2007

Data Management System "FishBio"
for Small Pelagic Fisheries

WORALUK MEESOMWAT
PENCHAN LAONGMANEE
SOMBOON SIRIRAKSOPHON

SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER

TD/RES 116

DATA MANAGEMENT SYSTEM

"FishBio"

for Small Pelagic Fisheries

Content

What is "FishBio"

"FishBio" is a database application for managing fishery data

Output from the application can be easily exported to other fishery analytical software such as FISAT or the other spreadsheet software

"Fish Bio" is designed to be flexible and easy to use. User can identify their own principle fishery information by manually input or import from other spreadsheet file

Recommended system requirements

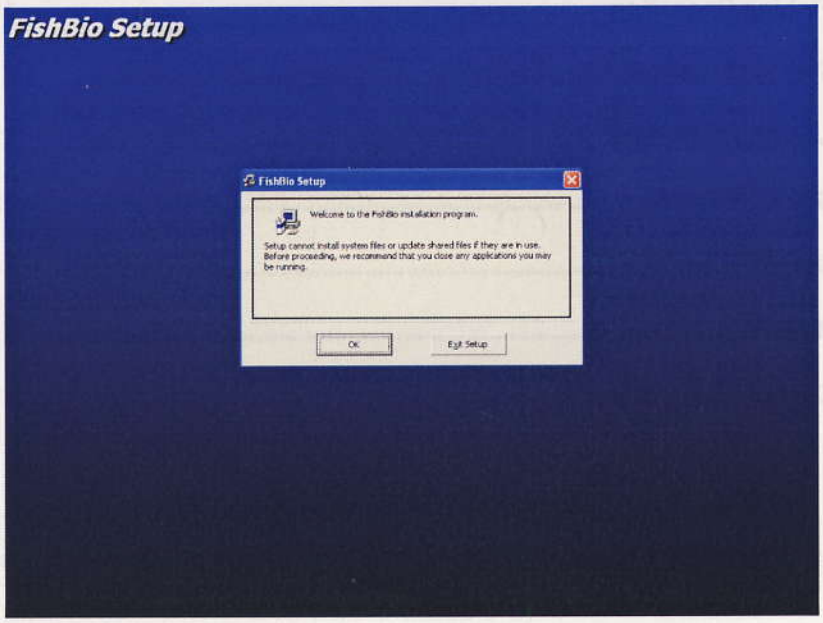
1. Windows operating system : Windows XP or lower
2. Microsoft Access 2000, XP or 2003

Installation FishBio

1. Insert FishBio installation CD, the installation program will run automatically. [Note: If the program does not start, open "CDRomDrive:Setup.exe" to start it manually.]

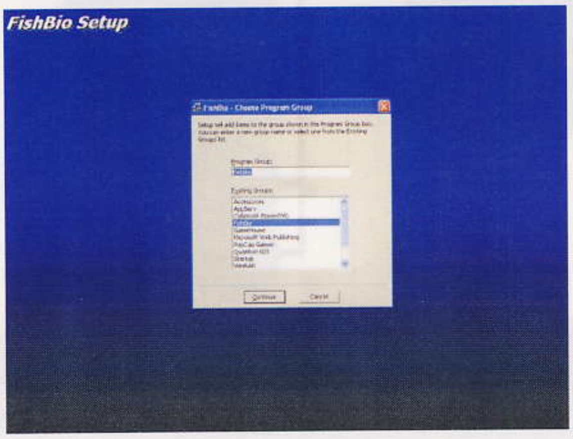
setup

2. Then the installation of FishBio is started, Click OK to continue.



3. Click  to continue setup or Change Directory for the location of software

4. Click Continue to Continue setup

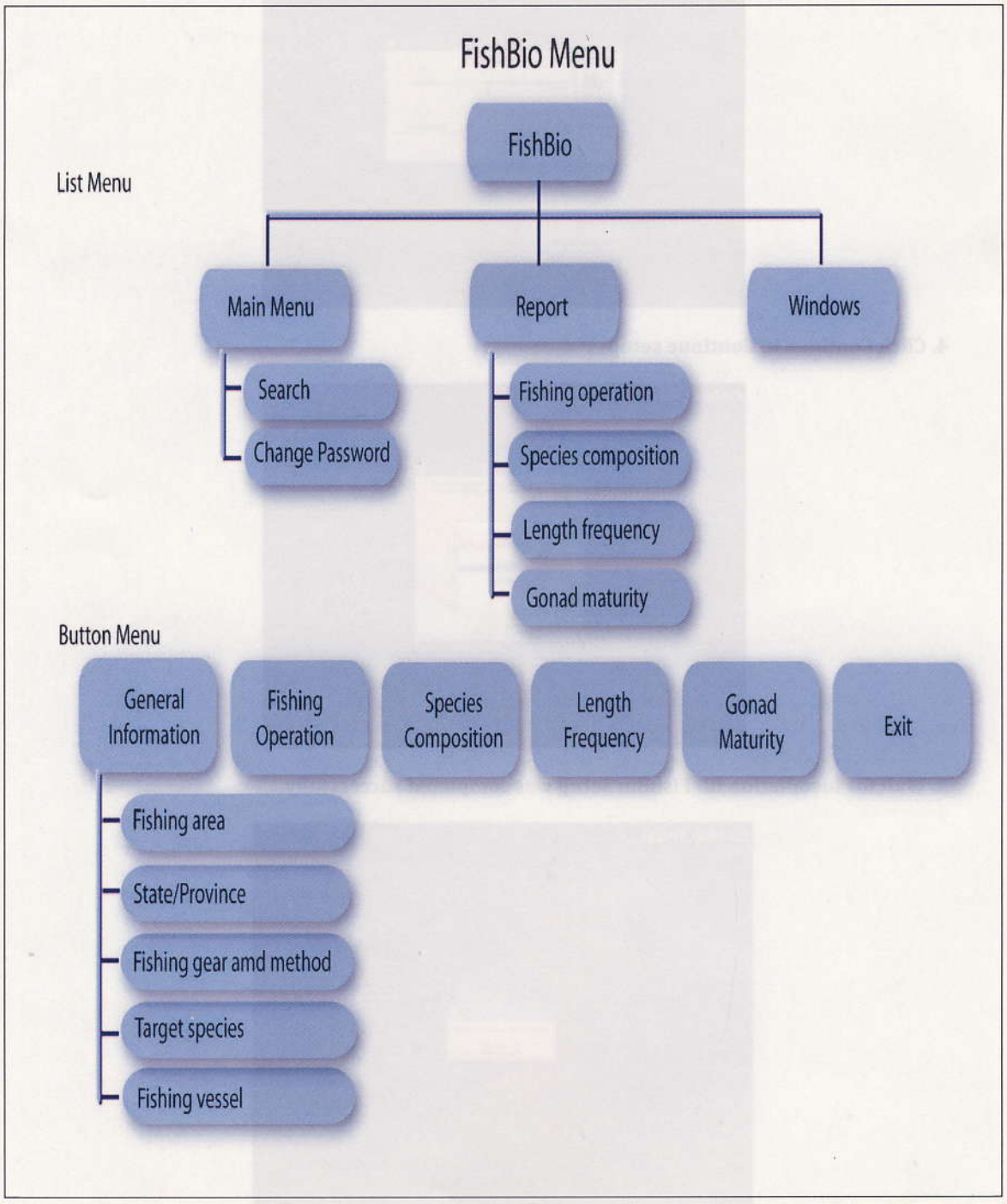


5. Wait for installation till FishBio Setup was completed successfully.

6. Then click Start → Program → FishBio for open program.

>><<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<

Structure of the FishBio



FishBio User Guild

1. Login to program and Main page

First window of the software is login page (fig.1.1)

