



8-15 SEPTEMBER 2001 Midway II

太平洋に浮かぶ 2001



ミッドウェイ環礁

2 OF 2

MIDWAY / GEORGE BALAZS 2001

School **GEORGE BALAZS**

Grade **8-15 SEPTEMBER 2001**

Wide Ruled *George Balazs (808) 455-4009*

8 3/4 x 7 1/2 in. 100 Sheets
24.75 x 19.05 cm **MIDWAY III**



Shoreline Fishing Data Form

SAND ISLAND, MIDWAY ATOLL NWR



ANGLER: _____

DATE: _____

Operating Area: Rusty Bucket () Bulky Dump () Cargo Pier () Southeast Seawall () North Beach ()

Type of Gear Used: Pole/line () Spinning gear () Fly Fishing () Chumming: Yes () No ()

Start Time _____ End Time _____

FISHING RECORDS

Species	No. Strikes	No. Hook-ups	No. Caught	No. Lures Lost	Est. of Line Lost (in)	No. Bird Strikes/ Type ¹	Species of Bird Struck ²	Notes

¹ L = lure/hook, F = fishing lines, O = other (please describe in Notes)

² LAAL = Laysan Albatross, BFAL = Black-footed Albatross, RFBO = Red-footed Booby, GRFR = Great Frigatebird

Please complete the Wildlife Observation Log on the back



(over)



194

1990

9/13/01 collected where small green turtle
(~44cm) was seen
feeding.



Midway Atoll Green Turtle Algae Samples

Results of identifications done by Dennis J. Russell on December 30, 2000

11-14-00 Midway Atoll, #4135796E0E, MT #51, mouth sample

Spyridia filamentosa All

11-16-00 Midway Atoll, #414B682450, MT #56, stomach flush

<i>Halophila hawaiiiana</i>	95%
<i>Spyridia filamentosa</i>	3
<i>Zonaria</i> sp.	2
<i>Hypnea</i> sp.	1
<i>Centroceros clavulatum</i>	Trace
<i>Cladophora</i> sp.	Trace
<i>Sargassum</i> sp.	Trace
1 micromollusc snail	
1 amphipod	

11-17-00 Midway Atoll, #41351A476D, MT #59, stomach flush

<i>Centroceros clavulatum</i>	Trace
<i>Jania capillacea</i>	Trace
Masses of jellyfish tissue with nematocystes	
2 amphipods	
2 isopods	
3 small (1-2 mm long) flukes or marine leeches	
1 sea cucumber larva?	
1 hydrazoan	
Curled, coiled purple synthetic fibers 10 um thick	
Paper pieces and fibers	
Squamous epithelium tissue and loose cells	

11-17-00 Midway Atoll, #413639640E, MT #60, stomach flush

<i>Laurencia nidifica</i>	90%
<i>Codium cuniatum</i>	5
<i>Laurencia</i> sp.	4
<i>Centroceros clavulatum</i>	1
<i>Ceramium</i> sp.	Trace
<i>Griffithsia</i> sp.	Trace
<i>Halophila hawaiiiana</i>	Trace
<i>Polysiphonia</i> sp.	Trace
<i>Sphacelaria tribuloides</i>	Trace
<i>Spyridia filamentosa</i>	Trace
Squamous epithelia cells abundant	

11-14-00 Midway Atoll, #1F6D676D20, MT #15, mouth sample

99

Hypnea nidifica

Trace

Dictyota crenulata

Trace

11-16-00 Midway Atoll, #4136342335, MT #55, fecal samples

Halimeda sp.

Trace

Lyngbya majuscula

Trace

Terrestrial vegetation (trace)

Spong spicules, masses and major bulk of sample contents

Turquoise blue paint chips

10-30-00 Midway Atoll, Stomach necropsy sample A

Halophila hawaiiiana (with nice flowers) 90%

Codium cuneatum 10

Laurencia sp. Trace

Microdictyon setchellianum Trace

Orange sponge spicules and small chunks

10-30-00 Midway Atoll, Stomach necropsy sample B

Halophila hawaiiiana 99%

Tufts of filamentous meshwork red algae 1

(looks like the tips off *Galaxaura* sp.)

Bright orange sponge, 2 cm³

Summary of species found in these samples:

Chlorophyta

Cladophora sp.

Codium cuniatum

Halimeda sp.

Microdictyon setchellianum

Sea Grass

Halophila hawaiiiana

Phaeophyta

Dictyota crenulata

Sargassum sp.

Sphacelaria tribuloides

Zonaria sp.

Rhodophyta

Ceramium sp.

Griffithsia sp.

Galaxaura ?

Hypnea nidifica

Hypnea sp.

Jania capillacea

Laurencia nidifica

Laurencia sp.

Potysiphonia sp.

Spyridia filamentosa

Cyanophyta

Lyngbya majuscula

6



10-14-01
10-15-01
10-16-01

Submarine
10-17-01
10-18-01
10-19-01

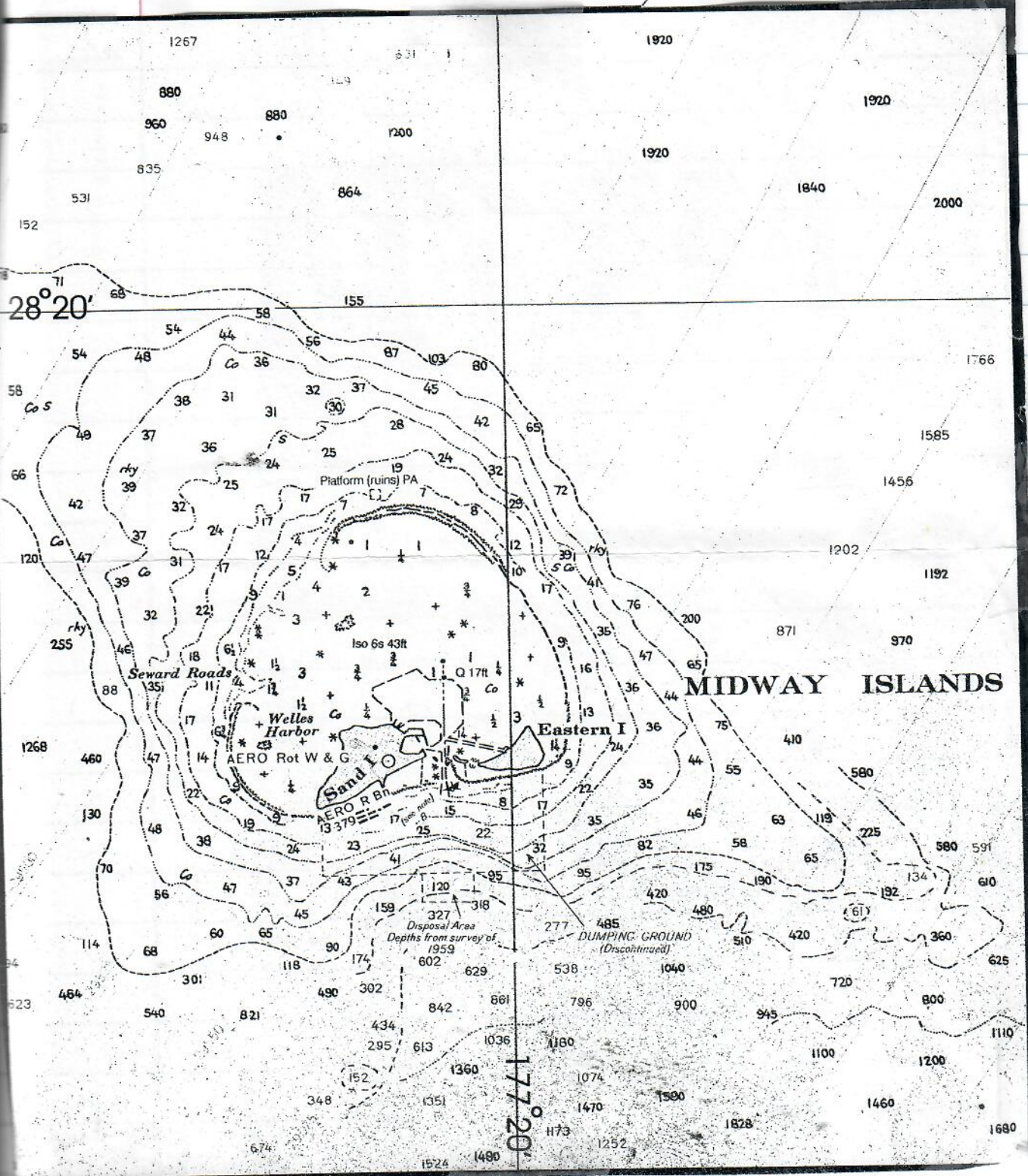
AT	Notes	Date
AT 2	Submarine w/ Alcohol	(9-9-01)
AT 11	" "	(9-10-01)
AT 35	" "	(9-11-01)
AT 37	" "	(9-12-01)
AT 67	White Sub w/ Alcohol	(9-11-01)
AT 5	" "	(9-10-01)
AT 13	" "	(9-15-01)
AT 14	" "	(9-14-01)



28°20'

177°20'

MIDWAY ISLANDS



Journal of [unclear]

8 Sept
 9 Sept
 10 Sept
 11 Sept
 12 Sept
 13 Sept
 14 Sept
 15 Sept



IKONOS SATELLITE / AUGUST 2001

Midway Atoll, with airstrips visible on Sand and Eastern Islands, was the focus of a colossal naval battle in June 1942.

mi mot ez
26

5

1

6

1

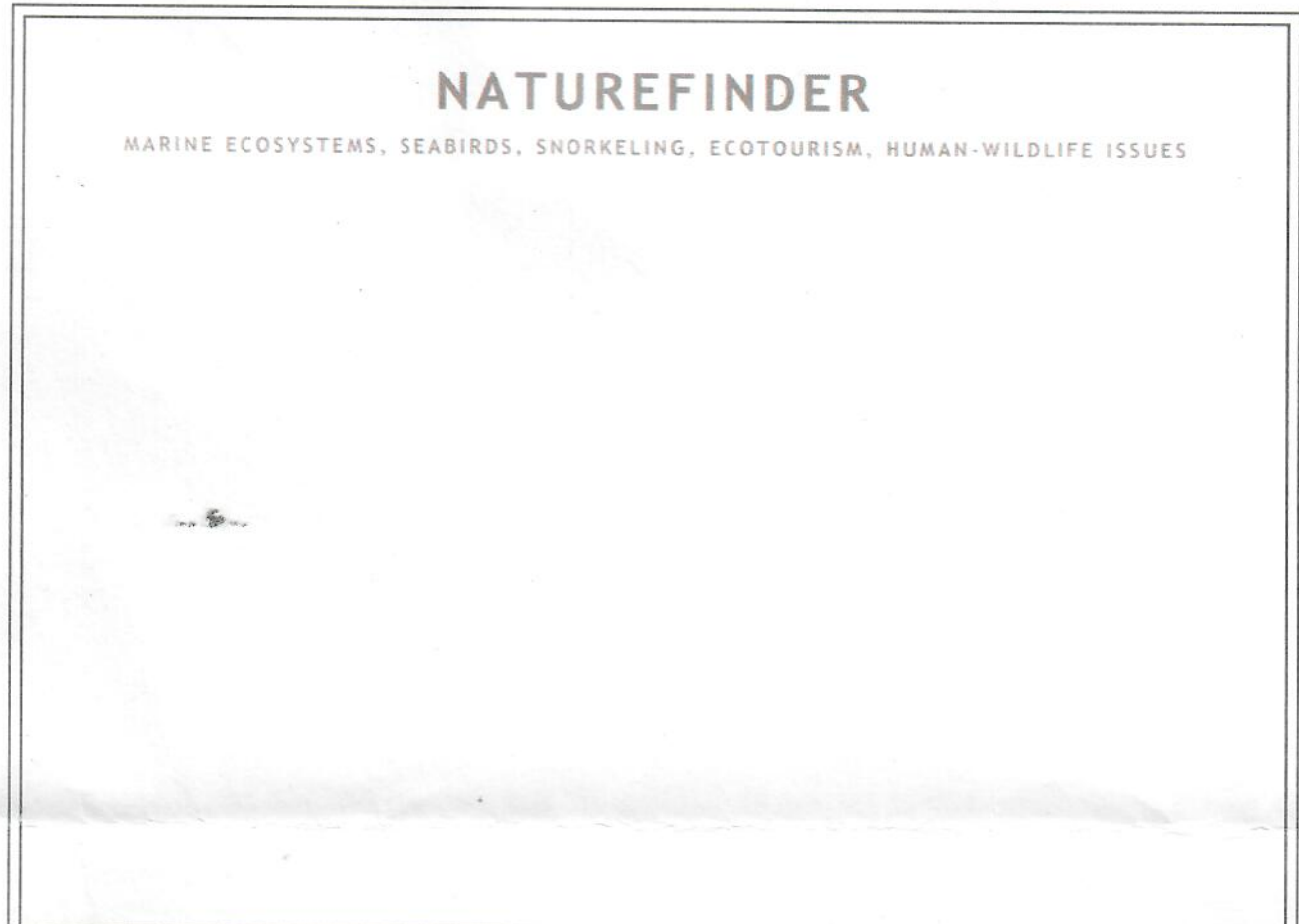


[Share](#) [Report Abuse](#) [Next Blog»](#)

