



U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Southwest Fisheries Science Center  
Honolulu Laboratory



3 OF 3

# USER'S MANUAL

## Marine Turtle Database Management System

Created by  
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INTERNAL DOCUMENT  
CD-01-92-H

## Preface

Research on marine turtles has recently expanded significantly within the National Marine Fisheries Service (NMFS). All marine turtle populations under the jurisdiction of the United States are listed as threatened or endangered under the Endangered Species Act. NMFS and the U.S. Fish and Wildlife Service (USFWS) have mandates to develop and implement Recovery Plans for marine turtle populations and to conduct research and monitoring in support of recovery. A comprehensive Recovery Plan is being prepared for marine turtles along the U.S. West Coast, Hawaii, Guam, American Samoa, and other Pacific islands under U.S. jurisdiction. An interim Recovery Plan has been implemented for marine turtles in the Hawaiian Islands.

Most Honolulu Laboratory turtle research is focused on the green turtle (Chelonia mydas) population in Hawaii. Studies are underway on the abundance and distribution of juvenile and subadult green turtles in nearshore resting and feeding habitats, the dynamics of green turtle nesting at French Frigate Shoals, and various factors affecting green turtle survival. Recently, particular attention has been given to studying the incidence and epidemiology of green turtle fibropapilloma disease and determining how the disease affects turtle behavior and population recovery. On an opportunistic basis, other research is conducted to describe the pelagic distribution and ecology of marine turtles in the North Pacific Transition Zone and associated oceanic frontal zones, and assess the incidental entanglement of turtles in high-seas pelagic drift gillnets, longline gear, and marine debris. The species involved include the green turtle, the loggerhead (Caretta caretta), the leatherback (Dermochelys coriacea), and the hawksbill (Eretmochelys imbricata).

Data collected in marine turtle research programs are diverse, ranging from isolated observations of incidental encounters with turtles on the high-seas to voluminous, complex behavioral data gathered in systematic surveys of nesting beaches or inshore habitats. Effective management of these data is essential to maximize their research value and enable timely population assessments and recovery monitoring. To provide such capabilities at the Honolulu Laboratory, a comprehensive Marine Turtle Database Management System (MTDMS) was created. The system is written in dBase III and Clipper and implemented on IBM/PC-compatible computers running under MS-DOS. The MTDMS is modular, supporting data of various types. Cross-referencing and multiple-encounter analysis are enabled through a core database file of individual turtle identifications, based on uniquely-inscribed flipper tags.

The documentation for the MTDMS consists of two manuals; this *User's Manual* and a companion *Technical Reference Manual*. The MTDMS was designed to evolve as research opportunities and needs dictate. Accordingly, we welcome comments or suggestions for improvement from all readers.

J. Wetherall  
G. Balazs

June 1, 1992

## Content:

Record Number	Field TPOS CD	Field LOCATION
1	RFL	Right flap
2	R1	First proximal scale on right flipper
3	R2	Second proximal scale on right flipper
4	R3	Third proximal scale on right flipper
5	R4	Fourth proximal scale on right flipper
6	R5	Fifth proximal scale on right flipper
7	R12	Between first and second scale on right flipper
8	R23	Between second and third scale on right flipper
9	R34	Between third and fourth scale on right flipper
10	R45	Between fourth and fifth scale on right flipper
11	RHF	Right hind flipper
12	LFL	Left flap
13	L1	First proximal scale on left flipper
14	L2	Second proximal scale on left flipper
15	L3	Third proximal scale on left flipper
16	L4	Fourth proximal scale on left flipper
17	L5	Fifth proximal scale on left flipper
18	L12	Between first and second scale on left flipper
19	L23	Between second and third scale on left flipper
20	L34	Between third and fourth scale on left flipper
21	L45	Between fourth and fifth scale on left flipper
22	LHF	Left hind flipper
23		No Entry

#### 4.1.2.4 Tag Type Codes Database

This database is used to verify tag type codes entered by the user.

Database Name: Tags\_CD.DBF

Index files: None

Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	Tag_Cd	C	4		The four character MTDMS tag type code.
2	Tag_Type	C	20		Description of the tag type code.

Content:

Record Number	Field TAG_CD	Field TAG_TYPE
1	M1	Monel #1
2	M49	Monel 49
3	M681	Monel 681
4	I49	Inconel 49
5	I681	Inconel 681
6	F	Fearing "Tuff-Tex"
7	P	Plastic "Allflex"
8	T	Titanium
9	T1	#1 Titanium
10	R	Roto Tag Plastic
11		No Entry

#### 4.1.2.5 Study Site Codes Database

This database is used to verify study site codes entered by the user. These codes are used specifically by the near shore database.

Database Name: Sites\_CD.DBF

Index files: None

#### Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	SITE_CD	C	8		The eight character study site code.
2	SITE	C	30		Description of the study site code.
3	ISLAND	C	4		The four character island code of the island where the study site is located.

#### Content:

Record Number	Field SITE_CD	Field SITE	Field ISLAND
1	MORTON	Morton Banks, S. Queensland	AUST
2	CETTI	Cetti Bay	GUAM
3	KEAWA	Keawa Nui Bay	HAWA
4	KIHOLO	Kiholo	HAWA
5	KOPAHO	Kopaoho-Vacationland	HAWA
6	PUAKO	Puako	HAWA
7	PUAKOMK	Puako, Mauna Kea Beach Hotel	HAWA
8	PUNALUU	Punaluu Bay	HAWA
9	TURTLEH	East Shore, Turtle Haven	LANA
10	KAHANUI	Kahanui Point	MOLO
11	PALAAU	Palaau	MOLO
12	BARBERS	Barber's Point	OAHU
13	KAHALAC	Kahala Hilton, Captivity	OAHU
14	KANEOHE	Kaneohe Bay	OAHU
15	KANEOHEA	Kaneohe Bay A.O.L.	OAHU
16	KANEOHED	Kaneohe Bay Deep/42 & 43	OAHU
17	KANEOHEI	Kaneohe Bay; Island Kapapa	OAHU
18	KANEOHEK	Kaneohe Bay; Kapapa	OAHU
19	KANEOHEM	Kaneohe Bay Mark	OAHU
20	KANEOHET	Kaneohe Bay Twin	OAHU
21	KAWELA	Kawela Bay	OAHU
22	SANDYBCH	Sandy Beach	OAHU
23	WAIKIKI	Waikiki	OAHU
24	WAIKIKIG	Waikiki, Grace's Ledge	OAHU
25	WAIKIKIS	Waikiki, Sheraton	OAHU
26	SANDISLD	Sand Island	MIDW

#### 4.1.2.6 Nesting Activity Codes Database

Database Name: Acts\_CD.DBF

This database is used to verify nesting activity codes entered by the user.

Index files: None

Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	ACT_CD	C	1		The one character activity code.
2	ACTIVITY	C	25		Description of the nesting activity code.

Content:

Record Number	Field ACT_CD	Field ACTIVITY
1	N	Nested
2	P	Probably nested
3	M	Maybe nested
4	X	Digging
5	C	Crawling
6	B	Basking

#### 4.1.2.7 National Codes Database

This database is used to verify a vessel's flag and the national of the observer. These codes are used specifically by the driftnet database.

Database Name: Flags\_CD.DBF

Index Files: None

Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	NATL_CD	C	1		The one character national code.
2	FLAG	C	20		Description of the nation.
3	NATIONAL	C	20		Description of the national.

## Content:

Record Number	Field NATL_CD	Field FLAG	Field NATIONAL
1	J	Japan	Japanese
2	K	Korean	Korean
3	T	Taiwan	Taiwanese
4	U	United States	American
5	C	Canada	Canadian

**4.1.2.8 Gear Codes Database**

This database is used to verify the gear codes entered by the user. These codes are used specifically by the driftnet database.

