

Darwin Plus: Final Report

To be completed with reference to the “Project Reporting Information Note”:
(<https://darwinplus.org.uk/resources/information-notes/>).

It is expected that this report will be a **maximum of 20 pages** in length, excluding annexes.

Submission Deadline: no later than 3 months after agreed end date.

Submit to: BCF-Reports@niras.com including your project ref in the subject line.

Darwin Plus Project Information

Project reference	DPLUS147
Project title	A Collaborative Approach to Coral Disease in the UKOTs
Territory(ies)	British Virgin Islands, Cayman Islands and the Turks and Caicos Islands
Lead Partner	JNCC
Project partner(s)	Turks and Caicos Islands - Department of Environment and Coastal Resources, British Virgin Islands - Ministry of Natural Resources, Labour and Immigration, Cayman Islands' Government Department of Environment, Nature2, Dr Greta Aeby
Darwin Plus Grant value	£496,257
Start/end date of project	Start date: 01/07/2021; End date: 31/03/2024
Project Leader name	Bryony ████████ JNCC
Project website/Twitter/blog etc.	https://jncc.gov.uk/our-work/collaborative-coral-reef-working-group
Report author(s) and date	Bryony ████████, Sabrina ████████, Sara ████████, Argel ████████, Croy ████████ and Alexander ████████

1 Project Summary

A new and highly virulent coral disease, Stony Coral Tissue Loss Disease (SCTLD), was first found in Florida in 2014 and thereafter spread rapidly through the Caribbean Region. The disease affects more than 30 hard coral species and has extremely high mortality rates. The disease spread across the region has happened quickly and is now affecting 32 countries and territories in the region (Alvarez- Filip *et al.* 2022). Coral reefs are extremely important to the economies in the Caribbean through tourism, fisheries, storm and coastal protection and benefit more than 44 million people (The Nature Conservancy, 2020). At the time of the project initiation, SCTLD had been confirmed in three UKOTs; Turks and Caicos Islands (TCI), British Virgin Islands (BVI) and the Cayman Islands. There was still a lot of unknowns about this disease, causes, effective treatments and other management options: this project formed a collaborative response to the emergence of this new and highly deadly coral disease in the UKOT reefs.

This project, led by JNCC, established a collaborative working group, partnering with the governments in Turks and Caicos Islands (TCI), British Virgin Islands (BVI) and the Cayman Islands and including Caribbean governance specialist, Kalli De Meyer and coral disease expert Dr Greta Aeby. The group was formed to share knowledge, resources and provide a joint response to SCTLD. Kalli De Meyer provided an impartial group chair and excellent regional connections, with technical input on coral disease from Dr Greta Aeby. JNCC staff time provided the working group secretariat, organising meetings, setting agendas, sharing resources and providing technical assistance.

Following the Darwin Plus Main bid submission, Defra was approached to financially support the group during a pilot stage. This funding allowed the group to start meeting from December 2020 to May 2021, before the Darwin Plus Main project began in June 2021 formally establishing the working group.

The project partnered with the Cayman Islands, TCI, and BVI because these were the UK Overseas Territories (UKOTs) who had confirmed the presence of SCTL D at the time of the bid proposal. However, C-COT group membership was extended to all Caribbean and Western Atlantic OTs (Figure 1), and a wider partnership to support disease response and coral reef resilience was fostered. Because of its aggressive nature, and the lack of information on the disease at the time, it was imperative to connect the Caribbean OTs with regional resources, updates on the success of treatment options, and to facilitate training and discussions around disease progress and monitoring. This project addressed these prioritised concerns through consistent, facilitated group meetings, through expert guest speaker presentations, through guidance from regional science experts and through logistical support from the project manager.

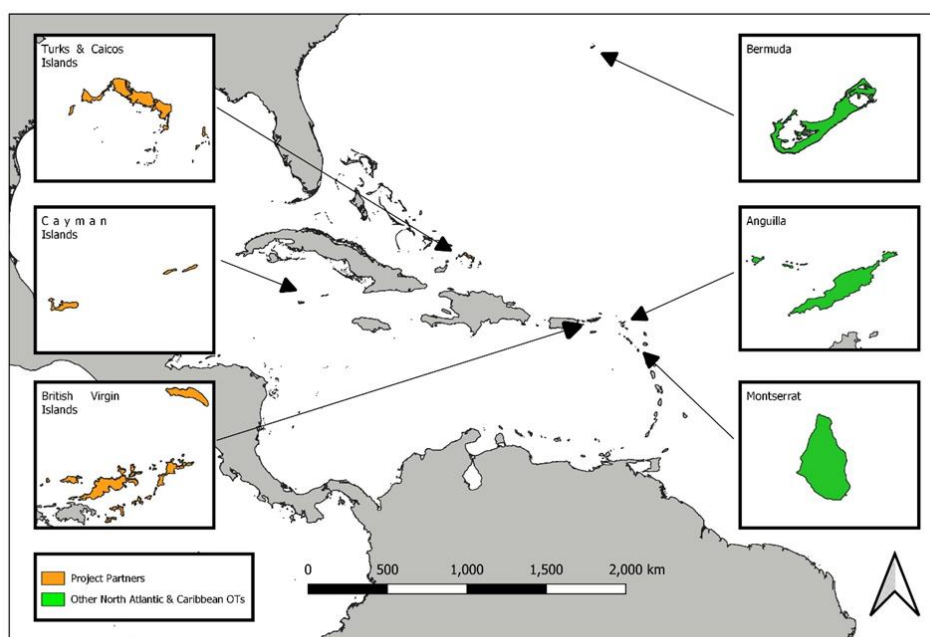


Figure 1. Map showing locations of DPLUS147 OT project partners and key stakeholders.

Although initially named the Collaborative Coral Reef Working Group (CCRWG), the group internally decided on a name change to C-COT: Coral Conservation in the UK Overseas Territories working group at a C-COT meeting in February 2022 (Meeting 21 minutes, evidence folder 01). A new name was proposed because 'CCRWG' is not easy to say, and it may be beneficial from a branding perspective to consider a name change. C-COT was chosen from a list of suggested names submitted by group members (Meeting 19 Minutes, evidence folder 01). At the same time, a C-COT logo was created for branding and to create a better sense of group identity (Figure 2).



Figure 2. The project logo for the Coral Conservation in the UK OT (C-COT) Working Group

Funding was provided for each project partner to implement treatment and management options for SCTL D. These interventions were guided by a C-COT developed Collaborative SCTL D Treatment and Management Strategy that outlined the current knowledge on all known treatment options and was accompanied by a training workshop held in the Cayman Islands in 2022. This strategy was updated again in November 2023 to reflect any further evidence from the region and incorporate results from trials undertaken in project partner OTs.

A second in person workshop was held in Y3 in Miami, focussing on the role of resilience-based management and the role this could play in the management of SCTL D. C-COT members requested a resource that could be used to explain this approach to decision makers, which led to the development of the C-COT SCTL D Adaptive Management Plan. The workshop also considered the future of the C-COT partnership, drafting a Roadmap to guide the next steps beyond the end of this Darwin Plus Main project.

2 Project Partnerships

Project stakeholders

This project is led by JNCC in partnership with: Department of Environment and Coastal Resources, Turks and Caicos Island Government; the Ministry of Natural Resources, Labour and Immigration, The British Virgin Island Government; the Department of Environment, Cayman Island Government, Nature2 and Dr Greta Aeby. Project partners are all active members of the C-COT working group.

Active group membership was also extended to non-partner OTs which have confirmed the presence of SCTL D: Montserrat and Anguilla, and Bermuda which has so far not detected the disease but has an interest in preventing it and benefitting from discussion about other coral reef conservation and management issues (e.g. bleaching and *Diadema* die off). Active group membership also includes other stakeholders in the OTs such as NGOs: TCReef, Central Caribbean Marine Institute (CCMI), Marine Conservation Society (MCS) and educational establishments: School for Field Studies (SFS). This information is summarised in Table 1.

Table 1: Membership of the C-COT working group including a list of member organisations and their role in the project.

Name	Organisation type	OT	Role in project
	Government	TCI	Project partner and active C-COT member
	Government	BVI	Project partner and active C-COT member
	Government	Cayman Islands	Project partner and active C-COT member
	Consultancy	NA	Project partner and active C-COT Chair
	Academic	NA	Project partner and active C-COT member
	Government	NA	Project lead and C-COT Secretariat
	Government	Bermuda	Active C-COT member
	Government	Anguilla	Active C-COT member
	Government	Montserrat	Active C-COT member
	NGO	Montserrat	Active C-COT member
	Education/	TCI	Active C-COT member

[REDACTED]	Research		
	NGO	TCI	Active C-COT member
	NGO	Bermuda	Active C-COT member
	NGO	NA	Active C-COT member
	NGO	Cayman Islands	Active C-COT member

Project Management Group

Governments of partner OTs were involved in this project by participation in quarterly Project Management Group (PMG) meetings where key project planning and decisions took place. A Terms of Reference (ToR) was developed and agreed with the group in year 1, which outlines the role in the project governance and monitoring and evaluation and outlines the relationship between the PMG and C-COT (PMG Terms of Reference, evidence folder 02). The PMG consisted of at least one representative of each project partner, as well as a representative from each other OT member of C-COT. The PMG addressed risks and monitored project progress, including financial reporting. The decision was made to give as much autonomy and ownership to the C-COT group, with the PMG acting as a ‘first’ sign off and review, before documents being presented to C-COT for final review and sign off. All project partners were involved in the preparation of this final report, with drafts shared directly to them by email for comment, contribution, and review (Final year report email.msg, evidence folder 03).

C-COT

JNCC acts as the virtual secretariat for C-COT by organising meetings, writing and sharing minutes, preparing newsletters, liaising and networking with the group but also maintaining and managing information via an online Teams platform (Meeting 1 Minutes, evidence folder 01). Meetings were held approximately once a month over the project period from July 2022 to March 2024.

Project planning and decisions are influenced by all active members of the C-COT working group. There is a protocol for the introduction of new members into the C-COT group which gives all existing members say in how the partnership is managed (New Member Protocol, evidence folder 03). The creation of the C-COT roadmap is an example of how this partnership was harnessed to involve partners in project planning and decision making. The roadmap was compiled following an interactive discussion at a C-COT in-person workshop in Miami which centred around participants’ priorities and expectations for the future. This was then presented back to members for further comment, feedback, and approval in “roadmap consultation” meetings. These consultations were carried out separately by OT, to focus on the needs of each OT and encourage contribution by being in a smaller group (see Methodology section in C-COT Roadmap Report, Annex 4 & evidence folder 04). Feedback and discussions from consultations with each OT was then compiled and presented back to the C-COT group (Roadmap Consultation Summary, evidence folder 04; Meeting 43 Minutes, evidence folder 01).

Achievements

A particular achievement for this project was fostering links with academics in the field of coral reef conservation and coral disease management, including Professor Andrew Baker from the University of Miami, Dr Dan Holstein from Louisiana State University, Dr Blake Ushijima from the University of Washington and Dr Mike Sweet from University of Derby. Links with Dr Ushijima in particular have provided further information and opportunities regarding probiotic treatments for SCTLD, and C-COT members have been given the opportunity to partner with Ushijima’s lab to develop OT specific treatments (detailed in Output 2). The introductions to Dr Andrew Baker and Dr Mike Sweet have also proved beneficial: Cayman continues to use external laboratories in Florida with Dr Baker to preserve coral genetics. They have also purchased their own lab facility with additional funding, with training from Dr Sweet’s organisation, the Coral Spawning Lab (Meeting 33 Minutes, evidence folder 01).

Membership of the C-COT group has provided a space for knowledge sharing and partnership between OTs in the Caribbean. Working relationships fostered within the C-COT group led to

opportunities such as the Learning Exchange visit between Cayman Islands' Department of Environment and Montserrat's Ministry of Agriculture, Lands, House & the Environment (MAHLE), with funding provided by Defra. The visit allowed for reciprocal knowledge sharing between the two partners, and especially provided the MAHLE Officer with ideas to implement in Montserrat (Meeting 47 Minutes, evidence folder 01).

Challenges

A particular challenge that has arisen in the partnership is lack of engagement of OT representatives, particularly with regard to C-COT meeting attendance. This was addressed by involving JNCC leadership. A conversation was opened with OT representatives that had disengaged from the project, to understand their needs and capacities going forward and how they would like to be involved. Project partners altered their communication style and started contacting representatives directly (as opposed to sending mass emails), which increased engagement (Anguilla Roadmap Consultation notes, evidence folder 04). Other project partners from BVI have let the C-COT secretariat know that they are not always able to attend monthly C-COT meetings due to scheduling conflicts and busy schedules, however through personal communications, they have let the secretariat know that they always catch up with meeting recordings and meeting minutes after the sessions.

Another challenge associated with the partnership has been access to online files, as some members are unable to access the C-COT online file sharing system which is managed through MS Teams. This has been addressed by attempting to find alternatives, but unfortunately the issue lies with tight security measures of government IT processes at JNCC. Copies of relevant documents have therefore been sent as attachments by email.

Towards the end of the C-COT project, the secretariat circulated a survey to evaluate the success of the project as a whole. Figure 3 shows that the large majority of respondents rated the collaborative aspect of the project as 'very good', and the remainder as 'good'; suggesting the project created a successful collaboration amongst participants that they have valued. When asked whether members planned on engaging with C-COT in the future, 8 out of 10 respondents answered 'yes', with a particular interest in continuing online meetings to connect with other experts in the field. Remaining two respondents either didn't answer or didn't commit to engaging in the future due to retirement (End of C-COT project survey, evidence folder 05).

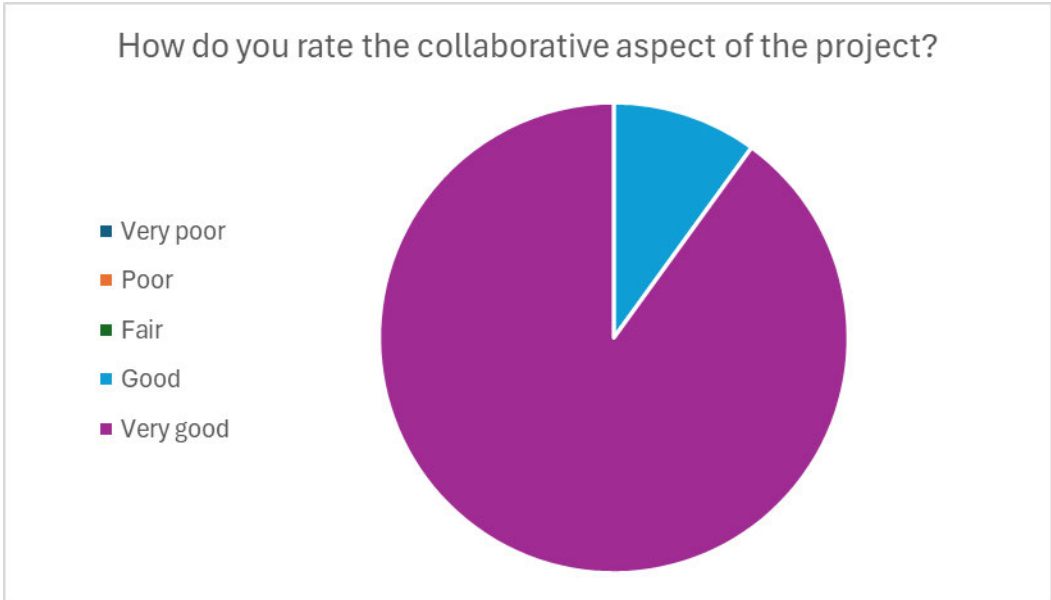


Figure 3. Results of our end-of-project survey rating the collaborative aspect of the project (n=10).

Future & post project completion

With a clear appetite for a continuation of C-COT beyond DPLUS147, JNCC applied to Defra to fund a continuation of the working group in the 2024-2025 financial year. Immediate priorities were taken from the roadmap and include data management, increased linkages to academia and continued disease and bleaching outbreaks in the Caribbean. C-COT has secured a £50,000 investment to continue this work and is seeking additional support to run a workshop

later this year to explore establishing close linkages with the academic community to achieve conservation benefits (Coral Conservation in the UK Overseas Territories 24-25, evidence folder 16). C-COT is also preparing an upcoming Darwin Strategic bid proposal that will continue work on coral conservation in the Caribbean OTs.

3 Project Achievements

3.1 Outputs

Output 1: Collaborative partnership to optimise the treatment and management of Stony Coral Tissue Loss Disease (SCTLD) established.

At the start of the project, an informal partnership had been formed using funding from Defra (Meeting 1 minutes, evidence folder 01), but the start of this project, allowed the working group to be established. Initially, the working group was called the Collaborative Coral Reef Working Group (CCRWG), before the name was changed to the Coral Conservation in the UK OT (C-COT) working group. The group met 33 times during the three year project lifespan (**Indicator 1.1: At least ten Coral Conservation in the UK OTs (C-COT) meetings annually**, evidence: Table 2). Attendance varied during the calendar year, with busy times coinciding with lower attendance, but feedback from members indicates that they often refer to meeting recordings when they have conflicting priorities.