[Create Blog](#) [Sign In](#)

NATUREFINDER

MARINE ECOSYSTEMS, SEABIRDS, SNORKELING, ECOTOURISM, HUMAN-WILDLIFE ISSUES



MONDAY, APRIL 19, 2010

Green Sea Turtle Tracking on Midway Atoll



I am headed back to Midway Atoll today with an Oceanic Society group of 17

persons. Three of these volunteers will be part of our Green Sea turtle "Scoping" mission. I will be joined at Midway by Marc Rice, Director of the Science and Technology and Sea Turtle Research

ABOUT ME



WAYNE SENTMAN

Naturalist, photographer, snorkeler, enjoy

wild places, wildlife, and wild people.

[VIEW MY COMPLETE PROFILE](#)

Featured On:



Best Green Blogs

Programs from the Hawaii Preparatory Academy. We will be working closely with sea turtle guru George Balazs, senior sea turtle biologist from the NOAA Pacific Islands Fisheries science center. Marc and George have been researching sea turtles at Midway and in Hawaii for over 30 years. When I worked at Midway in 1998 to 2002 I was lucky enough to get out in the field on occasion with both and with FWS biologists to help tag and monitor sea turtles there. The last time either Marc or George have been able to get back to Midway was in 2001. We have proposed a Sea turtle Scoping project through Oceanic Society to the FWS in an effort to look at what might be possible in the way of population assessment and monitoring of the sea turtles residing at Midway Atoll National Wildlife Refuge.

Over the years about 180 sea turtles have been tagged at Midway much interesting information has



come from this effort. When Midway was closed to tourism in 2002 the main basking beach (Turtle Beach) utilized by the sea turtles they was afforded extra protection efforts. This was also coincident to a reduction in overall human activity due to the lack of tourism. Over the intervening years the amount of turtles using the beach has increased. It is not uncommon these days to visit Turtle Beach and see 30 to 40 turtles out basking in the sun. In addition in 2006 the first successful nesting activity ever recorded at Midway was observed. With a few more nests being sighted in the last few years. The efforts of FWS to manage the important resting areas for turtles and reduce overall disturbance events seems to be paying off in increased numbers of sea turtles and nesting events. As the numbers of turtles sighted have grown it may be interesting to explore ways to monitor the activity and see if certain individuals are regularly sighted, and how the overall basking behavior or the turtles at this end of the chain compares to what Marc and George have observed in different areas of Hawaii.



BLOG ARCHIVE

▼ 2010 (1)

▼ April (1)

Green Sea Turtle Tracking on Midway Atoll

▶ 2009 (6)

▶ 2008 (1)

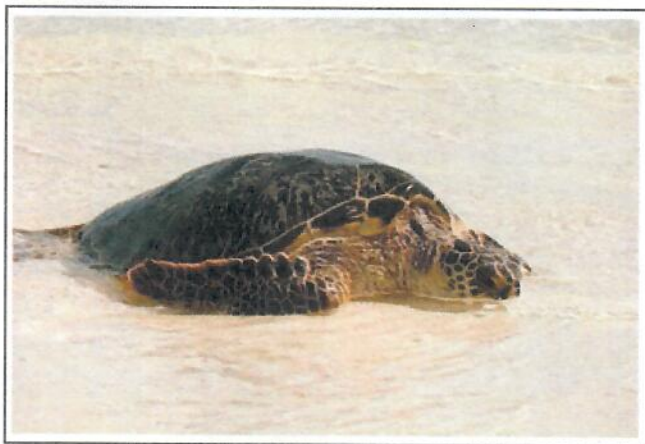
VIDEO BAR



powered by



During this week we will try and get a good assessment of basking activity, sex of animals basking, and



whether animals are out on the beach at night, possibly an indication of predator avoidance rather than basking. Marc has worked on a project at big Island with the Preparatory Academy using video cameras to remotely monitor the behavior and successfully identify re-identify individual turtles over time at the monitored sites. Using facial scale patterns and descriptive keywords it has been shown by Marc and others that sea turtles can be monitored without causing any disturbance to their resting behavior.

Oceanic Society has a long history of helping in the research and protection of sea turtle population



s with their volunteer projects over the years. One of our longest projects has been working with leatherback sea turtles in Suriname. We also have partnered with a great researcher in Ulithi Atoll, Jennifer Cruce, who is working with local communities to protect and monitor green sea turtle populations there. If we can work with the FWS on Midway and George and Marc we hope to continue that tradition. Offering a way to learn from the wonderful turtle activity we are witness to each year during our visitor

NetworkedBlogs

Followers (6)



Follow this blog

FOLLOWERS

Follow

with Google Friend Connect

Followers (10)



Already a member? Sign in

MY BLOG LIST

Best Green Blogs Directory
 Tiny Green Mom
 7 hours ago

SHRIMPSUCK.org
 Indonesia plans to privatise entire 90,000 km coastline for shrimp farms?
 1 week ago

Dive Vava'u
 Campaign against shark sales scores first victory
 2 weeks ago

programs at Midway. It will be great to be back out in the field with Marc after a 9 year hiatus. Stay tuned for updates on what we see and other interesting flora and fauna observed on Midway over the next 3 weeks.

POSTED BY NATUREFINDER AT 4:58 PM 

LABELS: ECOVOLUNTEERS, GEORGE BALAZS, GREEN SEA TURTLES, MARC RICE, MARINE LIFE, MIDWAY ATOLL, OCEANIC SOCIETY, SEA TURTLE CONSERVATION, WAYNE SENTMAN

0 COMMENTS:

Post a Comment

 Home

Older Post

Subscribe to: Post Comments (Atom)

B [Habele](#)
Habele Donation Arrives on Ulithi
4 weeks ago

B [Okavango Crocodile Monitoring](#)
Croc Research Images
8 months ago

B [I'm From Planet WTF](#)
1 year ago

B [Germination](#)
California is pretty too...
1 year ago

09/09 - 09/15/01
MIDWAY RECAPTURES

Historical Information for Turtle Tag 4B2D3663

Tag Information:

Tag Number
424E54174B
4B2D3663
4B3E6E3D

Date
9/9/01
3/26/99
3/26/99

Tag Type
PIT
PIT
PIT

Tag Position
RHF
PIT
LHF

Marine Turtle Research
NMFS HONOLULU LAB
2570 Dole Street
Honolulu, HI 96822-2396

Date	Type of Encounter	Location	Tumor Rank	Nesting Act	Straight Carapace	Since Last Encounter			Overall			
						Interval Month	Year	Growth-Rates cm/mon	Interval Month	Year	Growth-Rates cm/mon	
3/26/99	Near Shore	Midway Island, Sand Island, SE Seawall	0	-	46.1	---	---	---	---	---	---	---
9/9/01	Near Shore	Midway Island, Sand Island, Inner Harbor Seawall	0	-	48.3	29.0	2.4	0.1	29.0	2.4	0.1	0.9
9/14/01	Near Shore	Midway Island, Sand Island, Inner Harbor South Seawall	0	-	---	---	---	---	29.0	2.4	---	---

Historical Information for Turtle Tag N29

Tag Information:

Tag Number	1E7C3E7B	Date	4/5/00	Tag Type	PIT	Tag Position	LHF	Marine Turtle Research
N29	49124554	1/14/99	1/14/99	PIT	RHF	RHF	2570 Dole Street	NMFS HONOLULU LAB
N30		1/14/99	1/14/99	I681	LFL	LFL	Honolulu, HI 96822-2396	

Date	Type of Encounter	Location	TurnorBacks	NestingAct	Straight Carapace	Since Last Encounter			Overall			
						Interval Month	Year	Growth-Rates cm/mon	Interval Month	Year	Growth-Rates cm/mon	
1/14/99	Near Shore	Midway Island, Sand Island	0	-	---	---	---	---	---	---	---	---
4/5/00	Near Shore	Midway Island, Sand Island, Turtle Beach	0	-	80.5	14.0	1.2	---	14.0	1.2	---	---
9/9/01	Near Shore	Midway Island, Sand Island, Turtle Beach	0	-	82.9	17.0	1.4	0.1	31.0	2.6	---	---

Historical Information for Turtle Tag 1C3D1C4E

Tag Information:

Tag Number
1C3D1C4E
1C710056

Date
4/29/99
4/29/99

Tag Type
PIT
PIT

Tag Position
LHF
RHF

Marine Turtle Research
NMFS HONOLULU LAB
2570 Dole Street
Honolulu, HI 96822-2396

Date	Type of Encounter	Location	TurnorBank	NestingAct	StraightCarapace	Since Last Encounter			Overall		
						Interval Month	Year	Growth-Rates cm/mon	Interval Month	Year	Growth-Rates cm/mon
4/29/99	Near Shore	Midway Island, Sand Island, Turtle Beach	0	-	80.3	---	---	---	---	---	---
1/17/01	Near Shore	Midway Island, Sand Island, Turtle Beach	0	-	85.3	20.0	1.7	0.2	20.0	1.7	0.2
9/9/01	Near Shore	Midway Island, Sand Island, Turtle Beach	0	-	87.3	7.0	0.6	0.3	28.0	2.3	0.2
											3.0

Historical Information for Turtle Tag 1C670A23

Tag Information:

Tag Number	1C670A23	Date	10/18/98	Tag Type	PIT	Tag Position	LHF	Marine Turtle Research
	4135687559		9/9/01		PIT		RHF	NMFS HONOLULU LAB
	4912040E		10/18/98		PIT		PIT	2570 Dole Street
								Honolulu, HI 96822-2396

Date	Type of Encounter	Location	Tumor Rank	Nesting Act	Straight Carapace	Since Last Encounter			Overall			
						Interval Month	Year	Growth-Rates cm/mon	Interval Month	Year	Growth-Rates cm/mon	
10/18/98	Near Shore	Midway Island, Sand Island, Cargo pier	0	-	46.7	---	---	---	---	---	---	---
10/20/98	Near Shore	Midway Island, Sand Island, Cargo pier	0	-	---	---	---	---	---	---	---	---
11/12/00	Near Shore	Midway Island, Sand Island, Cargo Pier Seawall	0	-	48.3	24.0	2.0	---	24.0	2.0	0.1	0.8
9/9/01	Near Shore	Midway Island, Sand Island, Inner Harbor (nr Boat House)	0	-	48.9	9.0	0.8	0.1	34.0	2.8	0.1	0.8

