



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



USER'S MANUAL

Marine Turtle Database Management System

Created by
Reese A. Tokunaga

June 1, 1992

INTERNAL DOCUMENT
CD-01-92-H

Cover graphic by Susan Kelly, Waikiki Aquarium, Honolulu, Hawaii.



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



USER'S MANUAL

Marine Turtle Database Management System

Created by
Reese A. Tokunaga

June 1, 1992

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 (Dermodochelys coriacea), and the hawksbill (Eretmodochelys 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

CONTENTS

1. INTRODUCTION	1
1.1 System Requirements	1
1.2 Conventions Used In This Manual	1
2. GETTING STARTED	2
2.1 Install MTDMS	2
2.2 Start Up MTDMS	2
2.3 Touring MTDMS	3
3. USING MTDMS	9
3.1 Creating Database Files	9
3.2 Append USFWS Nesting Survey Data	12
3.3 Using View/Edit	17
3.3.1 Stranded Data	17
3.3.1.1 Viewing Stranded Screens	18
3.3.1.2 Adding Stranded Records	20
3.3.1.3 Editing Stranded Records	25
3.3.1.4 Deleting Stranded Records	26
3.3.1.5 Viewing Other Databases From The Stranded View/Edit	26
3.3.1.6 Selecting A Stranded Index	28
3.3.1.7 Searching The Stranded Database	28
3.3.2 Near Shore Data	32
3.3.2.1 Viewing Near Shore Screens	32
3.3.2.2 Adding Near Shore Records	35
3.3.2.3 Editing Near Shore Records	39
3.3.2.4 Deleting Near Shore Records	40
3.3.2.5 Viewing Other Databases From The Near Shore View/Edit	40
3.3.2.6 Selecting A Near Shore Index	42
3.3.2.7 Searching The Near Shore Database	42
3.3.3 Nesting Data	46
3.3.3.1 Viewing Nesting Screens	46
3.3.3.2 Adding Nesting Records	48
3.3.3.3 Editing Nesting Records	52
3.3.3.4 Deleting Nesting Records	53
3.3.3.5 Viewing Other Databases From The Nesting View/Edit	54
3.3.3.6 Selecting A Nesting Index	55
3.3.3.7 Searching The Nesting Database	56
3.3.4 Driftnet Data	58
3.3.4.1 Viewing Driftnet Screens	58
3.3.4.2 Adding Driftnet Records	60
3.3.4.3 Editing Driftnet Records	64
3.3.4.4 Deleting Driftnet Records	66
3.3.4.5 Viewing Other Databases From The Driftnet View/Edit	66
3.3.4.6 Selecting A Driftnet Index	68
3.3.4.7 Searching The Driftnet Database	68
3.3.5 Using The Tag Editor	71
3.3.5.1 Entering Turtle Identifications	71
3.3.5.2 Adding and Editing Tag Records	72

3.3.5.3	Changing The Turtle ID	74
3.3.5.4	Deleting Tag Records	74
3.4	Creating Reports	75
3.4.1	Stranded Reports	75
3.4.1.1	Monthly Strandings With Tumors	75
3.4.1.2	Annual Strandings By Island	77
3.4.1.3	Annual Strandings By Species	79
3.4.1.4	Annual Strandings By Months	79
3.4.1.5	Annual Percent Strandings By Incident	79
3.4.1.6	Annual Percent Strandings By Size-Class	80
3.4.1.7	Summary of Stranded Data	80
3.4.2	Near Shore Reports	81
3.4.2.1	Summary of Tagged Turtles	81
3.4.2.2	Summary of Recovered Turtles	82
3.4.2.3	Summary of Growth Rates	83
3.4.2.4	Summary of Growth Rates By Size-Class	85
3.4.2.5	Summary of Near Shore Data	87
3.4.2.6	Historical Summary	88
3.4.3	Nesting Reports	90
3.4.3.1	Summary of Nesting Activities	90
3.4.3.2	Summary of Nesting Data	90
3.5	Utilities	91
3.5.1	Printer Selection	91
3.5.2	Reindexing Databases	91
3.5.3	Backup Databases	92
3.5.4	Restore Database	94
3.5.5	Select Path	95
3.5.6	DbaseIII+ To ASCII	98
3.5.7	Append Databases	100
4.	DATABASES	102
4.1	Database Structures	102
4.1.1	Data Files	102
4.1.1.1	Stranded Database	102
4.1.1.2	Near Shore Database	107
4.1.1.3	Nesting Database	111
4.1.1.4	Driftnet Database	115
4.1.1.5	Tag Database	117
4.1.2	System Databases	118
4.1.2.1	Island Codes Database	118
4.1.2.2	Turtle Codes Database	119
4.1.2.3	Tag Location Codes Database	120
4.1.2.4	Tag Type Codes Database	122
4.1.2.5	Study Site Codes Database	123
4.1.2.6	Nesting Activity Codes Database	124
4.1.2.7	National Codes Database	124
4.1.2.8	Gear Codes Database	125
4.1.2.9	Status Codes Database	126
4.1.2.10	Disposition Codes Database	126
4.1.2.11	Stranded Structure Database	127
4.1.2.12	Near Shore Structure Database	129

4.1.2.13 Nesting Structure Database	131
4.1.2.14 Driftnet Structure Database	133
4.1.2.15 Tag Structure Database	134
4.1.2.16 Temporary Tag Structure Database	135
4.1.2.17 Months Database	135
4.1.2.18 Rpnsl_34 Database	136
4.1.2.19 Rpnsl_36 Database	137
APPENDIX A: MTDMS Summary Reports	138
APPENDIX B: MTDMS Codes	158
APPENDIX C: Edit Keys	163
APPENDIX D: ASCII Formats	164
APPENDIX E: History of Changes to MTDMS and the User Manual	175

1. INTRODUCTION

The Marine Turtle Database Management System (MTDMS) was designed to support marine turtle research at the National Marine Fisheries Service's Honolulu Laboratory (NMFS). It provides for the systematic storage, retrieval, and summarization of data collected in four source categories: (1) data pertaining to turtles found stranded on beaches or incidentally caught in nearshore fishing gear and reported to NMFS, (2) data collected by NMFS during surveys of nearshore turtle habitat, (3) data on nesting activity collected by NMFS or U.S. Fish and Wildlife Service (FWS) biologists from turtle nesting beaches, and (4) data pertaining to encounters with turtles on the high-seas, typically involving turtles incidentally entangled in high-seas driftnets, pelagic longlines, or other fishing gear. In all four categories, most turtles involved are uniquely identified through the application of flipper tags. Thus a key feature of the database is the ability to trace the history of encounters with individual turtles and cross-reference information among data sets. A central turtle ID file facilitates this.

MTDMS is a menu driven system using bar selectors. It allows quick and easy access to all information it maintains. MTDMS can generate numerous summary reports (see Appendix A). All database files created using MTDMS are in dbaseIII+ format. However, the index files are products of Clipper and aren't accessible by dbaseIII+.

1.1 System Requirements

The following hardware is required to use MTDMS. The database may function under alternative hardware, but at less than full functionality.

- . AT-compatible microcomputer running DOS Version 2.1 or higher
- . At least 256K of conventional memory available
- . A hard disk (a fast hard disk will increase the performance of MTDMS)
- . A floppy disk drive
- . Hewlett-Packard Laserjet II printer or Epson FX series dot matrix printer or compatible.

1.2 Conventions Used In This Manual

In this manual, *italic* text represents options that are entered by the user. **BOLD** text indicates that you should type the required information followed by the ENTER key. Text placed in parentheses indicates that you should enter only the required keystrokes. Example: CD*directory name* would require you to type CD\, then a directory name found on your system, and then press the ENTER key; (CTRL-W) would require you to press the Ctrl key along with the W key.

2. GETTING STARTED

2.1 Install MTDMS

Before you can use MTDMS all system files must be loaded onto your hard drive. This is done using the installation program found on the MTDMS system's diskette. Do Not use the original system's diskette as your working diskette. It should be kept as a backup.

- 1 Turn on your computer and let DOS load itself.
- 2 Insert the MTDMS system diskette in drive A.
- 3 Select the A drive by typing A: at the DOS prompt
- 4 Type TDINSTAL at the DOS prompt

You may exit the installation program during the drive or path selection process by pressing the escape key (ESC). Once the installation program begins copying files you can no longer abort the installation until it is completed.

- 5 Select the drive you wish to install MTDMS on (for most systems this would be the C drive).
- 6 Select a path from the bar menu by using the (up) or (down) arrow keys to move the cursor to the path of your choice and (ENTER) to select. You may either press (ENTER) to confirm the selected path and start the installation or press *any other key* to change the current path to the selected path (the current path is displayed at the top of the selection box).

2.2 Start Up MTDMS

Now that you've successfully installed MTDMS onto your system you're ready to start MTDMS (if you did not install MTDMS onto your system see section *Install MTDMS* before going any further).

- 1 At the DOS prompt, enter `CD\MTDMS directory` (*MTDMS directory* is the name of the directory where you installed MTDMS).
- 2 Enter `MTDMS`

The following menu should appear on your screen. You're now ready to use MTDMS.


```
MARINE TURTLE DATA PROCESSING SYSTEM  Ver 1.0

2) Tagging near shore data
3) Nesting data
4) High-Seas driftnet data
5) Utilities
6) Exit
```

2.3 Touring MTDMS

This section will guide you through MTDMS showing you the various menus and functions available (for an in-depth description of the various functions see section *Using MTDMS*).

Start MTDMS on your computer (see section *Start Up MTDMS*). The first menu to appear is the main menu shown below.

```
MARINE TURTLE DATA PROCESSING SYSTEM  Ver 1.0

2) Tagging near shore data
3) Nesting data
4) High-Seas driftnet data
5) Utilities
6) Exit
```

As you can see there are six options to choose from. Selecting one of the first four options will get you to a data processing system menu; selecting option 5 will get you to the utilities menu, and selecting option 6 will exit you from MTDMS and return you to DOS. To select an option use the (up) or (down) arrow keys to move the bar selector and press (ENTER), or press one of the option numbers (if you are using the number pad make sure Num Lock is on).

Select Stranded data (1) on the main menu. You should have the following Stranded data processing system menu on your screen.

STRANDED DATA PROCESSING SYSTEM Ver 1.0
2) Stranded reports 3) Create stranded database 4) Exit

Four options appear on the menu. The first option allows you to view and modify the stranded database (modifying the database includes adding, deleting, and editing records in the database). The second option will get you to the stranded report menu. The third option allows you to create a new stranded database (you must create a database before you can view, edit, or summarize the data). And the fourth option will return you to the main menu.

Select Stranded reports (2) from the Stranded data processing system menu. The following menu should appear.

STRANDED DATA REPORTS Ver 1.0
2) Annual strandings by island 3) Annual strandings by species 4) Annual strandings by months 5) Annual percent strandings by incident 6) Annual percent strandings by size-class 7) Summary of stranded data 8) Exit

There are seven stranded summaries that MTDMS will generate. All summaries are described in detail in the *Creating Reports* section of this manual (see Appendix A reports 1 through 7).

Return to the main menu by selecting Exit (8) from the Stranded reports menu and Exit (4) from the Stranded data processing system menu. Select Tagging near shore data (2) from the main menu. You should have the following Near shore data processing system menu on your screen.

NEAR SHORE DATA PROCESSING SYSTEM Ver 1.0
2) Near shore reports 3) Create near shore database 4) Exit

The options are similar to the Stranded data processing system. Select Near shore reports (2). You should have the following Near shore reports menu.

