2018 Species action plan (SAP) were implemented over the project cycle, including [CEPF project activity codes are given in brackets]: SAP 1.1.b – Research on ecology and analyses of data [1.1.3, 6.1.3] SAP 1.1.d – Threat assessment [1.1.1, 3.3.3, 6.1.3] SAP 1.2(a,c) – Training and implementing monitoring protocol [3.3.1] SAP 1.2b – Updated population estimate [1.1.3, 3.3.3]

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
					SAP 1.3c – Update central records [1.2.1] SAP 2.4 – Support PNP – METT & management plan revision [3.1.2, 5.1.1] SAP 3.1(a, b, c) – awareness and engagement with local communities and other stakeholders [2.1.1,2.1.5, 2.1.6, 3.2.2, 4.1.3, 4.1.4, 4.1.5, 4.1.7] A Revised Thrush conservation action plan for 2021-2025 was developed and submitted to the Regional Government in March 2021.
					We also contributed to the development of the first Conservation Action Plan for the Obo Land Snail, which used data collected in our monitoring program, and which was published in 2020.
1	Number of Key Biodiversity Areas targeted by CEPF grants have new or strengthened protection and management (target: At least 20).			1	The Parque Natural do Príncipe (PNP) (KBA STP1) management team has benefited from our technical input to the two METT assessments, which were carried out in 2019 & 2020. A scientific report including

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
					species distributions (birds) and new records (molluscs) was shared with PNP in November 2019. In addition, we provided technical and editorial contributions to the draft revised management plan (ongoing). In 2019, we established a monitoring protocol for the Príncipe Thrush and Obô Land Snail, and continue to conduct monitoring together with rangers from PNP. We have also strengthened the capacity of PNP staff, who have received training in monitoring transects, camera traps, bird and reptile point counts and use of GPS units.
3	Number of globally threatened species targeted by CEPF grants with populations stable or increasing (target: at least 30).			1	Despite significant amount of fieldwork and research time devoted to this element, it has not yet been possible to determine if the population is currently stable or increasing. Superficial comparison of the 2007 estimate of 394 individuals (95% CI: 186- 887) with the 2020 estimate of 314 (95% IC:

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
					230-494) suggest that the population is more or less in the same size range, and therefore may be stable, but the two estimates are not directly comparable given the different sampling methodologies used and its possible the species is still in decline. A biannual monitoring program is in place with funding until 2025, which will enable us (and researchers in the advisory panel) to determine trends as soon as we have enough data to do so.
1.3	Number of participatory management plans that support stakeholder collaboration in Protected Area management are prepared and implemented (target: At least 10).			1	The PNP is still in draft but will be completed by the PNP by the end of 2021. Our contribution was already made in terms of providing relevant distribution data and text for the introduction section on biodiversity. We will continue to provide further technical inputs to the management plan beyond the project end.
2.1	Number of conservation-related policies of national governments are			2	The Regional government of Príncipe were involved in development of the Thrush Action Plan including a full

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
	informed or influenced by research, analysis and outreach supported by CEPF grants (target: At least 5).				day workshop in March 2021. The government assembly received the 2021-2025 action plan for approval. In addition, the Principe Natural Park management plan (in process) has been informed by our research and analyses.
4a	Number of local communities are empowered to engage in the sustainable management of priority sites and/or consolidate ecological connectivity at the landscape scale (target: At least 60).			15	15 communities were engaged in the project over a period of three years. Thanks to our outreach activities given to each of these 15 communities during 2020, over 347 men and 152 women now know about the Principe thrush, including their appearance, distribution, importance to global biodiversity, and the threats facing them. These communities also participated in group discussions regarding potential collaborative solutions for mitigating threats (invasive species, habitat loss and hunting).
5a	Number of networks are formed among civil society, government and private sector actors			1	The Thrush Action Plan Monitoring Committee, one of two networks established by the project (together with the Principe Thrush &

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
	to facilitate capacity building, avoid duplication of effort and maximize impact (target: At least 15).				Obo Snail Advisory Panel) is composed of experts, NGO staff, government representatives and other local stakeholders. Its purpose is to monitor the actions implementing the priority actions listed in the 2021-2025 Thrush Action Plan, discuss any activities that need support or attention, and evaluate progress made to lead the formal review process for the third action plan in 2025.
2.2	Number of key biodiversity areas with locally-relevant information on natural ecosystems generated and used to influence political and economic decision-making in favor of their conservation (target: for at least 20).			1	The Parque Natural Obô do Príncipe is a priority KBA. Thanks to the CEPF project, the establishment of this monitoring program provides a consistent, reliable tool to continue monitoring this critically endangered species beyond the project cycle, which in turn provides a useful biodiversity indicator for the park. The park staff received in person training in monitoring, use of camera traps, GPS units, survey123 and tablets, database management and bird monitoring techniques,

