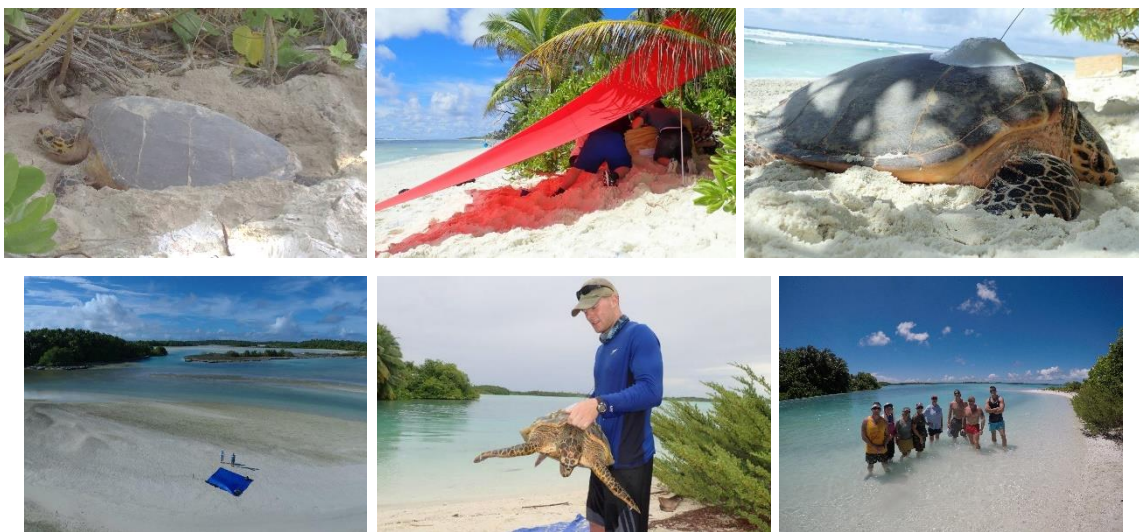


Sea Turtle Conservation Research Diego Garcia, British Indian Ocean Territory 21 November – 11 December 2018

Expedition Report



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December 2018

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1. Executive summary

This scientific expedition to Diego Garcia, British Indian Ocean Territory (BIOT) from 21 November to 11 December 2018 builds on previous conservation research on the ecology of hawksbill and green turtles in the archipelago. The primary objectives were to increase understanding of the numbers and movements of hawksbill turtles nesting on Diego Garcia and to expand existing knowledge of the immature turtle aggregation within the Diego Garcia lagoon.

1. A presentation on sea turtle conservation research in BIOT took place to a packed audience of about 120 military and civilian residents of Diego Garcia on 21 November. At the meeting, volunteers signed up for daytime patrols to assist the science team with surveys of immature turtles in Turtle Cove and with nesting hawksbill satellite tag attachments on the oceanside nesting beach.
2. On Diego Garcia, the sea turtle science team was assisted by 87 volunteers during the equivalent of 114 volunteer days as many volunteers came to assist on two occasions. Volunteers were from all sectors of the community, including the US and UK military as well as contractors from Mauritius, Phillipines, UK and USA.
3. Surveys of sea turtle nesting activities and an assessment of the numbers of days turtle tracks remain visible on the Diego Garcia index beach were conducted on 10 days and assisted by 30 volunteers. These data will help to refine our estimates of the size of the nesting populations of hawksbills and green turtles on Diego Garcia.
4. For the first time in BIOT, Fastloc-GPS-Argos satellite tags were attached to nesting hawksbill turtles to find out more about their inter-nesting and post-nesting movements. Eight nesting hawksbill turtles were flipper tagged and 5 of these were equipped with satellite tags.
5. The long-term mark-recapture study of immature foraging turtles in Turtle Cove continued during this expedition. In Turtle Cove, 49 (48 hawksbill and 1 green) immature turtles were captured, measured, weighed and released back into the Cove. Of these 19 (18 hawksbill and 1 green) were captured for the first time and flipper tagged. Of the 48 hawksbills, 60% had been tagged in previous years (one as long ago as 1999).