Historical Information for Turtle Tag N31

Tag Information:

Tag Number	Date	Tag Type	Tag Position
4513775F	1/18/00	PIT	RHF
7A554E3D	1/18/00	PIT	LHF
N31	1/14/99	I681	LFL
N32	1/14/99	I681	RFL

Marine Turtle Research
 NMFS HONOLULU LAB
 2570 Dole Street
 Honolulu, HI 96822-2396

Date	Type of Encounter	Location	Tumor/Rank	Nesting Act	Straight Carapace	Since Last Encounter			Overall			
						Interval Month	Interval Year	Growth-Rates cm/mon	Interval Month	Interval Year	Growth-Rates cm/mon	
1/14/99	Near Shore	Midway Island, Sand Island	0	-	---	---	---	---	---	---	---	---
1/18/00	Near Shore	Midway Island, Sand Island, Turtle Beach	0	-	89.3	12.0	1.0	---	12.0	1.0	---	---
9/9/01	Near Shore	Midway Island, Sand Island, Turtle Beach	0	-	89.2	19.0	1.6	0.0	31.0	2.6	---	---

Historical Information for Turtle Tag 071E2219

Marine Turtle Research
 NMFS HONOLULU LAB
 2570 Dole Street
 Honolulu, HI 96822-2396

Tag Information:
 Tag Number 071E2219
 70031D51
 Date 10/16/98
 10/16/98
 Tag Type PIT
 PIT
 Tag Position PIT
 LHF

Date	Type of Encounter	Location:	TurnorBanks:	Nesting/Act:	Straight Carapace:	Since Last Encounter			Overall			
						Interval	Year	Growth-Rates	Interval	Year	Growth-Rates	
						Month	Year	cm/mon	cm/mon	Year	cm/mon	cm/yr
10/16/98	Near Shore	Midway Island, Sand Island, Cargo pier seawall	0	-	45.3	---	---	---	---	---	---	---
10/18/98	Near Shore	Midway Island, Sand Island, Cargo pier seawall	0	-	---	---	---	---	---	---	---	---
10/21/98	Near Shore	Midway Island, Sand Island, Cargo pier seawall	0	-	---	---	---	---	---	---	---	---
4/4/99	Near Shore	Midway Island, Sand Island, Cargo pier seawall	0	-	45.5	5.0	0.4	---	---	0.4	0.0	0.5
11/12/00	Near Shore	Midway Island, Sand Island, Cargo Pier Seawall	0	-	45.7	19.0	1.6	0.0	0.1	2.0	0.0	0.2
9/11/01	Near Shore	Midway Island, Sand Island, Cargo Pier Seawall	0	-	46.0	9.0	0.8	0.0	0.4	2.8	0.0	0.3

Historical Information for Turtle Tag 1F1C507B

Marine Turtle Research
 NMFS HONOLULU LAB
 2570 Dole Street
 Honolulu, HI 96822-2396

Tag Information:

Tag Number: 1D677877
 1F1C507B
 Date: 3/27/99
 3/27/99
 Tag Type: PIT
 PIT
 Tag Position: LHF
 PIT

Date	Type of Encounter	Location	Tumor Rank	Nesting Act.	Straight Carapace	Since Last Encounter			Overall			
						Interval Month	Year	Growth-Rates cm/mon	Interval Month	Year	Growth-Rates cm/mon	
3/27/99	Near Shore	Midway Island, Outer seawall of inner harbor	0	-	40.7	---	---	---	---	---	---	---
11/12/00	Near Shore	Midway Island, Sand Island, Cargo Pier Seawall	0	-	41.6	19.0	1.6	0.0	19.0	1.6	0.0	0.6
9/11/01	Near Shore	Midway Island, Sand Island, Cargo Pier Seawall	0	-	42.3	9.0	0.8	0.1	29.0	2.4	0.1	0.7

Historical Information for Turtle Tag 1F28223C

Tag Information:

Tag Number
1F28223C
4A352C30
500F244F09

Date
3/27/99
3/27/99
9/11/01

Tag Type
PIT
PIT
PIT

Tag Position
PIT
LHF
RHF

Marine Turtle Research
NMFS HONOLULU LAB
2570 Dole Street
Honolulu, HI 96822-2396

Date	Type of Encounter	Location	Turnor/Rank	Nesting/Act	Straight Carapace	Since Last Encounter			Overall			
						Interval	Year	Growth-Rates	Interval	Year	Growth-Rates	
						Month	Year	cm/mon	Month	Year	cm/mon	cm/yr
3/27/99	Near Shore	Midway Island, Sand Island, SE Seawall	0	-	45.3	---	---	---	---	---	---	---
9/11/01	Near Shore	Midway Island, Sand Island, Inner Harbor South Seawall	0	-	47.3	29.0	2.4	0.1	29.0	2.4	0.1	0.8
9/14/01	Near Shore	Midway Island, Sand Island, Inner Harbor South Seawall	0	-	---	---	---	---	29.0	2.4	---	---

Historical Information for Turtle Tag 6D662A64

Tag Information:

Tag Number
41362D7129
6D662A64
71572871

Date
9/11/01
10/16/98
10/16/98

Tag Type
PIT
PIT
PIT

Tag Position
RHF
PIT
LHF

Marine Turtle Research
NMFS HONOLULU LAB
2570 Dole Street
Honolulu, HI 96822-2396

Date	Type of Encounter	Location	Tumor Rank	Nesting Act	Straight Carapace	Since Last Encounter			Overall		
						Interval Month	Year	Growth-Rates cm/mon	Interval Month	Year	Growth-Rates cm/mon
10/16/98	Near Shore	Midway Island, Sand Island, Boat house boat ramp	0	-	44.2	---	---	---	---	---	---
10/17/98	Near Shore	Midway Island, Sand Island, Inner harbor south side	0	-	---	---	---	---	---	---	---
9/11/01	Near Shore	Midway Island, Sand Island, Inner Harbor South Seawall	0	-	47.7	34.0	2.8	34.0	2.8	0.1	1.3

Historical Information for Turtle Tag 4135783778

Marine Turtle Research
 NMFS HONOLULU LAB
 2570 Dole Street
 Honolulu, HI 96822-2396

Tag Information:

Tag Number	Date	Tag Type	Tag Position
4135783778	9/11/01	PIT	LHF
413E4B4826	9/11/01	PIT	RHF

Date	Type of Encounter	Location	Turnout Rank	Nesting Act.	Straight Carapace	Since Last Encounter			Overall		
						Interval Month	Year	Growth-Rates cm/mon	Interval Month	Year	Growth-Rates cm/mon
9/11/01	Near Shore	Midway Island, Sand Island, Inner Harbor South Seawall	0	-	44.9	---	---	---	---	---	---
9/14/01	Near Shore	Midway Island, Sand Island, Inner Harbor South Seawall	0	-	---	---	---	---	---	---	---

Historical Information for Turtle Tag 3D286D0A

Marine Turtle Research
 NMFS HONOLULU LAB
 2570 Dole Street
 Honolulu, HI 96822-2396

Tag Information:
 Tag Number
 3D286D0A
 4940141A

Tag Position
 RHF
 LHF

Tag Type
 PIT
 PIT

Date
 1/11/00
 1/11/00

Date	Type of Encounter	Location	Turnor/Blank	Nesting/Act	Straight Carapace	Since Last Encounter			Overall			
						Interval Month	Year	Growth-Rates cm/mon	Interval Month	Year	Growth-Rates cm/yr	
1/11/00	Near Shore	Midway Island, Sand Island, Turtle Beach	0	-	88.6	---	---	---	---	---	---	---
9/11/01	Near Shore	Midway Island, Sand Island, Turtle Beach	0	-	87.7	20.0	1.7	0.1	20.0	1.7	0.6	0.1

Historical Information for Turtle Tag 1F792011

Tag Information:

Tag Number 1F792011
 3B610079
 41357FS367

Tag Position PIT
 LHF
 RHF

Tag Type PIT
 PIT
 PIT

Date 10/18/98
 10/18/98
 9/12/01

Marine Turtle Research
 NMFS HONOLULU LAB
 2570 Dole Street
 Honolulu, HI 96822-2396

Date	Type of Encounter	Location	Tumor Rank	Nesting Act	Straight Carapace	Since Last Encounter			Overall		
						Interval Month	Year	Growth-Rates cm/mon	Interval Month	Year	Growth-Rates cm/mon
10/18/98	Near Shore	Midway Island, Sand Island, Cargo pier	0	-	65.3	---	---	---	---	---	---
9/12/01	Near Shore	Midway Island, Sand Island, Inner Harbor Seawall	1	-	73.0	34.0	2.8	0.2	34.0	2.8	0.2

Historical Information for Turtle Tag 1F237B7A

Marine Turtle Research
 NMFS HONOLULU LAB
 2570 Dole Street
 Honolulu, HI 96822-2396

Tag Information:

Tag Number: 1F237B7A
 Date: 10/21/98
 Tag Type: PIT
 Tag Position: LHF
 PIT

Date	Type of Encounter	Location	Tumor/Rank	Nesting/Act	Straight Carapace	Since Last Encounter			Overall		
						Interval Month	Year	Growth-Rates cm/mon	Interval Month	Year	Growth-Rates cm/mon
10/21/98	Near Shore	Midway Island, Sand Island, Cargo pier seawall	0	-	44.3	---	---	---	---	---	---
3/26/99	Near Shore	Midway Island, Sand Island, Cargo pier seawall	0	-	44.5	5.0	0.4	0.0	5.0	0.4	0.0
9/14/01	Near Shore	Midway Island, Sand Island, Inner Harbor South Seawall	0	-	46.0	29.0	2.4	0.1	34.0	2.8	0.1

Date: Tue, 27 Oct 2009 12:26:57 -1000
From: Stacy Hargrove <Stacy.Hargrove@noaa.gov>
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Midway turtle data- all years

Midway

Here's a quick summary:

121 turtles only seen once.

33 turtles captured a total of 85 times (1 captured 6 times, 1 captured 4 times, 13 captured 3 times, 18 captured twice)

George H. Balazs wrote:

>

> Tagged and tag resights involving Midway. What would it take Shawn (time wise)
> to print this all out to the extent tdps has it in there? Thankyou.

--
Stacy Hargrove
Marine Turtle Research Biologist
Marine Turtle Research Program
NOAA, National Marine Fisheries Service
Pacific Islands Fisheries Science Center
2570 Dole Street
Honolulu, Hawaii 96822-2396
Tel: (808) 983-5734
Cell: (808) 286-0879
Fax: (808) 983-2902

Date: Tue, 27 Oct 2009 12:32:31 -1000
From: Stacy Hargrove <Stacy.Hargrove@noaa.gov>
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Midway turtle data- all years

Note 59 records are from 1967 - 1978.
147 records are from 1991 to 2001 and one record in 2005 (TDR removed).

Do you still get sighting data from Midway? If so, it doesn't appear to be entered in TDPS.

George H. Balazs wrote:

>
> Tagged and tag resights involving Midway. What would it take Shawn (time wise)
> to print this all out to the extent tdps has it in there? Thankyou.