Portfolio	Portfolio	Expected	Expected	Actual	Actual Contribution
Indicator Number	Indicator Description	Numerical Contribution	Contribution Description	Numerical Contribution	Description
					which has significantly raised their professional capacity and improving protection of natural resources in the park. A scientific report including species distributions (birds) and new records (molluscs) was shared with the park, and technical and editorial contributions to the draft revised management plan has been (and is being) provided. Lastly, the regional government of Príncipe was involved in the development of the Thrush Action Plan.

GLOBAL INDICATORS

Protected Areas

Protected areas that have been created and/or expanded as a result of the project. Protected areas may include private or community reserves, municipal or provincial parks, or other designations where biodiversity conservation is an official management goal.

Name of Protected WDP Area ID*	Latitude	Longitude	Country		New Protected Hectares ***	Year of Legal Declaration or Expansion
-----------------------------------	----------	-----------	---------	--	-------------------------------------	--

*World Database of Protected Areas

**If this is a new protected area, 0 should appear in this column

*** This column excludes the original total size of the protected area.

Key Biodiversity Area Management

Key Biodiversity Areas (KBAs) under improved management—where tangible results have been achieved to support conservation—as a result of the project.

KBA Name	KBA Code	Size of KBA	Number of Hectares with Improved Management
Parque Natural Obô do Príncipe	STP2		5,708

Production Landscapes

Production landscapes with strengthened management of biodiversity as a result of the project.

A production landscape is defined as a site outside a protected area where commercial agriculture, forestry or natural product exploitation occurs.

Name of Latitude Production Landscape		Hectares Strengthened	Intervention
---	--	--------------------------	--------------

Benefits to Individuals

• Structured Training:

Number of Men Trained	Number of Women Trained	Topics of Training
5	0	Implementation of camera trap surveys Monitoring protocol for Príncipe Thrush and Obô Land snail Bird point counts Use of audiomoths and acoustic surveys GPS data collection and download Use of tablets and Survey123 to collect biological data Biodiversity monitoring - capturing (and where appropriate collecting) opportunistic data for fauna and flora (amphibians, reptiles, snails, fruit).

• Cash Benefits:

Number of Men - Cash Benefits		Description of Benefits
0	0	

Benefits to Communities

View the characteristics column below with the following	View the benefits column below with the following
corresponding codes:	corresponding codes:
1- Small Landowners	a. Increased Access to Clean Water
2- Subsistence Economy	b. Increased Food Security
3- Indigenous/ Ethnic Peoples	c. Increased Access to Energy
4- Pastoralists / Nomadic Peoples	d. Increased Access to Public Services
5- Recent Migrants	e. Increased Resilience to Climate Change
6- Urban Communities	f. Improved Land Tenure
7- Other	g. Improved Use of Traditional Knowledge
	h. Improved Decision-Making
	i. Improved Access to Ecosystem Services

Community Name					unit erist		;		Type of Benefit			Country	Number of Males Benefitting	Number of Females Benefitting					
	1	2	3	4	5	6	7	а	b	С	d	е	f	g	h	i		_	
Santo Antonio	\boxtimes	\boxtimes		\boxtimes	\boxtimes	\boxtimes	\boxtimes								\boxtimes		Sao Tome and Principe	19	7
Roça da Sundy	\boxtimes	\boxtimes					\boxtimes								\boxtimes		Sao Tome and Principe	16	3
Montalegre	\boxtimes	\boxtimes					\boxtimes								\boxtimes		Sao Tome and Principe	17	8
Sâo Joaquim	\boxtimes	\boxtimes					\boxtimes								\boxtimes		Sao Tome and Principe	15	10
Terrerio Velho	\boxtimes	\boxtimes					\boxtimes								\boxtimes		Sao Tome and Principe	14	8