6. In order to study habitat use by immature turtles within the Diego Garcia lagoon, and whether individuals depart from BIOT to other distant sites, high resolution Fastloc-GPS-Argos satellite tags were used for the second time to assess their movements. During the expedition, 10 satellite tags were attached to hawksbill turtles captured at Turtle Cove. Larger individuals (measuring over 50 cm curved carapace length) were selected for this study.
7. Pilot drone surveys were conducted from the southern end of the Diego Garcia lagoon up to 7 km north of Turtle Cove to assess effectiveness of using a drone to identify species and estimate turtle populations in the lagoon. Survey transects were conducted at a range of altitudes (10, 20, 30 m) and tidal states (low water, flood, high water, ebb) to determine most appropriate survey protocols.
8. By the end of the expedition, initial satellite tracking locations showed that all of the nesting hawksbill turtles remained just offshore of the nesting beach with haulout locations indicating that individuals were returning to nest within the expected inter-nesting interval of approximately 14 days. The immature turtles remain close to Turtle Cove with one foray outside of the lagoon.
9. Updates throughout the expedition were posted on Twitter (with #BIOTscience and links to @BIOTscience) and on the Facebook site *Chagos Turtles*. Membership has reached almost 234 followers and updates of sea turtle locations will be posted in the forthcoming months. Two expedition blogs have been posted on the BIOT expedition blog website page of ZSL (<https://www.zsl.org/blogs/chagos-expedition/>).

2. Introduction and Methods

The primary research objective of this expedition to Diego Garcia was to increase understanding of sea turtle movements within and outside of the British Indian Ocean Territory (BIOT). Satellite tags were attached to nesting hawksbill turtles as well as immature hawksbill turtles in Diego Garcia lagoon. The long-term mark-recapture monitoring programme at Turtle Cove in the south of Diego Garcia lagoon was continued. Additional objectives were to conduct trial aerial surveys of turtle populations in the lagoon using a drone and to improve our understanding of distribution and numbers of nesting turtles at Diego Garcia.

We commenced the expedition with a presentation about sea turtle research in BIOT (Fig. 1). The talk was widely publicised via Facebook Group (*Chagos Turtles*), radio and all-personnel emails and we presented to a packed audience of around 120 military and civilian residents of Diego Garcia. A schedule for up to 12 people per patrol was drawn up with over 80 people volunteering to assist on the planned daytime surveys during the three-week expedition. More volunteers signed up as the expedition progressed as some could not attend the talk. All volunteers are required to sign and acknowledge the approved Guidelines before assisting on surveys.



Figure 1. a) Packed audience attend the sea turtle conservation research talk & volunteer sign-up at the start of the expedition and b) volunteers assist Jeanne (centre) and Nicole (right) during seagrass survey on western fringe of lagoon

2.1 *Satellite tracking of nesting hawksbill turtles, *Eretmochelys imbricata**

This expedition contributes to our programme to attach satellite tags to nesting hawksbill and green turtles so that we can assess the extent of their post-nesting

migration from Diego Garcia. At the same time, we will analyse location data at the breeding ground and foraging ground to learn more about space use of hawksbill turtles within and outside BIOT, similar to our previous studies of green turtle nesting locations at Diego Garcia (Esteban et al. 2017) and home range of foraging grounds in Great Chagos Bank and further afield (Christiansen et al. 2017). This includes the discovery of green turtle foraging grounds in BIOT, on the Great Chagos Bank (Esteban et al. 2018).