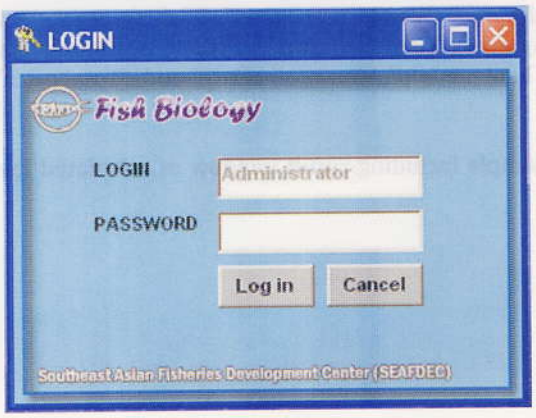


Fig. 1.1

The default login and Password to access the software is "Administrator". User can change it later. Click "Log in" to open main page of FishBio in fig. 1.2

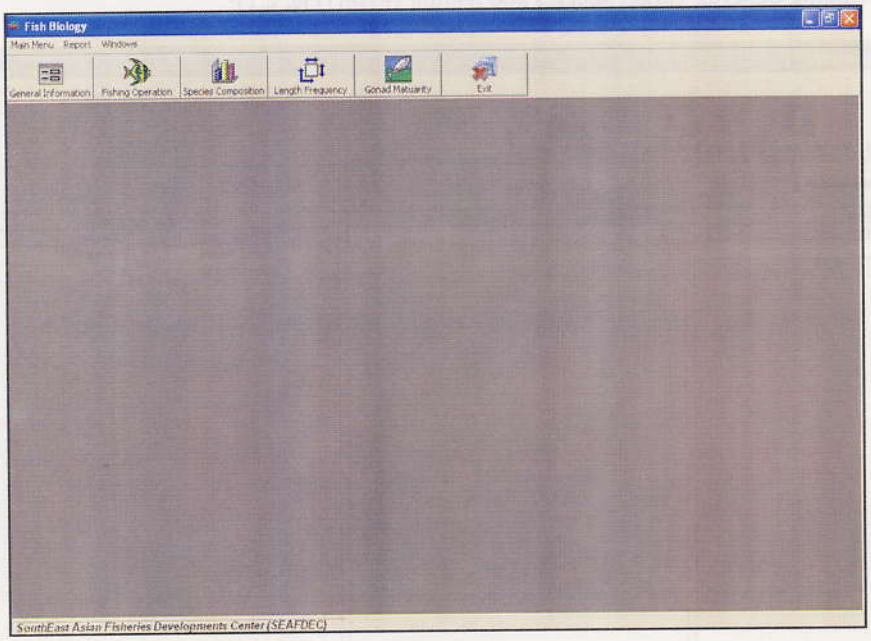


Fig. 1.2

In the main page contains the following menus:

- **Main menu**

Provide "Search" and "Change Password" function

- **Report**

Provide output query by "Fishing operation", "Species composition", "Length frequency" and "Gonad maturity data".

- **General information**

This general information, users need to input, contains of "Fishing area", "State", "Province", "Fishing gear", "Fishing method", "Target species" and "Vessel".

- **Fishing Operation**

Let users input fish landing data including "Vessel name", "Vessel register id", "Fishing gear", "Fishing method", "Fishing area", "State/province", "Landing port", "Sampling date", "Fishing position", "Fishing time", "Bottom depth", "Fishing depth", "Number of haul per trip", "Duration of trip" and "Total catch".

- **Species Composition**

Provide input window for specie composition of sample including result window of calculated species composition of each fishing boat

- **Length Frequency**

Provide input window for length frequency data

- **Gonad Maturity**

Provide input window for gonad maturity data

2. Menu "General information"

First task of user is input data in the "General information" window. In the General information menu contains three tap including General, Target species and fishing vessel (Fig. 2.1)

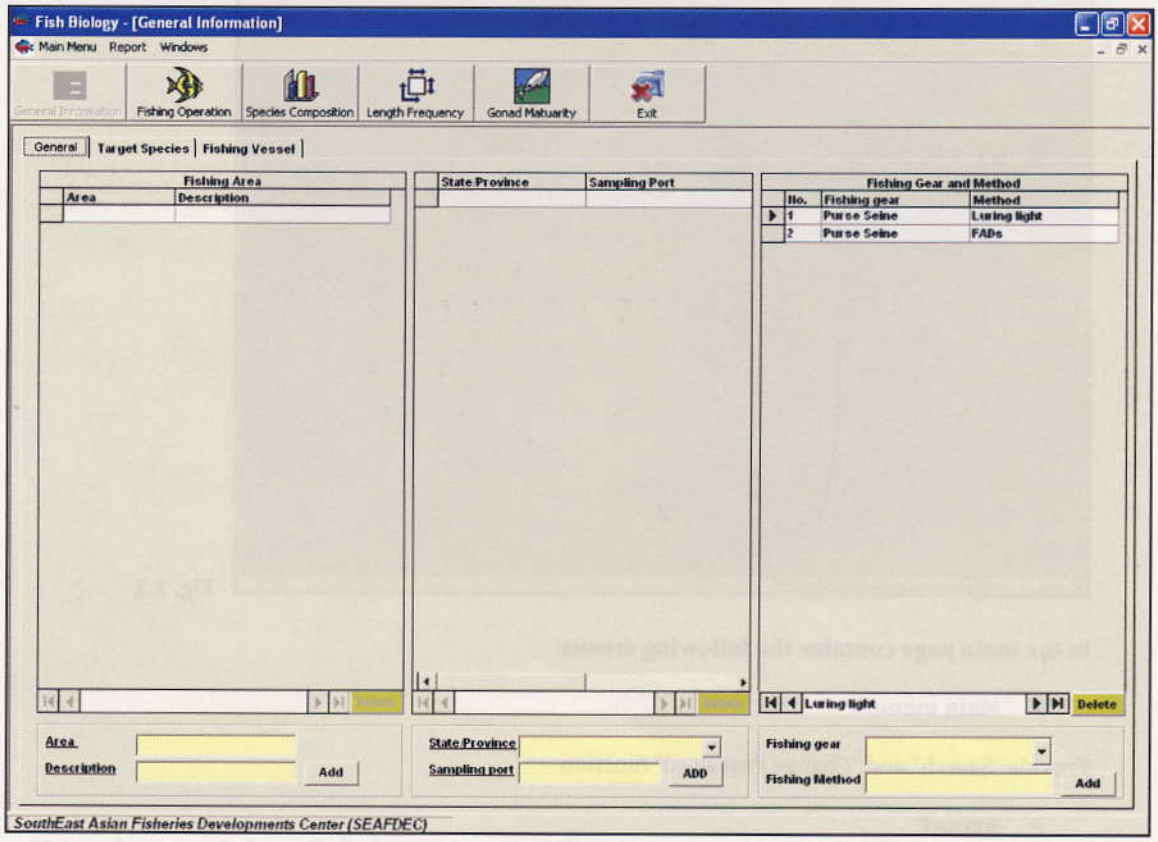


Fig. 2.1

2.1) General tap:

Three main information need to be input as following; 1) Fishing area, 2) State/Provinces and 3) Fishing gears and fishing methods

- **Fishing Area**

In put name of fishing area in you country and description to explain more about that fishing area such as coordinate of the area or other information and then click "*Add*". If you want to delete click in area that you want to delete and Click "*Delete*" button.

