

## RESEARCH ACTIVITIES REPORT

SUMMARY OF RECENT FINDINGS RELATING TO GREEN TURTLES AT KAWELA BAY, OAHU

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by

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Kawela Bay on the north shore of Oahu is an important foraging area for green turtles previously identified and studied by Balazs, Forsyth and Kam (NOAA-TM-NMFS-SWFC-71, 1987). Tourist resort development along the eastern half of the bay is forthcoming. The project may also include certain alterations in the nearshore marine habitat. The following recent findings for Kawela Bay are therefore of significance to obtaining a better understanding of habitat use by turtles at this location.

On December 9, 1989 a green turtle severely afflicted with fibropapillomas (tumors) was found by residents to be entangled in the mooring line of a small buoy in the middle of the bay. The turtle was subsequently cut free and seen to swim away in a weakened state. This case constitutes the first known record of a turtle at Kawela Bay to be clearly diseased with tumors.

On December 11, 1989 a Kawela Bay resident reported that large numbers of fecal pellets suspected to be from turtles were washing up on the beach. On December 13 GHB visited with the informants to confirm and investigate this discovery. A walk was made along the entire sand shoreline of the bay between noon and 1 pm, at which time 197 freshly washed-up fecal pellets of green turtles were counted and collected. This density was reported by the informants to be substantially less than what had been present the previous

Summary of green turtle netting at Kawela Bay<sup>a</sup>, Oahu  
by

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Study date	Net length (m)	Hours of netting	Netting efforts (meter-hrs)	No. turtles captured	Catch per unit effort
26-28 Mar 85	60	40	2,400	19	.008
15-16 Apr 85	36	15	540	6 <sup>b</sup>	.011
27-28 Jun 85	36	12	432	5	.012
2-3 Jul 85	36	12	432	6 <sup>c</sup>	.011
20-21 Feb 86	36	14	504	1	.002
28-29 Mar 90	42	8	336	1	.003
			Total	38	

Total no. of turtles--35

<sup>a</sup>All netting conducted off Don Ho's property at the northwestern side of the bay where conditions are acceptable.

<sup>b</sup>Includes one recapture.

<sup>c</sup>Includes 2 recaptures, 1 of which had already been recaptured on 15 April 1985.

Summary of green turtles tagged and resighted at Kawela Bay, Oahu  
(Report of 4 April 1990)

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Tag No.	Carapace length (cm)		Weight (lb)	Comments
	straight	curved		
<u>26-28 March 1985</u> (19 turtles)				
8751,52	49.9	52.5	--	--
8753,54	44.0	46.0	--	--
8755,56	56.4	61.5	--	--
8757,58	55.9	59.5	--	--
8759,60	59.6	62.5	--	--
8761,62,63	64.0	68.5	--	--
8764,65,66	69.0	72.5	--	Salt gland anomaly?.
8767,68,69	75.1	81.0	--	--
8770,71,72	66.3	70.0	--	Extra plastron scute.
8773,74	38.7	40.5	--	--
8775,76,77	67.5	71.5	--	--
8778,79,80	54.4	57.5	--	--
8781,82,83	72.0	75.5	--	--
8784,85	53.1	56.0	--	Passed monofilament line.
8786,87,88	67.0	71.5	--	Growth band in carapace scutes.
8989,90,91	69.7	75.0	--	--
8992,93,94	74.7	79.8	--	--
8995,96,97	66.3	70.5	--	--
No tags	55.5	59.0	--	Spirorchidae.
<u>15-16 April 1985</u> (6 turtles)				
8761,62,63	64.4	--	78	Recapture from 3/26/85.
8798,99	65.7	70.5	82	--
8800				
8801,02,03	54.0	58.0	46	--
8804,05	40.4	42.5	24	--
8806,07,08	61.9	65.5	76	--
8809,10,11	67.6	72.5	91	RHF partly missing; 11th MSL missing.



Continued.--Summary of green turtles tagged and resighted at Kawela Bay, Oahu (G. H. Balazs, 4/4/90).

Tag No.	Carapace length (cm)		Weight (lb)	Comments
	straight	curved		
<u>25 June 1985</u> (1 hand captured using scuba)				
8489,90	42.5	44.5	--	<u>A. glomerata</u> , <u>C. edule</u> , <u>Pterocladia</u> .
<u>27-28 June 1985</u> (5 turtles)				
8493,94	40.8	43.9	--	<u>L. mariannensis</u> - 99%.
8502,03,04	67.7	73.0	--	<u>A. spicifera</u> - 100%.
8499,8500 8501	60.9	65.0	--	<u>A. spicifera</u> - 99%.
8497,98	47.6	50.2	--	<u>A. spicifera</u> - 99%. <u>L. nidifica</u> - 1%.
8495,96	44.9	47.0	--	<u>A. spicifera</u> - 99% <u>C. edule</u> - 1%.
<u>2-3 July 1985</u> (6 turtles)				
8761,63 (8505)	64.5	69.7	--	Recapture from 3/26 and 4/15/85, <u>A. glomerata</u> - 99% <u>Laurencia</u> sp. - 1%.
8506,07	67.0	70.0	--	<u>A. spicifera</u> - 99%.
8778,79,80	54.6	58.5	--	Recapture from 3/27/85; <u>A. spicifera</u> - 99%.
8508,09	43.4	45.5	--	<u>A. spicifera</u> - 99%.
8510,11	50.2	53.0	--	<u>A. spicifera</u> - 99%.
8512,13	52.9	56.5	--	<u>A. spicifera</u> - 99% <u>L. nidifica</u> - 1%.
<u>20-21 June 1986</u> (1 turtle)				
8851,52 <b>9087,88</b>	46.3 <b>39.1</b>	48.5 <b>42.0</b>	--	<u>14 March 1990</u> (1 turtle) <u>28-29 March 1990</u> (1 turtle) Entanglement in gill net.
Y289,99 Y300	63.0	67.0	77	Salt gland anomaly?







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