NEAR SHORE DATA REPORTS Ver 1.0
2) Summary of recovered turtles 3) Summary of growth rates 4) Summary of growth rates by size-class 5) Summary of near shore data 6) Historical summary 7) Exit

There are six near shore reports each being described in detail in the *Creating Reports* section of this manual (see Appendix A reports 8 through 13).

Return to the main menu by selecting Exit (7) from the Near shore report menu and Exit (4) from the Near shore data processing system menu. Select Nesting data (3) from the main menu. You should have the following Nesting data processing system menu on your screen.

NESTING DATA PROCESSING SYSTEM Ver 1.0
2) Nesting reports 3) Append USFWS nesting observations 4) Create nesting database 5) Exit

There are four options available. Options 1, 2 and 4 have similar functions to options 1, 2 and 3, respectively, of the previous data processing systems. Option 3 is unique to all other data systems in MTDMS. It allows you to append

records collected by the USFWS to the nesting database (see section *Appending USFWS Nesting Survey Data*). Select Nesting reports (2) from the Nesting data processing system menu. The following menu will appear.

NESTING DATA REPORTS	Ver 1.0
2) Summary of nesting data 3) Exit	

There are two nesting reports each being described in detail in the *Creating Reports* section of this manual (see Appendix A reports 14 and 15).

Return to the main menu by selecting Exit (3) from the Nesting reports menu and Exit (5) from the Nesting data processing system menu. Select High-Seas driftnet data (4) from the main menu. You should have the following Driftnet data processing system menu on your screen.

DRIFTNET DATA PROCESSING SYSTEM	Ver 1.0
2) Driftnet reports 3) Create driftnet database 4) Exit	

The options are similar to the Stranded and Near shore data processing systems. Select Driftnet reports (2). You should have the following Driftnet reports menu.

DRIFTNET DATA REPORTS	Ver 1.0
1) report 1 2) report 2 . . n) Exit	

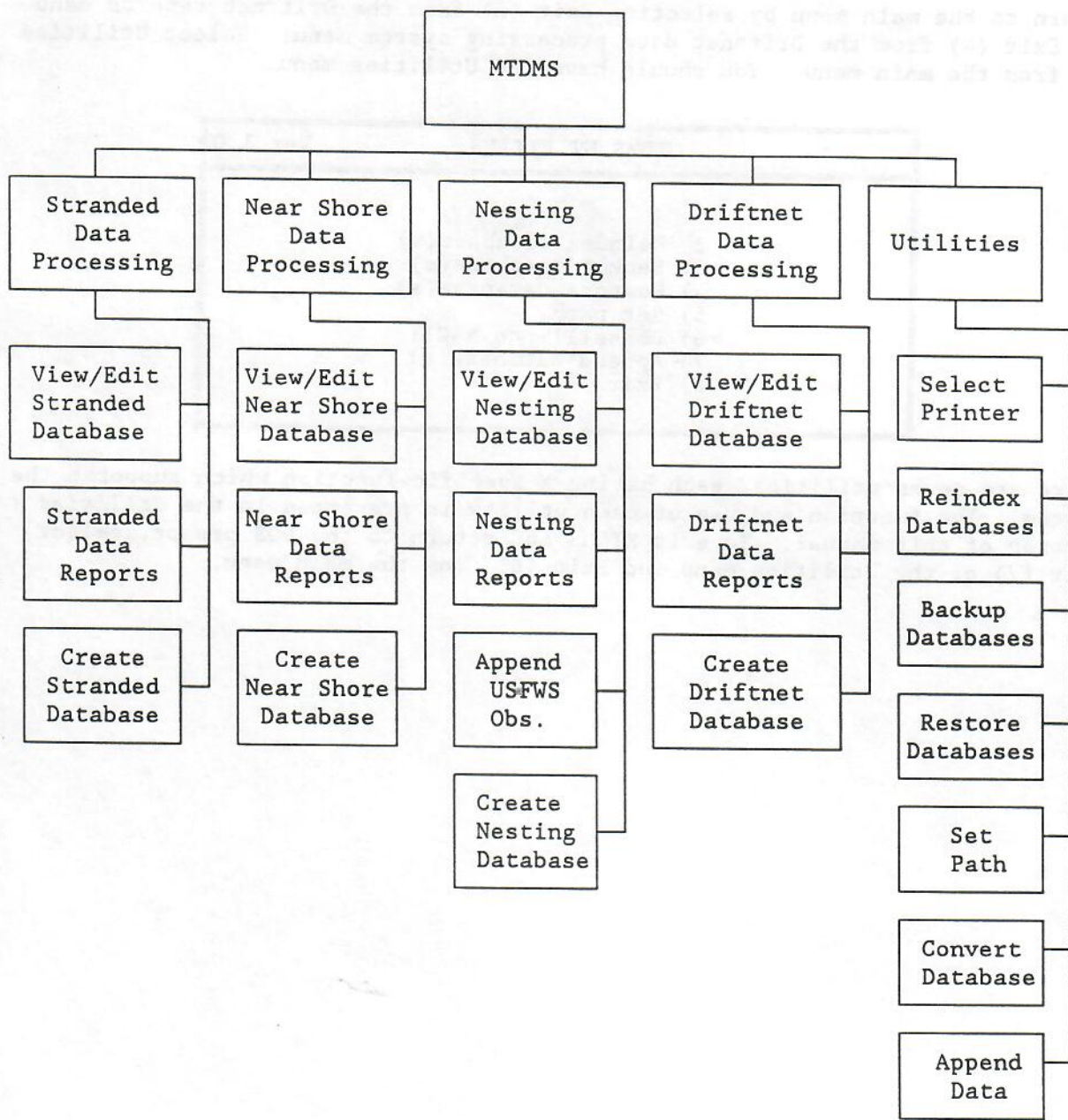
There are n driftnet reports each being described in detail in the *Creating Reports* section of this manual (see Appendix A reports 16 through n).

Return to the main menu by selecting Exit (n) from the Driftnet reports menu and Exit (4) from the Driftnet data processing system menu. Select Utilities (5) from the main menu. You should have the Utilities menu.

MTDMS UTILITIES	Ver 1.0
2) Reindex database(s)	
3) Backup database(s)	
4) Restore database(s)	
5) Set path	
6) DbaseIII+ to ASCII	
7) Append database(s)	
8) Exit	

There are seven utilities, each having a specific function which supports the system. The function and use of each utility is presented in the *Utilities* section of this manual. To exit MTDMS and return to the DOS prompt, select Exit (7) of the Utilities menu and Exit (6) from the main menu.

The overall structure of MTDMS is shown below.



3. USING MTDMS

3.1 Creating Database Files

Before you can begin entering or processing data, you must create a database file (one for each data processing type). Along with the database file, you also need to create a tag database. The tag database is the master identification file which links information among the database files. You should create all database files in the same directory. A failure to create the database files in the same directory will disallow any sharing of information among them.

Important: Each database file needs to be created only once. Creating a database file more than once will overwrite the previous one and therefore lose all information stored in it. If a database file becomes corrupt, use the restore database utility (see section *Restore Databases*).

In this example, we will create a new strandings and tag database in the 'C:\MTDMS\DATA\' directory (this path may not be available on your system). Creating one of the other database files require similar procedures.

Note: You may also create a database by using the Append database(s) and Append USFWS nesting survey data procedures (see section *Append Databases* and *Append USFWS Nesting Survey Data*).

To start, select Stranded database (1) from the Marine Turtle Database Management System menu and Create stranded database (3) from the Stranded data processing system menu.

CREATE STRANDED DATABASE Ver 1.0

Do you want to create it in the default path (Y/N)?

Default path: C:\MTDMS\

[ESC] To Exit

MTDMS will ask you if you want to create the database in the default path. Since we're going to create it in the 'C:\MTDMS\DATA\' directory, select (N)o.

Note: You may exit the creation procedure during any of the following screens by pressing (ESC).

CREATE STRANDED DATABASE Ver 1.0

Select a drive: :

Default path: C:\MTDMS\

Enter Drive or [ESC] To Return

Next, MTDMS will prompt you to enter a drive. Select the (C) drive.

CREATE STRANDED DATABASE Ver 1.0

Path = C:\

\CHART
 \DBASE
 \EASYFLOW
 \HIJAAK
 \PCTOOLS
 \QRAM
 \RAT
 \SIDEWAYS
 \SIGMA
 \WS4

<Enter> To Select Path or [ESC] To Exit

A list of directories on the selected drive will appear on the menu. The directories listed in the example shown above will not be the same as the ones appearing on your menu. Only directories available on the drive you selected will appear on the menu.

The current path is displayed at the top of the menu (in this case 'C:\' is the current path). Move the bar selector using the (up) or (down) arrow keys and select an option by pressing (ENTER). For our example, select the \MTDMS path.

CREATE STRANDED DATABASE Ver 1.0

Path = C:\MTDMS\

<Enter> To Select Path or <Any Other Key> To Change Path

After selecting the MTDMS path from the menu, press (any key), other than the ENTER key, to change the current path. A list of directories in the 'C:\MTDMS' path will be displayed on the new menu.

CREATE STRANDED DATABASE Ver 1.0

Path = C:\MTDMS\

C:\

\MTDMS\DOC
 \MTDMS\MTDMSSNAP
 \MTDMS\SCREENS

<Enter> To Select Path or [ESC] To Exit

Move the bar selector to the \MTDMS\DATA path and select by pressing (ENTER). Pressing (ENTER) again confirms the selection and the creation process begins. After the creation is completed press (any key) to continue.

Note: The path selected will become the new default path for your data files (see section *Select Path*).

MTDMS will now check to see if a Tag database is present in the default path. For our example, a tag database was not found. MTDMS will prompt you to create one. Press (Y) to create a tag database. After the tag database is created, pressing (any key) will return you to the Stranded data processing system menu.

3.2 Append USFWS Nesting Survey Data

This function, found only in the nesting data processing system, allows you to append USFWS observer data with your nesting database. Starting from the 1989 nesting season, the USFWS began maintaining two database files which stored all information about nesting turtles at French Frigate Shoals. The first is an identification database file which maintained records of tags, turtle measurements, tumors, physical characteristics and assigned paint numbers. Along with the identification database file is the sightings database file which maintained information such as the island encountered, date of sightings, paintid, verification tag numbers, time turtle beached itself, time turtle returned to the sea, and the activity of the turtle while on shore (See Appendix B Nesting Activity Codes). The following structures are from the 1989 nesting season database files. Database files from subsequent years should have similar structures.

Turtle Identification Database Structure:

Field No.	Field Name	Field Type	Field Width	Field Dec
1	ISLAND	Character	1	
2	DATE	Date	8	
3	PAINTID89	Character	3	
4	COLOR	Character	1	
5	TAGNO	Character	5	
6	TAGPOS	Character	4	
7	NEW_OLD	Character	1	
8	CARAPACE	Numeric	5	1
9	TUMORS	Character	6	
10	TUMORPOS	Character	6	
11	SEX_OR_AGE	Character	1	
12	ACTIVITY	Character	1	
13	COMMENTS	Character	100	

Turtle Sightings Database Structure:

Field No.	Field Name	Field Type	Field Width	Field Dec
1	ISLD	Character	1	
2	DATE	Date	8	
3	PAINTID	Character	3	
4	COLOR	Character	1	
5	VERTAGNO	Character	15	
6	VERTAGNO2	Character	15	
7	TIMEUP	Numeric	4	
8	TIMEBACK	Numeric	4	
9	ACTIVITY	Character	1	

Records added to the nesting database consists of information from both the sightings and identification databases (for each record in the sightings database a nesting record is added). Fields included from the sightings

database are the island sighted, date of sightings, time up, time back, and the activity; fields included from the identification database are the curved carapace length, straight carapace length, tumor sizes, tumor positions, and sex. The paint id is used to gather the appropriate information among the sightings and identification databases.