--
Stacy Hargrove
Marine Turtle Research Biologist
Marine Turtle Research Program
NOAA, National Marine Fisheries Service
Pacific Islands Fisheries Science Center
2570 Dole Street
Honolulu, Hawaii 96822-2396
Tel: (808) 983-5734
Cell: (808) 286-0879
Fax: (808) 983-2902

Date: Thu, 03 Mar 2005 07:45:29 -1000
From: Shawn Murakawa <smurakawa@mail.nmfs.hawaii.edu>
Reply-To: Shawn.Murakawa@noaa.gov
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>
Cc: MTRP Staff <bridget.mcbride@noaa.gov>, Marc Rice- HPA <mrice@hpa.edu>, cody.hooven@noaa.gov, DeniseM Parker <denise.parker@noaa.gov>, Erin Siebert <erin.siebert@noaa.gov>
Subject: Re: from Leona Laniawe, Turtle at Midway Atoll NWR (fwd)

Yes, this is "Nancy"! She was caught on 9-25-99 at the Inner Habor (inside seawall) of Sand Island with a net. Her SCL=88.8cm and CCL=96.0cm. (She was not recaptured.) TDR99421 and SON469 was applied to 3rd L./R. laterals. (Mototool #31)

Skin snip from RHF for DNA in alcohol saved.

George H. Balazs wrote:

Shawn please asap look up in tdps the TDR tag number given here and see if it is indeed our turtle Nancy (named after Nancy Hoffman former Midway FWS Biologist). Call me cell please to let me know. And email so we all will know. Thanks, George

----- Forwarded message -----

Date: Tue, 1 Mar 2005 13:14:53 -1100
From: John_Klavitter@fws.gov
To: gbalazs@honlab.nmfs.hawaii.edu
Cc: Jason.Baker@noaa.gov, Thea.Johanos-Kam@noaa.gov
Subject: from Leona Laniawe, Turtle at Midway Atoll NWR

Hi George,

How are you? I hope that all is well. I have some turtle news to pass on to you from Midway. John was checking on a seabird at Turtle Beach and noticed a turtle wearing an instrument pack. Here's the info:

On 2/21/05, an adult Green Sea Turtle wearing an instrument pack hauled out on Turtle Beach on Sand Island. The turtle was captured by Refuge Biologist John Klavitter and USGS Biologist Mark Vekasy and the instrument pack was successfully removed. Here are the specifics along with photos:

Capture location: Midway Atoll NWR, Sand Island, Turtle Beach
Date: 2/21/05
Time caught: 1745
Time released: 1810
Adult Green Sea Turtle, Female
Straight Carapace length: 91.7 cm
Straight Carpace width: 74.3 cm
Instrument pack # 99-421.

I will mail you the instrument pack on the next plane (March 4). Let me know if you have any questions.

take care,
Leona Laniawe

P.S. Could this be "Nancy"? If not, I'll continue to keep a lookout for her!

Midway Book

Nancy

(See attached file: DSC03863.JPG) (See attached file:
DSC03858.JPG) (See
attached file: DSC03859.JPG) (See attached file:
DSC03860.JPG) (See attached
file: DSC03861.JPG) (See attached file: DSC03862.JPG) (See
attached file:
DSC03857.JPG)

**

John Klavitter, M.S.
Wildlife Biologist
U.S. Fish & Wildlife Service
Midway Atoll National Wildlife Refuge
Box 50167
Honolulu, HI 96850
808-674-8237 ext. 113, fax 808-674-1967
john_klavitter@fws.gov

[IMAGE]

[IMAGE]

[IMAGE]

[IMAGE]

[IMAGE]

[IMAGE]

[IMAGE]

--
Shawn K .K. Murakawa
Program Coordinator
Marine Turtle Research Program
NOAA, National Marine Fisheries Service
Pacific Islands Fisheries Science Center
2570 Dole Street
Honolulu, Hawaii 96822-2396
Tel: (808) 983-5731
Fax: (808) 983-2902
Shawn.Murakawa@noaa.gov

MIDWAY BOOK

D.R.
(CODIUM)
Filter?

DIAGNOSTIC CASE REPORT

U. S. GEOLOGICAL SURVEY-BIOLOGICAL RESOURCES DIVISION
NATIONAL WILDLIFE HEALTH CENTER-HONOLULU FIELD STATION
P. O. BOX 50167, 300 ALA MOANA BLVD., Rm. 5302
HONOLULU, HAWAII 96850
808-541-3445, FAX 541-3472, R8_NWHR.HON@NBS.GOV

Case # 12459

Epizoo #

Submitter:

Mr. George Balazs
NOAA-NMFS-SWFC
2570 Dole Street
Honolulu, HI 96822-2396

ATRP?
ED

Specimen description/identification:

Green sea turtle carcass

Date Submitted: (10/23/96)
(mm/dd/yy)

Date Collected: (04/27/96)
(mm/dd/yy)

Date Examined: (10/23/96)
(mm/dd/yy)

Location: Sand Island

County/Site: Midway Atoll

HISTORY: This animal was found dead on Sand Island (Midway Atoll). The animal was stored frozen until necropsy.

SIGNIFICANT FINDINGS: This was an immature male in good condition that had multiple coalescing foci of necrosis in the spleen, a large mass in the ascending aorta, and numerous small black spots on the small intestinal serosa. Microscopy revealed multifocal necrosis of the heart, brain, lung, spleen, and kidney all associated with bacteria. In the aorta, there was a large thrombus mixed with bacterial colonies and trematode eggs. Numerous organs had large numbers of trematode eggs accompanied by chronic inflammatory response.

DIAGNOSIS: Bacteremia associated with vascular flukes.

COMMENTS: This animal succumbed to a disseminated bacterial infection that probably seeded from the thrombus in the large artery to multiple organs. The animal also had a very heavy vascular fluke infection with deposition of eggs and associated inflammation. It is likely that the trematode eggs precipitated the initial arterial thrombus which subsequently became colonies by bacteria and seeded bacteria throughout the body. Cultures were not done as it is unlikely the causative bacteria survived the freeze-thaw cycle. Hence, the identity of the bacteria remains unknown. This is the first case from Midway of vascular trematodiasis I'm aware of. This is also the first time I've seen such a severe vascular fluke infection complicated by bacteremia.

MANAGEMENT: Given the limited knowledge on the vascular fluke life cycle, no management measures are available.

Preliminary Report (/ /)
date

X

Final Report (12/19/96)
date

Necropsy report is: _____ enclosed X available upon request.

X : Copies of this report sent to:
-Ms. Nanette Seto (USFWS)

Pathologist: Thierry M. Work MS, DVM, MPVM

If you have questions regarding this case, contact Thierry M. Work MS, DVM, MPVM
at 808-541-3445. Include above Case Number. Diagnostic findings may
not be used for publication without the pathologist's knowledge and consent.

DIAGNOSTIC CASE REPORT

U. S. GEOLOGICAL SURVEY-BIOLOGICAL RESOURCES DIVISION
NATIONAL WILDLIFE HEALTH CENTER-HONOLULU FIELD STATION
P. O. BOX 50167, 300 ALA MOANA BLVD., Rm. 3-206
HONOLULU, HAWAII 96850
808-541-3445, FAX 541-3472, thierry_work@usgs.gov

Case # 15251

Epizoo #

Submitter:

Mr. George Balazs
NOAA-NMFS-SWFC
2570 Dole Street
Honolulu, HI 96822-2396

Specimen description/identification:

1 green turtle carcass

Date Submitted: (11/01/1999) (mm/dd/yy) **Date Collected:** (10/31/1999) (mm/dd/yy) **Date Examined:** (10/01/1999) (mm/dd/yy)

Location: Inner harbor, Sand Island

County/Site: Midway

HISTORY: : This animal was found dead in the inner harbor at Midway Island. This is MTRP ID 10-31-99.

SIGNIFICANT FINDINGS: This was an adult female in excellent body condition with no external lesions and a small tumor on the left eye. Internally, there was hemorrhage of the intermandibular musculature and marked diffuse congestion of the tongue and glottal mucosa. Histology revealed the tumor to be a fibropapilloma and confirmed the glottal congestion. The stomach was full of *Codium* sp.

DIAGNOSIS: Undetermined.

COMMENTS: : No lesions indicative of cause of death were noted in this animal. The lesions in the jaw and glottis were unusual and could not be explained by infectious agents. It almost appears as though the animal had severe glottal spasms which led to vascular congestion seen both grossly and histologically. It is almost certain that this animal died acutely and rapidly, perhaps from a natural toxin? The presence of exclusively *Codium* sp. in the stomach was somewhat unusual. Whether this had anything to do with the animal's mortality is unknown. The fibropapilloma was an incidental finding not related to cause of death.

MANAGEMENT: None.

_____ Preliminary Report (/ /) _____ X _____ Final Report (11/29/1999)
date date date

Necropsy report is: X enclosed _____ available upon request.

_____ : Copies of this report sent to:

Pathologist: Thierry M. Work MS, DVM, MPVM

If you have questions regarding this case, contact Thierry M. Work MS, DVM, MPVM at 808-541-3445. Include above Case Number. Diagnostic findings may not be used for publication without the pathologist's knowledge and consent.

DIAGNOSTIC CASE REPORT

U. S. GEOLOGICAL SURVEY-BIOLOGICAL RESOURCES DIVISION
NATIONAL WILDLIFE HEALTH CENTER-HONOLULU FIELD STATION
P. O. BOX 50167, 300 ALA MOANA BLVD., Rm. 3-206
HONOLULU, HAWAII 96850
808-541-3445, FAX 541-3472, thierry_work@usgs.gov

Case # 17579

Epizoo #

Submitter:

Mr. George Balazs
NOAA-NMFS-SWFC
2570 Dole Street
Honolulu, HI 96822-2396

Specimen description/identification:

Green turtle carcass

Date Submitted: (05/31/2002)
(mm/dd/yy)

Date Collected: (05/04/2002)
(mm/dd/yy)

Date Examined: (05/31/2002)
(mm/dd/yy)

Location: Snug Harbor

County/Site: Midway Atoll NWR

HISTORY: This animal was found dead in Snug Harbor on Midway Island. The carcass was frozen prior to necropsy. This is MTRP ID 05-04-02.

SIGNIFICANT FINDINGS: This was an immature female in fair body condition. Grossly, the only remarkable findings were presence of submandibular edema and a stomach replete with Codium. On histology, there was mild chronic inflammation associated with trematode eggs in the heart, spleen, and salt gland.

DIAGNOSIS: Undetermined.

COMMENTS: This is the second turtle we have received from Midway with large amounts of Codium sp. in the stomach and submandibular edema. The prior animal was collected from the Harbor on 31 October 1999. As in the prior case, the cause of death is undetermined. The infection with vascular trematodes was not considered severe enough to cause death.

MANAGEMENT: None.

_____ Preliminary Report (/ /) _____ X _____ Final Report (07/26/2002)
date date date

Necropsy report is: X enclosed _____ available upon request.

If you have questions regarding this case, contact Thierry M. Work MS, DVM, MPVM at 808-541-3445. Include above Case Number. Diagnostic findings may not be used for publication without the pathologist's knowledge and consent.