Database Name: Gears\_CD.DBF

Index Files: None

## Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	GEAR_CD	C	2		Two character gear code.
2	GEAR_TYPE	C	40		Description of the gear code.

## Content:

Record Number	Field GEAR_CD	Field GEAR_TYPE
1	TR	Trolling
2	LL	Longline
3	SG	Small-mesh or Squid gillnet
4	LG	Large-mesh or Tuna/Billfish gillnet
5	PS	Purse seine
6	TW	Trawl
7	TP	Trap

#### 4.1.2.9 Status Codes Database

This database is used to verify status codes entered by the user. These codes are used specifically by the driftnet database.

Database Name: Stats\_CD.DBF

Index Files: None

Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	STAT_CD	C	2		Two character status code.
2	STATUS	C	50		Description of the status code.

Content:

Record Number	Field STAT_CD	Field STATUS
1	DK	Turtle decked or cut free from net
2	DO	Turtle dropped out of net during retrieval
3	SW	Turtle seen swimming near net or vessel
4	MD	Turtle entangled in marine debris
5	UK	Turtle status unknown

#### 4.1.2.10 Disposition Codes Database

This database is used to verify Disposition codes entered by the user. These codes are used specifically by the driftnet database.

Database Name: Disps\_CD.DBF

Index Files: None

Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	DISP_CD	C	1		The one character disposition code.
2	DISP	C	35		Description of the disposition code.



## Content:

Record Number	Field DISP_CD	Field DISP
1	T	Turtle tagged and released
2	D	Dead turtle discarded
3	R	Turtle released without tagging
4	W	Whole dead turtle salvaged
5	G	Gut of dead turtle salvaged
6	N	Not applicable

**4.1.2.11 Stranded Structure Database**

This database is used to create a stranded database.

Database Name: SD\_Stru.DBF

Index Files: None

## Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	FIELD_NAME	C	10		Name of fields
2	FIELD_TYPE	C	1		The field type (C-character, D-date, N-numeric, M-memo)
3	FIELD_LEN	N	3		The field length in bytes
4	FIELD_DEC	N	3		The number of decimal places in the field

## Content:

Record Number	Field FIELD_NAME	Field FIELD_TYPE	Field FIELD_LEN	Field FIELD_DEC
1	TURTLEID	C	8	0
2	S_DATE	D	8	0
3	S_ISLAND	C	4	0
4	S_LOC	C	30	0
5	CONTACT	C	50	0
6	S_SPECIES	C	2	0
7	S_SEX	C	1	0
8	S_SLENNTH	N	5	1
9	S_SWIDTH	N	5	1
10	S_CLENGTH	N	5	1
11	S_CWIDTH	N	5	1
12	S_NOTCH	N	5	1
13	S_PLEN	N	5	1
14	S_HDWIDTH	N	5	1
15	S_RFWIDTH	N	5	1
16	S_PTLEN	N	5	1

Continued

Record Number	Field FIELD NAME	Field FIELD TYPE	Field FIELD LEN	Field FIELD DEC
17	S_VTLEN	N	5	1
18	S_WEIGHT	N	5	1
19	CONDITION	C	1	0
20	TNGL_HOOK	C	1	0
21	HMN_INDCE	C	1	0
22	NECROPSY	C	1	0
23	S_DEBRIS	C	1	0
24	S_TUMORS	C	1	0
25	S_TUMRNK	N	1	0
26	S_LEYE1	N	2	0
27	S_LEYE2	N	2	0
28	S_LEYE3	N	2	0
29	S_LEYE4	N	2	0
30	S_REYE1	N	2	0
31	S_REYE2	N	2	0
32	S_REYE3	N	2	0
33	S_REYE4	N	2	0
34	S_FFL1	N	2	0
35	S_FFL2	N	2	0
36	S_FFL3	N	2	0
37	S_FFL4	N	2	0
38	S_HFL1	N	2	0
39	S_HFL2	N	2	0
40	S_HFL3	N	2	0
41	S_HFL4	N	2	0
42	S_NECK1	N	2	0
43	S_NECK2	N	2	0
44	S_NECK3	N	2	0
45	S_NECK4	N	2	0
46	S_MOUTH1	N	2	0
47	S_MOUTH2	N	2	0
48	S_MOUTH3	N	2	0
49	S_MOUTH4	N	2	0
50	S_TAIL1	N	2	0
51	S_TAIL2	N	2	0
52	S_TAIL3	N	2	0
53	S_TAIL4	N	2	0
54	S_SEAM1	N	2	0
55	S_SEAM2	N	2	0
56	S_SEAM3	N	2	0
57	S_SEAM4	N	2	0
58	S_INTRN1	N	2	0
59	S_INTRN2	N	2	0
60	S_INTRN3	N	2	0
61	S_INTRN4	N	2	0
62	S_DESCRIPTOR	M	10	
63	NCPSYRPT	M	10	

#### 4.1.2.12 Near Shore Structure Database

This database is used to create a new near shore database.

Database Name: NS\_Stru.DBF

Index Files: None

##### Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	FIELD_NAME	C	10		Name of fields
2	FIELD_TYPE	C	1		The field type (C-character, D-date, N-numeric, M-memo)
3	FIELD_LEN	N	3		The field length in bytes
4	FIELD_DEC	N	3		The number of decimal places in the field

##### Content:

Record Number	Field	Field	Field	Field
	FIELD NAME	FIELD TYPE	FIELD_LEN	FIELD_DEC
1	TURTLEID	C	8	0
2	NS_DATE	D	8	0
3	NS_SITE	C	8	0
4	NS_ISLAND	C	4	0
5	NS_TIME	N	4	0
6	NS_SPECIES	C	2	0
7	NS_SEX	C	1	0
8	NS_LOC	C	30	0
9	RECOVERY	C	1	0
10	NEW_TAGS	C	1	0
11	NS_METH	C	25	0
12	NS_SLENGTH	N	5	1
13	NS_SWIDTH	N	5	1
14	NS_CLENGTH	N	5	1
15	NS_CWIDTH	N	5	1
16	NS_NOTCH	N	5	1
17	NS_PLEN	N	5	1
18	NS_HDWIDTH	N	5	1
19	NS_RFWIDTH	N	5	1
20	NS_PTLEN	N	5	1
21	NS_VTLEN	N	5	1
22	NS_WEIGHT	N	5	1
23	NS_TUMORS	C	1	0
24	NS_TUMRNK	N	1	0
25	NS_LEYE1	N	2	0
26	NS_LEYE2	N	2	0

Continued

Record Number	Field FIELD NAME	Field FIELD TYPE	Field FIELD LEN	Field FIELD DEC
27	NS_LEYE3	N	2	0
28	NS_LEYE4	N	2	0
29	NS_REYE1	N	2	0
30	NS_REYE2	N	2	0
31	NS_REYE3	N	2	0
32	NS_REYE4	N	2	0
33	NS_FFL1	N	2	0
34	NS_FFL2	N	2	0
35	NS_FFL3	N	2	0
36	NS_FFL4	N	2	0
37	NS_HFL1	N	2	0
38	NS_HFL2	N	2	0
39	NS_HFL3	N	2	0
40	NS_HFL4	N	2	0
41	NS_NECK1	N	2	0
42	NS_NECK2	N	2	0
43	NS_NECK3	N	2	0
44	NS_NECK4	N	2	0
45	NS_MOUTH1	N	2	0
46	NS_MOUTH2	N	2	0
47	NS_MOUTH3	N	2	0
48	NS_MOUTH4	N	2	0
49	NS_TAIL1	N	2	0
50	NS_TAIL2	N	2	0
51	NS_TAIL3	N	2	0
52	NS_TAIL4	N	2	0
53	NS_SEAM1	N	2	0
54	NS_SEAM2	N	2	0
55	NS_SEAM3	N	2	0
56	NS_SEAM4	N	2	0
57	NS_INTRN1	N	2	0
58	NS_INTRN2	N	2	0
59	NS_INTRN3	N	2	0
60	NS_INTRN4	N	2	0
61	NS_DSCRIPT	M	10	0
62	NS_SAMPLES	M	10	0

#### 4.1.2.13 Nesting Structure Database

This database is used to create a nesting database.