Records from the identification database are also added to the tag database. Only identification records with tag numbers not found in the tag database are added; identification records with tag numbers found in the tag database, missing tag numbers or missing paint ids are excluded. Information included in the new tag records are the tag number, tag position, and for new tags applied the date tagged.

Turtle ids for both nesting and tag records are assigned by using the lowest ordered tag number (numeric having precedence over alphabetic) for tag numbers not found in the tag database or an existing turtle id for tag numbers found in the tag database. If records in the sightings database have paint ids not found in the identification database or no tag numbers are found for a paint id in the identification database, then turtle ids assigned are in the form "U-yy-n" where yy is the year of the sightings data and n is an integer increased by one for each paint id not found. This allows an identification of unique individuals sighted in a nesting season.

To be consistent with the MTDMS database coding scheme some of the USFWS codes were translated. The following tables show the coding translations.

Island Codes:

Island	USFWS Codes	MTDMS Code
Tern Island	T, TERN	TERN
East Island	E, EAST	EAST
Whale-Skate	WHSK	WHAL

PaintID Codes:

PaintID	USFWS Codes	MTDMS Code
Unknown	U, UNKN	UNKN

Tumor Position Codes Type 1:

MTDMS Tumor Position	USFWS Codes
Left eye	1
Right eye	2
Neck	3
Front flipper	4 - 7
Hind flipper	8, 9
Tail	0

Tumor Position Codes Type 2:

MTDMS Tumor Position	USFWS Codes
Mouth	J1, J2
Left eye	E1
Right eye	E2
Neck	N1 - N4
Front flipper	F1 - F4
Hind flipper	F5 - F8
Tail	T1 - T3

Important: There are requirements for both database file structures. For the identification database, the field which contains the tag number must have a field name "TAGNO". Also, all of the fields in the database must be a character type, except for the date and carapace fields which may also be a date and numeric type, respectively. As for the sightings database file, all fields must be a character type except for fields date, timeup and timeback which may also be a date, and numeric types, respectively.

To append USFWS nesting survey data to the nesting database select Nesting data (3) from the main menu and Append USFWS nesting observations (3) from the nesting data processing system.

Note: The USFWS survey data database files must be stored on the A drive. Also, if a nesting or tag database file is not found on the default path, the database(s) not found is created.

APPEND NESTING RECORDS Ver 1.0

Information for the turtle nesting identification file:

Id file name:

Date field no.:

PaintID field no.:

TagNo field no.:

TagPos field no.:

New_Old field no.:

Curved carapace field no.:

Straight carapace field no.:

Tumors field no.:

TumorPos field no.:

Sex_Or_Age field no.:

[ESC] To Exit

Enter the file name of the identification database (do not specify the drive and the file extension since drive A and extension ".DBF" is assumed). Next, enter the corresponding numbers of fields in the identification database file. The above shows what would be entered for the 1989 nesting survey data.

NOTE: Prior to 1991 no straight carapace length measurements were taken. To by pass this field when appending data prior to 1991, enter a field number of a field whose values are all alphabetic. Fields "NEW_OLD", "SEX_OR_AGE" or "ACTIVITY" would be likable candidates.

APPEND NESTING RECORDS Ver 1.0

Information for the turtle nesting sightings file:

- Sightings file name: []
- Island field no.: []
- Date field no.: []
- Paintid field no.: []
- Timeup field no.: []
- Timeback field no.: []
- Activity field no.: []

[ESC] To Exit

Enter the file name of the sightings database (once again do not specify the drive and file extension). Next, enter the corresponding field numbers of the sightings database file. The above shows what would be entered for the 1989 nesting survey data.

APPEND NESTING RECORDS Ver 1.0

Enter tumor position code type (1 or 2): []

[ESC] To Exit

Enter the tumor position code type. MTDMS is able to decipher two recently used tumor position coding schemes (see tables below for proper selection). For 1989, tumor position coding scheme type 1 was used. NOTE: MTDMS allows tumor size and tumor position codes to be entered with no delimiters, spaces or commas. Valid examples for tumor size values would be: "121", "1 2 1" or "1,2,1". The same goes for tumor position values.

Tumor Position Code Type 1:

Tumor Position	Pos. Code
Left side of head	1
Right side of head	2
Neck area	3
Distal portion of left flipper	4
Proximal portion of left flipper	5
Proximal portion of right flipper	6
Distal portion of right flipper	7
Left hind flipper	8
Right hind flipper	9
Tail area	0

Tumor Position Code Type 2:

Tumor Position	Pos. Code
Left jaw	J1
Right jaw	J2
Left eye	E1
Right eye	E2
Left dorsal of neck	N1
Left ventral of neck	N2
Right dorsal of neck	N3
Right ventral of neck	N4
Left distal of front flipper	F1
Left proximal of front flipper	F2
Right proximal of front flipper	F3
Right distal of front flipper	F4
Left distal of hind flipper	F5
Left proximal of hind flipper	F6
Right proximal of hind flipper	F7
Right distal of hind flipper	F8
Cloaca	T1
Proximal of tail	T2
Distal of tail	T3

After selecting the tumor position code type the append process will begin. The time needed to complete this process will vary upon the type of hardware you're using and the sizes of the USFWS database files and the MTDMS nesting and tag database files.

3.3 Using View/Edit

The View/edit option will be the most utilized function. It allows you to view, add, modify, delete, sort (each database has its own set of indexes which may be used), and search for records in a database. Each of the four data processing systems has a View/edit function and each will be described separately.

3.3.1 Stranded Data

To get to the stranded View/edit procedure select Stranded data (1) from the Turtle data processing system menu and View/edit stranded data (1) from the Stranded data processing system menu. The main screen of the stranded View/edit will appear on your screen. If you've just created a stranded database, it shouldn't contain records (noted by the "***File Empty***" entry next to the Turtle ID label).

View/Edit Stranded Data - Main Screen Ver 1.0

Turtle ID: ***File Empty***		Date:
Island stranded:	Location:	
Species:	Sex:	Weight:
Straight carapace length:	Straight carapace width:	
Curved carapace length:	Curved carapace width:	
Notch carapace length:	Plastron length:	
Width of the head:	Width of right front flipper:	
Plastron tail length:	Vent tail length:	
Contact:		

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 2Scr 3Scr 4Scr Add Edit Del View Indx Find Quit
 View the main screen

The third to the last row displays the keys used to view the stranded database. The (up) and (down) arrow keys are used to move the viewer back or forward one record, respectively. (PgUp) and (PgDn) will move the viewer back or forward five records, respectively. The second to the last row of the screen is the command line. They're eleven options to choose from. To select an option use the (left) or (right) arrow keys to move the bar cursor and press (ENTER) to select or press the first character of the option. To assist you when selecting options from the menu, a description of the current option is displayed on the last row of your screen.

3.3.1.1 Viewing Stranded Screens

There are three screens for each stranded record and one tag screen. The title of each screen is displayed at the top of the view/edit window. Let's view the various screens for a stranded record.

View/Edit Stranded Data - Main Screen Ver 1.0

Turtle ID: ***File Empty*** Date:

Island stranded: Location:

Species: Sex: Weight:

Straight carapace length: Straight carapace width:

Curved carapace length: Curved carapace width:

Notch carapace length: Plastron length:

Width of the head: Width of right front flipper:

Plastron tail length: Vent tail length:

Contact:

[1] UpRec [1] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 2Scr 3Scr 4Scr Add Edit Del View Indx Find Quit
 View the main screen

The first screen is the main screen. The main screen displays general information recorded about the strandings such as, the date, island and location, species, sex, various measurements, and the person who reported the strandings. The second screen is the descriptive screen. To select the descriptive screen press (2).

View/Edit Stranded Data - Descriptive Screen Ver 1.0

Turtle ID: ***File Empty*** Date:

Dead or Alive (D/A): Entangled or Hook (Y/N/U):

Induced by humans (Y/N/U): Debris in guts (Y/N/U):

Necropsy (Y/N):

Description: Necropsy report:

[1] UpRec [1] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 1Scr 3Scr 4Scr Add Edit Del View Indx Find Quit
 View the descriptive screen

The descriptive screen displays the details recorded about the strandings such as the condition of the stranded turtle, a description about the strandings, and a necropsy report. Use the F1 and F2 keys to scroll text displayed for the "Description" field up and down, respectively. Likewise, use the F3 and F4 keys to scroll text displayed for "Necropsy report" field up and down, respectively. The third screen is the tumor screen. To select the tumor screen press (3).

View/Edit Stranded Data - Tumor Screen

Ver 1.0

Turtle ID: ***File Empty*** Date:					
Tumors found (Y/N/U):			Tumor ranking (0-4):		
Lt. Eyes		Rt. Eyes		Front Flippers	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:
Hind Flippers		Neck		Mouth	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:
Tail/Cloaca		Seams/Scutes		Internal	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 1Scr 2Scr 4Scr Add Edit Del View Indx Find Quit
 View the tumor screen

The tumor screen displays information about any tumors found on the stranded turtle. The fourth screen is the tag screen. To select the tag screen press (4).

View/Edit Stranded Data - Tag Screen

Ver 1.0

Turtle ID: *** File Empty *** Date:			
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 1Scr 2Scr 3Scr Add Edit Del View Indx Find Quit
 View the tag screen

The tag screen displays all tags belonging to a turtle. Each tag record includes the following information the tag number, the date the tag was applied, the type of tag used, and the location of the tag.

3.3.1.2 Adding Stranded Records

The Add options lets you append new records to the stranded database. To use this option select (A)dd from the command line (this can be done from any screen).

View/Edit Stranded Data - Main Screen

Ver 1.0

Turtle ID:	Date:	
Island stranded:	Location:	
Species:	Sex:	Weight:
Straight carapace length:	Straight carapace width:	
Curved carapace length:	Curved carapace width:	
Notch carapace length:	Plastron length:	
Width of the head:	Width of right front flipper:	
Plastron tail length:	Vent tail length:	
Contact:		

[Ctrl-W] Save & Add Another
[PgUp] Previous screen

[ESC] Abandon & Exit
[PgDn] Next screen

The main screen will appear with each field being highlighted (the turtle ID field is not highlighted because it's entered from the tag screen). The following describes the fields found on the main screen.

Field names	Description
Date	Date turtle was found stranded.
Island stranded	Island where turtle was found. (see Appendix B for codes).
Location	Beach, harbor, bay, etc. where turtle was found.
Species	Species stranded (see Appendix B for codes).
Sex	Sex of the turtle (see appendix B for codes).
Weight	Weight (keep units consistent)
Straight carapace length	Straight carapace length in cms.
Straight carapace width	Straight carapace width in cms.
Curved carapace length	Curved carapace length in cms.
Curved carapace width	Curved carapace width in cms.
Notch carapace length	Notch length of the carapace in cms.
Plastron length	Plastron length in cms.
Width of the head	Width of head in cms.
Width of right front flipper	Width of the right front flipper in cms.
Plastron tail length	Length of the tail in cms from the rear tip of the plastron to the distal tip of the tail.
Vent tail length	Length of the tail in cms from vent to tip.
Contact	Person who reported the strandings.