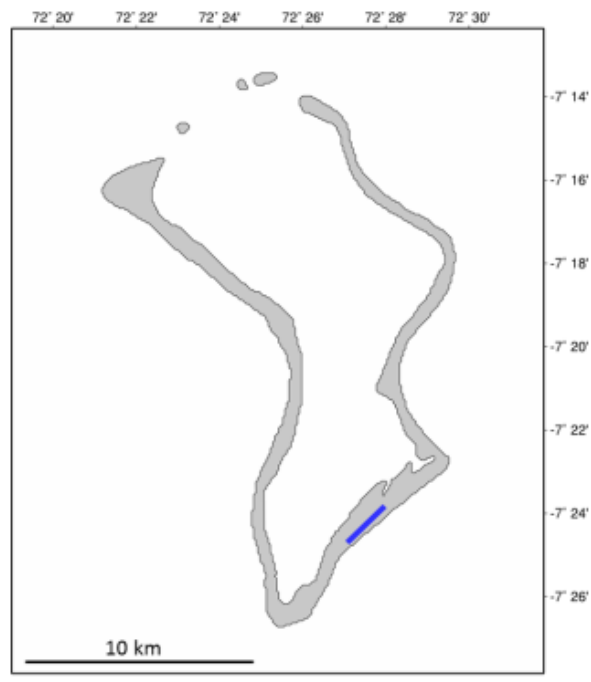


Figure 2. Location of Diego Garcia index beach (2.75 km) selected for satellite tag attachment due to relative high density of recorded turtle nesting track activities.

This is the first time that nesting hawksbill turtles have been satellite tagged in BIOT. As the diet of hawksbill turtles is predominantly demosponges and anthozoans in the Western Indian Ocean (von Brandis et al. 2014), we expect that foraging grounds will be coral reef habitat and so spatially separate from foraging grounds of green turtles nesting in Diego Garcia and foraging predominantly in seagrass meadows. We will be using these data to inform conservation management of the species.



Figure 3. Volunteers assisting with a) observations during satellite tag attachment to nesting green turtles at night and b) observing sleeping turtle in retaining box whilst antifoul paint is drying.

We used methodologies previously tested and successful in Diego Garcia (the same satellite tag brand/product, identical attachment methodology), and attached Wildlife Computer Splash-10 Fastloc-GPS-Argos satellite tags to hawksbill turtles nesting on the beach. We patrolled beaches in south east Diego Garcia (Figure 2) during daytime flood tide to locate nesting females. A wooden box was placed around each turtle (after nesting) to prevent return to the sea (Figure). The transmitter was then attached with quick-setting epoxy and covered with antifouling paint. Attachment of the tag takes approximately two hours to allow time for epoxy to set and paint to dry after which time the turtle is released. After release of the turtle, all location data are acquired via Fastloc-GPS location transmissions to the Argos satellite network. Locations can be transmitted for 1-2 years.

2.2 Assessment of hawksbill and green turtle nesting populations

Since 2006, with the assistance of Nestor Guzman and other personnel of the Natural and Cultural Resources Program NAVFACFE PWD Environmental, we have been monitoring nesting activity along a 1.75 km-long Index Beach located on the south east coast of Diego Garcia, by counting turtle tracks twice per month throughout the year. To more accurately interpret the data that have been collected during those surveys, we conducted a study during our recent expedition to determine for how many days turtle tracks remain visible on the nesting beach. We especially wanted to understand differences between the longevity of hawksbill and green turtle tracks, and also how track longevity varies at different points in the tidal cycle.

A time-lapse photography trial was continued to assess whether turtle nesting tracks can be observed over long periods of time when foot patrols are not possible. A further 12 camera traps were set up on beach heliotrope (*Tournefortia argentea*) trees at the edge of the vegetation zone on the Index Beach, two existing camera traps were recharged and images downloaded. One camera trap failed due to inundation. Downloaded images will be assessed to inform future survey plans.

2.3 Continuation of long-term mark-recapture study of immature turtles in Turtle Cove

The mark-recapture study of immature turtles in Turtle Cove was initiated by Jeanne Mortimer (JAM) during the Warwick Expedition to Chagos in February/March 1996 after Base personnel called attention to an aggregation of immature sea turtles that appeared to be resident in Turtle Cove. At the time, they were assumed to be green turtles, but most proved to be Critically Endangered hawksbill turtles. Over a five-day period, 42 immature hawksbills were captured in the shallow waters. Each was flipper tagged, using standard methodology employed by sea turtle biologists all over the world during the past 75 years. A series of carapace and body measurements were taken, along with genetic samples. The turtles ranged in size from 4 to 34 kg (9 to 75 lbs) (Mortimer & Day 1999).