Community Name					unit erist		;		Type of Benefit			Country	Number of Males Benefitting	Number of Females Benefitting					
	1	2	3	4	5	6	7	а	b	С	d	е	f	g	h	i			J
Bela Vista	\boxtimes	\boxtimes					\boxtimes								\boxtimes		Sao Tome and Principe	10	4
Gaspar	\boxtimes	\boxtimes													\boxtimes		Sao Tome and Principe	17	3
Abade		\boxtimes					\boxtimes								\boxtimes		Sao Tome and Principe	27	5
Nova Estrela		\boxtimes													\boxtimes		Sao Tome and Principe	18	13
Ponto do Sol		\boxtimes													\boxtimes		Sao Tome and Principe	19	3
Azeitona		\boxtimes													\boxtimes		Sao Tome and Principe	18	1
Lapa		\boxtimes													\boxtimes		Sao Tome and Principe	14	3
Pincatê	\boxtimes	\boxtimes													\boxtimes		Sao Tome and Principe	20	8
Praia Seca	\boxtimes	\boxtimes													\boxtimes		Sao Tome and Principe	14	6
Porto Real	\boxtimes	\boxtimes													\boxtimes		Sao Tome and Principe	18	10

Characteristics of "Other" Communities:

- Santo Antonio: ancestoral slaves and migrants
- Roça da Sundy: ancestral slaves and migrants
- Montalegre: ancestral slaves and migrants
- Sâo Joaquim: ancestral slaves and migrants
- Terrerio Velho: ancestral slaves and migrants
- Bela Vista: ancestral slaves and migrants
- Gaspar: ancestral slaves and migrants
- Abade: fishers and spear fishers

Policies, Laws and Regulations

View the topics column below with the following corresponding codes:									
A- Agriculture	E- Energy	I- Planning/Zoning	M- Tourism						
B- Climate	F- Fisheries	J- Pollution	N- Transportation						
C- Ecosystem Management	G- Forestry	K- Protected Areas	O- Wildlife Trade						
D- Education	H- Mining and Quarrying	L- Species Protection	P- Other						

No.	Name of Law	Scope								Тор	ics	5						
			Α	В	С	D	Ε	F	G	Η	Ι	J	Κ	L	Μ	Ν	0	Ρ
1	Second Single Species Action Plan for the Principe Thrush 2021-2025 (policy)	Local											\boxtimes	\boxtimes				
2	PNP management Plan (Policy)	Local											\boxtimes	\boxtimes	\boxtimes		\boxtimes	

"Other" Topics Addressed by the Policy, Law or Regulation:

No.	Country/ Countries	Date Enacted/ Amended	Expected impact	Action Performed to Achieve the Enactment/ Amendment
1	Sao Tome and Principe	March 30, 2021	Increased protection, awareness, monitoring, mitigation of threats, increased/stable population	The Second Single Species Action Plan for the Príncipe Thrush 2021- 2025 was produced through a 3- month stakeholder participation process by Fundação Príncipe, SPEA, FFI and Birdlife International, including an online contribution phase from international species experts and other relevant contributors, followed by translation to Portuguese, distribution to local stakeholders (see attachment: 6_Plano_acao_tordo_principe_2021- 2025). The local stakeholders including the Regional Government, private sector and community representatives (together with a few international participants online) took part in a full-day action plan workshop, to work through the priority actions and objectives and to assess the Threat analysis. Following the workshop, the Action plan was amended and submitted to the Regional Government of Príncipe for approval and formal endorsement.
2	Sao Tome and Principe	December 31, 2021	Improved management of the park, including monitoring and reporting mechanisms for	We drafted the introduction section on biodiversity, we contributed data and expertise to conduct the 2019 and 2020 METT, which helped to identify gaps in the current Management plan. We contributed

No.	Country/ Countries	Date Enacted/ Amended	Expected impact	Action Performed to Achieve the Enactment/ Amendment
			infractions, autonomous METT evaluation, improved zonation and clarity in permissions of use in each zone, improved protection of primary forest zones	to initial discussions regarding re- zoning the park into more practical and protective zones, from resource use to total protection. We also provided training to PNP field staff to increase capacity to monitor biodiversity and threats. The management plan process is still ongoing and is due to be completed by December 2021.

Companies Adopting Biodiversity-friendly Practices

A company is defined as a for-profit business entity. A biodiversity-friendly practice is one that conserves or uses natural resources in a sustainable manner.

Name of Company	Description of Biodiversity-Friendly Practice	Country/Countries where Practice was
		Adopted

Networks and Partnerships

Networks/partnerships should have some lasting benefit beyond immediate project implementation. Informal networks/partnerships are acceptable.