Notice at the bottom of the screen new commands are displayed. Pressing (Ctrl-W) will add the new record to the database and display another blank record or (ESC) to abandon the new record and exit the Add option (see Appendix C for keys used to edit fields). (PgUp) and (PgDn) allows you to move to different screens.

You may get help for fields which require specific codes (these fields include the island stranded and species) by entering ? as the code for the field. For this example we will list the island codes.

View/Edit Stranded Data - Main Screen Ver 1.0

Turtle ID:	Date:	
Island stranded:	Location:	
Species:	Sex:	
Straight carapace length:	<div style="border: 1px solid black; padding: 5px;"> Maui Kahoolawe Lanai Molokai Oahu Kauai Niihau Kaula Nihoa Necker Island French Frigate Shoals Little Gin </div>	idth:
Curved carapace length:		th:
Notch carapace length:		
Width of the head:		t flipper:
Plastron tail length:		
Contact:		

<ENTER> To select option [ESC] to Abandon

Use the (up) and (down) arrow keys to move the bar selector and (ENTER) to select an option or (ESC) to abandon the menu. Both procedures will return you to the edit screen. Selecting an option will place the selected code in the field and advance the cursor to the next field, in this case the location field. Abandoning the menu will place the cursor in the current field, in this case the island stranded field.

Return to the edit screen and press (PgDn) to get to the descriptive screen.

View/Edit Stranded Data - Descriptive Screen Ver 1.0

Turtle ID:	Date: 11/27/90
Dead or Alive (D/A):	Entangled or Hook (Y/N/U):
Induced by humans (Y/N/U):	Debris in guts (Y/N/U):
Necropsy (Y/N):	
Description:	Necropsy report:

[Ctrl-W] Save & Add Another [ESC] Abandon & Exit
 [PgUp] Previous screen [PgDn] Next screen

The following describes the fields found on the descriptive screen.

Field names	Description
Dead or Alive	Was the stranded turtle found (D)ead or (A)live.
Entangled or Hooked	Was the turtle found tangled in debris or hooked. Options: (Y)es, (N)o, or (U)nknown.
Induced by humans	Was the turtle induced by humans. Options: (Y)es, (N)o, or (U)nknown.
Debris in guts	Was any debris found in the guts. Options: (Y)es, (N)o, or (U)nknown.
Necropsy	Was a necropsy performed. Options (Y)es or (N)o.
Description	Any comments about the strandings.
Necropsy report	Notes about the necropsy.

Notice that the description and necropsy report fields are not highlighted. These fields are called memo fields (see Appendix C for keys used to edit memo fields). They're similar to small text files. To enter data into these fields move the cursor to the 'Necropsy (Y/N):' field then press (ENTER).

View/Edit Stranded Data - Descriptive Screen

Ver 1.0

Turtle ID:	Date: 11/28/90
Dead or Alive (D/A):	Entangled or Hook (Y/N/U):
Induced by humans (Y/N/U):	Debris in guts (Y/N/U):
Necropsy (Y/N):	
Description:	Necropsy report:

[Ctrl-W] Save & Continue [ESC] Abandon & Continue

The cursor should appear under the description field label. New commands are displayed at the bottom of the screen. When you are through entering information in the description field, press (Ctrl-W) to save the information entered or (ESC) to abandon it. Pressing either will advance the cursor to the Necropsy report field. The same keys apply when exiting the necropsy report field except the cursor is advanced to the tumor screen. Exit the necropsy report field to advance to the tumor screen.

View/Edit Stranded Data - Tumor Screen Ver 1.0

Turtle ID:		Date: 11/27/90			
Tumors found (Y/N/U):		Tumor ranking (0-4):			
Lt. Eyes		Rt. Eyes		Front Flippers	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:
Hind Flippers		Neck		Mouth	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:
Tail/Cloaca		Seams/Scutes		Internal	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:

[Ctrl-W] Save & Add Another [ESC] Abandon & Exit
 [PgUp] Previous screen [PgDn] Next screen

The following describes the fields found on the tumor screen:

Fields	Description
Tumors found	Were tumors found on the turtle. Options: (Y)es, (N)o, or (U)nknown. select unknown if turtle was not examined by a qualified person.
Tumor ranking	The severity of the tumors found on the strandings (0 being none and four being lethargic).
Tumor locations and sizes	Enter the number of tumors found on the strandings in the corresponding area and size categories (1 being small and 4 being a large).

Enter data in the tumor screen like you did the main screen. When you are done press (PgDn) to go to the tag screen. The use of the Tag editing screen will not be explained in this section since the Near shore, nesting and driftnet systems uses the same editing procedures (see section *Using The Tag Editor*).

3.3.1.3 Editing Stranded Records

The Edit option works similar to the Add option except it allows you to modify an existing record instead of adding one. Locate the record you want to modify, then select (E)dit from the command line (this can be done from any screen). The fields on the current screen will be highlighted (in this case the Edit option was selected from the descriptive screen).

View/Edit Stranded Data - Descriptive Screen Ver 1.0

Turtle ID:	Date: 03/28/85
Dead or Alive (D/A):	Entangled or Hook (Y/N/U):
Induced by humans (Y/N/U):	Debris in guts (Y/N/U):
Necropsy (Y/N):	
Description: Found comatose in net. Resuscitated but died 8 hrs. later. Extensive damage to lungs from cardiovascular fluke infection. Stomach contained Ulva, Pterocladia, Amansia and Turbinaria.	Necropsy report:

[Ctrl-W] Save & Exit [ESC] Abandon & Exit
[PgUp] Previous screen [PgDn] Next screen

To exit the Edit option press (Ctrl-W) to save the modifications or (ESC) to abandon them. For more information on how to use the editing screens refer to section *Adding Stranded Records* and *Using The Tag Editor*.

3.3.1.4 Deleting Stranded Records

The Del function allows you to delete stranded records from the database. Locate the record(s) you want to delete, then select (D)el from the command line.

```

View/Edit Stranded Data - Main Screen                               Ver 1.0
-----
Turtle ID:                               Date: 11/27/90
Island stranded: OAHU      Location: Kawela Bay
Species: CM   Sex:                               Weight: 0.0
Straight carapace length: 55.5  Straight carapace width: 0.0
Curved carapace length: 0.0    Curved carapace width: 0.0
Notch carapace length: 0.0     Plastron length: 0.0
Width of the head: 0.0         Width of right front flipper: 0.0
Plastron tail length: 0.0     Vent tail length: 0.0
Contact: G. Balazs, G. Stemmermann
  
```

Are you sure you want to delete this record (Y/N):

MTDMS will prompt you to confirm the deletion. Press (Y) to delete the current stranded record or (N) to abort the deletion process.

Note: When you delete a stranded record, none of the tag records are deleted in the tag database. If you want to delete the tag records, you must delete them using the tag editor before you delete the stranded record (see section *Using The Tag Editor*).

3.3.1.5 Viewing Other Databases From The Stranded View/Edit

The View function allows you to retrieve information for a particular turtle from other databases (i.e. the near shore, nesting or driftnet databases). The turtle must be identified, in other words it must have a turtle id. Locate the turtle you want to retrieve information for and select (V)iew from the command line. In this example, information for a turtle with the id 6790 will be retrieved from the tagging near shore database.

View/Edit Stranded Data - Main Screen

Ver 1.0

Turtle ID: 6790	Date: 03/21/84
Island stranded: OAHU	Location: Waikiki
Species: CM	Sex: Weight: 0.0
Straight carapace length: 37.8	Straight carapace width: 0.0
Curved carapace length: 0.0	Curved carapace width: 0.0
Notch carapace length: 0.0	Plastron length: 0.0
Width of the head: 0.0	Width of right front flipper: 0.0
Plastron tail length: 0.0	Vent tail length: 0.0
Contact: B. Carlson	

View tagging, nesting or driftnet data (T/N/D):
 [ESC] To Return

Select the database you want information retrieved from or press (ESC) to return to stranded view/edit command line. We will select (T)agging from the prompt to view information in the near shore database.

Near Shore Data - Main Screen

Ver 1.0

Turtle ID: 6790	Date: 06/15/90	Time(24hr): 0
Island captured: OAHU	Location: Kaneohe Bay	
Species: CM	Sex: U	
Method of capture: HAND	Weight(kg): 0.0	
Straight carapace length: 55.8	Straight carapace width: 37.8	
Curved carapace length: 59.5	Curved carapace width: 40.1	
Notch carapace length: 55.5	Plastron length: 37.3	
Width of the head: 0.0	Width of right front flipper: 0.0	
Total tail length: 0.0	Vent length: 0.0	

[↑] UpRec

[↓] DnRec

[PgUp] View Prev screen

[PgDn] View Next screen

[ESC] To Return

If a record(s) is found, it will be displayed. Use the (PgUp) and (PgDn) keys to view the various near shore screens, and the (up) and (down) arrow keys to view other records found in the database. Press (ESC) to return to the stranded view/edit command line.

3.3.1.6 Selecting A Stranded Index

The stranded database has four different indexes (an index determines the order records are sorted in the database) which may be used. To change the current index select (I)ndx from the command line.

View/Edit Stranded Data - Main Screen Ver 1.0

Turtle ID:	Date: 01/12/82	
Island stranded: OAHU	Location: Honolulu Pier 40	
Species: CM	Sex:	Weight: 0.0
Straight carapac:	Current Index By Date & Turtle ID	0.0
Curved carapac:		.0
Notch carapace:	<ul style="list-style-type: none"> • By Turtle ID & Date • By Island & Date & Turtle ID • By Contact & Date & Turtle ID 	
Width of the h:		er: 0.0
Plastron tail length: 0.0	Vent tail length: 0.0	
Contact: J. Stoddard		

<ENTER> To Select Option [ESC] Exit & Keep Current Index

The current index is displayed at the top of the menu. Use the (up) and (down) arrow keys to move the bar selector and (ENTER) to select the index. Press (ESC) if you wish to leave the current index and return to the command line.

3.3.1.7 Searching The Stranded Database

The Find option on the command line allows you to search the stranded database. There are four different fields you may use as the search key. The four fields are date, tag number, island stranded, and contact. The result of a search is determined upon these conditions: if an exact match is found, then the record is displayed; if an exact match is not found, then the first record with a key greater than the search key will be displayed; if a match is not found and there are no records with a key greater than the search key, then the search will fail and Find will prompt you for another key. Pressing (ESC) will exit the Find option.

Select the (F)ind option from the command line.

View/Edit Stranded Data - Main Screen Ver 1.0

Turtle ID:	Date: 01/12/82	
Island stranded: OAHU	Location: Honolulu Pier 40	
Species: CM	Sex:	Weight: 0.0
Straight carapace length: 67.0	Straight carapace width: 0.0	
Curved carapace length:		th: 0.0
Notch carapace length:	0.0	
Width of the head:	t flipper: 0.0	
Plastron tail length: 0.0	Vent tail length: 0.0	
Contact: J. Stoddard		

- Search by Tag number
- Search by Island
- Search by Contact

<ENTER> To Select Search Type [ESC] To Abandon

Use the (up) and (down) arrow keys to move the bar selector and (ENTER) to select the search key or (ESC) to abandon and return to the command line.

To search for records by date, select the "Search by Date" option from the menu.

