

HISTORICAL SUMMARY OF SEA TURTLE OBSERVATIONS AT ROSE ATOLL, AMERICAN SAMOA, 1839-1993

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	Source of Information	Date	Observations
1.	C. F. Girard (U.S. Exploring Expedition)	7 October 1839	"Several individuals were seen, and one captured, viz., a young male. Their trails were frequent in the sand, to the upper part of the beach, visited apparently for the purpose of depositing their eggs; but none of the latter were discovered, though careful search was made. In the shallow part of the lagoon I had an opportunity of witnessing the speed with which they travel in the water, and was surprised to find them in all appearances quite a match for the shark in this respect. The one captured had the alimentary canal crowded with seaweeds (the <u>Caulerpa</u> , seen at Raraka), and I am at a loss to imagine where a sufficient supply of this substance can be procured, unless at considerable depth. This may also account for the general scarcity of these animals among these islands where marine vegetables are so rare."
2.	C. Wilkes (U.S. Exploring Expedition)	7 October 1839	"Several small turtles seen feeding on fucus that grows on the reefs."

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	Source of Information	Date	Observations
3.	Capt. Rantzau {quoted by Graeffe 1873, Setchell 1924, Sachet 1954, Wiens 1962, and Hirth 1971}	Sometime between 1860 and 1873 probably late 1860s	"On the sand island, in the months of August-September, a great number of sea turtles came to lay their eggs. Most of them were the common sea-turtle (<i>Chelonia mydas</i> L.). More seldom came the caret (<i>Chelonia imbricata</i> L.). When the time came for the young to hatch, the surrounding sea was full of sharks who avidly snapped up the little turtles as fast as they arrived in deeper water."
4.	G. Mayor (quoted by Setchell 1924)	5-6 June 1920	No turtles observed.
5.	American Samoa weekly news bulletin (quoted by Sachet 1954)	February 1953	"Reported evidences of the presence of turtles."
6.	S. Swerdloff and Needham 1970 (quoted by Coffman 1977)	21 August 1970	Two turtles seen in the water; three nests excavated but no eggs found.
7.	H. F. Hirth 1971	7 October 1970	No nesting observed, but 301 pits were counted on Rose Island and 35 pits counted on Sand Island.
8.	Nass (quoted by Coffman 1977)	21 October-5 November 1971	"Turtle pits throughout the islands."
9.	E. Kridler (unpubl. report FWS)	3-4 November 1971	Two green turtles seen nesting on Rose Island; U.S. Fish and Wildlife Service tags 1080 and 1081 applied in duplicate numbers; no hatchlings seen; 20 nesting pits on Sand Island.
10.	S. Swerdloff (quoted by Sekora 1974)	Late August 1974	Aerial survey--estimated 200 turtles in the lagoon area.
11.	P. Sekora (quoted by Balazs 1982)	October 1974	Aerial survey--75 adults counted in the lagoon.

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	Source of Information	Date	Observations
12.	P. Sekora, S. Swerdloff, and R. Wass quoted by Pedro 1979 (unpubl. report ASG)	23 November 1974	Eleven green turtles ashore on Rose Island, one of which was observed laying eggs. Six hatchlings observed, two of which were attacked by rats. 173 recent and 124 old pits seen on Rose Island; 135 pits seen on Sand Island. Two hawksbills seen. Swerdloff states that hawksbills nest from May-July, green turtles nest from August-October.
13.	A. B. Amereon, A. Kuruc, R. Wass, and F. Zeiller-(unpubl. report ASG)	20-25 October 1975	"Tracks appearing recent totaled 52 (indicating about 26 animals); track counts during visit: 10/21-22=3; 10/22-23=3; 10/23-24=1." Huge adult stranded at low tide on north reef. Hatchling found outside channel entrance. 247 pits counted on Rose Island and 148 pits counted on Sand Island.
14.	A. B. Amerson (unpubl. report ASG)	5-7 May 1976	Old nests were present, but no nesting. Three adults and one juvenile seen in the lagoon. No hatchlings seen.
15.	P. Sekora (quoted by Coffman 1977)	20-21 October 1976	63 tracks and 231 pits were seen on Rose Island; 52 tracks and 175 pits seen on Sand Island.
16.	Rati Faiai (unpubl. report ASG)	29 March 1977	Aerial survey--"50 turtle tracks estimated 120-150 turtle single tracks." Four turtles seen in the lagoon.
17.	H. Seseapasara and R. Mehl (unpubl. report ASG)	21 June 1977	Aerial survey--14 tracks seen on Rose Island and 14 tracks seen on Sand Island.
18.	H. seseapasara, B. J. McLaverty, and M. Malala (unpubl. report ASG)	28 July 1977	Aerial survey--14 tracks seen on Rose Island and 8 tracks seen on Sand Island.
19.	H. Seseapasara and J. Claney (unpubl. report ASG)	23 August 1977	Aerial survey--two turtles seen in the lagoon.

