

Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus Half Year Report

Note: If there is any confidential information within the report that you do not wish to be shared on our website, please ensure you clearly highlight this.

Submission Deadline: 31st October 2023

Project reference	<i>DPLUS153</i>
Project title	Conserving tropical marine ecosystems in TCI through science-based fisheries management
Country(ies)/territory(ies)	Turks and Caicos Islands (TCI)
Lead partner	South Atlantic Environmental Research Institute (SAERI) / TCI Government (TCIG) Department of Environment and Coastal Resources (DECR)
Partner(s)	TCI Government Department of Fisheries and Marine Resources Management (FMRM), Fish Ageing Services Ltd Pty (FAS), Ocean Environmental, Joint Nature Conservation Committee (JNCC)
Project leader	<i>Tara Pelembe (SAERI); Project Manager (PM) – Dr Edward Butler.</i>
Report date and number (e.g. HYR1)	<i>October, HYR3</i>
Project website/blog/social media	<p><i>Website: https://www.south-atlantic-research.org/partners/dplus-153-conserving-tropical-marine-ecosystems-in-tci-through-science-based-fisheries-management/</i></p> <p><i>Twitter: @SAERI_FI</i></p> <p><i>Facebook: https://www.facebook.com/SAERI/</i></p>

Outline progress over the last 6 months (April – Sept) against the agreed project implementation timetable (if your project has started less than 6 months ago, please report on the period since start up to end September).

Although we are not looking for specific reporting against your indicators, please use this opportunity to consider the appropriateness of your M&E systems (are your indicators still relevant, can you report against any Standard Indicators, do your assumptions still hold true?). The guidance can be found on the resources page of the relevant fund website.

Output 1: Stakeholders are meaningfully engaged in understanding the requirements for robust fisheries data and in the designation of landing sites.

There were no measurable indicators to report against for this reporting period – both indicators 1.1 and 1.2 as well as relevant activities were carried out in Y2.

Output 2: TCIG staff and fishers trained in data collection and fisheries data is well managed.

Building on from the fisheries data collection workshop held in March 2022, project staff continue to work closely with government officers to develop officer's skills and build up their experience in measuring catch and effort data, and collecting biological samples (**Activity 2.1, & 2.3**).

On Providenciales, where the Project Manager (PM) and Project Officer (PO) are based, routine weekly data collections are carried out by project and DFMRM staff. However, on other islands, including South Caicos and Grand Turk, biological and landings data collections (**Activity 2.4**) have been sporadic, due to a lack of the required government staffing capacity and due to the DFMRM departure from the DECR, as detailed in previous reports. Several solutions were developed to address this and are outlined in **Section 2**.

All relevant data are regularly inputted into the developed fisheries database, which is up to date, and managed by the PO (Figure 1). Appropriate available data are currently being made available on the TCIWebGIS, with support from SAERI GIS manager (**Activity 2.5**).