Midway Atoll National Wildlife Refuge

2001

from Wayne Sentman 5/3/02

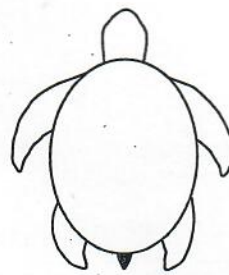
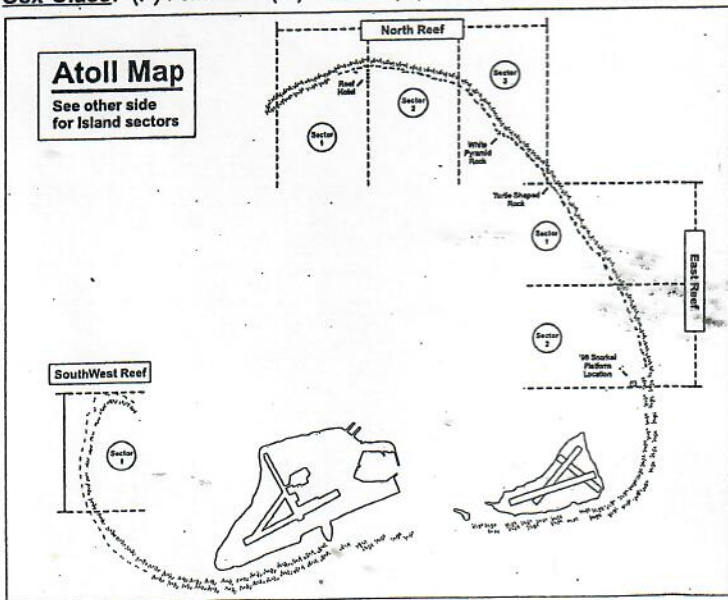
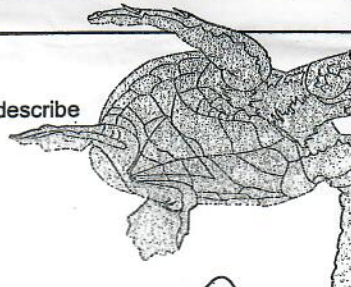
Line #	Date	Time	Island/Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behav
1	9/26/01	1000	Sand/28	1	1	T3	F	#39 on carapace
2	9/29/01	11:00	Sand/29	1	1	T3	F	#39 Next cargo pier
3	10/23/01		Sand/29	2	1	T3	M	no #, obvious male tail
4	10/28/01	noon	Sand/2	2	1	T1	unk.	swimming beneath surface 2 meters from shore
5	11/03/01	13:30	SAND/31	2	1	T1	U	#56 IN WATER BY DOLPHIN BOAT
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

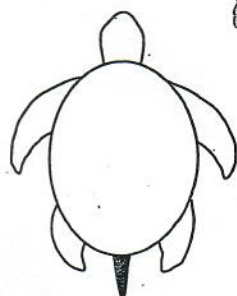
Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (T1) Juvenile <65cm (T2) Subadult 65-80cm (T3) Adult >80cm

Sex Class: (F) Female (M) Male (U) Unknown (only adult turtles can be distinguished by the size of the tail)

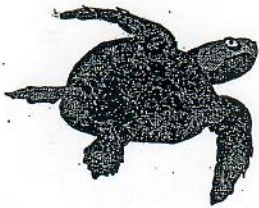


Female & Immature of both sexes



Male
(note longer tail)

Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Honolulu, HI, 96820. Thank you for your cooperation.



Sea Turtle Sighting Report For Midway Atoll National Wildlife Refuge

Observation made by: _____

Your address and phone (optional) _____

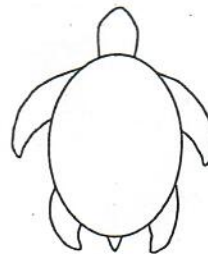
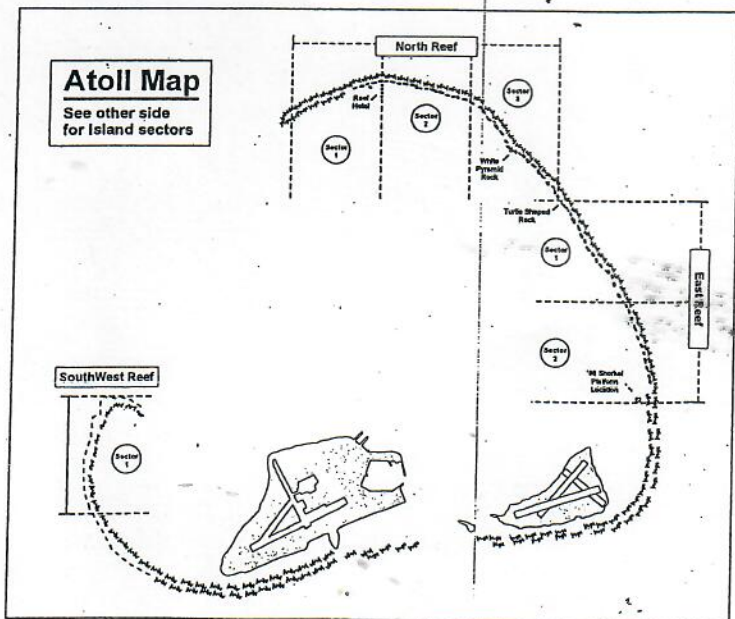
2002

Line #	Date	Time	Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behavior, etc.)
1	03/12	0853	Eastern 09	2	1	T2	u	#69 Next to pier
2				1	1	T2	u	
3			└─	2	1	T2	u	
4	3/12	0915	Eastern 08	2	1	T2	u	
5	3/12	0937	Spit 02	1	1	T	u	observed from Eastern T2 or T3
6	3/12	0940	Eastern 07	2	1	T6	u	
7	3/12	1013	Eastern 06	1	1	T1	u	
8								
9								
10								

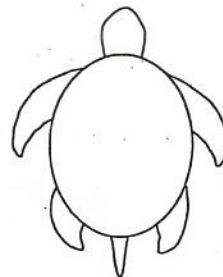
Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (1) Juvenile <65cm (2) Subadult 65-80cm (3) Adult >80cm

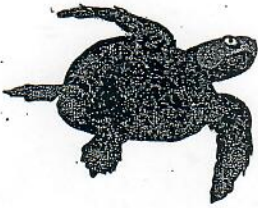


**Female &
Immature of
both sexes**



Male

Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Honolulu, HI, 96820. Thank you for your cooperation.



Sea Turtle Sighting Report For Midway Atoll National Wildlife Refuge

Observation made by: Aynthia Vanderlip
 Your address and phone (optional) _____

2002

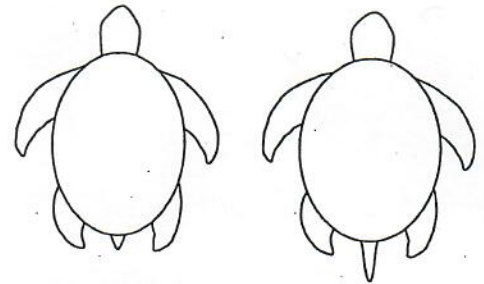
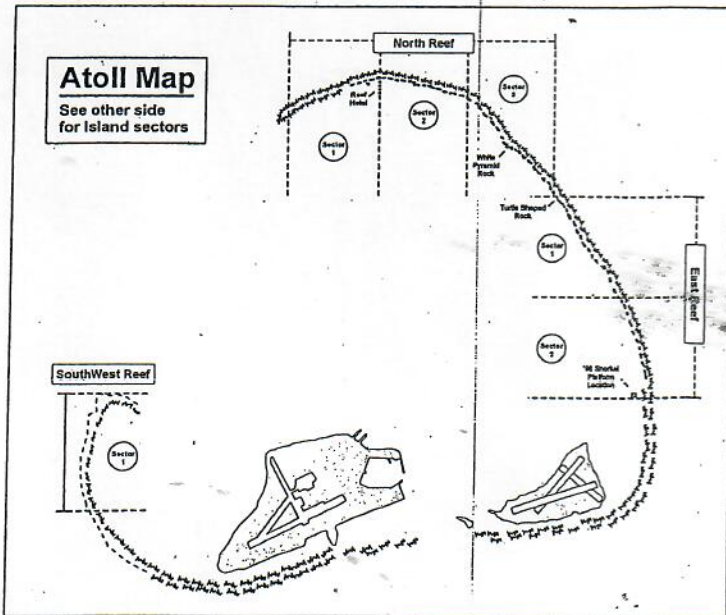
Line #	Date	Time	Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behavior, etc.)
1	Feb 21	1815	Sand 29	1	1	T3	F	#62 just hauling out
2								
3								
4	Feb 23	1100	Eastern 09	1	1	T2	U	next to the pier
5						T1	U	"
6	Feb 25	1721	Sand 29	1	1	T3	M	Timers on eyes + neck
7						T3	M	#65
8						T3	U	#22
9						T3 T1	U U	#37
10						T1 T2	U U	

Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (1) Juvenile <65cm (2) Subadult 65-80cm (3) Adult >80cm

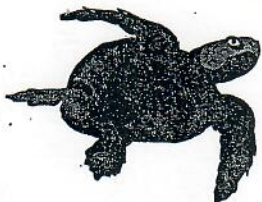
** Note: None of these turtles were on the beach the following morning @ 8AM*



Female & Immature of both sexes

Male

Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Honolulu, HI, 96820. Thank you for your cooperation.



Sea Turtle Sighting Report For Midway Atoll National Wildlife Refuge

Observation made by: SUSAN RICHARDS

Your address and phone (optional) _____

2001

SUSAN

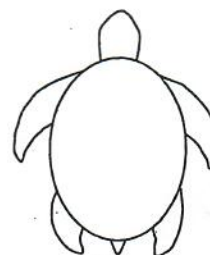
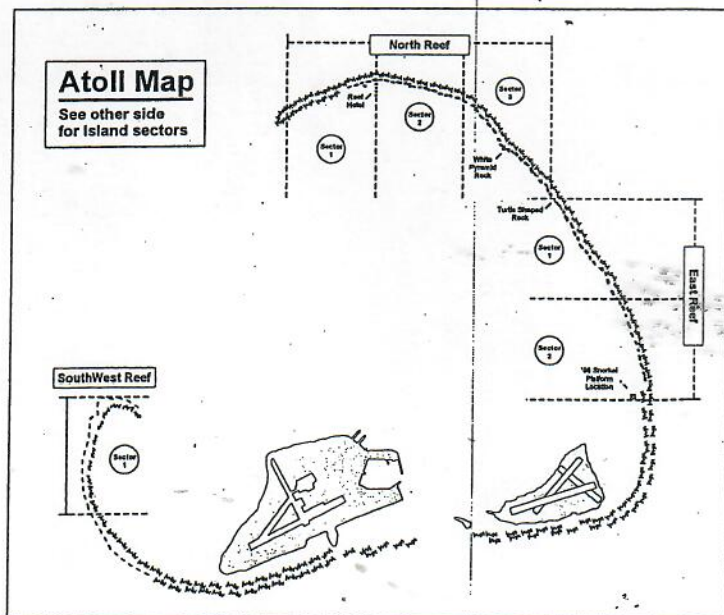
MJP/BJZ

Line #	Date	Time	Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behavior, et
1	Oct 30/01	705	S	Z1	1	T2	U	#15 IN NE CORNER OF HARBOR
2	Oct 30/01	730	S	Z	1	T2	U	#47 IN NE CORNER OF HARBOR
3	Oct 30/01	746	S	Z	1	T3	U	#7 NEAR CHANNEL
4	Nov 1/01	1619	S	Z	2	T3	F	
5	Nov 1/01	1619	S	Z	2	T3	U	
6	Nov 3/01	1521	Scp	Z	1	T2	F	
7	Nov 3/01	1529	S28	↑	1	T3	U	#37
8								
9								
10								

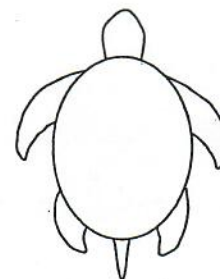
Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (1) Juvenile <65cm (2) Subadult 65-80cm (3) Adult >80cm

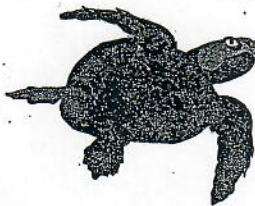


**Female &
Immature of
both sexes**



Male

Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Honolulu, HI, 96820. Thank you for your cooperation.