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	Source of Information	Date	Observations
20.	R. A. Coleman and P. Bryan (unpubl. report FWS)	29 March 1978	Old pits observed. One very recent track on Rose Island and four pits, perhaps 1 month old. Numerous black-tipped sharks around Rose Island. Old rib bones of a turtle found on Sand Island. One adult green turtle seen in the channel.
21.	R. Pflum, J. R. Stafford, and S. R. Peters (unpubl. report ASG)	8 May 1978	Aerial survey--four turtles seen in the lagoon and two outside the lagoon. No signs of recent tracks or nests.
22.	D. Swan, R. Stober, and B. Morris (unpubl. report ASG)	7 June 1978	Aerial survey--one clear set of tracks on Rose Island as well as several older tracks and signs of nesting. Several tracks seen on Sand Island, but not known if they were recent.
23.	T. Ritchie (in Litt. MV <u>Lindblad Explorer</u> to G. H. Balazs)	29 October 1978	Numerous pits on both islands. Two green turtles and one hawksbill were seen in the channel.
24.	E. Knudtson and H. Sesepasara (unpubl. report ASG)	Early October 1979	Aerial survey--estimated a maximum of 11 turtles in the lagoon.
25.	J. Laupapa (unpubl. report ASG)	Early October 1979	Aerial survey-"tracks seen on the island and 17 turtles; 5 were on dry grounds all heading inland."
26.	G. H. Balazs and W. Pedro (direct observations)	10-13 November 1980	Five nesting green turtles tagged on Rose Island, three which were measured (CCL-111, 104, and 104 cm). Five recent and 150 older pits were counted on Sand Island. Ten recent pairs of tracks counted on Rose Island upon arrival. One juvenile (ca. 45 cm) and several adult green turtles were seen in the lagoon. No hatchlings were seen.
27.	G. Ludwig, W. Pedro, R. Wass, and M. Naughton (unpubl. report FWS)	18-20 November 1981	Three nesting green turtles tagged on Rose Island (CCL-106, 106, 94 cm) and one juvenile hawksbill (43 cm) tagged from the lagoon.