- **State/Province**

For State/Province, you may choose from pull down or Type state/province name then input sampling port name. Click "*Add*" to accept the new data. If you want to delete click the row and then click "*Delete*" button.

- **Fishing gear and fishing method**

You can choose type of fishing gear from pull down or type new fishing gear name then type fishing method. Click "*Add*". If you want to delete click row and click "*Delete*" button.

2.2) Target species

Target species particularly small pelagic species were input in the database for user to simple select, however user also can input additional species into database list for future reference (see Fig. 2.2).

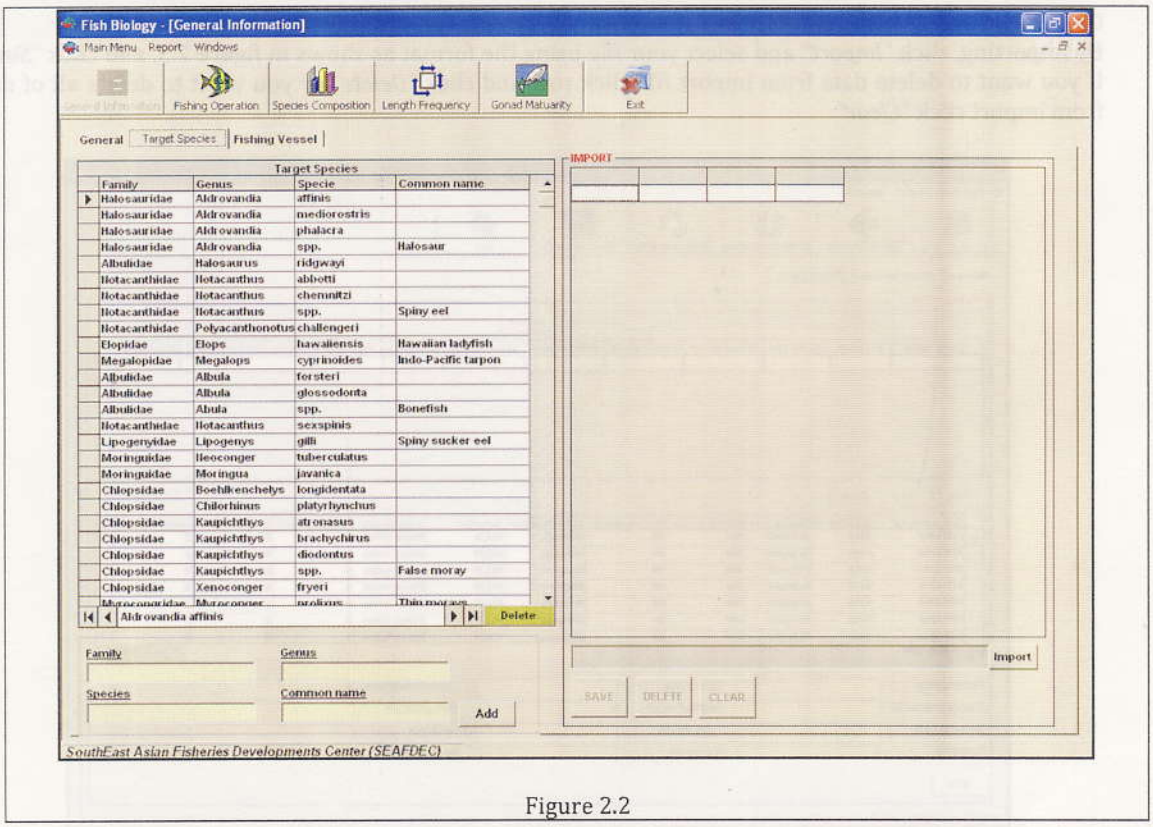


Figure 2.2

Users are able to import many species as the same time without input one by one, using import mode.

Import from CSV file (if you have excel format(.xls) you can "*save as*" .. and select CSV file type). The column sequence should be same as in fig 2.3. First column should be Family then follow by Genus, Species, Common name respectively. You can import data by click "*Import*" then choose file name and click "*SAVE*".

	A	B	C	D
1	Family	Genus	Species	Common name
2	Scombridae	Rastrelliger	brachysoma	Short mackerel
3	Scombridae	Rastrelliger	kanagurta	Indian mackerel
4	Carangidae	Decapterus	macrosoma	Shortfin scad
5	Carangidae	Decapterus	maruadsi	Amberstripe scad
6	Carangidae	Decapterus	russelli	Indian scad

Fig. 2.3 the format of table for importing to this database.

If you want to delete some species click row and click "*DELETE*" button. And if you want to cancel the import click "*CLEAR*"

For delete some species on the left side click row and click "Delete"

2.3) Fishing Vessel

You can input each fishing boat data one by one or import data from existing CSV file. If you want to input one by one, input all of data and click "Add" (see Fig. 2.4).

Or

By importing, click "*Import*" and select your file using the format as shows in figure 2.5, and click "*Save*". If you want to delete data from import file click row and click "*Delete*" or you want to delete all of data from import click "*Clear*"