Name of	Year	Country/	Established	Purpose
Network/Partnership	Established	Countries	by Project?	
Thrush Action Plan Monitoring Committee	2021	Portugal;Sao Tome and	Yes	A monitoring committee composed of experts, FP staff, government representatives and other local stakeholders was set up

Name of	Year	Country/	Established	Purpose
Network/Partnership	Established	Countries	by Project?	
		Principe;Unit ed Kingdom		during the Thrush Action plan workshop, with the purpose to conduct an informal annual review to monitor the actions taken in the past year towards implementing the priority actions listed 2021-2025 Thrush Action Plan. The monitoring committee will meet in June each year (from 2022-2025) to discuss any activities that need support or attention. In 2023, an evaluation of progress will be made, and in 2025, the group will also lead the formal review process for the third action plan period (likely to be 2026-2030). The working group was chosen based on the current positions and roles of the individuals listed, and is subject to personnel changes to maintain a similar representation across all the relevant stakeholders. Two persons from PNP One person from the University of Edinburgh One person from DRFB Two persons from DRFB Two persons from CIBIO-InBIO One person from CIBIO-InBIO One person from FFI/FP One person from FFI/FP One person from the following bodies will also be invited Central government of Sao Tome & Principe Principe Guides association (AGTP) Local communities Tourist operators Oikos

Name of	Year	Country/	Established	Purpose
Network/Partnership	Established	Countries	by Project?	
Principe Thrush & Obo Snail Advisory Panel	2019	Portugal;Sao Tome and Principe;Unit ed Kingdom	Yes	To promote robustness of the monitoring programme, an advisory panel of interested scientists has been established to provide comments on data, reports, plans, etc as they come through. Members of the panel (organizations listed below) have access to documents via an online folder (Dropbox), including data sheets, monitoring reports and training reports. Advisory Panel: One person from FFI/FP One person from University of Leeds One person from Ce3c/FCUL One person from CIBIO-InBIO Three persons from University of Lisbon One person from SPEA One person from University of Edinburgh One person from BirdLife International

Sustainable Financing

Sustainable financing mechanisms generate funding for the long-term (generally five or more years). These include, but are not limited to, conservation trust funds, debt-for-nature swaps, payment for ecosystem services (PES) schemes, and other revenue, fee or tax schemes that generate long-term funding for conservation.

Globally Threatened Species

Globally threatened species (CR, EN, VU) on the IUCN Red List of Threatened Species, benefitting from the project.

Genus	Species	Common Name (English)	Status	Intervention	Population Trend at Site
Turdus	xanthorhy nchus	Principe Thrush	CR	All Impacts, Deliverables and Activities listed are directly related to this species. More specifically we - reviewed and updated the conservation action plan - contributed to the review of the PNP management plan to afford better habitat protection - we established, implemented and secured a further 3 years of funding for a monitoring protocol for the species, - we conducted a community consultation process to begin assessing invasive species mitigation options	Unknown
Archachati na	bicarinata		VU	We established, implemented and secured a further 3 years of funding for the Obo Land Snail, (see attachment Principe Thrush & Obo Land Snail monitoring protocol)	Unknown
Zosterops	ficedulinus	Principe White- eye	EN	Species observations, distribution data contribution to Red List assessment March 2020	Stable
Psittacus	erithacus	Grey Parrot	EN	Species observations, distribution data contribution to Red List assessment March 2020	Stable

LESSONS LEARNED

Of course, the main challenge faced during this project was the impact of the global pandemic. The lock down on an already remote island had huge impact on our ability to conduct fieldwork, and conduct outreach activities. We learned that our team was flexibilityle and adaptive and we managed to adapt our outreach activities, combining activities to reduce the number of meetings, and minimise group sizes. We conducted discussions regarding threat mitigation in individual communities separately, rather than as one group, and then collated the results in the Thrush Action plan, which was presented back to community representations at the Thrush Action plan workshop.

Our project has revealed that hunting pressure on the thrush is likely to be less of a direct threat than the issue of introduced predatory mammals such as monkeys and civets. As such, a lesson we learned is that a much larger emphasis needs to be placed on tackling with this troubling issue, and future projects need to focus on this. Ultimately, we will only be successful with the close collaboration of communities surrounding the park, even if they have very little knowledge or interaction with the Thrush itself. This need has now been recognised and prioritised in the Conservation Action Plan for the Thrush (Action 2.4a).