The project team considers attendance by at least one of each OT project partner being present at each meeting to equate to success. On this basis, 75% of the meetings this year have had all partner OTs represented (Table 2). The Project Officer in BVI has specifically notified us in advance when they have not been able to attend due to conflicting obligations and we have provided recordings and meeting minutes for them to review at their convenience (pers. comm.)

Table 2. Number account of C-COT meetings per project year, with OT representation.

Project Year	Number of meetings	% Meetings with all partner OTs present
1	10	30%
2	11	64%
3	12	91%

JNCC staff time is used to source external speakers and science experts as part of the secretariat responsibilities, following suggestions and a prisonisation exercise undertaken by C-COT members. The table presented in Annex 4 outlines the science experts, their subject focus, and the date on which they presented to the group. All expert presentations are recorded and posted onto the Teams platform and links are shared in the regularly distributed newsletters.

Members expressed a desire to have an informal approach with scientific experts and invite speakers on an ad-hoc basis to present to the group which means that we did not formalise relationships as originally outlined in the logframe (**Indicator 1.2: Agreements in place with at least 3 regional and sub-regional bodies and/or scientific experts with the C-COT by no later than December 2021**) (Y1 C-COT Annual Report, evidence folder 06). An informal arrangement made with Dr Blake Ushijima following his presentation to the C-COT group on “the use of probiotics to treat SCTLD”, where the opportunity to collaborate with him to develop probiotic cultures for our partner OTs presented itself. Strong links were formed with regional groups, such as the NOAA Caribbean Cooperation technical group on SCTLD (attendance by JNCC & OT partners), the Florida Disease Advisory Committee (attendance by JNCC and OT partners), the UK OT Conservation Forum (attendance by Kalli De Meyer) and the GCRMN Caribbean region (representation by Kalli De Meyer). Minutes were shared from each meeting

with the C-COT group where possible and key subjects discussed fed back as a regular agenda item.

The project partnership was formalised through signed MOUs identifying named on-island project officers (**Indicator 1.3: 1.3 On-island project officers identified and operative in each OT no later than October 2021**; MoAs and MoUs, evidence folder 07). To strengthen the governance with the wider C-COT membership, all C-COT members or representing organisations however (project partners and additional OT members and NGOs) signed partnership agreements by February 2022 (Partnership Agreements, evidence folder 08), to establish working group guidelines and structure. A list of C-COT member organisations is included in Table 1.

Table 3. Overview of guest speaker presentations to the C-COT group, including presentation date, speaker name and the subject focus area.

Project Year	Number of meetings	Meetings with external speakers present
1	10	5
2	11	8
3	12	8

Output 1 has truly been a big success of this project, with all involved members wishing to continue involvement in C-COT beyond the end of this Darwin Plus project (C-COT Roadmap, evidence folder 04). Defra has committed to fund the continuation of the group for the 2024-2025 financial year, with a plan to expand the work through C-COT through a submission to the Darwin Strategic grant. Membership has continued to expand with new NGO members from BVI (Beyond the Reef), and Bermuda (Living Reefs Foundation) wishing to join in the third year. With new member requests coming in, a new member approval protocol was established (evidence: Meeting 45 minutes, evidence folder 01; New Member Protocol, evidence folder 03).

C-COT members attended two workshops over the course of the project (**Indicator 1.4: C-COT members engage well at two workshops and/or training events by end of March 2024**).

The first took place in the Cayman Islands in August 2022 and focussed on SCTLD disease management. A second workshop was held in Miami in June 2023, to develop the coral reef resilience conceptual framework and the C-COT Roadmap. Both workshops had full attendance from all partner OTs (Cayman Workshop Participant List, evidence folder 09; Miami Workshop Participant List, evidence folder 10). For both workshops additional funding was used to widen the workshop attendance to more C-COT members (non- partner OTs and NGOs). In year two, funding was used from the CSSF project 'Implementing Coral Reef Action Plans in UKOTs' and in year three, funding was sought from Defra.

The Y2 workshop formed the principle vehicle for training on direct SCTLD treatment and management options (**Indicator 1.5: At least two Officers per OT trained report increased understanding in SCTLD management options by April 2023**). The workshop was attended by 27 number of attendees representing six OTs, with the target of at least two attendees per partner OT reached (Cayman Workshop Participant List, evidence folder 09). Participants were trained on the development and application of probiotics treatment with Dr Ushijima (UNCW) and Kelly Pitts (Smithsonian Marine Station). They were also trained on developing coral disease and bleaching response plans and survey design data analysis by Dr Greta Aeby, and photogrammetry monitoring and analysis by Will Greene (Perry Institute of Marine Science). Table 4 summarises change in participant understanding for six key topics at the Cayman Workshop, showing an overall increase, particularly in probiotic treatment understanding. Analysis of pre and post workshop surveys showed an overall increase in understanding across all members indicated by a positive numeric change, even when there is no rating change (Cayman Workshop Survey Results, evidence folder 09). Many of these techniques are now being implemented by the partner OTs in the field, to support their SCTLD response efforts, and is detailed in Output 2.

Table 4: Change in average rating of participant understanding of various elements of SCTL management options of all participants from before to after the Cayman Islands workshop in August 2022 (n=14).

Topic	Pre-Workshop	Post-Workshop	Numeric Change	Rating Change?
Overall understanding of SCTL management options.	3.94 (Good)	4.64 (Very Good)	0.7	Yes
Understanding of monitoring coral disease treatment efforts	4.15 (Good)	4.5 (Very Good)	0.35	Yes
Understanding of data analysis	3.6 (Good)	4.21 (Good)	0.61	No
Understanding of photogrammetry	2.79 (Fair)	3.46 (Fair)	0.67	No
Understanding of using probiotics to treat SCTL	3 (Fair)	4.36 (Good)	1.36	Yes
Understanding of coral management response planning	3.55 (Good)	4.14 (Good)	0.59	No

The workshop in Miami in June 2023, attended by 19 participants representing five OTs explored the concept of improving reef resilience to coral disease (including SCTL) by managing pressures on reefs. A direct output of the workshop was development of a Coral Reef Resilience Framework which later informed the C-COT SCTL Adaptive Management Plan developed in partnership with C-COT members (evidence folder 06). Partner OTs also presented SCTL monitoring and treatment results for the past year (Monitoring and treatment presentations, evidence folder 10), and Nature2 led an interactive discussion on the future of C-COT, kickstarting the Roadmap process (C-COT Roadmap Report, evidence folder 04).

Another method of training was trialled in Y3, with an OT exchange taking place between Montserrat and the Cayman Islands. Using underspend provided for non-partner OTs to attend the workshop in Y3, a member of the Ministry of Agriculture, Lands, Housing and Environment, the Government of Montserrat spent two weeks shadowing our project leads from the Department of Environment in the Cayman Islands (a Facebook post detailing this exchange is shown in Figure 4). The exchange was deemed very valuable, and C-COT is keen to continue to use this model of learning between OTs going forward.

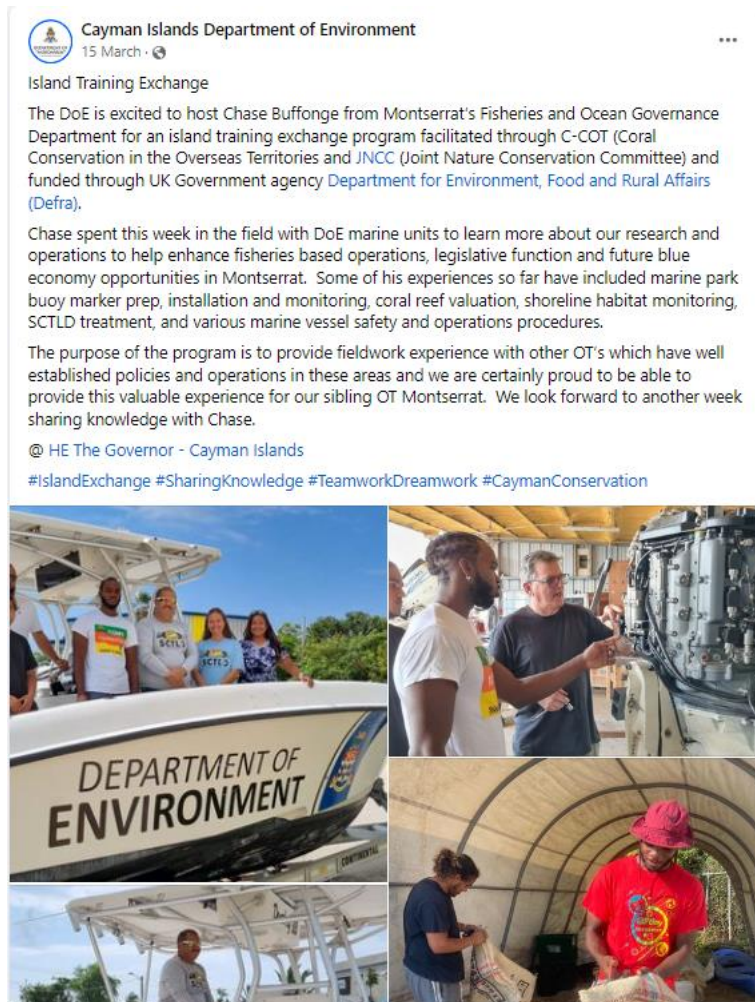


Figure 4. A Facebook post from the Department of Environment, Government of the Cayman Islands sharing the learning exchange <https://www.facebook.com/share/p/rctqibaWbQNk8VoZ/>

Output 2: Optimised treatment and management of SCTL D using best available scientific evidence and expertise.

The spread of SCTL D was reported at each C-COT meeting. Lack of formal monitoring programmes in the OTs presents a challenge for monitoring the status and spread of SCTL D. To address this, every C-COT meeting includes ‘Island Updates’ where a representative from each OT gives a verbal update on the status of SCTL D, fieldwork carried out, and any treatments trialled. Taking on board feedback from the Year 2 Review, status updates of SCTL D from each meeting have been compiled into the SCTL D Baseline Status Report (**indicator 2.1: SCTL D baseline status report each OT partner signed off by PMG by February 2022**) (Meeting 23 Minutes, evidence folder 01; evidence folder 06) alongside interim status updates from meeting minutes to span the entire project period.

Treatment and management of SCTL D remains a challenge for OTs, despite the best efforts of this project and other funding sources. Our approach aimed to provide the latest science and understanding of SCTL D, which forms the basis for the Collaborative SCTL D Treatment and Management Strategy (**Indicator 2.2 Collaborative SCTL D treatment and management strategy agreed by OT partners by March 2022**) (Meeting Minutes 23, evidence folder 01; Collaborative SCTL D Treatment and Management Strategy, Annex 4 & evidence folder 06). The Strategy was first produced in March 2022, and then updated in November 2023, each time being agreed and signed off through C-COT. The report is led by project partner Dr Greta Aeby and compiles the best available science to provide an overview of different treatment strategies for SCTL D and their success rate across the Caribbean region. Current treatment options include the direct application of antibiotics, chlorine, probiotics and other experimental approaches such as the use of honey. The report also outlines the use of decision materials

and processes for managers to use as tools, to decide which SCTL D treatments are most appropriate for treating corals, and when it is best to intervene. Other management options, including (i) mobilising responses from the wider dive community, (ii) biosecurity measures to stop the spread of the disease, and (iii) reducing overall pressures on the reef, all remain crucial to the overall response to SCTL D.

Implementation of the Collaborative SCTL D Treatment and Management Strategy includes **Indicator 2.3 (OT Partners trial at least three SCTL D treatment or management interventions annually)**. This In total eight different treatment options were investigated and trialled throughout the course of the project: probiotics treatments (Cayman, BVI and TCI), honey trials (TCI), chlorine trials (TCI and BVI), Coral Cure D rope method (TCI), non-antibiotic Base 2B (TCI), and antibiotic treatments (Cayman, TCI and BVI) (the antibiotic, non-antibiotic Base 2B, Coral Cure D rope method, and chlorine treatment trails are evidenced in the 'Collaborative SCTL D Treatment and Management Strategy'. Alternatives trials reduced in year 3 due to less SCTL D being present on the reefs, with the widescale bleaching experienced.

An important output of this project is the C-COT SCTL D Adaptive Management Plan (**Indicator 2.4: SCTL D adaptive management plan signed off by C-COT by December 2023**) (Meeting Minutes 45, evidence folder 01; C-COT SCTL D Adaptive Management Plan, Annex 4 & evidence folder 06). This document presents a two-pronged approach to SCTL D management by combining active treatment and rescue of affected corals with managing localised pressures to improve the overall resilience of the reef. This reflects a resilience-based management approach which considers both in-situ and ex-situ treatment of corals alongside resilience of the broader ecosystem. This report is designed to assist coral reef managers and decision makers with decision making around active treatment methods and prioritising pressures to manage to improve the resilience of their reefs, promote recovery and preserve as much biodiversity as possible. To enrich this, project funds were used to commission the creation of an infographic which shows how the range of local pressures on coral reefs interact with each other to decrease overall reef resilience. The infographic is also a standalone communication tool to be used by all members of C-COT and was developed through a collaborative process (RE C-COT Infographic Development.msg, evidence folder 03; Meeting 44 Minutes, evidence folder 01).

In addition to the scientific research highlighted in the Collaborative SCTL D Treatment and Management Strategy, C-COT continues to link into regional and global groups such as the NOAA Caribbean Cooperation group, MPA Connect, AGRRA and the UKOT Conservation Forum Wider Caribbean Working Group (External Meetings and Webinars, evidence folder 11). The running of the C-COT group has shown to be successful in connecting members to scientific expertise and resources to help manage and treat SCTL D. (**Indicator 2.5: Project partners and stakeholders report 25% increased links to scientific research on SCTL D by March 2024**), The results of our end of year survey support this (Figure 5), showing that all respondents rated C-COT meetings were highly effective in achieving this output.

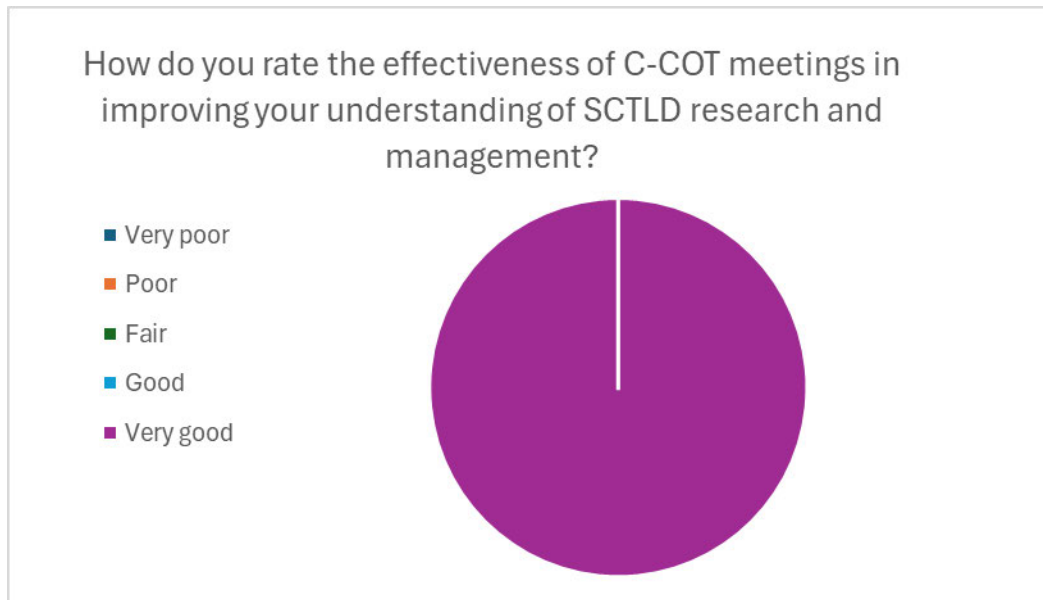


Figure 5. Results of our end-of-project survey rating the effectiveness of C-COT meetings in improving participant understanding of SCTL D research and management (n=10).

When asked how the project impacted member understanding of SCTL D and how this feeds into their own work, half of all respondents to the end of project survey referenced valuing the collaborative element of C-COT, and how this increases knowledge sharing and access to scientific expertise. Four out of ten respondents said that their own understanding of SCTL D has significantly increased, which has directly led them to driving forward SCTL D management efforts in their OTs. Example quote from participant:

“C-COT has significantly informed my understanding of SCTL D, and I’ve been able to use this information to highlight the issue to UK parliamentarians and policy makers supporting OTs in tackling this. We have also included a SCTL D component in one of our collaborative projects in TCI. Overall, we’ve used this threat to raise the urgency of status of the marine environment in the Caribbean UKOTs”

(End of C-COT project survey, evidence folder 05).

The following section details the implementation of the Collaborative SCTL D Treatment and Management Strategy by OT partners. We note the comment in the Year 2 Review that each OT is implementing an individual approach rather than adhering to the project vision of delivering a regional SCTL D treatment approach. In our opinion, the strategy provides the evidence base to guide and inform their own approach. The strategy shares treatment results between OTs and the region to learn from each other. Despite this, it is clear that the OTs are sharing information and learning from each other, and this project will continue to work towards implementing a regional approach.