ID	Batch#	Sample#	Species Cod	Sex	Maturity	Gonad weig	Gonad tamg	St. (mm)	FL (mm)	TL (mm)	Weight - wh	Weight - evi	Otolith	Notes	Sams	
61	12	1	CFJ	F	2	0		188	0	223	164	0	2		12-CI	
62	12	2	CFJ	F	1	0		174	0	200	0	108	2		13-CI	
64	14	14	BLV	NA	0	0		0	380	563	165	150			Weight in kg 14-BI	
63	14	3	CFJ	F	1	0		222	0	268	0	172	2		14-CI	
220	14	11	CWR	F	7	0		0	0	415	100	590	2	Spent	14-CI	
67	14	10	PRG	F	2	2		274	290	333	633	596		1 Station3	14-PI	
65	14	9	PRG	M	2	0		288	317	363	0	766		806 Station#3	14-PI	
66	14	12	RUB	M	5	0		0	294	338	388	413	2	Station 3	14-RI	
218	14	7	SNY	M	4	10.4		0	323	402	500	475	2		14-SF	
215	14	4	SNY	F	2	0		0	288	360	362	347	2		14-SF	
216	14	5	SNY	F	4	9.15		0	317	385	505	446	2		14-SF	
217	14	6	SNY	F	4	10.85		0	321	409	0	485	2		14-SF	
219	14	8	SNY	F	4	4.31		0	281	347	326	306	2		14-SF	
69	15	13	HLV	J	1	0		0	313	366	172	0	1		15-HI	
68	15	15	MEN	M	7	0		0	273	294	486	0			15-M	
75	16	6	CFJ	F	8	0		155	0	190	119	110	2	Sprat inside of	16-CI	
76	16	7	CFJ	F	2	0		196	0	230	222	213	1		16-CI	
70	16	1	CFJ	F	2	0		199	0	237	219	205	2		16-CI	
71	16	2	CFJ	F	8	0		201	0	240	227	216	2	1 Broken otolith	16-CI	
72	16	3	CFJ	F	8	0		211	0	250	280	245	1	Fatty organs	16-CI	
73	16	4	CFJ	F	8	0		192	0	233	228	214	1		16-CI	
77	16	8	CFJ	F	2	0		176	0	210	155	146	2		16-CI	
74	16	5	CFJ	F	2	0		171	0	199	136	129		Broken	16-CI	
84	16	15	HHI	F	6	0		0	190	212	147	130	2		16-HI	
82	16	13	HHI	F	3	0		202	0	234	240	203	191	2		16-HI
83	16	14	HHI	F	3	0		0	234	260	247	231	2	Both are broken	16-HI	
79	16	10	HLV	F	5	0		250	0	297	149	135	2		16-HI	
81	16	12	HLV	F	2	0		332	0	413	373	339	2		16-HI	
78	16	9	HLV	F	2	0		338	0	393	273	354			16-HI	
86	16	17	HOO	F	5	0		0	187	228	113	100	2	Broken	16-HI	
80	16	11	MEN	M	3	0		288	0	311	680	546	2		16-M	
85	16	16	SNY	M	5	10		0	267	322	329	304	2		16-SF	
87	17	18	BLF	M	3	0		0	500	565	0	0	2		17-BI	
89	17	20	BLF	F	4	0		0	511	575	0	0			17-BI	
90	17	21	BLF	F	4	0		0	534	615	0	0			17-BI	
91	17	22	BLF	F	8	0		0	622	696	0	0	4		17-BI	
88	17	19	BLF	M	4	0		0	540	610	0	0			17-BI	
92	17	23	GSA	M	4	0		0	576	671	0	0	2		17-GI	
93	17	24	GSA	M	4	0		0	664	616	3300	3300			17-GI	

Figure 1: Screenshot of the relational database which has been developed using Microsoft Access and is housed online.

Output 3: Fisheries Science laboratory fully equipped, and staff fully trained.

Activity 3.1 & 3.4 were completed and reported against in Y2. However, one major development towards this output was the official opening of the fisheries laboratory in May. The event was covered by several media agencies and was featured in the SAERI quarterly newsletter. More information can be accessed using the following links – [SAERI](#), [The TCI Sun](#), [Magnetic Media](#) & [Turks and Caicos Weekly News](#).

Processing of otolith and reproductive samples has been ongoing in the laboratory and has focussed on five target species – gray snapper, yellowtail snapper, lane snapper, cardinal snapper and white grunt. For each of these species, otolith reading protocols have been established and otolith collections (>150 samples) have been processed and read. Age-and-growth modelling and assessments have been completed for each species and compiled into a

report detailing assessments of precision and quality control, von Bertalanffy growth parameters and age length keys (**Activity 3.2, Figure 2, 3 & 4**). The report is currently being finalised and circulated amongst the Project Management Group (PMG).

For the reproductive assessments, temporal assessments of gonadosomatic index (GSI) have successfully been completed for one species – cardinal snapper (**Activity 3.3**). Unfortunately, due to the lack of DFMRM capacity for detailed data collections on South Caicos and Grand Turk, the requisite data are unavailable for the other four target species. Preliminary assessments have been completed for these species and will allow for full assessments in 2024, as reported in AR2. The assessments have been compiled into the same report as the age-growth work.

