Data Management System "FishBio" for Small Pelagic Fisheries



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SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER

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2007

DATA MANAGEMENT SYSTEM

"FishBio"

for Small Pelagic Fisheries

Content

What is "FishBio"	3
Recommended system requirements	.3
Installation FishBio	3-4
Structure of FishBio	5
FishBio User Guild	
- Login to program	6
- General Information	7-10
- Fishing Operation	10
- Species Composition	11
- Length Frequency	12
- Gonad Maturity	13
- Search	14
- Report	15
- Change Password	17

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.]



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

🕫 FrishBilo Setup 😢
Seria connot initial system files or update shared files if they are in use. Before proceeding, we recommand that you close any applications you may be running.
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4. Click Continue to Continue setup

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



6. Then click Start \rightarrow Program \rightarrow FishBio for open program.

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Page 4

2007



Then elick Start + Program + Plabilip for open programs.

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Page 5

2007

FishBio User Guild

1. Login to program and Main page

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



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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

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outhEast Asian Fisheries Developments Center (SEAFDEC)	Fig. 1.

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)

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neral Tar	jet Species Fishin	g Vessel					
-	Fishing A	rea	State Province	Sampling Port		Fishing Ge	ar and Method
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_						Purse Seine	EADs
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Area.	ſ		State Province		Fishing	ge ar	•

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).

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	Halosauridae	Aldrovandia	phalacra	a last and a state							
	Halosauridae	Aldrovandia	spp.	Halosaur							
	Albulidae	Halosaurus	ridgwayi								
	Notacanthidae	Hotacaisthus	abbotti								
	Notacanthidae	Hotacanthus	chemnitzi								
	Notacanthidae	Hotacanthus	spp.	Spiny eel							
	Notacanthidae	Pelyacanthonotu	is challengeri								
	Elopidae	Elops	hawaliensis	Hawaiian ladyfish							
	Megalopidae	Megalops	cyprinoides	Indo-Pacific tarpon							
	Albulidae	Albula	forsteri								
	Albulidae	Albula	glossodonta								
	Albulidae	Abuta	spp.	Bonefish							11
	Notacanthidae	Hotacanthus	sexspinis	and the state							
	Lipogenyidae	Lipogenys	gilli	Spiny sucker eel							
	Moringuidae	Heoconger	tuberculatus								
	Moringuidae	Moringua	javanica								
	Chlopsidae	Boehlkenchelys	longidentata								
	Chiopsidae	Chilorhinus	platyrhynchus								
	Chlopsidae	Kaupichthys	ationasus								
	Chlopsidae	Kaupichthys.	brachychirus								
	Chlopsidae	Kaupichthys	diodontus								
	Chlopsidae	Kaupichthys	spp.	False moray							
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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".

1200	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*"

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Fig. 2.4

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

	A	В	C	D	E	F	G	Н	1	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

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.

al Information	Species Composition Length Freque	ncy Gonad Maturity Est		
		FISHING OPERATION		
	Ho.		SAVE	
	Vessel Name		CLEAR	
	Vessel Register id			
	Fishing Gear			
	Fishing Method			
	Fishing Area			
	Landing State Province			
	Landing Port			
	Sampling Date	4/21/2008		
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	Longtitude	Dec 0 Mn 0 E		
	Fishing time	← Day ← Night ← Day and Night		
	Bottom Depth(Meter)	0		
	Fishing Depth(Meter)	0		
	No of haul per Trip(haul)	p		
	Duration of Trip(days)	0		
	Total Catch (kg/trip)	Þ		
	Recorder	Admin		
	Note			

ral Information Fishing Operation		Length Frequency Gonad Matuerity	Exit	
Fishing Operat Search State Provin	ion ·	Total catch in weight	of sampling group	Total catch in weight of single species
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stimate Total Catch(kg)		i bool area and and and area in the stars in		Species

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]

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

- 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]

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

eral Information Fishing Operation Species Compositi	ion Leader Freizierica	Gonad Matuanity	toot		
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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)

General Information Fishing C	Deration Species Composition	1 state	Gonad Matur	ey Est				
Fishing S	Operation				Length Frequency			
- Serar th	1	Lower	dipper	Stick L creativ	Frequency	A Speci	ie a	
State Province	• 🕢		5	7.5	The second second second	Abde	uvandte affirite (contract	•
Champoorn	. 10	5	19	7.5		Class	Interval	
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Vessel	1.54423×.3	35	40	37,5			START IIPUT>>	and the
Fishing Gear	Purse Lano	40	45	42.5	ht			
Fishing Method	FADs	45	50	47.5				
Fishing and	That	50	55	52.5				
	14075	55	68	57.5				
Landing State Province	Chatraged a		20	96.3				
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Date	1.16.3807	25	80	77.5				
PROFESSION PROFESSION	No.	89	85	82.5				
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Latitude	Dec # Mitt #	10	35	92.5				
Longtitude	Dor 8 Mill 8	35	190	97.5				
Bottom Depth(Metor)	54	100	105	102,5				
Fishing Bepthildeter)	140	110	110	112.5				
and a separation of the	Contraction of the second seco	115	120	117.5				
Re er mede Tinp		120	125	122.5				
Duration of Tripidays)	2 marged country	125	130	127.5	1.00 00 7			
Estimate Total Catability	2456	130	135	132.5				
Recorder	Administrators	135	140	137.5				
	Action and a state of the	140	145	142,5				
HOLE		150	155	152.5				
		155	140	157.5		~		
Links for the second		1	du u filitar			-		