Project Partner: Department of Environment and Coastal Resources, Turks and Caicos Islands Government

At the start of this project, the use of antibiotic-based treatments were understood to be a successful treatment method for SCTL D, however this comes with the risk of promoting the development of antibiotic resistant bacteria populations within the natural marine environment. As such, the TCI Government chose to adopt a precautionary approach with the use of such materials. In Y1 of this project, the TCI’s Department of Environment and Coastal Resources (DECR) aimed to take advantage of project funding to expand upon local trials of a potential antiseptic treatment developed by Ocean Alchemist. At this time, fellow C-COT member, the Turks and Caicos Reef Fund (TCRF) had already done some local trials and were interested in continuing. Wanting to strengthen relationships and incorporate an experienced team, the DECR aimed to utilize Y1 project funding for such trials. Unfortunately, this planned partnership

was unsuccessful, and these trials did not take place but relationships were strengthened nonetheless. This led to the DECR making adjustments to budget plans.

A major challenge in SCTLD treatment is the lacking or limited visual symptoms of suspected SCTLD infection. Instead, infection is identified in the field through observation of tissue loss of affected colonies. Treatment of suspected infected tissues is conducted using experience, but treatment breaches appear to exist. In attempt to optimize treatment success, the DECR team aimed to test coral fluorescence as an Indicator of infection or coral health. Equipment was procured in Y2, but limited field tests did not provide promising results.

The wider scientific community continued exploring alternative (non-antibiotic) SCTLD treatments, leading to the discovery of a 'probiotic' treatment for Florida corals by Dr Blake Ushijima. Project collaboration with Dr Ushijima supported the TCI's exploration of their own probiotic treatment. Through their fieldwork (Y1/Y2) the DECR team identified local corals which appeared to possess a natural resistance to SCTLD. The DECR team engaged with the TCRF and local dive operators to identify other potential TCI probiotic candidates, however this inevitably highlighted how significantly some coral species populations have been affected by SCTLD and the team was unsuccessful in identifying *Meandrina meandrites* or *Dendrogyra cylindrus* colonies for probiotic sampling. In Y3 of the project, probiotic samples of a *Montastrea cavernosa* colony were exported to Dr Ushijima's lab for initial analysis and isolation. Dr Ushijima's lab have identified a plausible candidate for treatment, and the DECR has prepared lab facilities for ex-situ testing (TCI Probiotics Report, evidence folder 12) and are anticipating beginning their probiotic trials shortly (Meeting 45 minutes, evidence folder 01).

Anticipating significant impacts from SCTLD, the DECR conducted Coral Reef Monitoring fieldwork on a select number of its baseline monitoring sites. This was conducted using the GCRMN methods that had been previously promoted to DECR. Pending completion of the analysis of that data will give some indication as to the impact TCI has experienced as a result of SCTLD and other phenomena. Monitoring targeted sites with higher recorded live coral cover (2019) is most likely to produce results indicating SCTLD impact. Analysis of GCRMN photo-quadrants is on-going as it was later realized how time-consuming such analytical methods are.

During the summer of 2023 the TCI, like much of the Caribbean, experienced a mass coral bleaching event (Meeting 38 minutes, evidence folder 01). Because SCTLD is thermally sensitive, during the peak of the bleaching there were very few active SCTLD lesions for field research or treatments (Meetings 41 and 45 minutes, evidence folder 01). As a result, SCTLD treatment was no longer practical as so few lesions were present. This raised a further question as to why some suspected SCTLD infection was capable of persisting under thermal stress. The DECR collected coral histology samples from corals with suspected SCTLD lesions that were also affected by coral bleaching, which the aim to investigate histopathological differences of SCTLD lesions with and without heat stress. Samples have been collected and will be shipped later in the following months (TCI Histology Photographs, evidence folder 12). Further studies are expected to continue beyond the project. In addition, during the coral bleaching event, the DECR has conducted some coral bleaching and disease prevalence surveys, to quantitatively highlight the low SCTLD prevalence during thermal stress.

From late 2023 to early 2024, the DECR completed bleaching and disease monitoring surveys at 19 sites around TCI. This data can give some indication of the recent impacts TCI has experienced from bleaching and the increased disease occurrence (TCI Bleaching and Disease, evidence folder 12).

Project Partner: Department of Environment, Cayman Islands Government

This project provided the Cayman Islands Department of Environment (DoE) with funding between October 2021 to March 2022 which was used to treat SCTLD using amoxicillin and Base2B. This project contributes to the total response to SCTLD, which has been in conjunction with funding from CSSF and the Cayman Islands Environmental Protection Fund. An overview of the proportion to which the funding has contributed to the SCTLD response in Cayman is shown in Table 5.

Table 5. Proportion of DPLUS 147 for overall DoE SCTL D response

Year 1	Proportion of DPLUS funding in overall SCTL D response
1	24%
2	16%
3	16%

The DoE has two SCTL D emergency response teams to apply the mixture of amoxicillin and Base2B to infected corals: the SCTL D Response Team, which covers Grand Cayman, and the Eastern District Strike Team, which treats corals only in the East End of Grand Cayman (a less accessible part of the island). In 2021, between May and December, 21,821 corals were treated by the DoE, a portion of which was funded by this grant. From July 2021 to February 2022, the DoE's Eastern District Strike Team treated 4,365 corals and provided weekly treatments to the highly susceptible Pillar coral (*Dendrogyra cylindrus*) colonies within their monitoring area on the East End of Grand Cayman. The remaining funding was used to pay salaries of nine trained SCTL D Response Divers, contracted by the DoE.

In Y2 of the project, the response teams carried out weekly monitoring of antibiotic surveys and treatments. The SCTL D Response Team spent 229 days in the field, completing approximately 555 dives and 491 hours under water responding to the SCTL D outbreak in Grand Cayman. In 2022, the SCTL D Response Team treated 19,511 coral colonies, and the Eastern District Strike Team 3,902. The emergency response teams remained active throughout Y3 of this project, shifting focus slightly to high value sites on the South, West and North of Grand Cayman. The total number of corals treated between May 2021 and January 2024 can be found in the Cayman Antibiotic Treatment spreadsheet (evidence folder 12).

The DoE have been testing the success of antibiotic treatments in Grand Cayman on a Natural Reef on the west side of the Island. The results of this long-term survey can be found in the Cayman LHP Coral Species Fate Tracking spreadsheet (evidence folder 12).

In 2023, the team spent 236 days in the field, completed 615 dives, and spent 403 hours underwater, treating 9,145 corals. From January to March 2024, the team spent 50 days in the field, completed 125 dives, and spent 76 hours underwater, treating 1,580 corals. The project's impact is clearly visible in treating over 23 different species with antibiotics at approximately 138 different dive sites around Grand Cayman, highlighting the significant strides made in preserving the island's marine ecosystem. Adding to treatment success, at one high economic, cultural and biological value site in Georgetown GCM that was treated weekly, the coral cover remained stable at ~16% live tissue (Seaview Reef). In contrast, some less frequently treated sites declined to <8% live tissue (Andes Reef).

A number of surveys were also conducted throughout the duration of this project in the Cayman Islands. These surveys, spanning various aspects of the outbreak, have guided response and treatment strategies to optimise best practices and coral survivorship.

- In April and September 2022, SCTL D surveillance surveys were completed around Cayman Brac and Little Cayman at 2 different time periods.
- In September 2022, Coral spawning surveys were completed on the East and West side of Grand Cayman.
- November 2022: Photogrammetry surveys were conducted at 8 sites on Little Cayman and 6 sites in Cayman Brac and 10 sites at 2 time periods in Grand Cayman, establishing baseline monitoring of coral reef habitat, before the possible arrival of SCTL D. These were re-photographed in September and October 2023, and the work is ongoing.
- In September 2023, new long-term, growth-inhibiting photogrammetry tags were installed at 11 dive sites (10x10 meter plots) in Grand Cayman, and surveys were

performed by the SCTL D team at each site between September and October 2023 and again between February and March 2024. Images were then used to model and document reef changes over time, and this work is ongoing to assess the impact of bleaching (Cayman photogrammetry model, evidence folder 12).

- Atlantic and Gulf Rapid Reef Assessment (AGRRA) coral disease surveys were completed at 12 dive sites in the Grand Cayman at 3 time periods. The data collected thus far is being uploaded to the AGRRA database to promote knowledge sharing across the Caribbean region.
- Long-Term Coral Reef Monitoring survey consisting of 50-meter benthic photo transects around all three islands. These surveys consist of 10 permanent photo-quadrats along a 50-meter transect at 24 sites around the three Cayman Islands. Previously, these photographic surveys were done annually, but due to the acute global bleaching in 2023, this has been taken more frequently to assess the extent of coral bleaching, taking benthic photos quadrats before, during and after this severe bleaching event in 2023.

Throughout the project Cayman Brac and Little Cayman have remained free of SCTL D. There has been a strong management emphasis on safeguarding these reefs, including a social media campaign 'Disinfect to Protect' (Cayman Disinfect to Protect, evidence folder 12). This ongoing campaign includes involving the local airline, local boat traffic and live-aboard dive vessels to ensure arriving passengers are aware of the need to disinfect dive and snorkel gear. Currently however it has been reported that an unidentified disease has been spotted on reefs in Cayman Brac and Little Cayman (Meeting 45 minutes, evidence folder 01). The DOE is planning a trip over to the sister islands to investigate this newly reported disease and determine if it can be identified as SCTL D.

In June 2023, mucus samples were taken from stony corals considered to be disease resistant for preparation for probiotic treatment, which included samples from Little Cayman. DOE is looking for alternative treatments for pillar coral (*Dendrogyra*) which does not respond well to antibiotic treatment and are experimenting with an Ocean Alchemist product which is antiseptic based. *Denrogyra cylindrus* (DCYL) or Pillar Coral fragments from 10 known colonies around Grand Cayman were added to two nurseries on the East and West of Grand Cayman with the hopes to preserve genetic tissue. There are currently 12 pillar coral tips in the on-land lab facilities in Grand Cayman (Meeting 45 minutes, evidence folder 01). Through observations, photo evidence, and fate tracking, the progression of SCTL D on these elevated DCYL tips appears to be less significant than on larger colonies located on the substrate. The tips have significantly increased in size over one year, and some have begun to grow over the attachment plate (Cayman DCYL tip growth, evidence folder 12). The nursery has expanded, and there are currently 51 DCYL tips, 54 hanging DCYL fragments, and 39 ACER fragments, a total of 11 unique genotypes, that are monitored and treated weekly at Lighthouse Point on the west side of Grand Cayman.

Introductions to science experts facilitated by the C-COT group and this Darwin Plus project have led to continued relationships and collaborations for the Cayman Islands. The DoE were introduced to Mike Sweet, during a C-COT presentation in meeting 20 (Meeting 20 Minutes, evidence folder 01). This introduction led to the DoE establishing a Coral Spawning Lab in Grand Cayman. This is the lab facility that the pillar coral tips are now residing in. In late August 2023, DoE sent 12 mature corals considered to be SCTL D-free to Professor Andrew Baker at the Rosenstiel School of Marine and Atmospheric Science following discussions at the C-COT Miami workshop. They will be spawned and used in experiments, cross-fertilised with other SCTL D-resistant corals of the same species to investigate the role of coral zooxanthellae in disease resistance, and produced ex-situ F2 generation of corals aiding the restoration of these foundational coral species. They will be used in experiments with cross-breeding and investigating the role of coral zooxanthellae in disease resistance. The DoE has plans to send more corals to this facility in Miami, Florida, in the hopes of preserving adult breeder corals next (Meeting 45 Minutes, evidence folder 01).

Project Partner: Ministry of Natural Resources and Labour, British Virgin Islands Government

The Ministry of Natural Resources and Labour (MNRLI) has used project funds to trial different treatments for SCTLD, which was first discovered in BVI in May 2020. The ministry partnered with the National Parks Trust of the Virgin Islands to administer project funds throughout the project. In Y1 of the project, three treatment sites were set up across Tortola and Virgin Gorda to trial the use of the medicated clay band method, a non-antibiotic treatment which uses a mixture of cocoa butter and chlorine powder which is fastened to the coral using clay (Collaborative SCTLD Treatment and Management Strategy, evidence folder 06). This was applied to corals showing signs of SCTLD and healthy corals of susceptible species, and was compared to untreated colonies as a control. All corals were tagged, photographed, and mapped.

In January 2023 (Y2), more extensive trials were carried out in six sites across Anegada by MNRL in partnership with Beyond the Reef which compared the medicated clay band method with antibiotic treatment: amoxicillin and Base2B, and untreated controls (Collaborative SCTLD Treatment and Management Strategy, evidence folder 06). This trial collected data on coral colonies' biodiversity, density, community structure and size class structure. A full disease assessment was also conducted at each site by Dr. Greta Aeby. The colonies were tagged and mapped on the reef along a transect, and were photographed, measured, and assessed for disease every two weeks. Although chlorine applications appear to slow the disease, antibiotic treatment was shown to be most effective, and antibiotics have been the primary source of treatment. A summary of these findings is included in the Collaborative SCTLD Treatment and Management Strategy (Collaborative SCTLD Treatment and Management Strategy; Annex 4 & evidence folder 06).

Training was conducted by Dr Greta Aeby, on how to obtain, prepare and preserve coral mucus samples, and how to properly ship these samples, in order to send the samples to Blake Ushijima's lab in North Carolina. Time and resource allowing, these samples are to be analysed by Blake Ushijima's lab, so that probiotic samples can be created for and trialled in BVI. During this training session, Dr Aeby also trained divers in histology collection for future samples to be sent for regional analysis.

Between summer of 2023 and November 2023, SCTLD treatment efforts were paused due to extensive coral bleaching due to an El Niño event, and hurricane season. Treatment efforts using antibiotics continued using funding from Unite BVI, with treatment administration from dive operators, local NGO Beyond the Reef, and available volunteers, with guidance from the Ministry.

In Y3, the Government of the Virgin Islands concentrated efforts on understanding reef condition following SCTLD infection and the 2023 bleaching event with Assistance from Dr Daniel Holstein and a team from the Seascape Ecology lab from the Louisiana State University. Reef and benthic communities were surveyed across eleven sites and recorded benthic cover at species level, and fish and marine invertebrate surveys. Photogrammetry was conducted at seven of the eleven sites (BVI Y3 Report, evidence folder 12). Data on bleaching and SCTLD prevalence between September 2023 and March 2024 is provided. This monitoring contributes a more complete picture of the resilience of BVI's reefs to SCTLD and other threats over time.

Output 3: Conceptual Reef Resilience Framework to support the long-term management of coral reefs

The Reef Resilience Framework is a conceptual framework for the management of coral reefs based on the Drivers, Pressures, State, Impacts, Responses (DPSIR) approach. The framework was adapted to focus on pressures experienced specifically in the OTs, and on management actions to address resilience to coral disease. This management approach has additional benefits beyond coral disease, such as SCTLD, with more resilient reefs able to naturally recover from other pressures on reefs. The model was produced through participatory sessions at the C-COT workshop held in Miami in June. This was further refined, presented back to CCOT and the PMG in July. It was formally signed off by CCOT on 5 September 2023

(Indicator 3.1: Reef Resilience Framework is completed and signed off through the C-COT by July 2023; Roadmap Consultation Summary, evidence folder 04).

During discussions, C-COT members explored how best to take forward the framework and unanimously agreed that this framework was best used as a communication and management tool, rather than developed into a computer-based model and thus a pilot, as previously envisioned at the project design and bid stage. A change request was therefore submitted from the original Indicator and output, to avoid the development of another lengthy document. The Reef Resilience Framework was used to underpin the C-COT SCTLAD Adaptive Management Plan (**Indicator 2.4: C-COT SCTLAD Adaptive Management Plan signed off by C-COT by December 2023;** Annex 4 & evidence folder 06) which is a better tool for engagement with decision makers and C-COT members felt would have more impact.

Indicator 3.2: At least three OT project partners have increased knowledge of how to use model framework to improve coral reef management by July 2023 has not been possible to measure at this time unfortunately. Pre- and post- workshop surveys were circulated to workshop participants (Evidence folder 10), but the data for these surveys is held on MS Forms and is tied to a staff member who has left, which means we are currently unable to view the responses. JNCC’s IT support is looking into the issue but has been unable to help as of yet.

Output 4: Project management, monitoring and evaluation

A robust project team and governance structure was established within C-COT meetings (summarised in Table 1, page 3), outlining the participation of partners and non-partner OTs as active members in the C-COT group, agreed by MOU (**Indicator 4.1: MOU developed and agreed by project partners by December 2021;** evidence folder 07).

The PMG is comprised of all project partners and met quarterly throughout the project, a total of 11 times (**Indicator 4.2: Project Management Group (PMG) established, and meetings held quarterly by July 2021.**) throughout the project lifespan (PMG Minutes, evidence folder 02). The PMG signed off the gender methodology which is included in the Monitoring and Evaluation Plan (evidence folder 02). (**Indicator 4.3: Gender disaggregation designed into the project methodology; by February 2022.**) as well as the Monitoring and Evaluation documents (**Indicator 4.4: PMG sign off project Monitoring and Evaluation Plan by March 2022;** evidence folder 02).