Sea Turtle Sighting Report For Midway Atoll National Wildlife Refuge

Observation made by: Cynthia Vanderlip

Your address and phone (optional) _____

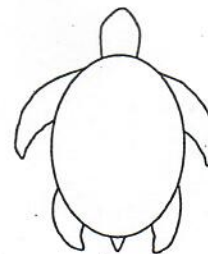
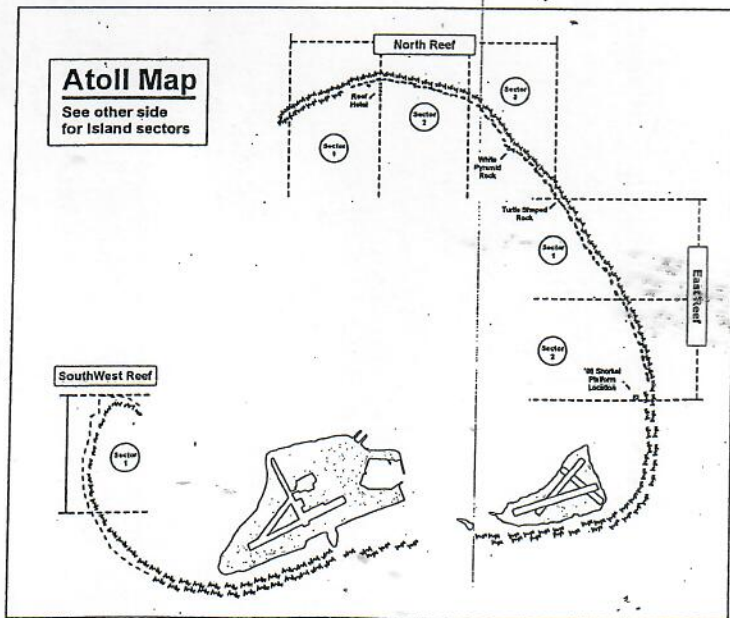
2002

Line #	Date	Time	Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behavior, etc.)
1	Feb 4	1442	Eastern 09	1	1	T2	u	} → hauled out behind seawall photos } all basking next to pier. } very low tide } #38
2						T2	u	
3						T1	u	
4						T1	u	
5		1510	Eastern 07	1	1	T1	u	young basking turtle
6		1530	Eastern 07	1	1	T1	↓	
7		1530	Eastern 07	1	1	T1	↓	
8	Feb 11	1300	Eastern 09	1	1	T1	↓	} Basking next to pier
9						T2	↓	
10						T2	↓	

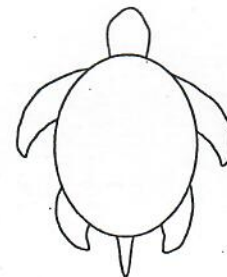
Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (1) Juvenile <65cm (2) Subadult 65-80cm (3) Adult >80cm



**Female &
Immature of
both sexes**



Male

Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Honolulu, HI, 96820. Thank you for your cooperation.

Cynthia 2001 data **Midway Atoll National Wildlife Refuge**

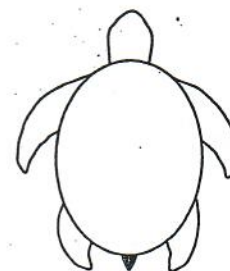
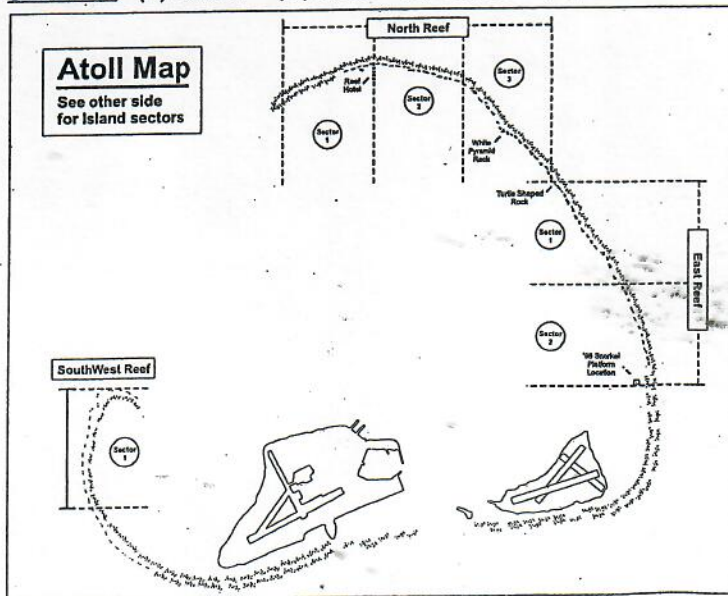
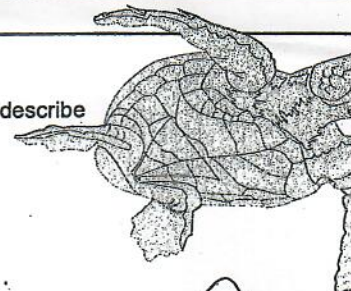
Line #	Date	Time	Island/Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behav)
1	Oct 31	1755	Sand/28	1	1	T3	F	#37
2	Oct 31	1755	Sand/28	1	1	T2	U	
3	Nov 5	0615	Sand/28	1	1	T3	U	} before sunrise could not see sex or numbers.
4	Nov 5			1	1	T3	U	
5	Nov 5			1	1	T3	U	
6	Nov 15	0820	Eastern 09	1	1	T2	U	
7		1014		06	1	T1	U	
8		1024		07	0	T1	U	
9		1030		08	0	T2	U	
10		1108		09	1	T1	U	
11		1030	Spit 01	1	1	T	U	observed From Eastern
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

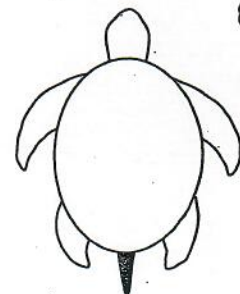
Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (T1) Juvenile <65cm (T2) Subadult 65-80cm (T3) Adult >80cm

Sex Class: (F) Female (M) Male (U) Unknown (only adult turtles can be distinguished by the size of the tail)



Female & Immature of both sexes



Male (note longer tail)

Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Honolulu, HI, 96820. Thank you for your cooperation.

YR 2002

Midway Atoll National Wildlife Refuge

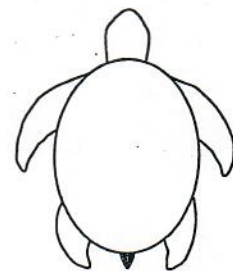
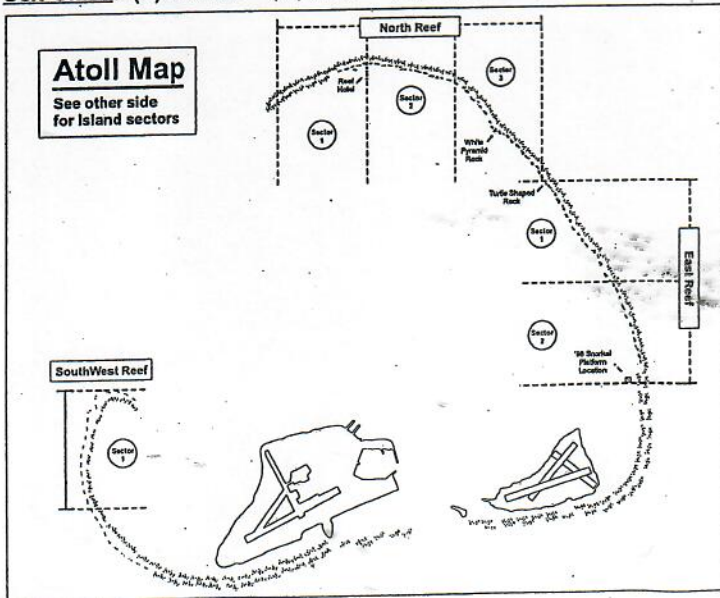
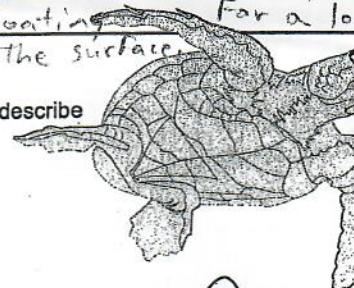
Line #	Date	Time	Island/Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behavi
1	Jan 19	1330	28 Sand	1	1	T3	F	#22
2				1	1	T2	U	
3				1	1	T3	U	#62
4				1	1	T3	U	
5				1	1	T3	U	
6				1	1	T2	U	
7				2	1	T3	U	
8				2	1	T2	U	
9			Sand 29	2	1	T2	U	} eating man o war against sea wall
10				2	1	T2	U	
11	Jan 21	0930	Sand 28	1	1	T3	F	
12			Sand 29	2	1	T2	U	at sea wall
13	Jan 26	0900	Eastern 09	1	1	T2	U	} High turtle activity!
14				1	1	T2	U	
15				1	1	T1	U	
16				0	1	T2	U	
17				0	1	T1	U	
18				0	1	T1	U	
19	Jan 27	1500	Sand 28	1	1	T3	F	#37
20				1	1	T3	U	
21			Sand 29	0	1	T1	U	#14 } Feeding against seabottom
22			Sand 29	0	1	T1	U	
23	Jan 27	0900	Sand 29	0	1	T3	U	Turtle floating For a 10 period at the surface.

Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

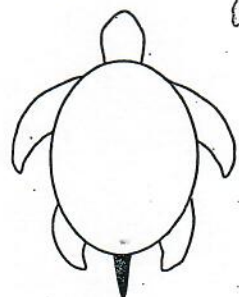
Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (T1) Juvenile <65cm (T2) Subadult 65-80cm (T3) Adult >80cm

Sex Class: (F) Female (M) Male (U) Unknown (only adult turtles can be distinguished by the size of the tail)



Female & Immature of both sexes



Male (note longer tail)

Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Hāpolulu, HI, 96820. Thank you for your cooperation.

Sea Turtle Sighting Report For Midway Atoll National Wildlife Refuge



2002

Observation made by: Aynthia Vanderlip

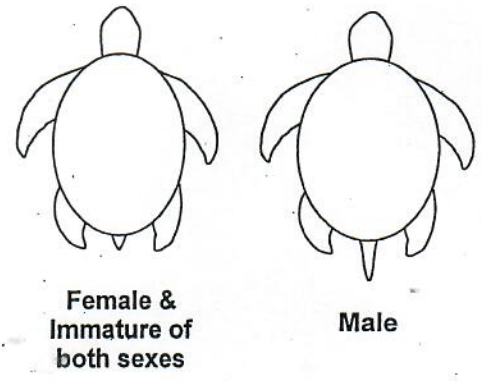
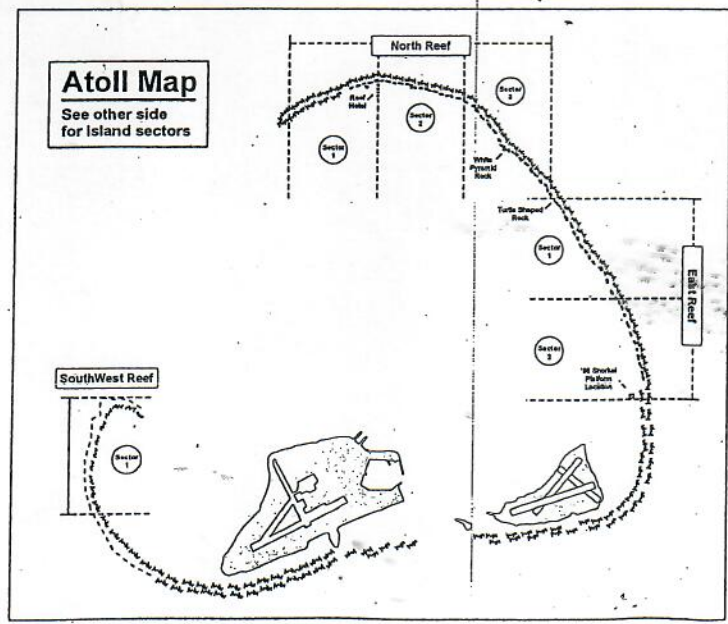
Your address and phone (optional) _____

Line #	Date	Time	Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behavior, etc)
1	Jan 29	1200	29	2	1	T1	U	Turtle #13 } Feeding against " #14 } seawall
2	"	"	"	"	"	"	"	
3	Feb 2	0856	29	1	1	T3	F	#62 very fat ♀. Fat deposited
4								mostly around rear flippers
5	Feb 3	1115	29	2	1	T1	U	} #13 all 5 T1's observed eating man-o-wars against the seawall
6								
7								
8								
9								
10	Feb 3	1130	28	1	1	T3	F	#62
11						T3	F	No #

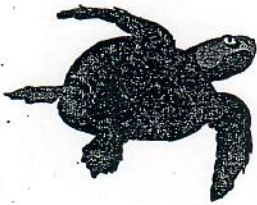
Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (1) Juvenile <65cm (2) Subadult 65-80cm (3) Adult >80cm



Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Honolulu, HI, 96820. Thank you for your cooperation.