Database Name: NT\_Stru.DBF

Index Files: None

Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	FIELD_NAME	C	10		Name of fields
2	FIELD_TYPE	C	1		The field type (C-character, D-date, N-numeric, M-memo)
3	FIELD_LEN	N	3		The field length in bytes
4	FIELD_DEC	N	3		The number of decimal places in the field

Content:

Record Number	Field	Field	Field	Field
	FIELD NAME	FIELD TYPE	FIELD LEN	FIELD DEC
1	TURTLEID	C	8	0
2	NT_DATE	D	8	0
3	NT_ISLAND	C	4	0
4	NT_TIMEUP	C	4	0
5	NT_TIMEBK	C	4	0
6	NT_ACT	C	1	0
7	NT_SEX	C	1	0
8	NT_SLENGTH	N	5	1
9	NT_SWIDTH	N	5	1
10	NT_CLENGTH	N	5	1
11	NT_CWIDTH	N	5	1
12	NT_NOTCH	N	5	1
13	NT_PLEN	N	5	1
14	NT_HDWIDTH	N	5	1
15	NT_RFWIDTH	N	5	1
16	NT_PTLN	N	5	1
17	NT_VTLN	N	5	1
18	NT_WEIGHT	N	5	1
19	NT_TUMORS	C	1	0
20	NT_TUMRNK	N	1	0
21	NT_LEYE1	N	2	0
22	NT_LEYE2	N	2	0
23	NT_LEYE3	N	2	0
24	NT_LEYE4	N	2	0
25	NT_REYE1	N	2	0

Continued

Record Number	Field FIELD NAME	Field FIELD TYPE	Field FIELD LEN	Field FIELD DEC
26	NT_REYE2	N	2	0
27	NT_REYE3	N	2	0
28	NT_REYE4	N	2	0
29	NT_FFL1	N	2	0
30	NT_FFL2	N	2	0
31	NT_FFL3	N	2	0
32	NT_FFL4	N	2	0
33	NT_HFL1	N	2	0
34	NT_HFL2	N	2	0
35	NT_HFL3	N	2	0
36	NT_HFL4	N	2	0
37	NT_NECK1	N	2	0
38	NT_NECK2	N	2	0
39	NT_NECK3	N	2	0
40	NT_NECK4	N	2	0
41	NT_MOUTH1	N	2	0
42	NT_MOUTH2	N	2	0
43	NT_MOUTH3	N	2	0
44	NT_MOUTH4	N	2	0
45	NT_TAIL1	N	2	0
46	NT_TAIL2	N	2	0
47	NT_TAIL3	N	2	0
48	NT_TAIL4	N	2	0
49	NT_SEAM1	N	2	0
50	NT_SEAM2	N	2	0
51	NT_SEAM3	N	2	0
52	NT_SEAM4	N	2	0
53	NT_INTRN1	N	2	0
54	NT_INTRN2	N	2	0
55	NT_INTRN3	N	2	0
56	NT_INTRN4	N	2	0
57	NT_DSCRIPT	M	10	0

#### 4.1.2.14 Driftnet Structure Database

This database is used to create a new driftnet database.

Database Name: DN\_Stru.DBF

Index Files: None

Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	FIELD_NAME	C	10		Name of fields
2	FIELD_TYPE	C	1		The field type (C-character, D-date, N-numeric, M-memo)
3	FIELD_LEN	N	3		The field length in bytes
4	FIELD_DEC	N	3		The number of decimal places in the field

Content:

Record Number	Field FIELD_NAME	Field FIELD_TYPE	Field FIELD_LEN	Field FIELD_DEC
1	TURTLEID	C	8	0
2	DN_DATE	D	8	0
3	DN_FLAG	C	1	0
4	DN_VESSEL	C	25	0
5	DN_LICNO	N	4	0
6	DN_OBSNAME	C	25	0
7	DN_NATL	C	1	0
8	DN_GEAR	C	2	0
9	DN_MESHsiz	N	3	0
10	DN_TZONE	N	2	0
11	DN_LATDEG	N	2	0
12	DN_LATMIN	N	2	0
13	DN_LATHEMI	C	1	0
14	DN_LOGDEG	N	3	0
15	DN_LOGMIN	N	2	0
16	DN_LOGHEMI	C	1	0
17	DN_SST	N	6	1
18	DN_OPNO	N	2	0
19	DN_SECNO	N	2	0
20	DN_SPECIES	C	3	0
21	DN_STATUS	C	2	0
22	DN_COND	C	1	0
23	DN_DISP	C	1	0
24	DN_CLENGTH	N	7	1
25	DN_CLACCY	C	1	0
26	DN_OLDTAGS	N	1	0
27	DN_NEWTAGS	N	1	0

Continued

Record Number	Field	Field	Field	Field
	FIELD_NAME	FIELD_TYPE	FIELD_LEN	FIELD_DEC
28	DN_DESCRIPTOR	M	10	0

#### 4.1.2.15 Tag Structure Database

This database is used to create a tag database.

Database Name: Tag\_Stru.DBF

Index Files: None

Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	FIELD_NAME	C	10		Name of fields
2	FIELD_TYPE	C	1		The field type (C-character, D-date, N-numeric, M-memo)
3	FIELD_LEN	N	3		The field length in bytes
4	FIELD_DEC	N	3		The number of decimal places in the field

Content:

Record Number	Field	Field	Field	Field
	FIELD_NAME	FIELD_TYPE	FIELD_LEN	FIELD_DEC
1	TurtleID	C	8	0
2	TAGNO	C	8	0
3	DATE	D	8	0
4	TAGTYPE	C	4	0
5	TAGPOS	C	3	0



#### 4.1.2.16 Temporary Tag Structure Database

This database is used to create a temporary tag database. A temporary tag database is created every time you use the Add or Edit option in View/edit.

Database Name: TgT\_Stru.DBF

Index Files: None

Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	FIELD_NAME	C	10		Name of fields
2	FIELD_TYPE	C	1		The field type (C-character, D-date, N-numeric, M-memo)
3	FIELD_LEN	N	3		The field length in bytes
4	FIELD_DEC	N	3		The number of decimal places in the field

Content:

Record Number	Field FIELD_NAME	Field FIELD_TYPE	Field FIELD_LEN	Field FIELD_DEC
1	ED_TAGNO	C	8	0
2	ED_DATE	D	8	0
3	ED_TAGTYPE	C	4	0
4	ED_TAGPOS	C	3	0
5	ORG_TAGNO	C	8	

#### 4.1.2.17 Months Database

This database is used for printing reports.

Database Name: Months.DBF

Index Files: None

Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	MONTH	C	9		Name of the month
2	ABBR	C	5		The month's abbreviation

## Content:

Record Number	Field MONTH	Field ABBR
1	January	Jan.
2	February	Feb.
3	March	Mar.
4	April	Apr.
5	May	May
6	June	June
7	July	July
8	August	Aug.
9	September	Sept.
10	October	Oct.
11	November	Nov.
12	December	Dec.

**4.1.2.18 Rpns1\_34 Database**

This database is used to create report NS 1.3.4 Summary of growth rates by size-class.

Database Name: RPNS1\_34.DBF

Index Files: None

## Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	SZ_INT	N	2		The size-class interval of the growth rate
2	FREQ	N	5		The frequency of the growth rate
3	GROWTH	N	6	2	The growth rate

#### 4.1.2.19 Rpns1\_36 Database

This database is used to create report NS 1.3.6 Historical summary.