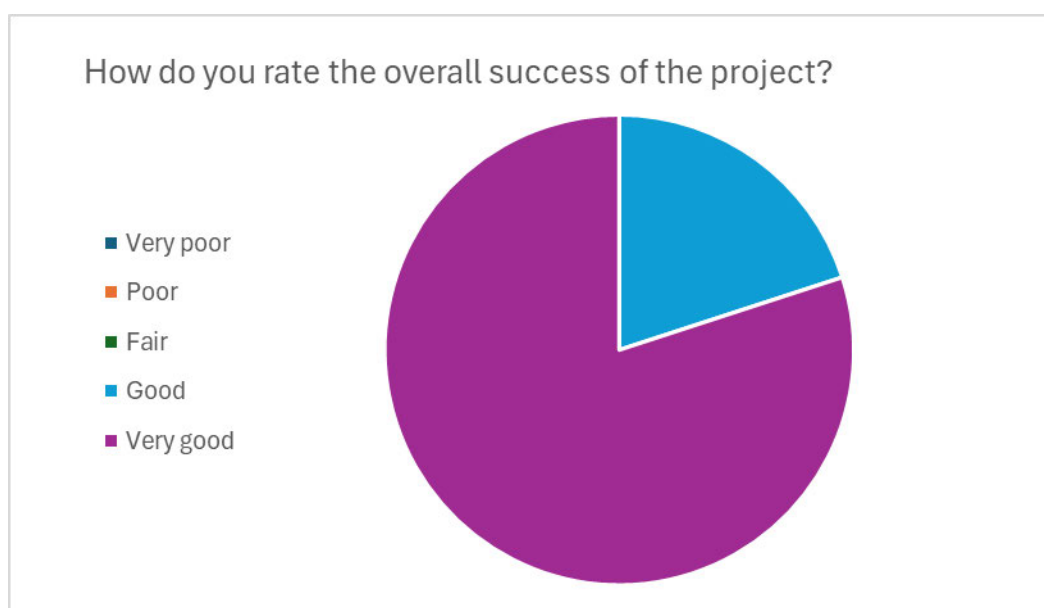


Figure 6. Results of our end-of-project survey rating the overall success of the project (n=10).

3.2 Outcome

We feel we have realised this impact (**Effective collaboration is established that shares information, knowledge, skills, resources and tools that supports evidence-based decisions to address the spread of Stony Coral Tissue Loss Disease in three Caribbean OTs**), as detailed with the following project outcomes.

The establishment of the C-COT group, the regularly held and proctored meetings, and the participation from the group members in these sessions, is proof that the project achieved its outcome of effective collaboration established to share information, knowledge, skills, resources and tools (**Outcome Indicator 0.1: 0.1 Collaboration has been effective between partners and outcomes integrated into Collaborative C-COT SCTL D Adaptive Management Plan by March 2024**). The C-COT group is made up of Government and NGO members from each of the Western Atlantic UK OTs, each bringing separate skills, experience, and knowledge from their region. While C-COT as a collaborative platform allowed the three partner Caribbean OTs (BVI, TCI and the Cayman Islands) to achieve this Outcome, the C-COT group has had additional impact with the three other C-COT member OTs Anguilla and Montserrat in their attempts to monitor and address the spread of SCTL D on their reefs and has assisted in preparing Bermuda in the case that SCTL D does reach their reefs. This collaboration is presented in the C-COT SCTL D Adaptive Management Plan, which provides a high-level overview of the C-COT's aim and project outputs. This document references key information in the C-COT-developed Collaborative SCTL D Treatment and Management Strategy and Reef-Resilience Framework model, both successful outputs of the collaborative group, and introduces the C-COT Roadmap, a plan for the future direction of the group. Two quotes from this document are included below as a testament to the successful collaborative nature of the C-COT group:

“The collaboration has been fantastic and rewarding, it bolstered our resolve to find some meaningful solutions. But a more important and immediate benefit was learning first-hand what the TCI had experienced! Putting that into practice meant we were confidently able to mount our own treatment plan much quicker than would have been possible otherwise.” – Tim Austin, Cayman Islands Department of Environment

“C-COT has been a wonderful tool for bringing together Government and NGOs, researchers, and practitioners. Over the past years, we have been able to work together in ways that were only theoretical before and the success of this working group shows the need for collaborative platforms amongst our territories.” – Alizee Zimmerman, Turks & Caicos Reef Fund

The future of the C-COT partnership is outlined in the ‘Coral Conservation in the UK Overseas Territories Working Group (C-COT) Roadmap’ developed through thorough in-person and virtual consultation with the C-COT group, details a plan for the longer-term, broader partnership aspirations for the group (**Outcome Indicator 0.2: 0.2 Action Plan for longer-term, broader, partnership agreed by March 2024**). Led by group chair Kalli De Meyer from consultations with C-COT members, the document was agreed and signed off by C-COT in March 2024. This document details that the group envisions a shift in theme from predominantly SCTL D focus, to encompass a wider set of reef health concerns (Roadmap Report, Annex 4 & evidence folder 04). With the collaboration proved successful, Defra has committed to fund the group in FY 24-25, with additional funding being sought for future activities going forward.

The three partner OTs have implemented responses to SCTL D using the Collaborative SCTL D Treatment and Management Strategy to guide their activities (**Outcome Indicator 0.3: SCTL D Strategy successfully implemented in BVI, TCI and Cayman Islands by March 2024**). In reality, coral reef management requires investment beyond the funds available within this project so the three partner OTs have used these project funds alongside other funding options to form their overall response. Feedback from the Y2 report mentioning that this was not clear has been taken on board and every effort has been made to clarify the specific impact of this project funding. Feedback from partners suggests that the funding for implementation of their SCTL D response within this project was essential in delivering the wider response.

In the final year of the project, an infographic was created to visually represent the conceptual Reef Resilience Framework developed by the C-COT group into the C-COT SCTL D Adaptive Management Plan (C-COT SCTL D Adaptive Management Plan pages 7-8, Annex 4 & evidence folder 06) (**Outcome Indicator 0.4: The conceptual Reef Resilience Framework is integrated into the C-COT SCTL D Adaptive Management Plan by March 2024**). The infographic (Figure 7), which was developed by a graphic design agency 'Deviate', used reef concerns and impacts identified from the Reef Resilience Framework, to inform the graphic. The framework also informed a chart within the C-COT SCTL D Adaptive Management Plan, detailing priority reef pressures, states of the environment, and the cumulative loss of ecosystem services, all taken from the Reef Resilience Framework, but introduced in a way that was easier to comprehend. Adoption of using the reef resilience approach to coral reef management has the additional benefit of not only addressing coral diseases, such as SCTL D, but also other current threats to reefs, such as climate change and bleaching events.



Figure 7. Reef Resilience infographic depicting the variety of localised pressures which affect coral reef ecosystems in the Caribbean UKOTs.

3.3 Monitoring of assumptions

Assumption 1: Political will remains to support the project.

Comment: MoA's signed by OT cabinets outline high-level commitment and support for the duration of the 3-year project. SCTL D remains a high priority within OT governments, but many other competing priorities may affect staff availability and resources. This assumption has not prevented successful implementation of this project but remains a priority for ensuring future work in this area.

Assumption 2: Partners remain committed and have the capacity to engage in the project.

Comment: This assumption holds, OT partners remain fully engaged in project work. This is demonstrated through active engagement and attendance at C-COT meetings. Meeting recordings make it possible for partners to attend in their own time, as the BVI Project Officer has expressed they do occasionally.

Assumption 3: The work prepared for future bids aligns and is suitable for future funding streams.

Comment: The project has formed the basis of an upcoming Darwin Strategic bid, demonstrating that this assumption holds.

Assumption 4: Experts and on-island Project Officers are available in a timely manner to contribute to discussions.

Comment: This assumption is still correct, evidenced by continued attendance of project officers at C-COT meetings, project management group meetings. Where project officers have

been unable to attend, they have nominated a colleague to attend in their absence, as outlined in the C-COT terms of reference.

Assumption 5: Covid-19 or other natural disasters do not prevent Project Partners/Officers from collaborating at appropriate times.

Comment: Covid-19 and other natural disasters did not prevent project partners from collaborating through remote, online mechanisms and attending C-COT meetings throughout the project.

Assumption 6: Covid-19 or other natural disasters do not prevent in-field training.

Comment: Covid-19 and other natural disasters did not prevent project partners from in-field training throughout the project.

Assumption 7: The partners continue to be able to undertake SCTL D treatment.

Comment: There have been times that external factors such as covid-19 and poor weather conditions have impacted partner's ability to conduct fieldwork. To mitigate this, partners planned fieldwork earlier in Y3 of the project to avoid poor weather, and fostered collaborations with NGOs, dive operators and fisherman (for vessels) involved in the delivery of SCTL D management activities to reduce the demand on limited government staff resources.

Assumption 8: Experts available to support treatment and management of SCTL D.

Comment: Assumption still holds, as demonstrated by the range of experts available to present to C-COT and work with OT partners, as listed in Table 1. In addition, Dr Greta Aeby, a project partner, remains under contract through the project to provide scientific advice to the OTs and delivered face to face training during the workshop in Cayman Island.

Assumption 9: OT project partners have the technical abilities to feed into the model framework design.

Comment: This assumption was not tested due to the change requested submitted, which means that the model framework instead formed the basis of the C-COT SCTL D Adaptive Management Plan. However the Conceptual Reef Resilience Framework was developed by C-COT members at the Y3 workshop in Miami.

Assumption 10: Project remains a priority with OT partners. OTs ensure continued staff and resource availability and engagement.

Comment: This assumption remains; OT partners remain fully engaged in project work. This is demonstrated through attendance at C-COT meetings and PMG meetings and their desire to continue to be involved with C-COT. Partners have also committed staff time and resources to support two in-person workshops which further demonstrates continued engagement.

4 Contribution to Darwin Plus Programme Objectives

4.1 Project support to environmental and/or climate outcomes in the UKOTs

The greatest achievement of this project is the collaborative, regional network that the C-COT group has created, between the UKOTs, and further extended to other Caribbean affiliates. This established network and partnership will assist the UKOTs in the future by keeping OT members up to date on reef status and changes, climate alerts, latest treatment methods and up to date science from around the region.

SCTL D is an imminent and serious threat to biological diversity in coral reef ecosystems in the Caribbean UKOTs. SCTL D was first identified in 2014, and science and treatment options are rapidly evolving and emerging. The space for knowledge sharing and dissemination provided through this project is therefore an incredibly important resource in addressing SCTL D because of its nature as a recent, poorly understood, and serious threat. C-COT has made a wealth of resources available by connecting members with each other to share experiences, as well as to experts and networks outside of the group.

The C-COT group has also facilitated University partnerships and links to regional and global groups. The creation of this regional network, along with capacity building trainings that were administered, will help OT members implement reef conservation solutions more effectively, and more efficiently meet their environmental obligations.

Supporting SCTL treatment and resilience-based coral reef management through this project aligns with UK policy objectives within the UK Overseas Territories Biodiversity Strategy (2014, UKOTBS) and the 25 Year Environmental Plan (25YEP). Strategic priorities under the UKOTBS include providing UK Government support to: “enable data collection on the location and status of biodiversity interests and the human activities affecting biodiversity to inform the preparation of policies and management plans (including baseline survey and subsequent monitoring); and develop ecosystem-based initiatives for the conservation and sustainable use of the marine environment”. A relevant policy area of the 25YEP is: “recovering nature and securing clean, healthy, productive and biologically diverse seas and oceans”. This project also addressed Sustainable Development Goal 14: life below water.

The UK OT Coral Reef Initiative was started to respond to the UK Government’s 25 Year Environment Plan, which states: “Coral reefs are under direct and sustained pressure. The UK’s ambition is to champion and support their conservation and biodiversity in UK and Overseas Territories’ (OTs’) waters and around the world-to work with OTs to encourage the adoption of best sustainable management practice of coral reefs, as well as their associated ecosystems. We want to provide sustainability for fisheries and ensure food security while upholding social and cultural wellbeing.” The project also supports the UKOT Coral Reef Action Plans developed as part of the UK OT Coral Reef Initiative outline priorities for coral reef conservation in the UKOTs. A key priority is improving collaboration across OTs to knowledge share and build capacity to support management action.

Of the partner OTs in this project, the Cayman Islands and British Virgin Islands have had the Convention of Biological Diversity extended to them. This project contributes to these OTs efforts in achieving targets of the Kunming-Montreal Global Biodiversity Framework: 4 (halting human-induced extinction of known threatened species and for the recovery and conservation of species), 8 (minimizing the impact of climate change) and 21 (ensuring the best available data, information and knowledge are accessible to relevant stakeholders to guide management of biodiversity).

This project also supports goals at national levels. Such as in the TCI Vision 2040: ‘SDD 3 – Healthy and Natural Environment and Heritage and Cultural Areas; NC3.1 Good Ecosystems, marine and aquatic resource management’ by supporting the ‘development of management frameworks and increasing management capacity through stakeholder partnerships’. A TCI Environment Strategy is being developed, and DPLUS147 supports objectives: 1) ‘Provide a framework for the sustainable management of natural resources to protect the future of healthy and productive ecosystems at land and sea’ and 3) ‘Facilitate the sharing of data between stakeholders so that the environment can be monitored and managed efficiently’.

The Cayman Island Environment Charter (CI/UK) outlines a commitment from the Cayman Islands Government to ‘Ensure the protection and restoration of key habitats, species and landscape features through legislation and appropriate management structures and mechanism’. DPLUS147 contributes to Cayman Island National Biodiversity Action Plan (NBAP), particularly the Coral Reefs Habitat Action Plan, supporting goals to ‘maintain and manage the variety of habitats, communities and species on coral reefs’ and ‘seek improvement of coral reefs which have been degraded’.

The project is also contributing to the goal outlined in The Green Paper on Environmental Management Climate Adaptation and Sustainable Development for the [British]Virgin Islands to ‘actively promote and advance the restoration of the natural environment’ and the (British) Virgin Islands Climate Change Policy, by increasing the resilience of ecosystems to climate change by reducing the stress on these systems from controllable local impacts.

4.2 Gender equality and social inclusion

The gender split within the C-COT Project Board consists of 60% women. (Table 4).

Recordings of all training and expert presentations have been used to provide accessibility at times convenient for stakeholders. In-person venues have been made accessible for those with physical disabilities, and for the two in-person workshops, specific consideration was given to accommodate those with caregiving responsibilities by taking a flexible approach to planning and timing of sessions, alongside recording sessions for those that are unable to attend. Final project outputs have or will have been made accessible to those with learning, visual or hearing impairments and follow Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018.

Table 5. Table providing an overview of gender equality within the project board and project partner leadership.

Please quantify the proportion of women on the Project Board ¹ .	60%. The project management group is made up of 10 women and 7 men.
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women ² .	100% of project partners are led by women, or which have a senior leadership team consisting of at least 50% women

5 Monitoring and evaluation

There was a strong monitoring process within this project, with outputs and activities and documents being assessed and approved by both the PMG and the wider C-COT group. The Monitoring and Evaluation Plan was written and approved in Year 1 Q4 and is used to guide quarterly project monitoring. The project also retains the Risk Register as a further tool to monitor the progress of the project. The PMG, which is comprised of representatives from each partner institution and meets quarterly is jointly responsible for monitoring and steering the project, ensuring it aligns with the project proposal, and that the project is delivered on time and within budget. Whilst the PMG is a critical component of the monitoring and evaluation process, JNCC takes a leading role in assessing the Monitoring and Evaluation Plan and Risk Register (Monitoring and Evaluation Plan, evidence folder 02).

It was necessary to make a number of changes to the original project design over the course of the project. These changes were captured and approved in 8 formal Change Requests.

The Change Requests included:

- 1) Request form 1
 - a. Due to international travel restrictions and safety concerns as a result of the Covid-19 pandemic, it was proposed that the disease treatment training workshop planned for year 1 be moved to year 2. The resulting change moved the planned in-person workshop dates and costs, including staff time associated with planning, travel and attendance to year 2.
 - b. Minor changes were also proposed, which stayed in the same financial year, but allowed for the adjustment of timelines slightly to account for the late starting and contractual agreement of the project in July 2021, with no financial implications of these changes.

