

Fish Species and Fish products in Maubin Township, Ayeyarwady Region, Myanmar

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Abstract:- Fish Species and fish products were recorded in Maubin Township, Ayeyarwady Region from lasted from July 2017 to March 2018. Fish specimen were collected monthly from local fishermen using different fishing gears. Fish products were recorded according to questionnaire survey from local fishermen. Identification was followed after [6] and [2]. A total of 31 species of 28 genera of 18 families under 8 orders were recorded. The order Siluriformes included the highest species number and percent (10 species, 32%) among the collected fish. Five types of fish products (fresh fish, salted fish, dried fish, fermented fish, fish paste) were recorded in Maubin Township not only for local people consumption but also for selling to other places in Myanmar.

Keywords:- Species Composition, Maubin, Ayeyarwady.

I. INTRODUCTION

Fishes occupy a significant position in the socio-economic fabric of the south and south East Asia countries by providing the population not only the nutritious food but also income and employment opportunities [6]. The livelihood of over 500million people in developing countries depends on fisheries and aquaculture directly or indirectly [1]. 508 freshwater fishes and 518 marine species are known to inhabit Myanmar waters. [2]

MaubinTownship is located in Ayeyarwady Region. In Maubin, most of villagers are fishermen and they depend upon the fisheries for their livelihood. Fish and fish products are the main food for the local residence other than other vertebrate food. Therefore, the present work was carried out to identify the fish species in Maubin Township and to investigate the fish products in the study area.

MATERIALS AND METHODS

Maubin Township, Ayeyarwady Region was chosen as the study area. Study period lasted from July 2017 to March 2018. Fish specimen were collected monthly from local fishermen using different fishing gears. Fish products were recorded according to questionnaire survey from local fishermen. Then, the photographs were taken and collected specimens were preserved in 10% formalin for further identification. Identification was followed after [6] and [2].

II. RESULTS

A total of 31 species of 28 genera of 18 families under 8 orders were recorded. The recorded fishes include under eight orders such as Osteoglossiformes, Clupeiformes, Cypriniformes, Siluriformes, Beloniformes, Synbranchiformes, Perciformes and Mugiliformes. The order Siluriformes included the highest species number and percent (10 species, 32%) among the collected fish. The second highest number of species (7 species, 23%) was observed in the order Cypriniformes. The order Perciformes is the third highest number of species (6 species, 19%) and the least number of species (1 species, 3 %) in the order Osteoglossiformes, Clupeiformes and the order Beloniformes . (Table I)

Five types of fish products such as fresh fish, salted fish, dried fish, fermented fish, fish paste were recorded in Maubin Township. All the recorded fish species were found to be used as fresh fish ,61.2% for dried fish, 25.8% for salted fish, 25,8% for fermented fish and 35.4% for fish paste not only for local people consumption but also for selling to other places in Myanmar. (Table II).

Order	Family	Genus	Species	%
Osteoglossiformes	1	1	1	3
Clupeiformes	1	1	1	3
Cypriniformes	1	7	7	23
Siluriformes	6	9	10	32
Beloniformes	1	1	1	3
Synbranchiformes	2	2	3	10
Perciformes	5	5	6	19
Mugiliformes.	1	2	2	7
Total	18	28	31	100 %