Database Name: RPNS1\_36.DBF

Index Files: None

#### Fields:

Field Number	Field Name	Field Type	Field Length	Field Dec	Field Description
1	DATE	D	8		Date encountered
2	ENCOUNTER	C	10		Type of encounter (i.e. stranded, near shore etc.)
3	LOCATION	C	55		Location encountered
4	TUMOR_RANK	N	1		Tumor ranking from 0-4 (i.e. mild to severe)
5	ACTIVITY	C	1		Nesting activity (see Appendix B for codes)
6	MEASUREMNT	Numeric	5	1	Selected measurement of the turtle

## APPENDIX A: MTDMS Summary Reports

### Report 1. Monthly strandings with tumors

#### Summary of Green Turtle strandings during 1990

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

National Marine Fisheries Service

2570 Dole Street

Honolulu Hawaii 96822-22396

Heading 7

Heading 8

Heading 9

Heading 10

Month	Oahu		Molokai		Hawaii		Maui		Kauai	
	No.	No. w/ tumors	No.	No. w/ tumors	No.	No. w/ tumors	No.	No. w/ tumors	No.	No. w/ tumors
January	1	0	0	0	0	0	3	1	0	0
February	2	0	0	0	1	0	1	1	0	0
March	6	3	0	0	0	0	1	1	2	0
April	10	2	0	0	0	0	0	0	1	0
May	5	0	0	0	1	0	0	0	4	2
June	16	5	0	0	2	0	0	0	0	0
July	7	1	0	0	2	2	2	1	1	0
August	10	6	0	0	0	0	1	0	0	0
September	7	6	1	0	0	0	2	1	0	0
October	8	3	0	0	0	0	2	2	0	0
November	6	3	0	0	0	0	0	0	0	0
December	8	4	0	0	0	0	0	0	1	1
Total	86	33	1	0	6	2	12	7	9	3
Total Examined	74		1		6		12		8	
Percentage Examined w/Tumors		(44%)		(0%)		(33%)		(58%)		(38%)
Grand Total				114						
Grand Total Examined				101						
Known w/Tumors				45		(44.5%)				

Footnote 1

Footnote 2

Footnote 3

Footnote 4  
Footnote 5

Report 1 Annual Statistics of ...

1991-2001 ...

National ...  
1991-2001 ...

Year	...	...	...	...	...	...	...	...	...
1980	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0
1982	1	0	0	18	0	0	0	0	0
1983	1	0	0	18	0	0	0	0	0
1984	4	0	0	21	0	0	0	0	0
1985	4	0	0	24	0	0	0	0	0
1986	5	0	0	27	0	0	0	0	0
1987	5	0	0	29	0	0	0	0	0
1988	7	0	0	32	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0
1990	7	0	0	30	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0

...

## Report 2. Annual strandings by island

Stranded, injured, and diseased marine turtles reported during 1980-1991

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

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Heading 9

Heading 10

Year	Hawaii	Maui	Kahool	Lanai	Moloka	Oahu	Kauai	Niihau	Kaula	Total
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	1	0	0	0	0	18	2	0	0	21
1983	2	2	0	1	0	19	3	0	0	27
1984	4	2	0	0	2	21	3	0	0	32
1985	6	2	0	3	1	38	3	0	0	53
1986	6	8	0	3	1	71	9	0	0	98
1987	3	9	0	1	3	89	2	0	0	107
1988	7	9	0	2	1	54	2	0	0	75
1989	0	0	0	0	0	3	0	0	0	3
1990	7	12	0	3	1	89	9	0	0	121
1991	0	0	0	0	0	5	0	0	0	5

Footnote 1

Footnote 2

Footnote 3

Footnote 4

Footnote 5

## Report 3. Annual strandings by species

Stranded, injured, and diseased marine turtles reported during 1980-1991

Heading 1  
 Heading 2  
 Heading 3  
 Heading 4  
 Heading 5  
 Heading 6

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 Heading 9  
 Heading 10

Year	Chelonia mydas	Lepidochelys olivacea	Eretmochelys imbricata	Dermochelys coriacea	Total
1980	0	0	0	0	0
1981	0	0	0	0	0
1982	19	2	0	2	23
1983	16	2	0	0	18
1984	24	0	3	1	28
1985	50	1	0	0	51
1986	87	0	2	0	89
1987	99	3	1	1	104
1988	50	0	0	0	50
1989	3	0	0	0	3
1990	118	1	2	0	121
1991	4	0	0	0	4

Footnote 1  
 Footnote 2  
 Footnote 3  
 Footnote 4  
 Footnote 5

## Report 4. Annual strandings by months

Stranded, injured, and diseased marine turtles reported monthly during 1980-1991

Heading 1  
 Heading 2  
 Heading 3  
 Heading 4  
 Heading 5  
 Heading 6

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 Heading 9  
 Heading 10

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1980	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	1	4	3	4	3	2	3	1	0	0	1	4	26
1983	2	5	1	0	1	5	5	3	3	1	0	1	27
1984	5	3	3	1	2	4	5	1	0	10	2	0	36
1985	3	3	4	8	5	5	13	5	3	2	3	2	56
1986	4	8	13	8	9	6	10	11	9	5	9	8	100
1987	14	8	14	12	12	8	9	9	5	9	8	2	110
1988	6	2	6	4	6	8	6	5	8	6	10	8	75
1989	0	0	0	0	0	0	0	1	0	0	0	2	3
1990	5	4	9	12	10	20	12	12	10	10	9	10	123
1991	5	0	0	0	0	0	0	0	0	0	0	0	5

Footnote 1  
 Footnote 2  
 Footnote 3  
 Footnote 4  
 Footnote 5



## Report 5. Annual percent strandings by incident

Stranded, injured, and diseased marine turtles reported during 1980-1991

Heading 1

Heading 2

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Heading 5

Heading 6

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Heading 10

Year	Dead (%)	Tumors (%)	Dead with tumors (%)	Human induced (%)	Dead and Human induced (%)	Accidentally entangled or hooked (%)	Accidentally entangled or hooked and dead (%)	Debris in Guts (%)	Total No.
1980	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0
1982	53	26	11	23	15	30	11	7	26
1983	55	22	14	25	14	22	11	0	27
1984	44	16	5	52	19	33	5	5	36
1985	58	33	19	42	23	30	10	1	56
1986	69	25	14	20	9	21	6	9	100
1987	61	39	20	10	5	20	9	4	110
1988	70	36	22	21	13	13	5	2	75
1989	66	33	33	0	0	33	0	0	3
1990	77	37	28	19	14	13	9	3	123
1991	80	80	60	0	0	0	0	0	5

Footnote 1

Footnote 2

Footnote 3

Footnote 4

Footnote 5

## Report 6. Annual percent strandings by size-class

Stranded, injured, and diseased marine turtles reported during 1980-1991

Heading 1  
 Heading 2  
 Heading 3  
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Year	Juvenile (35-65 cm) (%)	Subadult (>65-81 cm) (%)	Adult (>81 cm) (%)	Unknown size-class (%)	Total No.
1980	0	0	0	0	0
1981	0	0	0	0	0
1982	34	11	3	50	26
1983	18	3	7	70	27
1984	27	8	16	47	36
1985	46	12	7	33	56
1986	40	15	9	36	100
1987	38	15	5	40	110
1988	38	4	12	45	75
1989	66	33	0	0	3
1990	32	6	5	55	123
1991	0	0	0	100	5

Footnote 1  
 Footnote 2  
 Footnote 3  
 Footnote 4  
 Footnote 5

## Report 7. Summary of stranded data

--Stranded, injured and diseased marine turtles reported during 1991  
 (Cm = Chelonia mydas, green turtle; Ei = Eretmochelys imbricata, hawksbill; Lo =  
 Lepidochelys olivacea, olive ridley; Dc = Dermochelys coriacea, leatherback;  
 S = straight carapace length; C = curved carapace length; P = plastron length).