¹ A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

² Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

- c. The final delivery deadline of the Reef Resilience Framework was also delayed to a new financial year, year 2. This project output was delayed due to the need to incorporate related external project outputs and learnings that had been delayed due to Covid-19. Costs and deliverable dates associated with the Reef Resilience Framework were moved from year 1 to year 2.
- 2) Request form 2
 - a. Due to the disease treatment workshop in year 1 moving to year 2, the second workshop planned in Q4 year 2 was moved to Q1 year three to reduce the burden on OT partners in year 2. All workshop costs and staff time associated with planning, travel attendance, were moved to year 3.
 - b. The timing of hurricane season and Covid-19 sickness impacted key diving staff in BVI and TCI, and meant that a portion of direct OT costs associated with SCTLTD management, were not able to be spent in year 1. Therefore, it was requested that direct funding to OT partners for year 1 was moved to year 2.
 - 3) Request form 3
 - a. A shift in project managers was requested, as the previous project lead went on maternity leave.
 - 4) Request form 4
 - a. Treatment and monitoring planned for year 2 in TCI was moved to year 3 due to unforeseen circumstances and the inability to contract a local NGO to complete this work. This change involved the movement of funds across years.
 - b. Due to an increase in demand for human resources in all OTs, the reef resilience framework output was moved from year 2 to year 3. This change involved the movement of funds across years.
 - 5) Request form 5
 - a. A change in staff required a revision to the Signatory panel for project finances.
 - 6) Request form 6
 - a. A change in project lead as the original project lead returned from maternity leave.
 - 7) Request form 7
 - a. A change in output 3 was suggested to change the use of the 'Conceptual Reef resilience framework' from being developed into a bid to produce a management based model to produce a communications tool that would underpin the project output, 'Adaptive Management Plan'.
 - b. The staff time planned in to develop the conceptual model into a bid was proposed to be used to develop the framework into a format more suitable for use as a communications tool and some staff time and overheads costs were moved to Contractor costs to commission an infographic for use as a stand-alone communication tool.
 - 8) Request form 8
 - a. A change in key staff was requested following one staff member leaving JNCC.

6 Actions taken in response to Annual Report reviews

This report has taken on board feedback from the Y2 Review regarding measuring attendance to meetings. Reflecting on how we measure success and what is important for the project, we consider attendance by at least one OT project partner being present as a measure of success. This accurately reflects the importance of partner OT representation to the delivery of this project.

Taking on board feedback from the Year 2 Review, we collated status updates of SCTLTD from each meeting into the SCTLTD Baseline Status Report (SCTLTD Baseline Status Report, evidence folder 06) along with retrospective status updates from meeting minutes in the interim.

The format of this project document has been revised to make it more user-friendly, as suggested. However significant resource to reform this document is not available. Effort has also been put towards increasing the quality and organisation of evidence to act as means of verification of the project logframe.

We noted the comment in the Year 2 Review that each OT is implementing an individual approach rather than adhering to the project vision of delivering a regional SCTLTD treatment approach. In our opinion, this is due to limited capacity in the OTs. However, it is clear that the OTs are sharing information and learning from each other and this project has worked toward implementing a regional approach.

All feedback on Annual Reports was discussed with partners in PMG meetings. For example, at the PMG in November 2023 following Y2 Darwin feedback, JNCC asked for partners to contribute more data into the Collaborative SCTLTD Treatment and Management Strategy, and take stock of any training needs, and recommend any relevant experts to attend meetings.

7 Lessons learnt

In terms of successes of the project, the collaborative aspects and increased communication, guest speaker presentation, regional resources being provided, trainings and in-person workshops, and group discussions proved to be very beneficial and were some of the main positive attributes of the project. This being said, there were aspects of the project which left room for improvement, mostly stemming from capacity restraints and increased project load in the UKOTs.

C-COT Meetings:

The meeting platforms proved very beneficial, and promoted high engagement and group member interaction, as facilitated by the meeting chair. We do not always achieve full attendance for these meetings, due to meeting conflicts and high workloads, but guest speaker presentation recordings and meeting minutes are provided to C-COT members within approximately one week of each meeting via the Newsletter (Newsletters, evidence folder 13). Many C-COT members use this as a way to stay up to date on C-COT business if they are unable to attend a monthly meeting. Organising regularly occurring, engaging meetings, enabled the C-COT group to remain well connected, to get a quick snapshot of what was occurring on other OT reefs, to discuss observations they had or issues they were facing, and to discuss regional networking opportunities. There is an 'island updates' portion included in each C-COT meeting, which allows for each OT (including both Government and NGOs) and other C-COT members to give general updates. As needed, the chair of the group will prompt discussions and ask questions during these island update sessions and will spend more time on this aspect of the meeting agenda, if further detail is required that week/if there is time in the meeting ('Island Updates' in Meeting Minutes, evidence folder 01).

The C-COT meetings offered a great platform to bring in visiting guest speakers who had knowledge to share on SCTLTD, general reef conservation and innovative monitoring and research techniques, and provided opportunities for the group to address general business and remind members of important dates, upcoming workshops, outputs or reports needing to be reviewed, etc. The implementation of regular meeting sessions, with a set schedule that is made clear to all group members is highly recommended (Table 6). The group also schedules future meeting dates during a meeting session, which has proved to be quite affective for spotting any group conflicts. Meeting dates are typically planned three months in advance to allow time to source speakers.

Table 6. Example of C-COT meeting speaker schedule sent out in weekly newsletter.

Session	Speaker 1	Speaker 2
12 th March 2024	Prof. Andrew ██████ (University of Miami)	Steve ██████ (The Nature Conservancy)
	Overview of current project work, and an example of work done in a UKOT.	Coral reef mapping work using drone technology

26 th March 2024	Dr. Gretchen [REDACTED] [REDACTED] (CCMI)	Reef Renewal [REDACTED]
23 rd April	RESEMBID project Dr. Gareth [REDACTED] (Bangor University) Presentation of current research	Restoration in practice SPAW Organisation

C-COT Chair and Secretariat:

The roles of the C-COT chair and the group secretariat have been immensely useful and beneficial in improving the structure and organisation of the group and increasing group member engagement. In the end of year survey responses received from C-COT members, the level of organisation of the project was given a 'good' or 'very good' response rating from all group members who submitted surveys (Figure 8). We had originally envisaged that towards the end of the project, the secretariat function could be transferred to one of the OT partners or C-COT members. The consultations around the C-COT Roadmap revealed however, that C-COT members do not currently have the capacity to take on this responsibility and value JNCC and Kalli De Meyer acting in this role.

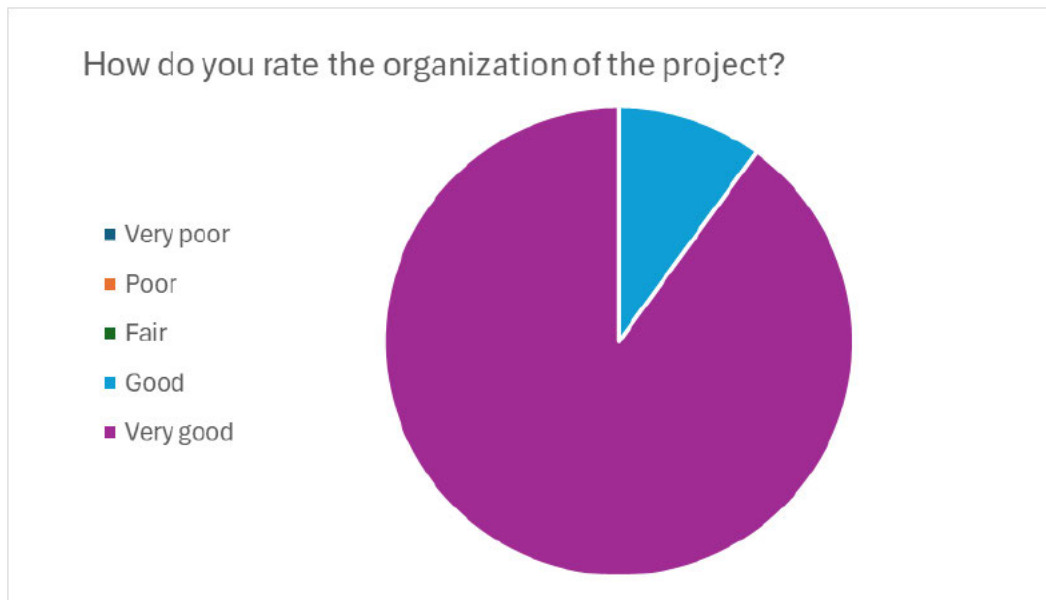


Figure 8. Results of our end-of-project survey rating the organization of the project (n=10).

The level of organisation from the 'solid communication and information from the JNCC project management team' was commended (End of project survey, evidence folder 05). These designated roles allowed for the C-COT chair, the secretariat and the project manager to engage in weekly planning meetings, where they could discuss meeting agendas, potential meeting speakers, regional collaborations and general logistics of the group (Planning Meeting Minutes, evidence folder 14). This emphasis on forward planning and organisation meant that communications to C-COT members were streamlined, and C-COT meetings were well planned out and had set agendas which were distributed to the C-COT group approximately one week before the meeting date (Newsletters, evidence folder 13). The role of the secretariat ensured that someone would be regularly responsible for taking meeting minutes and distributing this information to the group and would be responsible for general group logistics. The C-COT chair position was extremely beneficial in facilitating group conversations at C-COT meetings, providing regional expertise, and ensuring the flow and timeliness of meetings. The C-COT secretariat, project manager and chair were all designated individuals which C-COT members could approach with any questions or concerns, ensuring that there was more than one individual that members could voice queries to.

C-COT Newsletter:

The C-COT newsletter proved to be extremely useful in providing consistent relevant information to the C-COT group, in lieu of meetings. The newsletter was sent out weekly (apart from weeks with meetings scheduled), and included links to both C-COT and regional meeting recordings and minutes (DAC, AGRRRA, etc.; External Meetings and Webinars, evidence folder 11), to upcoming relevant events (conferences, virtual workshops), recently published relevant papers and other resources, future meeting agendas, a snapshot of upcoming meeting dates and speakers, and general updates and requests for information needed from C-COT members. These newsletters can be referred back to when looking for specific resources (evidence: Newsletters).

While very useful for distributing large amounts of important and necessary information, these newsletters were quite time consuming to put together, requiring a dedicated individual (the group secretariat) to devote some time each week to this. This however did prompt the newsletter team to stay up to date on regional meetings, events, and resource updates, to provide this information weekly to the group.

Due to capacity and time constraints, most of the newsletter information stems from regional resources provided by the C-COT secretariat. While this was addressed in the Y2 report, we have still not managed to increase C-COT member involvement with the newsletter, which is understandable considering OT workloads. Rather, what we have begun doing, and would like to continue in the future, is asking C-COT members directly for relevant updates or successes to share and showcasing this information on the newsletter platform.

In-Person Workshops:

The in-person workshops were a great way to further increase C-COT group connection and collaboration, to focus on workshop themes such as SCTLID identification and treatment training, or future plan Roadmap development, and to host guest speakers. While time consuming to plan and manage, and accounting for a bulk of the project costs, the workshops were ultimately very fruitful and helped to establish strong partnerships between OT members. Consultations around the C-COT Roadmap suggest that one in-person meeting a year is important in maintaining relationships and keeping momentum in the group.

Regional Resources:

Engaging with other networks is extremely important but can be very time consuming. This requires a dedicated point of contact and open communication and collaboration to ensure success. This was mostly the responsibility of the C-COT secretariat, and according to final survey responses from C-COT members, this easy access to summarised regional resources was quite useful (End of project survey, evidence folder 05).

Team's Platform:

The Team's platform has proved especially challenging for some of the group and has been brought up throughout the project duration. However, due to JNCC regulations, we are currently unable to shift informational platforms. The team's platform is a great database to store meeting minutes and recordings, partnership agreements, presentations and regional resources; in a way that should be available to all members. It has been recommended in one of the final year responses, that an explanation/virtual tour be given regarding SharePoint/teams, to ensure that all team members are familiar with where various resources are stored on the platform (End of project survey, evidence folder 05). This is something that we plan on scheduling in to one of our upcoming C-COT meetings.

Communication:

It can at times be difficult to receive responses from C-COT members. For this reason, we have begun utilising targeted messaging and one-on-one communications with individuals, which has proved more effective in receiving responses. It has also been useful to break up messaging and correspondence, so that some things can be easily addressed. For example, when developing the C-COT infographic with an external design agency, short, manageable questions were asked individually of each OT group (NGO and Government), resulting in a high level of engagement and a rapid response rate (RE C-COT Infographic Development.msg,

evidence folder 03). Some of the C-COT members have also indicated that they prefer to communicate over WhatsApp when appropriate. This medium is often used to follow up with C-COT members and to send deadline reminders. WhatsApp is also often used to communicate with the C-COT chair in a timely and efficient manner.

In addition, at times one-to-one meeting consultations have been easier to schedule and get full attendance at versus PMG meetings and full C-COT meetings, therefore at times, these directed meetings have been chosen to ensure necessary information is exchanged with a C-COT member OT or partner OT.

High Demand for Partner and OT Member Time

Unfortunately, end of Darwin project year timing often coincides with financial year deadlines in the partner and member OTs. This, as well as on-island workshops and demands from other projects, make for busy periods which can delay response times, and the ability of OT members to provide feedback on outputs and reports, and to attend C-COT meetings. This is controlled for as best as possible, by providing at least a two-week window for report and output feedback, and by being flexible in terms of individual meeting dates and providing C-COT meeting recordings and minutes.

The high demand on partner and OT member staff time is increasing as new initiatives such as the Blue Belt Programme expand their reach in the partner OTs. This has been a challenge throughout the project which has been managed by providing flexibility, working around OT schedules, and trying to limit any unnecessary correspondence sent to OT members.

JNCC has been increasing its communication with Blue Belt Programme representatives, and will be initiating a liaison post, to ensure that there is not duplication between work from JNCC and the Blue Belt Programme, hopefully lessening this strain on OT members and ensuring time is not wasted. JNCC has also recently established an OT lead role within their International Implementation team. This role will remain up to date on JNCC projects and communications with UKOTs, including the C-COT member OTs, and will try and ensure that communications so that we are limiting JNCC's demand on the OT's time.

Several main recommendations for similar projects are recommended below:

- Develop a strong and responsive secretariat and allocate sufficient staff time;
- Foster transparent communication and feedback from the group throughout the project;
- Have a neutral Chair and/or facilitator chairing/facilitating a diverse group of stakeholders i.e. not JNCC in this case;
- Allow flexibility so that partnerships and engagement can evolve to respond to emerging threats and pressures.

8 Risk Management

The project adopted the Darwin Plus Risk Management Template in 2023 to address risks with the Project Management Group (Risk Management Framework, evidence folder 02).

Over the project, JNCC has experienced some staff turnover, with key skills lost. New staff were hired to work on the project, and fill the position lost, and in the meantime, resources were allocated from other areas of the organisation. In the last year of the project, the project manager returned to the project following maternity leave with a strong handover from the cover provided in her absence, bringing some resilience back to the project. Whilst JNCC has effectively managed these risks, they have resulted in some continuity issues between project years which were reviewed and addressed in the final stages of the project.

Lack of capacity (and some turnover in staff, thus maintenance of skills) remains a challenge in the UKOTs, which is not unexpected and has been identified all through the project as a risk. However, as the FCDO's Blue Belt Programme has expanded in two of our three partner OTs, this challenge has increased due to growing demand on the UKOTs. Darwin Plus Local has also expanded its reach in the UKOTs, with many ongoing projects in play, and while this certainly has its benefits, particularly in scoping for potentially larger project work, it has also

impacted NGO and Government capacity to participate in C-COT on a regular basis. This is a constant challenge in the UKOTs but strategies to help address these challenges are constantly being considered. For example, to help alleviate some capacity constraints in the BVI, a University Lab department focusing on SCTLD monitoring in the US Virgin Islands (USVI), were contracted to complete some monitoring work with the dive team in BVI (More details in Section 2). Attendance at C-COT is under constant review with bi-laterals as needed.

The Caribbean has recently experienced a mass bleaching event, just announced as the fourth global bleaching event in history. While this has resulted in lower SCTLD prevalence, this event is a harsh reminder of the risk that climate change poses to the coral reef ecosystems in the Caribbean, and the role that local reef impacts, environmental factors and diseases can play in exacerbating this. The lower disease prevalence has meant that disease treatments were not required initially, and not at the same frequency, however as expected, the disease re-emerged following eventual seawater cooling. Because the disease prevalence reports have been only steadily increasing, this could be managed effectively by project partners and C-COT members and was ultimately not a risk to project spend (SCTLD Baseline Status Report, evidence folder 06).

9 Sustainability and Legacy

Over the course of the Darwin Plus funding, the project has gained significant importance and public recognition within the project partner OTs, and in the other member OTs. A C-COT workshop was held in the Cayman Islands in August 2019, which involved an event, 'Coral Fest', which brought in approximately 500 members of the public, as well as local government members. This was an event focused predominantly on spreading knowledge on SCTLD identification, impact and treatment efforts taking place in the Cayman Islands, but also featured member OT countries, and their efforts monitoring and combatting SCTLD on their own reefs (Coral Fest Press Release, evidence folder 15). There was strong public engagement around this event, and it helped to raise the profile for the project in the Cayman Islands.

Because SCTLD was such an emerging threat, with a more deadly spread than has been experienced with other coral diseases in the Caribbean, there has been more public engagement and connection with the topic, therefore making local communications regarding the project more effective, particularly in the partner OTs

Partner OTs have increased their capacity to conduct SCTLD management due to the provision of funds for these activities provided through MoAs and have enabled NGOs, dive operators and volunteers to be funded to carry out further activities.

In the Cayman Islands, the Darwin Plus funding prompted 'in-kind' match funding provided by the Cayman Islands Government. This in-kind funding allowed for a coordinator role to be established, dealing primarily with SCTLD monitoring and treatment. Two strike teams were also established (a DOE-led team and an East-End team), focusing primarily on SCTLD and bleaching response and monitoring in the Cayman Islands. The DOE-led strike team is still operating, with plans to continue. This strike team and match funding also led to two full-time posts being created for two boat captains/operations employees, funded by the Cayman Islands Government. Darwin funding helped support SCTLD monitoring and treatment efforts in the Cayman Islands, and provided a collaborative, knowledge-driven platform to help inform efforts that the SCTLD response coordinator and strike teams would take.