During subsequent expeditions, JAM has returned to Turtle Cove to capture turtles and tag, weigh and measure them. During the February 1999 expedition, 66% of the 41 turtles captured had been previously captured and tagged in 1996 (Mortimer 2000). In 2006 (48 turtles were captured), 2012 (72 turtles captured), and in June-July 2018 (91 turtles), high recapture rates were recorded. This demonstrated that many turtles remain resident in Turtle Cove over long periods of time, and that growth rates of immature turtles could be studied there. Growth rate data enables us to estimate how long turtles take to reach adulthood. Preliminary data indicated that on average, Turtle Cove hawksbills grew at a rate of 1.4 cm per year (Mortimer et al. 2002), which means that the turtles are likely taking 30-40 years to reach adulthood. This has important implications for management of their populations as it demonstrates how vulnerable they are to over-exploitation.

The November-December 2018 visit extends the study for a period of more than 22 years and provides a long-term perspective on the ecology of this interesting aggregation of immature turtles. The additional assistance provided by the Diego Garcia volunteers in 2012 and during both our 2018 expeditions has enabled us to catch more turtles and maximize our data collection. In November-December 2018 we were assisted by 44 volunteers during four days of mark-recapture sampling.

Analysis of the genetic samples collected in Chagos showed that the hawksbill turtles of Chagos are closely related to those of Seychelles and other populations in the Western Indian Ocean but have no relationship to those of western Australia (Mortimer & Broderick 1999; Mortimer et al. 2002; Vargas et al. 2016). Additional genetic samples collected during the June-July 2018 and November-December 2018 visits will enhance our ability to discern genetic relationships between turtles foraging in Turtle Cove and the nesting populations from which they derive in the wider Indo-Pacific region.



Figure 4. Assistance was provided by 44 volunteers during four days of mark-recapture study sampling of immature hawksbill and green turtles at Turtle Cove. All volunteers were given a guidance and safety briefing and helped release turtles after successful days of capturing, measuring, flipper tagging and satellite tag attachment.

2.4 Movements of immature turtles within Diego Garcia lagoon

The mark-recapture study of immature hawksbill and green turtles has increased our knowledge of the ecology of the aggregation of turtles at Turtle Cove (section 2.3). In order to study their habitat use within the Diego Garcia lagoon, and whether turtles depart from BIOT to other distant sites, we are using high resolution Fastloc-GPS-Argos satellite tracking to assess their movements. This expedition is the second

stage of our programme to tag individuals of both species across different years and seasons to identify inter-annual and seasonal variation. The first stage took place in July 2018 when 10 satellite tags were attached to 8 hawksbill and 2 green turtles: preliminary review of location data from these tags has already demonstrated that the immature turtles have high spatial fidelity to foraging sites in the lagoon but that a few leave the lagoon to forage on the oceanside of Diego Garcia as well as further afield.

2.5 Pilot drone survey to estimate numbers of turtles in the lagoon

Numbers of turtles foraging inside the Diego Garcia lagoon have not yet been estimated and to improve our knowledge of the turtle population in Diego Garcia lagoon, we commenced an unmanned aerial vehicle (UAV; quadcopter drone) monitoring survey of the lagoon. We conducted a trial survey of hawksbill and green turtles in the southern sector of Diego Garcia lagoon through a systematic transect survey method using a quadcopter drone (Autel Robotics EVO). This was carried out from various points around the lagoon shore to enable the science team to maintain visual contact with the drone. As turtles are only observed in drone footage when they are at the surface or in shallow water, the survey was repeated over a number of days and at a range of altitudes to test the most efficient tidal state and altitude for observations of turtles. The aerial survey will support findings from satellite tracking of immature turtles in the lagoon to identify 'turtle hotspots' in the lagoon.

2.6 Baseline survey of seagrass habitat in Diego Garcia lagoon

A number of publications have recorded seagrass in the lagoon but a full-scale inventory of seagrass habitat has not been carried out to date. We will carry out a standardized "seagrass watch" survey protocol at all areas previously recorded as seagrass habitat. If time permits, we will extend surveys to other similar habitats. The seagrass survey protocol has been developed by the South West Indian Ocean seagrass monitoring network following a workshop in La Reunion in November 2017 attended by Mortimer and Esteban. Spatial understanding of seagrass habitat will support findings from satellite tracking of foraging turtles in the lagoon.