Heading 4

Heading 5

Heading 6

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No.	Date	Tag Nos.	Location	Species	Sex	Measurements (cm)	Tumor Ranking	Condition and circumstances	Contact
1	01/03/91		Mokuleia - Wailua	--	U	--	0	Live turtle reported with tumors beached itself near Mokuleia Beach Colony for several hours in the morning. Mid-morning turtle crawled off beach and swam back out to sea.	Bert Zimmerman 69-615 Farrington Hwy. (637-9311)
2	01/07/91		Waimanalo	CM	U	--	0	Complainant reported her dog carried a turtle shell on to her property. She contacted DLMR. They arranged to take custody of the shell. Complainant left shell at Kailua police station for pick up. NMFS responded for pick up.	Eleanor Kauhane 41-120 Kulaiwi st. (259-9051)
3	01/09/91		Kahalui	CM	M	C- 87.6	2	Large, severely decomposing male green turtle washed ashore on beach behind contacts house. Tumors present. Eyes eaten out, scutes and scales sluffing off.	Craig Nakamura 47-895 Kam Hwy (474-5203)(w)

Footnote 1

Footnote 2



## Report 8. Summary of tagged turtles

Tagging summary from Molokai during 03/01/90-03/01/90

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Heading 6

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Tag Nos.	Date	Carapace Length (cm)		Weight (lbs)	Captured Method
		Straight	Curved		
7240, 9292, Y633	03/01/90	68.6	0.0	0.0	Bull Pen
Y604, Y605	03/01/90	40.5	0.0	0.0	Bull Pen
Y606, Y607	03/01/90	39.2	0.0	0.0	Bull Pen
Y608, Y609	03/01/90	42.5	0.0	0.0	Bull Pen
Y610, Y611	03/01/90	55.1	0.0	0.0	Bull Pen
Y612, Y613, Y614	03/01/90	63.9	0.0	0.0	Bull Pen
Y615, Y616, Y618	03/01/90	63.7	0.0	0.0	Bull Pen
Y619, Y620, Y621, Y622	03/01/90	84.4	0.0	0.0	Bull Pen
Y623, Y624, Y625	03/01/90	80.9	0.0	0.0	Bull Pen
Y626, Y627, Y628	03/01/90	78.9	0.0	0.0	Bull Pen
Y630, Y631, Y632	03/01/90	60.0	0.0	0.0	Bull Pen
Y634, Y635, Y636	03/01/90	83.9	0.0	0.0	Bull Pen

Footnote 1

Footnote 2

Footnote 3

Footnote 4

Footnote 5

## Report 9. Summary of recovered turtles

## Summary of recoveries from Molokai during 01/01/90-12/31/90

Heading 1  
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Tag Nos.	Date		Straight Length (cm)		Year Interval	Growth Rate cm/yr
	Original	Recovered	Original	Recovered		
7240, 9292, Y633	03/01/90	03/01/90	68.6	68.6	0.0	0.0
10925, 10926	07/13/88	05/08/90	56.3	59.2	1.8	1.6
9884, 9885	07/11/88	05/08/90	41.3	43.0	1.8	0.9
Y369, Y370	07/04/89	05/08/90	45.7	46.7	0.8	1.3
Y442, Y443	07/04/89	05/08/90	62.3	63.7	0.8	1.8
6461, 6462, Y825	10/19/82	05/09/90	0.0	77.3	7.5	10.3
10931, 10933	07/13/88	07/02/90	54.4	56.6	1.9	1.2
10940, 10941, 10942	07/13/88	07/02/90	69.4	71.9	1.9	1.3
8519, 8520, Z166	07/13/88	07/02/90	56.6	62.4	1.9	3.1
Y452, Y453, Z167	07/04/89	07/02/90	67.9	70.1	0.9	2.4
6533, 6534, Z132	10/19/82	07/09/90	0.0	72.5	7.7	9.4
7792, 7793, Z124	07/09/90	07/09/90	57.4	57.4	0.0	0.0
Y817, Y818	05/08/90	07/09/90	43.5	43.8	0.2	1.5

Footnote 1  
 Footnote 2  
 Footnote 3  
 Footnote 4  
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## Report 10. Summary of growth rates

Annual growth rate summary from Molokai during 01/01/90-12/31/90

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Tag No.	Year Interval	Straight Carapace (cm)		Curved Carapace (cm)		Growth Rate Weight (kg)
		Length	Width	Length	Width	
7240, 9292, Y633	0.0	0.0	---	---	---	---
10925, 10926	1.8	1.6	---	1.9	---	---
9884, 9885	1.8	0.9	---	1.1	---	---
Y369, Y370	0.8	1.3	---	1.9	---	---
Y442, Y443	0.8	1.8	---	2.5	---	---
6461, 6462, Y825	7.5	---	---	1.8	1.9	---
10931, 10933	1.9	1.2	---	1.3	---	---
10940, 10941, 10942	1.9	1.3	---	1.1	---	---
8519, 8520, Z166	1.9	3.1	---	2.9	---	---
Y452, Y453, Z167	0.9	2.4	---	3.3	---	---
6533, 6534, Z132	7.7	---	---	---	---	---
7792, 7793, Z124	0.0	0.0	0.0	0.0	0.0	---
Y817, Y818	0.2	1.5	-2.5	2.5	2.5	---

Footnote 1

Footnote 2

Footnote 3

Footnote 4

Footnote 5

Report 11. Summary of growth rates by size-class

Growth rate by size-class from Molokai during 01/01/90-12/31/90

- Heading 1
- Heading 2
- Heading 3
- Heading 4
- Heading 5
- Heading 6

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- Heading 9
- Heading 10

	Straight Length									
	Annual Growth Rates									
	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0
			10.31	0.94	1.25		1.61	1.75	0.00	1.32
			9.42	1.50			1.16		2.44	
							3.05			
							0.00			
Mean	---	---	9.865	1.220	1.250	---	1.455	1.750	1.220	1.320

- Footnote 1
- Footnote 2
- Footnote 3
- Footnote 4
- Footnote 5



## Report 12. Summary of near shore data

--Summary of turtles tagged on Molokai during 03/01/90 to 03/01/90

Heading 1  
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 Heading 9  
 Heading 10

Tag No.	Length	Straight Notch	Width	Curved Length	Width	Tumor Ranking	Comments
Expedition date 03/01/90							
Y612, Y613, Y614	63.9	---	---	---	---	1	Tumors present on eyes.
Y615, Y616, Y618	63.7	---	---	---	---	0	Left and right FL's gone.
Y619, Y620, Y621, Y622	84.4	---	---	---	---	0	Male?
Y623, Y624, Y625	80.9	---	---	---	---	1	Tumor at RFL and eye.
Y626, Y627, Y628	78.9	---	---	---	---	0	Six centrals
Y630, Y631, Y632	60.0	---	---	---	---	1	Tumors present on eyes and FF's.