The project's main intended benefit was collaboration between the Caribbean Western Atlantic OTs, to share knowledge on coral reef monitoring and management, particularly pertaining to SCTLD. The C-COT group funded by this Darwin Plus project has indicated they are eager for this collaboration to continue, either with limited resources allocated or through another Darwin Plus project (Roadmap Report, evidence folder 04). The increased collaboration and communication between Caribbean Western Atlantic OT members is a direct result of project success, and future collaborations are likely to continue. The project has also increased collaboration and communication between government and NGO members in the Western Atlantic UKOTs, partnerships which are likely to continue post-project, and to provide opportunities for future collective work.

In addition, this project has put C-COT members in contact with various regional contacts and resources (Andrew Baker, Gareth Williams, Blake Ushijima, Seascope Ecology Lab, etc.) which also have the potential to continue into the future and further expand upon coral conservation work in the OTs. C-COT has also established a close working relationship with NOAA's Caribbean Co-operation Team, NOAA's Disease Advisory Committee, and the Global Coral Reef Monitoring Network Steering Committee.

There should be no change to project staff and resources. The coordinator post funded by this project in the Cayman Islands has recently been vacated and there are no plans to hire a replacement, making this loss of post funding irrelevant. Project staff and resources in the OTs will be redistributed to reflect the reduced project workload, but there is no lack of work to be completed in the OTs.

Defra has agreed to fund a down-scaled version of the project until March 2025 (Coral Conservation in the UK Overseas Territories 24-25, evidence folder 16) to ensure that C-COT meetings and resource distribution can continue, and that the collaboration of the UKOTs is further supported.

At the C-COT Workshop in Miami in June 2023, a section of the agenda was dedicated to discussing and planning for the future of C-COT, as well as potential funding opportunities for the project (Day 4 Miami Workshop Agenda, evidence folder 10). During this session, a preliminary Roadmap detailing the potential future of the group was developed. This Roadmap was further developed through individual consultations with C-COT members, and the future aspirations for this group to continue were clear (Roadmap Report and Consultation Summary, evidence folder 04).

10 Darwin Plus Identity

There is a good understanding of the Darwin Plus funding stream within the partner OTs and the other OT C-COT members, with a range of projects having been funded by it over the years. Wherever possible, the project has publicised the Darwin Plus scheme by including the logo on project outputs (Reports and Publications, evidence folder 06; Figure 9), outreach materials (Conference Poster and CCRWG DarwinPlus Leaflet, evidence folder 15), in the weekly project newsletter distributed to C-COT members (Newsletters, evidence folder 13), and at in-person events (Figure 10). When posting on social media, we have linked posts to Darwin Plus handles and have recognised the contribution from the Darwin Plus (Figure 11).

C-COT Members:



Anguilla



Bermuda



Cayman Islands



Montserrat



Turks and Caicos Islands



British Virgin Islands



C-COT has been funded through the Darwin+ grant scheme, with project partners: Kalli De Meyer, Dr Greta Aeby, the Department of Environment (Cayman Islands), the Department of Environment and Coastal Resources (Turks and Caicos Islands), the Ministry of Natural Resources (BVI), and the Joint Nature Conservation Committee



Figure 9. Backpage of C-COT SCTL Adaptive Management Plan showing all member logos and the Darwin Plus logo.



Figure 10. Signs distributed around the venue at the Cayman Workshop in August 2022 displaying the Darwin Plus logo.

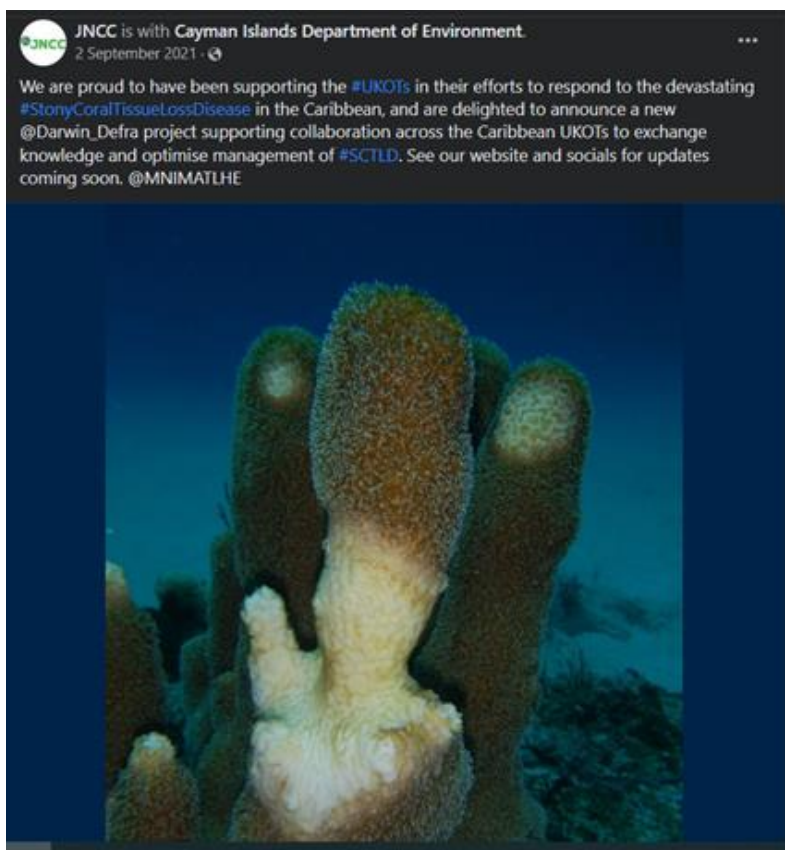


Figure 11. Social media post from 06/10/21: announcement highlighting Darwin initiative membership and linking to the Darwin Plus Facebook page.

The C-COT group has also hosted presentations from past Darwin Plus Local projects (e.g Meeting 47, minutes in evidence folder 01) and has scheduled more of these guest presentations in the future. Through these project communications, presentations and outputs, Darwin Plus has been recognised throughout as funding a distinct project which is continuing the funding for the C-COT working group as part of DPLUS147. This same messaging is present on the [JNCC webpage](#) providing further background information on the project and the C-COT group. The project partners are aware of the distinct project being funded by Darwin Plus, as evidenced through PMG meeting discussions (PMG Minutes, evidence folder 02), and end reporting documents requested from the group.

11 Safeguarding

The JNCC safeguarding policy has recently (2023) been updated, taking onboard feedback from colleagues (Safeguarding Policy, evidence folder 17). To keep it in line with important priorities as they become clear in safeguarding, the policy is reviewed annually. Any safeguarding issues that are identified will be dealt with in a confidential and speedy manner with key trained staff identified within JNCC that project staff can ask for confidential advice. An overview of the JNCC policy is also undertaken by the JNCC Audit and Risk Assurance Committee (ARAC) board regularly and changes are made where necessary to keep it current and at the heart of every project.

Has your Safeguarding Policy been updated in the past 12 months?	Yes/No
Have any concerns been investigated in the past 12 months	Yes/No

Does your project have a Safeguarding focal point?	Yes/No Chris [REDACTED] [REDACTED]	
Has the focal point attended any formal training in the last 12 months?	Yes/No	
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 0% Planned: Four project staff have identified safeguarding training as a priority	
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses. N/A		

12 Finance and administration

Project expenditure

Project spend (indicative) since last Annual Report	2023/24 Grant (£)	2023/24 Total actual Darwin Plus Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs	[REDACTED]	[REDACTED]	[REDACTED]	
Consultancy costs				Kalli [REDACTED] and Greta [REDACTED] costs counted in project staff
Overhead Costs				
Travel and subsistence				Extra funding was secured to cover non-partner travel costs. A few attendees were unable to attend with late notice, which meant the cost was slightly lower than anticipated.
Operating Costs				
Capital items				
Others				The budget was set at the time of the project proposal just slightly under the [REDACTED] limit allowed, but recent quotes revealed a project audit to be much more expensive than anticipated. This additional cost will be covered in-kind by JNCC
TOTAL				194,773

Staff employed (Name and position)	Cost (£)
Jane Hawkridge, JNCC (Project Oversight)	[REDACTED]
Alexandra Cunha/ Bryony Meakins, JNCC (Project Leader)	[REDACTED]

Abbie Dosell/ Sabrina Weber, JNCC (C-COT Secretariat & Project Officer)		
Sara De Giorgio, JNCC (Project Support)		
Kalli De Meyer, Nature 2 (C-COT Chair)		
Greta Aeby (Coral Disease Advisor)		
Alexander McLeod, DECR		
Argel Horton, MNRLI		
Timothy Austin, DoE		
Croy McCoy, DoE		
TOTAL		

Consultancy – description and breakdown of costs	Other items – cost (£)
Deviate Design, infographic	
Margaret Walters, University of Washington Probiotic sample preparation	
Kalli De Meyer	
Greta Aeby	
TOTAL	£3479.32

Capital items – description	Capital items – cost (£)
N/A	
TOTAL	

Other items – description	Other items – cost (£)
Project audit	£1800
TOTAL	£1800

12.1 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
In-kind contribution from JNCC to cover additional staff overheads, reporting and audit costs.	
In kind contribution from the Government of the Cayman Islands, Department of Environment	
In-kind contribution from the Government of the Turks and Caicos Islands Department of Environment and Coastal resources	
In-kind contribution from the Government of the British Virgin Islands, Ministry of Environment	
FCDO CSSF funding to cover non-partner costs to C-COT workshop in the Cayman Islands in Y2	

Defra, additional funds to cover non-partner costs to Miami C-COT workshop and fund C-COT learning exchange for Montserrat staff member in Y3	
TOTAL	£1,033,349.89

Source of funding for additional work after project lifetime	Total (£)
Defra	50,000
TOTAL	£50,000

12.2 Value for Money

DPLUS147 established a working group that has delivered an effective collaboration to deliver a coordinated response to an emerging threat to the reefs in the Caribbean, providing a partnership and strengthened relationships between the OTs. The working group has committed members and a core team of staff (JNCC, Nature 2) to deliver the secretariat. The project has delivered two in-person workshops that have cemented relationships between OTs, the scientific community and the wider region. The funding received from Defra before DPLUS 147 was awarded, allowed the concept of the working group to be tested, relationships to be started and meant that when this project started, we were able to hit the ground running.

The project has been used to help deliver value for money by aligning with other projects and deliver wider benefits to the wider C-COT group, such as the CSSF funded projects, 'Implementing Coral Reef Action Plans' which ran in the financial year's 2021-2022 & 2022-2023. This has provided value for money by increasing participation beyond the core project team at the two project workshops to non-partner OTs and has provided the funds to be able to facilitate a learning exchange in year 3.

All procurement has been undertaken following JNCC's procurement policies, that deliver effective value for money.

13 OPTIONAL: Outstanding achievements of your project (300-400 words maximum). This section may be used for publicity purposes.

I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section

DPLUS147 funded the establishment of the Coral Conservation in the UK Overseas Territories (C-COT), in response to the emergence of an aggressive and invasive coral disease. The group brings together government departments, non-governmental organisations (NGOs), and academic institutions from the six Caribbean Western Atlantic UK Overseas Territories (OTs): Anguilla, Bermuda, the British Virgin Islands, the Cayman Islands, Montserrat and the Turks and Caicos Islands.

The C-COT partnership helps to foster cross-OT and regional collaboration with countries in the Caribbean, creating opportunities for learning exchanges, project funding, University connections, and external workshops. It provides working group members with the best available science, project outputs, management strategies, and shared approaches to address both current and future coral disease outbreaks on their reefs.

"C-COT has been a wonderful tool for bringing together Government and NGOs, researchers, and practitioners. Over the past years, we have been able to work together in ways that were only theoretical before and the success of this working group shows the need for collaborative platforms amongst our territories." – Alizee Zimmerman, Turks & Caicos Reef Fund



Figure 12. C-COT members at the Darwin plus funded SCTLTD treatment and management workshop in the Cayman Islands in 2022.

14 References

Alvarez-Filip L, González-Barríos FJ, Pérez-Cervantes E, Molina-Hernández A, Estrada-Saldívar N. Stony coral tissue loss disease decimated Caribbean coral populations and reshaped reef functionality. *Communications Biology*. 2022;5(1).

The Nature Conservancy. Caribbean Corals: Large-Scale, Long-Term Reef Conservation. Nature.org. Accessed May 10, 2024.

<https://www.nature.org/content/dam/tnc/nature/en/documents/Caribbean-Coral-Fact-Sheet.pdf>

Annex 1 Project’s full current logframe as presented in the application form (unless changes have been agreed)

Please insert your project’s logframe (if your project has a logframe), including Indicators, means of verification and assumptions. N.B. if your application’s logframe is presented in a different format in your application, please transpose into the below template. Please feel free to contact BCF-Reports@niras.com if you have any questions regarding this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: Effective collaboration and capacity building through partnerships established to support the UK OTs to deliver shared actions for the protection, restoration and management of coral reefs</p>			
<p>Outcome: Effective collaboration is established that shares information, knowledge, skills, resources and tools that supports evidence-based decisions to address the spread of Stony Coral Tissue Loss Disease in three Caribbean OTs.</p>	<p>0.1 Collaboration has been effective between partners and outcomes integrated into C-COT SCTL D Adaptive Management Plan by March 2024</p> <p>0.2 Action Plan for longer-term, broader, partnership agreed by March 2024</p> <p>0.3 Collaborative SCTL D Treatment and Management Strategy successfully implemented in BVI, TCI and Cayman Islands by March 2024</p> <p>0.4. The conceptual Reef Resilience Framework is integrated into the C-COT SCTL D Adaptive Management Plan by March 2024</p>	<p>0.1 Coral Conservation in the UK OTs (C-COT) agreed programme of work delivered.</p> <p>0.2 Collaborative actions, Best Practice and Conceptual Reef Resilience Framework incorporated into Action Plan</p> <p>0.3 Progress reports to PMG</p> <p>0.4 C-COT SCTL D Adaptive Management Plan signed off by PMG and circulated to C-COT members</p>	<p>Political will remains to support the project.</p> <p>Partners remain committed and have capacity to engage in the project.</p> <p>Covid-19 or other natural disasters do not prevent Project Partners/Officers from collaborating at appropriate times.</p> <p>The work prepared for future bids aligns and is suitable for future funding streams</p>

<p>Outputs:</p> <p>1. Collaborative partnership to optimise the treatment and management of Stony Coral Tissue Loss Disease (SCTLD) established</p>	<p>1.1 At least ten Coral Conservation in the UK OTs (C-COT) meetings annually</p> <p>1.2 Agreements in place with at least 3 regional and sub-regional bodies and/or scientific experts with the C-COT by no later than December 2021</p> <p>1.3 On-island project officers identified and operative in each OT no later than October 2021</p> <p>1.4 C-COT members engage well at two workshops and/or training events by end of March 2024</p> <p>1.5 At least two Officers per OT trained report increased understanding in SCTLD management options by April 2023</p>	<p>1.1 C-COT Meeting minutes recorded and shared with group.</p> <p>2.1 Formal or informal agreements, where appropriate, and meeting minutes of the C-COT</p> <p>3.1 On-island project officers identified in project partner MOU</p> <p>4.1 Attendance by key staff from all relevant OTGs at training events, and workshop/event evaluation questionnaires completed.</p> <p>5.1 Pre and post-training surveys, and training records for BVI, TCI and Cayman Island staff</p>	<p><i>Assumptions:</i> Experts and on-island Project Officers are available in a timely manner to contribute to discussions.</p> <p>Covid-19 or other natural disasters do not prevent Project Partners/Officers from collaborating at appropriate times.</p> <p>Covid-19 or other natural disasters do not prevent in field training.</p> <p><i>Mitigation:</i> C-COT schedule is determined by needs of group and communicated well in advance.</p> <p>Training can be moved online if situations arise that prevent travel.</p>
<p>2. Optimised treatment and management of SCTLD using best available scientific evidence and expertise</p>	<p>2.1 SCTLD Baseline Status Report each OT partner signed off by PMG by February 2022</p> <p>2.2 Collaborative SCTLD Treatment and Management Strategy agreed by OT partners by March 2022</p> <p>2.3 OT Partners trial at least three SCTLD treatment or management interventions annually.</p>	<p>2.1 Collaborative SCTLD Treatment and Management Strategy & plan agreed by C-COT</p> <p>3.1 Annual reports published on website and presented to Project Management Group</p> <p>4.1 Regional adaptive management strategy published on website</p>	<p>The partners continue to be able to undertake SCTLD treatment.</p> <p>Experts available to support treatment and management of SCTLD</p>