Table 1:- Species composition of recorded fishes along in MaubinTownship

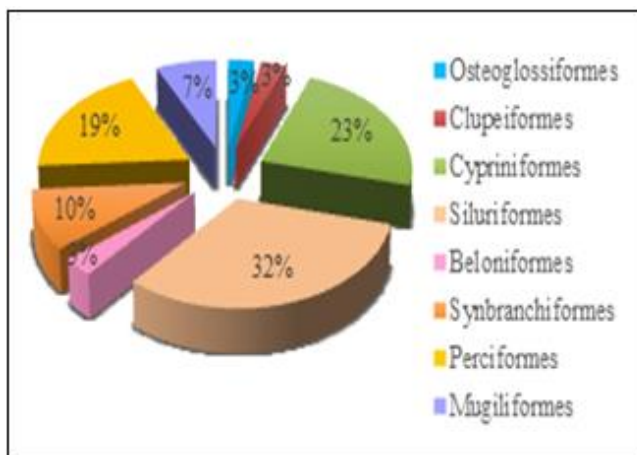


Fig 1:- Species composition of recorded fishes in respective Orders

Family	Genus		Species	Common name	Myanmar name
Notopteridae	<i>Notopterus</i>	1.	<i>N.notopterus</i> (Pallas, 1769)	Bronze featherhack	Nga pe
Clupeidae	<i>Tenualosa</i>	2.	<i>T.ilisha</i> (Hamilton, 1822)	Hilsa shad	Nga tha lauk
Cyprinidae	<i>Gibelion</i>	3.	<i>G.catla</i> (Hamilton, 1822)	Catla	Nga thaing
	<i>Cirrhinus</i>	4.	<i>C.mrigala</i> (Hamilton, 1822)	Mrigal	Nga kyinn
	<i>Labeo</i>	5.	<i>L.rohita</i> (Hamilton, 1822)	Roho labeo	Nga myit chinn
	<i>Osteobrama</i>	6.	<i>O.belangeri</i> (Valencienne, 1844)	Manipur osteobrama	Nga pe aung
	<i>Systemus</i>	7.	<i>S.sorphoides</i> (Valencienne, 1842)	Javaen barb	Nga kone ma myini
	<i>Puntius</i>	8.	<i>P.vittatus</i> (Day, 1865)	Greenstripe barb	Nga gonn ma
	<i>Amblypharyngodon</i>	9.	<i>A.mola</i> (Hamilton, 1822)	Mola carplet	Nga bei phyu
Bagridae	<i>Sperata</i>	10.	<i>S.seenghala</i> (Sykes, 1839)	Giant river-catfish	Nga jaung
	<i>Mystus</i>	11.	<i>M.pulcher</i> (Chaudhuri, 1911)	Pulcher mystus	Nga zin yine
Family	Genus		Species	Common name	Myanmar name
		12.	<i>M.vittatus</i> (Bloch, 1794)	Striped dwarf catfish	Nga zin yine
	<i>Rita</i>	13.	<i>R.rita</i> (Hamilton, 1822)	Rita	Nga htway
Siluridae	<i>Ompok</i>	14.	<i>O.bimaculatus</i> (Bloch,1794)	Butter-catfish	Nga nu thann
	<i>Wallago</i>	15.	<i>W.attu</i> (Bloch & Schneider, 1801)	Wallago	Nga bat
Schilbeidae	<i>Silonia</i>	16.	<i>S.silondia</i> (Hamilton, 1822)	Giant butter catfish	Nga Myin
Pangasiidae	<i>Pangasius</i>	17.	<i>P.pangasius</i> (Hamilton, 1822)	Pangas catfish	Nga dan
Clariidae	<i>Clarias</i>	18.	<i>C.batrachus</i> (Linnaeus, 1758)	Philippine catfish	Nga khoo
Heteropneustidae	<i>Heteropneustes</i>	19.	<i>H.fossilis</i> (Bloch, 1794)	Stinging catfish	Nga gyi
Belonidae	<i>Xenentodon</i>	20.	<i>X.cancila</i> (Hamilton, 1822)	Freshwater garfish	Nga hpaung yo
Synbranchidae	<i>Monopterus</i>	21.	<i>M.cuchia</i> (Hamilton, 1822)	Cuchia	Nga shint
Mastacembelidae	<i>Macrogynathus</i>	22.	<i>M.aral</i> (Bloch & Schneider, 1801)	One-stripe spinyeel	Nga mway doh pyaung chaw
		23.	<i>M.zebrinus</i> (Blyth, 1858)	Zebra spiny eel	Nga mway doh kyan sit
Gobiidae	<i>Glossogobius</i>	24.	<i>G.giuris</i> (Hamilton, 1822)	Tank goby	Ka tha poe
Eleotridae	<i>Eleotris</i>	25.	<i>E.melanosoma</i> (Bleeker,1853)	Broadhead sleeper	Nga thit tone
Osphronemidae	<i>Trichopodus</i>	26.	<i>T.pectoralis</i> (Regan, 1910)	Snakeskin gourami	Japan/Gorami
Channidae	<i>Channa</i>	27.	<i>C.punctata</i> (Bloch, 1793)	Spotted snakehead	Nga pa naw
		28.	<i>C.striata</i> (Bloch, 1793)	Striped snakehead	Nga yant
Anabantidae	<i>Anabas</i>	29.	<i>A.testudineus</i> (Bloch, 1792)	Climbing perch	Nga byay ma
Mugilidae	<i>Rhinomugil</i>	30.	<i>R.corsula</i> (Hamilton, 1822)	Corsula	Nga zin/ kin
	<i>Sicamugil</i>	31.	<i>S.hamiltonii</i> (Day, 1870)	Burmese mullet	Nga khon gyan