Footnote 1  
 Footnote 2  
 Footnote 3  
 Footnote 4  
 Footnote 5



## Report 13. Historical summary

## Historical information for turtle Y47

Heading 1  
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 Heading 3  
 Heading 4  
 Heading 5  
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 Heading 9  
 Heading 10

## Tag information--

Tag Number	Date Tagged	Tag Type	Tag Position
Y47	12/18/89	---	RFL
Y48	12/18/89	---	LFL
Y49	12/18/89	---	L34
Y50	12/18/89	---	LHF
Z243	12/14/90	---	R3

## Historical information--

Date	Type of Encounter	Location	Tumor Score	Nesting Activity	Straight Length Measurement type	Since Last Encounter			Overall				
						Interval Month	Year	Growth-rates cm/mon	Interval Month	Year	Growth-rates cm/mon		
12/14/89	Stranded	Oahu, Waikiki, Kapahulu Seawall	0	-	57.6	---	---	---	---	---	---	---	
12/14/90	Near Shore	Oahu, Waikiki, Graces Ledge	0	-	61.2	12	1.0	0.3	3.6	12	1.0	0.3	3.6
04/04/91	Near Shore	Oahu, Waikiki	0	-	62.4	3	0.3	0.4	4.0	15	1.3	0.3	3.7

Footnote 1  
 Footnote 2  
 Footnote 3  
 Footnote 4  
 Footnote 5



## Report 14. Summary of nesting activity

## Nesting Activities During The 1990 Nesting Season

Heading 1

Heading 2

Heading 3

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Heading 6

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Tag No.	Island Observed	Period Observed	Curved Length (cm)	Nesting Interval	No. of Clutches
10087, 10088	East	05/25-07/21 (57)	92.0	14,27,16	(4)
10095, 3590, 8244	East	06/03-07/26 (53)	105.7	14,13,25	(4)
10163, 10164	East	06/07-07/06 (29)	90.8		(0)
10192, 10193	East	06/13-08/26 (74)	101.5	16,40	(3)
10207, 10543	East	06/07-08/12 (66)	98.9	13,15,12, 13,13	(6)
2232, W621	East	05/23-07/24 (62)	103.8	25,12	(3)
2234, 6123, W752	East	05/14-07/11 (58)	101.4	17,14,13, 14	(5)

Footnote 1

Footnote 2

Footnote 3

Footnote 4

Footnote 5

## Report 15. Summary of nesting data

## Summary of The Nesting Data During The 1990 Nesting Season

Heading 1  
 Heading 2  
 Heading 3  
 Heading 4  
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 Heading 9  
 Heading 10

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No.	Tag No.	Sex	Length	Weight	Tumors	Date	Island	Act.	Time Up	Time Back
1		-	--	--	N	05/28/90	East	X	2015	----
						06/04/90	East	C	0120	----
						06/05/90	East	X	0220	----
						06/06/90	East	C	0307	0309
						06/08/90	East	X	2230	----
						06/13/90	East	X	2110	----
						06/20/90	East	X	2146	----
						07/08/90	East	N	2050	0210
						07/08/90	East	X	2110	----
						07/23/90	East	X	0137	----
						08/05/90	East	C	0158	----
						08/07/90	East	X	2012	----
						08/08/90	East	N	2041	----
						08/20/90	East	X	2344	----
						09/04/90	East	N	2206	----
2	10087, 10088	F	C- 92.0	--	N	05/25/90	East	N	2140	----
						06/06/90	East	X	0255	----
						06/08/90	East	N	2246	----
						06/19/90	East	X	0058	0623

Activity Codes: N=nested; P=probably nested; M=maybe nested; X=digging; C=crawling; B=basking  
 Footnote 2  
 Footnote 3

Footnote 4  
Footnote 5

APPENDIX B: RTDMS Codes

Island Codes

RTDMS Code	Island Name
0000	Island Name
0001	Island Name
0002	Island Name
0003	Island Name
0004	Island Name
0005	Island Name
0006	Island Name
0007	Island Name
0008	Island Name
0009	Island Name
0010	Island Name
0011	Island Name
0012	Island Name
0013	Island Name
0014	Island Name
0015	Island Name
0016	Island Name
0017	Island Name
0018	Island Name
0019	Island Name
0020	Island Name
0021	Island Name
0022	Island Name
0023	Island Name
0024	Island Name
0025	Island Name
0026	Island Name
0027	Island Name
0028	Island Name
0029	Island Name
0030	Island Name
0031	Island Name
0032	Island Name
0033	Island Name
0034	Island Name
0035	Island Name
0036	Island Name
0037	Island Name
0038	Island Name
0039	Island Name
0040	Island Name
0041	Island Name
0042	Island Name
0043	Island Name
0044	Island Name
0045	Island Name
0046	Island Name
0047	Island Name
0048	Island Name
0049	Island Name
0050	Island Name
0051	Island Name
0052	Island Name
0053	Island Name
0054	Island Name
0055	Island Name
0056	Island Name
0057	Island Name
0058	Island Name
0059	Island Name
0060	Island Name
0061	Island Name
0062	Island Name
0063	Island Name
0064	Island Name
0065	Island Name
0066	Island Name
0067	Island Name
0068	Island Name
0069	Island Name
0070	Island Name
0071	Island Name
0072	Island Name
0073	Island Name
0074	Island Name
0075	Island Name
0076	Island Name
0077	Island Name
0078	Island Name
0079	Island Name
0080	Island Name
0081	Island Name
0082	Island Name
0083	Island Name
0084	Island Name
0085	Island Name
0086	Island Name
0087	Island Name
0088	Island Name
0089	Island Name
0090	Island Name
0091	Island Name
0092	Island Name
0093	Island Name
0094	Island Name
0095	Island Name
0096	Island Name
0097	Island Name
0098	Island Name
0099	Island Name

MTDMS v1.0 - revised 1 June 1992

## APPENDIX B: MTDMS Codes

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### Island Codes

Island name	MTDMS Code
Hawaii	HAWA
Maui	MAUI
Kahoolawe	KAHO
Lanai	LANA
Molokai	MOLO
Oahu	OAHU
Kauai	KAUA
Niihau	NIIH
Kaula	KAUL
Nihoa	NIHO
Necker Island	NECK
French Frigate Shoals	FREN
Little Gin	LITT
Gin	GIN
East	EAST
Mullet	MULL
Round	ROUN
Whale-Skate	WHAL
Trig	TRIG
Tern	TERN
Shark	SHAR
Gardner Pinnacles	GARD
Maro Reef	MARO
Laysan Island	LAYS
Lisianski Island	LISI
Pearl and Hermes Reef	PEAR
Midway Island	MIDW
Kure Island	KURE
Australia	AUST



## Species Codes

Common Name	Stranded, Near Shore, Nesting Code	Driftnet Code
Green Turtle	CM	903
Hawksbill Turtle	EI	905
Loggerhead Turtle	CC	902
Kemp's Ridley Turtle	LK	0
Olive Ridley Turtle	LO	904
Leatherback Turtle	DC	901
Unidentified		900
Unknown hard-shelled		906

## Tag Position Codes

Tag Position	MTDMS Code
Right flap	RFL
First proximal scale on right flipper	R1
Second proximal scale on right flipper	R2
Third proximal scale on right flipper	R3
Fourth proximal scale on right flipper	R4
Fifth proximal scale on right flipper	R5
Between first and second scale on right flipper	R12
Between second and third scale on right flipper	R23
Between third and fourth scale on right flipper	R34
Between fourth and fifth scale on right flipper	R45
Right hind flipper	RHF
Left flap	LFL
First proximal scale on left flipper	L1
Second proximal scale on left flipper	L2
Third proximal scale on left flipper	L3
Fourth proximal scale on left flipper	L4
Fifth proximal scale on left flipper	L5
Between first and second scale on left flipper	L12
Between second and third scale on left flipper	L23
Between third and fourth scale on left flipper	L34
Between fourth and fifth scale on left flipper	L45
Left hind flipper	LHF

## Tag Type Codes

Tag Type	MTDMS Code
Monel #1	M1
Monel 49	M49
Monel 681	M681
Inconel 49	I49
Inconel 681	I681
Fearing "Tuff-Tex"	F
Plastic "Allflex"	P
Titanium	T
#1 Titanium	T1
Roto Tag Plastic	R