Results and discussion

3.1 *Satellite tracking of nesting hawksbill turtles, Eretmochelys imbricata*

We were assisted by 57 volunteers from all different sectors of the Diego Garcia community: UK military personnel, US Navy, US Air Force and contractors from Mauritius, Philippines, UK and US. Daytime surveys of the index nesting beach in Diego Garcia (Figure) were conducted on seven consecutive days (see Appendix 1 for dates and volunteer names) covering a patrol distance of 4 km. The first day was a survey to estimate nesting densities along the index beach and to plan for the satellite tagging. During the six subsequent days, five nesting hawksbill turtles were tagged along this stretch of coastline (Table 1).

Table 1. Overview of nesting hawksbill turtles (*Eretmochelys imbricata*) tagged with satellite transmitters during December 2018.

Argos ID	CCL (cm)	Date	Name	Release time (h)
52218	81.5	28/11/2018	Earl	19:15
52217	77.5	29/11/2018	Natasha	11:25
52220	75.2	30/11/2018	Samantha Garcia	10:25
64786	74.0	01/12/2018	Tiburón	11:45
64783	77.2	01/12/2018	Freedom	14:15

By the end of the expedition, all turtles remained in shallow waters just offshore of the nesting beach (less than 50 m depth). Haul-out locations indicate that the turtles have laid subsequent clutches at the expected inter-nesting interval of approximately 14 days. We will monitor locations and update volunteers of movements via the Facebook group *Chagos Turtles*.



Figure 5: A total of 57 volunteers assisted during seven days of patrols from 0600 to (latest) 1930hr. satellite tag attachment to post-nesting hawksbills after the turtle was restrained in the box when returning to sea. Shading was provided from all elements – we had torrential rain but mostly baking sun. Turtles continued to sleep after (box) in background was removed after completion of satellite tag attachment. The satellite tag is covered in grey antifouling paint.

3.2 *Assessment of hawksbill and green nesting populations*

Detailed beach surveys were conducted along the entire length of the DG Index Beach on 10 mornings between 27 November and 9 December 2018. Although the surveys were conducted at the peak of the hawksbill nesting season, significant numbers of green turtles were also nesting during the same period. This will enable a comparison of the numbers of days tracks produced by each species remain visible on the nesting beach at various stages of the tidal cycle. These data will enable us to refine our estimates of the numbers of turtles nesting annually at Diego Garcia.

3.3 Continuation of long-term mark-recapture study of immature turtles in Turtle Cove

During our visit in November-December 2018, we were able to capture 49 immature foraging turtles from Turtle Cove over a period of only four days thanks to the assistance provided by the volunteer personnel of Diego Garcia (Figure 6).

Following is a comparison of the numbers of turtles captured during each Turtle Cove expedition to date: 1996 (N=42); 1999 (N=41); 2006 (N=50), 2012 (N=76); Jun-July 2018 (N=97); and Nov-Dec 2018 (N=49). Although relatively fewer total turtles were captured in Nov-Dec 2018, in fact, the average number captured per day was higher than in previous seasons. There is evidence that the numbers of turtles foraging in Turtle Cove are increasing. Such an increase is likely attributable to protection afforded breeding turtles on nesting beaches throughout British Indian Ocean Territory, (including within the boundaries of the Chagos MPA) as well as at other sites in the region (such as Seychelles).

Table 2. Overview of numbers of turtles captured during each visit since 1996, and the number of turtles encountered each year that had been tagged during a previous season.

Year	HAWKSBILLS		GREEN TURTLES	
	Total Turtles	Number Already Tagged (%)	Total Turtles	Number Already Tagged (%)
1996	42	0 (0%)	1	0 (0%)
1999	41	27 (66%)	2	0 (0%)
2006	48	21 (44%)	2	0 (0%)
2012	72	9 (13%)	4	0 (0%)
2018 Jun-Jul	91	21 (23%)	6	0 (0%)
2018 Nov-Dec	48	29 (60%)	1	0 (0%)

Of the 49 turtles captured, tagged, weighed and measured during November-December 2018, 48 were hawksbills and 1 was a green turtle. Of the hawksbills, 29 (60%) had already been tagged in previous years (Table 2). One was first tagged in 1999, two in 2006, eight in 2012, and 18 in Jun-Jul 2018. No green turtles had been previously tagged.