Table 2:- Species composition of the recorded fish species

	Species	Fresh	Dried	Salted	Fermented	Paste
1.	<i>N.notopterus</i>	1	1	1		
2.	<i>T.ilisha</i>	1		1		
3.	<i>G.catla</i>	1	1			
4.	<i>C.mrigala</i>	1				
5.	<i>L.rohita</i>	1				
6.	<i>O.belangeri</i>	1	1	1		
7.	<i>S.orphoides</i>	1				
8.	<i>P.vittatus</i>	1	1	1	1	
9.	<i>A.mola</i>	1	1	1	1	1
10.	<i>S.seenghala</i>	1	1	1		
11.	<i>M.pulcher</i>	1	1			1
12.	<i>M.vittatus</i>	1	1			
13.	<i>R.rita</i>	1				
14.	<i>O.bimaculatus</i>	1				1
15.	<i>W.attu</i>	1	1			
16.	<i>S.silondia</i>	1				
17.	<i>P.pangasius</i>	1				
18.	<i>C.batrachus</i>	1				
19.	<i>H.fossilis</i>	1	1			
20.	<i>X.cancila</i>	1	1			1
21.	<i>M.cuchia</i>	1	1			1
22.	<i>M.aral</i>	1	1			1
23.	<i>M.zebrinus</i>	1	1			1
24.	<i>G.giuris</i>	1	1	1	1	
25.	<i>E.melanosoma</i>	1				
26.	<i>T.pectoralis</i>	1				
27.	<i>C.punctata</i>	1	1		1	
28.	<i>C.striata</i>	1		1	1	1
	Species	Fresh	Dried	Salted	Fermented	Paste
29.	<i>A.testudineus</i>	1	1		1	1
30.	<i>R.corsula</i>	1	1		1	1
31.	<i>S.hamiltonii</i>	1	1		1	1
	Total	31 (100%)	19 (61.2%)	8 (25.8%)	8 (25.8%)	11 (35.4%)

Table 3:- Types of Fish Products in Maubin Township

III. DISCUSSION

Ayeyarwady River is one of the important productive fishing places of Myanmar. Thus, Ayeyarwady River plays an important role in the ecology of the river system. A total of 31 fish species of 28 genera belonging to 17 families under 8 orders were recorded during the study period. [3] recorded 23 species of natural fish species from Hinthada Township of Ayeyarwady Region in which the highest number of species was recorded for Order Perciformes. It could be assumed that the species of the order Perciformes were the most common in Hinthada Township. [4] reported that maximum number of the species of the order Perciformes was recorded from Ngawun River. [7] recorded 26 fish species in Maletto village in Maubin Township. The highest number of species (10 species) was recorded in Perciformes. In the present study, 10 species of fish in Order Siluriformes was the highest number of species in Maubin Township. It could be assumed that fishes of Order Perciformes were abundant in Ayeyarwady Region. [5] also recorded 26 fish species belonging to 14 families of seven Orders were recorded in Nyaung Done Township of Ayeyarwady

Region. She could record the highest number of species in Order Cypriniformes.

Types of Fish products were recorded as fresh fish ,salted fish ,dried fish ,fermented fish, fish paste. Local people preferred fresh fish to other types of fish products. It may be assumed that fresh fish are more delicious and more healthful than preserved fish.

IV. CONCLUSION

Species composition of fishes were recorded Maubin Township, Ayeyarwady Region from July 2017 to March 2018. Thirty - one fish species belonging to 28 genera, 17 families under 8 orders were recorded during the study period. Five types of fish products were observed as local consumption All the recorded fish species were consumed as fresh fish. Local people know the value of fresh food other than preserved food. It could be concluded that the awareness for the conservation of fish species should be given to the fishermen and local people to lead a sustainable ecosystem for the next generation.

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