## Study Site Codes

Study Site	MTDMS Code
Morton Banks, S. Queensland	MORTON
Cetti Bay	CETTI
Keawa Nui Bay	KEAWA
Kiholo	KIHOLO
Kopaoho-Vacationland	KOPAHO
Puako	PUAKO
Puako, Mauna Kea Beach Hotel	PUAKOMK
Punaluu Bay	PUNALUU
East Shore, Turtle Haven	TURTLEH
Kahanui Point	KAHANUI
Palaau	PALAAU
Barber's Point	BARBERS
Kahala Hilton, Captivity	KAHALAC
Kaneohe Bay	KANEOHE
Kaneohe Bay A.O.L.	KANEOHEA
Kaneohe Bay Deep/42 & 43	KANEOHED
Kaneohe Bay; Island Kapapa	KANEOHEI
Kaneohe Bay; Kapapa	KANEOHEK
Kaneohe Bay Mark	KANEOHEM
Kaneohe Bay Twin	KANEOHET
Kawela Bay	KAWELA
Sandy Beach	SANDYBCH
Waikiki	WAIKIKI
Waikiki, Grace's Ledge	WAIKIKIG
Waikiki, Sheraton	WAIKIKIS
Sand Island	SANDISLD

## Nesting Activity Codes

Nesting Activity	MTDMS Code
Nested	N
Probably nested	P
Maybe nested	M
Digging	X
Crawling	C
Basking	B

## National Codes

Flag	National	MTDMS Code
Japan	Japanese	J
Korean	Korean	K
Taiwan	Taiwanese	T
United States	American	U
Canada	Canadian	C

## Gear Codes

Gear Type	MTDMS Code
Trolling	TR
Longline	LL
Small-mesh or Squid gillnet	SG
Large-mesh or Tuna/Billfish gillnet	LG
Purse seine	PS
Trawl	TW
Trap	TP

## Status Code

Status	MTDMS Code
Turtle decked or cut free from net	DK
Turtle dropped out of net during retrieval	DO
Turtle seen swimming (floating) near net or vessel	SW
Turtle entangled in marine debris	MD
Turtle status unknown	UK

## Disposition Codes

Disposition	MTDMS Code
Turtle tagged and released	T
Dead turtle discarded	D
Turtle released without tagging	R
Whole dead turtle salvaged	W
Gut of dead turtle salvaged	G
Not applicable	N

## Sex Codes

Sex	MTDMS Code
Male	M
Female	F
Unknown	U

## APPENDIX C: Edit Keys

The following table list commands used to edit fields.

Key	Action
Left arrow, CTRL-S	Character left.
Right arrow, CTRL-D	Character right.
Up arrow, CTRL-E	Move one field left; bottom to top.
Downarrow, CTRL-X, Return	Move one field right; top to bottom.
Del	Delete character at cursor position.
Back space	Destructive back space.
CTRL-T	Delete right word.
CTRL-Y	Delete from cursor position to end of field.
CTRL-U	Restore original value of the current field.

The following table list commands used to edit memo fields.

Key	Action
Left arrow, CTRL-S	Character left.
Right arrow, CTRL-D	Character right.
Up arrow, CTRL-E	Move up one line.
Down arrow, CTRL-X	Move down one line.
Del	Delete character at cursor position.
Back space	Destructive back space.
CTRL-T	Delete right word.
CTRL-Y	Delete the current line.
Home	Beginning of current line.
End	End of current line.
PgUp	Next window up.
PgDn	Next window down.

## APPENDIX D: ASCII Formats

Format for conversion file STRND.DAT:

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
1.	1	8	8	C	Turtle ID
2.	9	12	4	N	Year of strandings
3.	13	14	2	N	Month of strandings
4.	15	16	2	N	Day of strandings
5.	17	20	4	C	Island stranded (4 chr. code)
6.	21	50	30	C	Location of strandings
7.	51	100	50	C	Person reported the incident
8.	101	102	2	C	Species (2 chr. code)
9.	103	103	1	C	Sex of turtle stranded
10.	104	108	5	N	Straight carapace length
11.	109	113	5	N	Straight carapace width
12.	114	118	5	N	Curved carapace length
13.	119	123	5	N	Curved carapace width
14.	124	128	5	N	Notch carapace length
15.	129	133	5	N	Length of plastron
16.	134	138	5	N	Head width
17.	139	143	5	N	Width of right front flipper
18.	144	148	5	N	Tail length from plastron
19.	149	153	5	N	Tail length from ventral
20.	154	158	5	N	Weight
21.	159	159	1	C	Dead or Alive (D/A)
22.	160	160	1	C	Entangled or Hooked (Y/N/U)
23.	161	161	1	C	Induced by humans (Y/N/U)

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
24.	162	162	1	C	Necropsy (Y/N)
25.	163	163	1	C	Debris in guts (Y/N/U)
26.	164	164	1	C	Tumors found (Y/N/U)
27.	165	165	1	N	Tumor Ranking (0-4)
28.	166	167	2	N	No. of size 1 Lt. eye tumors
29.	168	169	2	N	No. of size 2 Lt. eye tumors
30.	170	171	2	N	No. of size 3 Lt. eye tumors
31.	172	173	2	N	No. of size 4 Lt. eye tumors
32.	174	175	2	N	No. of size 1 Rt. eye tumors
33.	176	177	2	N	No. of size 2 Rt. eye tumors
34.	178	179	2	N	No. of size 3 Rt. eye tumors
35.	180	181	2	N	No. of size 4 Rt. eye tumors
36.	182	183	2	N	No. of size 1 ffl tumors
37.	184	185	2	N	No. of size 2 ffl tumors
38.	186	187	2	N	No. of size 3 ffl tumors
39.	188	189	2	N	No. of size 4 ffl tumors
40.	190	191	2	N	No. of size 1 hfl tumors
41.	192	193	2	N	No. of size 2 hfl tumors
42.	194	195	2	N	No. of size 3 hfl tumors
43.	196	197	2	N	No. of size 4 hfl tumors
44.	198	199	2	N	No. of size 1 neck tumors
45.	200	201	2	N	No. of size 2 neck tumors
46.	202	203	2	N	No. of size 3 neck tumors

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
47.	204	205	2	N	No. of size 4 neck tumors
48.	206	207	2	N	No. of size 1 mouth tumors
49.	208	209	2	N	No. of size 2 mouth tumors
50.	210	211	2	N	No. of size 3 mouth tumors
51.	212	213	2	N	No. of size 4 mouth tumors
52.	214	215	2	N	No. of size 1 tail tumors
53.	216	217	2	N	No. of size 2 tail tumors
54.	218	219	2	N	No. of size 3 tail tumors
55.	220	221	2	N	No. of size 4 tail tumors
56.	222	223	2	N	No. of size 1 seam tumors
57.	224	225	2	N	No. of size 2 seam tumors
58.	226	227	2	N	No. of size 3 seam tumors
59.	228	229	2	N	No. of size 4 seam tumors
60.	230	231	2	N	No. of size 1 internal tumors
61.	232	233	2	N	No. of size 2 internal tumors
62.	234	235	2	N	No. of size 3 internal tumors
63.	236	237	2	N	No. of size 4 internal tumors



Format for conversion file NRSHR.DAT:

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
1.	1	8	8	C	Turtle ID
2.	9	12	4	N	Year of capture
3.	13	14	2	N	Month of capture
4.	15	16	2	N	Day of capture
5.	17	24	8	C	Study site (8 chr. code)
6.	25	28	4	C	Island captured (4 chr. code)
7.	29	32	4	N	Time of capture (24hr)
8.	33	34	2	C	Species (2 chr. code)
9.	35	35	1	C	Sex of turtle captured
10.	36	65	30	C	Location of the capture
11.	66	66	1	C	Recovery (Y/N)
12.	67	67	1	C	New tag applied (Y/N)
13.	68	92	25	C	Method used for capture
14.	93	97	5	N	Straight carapace length
15.	98	102	5	N	Straight carapace width
16.	103	107	5	N	Curved carapace length
17.	108	112	5	N	Curved carapace width
18.	113	117	5	N	Notch carapace length
19.	118	122	5	N	Length of plastron
20.	123	127	5	N	Head width
21.	128	132	5	N	Width of right front flipper
22.	133	137	5	N	Tail length from plastron