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	Source of Information	Date	Observations
28.	G. Ludwig, W. Pedro, R. Wass, and S. Fefer (unpubl. Report FWS)	23-26 March 1982	One pair of tracks and 3 pits seen on Sand Island. All old tracks and pits erased by a storm in February 1982. One juvenile and three adult green turtles seen in the lagoon. Three adult males seen outside the lagoon. Dead hatchling found on Sand Island.
29.	G. H. Balazs, W. Pedro, G. Ludwig, and R. Davis (direct observations)	5-14 October 1982	Seven nesting green turtles tagged on Rose Island (SCL 105 and 96 cm; CCL-100, 108, 99, 98, and 94 cm). Five pairs of tracks and 29 pits counted on Rose Island upon arrival. 27 pits counted on Sand Island. Several juvenile and adult green turtles seen in the lagoon. All traces of nesting from previous years had been erased by a storm in February 1982.
30.	R. Wass (unpubl. Report ASG)	22-26 October 1984	Five nesting green turtles tagged on Rose Island (CL-110, 106, 102, 102, and 92 cm). Visit coincided with the new moon and very high tides. Fresh tracks indicative of nesting attempts were counted each morning on Rose Island, as follows: 10/22=4; 10/24=7; 10/25=11; 10/26=11. On the morning of 10/23 all tracks were found erased by the high tide. 100 pits were counted on Rose Island and 73 pits on Sand Island. Only pits that appeared relatively fresh (<3 months) were counted. Several excavations in the same area were considered as one "pit."
31.	R. Buckley and D. Itano (unpubl. report ASG)	21-23 November 1985	48 plainly visible tracks and 126 pits seen on Rose Island; 7 tracks and 118 pits seen on Sand Island. None of the nests appeared to be recent (i.e., within the last few days). No new nesting was seen during this 3-day period. A pair of mating turtles seen each day. Several adults and juveniles also seen in the lagoon.
32.	V. Niوماتasere (in Litt. to G. H. Balazs)	July 1986	Green turtle 3504-3505 tagged nesting on Rose Island in November 1980 captured by net and eaten in Kadavu, Fiji.

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	Source of Information	Date	Observations
33.	G. H. Balazs and K. Sooto (direct observations)	7-10 October 1986	Two pairs of tracks and 8 pits counted on Rose Island; one pair of tracks and 1 pit counted on Sand Island. Only one nesting green turtle seen during this 3-day period (5818 5821 originally tagged on Rose Island in October 1982). A pair of mating turtles seen on 10/7. Several adult green turtles seen both inside and outside of the lagoon. One juvenile green seen in the lagoon on 10/10.
34.	D. Hu (unpubl. Report FWS)	7-10 November 1986	One nesting green turtle tagged on Rose Island (CCL-101 cm). New pits were counted each morning on Rose Island, as follows: 11/8=4; 11/9=2; 11/10=0. A survey of Sand Island on 11/9 found "8 relatively recent tracks."
35.	D. Itano (unpubl. report ASG)	12-16 February 1987	Four pairs of tracks with 10 pits counted on Rose Island "that were clearly post-storm" (e.g., after 1/18/87). In addition, six pairs of "pre-storm tracks" were seen that matched mapping done in 11/86. No nesting turtles were seen on Rose Island, nor were there any signs of hatchlings. Eight pairs of "post-storm tracks" along with 20 pits were counted on Sand Island.
36.	D. Forsell, R. Bauer, and W. Knowles (unpubl. report FWS)	12-13 October 1988	Two green turtles tagged on Rose Island (CCL-98, 97 cm), one while nesting, and one stranded at low tide on the reef. "Observers walked the perimeter of the island every 2 hours on both nights and found no fresh tracks except for the individual which was tagged."
37.	C. Rowland (unpubl. report FWS)	14-16 March 1989	"No turtles were seen on this trip. A number of tracks and pits which were thought to be recently made were recorded." "On Sand Island two turtle tracks were seen, one leading to a pit."

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	Source of Information	Date	Observations
38.	D. Forsell (unpubl. report FWS)	24-26 October 1989	Two nesting green turtles tagged on Rose Island (CCL-97, 95 cm). "About 70 tracks and 127 pits of which some pits were from last year" counted on Rose Island. "17 Tracks and 48 pits" counted on Sand Island. "The number of tracks and pits were similar to those found on the October 1988 trip."
39.	B. Ponwith (unpubl. report ASG)	15-18 August 1990	"Only one set of tracks, which led to what appeared to be a false pit, were observed on Rose Island upon arrival." Several old nesting pits were seen, one of which still had traces of orange paint used to mark pits in October 1989. On the morning of 8/16 a CCL 101-cm green turtle was tagged while nesting on Rose Island. The skull and ribs of a turtle were found on 8/17 near transect stake #31. "Five sets of tracks and 10 nesting pits were found on Sand Island. One set of tracks looked very fresh. Since Sand Island was "completely defoliated" from Hurricane Ofa (2/30/90), all old turtle pits would have also been erased.
40.	B. Ponwith (unpubl. report ASG)	18 October 28 November 1990	Nightly surveys were conducted by walking around Rose Island at two-hour intervals throughout the 40-day study period (longest scientific visit on record). Two nesting green turtles were seen and tagged (CCL-103 and 101 cm), as well as one previously tagged nesting turtle, now with an amputated left front flipper (5804-CCL109 cm), originally tagged on Rose 11/11/81. 128 pits believed to have been dug since 10/89 were counted on Rose. 18 pits were counted on Sand Island. During the study period, 26 new pits were dug on Rose and 8 on Sand. Individual hatchlings were seen on 7 occasions and a pair seen once. A hatchling was noted being attacked by a crab.