View/Edit Stranded Data - Main Screen Ver 1.0

Turtle ID:	Date: 01/12/82	
Island stranded: OAHU	Location: Honolulu Pier 40	
Species: CM	Sex:	Weight: 0.0
Straight carapace length: 67.0	Straight carapace width: 0.0	
Curved carapace length: 0.0	Curved carapace width: 0.0	
Notch carapace length: 0.0	Plastron length: 0.0	
Width of the head: 0.0	Width of right front flipper: 0.0	
Plastron tail length: 0.0	Vent tail length: 0.0	
Contact: J. Stoddard		

Date:
[ESC] To Quit

The system's date is the search key by default. Enter the date of a strandings you wish to locate.

To search for records by a tag number, select the "Search by Tag number" option from the menu.

View/Edit Stranded Data - Main Screen		Ver 1.0
Turtle ID:	Date: 01/12/82	
Island stranded: OAHU	Location: Honolulu Pier 40	
Species: CM Sex:	Weight: 0.0	
Straight carapace length: 67.0	Straight carapace width: 0.0	
Curved carapace length: 0.0	Curved carapace width: 0.0	
Notch carapace length: 0.0	Plastron length: 0.0	
Width of the head: 0.0	Width of right front flipper: 0.0	
Plastron tail length: 0.0	Vent tail length: 0.0	
Contact: J. Stoddard		

Tag Number:
 [ESC] To Quit

The Find option will prompt you for a tag number. You may enter any one of the tag numbers attributed to a turtle whose record(s) you are trying to locate. Find will first search the tag database for the tag number. If the tag number is found, the turtle ID of that record is used to search the stranded database. If the tag number is not found, then the tag number entered is used to search the stranded database.

To search for records by island, select the "Search by Island" option from the menu.

View/Edit Stranded Data - Main Screen		Ver 1.0
Turtle ID:	Date: 01/12/82	
Island stranded: OAHU	Location: Honolulu Pier 40	
Species: CM Sex:	Weight: 0.0	
Straight carapace length: 67.0	Straight carapace width: 0.0	
Curved carapace length: 0.0	Curved carapace width: 0.0	
Notch carapace length: 0.0	Plastron length: 0.0	
Width of the head: 0.0	Width of right front flipper: 0.0	
Plastron tail length: 0.0	Vent tail length: 0.0	
Contact: J. Stoddard		

Island:
 [ESC] To Quit

Enter the island of the record(s) you want to locate (see Appendix B for island codes).

To search for records by contact, select the "Search by Contact" option from the menu.

View/Edit Stranded Data - Main Screen

Ver 1.0

Turtle ID:	Date: 01/12/82	
Island stranded: OAHU	Location: Honolulu Pier 40	
Species: CM	Sex:	Weight: 0.0
Straight carapace length: 67.0	Straight carapace width: 0.0	
Curved carapace length: 0.0	Curved carapace width: 0.0	
Notch carapace length: 0.0	Plastron length: 0.0	
Width of the head: 0.0	Width of right front flipper: 0.0	
Plastron tail length: 0.0	Vent tail length: 0.0	
Contact: J. Stoddard		

Contact:
 [ESC] To Quit

To locate record(s) for a particular contact, enter only the characters needed to make a successful match. For example to locate record(s) with the contact "G. Balazs", type "G. Ba" as your search key (You must specify upper and lower case characters in your search string). Although the contact field length is 50 characters, the search key is limited to 10 characters which should be more than enough to make a successful match.

3.3.2 Near Shore Data

To get to the near shore View/Edit procedure select Tagging near shore data (2) from the Turtle data processing system menu and View/edit near shore data (1) from the Near shore data processing system menu. The main screen of the near shore View/edit will appear on your screen. If you've just created a near shore database, it shouldn't contain records (noted by the "***File Empty***" entry next to the Turtle ID label).

View/Edit Near Shore Data - Main Screen Ver 1.0

Turtle ID: ***File Empty***		Date:	Time(24hr):
Island captured:	Study site:		
Location:	Species:	Sex:	
Method of capture:	Weight:		
Straight carapace length:	Straight carapace width:		
Curved carapace length:	Curved carapace width:		
Notch carapace length:	Plastron length:		
Width of the head:	Width of right front flipper:		
Total tail length:	Vent length:		

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 2Scr 3Scr 4Scr Add Edit Del View Indx Find Quit
 View the main screen

The third to the last row displays the keys used to view the near shore database. The (up) and (down) arrow keys are used to move the viewer back or forward one record, respectively. (PgUp) and (PgDn) will move the viewer back or forward five records, respectively. The second to the last row of the screen is the command line. They're eleven options to choose from. To select an option use the (left) or (right) arrow keys to move the bar cursor and press (ENTER) to select or press the first character of the option. To assist you when selecting options from the menu, a description of the current option is displayed on the last row of your screen.

3.3.2.1 Viewing Near Shore Screens

There are three screens for each near shore record and one tag screen. The title of each screen is displayed at the top of the view/edit window. Let's view the various screens for a near shore record.

View/Edit Near Shore Data - Main Screen

Ver 1.0

Turtle ID: ***File Empty***	Date:	Time(24hr):
Island captured:	Study site:	
Location:	Species:	Sex:
Method of capture:	Weight:	
Straight carapace length:	Straight carapace width:	
Curved carapace length:	Curved carapace width:	
Notch carapace length:	Plastron length:	
Width of the head:	Width of right front flipper:	
Total tail length:	Vent length:	

[1] UpRec [!] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 2Scr 3Scr 4Scr Add Edit Del View Indx Find Quit
 View the main screen

The first screen is the main screen. The main screen displays general information recorded about the captured turtle such as the date, time, island, location, species, sex, and various measurements. The second screen is the descriptive screen. To select the descriptive screen press (2).

View/Edit Near Shore Data - Descriptive Screen

Ver 1.0

Turtle ID: ***File Empty***	Date:
Recovered (Y/N):	
Tags Applied (Y/N):	
Comments:	Samples Report:

[1] UpRec [!] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 1Scr 3Scr 4Scr Add Edit Del View Indx Find Quit
 View the descriptive screen

The descriptive screen displays the details recorded about the captured turtle such as was the turtle a recovery, were new tags applied, comments about the capture, and a samples report. Use the F1 and F2 keys to scroll text displayed for the "Comments" field up and down, respectively. Likewise, use the F3 and F4 keys to scroll text displayed for the "Samples Report" field up and down, respectively. The third screen is the tumor screen. To select the tumor screen press (3).

View/Edit Near Shore Data - Tumor Screen

Ver 1.0

Turtle ID: ***File Empty*** Date:					
Tumors found (Y/N/U):		Tumor ranking (0-4):			
Lt. Eyes		Rt. Eyes		Front Flippers	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:
Hind Flippers		Neck		Mouth	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:
Tail/Cloaca		Seams/Scutes		Internal	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:

[F] UpRec [I] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 1Scr 2Scr 3Scr 4Scr Add Edit Del View Indx Find Quit
 View the tumor screen

The tumor screen displays information about any tumors found on the captured turtle. The fourth screen is the tag screen. To select the tag screen press (4).

View/Edit Near Shore Data - Tag Screen

Ver 1.0

Turtle ID: *** File Empty *** Date:			
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:

[F] UpRec [I] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 1Scr 2Scr 3Scr 4Scr Add Edit Del View Indx Find Quit
 View the tag screen

The tag screen displays all tag records belonging to a turtle. Each tag record includes the tag number, the date the tag was applied, the type of tag used, and the location of the tag.

3.3.2.2 Adding Near Shore Records

The Add option lets you append new records to the near shore database. To use this option select (A)dd from the command line (this can be done from any screen).

View/Edit Near Shore Data - Main Screen Ver 1.0

Turtle ID:	Date:	Time(24hr):
Island captured:	Study site:	
Location:	Species:	Sex:
Method of capture:	Weight:	
Straight carapace length:	Straight carapace width:	
Curved carapace length:	Curved carapace width:	
Notch carapace length:	Plastron length:	
Width of the head:	Width of right front flipper:	
Total tail length:	Vent length:	

[Ctrl-W] Save & Add Another [ESC] Abandon & Exit
 [PgUp] Previous screen [PgDn] Next screen

The main screen will appear with each field being highlighted (the turtle ID field is not highlighted because it will be entered from the tag screen). The following describes the fields found on the main screen.

Field names	Description
Date	Date turtle was captured.
Time	The 24hr time the turtle was captured.
Island captured	The island the turtle was captured (see Appendix B for codes).
Study site	Study site where turtle was captured (see Appendix B for codes).
Location	Beach, harbor, bay, etc. where turtle was captured.
Species	Species caught (see Appendix B for codes).
Sex	Sex of species caught (see Appendix B for codes).
Method of capture	Method used to catch the turtle.
Weight	weight (keep units consistent)
Straight carapace length	Straight carapace length in cms.
Straight carapace width	Straight carapace width in cms.

Continued

Field names	Description
Curved carapace length	Curved carapace length in cms.
Curved carapace width	Curved carapace width in cms.
Notch carapace length	Notch length of the carapace in cms.
Plastron length	Plastron length in cms.
Width of the head	Width of head in cms.
Width of right front flipper	Width of right front flipper in cms.
Total tail length	Length of the tail in cms from the rear tip of the plastron to the distal tip of the tail.
Vent length	Length of the tail in cms from ventral to distal.

Notice at the bottom of the screen new commands are displayed. Pressing (Ctrl-W) will add the new record to the database and another blank record will be displayed (see Appendix C for keys used to edit fields). The date, island captured, study site, location, species, and method of capture fields of the new record will retain the information entered from the previous record added (when adding data for a given expedition, these fields usually don't change, therefore giving you the advantage of not having to reenter these fields). Pressing the (ESC) key will abandon the new record and exit the Add option. (PgUp) and (PgDn) allows you to move to different screens.

You may get help for fields which require specific codes (these fields include island captured, study site, and species) by entering ? as the code for the field. For this example we will list the species codes.

View/Edit Near Shore Data - Main Screen Ver 1.0

Turtle ID:	Date:	Time(24hr):
Island captured:	Study site:	
Location:	Species:	Sex:
Method of capture:	ht:	
Straight carapace length:	width:	
Curved carapace length:	idth:	
Notch carapace length:		
Width of the head:	ont flipper:	
Total tail length:	Vent length:	

Hawksbill Turtle
 Loggerhead Turtle
 Kemp's Ridley Turtle
 Olive Ridley Turtle
 Leatherback Turtle
 Unidentified
 Unknown hard-shelled

<ENTER> To select option [ESC] to Abandon

Use the (up) and (down) arrow keys to move the bar selector and (ENTER) to select an option or (ESC) to abandon the menu. Both procedures will return you to the edit screen. Selecting an option will place the selected code in the field and advance the cursor to the next field, in this case the sex field. Abandoning the menu will place the cursor in the current field, in this case the species field.

Return to the edit screen and press (PgDn) to get to the descriptive screen.

View/Edit Near Shore Data - Descriptive Screen Ver 1.0

Turtle ID:	Date: 12/04/90
Recovered (Y/N):	
Tags Applied (Y/N):	
Comments:	Samples Report:

[Ctrl-W] Save & Add Another [ESC] Abandon & Exit
 [PgUp] Previous screen [PgDn] Next screen

The following describes the fields found on the descriptive screen.

Field names	Description
Recovered	Was the turtle caught a recapture. Options (Y)es or (N)o.
Tags Applied	Were any new tags applied. Options (Y)es or (N)o.
Comments	Comments about the captured turtle.
Samples Report	Notes on samples taken.