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
23.	138	142	5	N	Tail length from ventral
24.	143	147	5	N	Weight
25.	148	148	1	C	Tumors found (Y/N/U)
26.	149	149	1	N	Tumor Ranking (0-4)
27.	150	151	2	N	No. of size 1 Lt. eye tumors
28.	152	153	2	N	No. of size 2 Lt. eye tumors
29.	154	155	2	N	No. of size 3 Lt. eye tumors
30.	156	157	2	N	No. of size 4 Lt. eye tumors
31.	158	159	2	N	No. of size 1 Rt. eye tumors
32.	160	161	2	N	No. of size 2 Rt. eye tumors
33.	162	163	2	N	No. of size 3 Rt. eye tumors
34.	164	165	2	N	No. of size 4 Rt. eye tumors
35.	166	167	2	N	No. of size 1 ffl tumors
36.	168	169	2	N	No. of size 2 ffl tumors
37.	170	171	2	N	No. of size 3 ffl tumors
38.	172	173	2	N	No. of size 4 ffl tumors
39.	174	175	2	N	No. of size 1 hfl tumors
40.	176	177	2	N	No. of size 2 hfl tumors
41.	178	179	2	N	No. of size 3 hfl tumors
42.	180	181	2	N	No. of size 4 hfl tumors
43.	182	183	2	N	No. of size 1 neck tumors
44.	184	185	2	N	No. of size 2 neck tumors
45.	186	187	2	N	No. of size 3 neck tumors

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
46.	188	189	2	N	No. of size 4 neck tumors
47.	190	191	2	N	No. of size 1 mouth tumors
48.	192	193	2	N	No. of size 2 mouth tumors
49.	194	195	2	N	No. of size 3 mouth tumors
50.	196	197	2	N	No. of size 4 mouth tumors
51.	198	199	2	N	No. of size 1 tail tumors
52.	200	201	2	N	No. of size 2 tail tumors
53.	202	203	2	N	No. of size 3 tail tumors
54.	204	205	2	N	No. of size 4 tail tumors
55.	206	207	2	N	No. of size 1 seam tumors
56.	208	209	2	N	No. of size 2 seam tumors
57.	210	211	2	N	No. of size 3 seam tumors
58.	212	213	2	N	No. of size 4 seam tumors
59.	214	215	2	N	No. of size 1 internal tumors
60.	216	217	2	N	No. of size 2 internal tumors
61.	218	219	2	N	No. of size 3 internal tumors
62.	220	221	2	N	No. of size 4 internal tumors

Format for conversion file NEST.DAT:

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
1.	1	8	8	C	Turtle ID
2.	9	12	4	N	Year sighted
3.	13	14	2	N	Month sighted
4.	15	16	2	N	Day sighted
5.	17	20	4	N	Island sighted (4 chr. code)
6.	21	24	4	C	Time up (24hr.)
7.	25	28	4	C	Time back (24hr.)
8.	29	29	1	C	Activity (1 chr. code)
9.	30	30	1	C	Sex (1 chr. code)
10.	31	35	5	N	Straight carapace length
11.	36	40	5	N	Straight carapace width
12.	41	45	5	N	Curved carapace length
13.	46	50	5	N	Curved carapace width
14.	51	55	5	N	Notch carapace length
15.	56	60	5	N	Length of plastron
16.	61	65	5	N	Head width
17.	66	70	5	N	Width of right front flipper
18.	71	75	5	N	Tail length from plastron
19.	76	80	5	N	Tail length from ventral
20.	81	85	5	N	Weight
21.	86	86	1	C	Tumors found (Y/N/U)
22.	87	87	1	N	Tumor Ranking (0-4)
23.	88	89	2	N	No. of size 1 Lt. eye tumors
24.	90	91	2	N	No. of size 2 Lt. eye tumors

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
25.	92	93	2	N	No. of size 3 Lt. eye tumors
26.	94	95	2	N	No. of size 4 Lt. eye tumors
27.	96	97	2	N	No. of size 1 Rt. eye tumors
28.	98	99	2	N	No. of size 2 Rt. eye tumors
29.	100	101	2	N	No. of size 3 Rt. eye tumors
30.	102	103	2	N	No. of size 4 Rt. eye tumors
31.	104	105	2	N	No. of size 1 ffl tumors
32.	106	107	2	N	No. of size 2 ffl tumors
33.	108	109	2	N	No. of size 3 ffl tumors
34.	110	111	2	N	No. of size 4 ffl tumors
35.	112	113	2	N	No. of size 1 hfl tumors
36.	114	115	2	N	No. of size 2 hfl tumors
37.	116	117	2	N	No. of size 3 hfl tumors
38.	118	119	2	N	No. of size 4 hfl tumors
39.	120	121	2	N	No. of size 1 neck tumors
40.	122	123	2	N	No. of size 2 neck tumors
41.	124	125	2	N	No. of size 3 neck tumors
42.	126	127	2	N	No. of size 4 neck tumors
43.	128	129	2	N	No. of size 1 mouth tumors
44.	130	131	2	N	No. of size 2 mouth tumors
45.	132	133	2	N	No. of size 3 mouth tumors
46.	134	135	2	N	No. of size 4 mouth tumors
47.	136	137	2	N	No. of size 1 tail tumors

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
48.	138	139	2	N	No. of size 2 tail tumors
49.	140	141	2	N	No. of size 3 tail tumors
50.	142	143	2	N	No. of size 4 tail tumors
51.	144	145	2	N	No. of size 1 seam tumors
52.	146	147	2	N	No. of size 2 seam tumors
53.	148	149	2	N	No. of size 3 seam tumors
54.	150	151	2	N	No. of size 4 seam tumors
55.	152	153	2	N	No. of size 1 internal tumors
56.	154	155	2	N	No. of size 2 internal tumors
57.	156	157	2	N	No. of size 3 internal tumors
58.	158	159	2	N	No. of size 4 internal tumors

Format for conversion file DRIFT.DAT:

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
1.	1	8	8	C	Turtle ID
2.	9	12	4	N	Year encountered
3.	13	14	2	N	Month encountered
4.	15	16	2	N	Day encountered
5.	17	17	1	C	Vessel flag (1 chr. code)
6.	18	42	25	C	Vessel name
7.	43	46	4	N	License number
8.	47	71	25	C	Observer name
9.	72	72	1	C	Obs. national (1 chr. code)
10.	73	74	2	C	Gear Type (2 chr. code)
11.	75	77	3	N	Gillnet mesh size
12.	78	79	2	N	Time Zone (relative to GMT)
13.	80	81	2	N	Latitude degrees
14.	82	83	2	N	Latitude minutes
15.	84	84	1	C	Hemisphere (N, S)
16.	85	87	3	N	Longitude degrees
17.	88	89	2	N	Longitude minutes
18.	90	90	1	C	Hemisphere (E, W)
19.	91	96	6	N	Sea surface temp. (tenth)
20.	97	98	2	N	Operation number
21.	99	100	2	N	Section number
22.	101	103	3	C	Species code (3 chr. code)

Item No.	Record Position			Field Type	Field Description
	From	To	Total		
23.	104	105	2	C	Encounter type (2 chr. code)
24.	106	106	1	C	Condition (1 chr. code)
25.	107	107	1	C	Action taken (1 chr. code)
26.	108	114	7	N	Curved carapace length
27.	115	115	1	C	Length determination
28.	116	116	1	N	Number of old tags
29.	117	117	1	N	Number of new tags