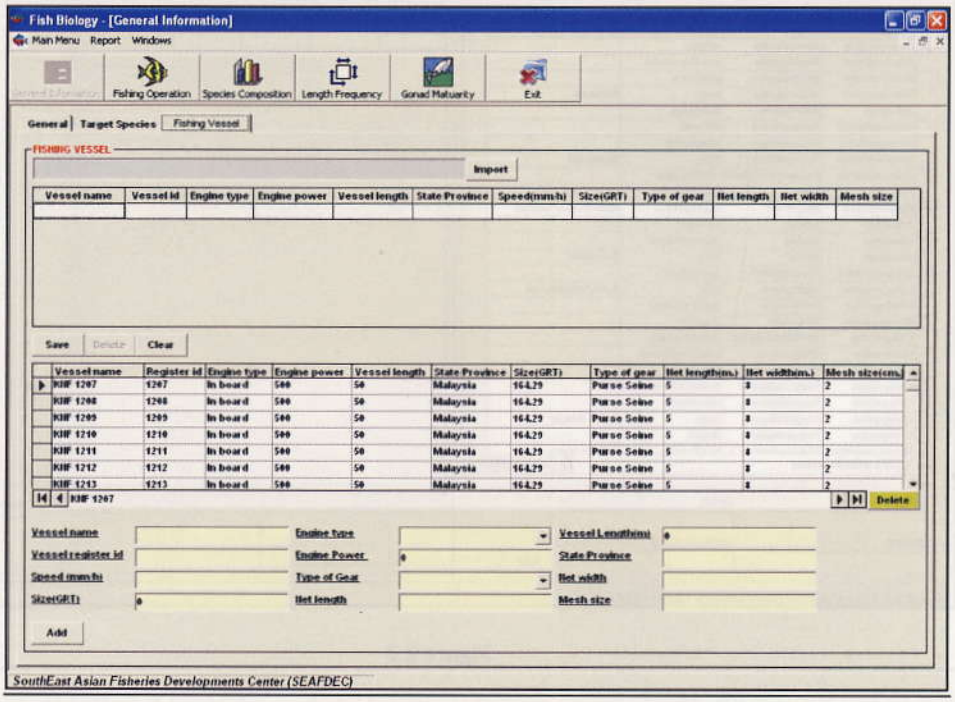


Fig. 2.4

The format of vessel file should be same as Fig. 2.5

	A	B	C	D	E	F	G	H	I	J	K
1	vessel name	vessel register id	engine type	engine power	length(m)	state/province	size(GRT)	type of gear	net length(m)	net width(m)	mesh size(cm)
2	KNF 1207	1207	In board	500	50	Malaysia	164.29	trawl	5	8	2
3	KNF 1208	1208	In board	500	50	Malaysia	164.29	trawl	5	8	2
4	KNF 1209	1209	In board	500	50	Malaysia	164.29	trawl	5	8	2
5	KNF 1210	1210	In board	500	50	Malaysia	164.29	trawl	5	8	2
6	KNF 1211	1211	In board	500	50	Malaysia	164.29	trawl	5	8	2
7	KNF 1212	1212	In board	500	50	Malaysia	164.29	trawl	5	8	2
8	KNF 1213	1213	In board	500	50	Malaysia	164.29	trawl	5	8	2
9	KNF 1214	1214	In board	500	50	Malaysia	164.29	trawl	5	8	2
10	KNF 1215	1215	In board	500	50	Malaysia	164.29	trawl	5	8	2
11	KNF 1216	1216	In board	500	50	Malaysia	164.29	trawl	5	8	2
12	KNF 1217	1217	In board	500	50	Malaysia	164.29	trawl	5	8	2
13	KNF 1218	1218	In board	500	50	Malaysia	164.29	trawl	5	8	2
14	KNF 1219	1219	In board	500	50	Malaysia	164.29	trawl	5	8	2

Fig. 2.5

You can delete fishing boat information after save by select row then click "*Delete*" (the yellow button)

Please note that information that you input in "General Information" menu will be a list in pull down of other data input window.

3. Menu "Fishing Operation"

Fishing operation data input window contain all information related to fishing operation. Vessel name, Vessel registration id, Fishing gear, Fishing method, Fishing area, Landing State/Province, Landing port, Sampling date are input by choose from pull down list. While the less have to type (see Fig. 3).

After input click "*SAVE*" if you want to cancel click "*CLEAR*". After "*SAVE*", you can input Species Composition, Length frequency or Gonad maturity for this operation.