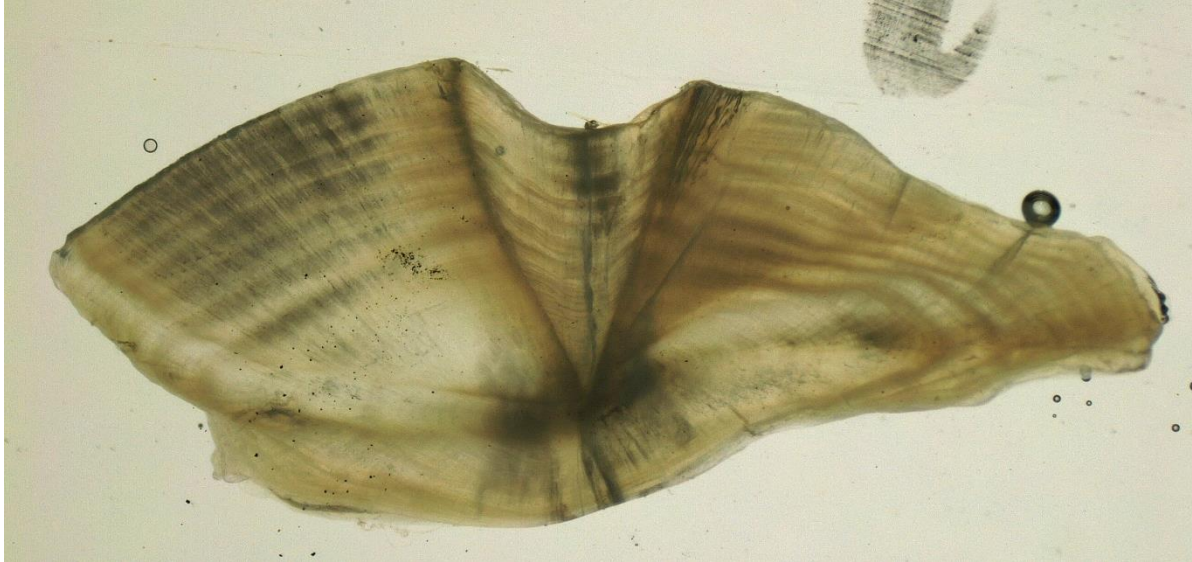


Figure 2: A sectioned sagittal otolith from an 8-year old 238 mm (standard-length) lane snapper.

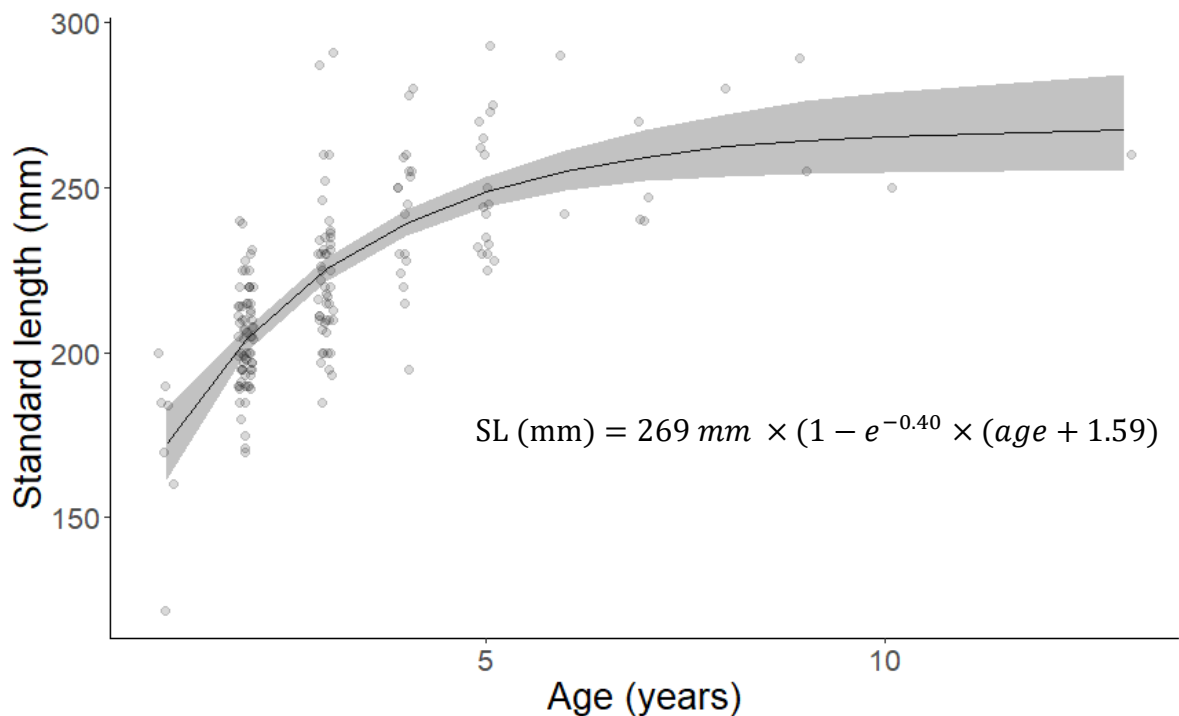


Figure 3: Von Bertalanffy growth equation fitted to the length at age of 171 yellowtail snapper (*Ocyurus chrysurus*).