	<p>2.4 C-COT SCTLD Adaptive Management Plan signed off by C-COT by December 2023</p> <p>2.5 Project partners and stakeholders report 25% increased links to scientific research on SCTLD by March 2024</p>	<p>and presented to Project Management Group.</p> <p>Project questionnaire sent through C-COT</p>	
<p>3. Conceptual Reef Resilience Framework to support the long-term management of coral reefs</p>	<p>3.1 Reef Resilience Framework is completed and signed off through the C-COT by July 2023</p> <p>3.2 At least three OT project partners have increased knowledge of how to use model framework to improve coral reef management by July 2023</p>	<p>3.1 Reef Resilience Framework endorsed by C-COT and incorporated into C-COT SCTLD Adaptive Management Plan (0.2)</p> <p>4.1 Changes in project partner survey responses assessed and reported to PMG.</p>	<p>Assumptions: OT project partners have the technical abilities to feed into the model framework design.</p> <p>Mitigation: Project training planned in Y2 will include modelling background.</p>
<p>4. Project management, monitoring and evaluation</p>	<p>4.1 MOU developed and agreed by project partners by December 2021.</p> <p>4.2 Project Management Group (PMG) established, and meetings held quarterly by July 2021.</p> <p>4.3 Gender disaggregation designed into the project methodology; by February 2022.</p> <p>4.4 PMG sign off project Monitoring and Evaluation Plan by March 2022</p>	<p>4.1 Signed partner MOU's available in project file structure.</p> <p>5.1 Minutes of PMG meetings circulated to project partners and available within project files.</p> <p>6.1 Gender methodology integrated into the Monitoring and Evaluation report, signed off by PMG.</p> <p>7.1 Signed off Monitoring and Evaluation Plan by PMG from meeting minutes shared with partners.</p>	<p>Assumptions: Project remains a priority with OT partners. OTs ensure continued staff and resource availability and engagement.</p> <p>Mitigations: Project risks and assumptions will be assessed and addressed at PMG meetings and as outlined in the M&E plan.</p> <p>High level conversations continue to raise profile and need for the project.</p>

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

Output 1:

- 1.1 C-COT meet for project kick-off meeting;
- 1.2 Agree terms of reference and meeting scheduling and frequency;
- 1.3 Deliver agreed regular meetings;
- 1.4 C-COT members identify regional bodies and scientific experts to invite to the group;
- 1.5 Agreements in place with identified bodies and experts;
- 1.6 Identify project officers and agree roles and responsibilities;
- 1.7 Identify training needs and plan in-person training session;
- 1.8 Run in-person training session in Y2;
- 1.9 Evaluate C-COT ways of working, progress, governance.
- 1.10 Plan in-person follow-on virtual training as required throughout Y2&3;
- 1.11 Deliver virtual training sessions as required throughout Y2&3;
- 1.12 Plan Y2 workshop to evaluate group progress, review roadmap for longer-term collaboration and identify next steps and develop C-COT SCTL D Adaptive Management Plan;
- 1.13 Deliver workshop in Y2

Output 2:

- 2.1 Produce status reports of SCTL D and management to date in each OT to establish project baseline;
- 2.2 Discuss Collaborative SCTL D Treatment and Management Strategy in C-COT meeting and produce first draft;
- 2.3 Agree final version of Collaborative SCTL D Treatment and Management Strategy with C-COT;
- 2.4 OT's implement Collaborative SCTL D Treatment and Management Strategy and monitor regularly, with support from scientific advisors and C-COT;
- 2.5 OT's evaluate progress and findings from first round of fieldwork and produce annual progress reports;
- 2.6 Progress reports are reviewed collectively through C-COT meeting;
- 2.7 Collaborative SCTL D Treatment and Management Strategy is revised and updated based on outcomes of Y1 fieldwork to reflect changes and lessons learnt;
- 2.8 OT's implement revised Collaborative SCTL D Treatment and Management Strategy and monitor regularly, with support from scientific advisors and C-COT;
- 2.9 Develop regional C-COT SCTL D Adaptive Management Plan including integration of the Reef Resilience Framework, findings from project fieldwork and other SCTL D initiatives underway in UKOTs;
- 2.10 Review C-COT SCTL D Adaptive Management Plan and refine through workshop;
- 2.11 Final review and update of management plan at end of project through C-COT.

Output 3:

- 3.1 Review existing reef resilience and coral reef management models, considering geographical application and relevance, discriminators, and suitability for which models work best in which scenario in Y1
- 3.2 Design and distribute surveys to evaluate understanding before and after stakeholder consultation;
- 3.3 Consultation with the UKOT partners to understand useability, requirements, capacity and desires for Reef Resilience Frameworks
- 3.4 Based on consultation, produce a draft framework to guide a tailored ensemble modelling approach based on review outputs;
- 3.5 Present draft framework to stakeholders, with a demonstration case study, through the C-COT;
- 3.6 Refine and finalise framework, incorporating stakeholder feedback;
- 3.7 Produce a plan for next steps (e.g. building of a module with all open-source code for all models in framework for ease of access an implementation), including identification of funding opportunities.

Output 4:

- 4.1 Establish project PMG, with TOR and meeting schedule
- 4.2 Draft M&E plan.
- 4.3 Sign off M&E plan through PMG
- 4.4 Gender disaggregation
- 4.5 Monitor progress quarterly with PMG
- 4.6 Produce Darwin+ mid-year report
- 4.7 Produce Darwin+ end of year report
- 4.8 Produce Darwin+ final report.

Annex 2 Report of progress and achievements against final project logframe for the life of the project (if your project has a logframe)

Project summary	Measurable Indicators	Progress and Achievements for the life of the project
<p>Impact: Effective collaboration and capacity building through partnerships established to support the UK OTs to deliver shared actions for the protection, restoration and management of coral reefs</p>		<p>An effective collaboration was established with this project that has delivered three years of work towards sharing knowledge, expertise and resources for the protection, restoration and management of coral reefs. The collaboration allowed OTs to learn from each other and more quickly respond to SCTL D. The project has had wider benefits than just responding to SCTL D and allowed members to shared information on threats beyond SCTL D, such as <i>Diadema</i> die- off, the invasive soft coral <i>Eunomia</i> and the fourth global bleaching event that started in the summer of 2023.</p>
<p>Outcome Effective collaboration is established that shares information, knowledge, skills, resources and tools that supports evidence-based decisions to address the spread of Stony Coral Tissue Loss Disease in three Caribbean OTs</p>	<p>0.1 Collaboration has been effective between partners and outcomes integrated into C-COT SCTL D Adaptive Management Plan by March 2024</p> <p>0.2 Action Plan for longer-term, broader, partnership agreed by March 2024</p> <p>0.3 Collaborative SCTL D Treatment and Management Strategy successfully implemented in BVI, TCI and Cayman Islands by March 2024</p> <p>0.4. The conceptual Reef Resilience Framework is integrated into the C-COT SCTL D Adaptive Management Plan by March 2024</p>	<p>0.1 The collaboration has proved a success, with project outputs included in the C-COT SCTL D Adaptive Management Plan (evidence folder 06).</p> <p>0.2 The C-COT Roadmap (evidence folder 04), which provides the priorities to continue the longer-term broader partnership was finalised and agreed by C-COT.</p> <p>0.3 The Collaborative SCTL D Treatment and Management Strategy provided evidence for each partner OT to implement their own SCTL D response. More detail on this, and the details of the fieldwork for each partner OT, is provided in section 3.1 output 2.</p> <p>0.4 The C-COT SCTL D Adaptive Management Plan contains a visual representation of the C-COT Developed Reef Resilience Framework, which was signed off and circulated to all C-COT members by March 2024.</p>

Project summary	Measurable Indicators	Progress and Achievements for the life of the project
<p>Output 1. Collaborative partnership to optimise the treatment and management of Stony Coral Tissue Loss Disease (SCTLD) established</p>	<p>1.1 At least ten Coral Conservation in the UK OTs (C-COT) meetings annually</p> <p>1.2 Agreements in place with at least 3 regional and sub-regional bodies and/or scientific experts with the C-COT by no later than December 2021</p> <p>1.3 On-island project officers identified and operative in each OT no later than October 2021</p> <p>1.4 C-COT members engage well at two workshops and/or training events by end of March 2024</p>	<p>1.1 At least 10 C-COT meetings were held annually throughout the course of the project. This is evidenced in the Annex 4 through a detailed table of C-COT meetings and guest speakers and through meeting minutes (evidence folder 01). The working group met 33 times in total during the project lifespan (further detail in section 3.1, output 1). This Indicator did not specify targets of attendance at meetings, but more detail on this is reported against in 3.1.</p> <p>1.2 Following feedback from C-COT members in year 1, an informal approach was taken to building relationships with regional bodies and scientific experts. Regional and scientific experts were invited to present to the C-COT group throughout the project. Table 3 in section 3.1 lists the number of meetings with external guest speakers present, and Table 5 in the Annex 4 details the guest speakers and their subject focus. In addition, a formal arrangement was made with Dr Blake Ushijima following his presentation to the C-COT group, which provided OTs with the opportunity to partner with him, to develop probiotic cultures.</p> <p>1.3 Protect officers were identified in each partner OT, and the partnership was formalised through signed partnership agreements (evidence folder 02). Partners signed MOUs and named on-island project officers (evidence folder 07).</p> <p>1.4 C-COT members attended two workshops over the course of the project, in the Cayman Islands in August 2022 and in Miami in June 2023. The 'workshop participant lists' in the annex are used as evidence of full</p>

Project summary	Measurable Indicators	Progress and Achievements for the life of the project
	1.5 At least two Officers per OT trained report increased understanding in SCTL management options by April 2023	workshop attendance and engagement from all partner OTs in both workshops. (more detail in section 3.1, output 1). 1.5 Table 4 in section 3.1, output 1, details the change in participant understanding, before and after the Cayman Islands workshop in August 2022. In addition, the workshop in Miami in June 2023 contributed to increased understanding of SCTL management, through the development of the Reef Resilience Framework, along with monitoring and treatment presentations. Further detail can be found in section 3.1, output 1.
Activity 1.1 - C-COT meet for project kick-off meeting.		Completed.
Activity 1.2 - Agree terms of reference and meeting scheduling and frequency		Completed.
Activity 1.3 - Deliver agreed regular meetings.		Completed.
Activity 1.4 - C-COT members identify regional bodies and scientific experts to invite to the group.		Completed.
Activity 1.5 - Agreements in place with identified bodies and experts.		Completed.
Activity 1.6 - Identify project officers and agree roles and responsibilities.		Completed.
Activity 1.7 - Identify training needs and plan in-person training session.		Completed
Activity 1.8 - Run in-person training session in Y2.		Completed
Activity 1.9 - Evaluate C-COT ways of working, progress, governance.		Completed
Activity 1.10 - Plan in-person follow-on virtual training as required throughout Y2&3.		Completed
Activity 1.11 - Deliver virtual training sessions as required throughout Y2&3.		Completed

Project summary	Measurable Indicators	Progress and Achievements for the life of the project
Activity 1.12 - Plan Y2 workshop to evaluate group progress, review roadmap for longer-term collaboration and identify next steps and develop C-COT SCTL D Adaptive Management Plan.		Completed
Activity 1.13 - Deliver workshop in Y2.		Completed
<p>Output 2. Optimised treatment and management of SCTL D using best available scientific evidence and expertise</p>	<p>2.1 SCTL D Baseline Status Report each OT partner signed off by PMG by February 2022</p> <p>2.2 Collaborative SCTL D treatment and management strategy agreed by OT partners by March 2022</p> <p>2.3 OT Partners trial at least three SCTL D treatment or management interventions annually.</p> <p>2.4 C-COT SCTL D Adaptive Management Plan signed off by C-COT by December 2023</p> <p>2.5 Project partners and stakeholders report 25% increased links to scientific research on SCTL D by March 2024</p>	<p>2.1. The SCTL D Baseline Status Report was compiled from C-COT meetings and signed off by PMG (Meeting 23 Minutes, evidence folder 01; evidence folder 06). The report has been updated throughout the project lifespan. More details can be found in section 3.1, output 2.</p> <p>2.2. The Collaborative SCTL D Treatment and Management Strategy was produced and signed off by C-COT members by March 2022 (Meeting 23 Minutes, evidence folder 01; evidence folder 06) and then updated in November 2023 (3.1, output 2). This document's publication has been delayed due to the election but is expected to be published shortly.</p> <p>2.3. OT Partners trialed eight different treatment options over the course of the project. More details can be found in section 3.1, output 2</p> <p>2.4 The C-COT SCTL D Adaptive Management Plan was signed off by C-COT members by March 2024 ((Meeting Minutes 45, evidence folder 01; evidence folder 06), slightly later than the anticipated target. This delay was due to a changeover in key staff at JNCC.</p> <p>2.5 100% of C-COT members survey respondents (project partners and stakeholders) reported a 'very good' change in understanding. For more information see section 3.1, output 2.</p>
Activity 2.1. - Produce status reports of SCTL D and management to date in each OT to establish project baseline;		Completed

Project summary	Measurable Indicators	Progress and Achievements for the life of the project
Activity 2.2 - Discuss Collaborative SCTL D Treatment and Management Strategy in C-COT meeting and produce first draft.		Completed
Activity 2.3 - Agree final version of Collaborative SCTL D Treatment and Management Strategy with C-COT.		Completed
Activity 2.4 - OT's implement Collaborative SCTL D Treatment and Management Strategy and monitor regularly, with support from scientific advisors and C-COT.		Completed
Activity 2.5 - OT's evaluate progress and findings from first round of fieldwork and produce annual progress reports.		Completed
Activity 2.6 - Progress reports are reviewed collectively through C-COT meeting.		Completed
Activity 2.7 - Collaborative SCTL D Treatment and Management Strategy is revised and updated based on outcomes of Y1 fieldwork to reflect changes and lessons learnt.		Completed
Activity 2.8 - OT's implement revised Treatment and Management Strategy and monitor regularly, with support from scientific advisors and C-COT.		Completed
Activity 2.9 - Develop regional C-COT SCTL D Adaptive Management Plan including integration of the Reef Resilience Framework, findings from project fieldwork and other SCTL D initiatives underway in UKOTs.		Completed
Activity 2.10 - Review C-COT SCTL D Adaptive Management Plan and refine through workshop.		Completed
Activity 2.11 - Final review and update of management plan at end of project through C-COT.		Completed
Output 3. Conceptual Reef Resilience Framework to support the long-term management of coral reefs	3.1 Reef Resilience Framework is completed and signed off through the C-COT by July 2023	3.1 The Reef Resilience Framework was developed by C-COT members at the workshop in Miami in June 2023 and signed off by July 2023. A change request was then submitted to alter how this would be used. It had originally been envisaged that this could be used to develop a model-based management tool but following steer from C-COT to develop it into a

Project summary	Measurable Indicators	Progress and Achievements for the life of the project
	3.2 At least three OT project partners have increased knowledge of how to use model framework to improve coral reef management by July 2023	communication tool for policy makers, it formed the basis of an infographic that sits within the C-COT SCTL Adaptive Management Plan. 3.2. Pre- and post- workshop questionnaire were sent to participants to measure this indicator (Evidence folder 10); however, unfortunately the data is inaccessible to current staff due to staff members leaving and it being tied to their MS Forms account.
Activity 3.1 - Review existing reef resilience and coral reef management models, considering geographical application and relevance, discriminators, and suitability for which models work best in which scenario in Y1.		Completed
Activity 3.2 - Design and distribute surveys to evaluate understanding before and after stakeholder consultation.		Completed
Activity 3.3 - Consultation with the UKOT partners to understand useability, requirements, capacity and desires for Reef Resilience Frameworks.		Completed
Activity 3.4 - Based on consultation, produce a draft framework to guide a tailored ensemble modelling approach based on review outputs.		Completed
Activity 3.5 - Present draft framework to stakeholders, with a demonstration case study, through the C-COT.		Completed
Activity 3.6 - Refine and finalise framework, incorporating stakeholder feedback.		Completed
Activity 3.7 - Produce a plan for next steps (e.g. building of a module with all open-source code for all models in framework for ease of access an implementation), including identification of funding opportunities.		This Activity changes following a change request and this activity is not longer valid. The framework was instead taken forward and developed into an infographic (more detail in Section 3.1, output 3).
Output 4. Project management, monitoring and evaluation	4.1 MOU developed and agreed by project partners by December 2021. 4.2 Project Management Group (PMG) established, and meetings held quarterly by July 2021.	4.1 MoAs were signed with OT Partners and MoUs with other Project partners (evidence folder 07). 4.2 PMG groups were established and held quarterly throughout the project life. (evidence folder 02)

Project summary	Measurable Indicators	Progress and Achievements for the life of the project
	<p>4.3 Gender disaggregation designed into the project methodology; by February 2022.</p> <p>4.4 PMG sign off project Monitoring and Evaluation Plan by March 2022</p>	<p>4.3 Gender Disaggregation was designed into the project methodology and signed off in the Monitoring and Evaluation Plan (evidence folder 02)</p> <p>4.4. The Monitoring and Evaluation plan was developed by the project lead and signed off through the PMG by February 2022 (evidence folder 02).</p>
Activity 4.1 - Establish project PMG, with TOR and meeting schedule		Completed
Activity 4.2 - Draft M&E plan.		Completed
Activity 4.3 - Sign off M&E plan through PMG		Completed
Activity 4.4 - Gender disaggregation		Completed
Activity 4.5 - Monitor progress quarterly with PMG		Completed
Activity 4.6 - Produce Darwin+ mid-year report		Completed
Activity 4.7 - Produce Darwin+ end of year report		Completed
Activity 4.8 - Produce Darwin+ final report.		Completed

Table 2 Publications

Please note the publications listed below were planned to be published on the JNCC website at the time of this report submission but have been delayed due to the UK general election and the restrictions around JNCC communications.