Notice that the comments and samples report fields are not highlighted. These fields are called memo fields (see Appendix C for keys used to edit memo fields). They're similar to small text files. To enter data into these fields move the cursor to the "Tags Applied (Y/N):" field then press (ENTER).

View/Edit Near Shore Data - Descriptive Screen

Ver 1.0

Turtle ID:	Date: 12/04/90
Recovered (Y/N):	
Tags Applied (Y/N):	
Comments:	Samples Report:

[Ctrl-W] Save & Continue [ESC] Abandon & Continue

The cursor should appear under the comments field label. New commands are displayed at the bottom of the screen. When you are through entering information in the comments field, press (Ctrl-W) to save the information entered or (ESC) to abandon it. Pressing either will advance the cursor to the Samples Report field. The same keys apply when exiting the samples report field except the cursor is advanced to the tumor screen. Exit the Samples Report field to advance to the tumor screen.

View/Edit Near Shore Data - Tumor Screen

Ver 1.0

Turtle ID:		Date: 11/27/90	
Tumors found (Y/N/U):		Tumor ranking (0-4):	
Lt. Eyes		Rt. Eyes	
Size 1: Size 2: Size 3: Size 4:		Size 1: Size 2: Size 3: Size 4:	
Hind Flippers		Neck	
Size 1: Size 2: Size 3: Size 4:		Size 1: Size 2: Size 3: Size 4:	
Tail/Cloaca		Seams/Scutes	
Size 1: Size 2: Size 3: Size 4:		Size 1: Size 2: Size 3: Size 4:	
		Front Flippers	
		Size 1: Size 2: Size 3: Size 4:	
		Mouth	
		Size 1: Size 2: Size 3: Size 4:	
		Internal	
		Size 1: Size 2: Size 3: Size 4:	

[Ctrl-W] Save & Add Another [ESC] Abandon & Exit
[PgUp] Previous screen [PgDn] Next screen

The following describes the fields found on the tumor screen:

Fields	Description
Tumors found	Were tumors found on the turtle. Options: (Y)es, (N)o, or (U)nknown. select unknown if turtle was not examined by a qualified person.
Tumor ranking	The severity of the tumors found on the strandings (0 being none and 4 being lethargic).
Tumor locations and sizes	Enter the number of tumors found on the strandings in the corresponding area and size categories (1 being small and 4 being a large).

Enter data in the tumor screen like you did the main screen. When you are done press (PgDn) to go to the tag screen. The use of the Tag editing screen will not be explained in this section since all other systems uses the same editing procedures (see section *Using The Tag Editor*).

3.3.2.3 Editing Near Shore Records

The Edit option works similar to the Add option except it allows you to modify an existing record instead of adding one. Locate the record you want to modify, then select (E)dit from the command line (this can be done from any screen). The fields on the current screen will be highlighted (in this case the Edit option was selected from the main screen).

View/Edit Near Shore Data - Main Screen Ver 1.0

Turtle ID: 6451	Date: <input type="text"/>	Time(24hr): <input type="text"/>
Island captured: <input type="text"/>	Study site: <input type="text"/>	
Location: <input type="text"/>	Species: <input type="text"/>	Sex: <input type="text"/>
Method of capture: <input type="text"/>	Weight: <input type="text"/>	
Straight carapace length: <input type="text"/>	Straight carapace width: <input type="text"/>	
Curved carapace length: <input type="text"/>	Curved carapace width: <input type="text"/>	
Notch carapace length: <input type="text"/>	Plastron length: <input type="text"/>	
Width of the head: <input type="text"/>	Width of right front flipper: <input type="text"/>	
Total tail length: <input type="text"/>	Vent length: <input type="text"/>	

[Ctrl-W] Save & Exit [ESC] Abandon & Exit
 [PgUp] Previous screen [PgDn] Next screen

To exit the Edit option press (Ctrl-W) to save the modifications or (ESC) to abandon them. For more information on how to use the editing screens refer to section *Adding Near Shore Records* and *Using The Tag Editor*.

3.3.2.4 Deleting Near Shore Records

The Del function allows you to delete near shore records from the database. Locate the records you want to delete, then select (D)el from the command line.

View/Edit Near Shore Data - Main Screen		Ver 1.0
Turtle ID: 6451	Date: 10/19/82	Time(24hr): 0
Island captured: MOLO	Study site: KAHANUI	
Location: Kahanui Point	Species: CM	Sex:
Method of capture: Mederios' Net	Weight: 0.0	
Straight carapace length: 0.0	Straight carapace width: 0.0	
Curved carapace length: 79.0	Curved carapace width: 72.5	
Notch carapace length: 0.0	Plastron length: 0.0	
Width of the head: 0.0	Width of right front flipper: 0.0	
Total tail length: 0.0	Vent length: 0.0	

Are you sure you want to delete this record (Y/N):

MTDMS will prompt you to confirm the deletion. Press (Y) to delete the current record or (N) to abort the deletion process.

Important: When you delete a near shore record, none of the tag records are deleted in the tag database. If you want to delete the tag records, you must delete them using the tag editor before you delete the near shore record (see section *Using The Tag Editor*).

3.3.2.5 Viewing Other Databases From The Near Shore View/Edit

The View function allows you to retrieve information for a particular turtle from other databases (i.e. the stranding, nesting or driftnet databases). The turtle must be identified, in other words it must have a turtle id. Locate the turtle you want to retrieve information for and select (V)iew from the command line. In this example, the view option was selected from the descriptive screen.

View/Edit Near Shore Data - Descriptive Screen

Ver 1.0

Turtle ID: 6790	Date: 06/15/90
Recovered (Y/N): Y	
Tags Applied (Y/N): Y	
Comments:	Samples Report:
Recapture of turtle released 6 years, 3 months ago, off Waikiki Aquarium. Recaptured Mark Reef.	

View stranding, nesting or driftnet data (S/N/D):
[ESC] To Return

Select the database you want information retrieved from or press (ESC) to return to near shore view/edit command line. We will select stranding "S" from the prompt to view information in the stranded database.

Stranded Data - Main Screen

Ver 1.0

Turtle ID: 6790	Date: 03/21/84	
Island stranded: OAHU	Location: Waikiki	
Species: CM	Sex:	Weight: 0.0
Straight carapace length: 37.8	Straight carapace width: 0.0	
Curved carapace length: 0.0	Curved carapace width: 0.0	
Notch carapace length: 0.0	Plastron length: 0.0	
Width of the head: 0.0	Width of right front flipper: 0.0	
Plastron tail length: 0.0	Vent tail length: 0.0	
Contact: B. Carlson		

[↑] UpRec

[↓] DnRec

[PgUp] View Prev screen

[PgDn] View Next screen

[ESC] To Return

If a record(s) is found, it will be displayed. Use the (PgUp) and (PgDn) keys to view the various stranded screens, and the (up) and (down) arrow keys to view other records found in the database. Press (ESC) to return to the near shore view/edit command line.

3.3.2.6 Selecting A Near Shore Index

The near shore database has four different indexes (an index determines the order of the records in the database) which may be used. To change the current index select (I)ndx from the command line.

View/Edit Near Shore Data - Main Screen		Ver 1.0
Turtle ID: 6451	Date: 10/19/82	Time(24hr): 0
Island captured: MOLO	Study site: KAHANUI	
Location: Kahanui Point	Species: CM	Sex:
Method of ca:	Current Index By Date & Turtle ID	
Straight carap:		0.0
Curved carap:	<ul style="list-style-type: none"> • By Turtle ID & Date • By Island & Date & Turtle ID • By Study site & Date & Turtle ID 	5
Notch carapa:		
Width of the head: 0.0	Width of right front flipper: 0.0	
Total tail length: 0.0	Vent length: 0.0	

<ENTER> To Select Option [ESC] Exit & Keep Current Index

The current index is displayed at the top of the menu. Use the (up) and (down) arrow keys to move the bar selector and (ENTER) to select the index. Press (ESC) if you wish to leave the current index and return to the command line.

3.3.2.7 Searching The Near Shore Database

The Find option on the command line allows you to search the near shore database. There are four different fields you may use as the search key. The four fields are the date, tag number, island captured, and study site. The result of a search is determined upon these conditions: if an exact match is found, then the record is displayed; if an exact match is not found, then the first record with a key greater than the search key will be displayed; if a match is not found and there are no records with a key greater than the search key, then the search will fail and Find will prompt you for another key. Pressing (ESC) will exit the Find option.

Select the (F)ind option from the command line.

View/Edit Near Shore Data - Main Screen Ver 1.0

Turtle ID: 29-26EXP	Date: 09/03/78	Time(24hr): 0
Island captured:	Study site:	
Location:	Species: CM	Sex: U
Method of capture: Unknown	Weight: 24.0	
Straight carapace length:	width: 37.1	
Curved carapace length:	th: 43.5	
Notch carapace length:	2.2	
Width of the head: 7.0	Width of right front flipper: 0.0	
Total tail length: 7.5	Vent length: 0.0	

- Search by Tag number
- Search by Island
- Search by Study site

<ENTER> To Select Search Type [ESC] To Abandon

Use the (up) and (down) arrow keys to move the bar selector and (ENTER) to select the search key or (ESC) to abandon and return to the command line.

To search for records by date, select the "Search by Date" option from the menu.

View/Edit Near Shore Data - Main Screen Ver 1.0

Turtle ID: 6451	Date: 10/19/82	Time(24hr): 0
Island captured: MOLO	Study site: KAHANUI	
Location: Kahanui Point	Species: CM	Sex:
Method of capture: Mederios' Net	Weight: 0.0	
Straight carapace length: 0.0	Straight carapace width: 0.0	
Curved carapace length: 79.0	Curved carapace width: 72.5	
Notch carapace length: 0.0	Plastron length: 0.0	
Width of the head: 0.0	Width of right front flipper: 0.0	
Total tail length: 0.0	Vent length: 0.0	

Date:
[ESC] To Quit

The system's date is the search key by default. Enter the date of the record you're trying to locate.

To search for a record by a tag number, select the "Search by Tag number" option from the menu.

View/Edit Near Shore Data - Main Screen		Ver 1.0
Turtle ID: 6451	Date: 10/19/82	Time(24hr): 0
Island captured: MOLO	Study site: KAHANUI	
Location: Kahanui Point	Species: CM	Sex:
Method of capture: Mederios' Net	Weight: 0.0	
Straight carapace length: 0.0	Straight carapace width: 0.0	
Curved carapace length: 79.0	Curved carapace width: 72.5	
Notch carapace length: 0.0	Plastron length: 0.0	
Width of the head: 0.0	Width of right front flipper: 0.0	
Total tail length: 0.0	Vent length: 0.0	

Tag Number:
[ESC] To Quit

The Find option will prompt you for a tag number. You may enter any one of the tag numbers attributed to a turtle whose record(s) you are trying to locate. Find will first search the tag database for the tag number. If the tag number is found, the turtle ID of that record is used to search the nearshore database. If the tag number is not found, then the tag number entered is used to search the near shore database.

To search for records by island, select the "Search by Island" option from the menu.