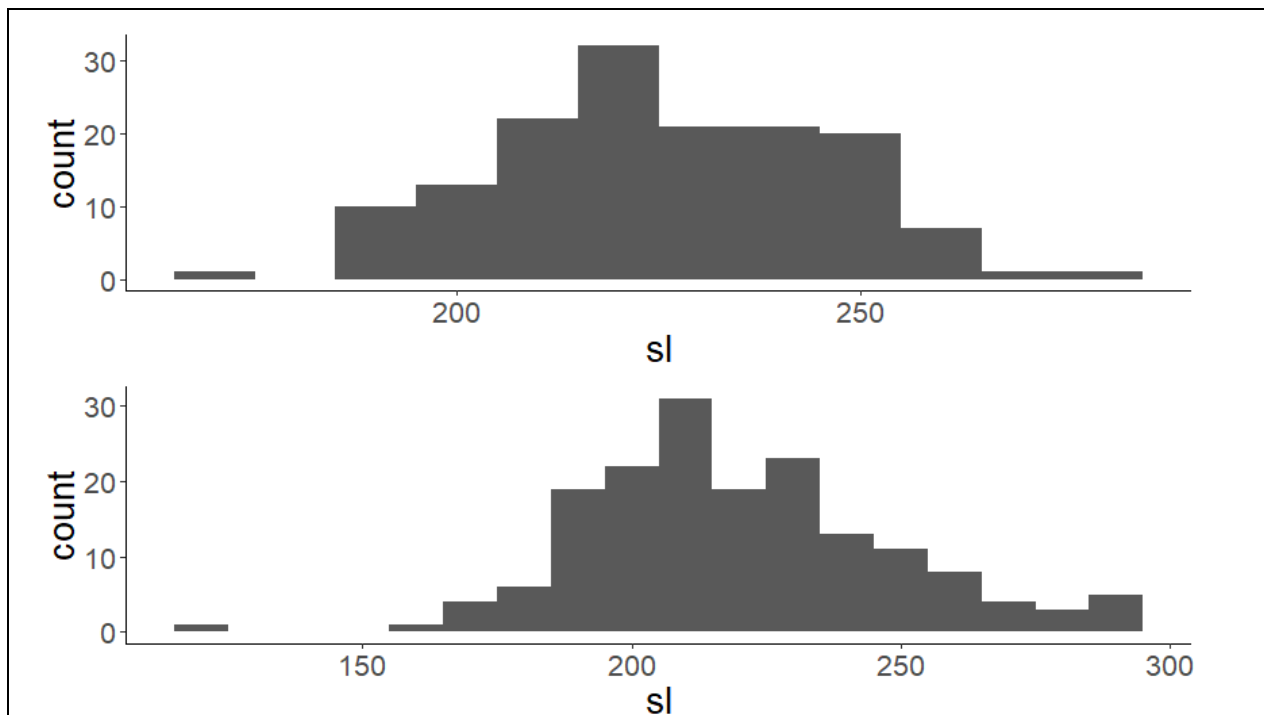


Figure 4: Length-frequency histogram for yellowtail snapper (*Ocyurus chrysurus*) and white grunt (*Haemulon plumierii*) sampled throughout the study. “sl” – standard length (mm)

Output 4: Stock assessments of priority species undertaken.

Stock assessment training was scheduled for Y3Q2 (**Activity 4.1**). However, the project partner responsible for leading the stock assessment training has been unavailable, partly through Covid illness. Initially, meetings in Y2 proposed a schedule and dates to host the training in August. However, during this time, the project partner communicated via email that he was ill and unable to host it then. It was provisionally decided to postpone the training to September. However, this has not materialised due to the continued unavailability of the partner consultant. Hence, a decision was taken in September to source a new consultant for the work, so as to prevent further delays. A new consultant is being sourced with a view to delivering the training in Q3 (**Activity 4.1**), along with the stock assessment modelling for two species (**Activity 4.2**).