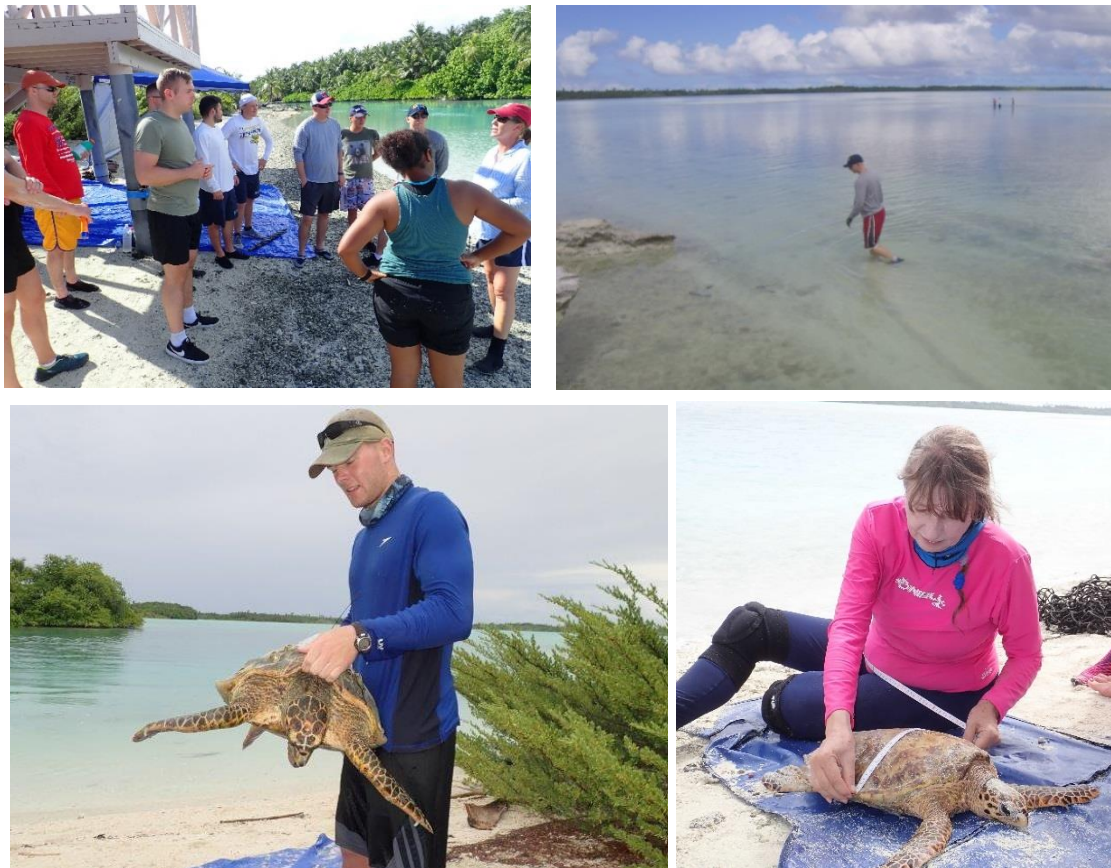


Figure 2 (clockwise from top left). Volunteers were briefed prior to start of activities, volunteers helped catch turtles in Turtle Cove over a period of four days so they could be tagged, measured and weighed, measurement of turtles by Jeanne prior to release.

Amongst the 49 turtles captured, the average weight was 9.6 kg (21.1 lb), ranging from 3.35 to 34.3 kg (7.4 to 77.7 lbs). The average over-curve carapace length was 46.0 cm, ranging from 31.4 to 73.4 cm.

Further data analysis will be conducted to evaluate growth rates, population structure, and site fidelity of the Turtle Cove turtles. The satellite transmitters applied to 10 of the Turtle Cove turtles brings to 20 the total number of satellite-tagged turtles in Turtle Cove (see sections 2.4, 3.4), and will provide new insights into the behaviour and ecology of the Turtle Cove aggregation.