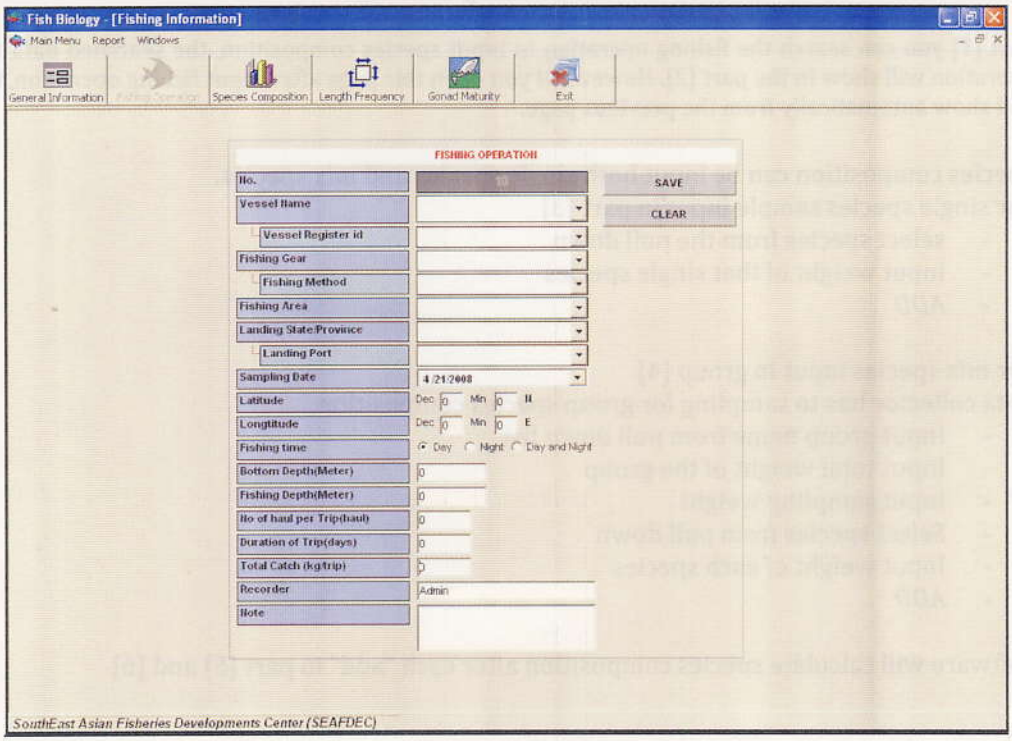


Fig. 3

4. Menu "Species Composition" (see Fig. 4)

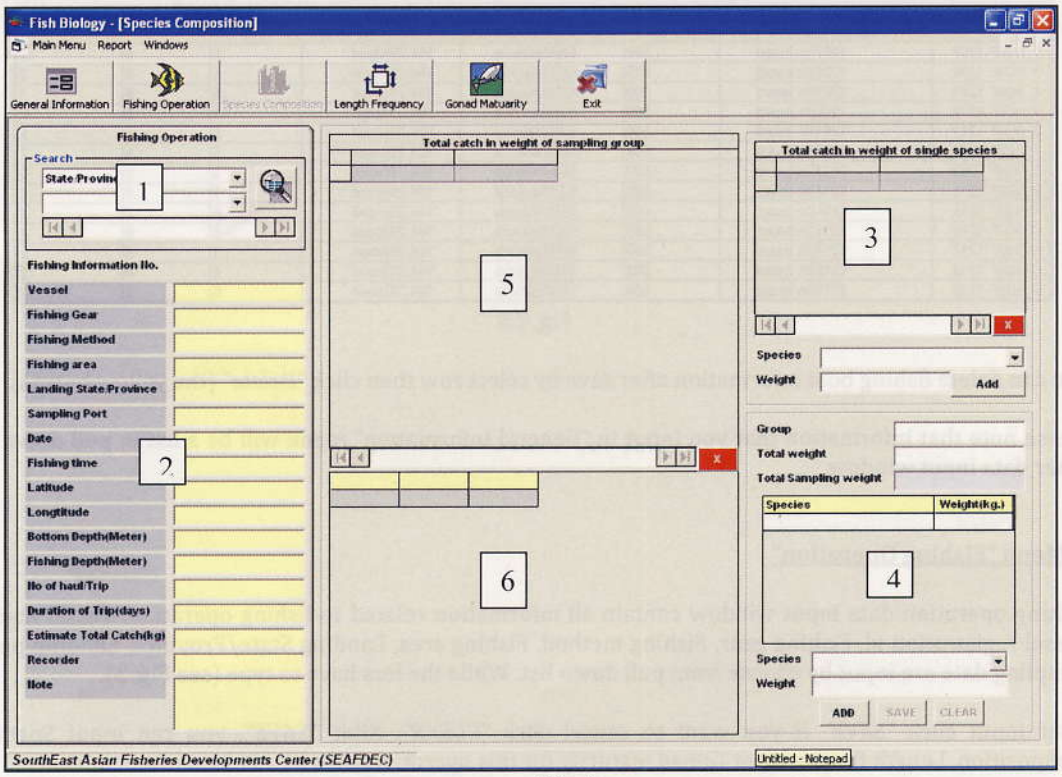


Fig. 4

Part [1] you can search the fishing operation to input species composition, the searched data of fishing operation will show in the part [2]. However if you open this page after input fishing operation, the detail will show automatically from the previous page.

Species composition can be input both single species and mix species.
For single species sample input in part [3]

- select species from the pull down
- input weight of that single species
- *ADD*

For mix species input in group [4]
Data collector has to sampling for group species composition

- Input group name from pull down list
- Input total weight of the group
- Input sampling weight
- Select species from pull down
- Input weight of each species
- *ADD*

Software will calculate species composition after each "add" in part [5] and [6]

5. Menu "Length Frequency " (see Fig. 5.1)

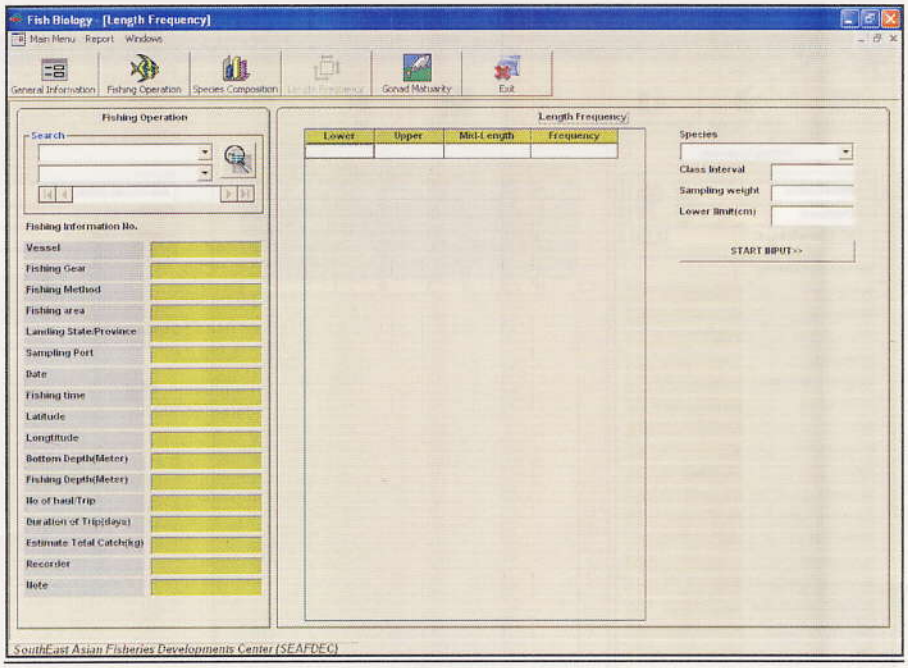


Fig. 5.1

You can search the fishing operation to input length frequencies, the searched data of fishing operation will show at the left part. However if you open this page after input fishing operation, the detail will show automatically from the previous page (Fig. 5.2).

Start length frequency by choose species from pull down list, then type class interval and lower limit (after input class interval Lower limit, Upper limit and Mid-length will show automatically as shown in the fig.5.2)

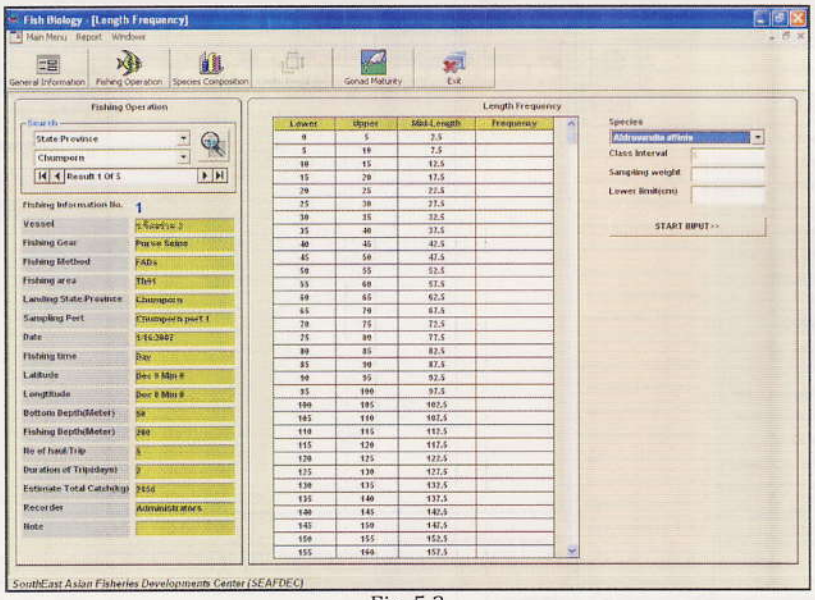


Fig. 5.2

Click "*START INPUT*" to input number of fish in each class interval (Fig. 5.3). After complete data input click "*FINISH*"