Another lesson learned was that the use of ebird as a tool for recording sightings data, or as an indicator for improved knowledge was unreliable. We conducted several workshops where we presented this software and there was some interest in its use. However, overall there is a general lack of capacity to read English (ebird is not available in Portuguese), or to know the English names of species. In addition most guides or community members that might see the thrush do not have smart phones, or if they do they have very limited data credit. Overall this meant that ebird was not an appropriate tool for them. Instead we invited people to report any interesting sightings to us in person at the Fundação Principe office, and to report the approximate location, time and date.

Another lesson learned is that when dealing with rare and elusive species, there is a need for much more fieldwork than anticipated in order to accurately calculate detection curves and predict population trends from the monitoring data. As such we increased our fieldwork in the beginning of 2021 and explored previously unsampled areas of the park. We recorded several sightings in these areas which will help to contribute to the database and to calculate detection curves. In addition, through this fieldwork we found two active nest sites, which we continue to monitor with camera traps, and which will contribute to significantly increasing our knowledge about the breeding ecology and resource needs for the species.

SUSTAINABILITY/REPLICATION

As mentioned, the major challenges have been related to Covid-19, however due to the resilience of the team we were able to conduct most of our activities within the project cycle. A major, related challenge was the change of staff, including the project manager towards the end of the project. Making detailed and accurate records of activities, changes in the work plan and achievements are really important to do as and when they occur, to ensure smooth transitions and sustainability of activities in the event of sudden and abrupt changes. The detailed methodology developed for the monitoring protocol, allows for continuity beyond the project cycle, and replicability in other sites.

Challenges in communities; the presence of women at the meetings did not guarantee engagement. We would recommend splitting men and women in future discussions to allow for more contributions from women.

ENVIRONMENTAL AND SOCIAL SAFEGUARDS/STANDARDS

A Grievance Process Framework (see attachment: "8_Fundação Príncipe Grievance Mechanism") was established and a convenient poster was created (see attachment: "9_Grievance_Poster_FP"). A Health and Safety plan (see attachment: "10_Updated Health-and-Safety-Plan with supporting docs") has also been published Both safeguards are being effectively implemented by Fundação Principe.

ADDITIONAL COMMENTS/RECOMMENDATIONS

Comments:

The original Project manager attended a CEPF event in Liberia, which was a great experience and allowed us to network with other grant recepients in the region and to find out more about the CEPF programme of work.

Some suggestions for streamlining the reporting process:

When we submitted the no-cost extension (NCE) we made a request to adapt the impact statements to reflect changes in our understanding of project outputs and needs. The changes were approved by CEPF, but the wording of the Impact statements did not get updated in the online portal.

In addition, reporting expectations were not always clear; We submitted our amended budget under the NCE and using the budget template provided by CEPF. However, we were subsequently asked to provide comments on the budget, where there was no comments column provided to do so. We manually added a column and re-submitted as requested, but it would have been more efficient to includewe would suggest that this data requirement is included in the template in the future.

Finally, having submitted the NCE with updated financial report and Narrative report in November 2020, with the original project meant to end in December 2020, it was not made clear to us that there would still be an expectation for an extra Quarterly financial report and Narrative report in January 2021 (since this was not planned in the original project), in addition to the final end of project financial and narrative reports to report until March 2021. We were not advised that these additional reports were due; only by chance we checked the reporting portal and saw that there were two reports due with only a few days to complete. We would recommend that CEPF makes sure to provide a (automated?) reminder for upcoming reporting deliverables.

ADDITIONAL FUNDING

Total Amount of	\$82,910.00
Additional Funding	
Actually Secured (USD)	
(030)	

Breakdown of Additional Funding	PPI (Programme de Petites Initiatives) award from FFEM – US\$ 34,551 CEPF project (100798) – US\$ 12,2134
	HBD (corporate funder on Principe) – US\$ 22,570 FFI in-kind contribution – US\$ 18,007
	Mohamed bin Zayed Species Conservation Fund – US\$ 7,782
	Item Total co-funding USD (actual)
	1. Salaries/Benefits 62,322.90 2. Professional Services 2,091.00
	3. Rent and Storage 5,535.00
	4. Telecommunications 300.00
	5. Postage and Delivery 0.00
	6. Supplies 3,296.00
	7. Furniture and Equipment 6,657.50 8. Maintenance 2,460.00
	9. Travel and Special Events 11,477.90
	10. Micellaneous 984.00
	TOTAL 95,124
	Since CEPF funds can not be counted as part of the leverage
	funding, US\$12,213 will be removed from the total.

INFORMATION SHARING AND CEPF POLICY

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. For more information about this project, you may contact the organization and/or individual listed below.

Fauna & Flora International; info@fauna-flora.org