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
C-COT SCTL D Adaptive Management Plan	Project Booklet	2024	Female	British	JNCC, Peterborough	Link will soon be available on JNCC website
C-COT Roadmap	Project Report	2024	Female	British	JNCC, Peterborough	Link will soon be available on JNCC website
Collaborative SCTL D Treatment and Management Strategy	Project Report	2024	Female	American	JNCC, Peterborough	Link will soon be available on JNCC website

Annex 4 Supplementary material (optional but encouraged as evidence of project achievement)

Presentation Date	Organisations represented (number of attendees in brackets)	Guest Speaker	Subject Focus
December 4 th , 2020 (Meeting 1)	Cayman Islands DoE (3), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), Nature 2, JNCC (4).	None	NA
December 15 th , 2020 (Meeting 2)	Cayman Islands DoE (3), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (3), Nature 2, JNCC (4).	None	NA
January 5 th , 2021 (Meeting 3)	Cayman Islands DoE (3), British Virgin Islands MNRLI (2), Turks and Caicos Islands DECR (3), Nature 2, JNCC (3), Bermuda DENR (2), Anguilla Fisheries and Marine Resources Unit, CMMI (2).	None	NA
January 19 th , 2021 (Meeting 4)	Cayman Islands DoE (3), British Virgin Islands MNRLI (3), Turks and Caicos Islands DECR (4), TCReef, Nature 2, JNCC (4), Bermuda DENR (2), School for Field Studies, Montserrat DoE (3), Montserrat MAHLE, Scuba Montserrat (2).	None	NA
February 2 nd , 2021 (Meeting 5)	Cayman Islands DoE (2), British Virgin Islands MNRLI (2), Turks and Caicos Islands DECR (3), TCReef, Nature 2, JNCC (3), Bermuda DENR, Montserrat DoE, Montserrat MAHLE, School for Field Studies, Scuba Montserrat (2).	None	NA

February 16 th , 2021 (Meeting 6)	Cayman Islands DoE (2), British Virgin Islands MNRLI (2), Turks and Caicos Islands DECR (3), TCReef, Nature 2, JNCC (4), Bermuda DENR (2), Montserrat DoE (2), Montserrat MAHLE, School for Field Studies, Marine Conservation Society.	None	NA
March 16 th , 2021 (Meeting 8)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR, CCMI, TCReef, Nature 2, JNCC (4), Bermuda DENR (2), Montserrat MAHLE.	None	NA
March 30 th , 2021 (Meeting 9)	Cayman Islands DoE, British Virgin Islands MNRLI (2), Turks and Caicos Islands DECR, TCReef, Nature 2, JNCC (4), Bermuda DENR (2), Montserrat MAHLE, Marine Conservation Society.	Blake Ushijima (Ushijima Lab)	Introduction to probiotics, their potential use combating SCTL D, and an introduction to the Ushijima lab.
April 20 th , 2021 (Meeting 10)	Cayman Islands DoE (3), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), School of Field Studies, TCReef, Nature 2, JNCC (4), Bermuda DENR (2), Montserrat DoE, Montserrat MAHLE, Marine Conservation Society.	Greta Aeby	The role of the environment in SCTL D prevalence.
May 11 th , 2021 (Meeting 11)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), TCReef, Nature 2, JNCC (4), Bermuda DENR (2), Montserrat MAHLE, Marine Conservation Society.	Sarah Frias-Torres	Vulcan Company: Emergency response efforts against SCTL D.
June 8 th , 2021 (Meeting 12)	Cayman Islands DoE (3), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), TCReef, Nature 2, JNCC (3), Bermuda DENR,	Dr. Ernesto Weil	Historical perspectives of coral diseases in the Caribbean.

	Anguilla Fisheries and Marine Resources Unit (2), Montserrat MAHLE.		
July 13 th , 2021 (Meeting 13)	Cayman Islands DoE (3), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (3), TCReef, Nature 2, JNCC (6), Bermuda DENR, Anguilla Fisheries and Marine Resources Unit (2), School of Field Studies, CCMI, Montserrat MAHLE, Montserrat DoE, Marine Conservation Society.	None	NA
August 3 rd , 2021 (Meeting 14)	Cayman Islands DoE, Anguilla Fisheries and Marine Resources Unit (2), Nature 2, JNCC (5), Bermuda DENR, Anguilla Fisheries and Marine Resources Unit (2), Montserrat MAHLE, School of Field Studies, CCMI, Montserrat MAHLE, Montserrat DoE, Marine Conservation Society.	Emma Irving (JNCC)	Behavioural science in the context of conservation.
September 7 th , 2021 (Meeting 15)	Cayman Islands DoE, Turks and Caicos Islands DECR, Nature 2, JNCC (5), Montserrat MAHLE, CCMI, TCReef, School of Field Studies, Marine Conservation Society.	None	NA
October 5 th , 2021 (Meeting 16)	Cayman Islands DoE (2), Turks and Caicos Islands DECR, Nature 2, JNCC (6), Bermuda DENR, Montserrat MAHLE, CCMI, TCReef, School of Field Studies, Montserrat DoE, Scuba Montserrat, Marine Conservation Society.	None	NA
October 26 th , 2021 (Meeting 17)	Cayman Islands DoE, Turks and Caicos Islands DECR, British Virgin Islands MNRLI, Nature 2, JNCC (6), Bermuda DENR (2), Anguilla Fisheries and Marine Resources Unit	None	NA

	(3), CCMI, TCReef, School of Field Studies, Montserrat DoE.		
November 16 th , 2021 (Meeting 18)	Cayman Islands DoE (3), British Virgin Islands MNRLI, Nature 2, JNCC (4), Bermuda DENR, CCMI, School of Field Studies, Montserrat DoE.	Will Greene (Perry Institute for Marine Science)	Photogrammetry for Coral reef monitoring.
December 14 th , 2021 (Meeting 19)	Cayman Islands DoE (2), Turks and Caicos Islands DECR, British Virgin Islands MNRLI, Nature 2, JNCC (3), Bermuda DENR, Montserrat MAHLE, Anguilla Fisheries and Marine Resources Unit (2), CCMI.	Jessica Magnus (JNCC)	JNCC Coral reef legislation review.
January 25 th , 2022 (Meeting 20)	Cayman Islands DoE (3), British Virgin Islands MNRLI (2), Nature 2, JNCC (3), Bermuda DENR (2), Montserrat MAHLE (2), Anguilla Fisheries and Marine Resources Unit, Marine Conservation Society, TCReef.	Dr Chris Poonian & Patricia Davis (C3 International)	Introduction to GCRMN Socio-economic monitoring
January 25 th , 2022 (Meeting 20)	Cayman Islands DoE (3), British Virgin Islands MNRLI (2), Nature 2, JNCC (3), Bermuda DENR (2), Montserrat MAHLE (2), Anguilla Fisheries and Marine Resources Unit, Marine Conservation Society, TCReef.	Dr Mike Sweet (University of Derby)	Aquaria for coral rescue and restoration
February 15 th , 2022 (Meeting 21)	Cayman Islands DoE (3), Turks and Caicos Islands DECR (2), British Virgin Islands MNRLI, Nature 2, JNCC (3), Bermuda DENR (2), Montserrat MAHLE, School of Field Studies, Marine Conservation Society, TCReef, CCMI.	None	NA

March 22 nd , 2022 (Meeting 22)	Cayman Islands DoE (3), Turks and Caicos Islands DECR, Nature 2, JNCC, Bermuda DENR (2), Montserrat MAHLE, TCReef, CCMI.	Emily Hardman (Marine Management Organisation)	Ballast water resources
April 19 th , 2022 (Meeting 23)	Cayman Islands DoE (3), Turks and Caicos Islands DECR (2), British Virgin Islands MNRLI, Nature 2, JNCC (3), Bermuda DENR (2), Montserrat MAHLE (2), Anguilla Fisheries and Marine Resources Unit (2), Marine Conservation Society.	Michael Studivan (NOAA Affiliate)	Understanding transmission sources and treatments for SCTL D.
May 17 th , 2022 (Meeting 24)	Cayman Islands DoE (3), Turks and Caicos Islands DECR (3), British Virgin Islands MNRLI, Nature 2, JNCC (5), Bermuda DENR, Montserrat MAHLE (2), Marine Conservation Society.	Chloe Harvey (Reef World Foundation)	Green Fins Hub presentation.
June 14 th , 2022 (Meeting 25)	Cayman Islands DoE, Turks and Caicos Islands DECR (4), Nature 2, JNCC (2), Bermuda DENR (2), Montserrat MAHLE (2), Anguilla Fisheries and Marine Resources Unit, School of Field Studies, Marine Conservation Society.	Manuel Rivero	Reef Cloud data management.
July 5 th , 2022 (Meeting 26)	Cayman Islands DoE (2), Turks and Caicos Islands DECR (2), British Virgin Islands MNRLI (2), Nature 2, JNCC (4), Bermuda DENR, Montserrat MAHLE (2), TCReef, School of Field Studies.	Michelle Devlin	CSSF 21/22 water quality report.
July 26 th , 2022 (Meeting 27)	Cayman Islands DoE (3), Turks and Caicos Islands DECR (3), British Virgin Islands MNRLI	Alizee Zimmerman	TCReef's Coral rescue programme.

	(2), Nature 2, JNCC (3), Bermuda DENR, Montserrat MAHLE (2), TCReef, School of Field Studies, Ocean Frontiers.	(TCReef/C-COT Member)	
September 20 th , 2022 (Meeting 28)	Cayman Islands DoE (3), Nature 2, JNCC (2), Bermuda DENR (2), Montserrat MAHLE, Anguilla Fisheries and Marine Resources Unit.	Stephanie Jones (MSc Student)	Stakeholder perceptions to SCTL D management in Anguilla and the Cayman Islands.
October 25 th , 2022 (Meeting 29)	Cayman Islands DoE (3), Turks and Caicos Islands DECR, British Virgin Islands MNRLI, Nature 2, JNCC (3), Bermuda DENR (2), Montserrat MAHLE (2), Anguilla Fisheries and Marine Resources Unit TCReef, Marine Conservation Society, Ocean Frontiers.	Ellie Vaughan (JNCC)	Key research from the International Coral Reef Symposium 2022.
November 22 nd , 2021 (Meeting 30)	Cayman Islands DoE (3), Turks and Caicos Islands DECR (3), Nature 2, JNCC (3), Bermuda DENR (2), Montserrat MAHLE (2), Anguilla Fisheries and Marine Resources Unit, TCReef, Marine Conservation Society, School of Field Studies, Reef Renewal International.	None	NA
January 10 th , 2023 (Meeting 31)	Cayman Islands DoE (2), Turks and Caicos Islands DECR, Nature 2, JNCC (3), Bermuda DENR (2), Montserrat MAHLE (2).	None	NA
February 7 th , 2023 (Meeting 32)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), Nature 2, JNCC (2), Bermuda DENR (2), Montserrat MAHLE (3), TCReef.	Judy Lang (AGRRA)	The impact of SCTL D in the Caribbean region.
March 7 th , 2023 (Meeting 33)	Cayman Islands DoE (3), British Virgin Islands MNRLI (2), Turks and Caicos Islands DECR, Nature 2, JNCC (3), Montserrat MAHLE,	None	NA

	Marine Conservation Society, School of Field Studies, CCMI, Ocean Frontiers.		
April 18 th , 2023 (Meeting 34)	Cayman Islands DoE (3), British Virgin Islands MNRLI, Turks and Caicos Islands DECR, Nature 2, JNCC (3), Montserrat MAHLE, Anguilla Fisheries and Marine Resources Unit, School of Field Studies.	None	NA
May 16 th , 2023 (Meeting 35)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), Nature 2, JNCC (3), Bermuda DENR, Montserrat MAHLE, TCReef, Anguilla Fisheries and Marine Resources Unit.	Jack Whitelegg (JNCC)	Environmental considerations for successful coral reef restoration.
May 16 th , 2023 (Meeting 35)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), Nature 2, JNCC (3), Bermuda DENR, Montserrat MAHLE, TCReef, Anguilla Fisheries and Marine Resources Unit.	Ellie Vaughan (JNCC)	Coral reef priority tool.
May 23 rd , 2023 (Meeting 36)	NA	None	
July 25 th , 2023 (Meeting 37)		Jason Weeks (JNCC)	Pollution discussion with JNCC International pollution expert.
September 5 th , 2023 (Meeting 38)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR, Nature 2, JNCC (2), Bermuda DENR, TCReef, Scuba Montserrat, School of Field Studies, Marine Conservation Society, Anguilla Fisheries and Marine Resources Unit.	Grety Aeby	2023 Coral bleaching recommendations.

September 5 th , 2023 (Meeting 38)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR, Nature 2, JNCC (2), Bermuda DENR, TCReef, Scuba Montserrat, School of Field Studies, Marine Conservation Society, Anguilla Fisheries and Marine Resources Unit.	Katy Cummings	2023 Coral bleaching: Florida.
October 10 th , 2023 (Meeting 39)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), Nature 2, JNCC (4), Montserrat MAHLE, TCReef.	None	NA
October 31 st , 2023 (Meeting 40)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR, Nature 2, JNCC (4), Bermuda DENR (2), School of Field Studies, Scuba Montserrat, Montserrat MAHLE, TCReef.	Mariann Teoh & Andrew Stanger (MMO)	Blue Belt sustainable finance hub
November 28 th , 2023 (Meeting 41)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), Nature 2, JNCC (3), Bermuda DENR (2), Scuba Montserrat, Marine Conservation Society.	Blake Ushijima	Probiotic updates.
January 16 th , 2024 (Meeting 42)	Cayman Islands DoE, British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), Nature 2, JNCC (5), Bermuda DENR, TCReef.	Ellie Vaughan	Reef Conservation UK 2023 Summary.
February 6 th , 2024 (Meeting 43)	Cayman Islands DoE (2), British Virgin Islands MNRLI (2), Turks and Caicos Islands DECR (2), Nature 2, JNCC (3), Scuba Montserrat, Living Reef Foundation, School of Field Studies, TCReef, Marine Conservation Society.	None	NA

March 12 th , 2023 (Meeting 44)	Cayman Islands DoE (2), Nature 2, JNCC (3), Montserrat MAHLE, Bermuda DENR, CCMI, TCReef, Marine Conservation Society.	Andrew Baker	Sharing genetic resources to maximise coral survival in times of climate change.
March 12 th , 2023 (Meeting 44)	Cayman Islands DoE (2), Nature 2, JNCC (3), Montserrat MAHLE, Bermuda DENR, CCMI, TCReef, Marine Conservation Society.	Steve Schill (The Nature Conservancy)	Coral reef mapping using drone technology.
March 26 th , 2024 (Meeting 45)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), Nature 2, JNCC (3), Bermuda DENR, Anguilla Fisheries and Marine Resources Unit, TCReef.	Dr Gretchen Goodbody-Gringley (CCMI)	RESEMBID project summary.
March 26 th , 2024 (Meeting 45)	Cayman Islands DoE (2), British Virgin Islands MNRLI, Turks and Caicos Islands DECR (2), Nature 2, JNCC (3), Bermuda DENR, Anguilla Fisheries and Marine Resources Unit, TCReef.	Francesca Vlrdis (Reef Renewal Bonaire)	Restoration in practice.
April 23 rd , 2024 (Meeting 46)	Cayman Islands DoE, British Virgin Islands MNRLI, Nature 2, JNCC (4), Bermuda DENR, Living Reef Foundation, School of Field Studies, Montserrat DoE, TCReef, Beyond The Reef.	Susana Perera and Geraldine Conruyt (SPAW)	About the Cartagena Convention and SPAW Protocol, relevance to Caribbean UKOTs.
April 23 rd , 2024 (Meeting 46)	Cayman Islands DoE, British Virgin Islands MNRLI, Nature 2, JNCC (4), Bermuda DENR, Living Reef Foundation, School of Field Studies, Montserrat DoE, TCReef, Beyond The Reef.	Dr. Gareth Williams (Bangor University)	Coral reefs, climate change and El Niño.
May 21 st , 2023 (Meeting 47)	Cayman Islands DoE (2), Turks and Caicos Islands DECR, Nature 2, JNCC (3), Bermuda	Prof. David Suggett (KAUST Reefscape)	Building the framework for reef restoration: Global

	DENR, Montserrat MAHLE, TCReef, Living Reef Foundation, Beyond The Reef.	Restoration Initiative)	lessons from scaled activities
May 21 st , 2023 (Meeting 47)	Cayman Islands DoE (2), Turks and Caicos Islands DECR, Nature 2, JNCC (3), Bermuda DENR, Montserrat MAHLE, TCReef, Living Reef Foundation, Beyond The Reef.	Bryan Wilson (University of Oxford)	Darwin Plus Local work in BVI