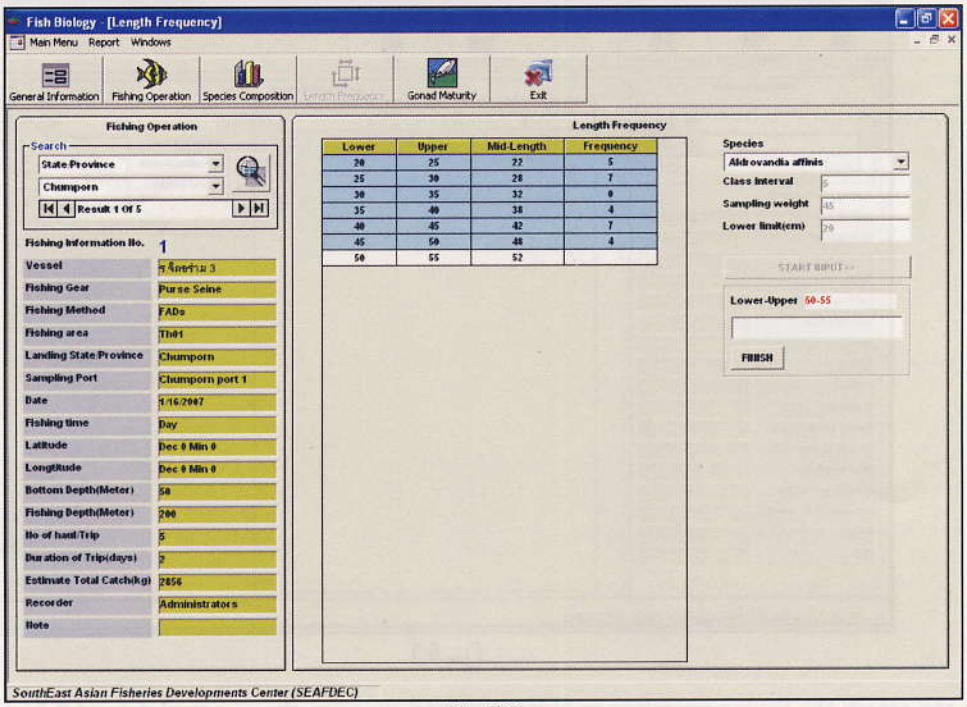


Fig. 5.3

6. Menu "Gonad maturity" (see Fig. 6.1)

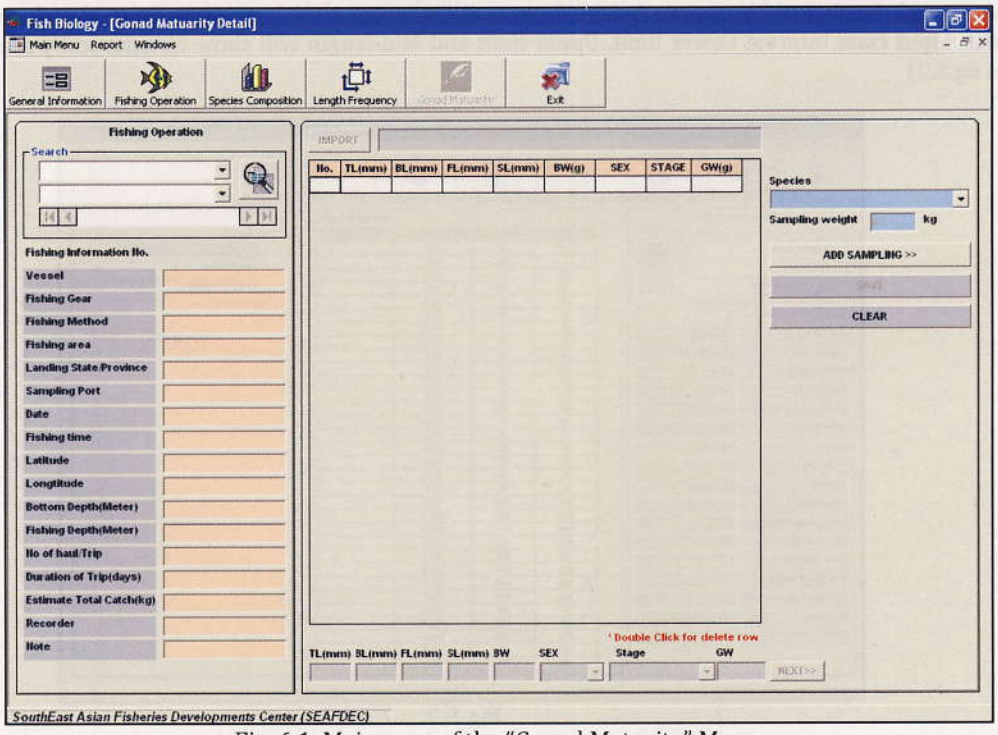


Fig. 6.1 Main page of the "Gonad Maturity" Menu.

For gonad maturity, you can input one by one data or import from CSV file. Data input start from choose species from pull down list. The sampling weight will summation of each fish weight. Then click *"ADD SAMPLING"* you can input one by one data or import from CSV File which have column sequence same as fig. 6.2

Click *"IMPORT"* for select your file and then click *"SAVE"* .
Click *"CLEAR"* for input data of next species.

	A	B	C	D	E	F	G	H
1	TL	BL	FL	SL	BW	SEX	Stage	GW
2	210	175	189	183	118.2	F	3	3.1
3	170	144	157	153	57.2	F	1	0.1
4	160	133	146	142	47.7	F	1	0.1
5	167	140	154	150	49.5	F	1	0.1
6	200	164	180	175	87.1	F	1	0.1
7	178	145	155	150	57.7	F	1	0.1
8	180	147	160	152	64.9	F	1	0.1
9	160	132	145	140	45.2	F	1	0.1
10	175	145	155	150	61.3	F	1	0.1

Fig. 6.2 Format of the data for importing under the "Gonad Maturity" Menu.

7. Menu "SEARCH" (see Fig. 7.1)

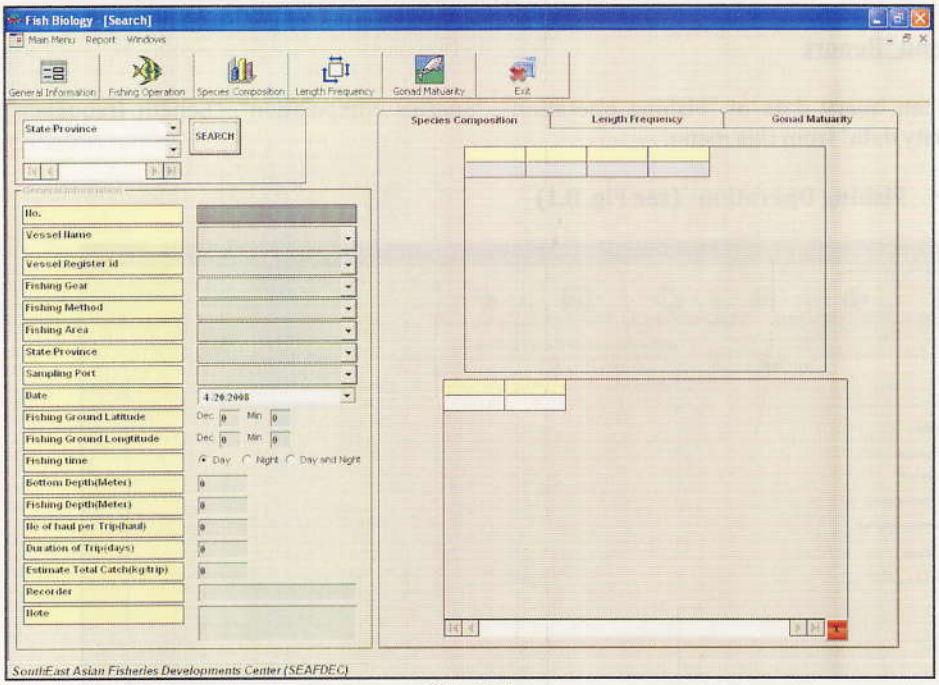


Fig. 7.1

You can search for fishing operation data using "Search" in the main menu. There are five name on the pull down lists that you can search from: State/Province, Sampling port, Fishing area, Vessel and Fishing

gear. Choose one of the lists, click "SEARCH" button. Then the data of fishing operation, Species composition, Length frequency and Gonad maturity will be shown. Example result of search was shown in fig. 7.2 below.