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	Source of Information	Date	Observations
41.	T. Morrell (unpubl. report ASG)	27 April-2 May 1991	Nightly surveys were conducted at two-hour intervals around Rose Island. No nesting activity was encountered. A hawksbill was reported observed in the lagoon by Roger DiRosa.
42.	T. Morrell (unpubl. report ASG)	30 August- 8 September 1991	Nightly surveys were conducted at two-hour intervals around Rose Island. Three nesting green turtles were encountered and tagged (CCL-94, 95, and 98 cm).
43.	B. Ponwith (unpubl. report ASG) and D. A. Williamson(unpubl. report FWS)	9-27 September 1991	Surveys were conducted at two-hour intervals around Rose Island during several nights of this visit. Six nesting green turtles were tagged with CCLs of 95, 100, 101, 106, 109, and 112 cm. Two other nesting turtles were encountered that had been tagged 8/30-9/8/91. A total of 5 new sets of tracks were recorded on Sand Island during 7 daytime trips made there from 9/13-9/26/91.
44.	A. Tawake (in Litt. to G. H. Balazs)	17 February 1992	Green turtle 6821, 6822, 6823 tagged nesting on Rose Island in October 1988 found badly wounded "and still dragging the spear gun with it" lying on the reef near Sigatoka, Fiji. Turtle subsequently died.
45.	B. Flint (unpubl. report FWS)	11-25 June 1992	Six sets of tracks and 14 pits of unknown age were counted upon arrival at Rose Island. All tracks were raked and surveys conducted nightly until 6/25/92 every three hours (2100, 2400, 0300, 0600). No turtles or new tracks were encountered. Sand Island was visited twice and no pits or tracks were found there. Three turtles were seen on 6/18/92 while snorkeling at a pinnacle near the channel entrance. They included two green turtles (an adult and 2 subadults 60-70 cm, and a hawksbill 60-70 cm) The last rat on Rose Island was believed caught on this trip.

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	Source of Information	Date	Observations
46.	G. Grant (unpubl. report ASG)	19 September- 1 October 1992	Upon arrival at Rose Island, 26 sets of tracks were counted associated with 37 pits. Between 9/19-10/1/92, 10 more sets of tracks were recorded along with 32 additional pits. Six nesting green turtles were tagged during this period with CCLs of 97, 99, 100, 103, 104, and 113 cm. Surveys were conducted nightly every three hours. On Sand Island, a total of 12 pits were counted during a survey made on 9/26/92.
47.	G. Grant and K. Sooto (unpubl. report ASG)	16 March 1993	During a daytime survey of Rose Island on 3/16/93, 12 sets of tracks associated with 28 pits, newly made since 10/1/92, were recorded. The nesting green turtle without tags found dead by Capt. Paul Pedro during late October 1992 was still on the island. No tracks or pits were found on Sand Island.

ASG = American Samoa Government
 FWS = U.S. Fish and Wildlife Service
 CCL = Curved carapace length
 SCL = Straight carapace length

No. green turtles tagged to date = 45
 No. tag resightings = 2 remigrations recorded at Rose Island and 2 migrations to Fiji.
 No. hawksbill tagged to date = 1 juvenile

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