3.4 Movements of immature turtles within Diego Garcia lagoon

We attached satellite tags to ten immature hawksbill turtles in the Diego Garcia lagoon at Turtle Cove. We used the same type of tag we have used on adult nesting

green turtles (Argos linked Fastloc-GPS tags), but configured in a smaller size with fewer batteries. Turtles were captured by hand at low tide in Turtle Cove by creeping up on them while they were feeding in shallow water. The carapace was then cleaned using our standard operating procedures (alternate sanding of the carapace and then degreasing with acetone). Each tag was then embedded in epoxy and the attachment smoothed to provide a streamlined shape (see Figure 3). The tag and attachment were then painted with antifouling paint to reduce epibiont growth and, once the paint was dry, the turtle was released.



Figure 3. a) Smaller sized Fastloc-GPS-Argos satellite tags were attached to immature hawksbill turtles. b) Release of turtle after antifouling paint (grey) has dried.

Table 3. Overview of hawksbill immature turtles tagged with satellite transmitters in November 2018.

Argos ID	CCL	Wt	Date	Prev. flipper tagged	Name
64789	64.2	22.5	23/11/2018	N	Callie
64790	65.6	15.0	23/11/2018	N	Donatella
64791	59.2	16.0	23/11/2018	Y	Rafaelle
64792	51.9	13.0	24/11/2018	N	Sophie Reggie
64793	53.5	13.7	24/11/2018	Y	Ronnie Merriman
64794	52.5	12.25	25/11/2018	Y	Samantha
64795	58.5	15.65	26/11/2018	Y	Kris
64796	67.4	24.0	26/11/2018	Y	Ash
64798	56.0	15.45	26/11/2018	Y	Little Sissy Roo
64802	73.4	34.3	26/11/2018	Y	Caleb

These satellite tag attachments will allow us to investigate the extent of movements of immature turtles at Diego Garcia and hence will allow us to identify key areas used

by the turtles. In total, we attached satellite tags to 10 immature hawksbill turtles with these turtles ranging in size from 12.25 to 34.3 kg. Of note, several of these satellite tagged turtles had been flipper tagged in previous years by Dr Jeanne Mortimer, some as long ago as 1999, and so we have background information on their growth rates and length of residence at Turtle Cove.

3.5 Pilot drone surveys of turtle population in the lagoon

A series of five 1km transect surveys separated by 100 m and parallel with the coastline were conducted from eight stations around the southern tip of the lagoon. The three coves at Turtle Cove were surveyed at high water and low water and at 10, 20 and 30 m altitudes to allow a comparison of video footage at different altitudes and tidal states and design the most effective survey to be carried out in 2019.



Figure 4. Drone surveys were carried out at a range of sites, altitudes and tidal states (a) launch sites were placed for maximum range within field of view (b) Operation of the drone was supported with secondary observation through binoculars to maintain visual sight (c) Screenshot from survey showing 12 turtles (and a stingray) in an area of Turtle Cove

3.6 Baseline survey of seagrass habitat in Diego Garcia lagoon

We surveyed a number of seagrass habitats around the lagoon recorded by Drew (1980) as well as surveying foraging areas of the two green immature turtles satellite tagged in June-July 2018 (Table 4). We greatly appreciated the assistance from the Royal Marines as we were able to access distant parts of the lagoon on their boats during their work. Unfortunately seagrass was not found at any of the sites visited. One site could not be surveyed due to bad weather and this site will be visited during the next expedition.

Table 4. Seagrass surveys were carried out at a number of sites recorded during 1970 surveys as well as sites frequently visited by satellite tagged immature green turtles in 2018. All 1970 surveys recorded one seagrass species *Thalassodendron ciliatum*.