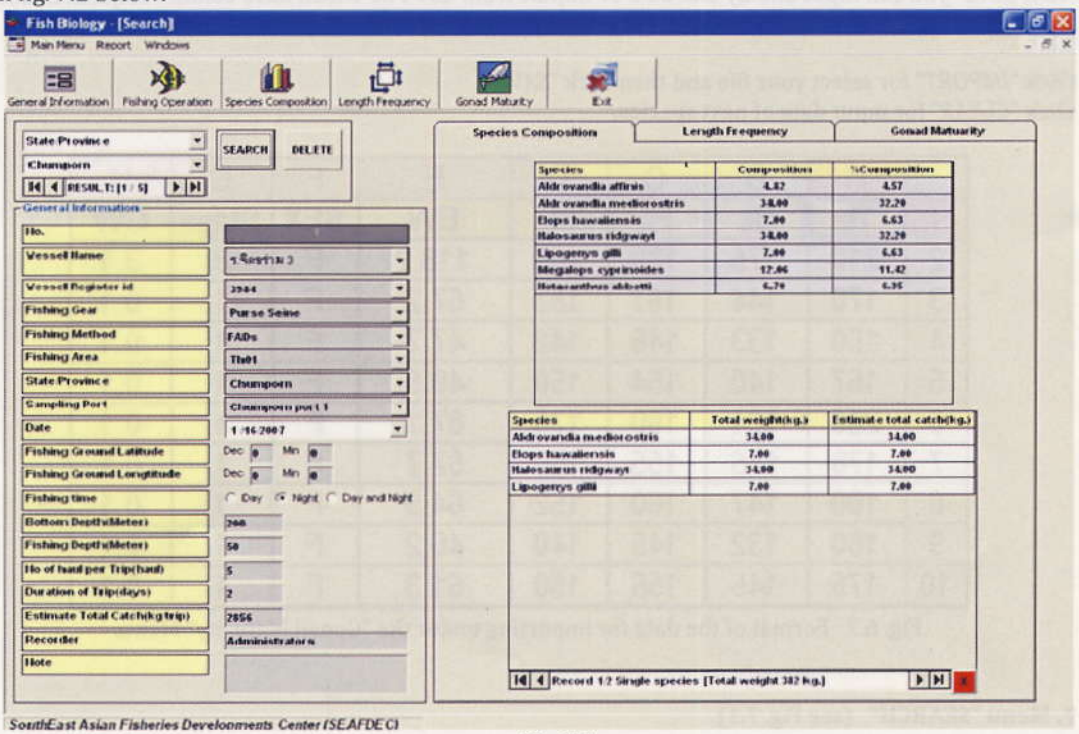


Fig. 7.2

8. Menu "Report

User can query data of "Fishing operation", "Species composition", "Length frequency" and "Gonad maturity data" from this menu.

- **Fishing Operation (see Fig. 8.1)**

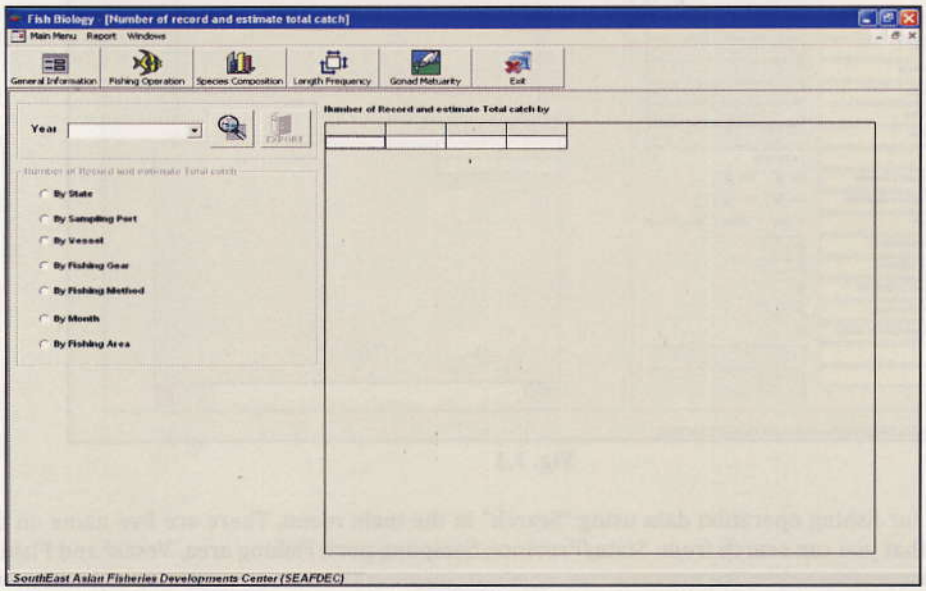


Fig. 8.1

In fishing operation, you have to choose 'Year' of the report and click "*SEARCH*". Check one radio box such as By state, By Sampling port or By Vessel below 'Year'. The data will be presented on the right side. You can also export the data to CSV file by using "*EXPORT*" button.

- **Species Composition** (see Fig. 8.2)

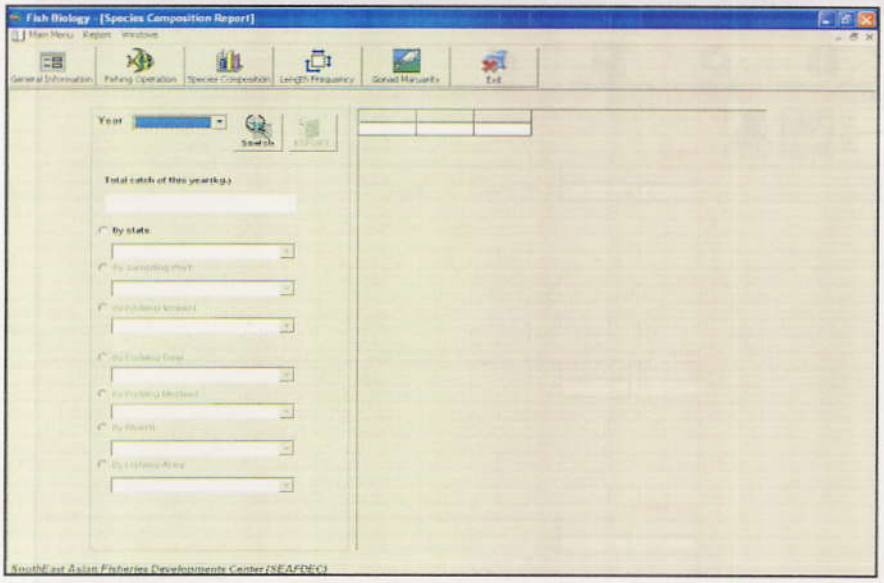


Fig. 8.2

In species composition, you should follow the same procedure as fishing operation. But you have to select one of list under the radio box that you have chosen. You can also export the data to CSV file by using "*EXPORT*" button.