ral Information Fishing C	peration Species Composition	n Leran Property	Gonad Maturi	ty Exit				
Fishing (Operation		The second s		Length Frequency		a a fu such shirts.	
-Search		Lower	Upper	Mid-Length	Frequency	Species		
State Province	· 🕞 🛛	20	25	22	5	Aldrovandia affin	is	-
Chumpern	- 10	25	30	28	1	Class Interval	jā.	
14 4 Result 1 Of 5	14 4	35	40	38	4	Sampling weight	45	
		40	45	42	7	Lower limit(em)	29	
Fishing Information No.	1	45	50	44	4		10-	
Vessel	ร จิตอร่าม 3	50		\$2		START	HIPLIE	
Fishing Gear	Purse Seine					further and the second		
Fishing Method	FADs					Lower-Upper 60	-55	1
Fishing area	The1							
Landing State Province	Chumpoth					FILINGA		
Sampling Port	Champorn port 1					[]		
Date	Champorn port 1							
Electricus times								
risiwiy unie	pay							
Latrode	Dec 0 Min 0							
Longtitude	Dec 0 Min 0							
Bottom Depth(Meter)	50							
Fishing Depth(Meter)	200				No.			
llo of haul/Trip	5							
Duration of Trip(days)	2	1 S - 1						
	2856							
Estimate Total Catch(kg)					and the second second			
Estimate Total Catch(kg) Recorder	Administrators							

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)

	tigit Market Fit	
Fishing Operation	HISPORT	Species Sampling weight kg
Fishing Information IIo.		ADD SAMPLING >>
Vessel		GUI
Fishing Gear		
Fishing Method		CLEAR
Fishing area		
Landing State Province		
Sampling Port		at of Production
Date		
Fishing time		
Latitude		- 16983
Longtitude		
Bottom Depth(Meter)		
Fishing Depth(Meter)		
No of haul/Trip	Barren College State State Instruments	
Duration of Trip(days)		and the second second
Estimate Total Catch(kg)		
Recorder	Deable Click for delate row	
llote	TL(mm) BL(mm) FL(mm) SL(mm) BW SEX Stage GW	MIXI>> J

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

	А	В	С	D	E	F	G	Η
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

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

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

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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.

eral Information	e Species Composition Length Frequency	Gonad Matu	rky Eut	1 5 6 2	old story of	Palas nel T309
State Province	STARCH OFFICE	Species	Composition	Leng	gth Fr equency	Gonad Matuarity
Champorn .	Sector Vector		Taureaters		Commentitions	Suff and an and the second second
Id d RESULT IT SI DEDI			Aldr ovandia affirsi		4.87	4.57
Seneral Information			Aldr ovandia medi	iorostris	34.00	32.20
			Elops hawaliens in	9	7,80	6.63
185.			Halosaurus ridgw	hot	34.00	32.20
Vessel llame	1 44917N 3 -		Lipogenys gilli	1.4	7.00	6.63
Vessel Register id	12944 *		Hotasarthus alder	reta i	6.74	6.35
Fishing Gear	Purse Seine •		THE R.		- Delet	MARLING &
Fishing Method	FADs •		1000			In the second second
Fishing Area	Thet +					
State Province	Chumporn •		1200			221 192 1
Sampling Port	Classing son to post (1	-				
Date	1:16:700-7 *		ipectes		Total weight(kg.)	Estimate total catch(kg.)
Fishing Ground Latitude	Dec Mn		long has all medior of	10110	34.99	34.00
Fishing Ground Longitude	free to Min to		Lalosaurus ridigwayt		34.00	34,00
Taning Growin Congenue		1	ipogenys gilli		7.00	7.00
ishing time	C Day C+ Night C Day and Night	18				
Bottom DepthyMeter)	266					
Fishing Depth(Meter)	50	12				20101211
Ho of haul per Trip(baul)	5					The second second
Duration of Trip(days)	2					
Estimate Total Catch(kg trip)	2856	1				
Recorder	Administrators					State Ballins and
liote						
		1	4 Record 12 Sim	ple species [Total weight 382 kg.	

8. Menu "Report

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

 Fib Holegy
 (Humber of record and estimate total catch)

 Image: Hear Hards
 Record
 Hear Hards
 Image: Hear Har

Fishing Operation (see 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.

marten Patring Operation 3	peose Corporation Langth Frag	arey Scent Haruarts	101		
Year	• •			10 1945	
	Sawith 1994				-
Total catch of this y	earley)				
(" By state					
C to sanding they	-				
T even hand to see	1				
-	1				
	2				
C In Street	-				
C. D. Lintere direct	3				
	<u></u>				

Species Composition (see 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)

Stah Biology - [Length Frequency Repert] Main Haru, Feast, Version General II Armston Specter Year Year	- 0 X	
SouthEast Asian Fisheries Developments Center (SEAFDEC)		Fig. 8.3



Page 16

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.

ral Information	ion Species Composition Len	th Frequency Gonad Matuarity	Exit		e
scles	Y Search EPO			1.4	
	,	MALE			
		ne producer an e distante l'un can			

➢ Gonad maturity (see Fig. 8.4)

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

9. Change Password (see Fig. 9)

CHANGE PAS	SWORD	
Username	Admin	
Login name	Administrator	
Password		
Re-password	****	
	CHAIIGE PASSWOR	
		Fig

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

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