Sea Turtle Sighting Report For Midway Atoll National Wildlife Refuge

2002

Observation made by: Cynthia Vanderlip

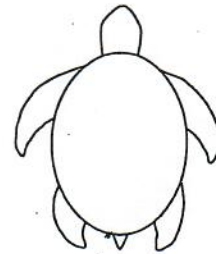
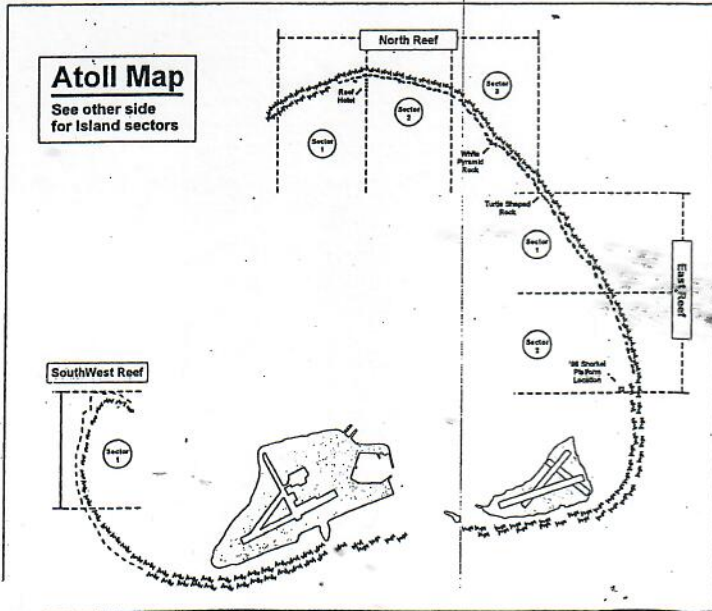
Your address and phone (optional) _____

Line #	Date	Time	Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behavior, etc)
1	Feb 12	1800	Sand 26	2	1	T3	m	Very large ♂
2				2	1	T1	w	very dark turtle
3		1830	Sand 26	1	1	T3	F	
4						T2	w	w/ a long tail (sm ♂?)
5						T2	w	
6						T2	w	
7						T1	w	
8	Feb 13	1054	Sand 24	1	1	T1	w	on the boat ramp (an unusual hawk area)
9	Feb 14	0941	Eastern 9	1	1	T2	w	next to pier
10								

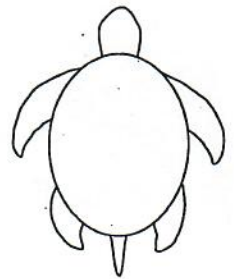
Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (1) Juvenile <65cm (2) Subadult 65-80cm (3) Adult >80cm

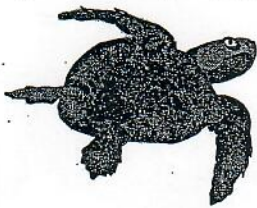


Female & Immature of both sexes



Male

Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Hōnōlūlū, HI, 96820. Thank you for your cooperation.



Sea Turtle Sighting Report For Midway Atoll National Wildlife Refuge

Observation made by: W. SENTMAN

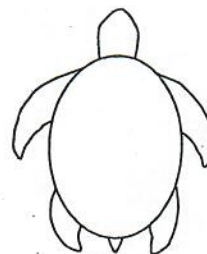
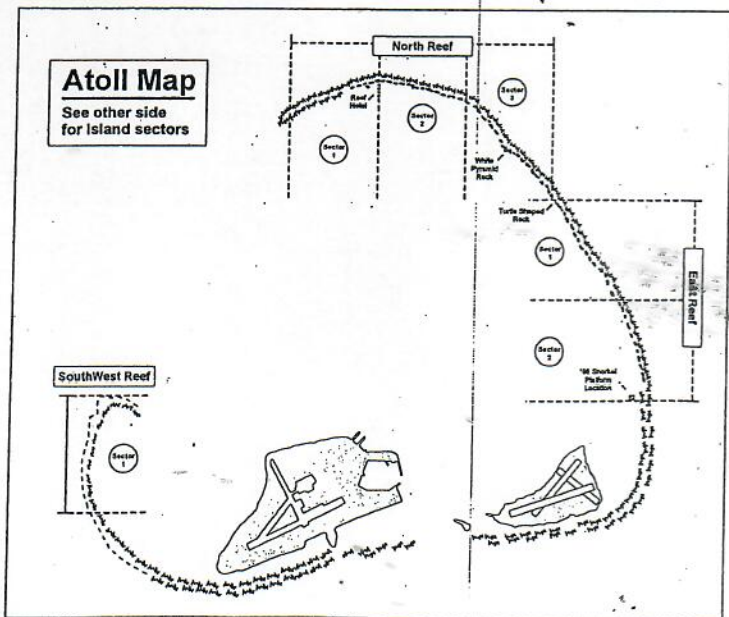
Your address and phone (optional) _____

Line #	Date	Time	Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behavior, etc)
1	2-3-02	6:30	SAND 26	2	1	T1	u	#56
2	↓	↓	↓	↓	↓	T3	F	No #
3	2-23-02	11:30	EASTERN Sec 7	1	1	T3	F	No #
4								
5								
6								
7								
8								
9								
10								

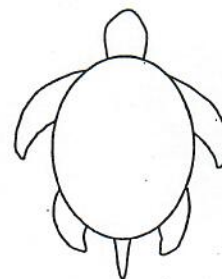
Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (1) Juvenile <65cm (2) Subadult 65-80cm (3) Adult >80cm



**Female &
Immature of
both sexes**



Male

Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Honolulu, HI, 96820. Thank you for your cooperation.

2002

Midway Atoll National Wildlife Refuge

Vander

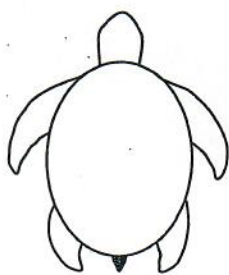
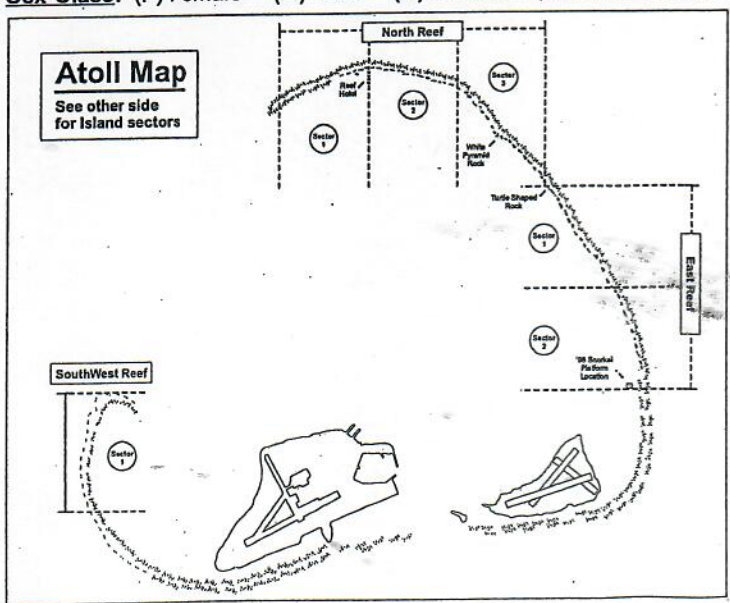
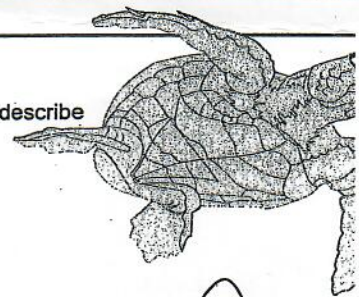
Line #	Date	Time	Island/Sector (See maps)	Turtle Activity	Obs. Type	Size Class	Sex	Comments (GPS coord., Distinguishing characteristics, Behav)
1	March 18	1500	Sand 29	1	1	T3	U	cold H ₂ O ~65° Warm Air 72° and Sunny. lots of turtle activity around cargo pier and turtle beach
2				1	1	T3	U	
3				1	1	T3	F	
4				1	1	T2	U	
5				1	1	T2	U	
6				2	1	T	U	
7				2	1	T	U	
8				2	1	T	U	
9				3	3	T1	U	
10				3	3	T1	U	
11				3	3	T	U	
12				3	3	T	U	
13				3	3	T	U	
14				3	3	T	U	
15								
16								
17								
18								
19								
20								
21								
22								
23								

Turtle Activity: (1) basking ashore (2) at ocean surface (3) or give approximate depth of turtle

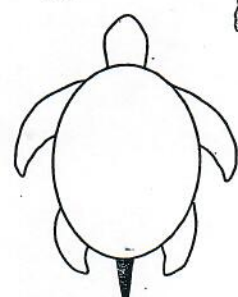
Obs. Type: (1) from shore (2) from boat (3) while skin diving (4) while scuba diving (5) other; describe

Size Class: (T1) Juvenile <65cm (T2) Subadult 65-80cm (T3) Adult >80cm

Sex Class: (F) Female (M) Male (U) Unknown (only adult turtles can be distinguished by the size of the tail)



Female & Immature of both sexes



Male (note longer tail)

Please obey all rules relating to the protection of sea turtles at Midway Atoll. Return this form to the U.S. Fish and Wildlife Service at Midway Atoll. Or mail to USFWS, Midway Atoll, Station #4, PO BOX 29460, Honolulu, HI, 96820. Thank you for your cooperation.

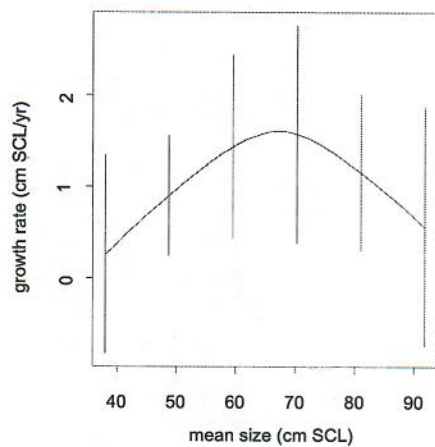


Figure 1 *Chelonia mydas*. Estimated size-specific growth function for immature green turtles resident in Midway waters derived from the local regression model fit conditioned on mean size and mean growth year with 95% pointwise confidence intervals shown at 6 equally spaced intervals.