Site	Depth, description	Source	Surveyed
Orient Bay, E Diego Garcia	ELWS, Extensive areas lagoon reef flat	Drew, 1980	05/12/2018
Eclipse Bay, Diego Garcia	ELWS, Extensive areas lagoon reef flat	Drew, 1980	06/12/2018
Lagoon SE, Diego Garcia	2 m, Extensive patches in lagoon	Drew, 1980	06/12/2018
Eclipse Bay, Diego Garcia	6 m, 1 single plant	Drew, 1980	06/12/2018
West Island, Diego Garcia	ELWS, patch of defoliated rhizomes/stems	Drew, 1980	Postponed
Lagoon SE, Diego Garcia	Cluster of Fastloc-GPS locations	Satellite tagged green turtle	06/12/2018
Turtle Cove entrance	Cluster of Fastloc-GPS locations	Satellite tagged green turtle	06/12/2018

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Appendix 1: Expedition activity log**Table 1.** Turtle survey patrol details: 87 volunteers assisted the team in November-December 2018, some helping on several days.

DAY	DATE	TIME	ACTIVITY	# Vol
Tuesday	20 Nov 18	-	Travel: Bahrain to DG	NA
Wednesday	21 Nov 18	all day	Equipment preparation. Meetings with Brit Rep, Ag. Air Boss. 16:30 Research briefing & signup	NA
Thursday	22 Nov 18	08:00-10:00 all day	Turtle Cove: drone trials, equipment preparation	NA
Friday	23 Nov 18	07:00	Turtle Cove: Juvenile turtle monitoring & Satellite Tracking	12
Saturday	24 Nov 18	07:45	Turtle Cove: Juvenile turtle monitoring & Satellite Tracking	11
Sunday	25 Nov 18	08:30	Turtle Cove: Juvenile turtle monitoring & Satellite Tracking	11
Monday	26 Nov 18	09:00	Turtle Cove: Juvenile turtle monitoring & Satellite Tracking	10
Tuesday	27 Nov 18	06:30	Drone Surveys --Turtle Cove	0
		14:00	Nesting Hawksbill Beach Surveys	11
Wednesday	28 Nov 18	06:30	Drone Surveys: Lagoon	0
		14:00	Nesting Hawksbill Beach Surveys/ Satellite Tracking	3
Thursday	29 Nov 18	06:00	Nesting Hawksbill Beach Surveys/ Satellite Tracking	13
Friday	30 Nov 18	06:00	Nesting Hawksbill Beach Surveys/ Satellite Tracking	6
Saturday	1 Dec 18	06:00	Nesting Hawksbill Beach Surveys/ Satellite Tracking	6
Sunday	2 Dec 18	06:00	Nesting Hawksbill Beach Surveys/ Satellite Tracking	14
Monday	3 Dec 18	06:00	Nesting Hawksbill Beach Surveys/ Satellite Tracking	8
		17:00-18:30	Drone Surveys: Lagoon	0
Tuesday	4 Dec 18	10:45-12:30	Drone Surveys: Lagoon	0
		pm	Data compilation	0
Wednesday	5 Dec 18	08:00-11:30	Seagrass Surveys: Barton Point region inside lagoon	2+
		15:00-18:00	Drone Surveys: Lagoon	0
Thursday	6 Dec 18	06:00-08:45	Nesting beach survey & Deploy camera traps on beach	0
		09:30-11:45	Seagrass Surveys: Shark Cove region inside lagoon	
		13:00-14:30	Download satellite tracking data from MOTE	
		15:00-17:00	Seagrass survey: NW inner coastline of lagoon near POL	3
Friday	7 Dec 18	07:30-10:00	Drone Surveys: Turtle Cove	0
		13:30-16:00	Snorkel Turtle Cove to study turtle behaviour <i>in-situ</i>	1
		16:30-18:30	Drone Surveys: Lagoon	1

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DAY	DATE	TIME	ACTIVITY	# Vol
Saturday	8 Dec 18	07:00-09:00	Nesting beach survey & Deploy camera traps on beach	NA
		09:00-14:00	Drone Surveys: Turtle Cove (experiment with 10m-20m altitudes)	NA
Sunday	9 Dec 18	08:00	Seagrass survey: between O-Club & West Island (Aborted: bad weather)	2
		09:00-14:00	Nesting beach survey & Deploy camera traps on beach	NA
		14:00	Prepare equipment for departure	NA
Monday	10 Dec 18	All day	Equipment pack up and delivery (Air Tower, Moody Brook, Police Station, Public Works, BIOT HQ). Debrief meetings (Environment Officer, XO, RoPo3, Public Works)	NA