View/Edit Near Shore Data - Main Screen		Ver 1.0
Turtle ID: 6451	Date: 10/19/82	Time(24hr): 0
Island captured: MOLO	Study site: KAHANUI	
Location: Kahanui Point	Species: CM	Sex:
Method of capture: Mederios' Net	Weight: 0.0	
Straight carapace length: 0.0	Straight carapace width: 0.0	
Curved carapace length: 79.0	Curved carapace width: 72.5	
Notch carapace length: 0.0	Plastron length: 0.0	
Width of the head: 0.0	Width of right front flipper: 0.0	
Total tail length: 0.0	Vent length: 0.0	

Island:
[ESC] To Quit

Enter the island of the record(s) you want to locate (see Appendix B for codes).

To search for records by study site, select the "Search by Study site" option from the menu.

View/Edit Near Shore Data - Main Screen

Ver 1.0

Turtle ID: 6451	Date: 10/19/82	Time(24hr): 0
Island captured: MOLO	Study site: KAHANUI	
Location: Kahanui Point	Species: CM	Sex:
Method of capture: Mederios' Net	Weight: 0.0	
Straight carapace length: 0.0	Straight carapace width: 0.0	
Curved carapace length: 79.0	Curved carapace width: 72.5	
Notch carapace length: 0.0	Plastron length: 0.0	
Width of the head: 0.0	Width of right front flipper: 0.0	
Total tail length: 0.0	Vent length: 0.0	

Study site:
 [ESC] To Quit

Enter the Study site of the record(s) you want to locate (see Appendix B for codes).

3.3.3 Nesting Data

To get to the nesting View/edit procedure select nesting data (3) from the Turtle data processing system menu and View/edit nesting data (1) from the Nesting data processing system menu. The main screen of the nesting view/edit will appear on your screen. If you've just created a nesting database using the Create Nesting Database procedure, it shouldn't contain records (noted by the "***File Empty***" entry next to the Turtle ID label).

View/Edit Nesting Data - Main Screen Ver 1.0

Turtle ID: ***File Empty***		Date:	Island:	Sex:
Activity:	Time up:	Time back:	Weight(kg):	
Straight carapace length:		Straight carapace width:		
Curved carapace length:		Curved carapace width:		
Notch carapace length:		Plastron length:		
Width of the head:		Width of right front flipper:		
Plastron tail length:		Vent tail length:		
Comments:				

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 2Scr 3Scr Add Edit Del View Indx Find Quit
 View the main screen

Like the previous systems, the third to the last row displays the keys used to view the database. The (up) and (down) arrow keys are used to move the viewer back or forward one record, respectively. (PgUp) and (PgDn) will move the viewer back or forward five records, respectively. The second to the last row of the screen is the command line. They're ten options to choose from. To select an option use the (left) or (right) arrow keys to move the bar cursor and press (ENTER) to select or press the first character of the option. To assist you when selecting options from the menu, a description of the current option is displayed on the last row of your screen.

3.3.3.1 Viewing Nesting Screens

There are two screens for each nesting record and one tag screen. The title of each screen is displayed at the top of the view/edit window. Let's view the various screens for a nesting record.

View/Edit Nesting Data - Main Screen

Ver 1.0

Turtle ID: 3701	Date: 05/03/89	Island: EAST	Sex: F
Activity: C	Time up: 2350	Time back: 0	Weight(kg): 0.0
Straight carapace length: 0.0	Straight carapace width: 0.0		
Curved carapace length: 102.5	Curved carapace width: 0.0		
Notch carapace length: 0.0	Plastron length: 0.0		
Width of the head: 0.0	Width of right front flipper: 0.0		
Plastron tail length: 0.0	Vent tail length: 0.0		
Comments:			

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 2Scr 3Scr Add Edit Del View Indx Find Quit
 View the main screen

The first screen is the main screen. The main screen displays general information recorded about the encountered turtle such as the date, nesting island, sex, activity, timeup, timeback, various measurements, and any comments. Use the F1 and F2 keys to scroll text displayed for the "Comments" field up and down, respectively. The second screen is the tumor screen. To select the tumor screen press (2).

View/Edit Nesting Data - Tumor Screen

Ver 1.0

Turtle ID: 3701		Date: 05/03/89			
Tumors found (Y/N/U): Y		Tumor ranking (0-4): 0			
Lt. Eyes		Rt. Eyes		Front Flippers	
Size 1: 1	Size 2: 0	Size 1: 0	Size 2: 1	Size 1: 1	Size 2: 0
Size 3: 0	Size 4: 0	Size 3: 0	Size 4: 0	Size 3: 0	Size 4: 0
Hind Flippers		Neck		Mouth	
Size 1: 0	Size 2: 0	Size 1: 0	Size 2: 0	Size 1: 0	Size 2: 0
Size 3: 0	Size 4: 0	Size 3: 0	Size 4: 0	Size 3: 0	Size 4: 0
Tail/Cloaca		Seams/Scutes		Internal	
Size 1: 0	Size 2: 0	Size 1: 0	Size 2: 0	Size 1: 0	Size 2: 0
Size 3: 0	Size 4: 0	Size 3: 0	Size 4: 0	Size 3: 0	Size 4: 0

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 1Scr 3Scr Add Edit Del View Indx Find Quit
 View the tumor screen

The tumor screen displays information about any tumors found on the nesting turtle. The third screen is the tag screen. To select the tag screen press (3).

View/Edit Nesting Data - Tag Screen

Ver 1.0

Turtle ID: 3701		Date: 05/03/89	
Tag no.: 3701	Date: / /	Tag Type:	Tag Position: L2
Tag no.: 3810	Date: / /	Tag Type:	Tag Position: RFL
Tag no.: 5139	Date: / /	Tag Type:	Tag Position: R2
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 1Scr 2Scr Add Edit Del View Indx Find Quit
 View the tag screen

The tag screen displays all tag records belonging to a turtle. Each tag record includes the tag number, the date the tag was applied, the type of tag used, and the location of the tag.

3.3.3.2 Adding Nesting Records

The Add option lets you append new records to the nesting database. To use this option select (A)dd from the command line (this can be done from any screen).

View/Edit Nesting Data - Main Screen

Ver 1.0

Turtle ID:	Date:	Island:	Sex:
Activity:	Time up:	Time back:	Weight(kg):
Straight carapace length:	Straight carapace width:		
Curved carapace length:	Curved carapace width:		
Notch carapace length:	Plastron length:		
Width of the head:	Width of right front flipper:		
Plastron tail length:	Vent tail length:		
Comments:			

[Ctrl-W] Save & Add Another [ESC] Abandon & Exit
 [PgUp] Previous screen [PgDn] Next screen

The main screen will appear with each field being highlighted (the turtle ID field is not highlighted because it will be entered from the tag screen). The following describes the fields found on the main screen.

Field names	Description
Date	Date turtle was seen.
Island	The island the turtle was seen on (see Appendix B for codes).
Sex	Sex of species observed (see Appendix B for codes).
Activity	The type of activity the turtle was engaged in (see Appendix B for codes).
Time up	Time turtle beached it self.
Time back	Time turtle returned to the ocean.
Weight	Weight (keep units consistent).
Straight carapace length	Straight carapace length in cms.
Straight carapace width	Straight carapace width in cms.
Curved carapace length	Curved carapace length in cms.
Curved carapace width	Curved carapace width in cms.
Notch carapace length	Notch length of the carapace in cms.
Plastron length	Plastron length in cms.
Width of the head	Width of head in cms.
Width of right front flipper	Width of right front flipper in cms.
Total tail length	Length of the tail in cms from the rear tip of the plastron to the distal tip of the tail.
Vent length	Length of the tail in cms from vent to tip.
Comments	Comments about the observed turtle.

At the bottom of the screen new commands are displayed. Pressing (Ctrl-W) will add the new record to the database and another blank record will be displayed (see Appendix C for keys used to edit fields). Pressing the (ESC) key will abandon the new record and exit the Add option. (PgUp) and (PgDn) allows you to move to different screens.

You may get help for fields which require specific codes (these fields include island and the activity) by entering ? as the code for the field. For this example we will list the activity codes.

View/Edit Nesting Data - Main Screen

Ver 1.0

Turtle ID:	Date:	Island:	Sex:
Activity:	Time up:	Time back:	Weight(kg):
Straight carapace length:	Probably nested		Width:
Curved carapace length:	Maybe nested		th:
Notch carapace length:	Digging		
Width of the head:	Crawling		Right flipper:
	Basking		
Plastron tail length:	Vent tail length:		
Comments:			

<ENTER> To select option [ESC] to Abandon

Use the (up) and (down) arrow keys to move the bar selector and (ENTER) to select an option or (ESC) to abandon the menu. Both procedures will return you to the edit screen. Selecting an option will place the selected code in the field and advance the cursor to the next field, in this case the time up field. Abandoning the menu will place the cursor in the current field, in this case the activity field.

Return to the edit screen. Notice that the comments field isn't highlighted. This field is called a memo field (see Appendix C for keys used to edit memo fields). They're similar to small text files. To enter data into this field move the cursor to the "Ventral tail length:" field then press (ENTER).

View/Edit Nesting Data - Main Screen

Ver 1.0

Turtle ID:	Date:	Island:	Sex:
Activity:	Time up:	Time back:	Weight(kg):
Straight carapace length:	Straight carapace width:		
Curved carapace length:	Curved carapace width:		
Notch carapace length:	Plastron length:		
Width of the head:	Width of right front flipper:		
Plastron tail length:	Vent tail length:		
Comments:			

[Ctrl-W] Save & Continue [ESC] Abandon & Continue

The cursor should appear under the comments field label. New commands are displayed at the bottom of the screen. When you are through entering information in the comments field, press (Ctrl-W) to save the information entered or (ESC) to abandon it. Exit the comments field to advance to the tumor screen.

View/Edit Nesting Data - Tumor Screen Ver 1.0

Turtle ID:		Date: 11/27/90			
Tumors found (Y/N/U):		Tumor ranking (0-4):			
Lt. Eyes		Rt. Eyes		Front Flippers	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:
Hind Flippers		Neck		Mouth	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:
Tail/Cloaca		Seams/Scutes		Internal	
Size 1:	Size 2:	Size 1:	Size 2:	Size 1:	Size 2:
Size 3:	Size 4:	Size 3:	Size 4:	Size 3:	Size 4:

[Ctrl-W] Save & Add Another [ESC] Abandon & Exit
[PgUp] Previous screen [PgDn] Next screen

The following describes the fields found on the tumor screen:

Fields	Description
Tumors found	Were tumors found on the turtle. Options: (Y)es, (N)o, or (U)nknown. select unknown if turtle was not examined by a qualified person.
Tumor ranking	The severity of the tumors found on the strandings (0 being none and 4 being lethargic).
Tumor locations and sizes	Enter the number of tumors found on the strandings in the corresponding area and size categories (1 being small and 4 being a large).

Enter data in the tumor screen like you did the main screen. When you are done press (PgDn) to go to the tag screen. The use of the Tag editing screen will not be explained in this section since all other systems uses the same editing procedures (see section *Using The Tag Editor*).

3.3.3.3 Editing Nesting Records

The Edit option works similar to the Add option except it allows you to modify an existing record instead of adding one. Locate the record you want to modify, then select (E)dit from the command line (this can be done from any screen). The fields on the current screen will be highlighted (in this case the Edit option was selected from the main screen).