Carapace length growth records for 18 immature green turtles tagged and recaptured at
Midway Atoll from June 1978 to September 2001

Marine Turtle Research Program
SWFSC Honolulu Laboratory
National Marine Fisheries Service
gbalazs@honlab.nmfs.hawaii.edu

*2 ADULTS
NOT INCLUDED*

Tag Number	Original				Recovered			
	Day	Month	Year	SCL (cm)	Day	Month	Year	SCL (cm)
04134854	16	10	1998	42.5	13	11	2000	43.4
071E2219	16	10	1998	45.3	11	9	2001	46.0
1C3D1C4E	29	4	1999	80.3	9	9	2001	87.3
1C670A23	18	10	1998	46.7	9	9	2001	48.9
1F1C507B	27	3	1999	40.7	11	9	2001	42.3
1F237B7A	21	10	1998	44.3	14	9	2001	46.0
1F28223C	27	3	1999	45.3	11	9	2001	47.3
1F4D576F	18	10	1998	46.2	26	3	1999	46.4
1F792011	18	10	1998	65.3	12	9	2001	73.0
2566	18	6	1978	59.4	8	4	2000	70.5
35330A3F	23	9	1999	44.5	12	11	2000	44.8
360F591C	23	9	1999	38.0	17	11	2000	38.0
3D286D0A	11	1	2000	86.6	11	9	2001	87.7
4B2D3663	26	3	1999	46.1	9	9	2001	48.3
4B673632	8	10	1999	83.3	13	11	2000	83.4
6D662A64	16	10	1998	44.2	11	9	2001	47.7
6D676D20	18	10	1998	47.6	14	11	2000	53.2
N29	5	4	2000	80.5	9	9	2001	82.9

Weight growth records for 7 green turtles tagged and recaptured at
Midway Atoll from October 1988 to September 2001

Marine Turtle Research Program
SWFSC Honolulu Laboratory
National Marine Fisheries Service
gbalazs@honlab.nmfs.hawaii.edu

Tag Number	Original				Recovered			
	Day	Month	Year	Weight (lb)	Day	Month	Year	Weight (lb)
04134854	16	10	1998	20.0	13	11	2000	25.0
071E2219	16	10	1998	27.0	11	9	2001	28.0
1C670A23	18	10	1998	31.0	9	9	2001	34.0
1F237B7A	21	10	1998	26.0	14	9	2001	30.0
1F792011	18	10	1998	86.0	12	9	2001	140.0
6D662A64	16	10	1998	26.0	11	9	2001	36.0
6D676D20	18	10	1998	43.0	14	11	2000	56.0

Midway Atoll Algae / Seagrass Identifications

By Dennis J. Russell

October 26, 2001

09-09-01 Midway Atoll, GHBalazs, Mouth algae, MT 4
(broken vial lid, leaking)

Halophila hawaiiiana (several scraps)

09-11-01 Midway Atoll, GHBalazs, Mouth algae, MT 67, 4135783778
(broken vial lid, leaking)

Halophila hawaiiiana (one full leaf)

09-11-01 Midway Atoll, cargo pier, GHBalazs, beach wash,
(broken vial lid, leaking)

Halophila hawaiiiana (several leaves)

09-12-01 Midway Atoll, GHBalazs, Mouth algae, MT 68
(broken vial cap, cap fell off, contents spilled into bag)

Halophila hawaiiiana (one small scrap recovered from the the inside of the vial).

09-13-01 Midway Atoll, green buoy, 25 ft depth, bottom collection, off turtle
beach, GHBalazs

Halophila hawaiiiana (many leaves of both species)

Halophila decipiens

The *H. hawaiiiana* leaves were more robust, larger and thicker than the *H. decipiens* leaves.

09-15-01 Midway Atoll, inner harbor drift, GHBalazs
(broken vial lid, leaking)

Halophila hawaiiiana (several leaves)



090901.MidwayInnerHarborSeawall.GHB.414B2D3663.LEye



090901.MidwayInnerHarborSeawall.GHB.414B2D3663.REye



090901.MidwayInnerHarborSeawallNrBoatHouse.GHB.411C670A23.REye



090901.MidwayInnerHarborSeawallNrBoatHouse.GHB.411C670A23.LEye



091001.MidwayEasternIsland.GHB.41357E3D61.LEye



091001.MidwayEasternIsland.GHB.41357E3D61.REye



091201.MidwayInnerHarborSeawall.GHB.411F792011.REye1



091201.MidwayInnerHarborSeawall.GHB.411F792011.REye2



091201.MidwayInnerHarborSeawall.GHB.411F792011.LEye1



091201.MidwayInnerHarborSeawall.GHB.411F792011.LEye2



091201.MidwayInnerHarborSeawall.GHB.411F792011.LEye3



091201.MidwayInnerHarborSeawall.GHB.411F792011.Carapace1



091201.MidwayInnerHarborSeawall.GHB.411F792011.Carapace2



091301.MidwayEastIsland.GHB.500E1B000C.LEye



091301.MidwayEastIsland.GHB.500E1B000C.REye



091401.MidwayInnerHarborSouthSeawall.GHB.411F237B7A.REye1



091401.MidwayInnerHarborSouthSeawall.GHB.411F237B7A.LEye1



091401.MidwayInnerHarborSouthSeawall.GHB.411F237B7A.LEye2



091401.MidwayInnerHarborSouthSeawall.GHB.411F237B7A.REye2

USEFUL INFORMATION

CONVERSION TABLE

METERS	YARDS	INCHES
1.000	1.093	39.37
.914	1.000	36.00

CENTIMETERS	INCHES	FEET
1.00	.394	.0328
2.54	1.000	1/12
30.48	12.000	1.000

KILOMETERS	MILES
1.000	.621
1.609	1.000

GRAMS	OUNCES	POUNDS
1.00	.035	.002
28.35	1.000	1/16
453.59	16.000	1.000
1,000.00	35.274	2.205

KILOGRAMS	OUNCES	POUNDS
1.000	35.274	2.205
.028	1.000	1/16
.454	16.000	1.000

LITERS	PINTS	QUARTS	GAL.
1.000	2.113	1.057	.264
.473	1.000	1/2	1/8
.946	2.000	1.000	1/4
3.785	8.000	4.000	1.000

LENGTH

1 meter (m)	=	100 cm	=	1,000 mm
1 millimeter (mm)	=		=	.001 m
1 centimeter (cm)	=		=	.01 m
1 decimeter (dm)	=		=	.1 m
1 decameter (dkm)	=		=	10 m
1 hectometer (hm)	=		=	100 m
1 kilometer (km)	=		=	1,000 m

CAPACITY

1 liter (l)	=	100 cl	=	1,000 ml
1 milliliter (ml)	=		=	.001 l
1 centiliter (cl)	=		=	.01 l
1 deciliter (dl)	=		=	.1 l
1 decaliter (dkl)	=		=	10 l
1 hectoliter (hl)	=		=	100 l
1 kiloliter (kl)	=		=	1,000 l

WEIGHT

1 gram (g)	=	100 cg	=	1,000 mg
1 milligram (mg)	=		=	.001 g
1 centigram (cg)	=		=	.01 g
1 decigram (dg)	=		=	.1 g
1 decagram (dkg)	=		=	10 g
1 hectogram (hg)	=		=	100 g
1 kilogram (kg)	=		=	1,000 g

Table of Time Measure

60 seconds	=	1 minutes
60 minutes	=	1 hour
24 hours	=	1 day
7 days	=	1 week
30 days	=	1 calendar month
12 months	=	1 year
365 days	=	1 common year
366 days	=	1 leap year
100 years	=	1 century

Table of Dry Measure

2 pints (pt.)	=	1 quart (qt.)
8 quarts	=	1 peck (pk.)
4 peck	=	1 bushel (bu.)
1 cord	=	128 cu. ft.

Table of Liquid Measure

4 gills (gl.)	=	1 pint (pt.)
2 pints	=	1 quart (qt.)
4 quarts	=	1 gallon (gal.)
31 1/2 gallons	=	1 barrel (bbl.)
2 barrels	=	hogshead (hhd.)

Table of Paper Measure

24 sheets	=	1 quire
20 quires	=	1 ream
10 ream	=	1 bale

Table of Linear Measure

12 inches	=	1 foot
3 feet	=	1 yard
16-1/2 ft. (5-1/2 yds.)	=	1 rod
660 feet	=	1 furlong
320 rods (5280 ft.)	=	1 mile

Miscellaneous Measures

12 units	=	1 dozen
12 doz.	=	1 gross
12 gr.	=	1 great gross
20 units	=	1 score
1 hand	=	4 inches
1 fathom	=	6 feet
1 knot	=	6086 feet
3 knots	=	1 league
1 bu. potatoes	=	60 lbs.
1 barrel flour	=	196 lbs.
1 cu. ft. of water	=	7.48 liquid gals. and weighs 62.425 lbs
Diameter of circle x 3.1416 = circumference		
Diameter of circle square x .7854 = area		
Atmospheric pressure is 14.7 lbs. per sq. in. at sea level.		
13-1/2 cu. ft. of air weighs 1 lb.		

Table of the Cubic Measure

1728 cubic inches	=	1 cubic foot
27 cubic feet	=	1 cubic yard
128 cubic feet	=	1 cord of wood
24 3/4 cubic feet	=	1 perch of stone

NOTE: A cord of wood is a pile 8 feet long, 4 feet wide, and 4 feet high.
A perch of stone or brick is 16 1/2 feet long, 1-1/2 feet wide, and 1 foot high.

Table of Avoirdupois Weight

16 drams	=	1 ounce (oz.)
16 ounces	=	1 pound (lb.)
100 pounds	=	1 hundred-weight (cwt.)
2000 pounds	=	1 ton (T.)
2240 pounds	=	1 long ton (L.T.)

Table of Troy Weight

24 grains (gr.)	=	1 penny-weight (dwt)
20 penny-weights	=	1 ounce (oz.)
12 ounces	=	1 pound (lb.)

Table of Circular Measure

60 seconds (")	=	1 minute (')
60 minutes	=	1 degree (°)
360 degrees	=	1 circumference
A degree of the earth's surface or a meridian = 69.16 miles at the equator.		

Table of Apothecaries' Weight

20 grains (gr.)	=	1 scruple
3 scruples	=	1 dram
8 drams	=	1 ounce
12 ounces	=	1 pound (lb.)

Table of Surface Measures

144 sq. in.	=	1 sq. ft.
9 sq. ft.	=	1 sq. yd.
30 1/4 sq. yds.	=	1 sq. rod
160 sq. rods	=	1 acre
640 acres	=	1 sq. mile

An acre measures 208.71 ft. on each side.
A section of land is 1 sq. mile.
A quarter section is 160 acres.
A township is 36 sq. miles.

MULTIPLICATION TABLE

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10	12	14	16	18	20	22	24
3	6	9	12	15	18	21	24	27	30	33	36
4	8	12	16	20	24	28	32	36	40	44	48
5	10	15	20	25	30	35	40	45	50	55	60
6	12	18	24	30	36	42	48	54	60	66	72
7	14	21	28	35	42	49	56	63	70	77	84
8	16	24	32	40	48	56	64	72	80	88	96
9	18	27	36	45	54	63	72	81	90	99	108
10	20	30	40	50	60	70	80	90	100	110	120
11	22	33	44	55	66	77	88	99	110	121	132
12	24	36	48	60	72	84	96	108	120	132	144