Output 5: Project Management structure, monitoring and evaluation and communication tools established

Management tools were established in Y1 and have been updated periodically. Project management has been ongoing via weekly meetings between the PM and Project Lead, biweekly meetings between the on-island project management group (DECR, DFMRM, PM & PO), and quarterly meetings of the PMG (**Activity 5.2**). Minutes from all of the PMG meetings can be found [online](#). It is noted that a PMG was not held in Y3Q1 – instead, a series of high-level meetings were held on islands between the project and TCIG during SAERI CEO, Dr Paul Brickle’s visit to island. More information regarding this is available in **Section 2**.

The project webpage is updated regularly (**Activity 5.3**), and all reporting has been completed on time (**Activity 5.5**).

2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

DFMRM fisheries management capacity

A lack of capacity for fisheries data collection, processing, science and management is an increasingly realised issue within the DFMRM and has been communicated in several previous reports. To address this, the PM and SAERI CEO Dr Paul Brickle hosted several meetings on island in July with the DFMRM Director, DFMRM Assistant Director for Fisheries, Deputy Permanent Secretary and Permanent Secretary to discuss identified gaps and potential

solutions. As an outcome of this process, a paper was compiled and submitted to TCIG Cabinet for endorsement. [REDACTED]

As a result, TCIG cabinet are now moving to consider the recommendations which have been made and the new recommended positions have been included in their preliminary budget for 2024. This will provide vital support for fisheries management and science in the TCI and provide critical capacity for the project outcomes to be sustained.

Project leadership

Lormeka Williams (ex-project co-lead) has left the DECR and taken up a role as the Deputy Permanent Secretary in the office of the Deputy Governor. As a result, she is no longer available to continue in her role as co-lead. The DECR, through their new acting Director, Luc Clerveaux, have provided reassurance that the loss of her role in the project will be supported by other DECR staff, including those previously involved on the PMG. This was communicated with NIRAS via email at the time.

3. Have any of these issues been discussed with NIRAS and if so, have changes been made to the original agreement?

Discussed with NIRAS:	Yes
Formal Change Request submitted:	No
Received confirmation of change acceptance	Yes
Change request reference if known:	

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2023 – 30 September 2023)

Actual spend: [REDACTED]

4b. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this financial year (ending 31 March 2024)?

Yes No Estimated underspend: £

4c. If yes, then you need to consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a re-budget Change Request as soon as possible. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to make appropriate changes if necessary. Please DO NOT send these in the same email as your report.

NB: if you expect an underspend, do not claim anything more than you expect to spend this financial year.

5. Are there any other issues you wish to raise relating to the project or to BCF management, monitoring, or financial procedures?

No

If you are a new project and you received feedback comments that requested a response, or if your Annual Report Review asked you to provide a response with your next half year report, please attach your response to this document.

All new projects (excluding Darwin Plus Fellowships and IWT Challenge Fund Evidence projects) should submit their Risk Register with this report if they have not already done so.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also be raised with NIRAS through a Change Request. **Please DO NOT send these in the same email.****

Please send your **completed report by email** to BCF-Reports@niras.com. The report should be between 2-3 pages maximum. **Please state your project reference number, followed by the specific fund in the header of your email message e.g. Subject: 29-001 Darwin Initiative Half Year Report**

Annex 1 – confidential (not for wider distribution)

- Recommendations were made to the Ministry of Tourism, Environment, Heritage, Maritime, Gaming & Disaster Management for ensuring sustainable management of the TCI fishery resource by Dr Ed Butler, Tara Pelembe, Dr Paul Brickle and supported by DFMRM's Thecla Joseph and Kathy Lockhart.
- The paper detailed the gaps in data collection, fisheries science and management capacity which have been identified during the project and outlined the risks involved with leaving these unaddressed going forward.
- The paper then made specific recommendations to address these gaps, including improved staffing and budget through the hire of four new full-time positions.
- This was then directly linked to the development of the Leroy Brooks Fisheries and Marine Laboratory through the established business case.
- To date, the recommendations have been positively received and the new staff positions have been included in preliminary budgets, for consideration for the TCIG 2024 budget.
- The project will continue to proactively support this, through the establishment of job descriptions.