- **Length Frequency (see Fig. 8.3)**

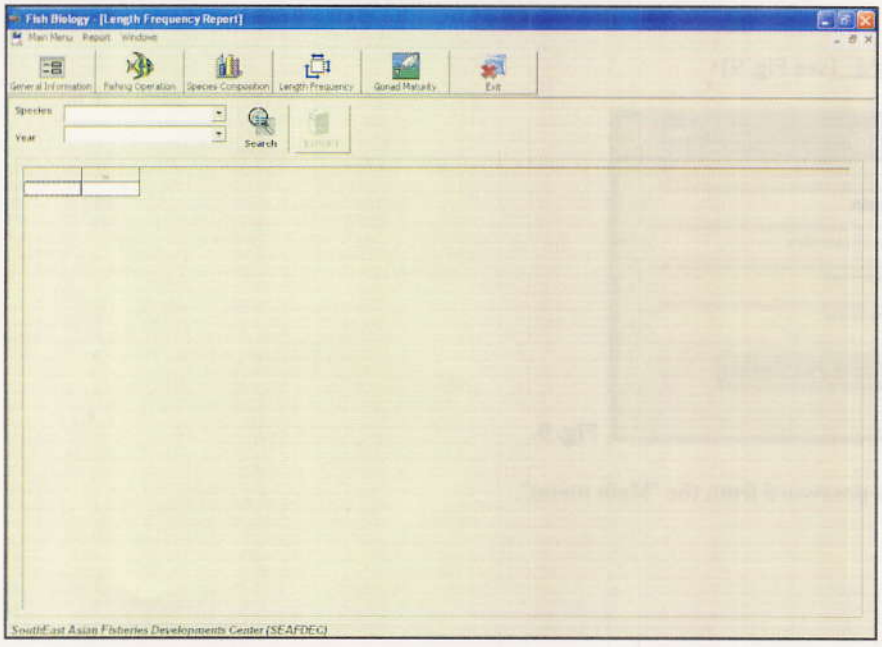
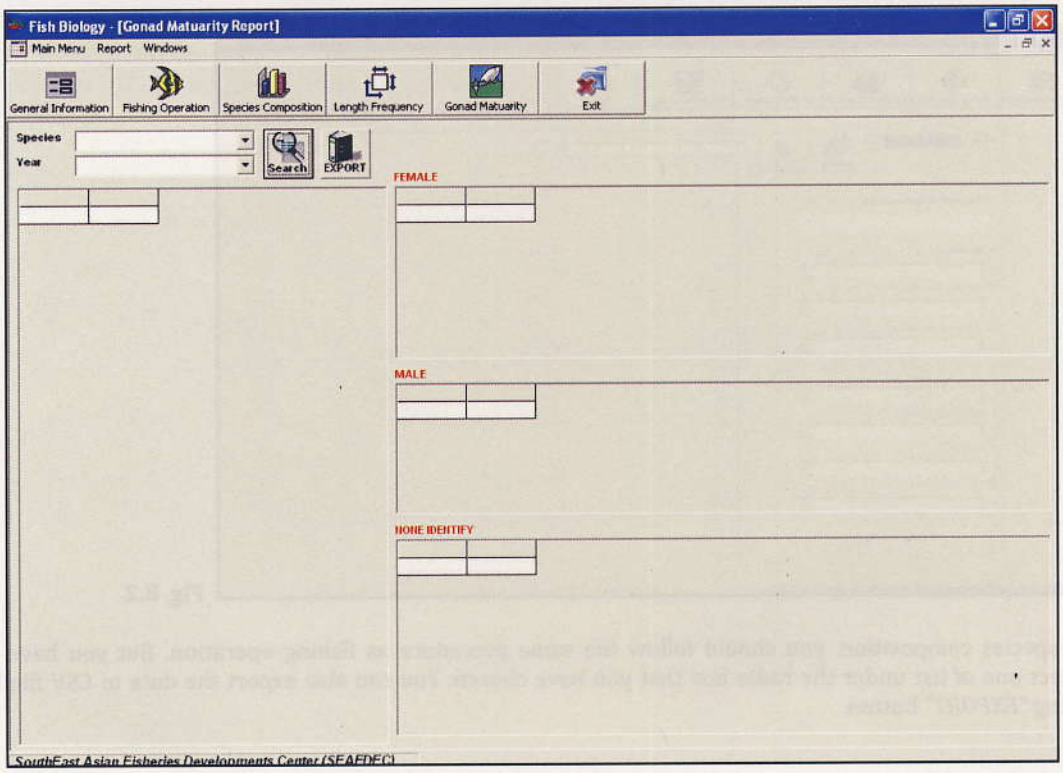


Fig. 8.3

In length frequency, you have to choose 'Species' and 'Year'.Then click "*Search*". You can also export the data to CSV file by using "*EXPORT*" button.

- **Gonad maturity** (see Fig. 8.4)



In gonad maturity, the procedures are the same as using Length frequency.

9. Change Password (see Fig. 9)

Fig. 9.

User can change the password from the "Main menu".

SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER

THE SECRETARIAT (SEC)
P.O.Box 1046
Kasetsart Post Office
Bangkok 10903, Thailand
Tel:(662)940-6326-29 Fax:(662)940-6336
E-Mai : secretariat@seafdec.org
http://www.seafdec.org

TRAINING DEPARTMENT (TD)
PO BOX 97, Phrasamutchedi,
Samut-Prakarn, 10290, Thailand
Tel.(662)425-6100 Fax.(662)425-6110, 425-6111
E-Mail : td@seafdec.org
URL : http://www.seafdec.org

MARINE FISHERIES RESEARCH DEPARTMENT (MFRD)
2 Perahu road, Off Lim Chu Kang road
Singapore 718915
Tel:(65)790-7973 Fax:(65)861-3196
E-Mail : mfrdlibr@pacific.net.sg
http://seafdec.org/mfrd/default.htm

AQUACULTURE DEPARTMENT (AQD)
Tigbauan 5021, ILOILO, Philippines
Tel:(63-33)335-1009, 336-2965
E-Mail : aqdchie@aqd.seafdec.org.ph
http://www.seafdec.org.ph
http://www.seafdec.org/aqd

MARINE FISHERIES RESOURCES DEVELOPMENT
AND MANAGEMENT DEPARTMENT (MFRDMD)
Fisheries Garden, Chendering
21080 Kuala Terengganu, Malaysia
Tel.(609)616-3150-52 Fax.(609)617-5136
E-Mail : seafdec@po.jaring.my
URL : http://agrolink.moa.my/dof/seafdec
http://www.seafdec.org/mfrdmd