View/Edit Nesting Data - Main Screen Ver 1.0

Turtle ID: 3701	Date: [REDACTED]	Island: [REDACTED]	Sex: [REDACTED]
Activity: [REDACTED]	Time up: [REDACTED]	Time back: [REDACTED]	Weight(kg): [REDACTED]
Straight carapace length: [REDACTED]	Straight carapace width: [REDACTED]		
Curved carapace length: [REDACTED]	Curved carapace width: [REDACTED]		
Notch carapace length: [REDACTED]	Plastron length: [REDACTED]		
Width of the head: [REDACTED]	Width of right front flipper: [REDACTED]		
Plastron tail length: [REDACTED]	Vent tail length: [REDACTED]		
Comments: [REDACTED]			

[Ctrl-W] Save & Exit [ESC] Abandon & Exit
 [PgUp] Previous screen [PgDn] Next screen

To exit the Edit option press (Ctrl-W) to save the modifications or (ESC) to abandon them. For more information on how to use the editing screens refer to section *Adding Nesting Records* and *Using The Tag Editor*.

3.3.3.4 Deleting Nesting Records

The Del function allows you to delete nesting records from the database. Locate the records you want to delete, then select (D)el from the command line.

View/Edit Nesting Data - Main Screen				Ver 1.0
Turtle ID: 3701	Date: 05/03/89	Island: EAST	Sex: F	
Activity: C	Time up: 2350	Time back: 0	Weight(kg): 0.0	
Straight carapace length: 0.0	Straight carapace width: 0.0			
Curved carapace length: 102.5	Curved carapace width: 0.0			
Notch carapace length: 0.0	Plastron length: 0.0			
Width of the head: 0.0	Width of right front flipper: 0.0			
Plastron tail length: 0.0	Vent tail length: 0.0			
Comments:				

Are you sure you want to delete this record (Y/N):

MTDMS will prompt you to confirm the deletion. Press (Y) to delete the current record or (N) to abort the deletion process.

Important: When you delete a nesting record, none of the tag records are deleted in the tag database. If you want to delete the tag records, you must delete them using the tag editor before you delete the nesting record (see section *Using The Tag Editor*).

3.3.3.5 Viewing Other Databases From The Nesting View/Edit

The View function allows you to retrieve information for a particular turtle from other databases (i.e. the stranding, near shore or driftnet databases). The turtle must be identified, in other words it must have a turtle id. Locate the turtle you want to retrieve information for and select (V)iew from the command line.

View/Edit Nesting Data - Main Screen		Ver 1.0	
Turtle ID: 6790	Date: 01/22/91	Island: FREN	Sex: U
Activity: B	Time up: 1430	Time back:	Weight(kg): 0.0
Straight carapace length: 56.2	Straight carapace width: 37.8		
Curved carapace length: 0.0	Curved carapace width: 0.0		
Notch carapace length: 0.0	Plastron length: 0.0		
Width of the head: 0.0	Width of right front flipper: 0.0		
Plastron tail length: 0.0	Vent tail length: 0.0		
Comments:			

View stranding, tagging or driftnet data (S/T/D):
 [ESC] To Return

Select the database you want information retrieved from or press (ESC) to return to near shore view/edit command line. We will select (S)tranding from the prompt to view information in the stranded database.

Stranded Data - Main Screen

Ver 1.0

Turtle ID: 6790	Date: 03/21/84
Island stranded: OAHU	Location: Waikiki
Species: CM Sex:	Weight: 0.0
Straight carapace length: 37.8	Straight carapace width: 0.0
Curved carapace length: 0.0	Curved carapace width: 0.0
Notch carapace length:: 0.0	Plastron length: 0.0
Width of the head: 0.0	Width of right front flipper: 0.0
Plastron tail length: 0.0	Vent tail length: 0.0
Contact: B. Carlson	

[↑] UpRec

[↓] DnRec

[PgUp] View Prev screen

[PgDn] View Next screen

[ESC] To Return

If a record(s) is found, it will be displayed. Use the (PgUp) and (PgDn) keys to view the various stranded screens, and the (up) and (down) arrow keys to view other records found in the database. Press (ESC) to return to the nesting view/edit command line.

3.3.3.6 Selecting A Nesting Index

The nesting database has two different indexes (an index determines the order of the records in the database) which may be used. To change the current index select (I)ndx from the command line.

View/Edit Nesting Data - Main Screen

Ver 1.0

Turtle ID: 3701	Date: 05/03/89	Island: EAST	Sex: F
Activity: C	Time up: 2350	Time back: 0	Weight(kg): 0.0
Straight carapace length: 0.0	Straight carapace width: 0.0		
Curved carapac:	Current Index By Date & Turtle ID		.0
Notch carapace:	• By Turtle ID & Date		
Width of the h		er: 0.0	
Plastron tail		0	
Comments:			

<ENTER> To Select Option [ESC] Exit & Keep Current Index

The current index is displayed at the top of the menu. Use the (up) and (down) arrow keys to move the bar selector and (ENTER) to select the index. Press (ESC) if you wish to leave the current index and return to the command line.

3.3.3.7 Searching The Nesting Database

The Find option on the command line allows you to search the nesting database. There are two different fields you may use as the search key. The two fields are the date and tag number. The result of a search is determined upon these conditions: if an exact match is found, then the record is displayed; if an exact match is not found, then the first record with a key greater than the search key will be displayed; if a match is not found and there are no records with a key greater than the search key, then the search will fail and Find will prompt you for another key. Pressing (ESC) will exit the Find option.

Select the (F)ind option from the command line.

View/Edit Nesting Data - Main Screen				Ver 1.0
Turtle ID: 3701	Date: 05/03/89	Island: EAST	Sex: F	
Activity: C	Time up: 2350	Time back: 0	Weight(kg): 0.0	
Straight carapace length: 0.0	Straight carapace width: 0.0			
Curved carapace length: 102.5	Curved carapace width: 0.0			
Notch carapace length:	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> • Search by Tag number </div>		0.0	
Width of the head:	t flipper:		0.0	
Plastron tail length: 0.0	Vent tail length: 0.0			
Comments:				

<ENTER> To Select Search Type [ESC] To Abandon

Use the (up) and (down) arrow keys to move the bar selector and (ENTER) to select the search key or (ESC) to abandon and return to the command line.

To search for records by date, select the "Search by Date" option from the menu.

View/Edit Nesting Data - Main Screen Ver 1.0

Turtle ID: 3701	Date: 05/03/89	Island: EAST	Sex: F
Activity: C	Time up: 2350	Time back: 0	Weight(kg): 0.0
Straight carapace length: 0.0	Straight carapace width: 0.0		
Curved carapace length: 102.5	Curved carapace width: 0.0		
Notch carapace length: 0.0	Plastron length: 0.0		
Width of the head: 0.0	Width of right front flipper: 0.0		
Plastron tail length: 0.0	Vent tail length: 0.0		
Comments:			

Date:
[ESC] To Quit

The system's date is the search key by default. Enter the date of the record you're trying to locate.

To search for a record by a tag number, select the "Search by Tag number" option from the menu.

View/Edit Nesting Data - Main Screen Ver 1.0

Turtle ID: 3701	Date: 05/03/89	Island: EAST	Sex: F
Activity: C	Time up: 2350	Time back: 0	Weight(kg): 0.0
Straight carapace length: 0.0	Straight carapace width: 0.0		
Curved carapace length: 102.5	Curved carapace width: 0.0		
Notch carapace length: 0.0	Plastron length: 0.0		
Width of the head: 0.0	Width of right front flipper: 0.0		
Plastron tail length: 0.0	Vent tail length: 0.0		
Comments:			

Tag Number:
[ESC] To Quit

The Find option will prompt you for a tag number. You may enter any one of the tag numbers attributed to a turtle whose record(s) you are trying to locate. Find will first search the tag database for the tag number. If the

tag number is found, the turtle ID of that record is used as the search key. If the tag number is not found, then the tag number is used as the search key.

3.3.4 Driftnet Data

To get to the driftnet View/Edit procedure select High-Seas driftnet data (4) from the Turtle data processing system menu and View/edit driftnet data (1) from the Driftnet data processing system menu. The main screen of the driftnet View/edit will appear on your screen. If you've just created a driftnet database, it shouldn't contain records (noted by the "***File Empty***" entry next to the Turtle ID label).

View/Edit Driftnet Data - Main Screen Ver 1.0

Turtle ID: ***File Empty***	Gear:	Mesh Size (mm):
License No.:	Flag:	
Vessel:		
Observer Name:		
Observer Nationality:		
Date:	Time Zone:	
Latitude: ° ' "	Longitude: ° ' "	
Sea Surface Temp. (°C):		
Oper. No.:	Sec. No.:	

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 [←] 2Scr [→] 3Scr Add Edit Del View Indx Find Quit
 View the main screen

The third to the last row displays the keys used to view the driftnet database. The (up) and (down) keys are used to move the viewer back or forward on record, respectively. (PgUp) and (PgDn) will move the viewer back or forward five records, respectively. The second to the last row of the screen is the command line. They're ten options to choose from. To select an option use the (left) or (right) arrow keys to move the bar cursor and press (ENTER) to select or press the first character of the option. To assist you when selecting options from the menu, a description of the current option is displayed on the last row of your screen.

3.3.4.1 Viewing Driftnet Screens

There are two screens for each driftnet record and one tag screen. The title of each screen is displayed at the top of the view/edit window. Let's view the various screens for a driftnet record.

View/Edit Driftnet Data - Main Screen

Ver 1.0

Turtle ID: ***File Empty***	Gear:	Mesh Size (mm):
License No.:	Flag:	
Vessel:		
Observer Name:		
Observer Nationality:		
Date:	Time Zone:	
Latitude: ° ' "	Longitude: ° ' "	
Sea Surface Temp. (°C):		
Oper. No.:	Sec. No.:	

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 2Scr 3Scr Add Edit Del View Indx Find Quit
 View the main screen

The first screen is the main screen. The main screen displays information recorded about the driftnet operation such as the nets' mesh size, the vessels' licenses number, national origin of the vessel, name of the vessel, name of the observer aboard the vessel, nation the observer is representing, date of the operation, time zone (relative to the GMT), position of the operation (this includes both latitude and longitude), the sea surface temperature, the operation number, and the nets' section number where the encounter was observed. The second screen is the descriptive screen. To select the descriptive screen press (2).

View/Edit Driftnet Data - Descriptive Screen

Ver 1.0

Turtle ID: ***File Empty***	License No:	Date:
Species:		
Status:	Condition (D/A/U):	Disposition:
Curved Carapace Length (mm):	Accuracy (M/E/U):	
No. Old Tags:	No. New Tags:	
Description:		

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 1Scr 3Scr Add Edit Del View Indx Find Quit
 View the descriptive screen

The descriptive screen displays the details about the encountered turtle such as the species encountered, the status, the condition, the disposition, the curved carapace length, the accuracy of the measurement, the number of old tags found, the number of new tags applied, and a description about the encounter. Use the F1 and F2 keys to scroll text displayed in the "description" field up and down, respectively. The third screen is the tag screen. To select the tag screen press (3).

View/Edit Driftnet Data - Tag Screen Ver 1.0

Turtle ID: *** File Empty *** Date:			
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:
Tag no.:	Date:	Tag Type:	Tag Position:

[↑] UpRec [↓] DnRec [PgUp] Up 5 Recs [PgDn] Dn 5 Recs
 1Scr 2Scr Add Edit Del View Indx Find Quit
 View the tag screen

The tag screen displays all tag records belonging to a turtle. Each tag record includes the tag number, the date the tag was applied, the type of tag used, and the location of the tag.

3.3.4.2 Adding Driftnet Records

The add option lets you append new records to the driftnet database. To use this option select (A)dd from the command line (this can be done from any screen).