



Chheng P., Baran E., Touch B.T. 2004 Synthesis of all published information on Sutchi catfish *Pangasius hypophthalmus* (“trey pra”) based on FishBase 2004. WorldFish Center and Inland Fisheries Research and Development Institute, Phnom Penh, Cambodia. 17 pp.

Introduction

This document results from the extraction and the editing by the authors of the information available in FishBase 2004.

FishBase is a biological database on fishes developed by the WorldFish Center (formerly ICLARM, the International Center for Living Aquatic Resources Management) in collaboration with the Food and Agriculture Organization of the United Nations (FAO) and with the support of the European Commission (EC).

These synopses present a standardized printout of the information on the above-mentioned species incorporated in FishBase as of 11 May 2004, is inspired from the format suggested for such documents by H. Rosa Jr. (1965, FAO Fish. Syn. (1) Rev 1, 84 p.).

We cannot guarantee the total accuracy of the information herein; also we are aware that it is incomplete and readers are invited to send complementary information and/or corrections, preferably in form of reprints or reports to the FishBase Project, WorldFish Center, MC P.O. Box 2631, Makati, Metro Manila 0718, Philippines.

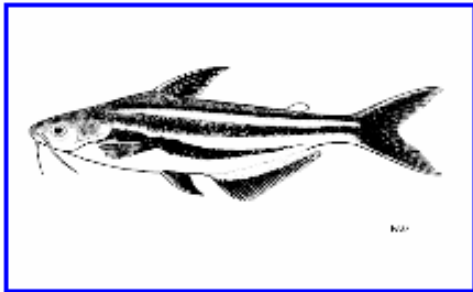
Some hints on how to use the synopses

The following definitions are meant to help you better understand the way this synopsis presents information and document its sources.

Please refer to the FishBase book for more details; and do not hesitate to contact FishBase staff if you have suggestions or information that would improve the format or the contents of this synopsis.

- SpecCode : Numeric FishBase code, assigned to a species and used for internal purposes only.
- StockCode : Numeric FishBase code, assigned to the species in general, a wild population, or a cultured strain. Since, to date, only a few species have been separated into stocks, the StockCode usually refers to the species in general.
- MainRef. : Numeric FishBase code corresponding to the reference used as a source for most of the information within a table.
- Ref. : Numeric FishBase code corresponding to the reference associated with a specific entry or set of entries; when left empty, the source of information is the MainRef. Note that the references listed at the end of this synopsis are arranged according to their numeric codes, and not alphabetically.
- Empty fields : Imply information that is currently not available to the FishBase project and/or information which is available but which has not been entered as of 31-Mar-04 . Note that the character 0 (zero) is used as a valid numerical value, and does not indicate that no information is available.
- Choice fields: Much of the information in this synopsis was entered via multiple choice fields; the available alternatives must be considered when evaluating the wisdom of a given choice.
- Remarks or Comment fields: The free text included in such fields may have been taken verbatim from the source in "Ref.", in which case this should be regarded as a direct citation (but lacking quotation marks); alternatively, the text may have been modified/adapted from one or several sources. In the latter case, additional "Ref." numbers may be incorporated in the text.

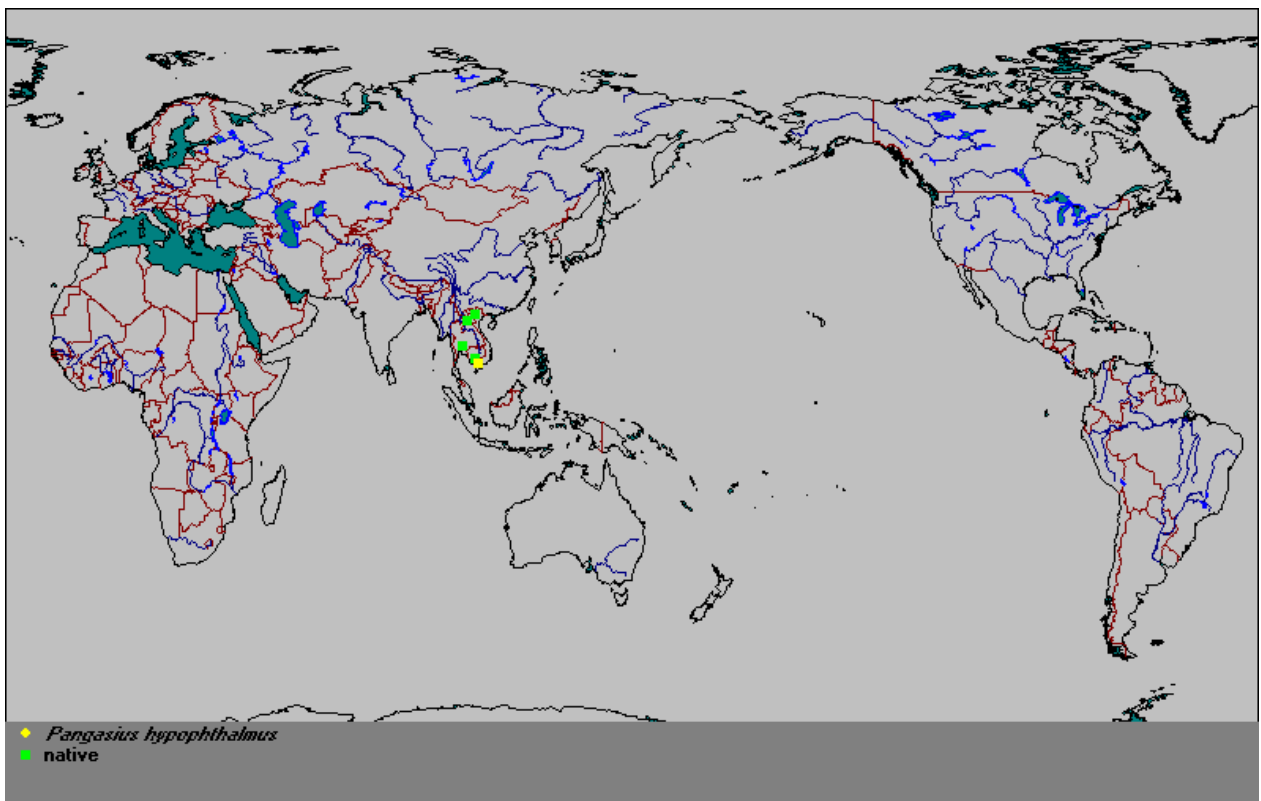
Pangasius hypophthalmus (Sauvage, 1878)
Sutchi catfish



picture (Pahyp_ul.gif) by [FAO](#)



picture (Pahyp_ul.jpg) by [Warren, T.](#)



Summary information on the family *Pangasiidae*

Family : Pangasiidae (Shark catfishes)

Order : Siluriformes

MainRef. : 007463

Class : Actino:pterygii (ray-finned fishes)

FamCode : 134

Number of genera 2:

Number of species : 21

Occurs in : Marine
 Brackish
 Freshwater

Aquarium fishes : some

First fossil record : Tertiary Ref. : 004830

Species currently in FishBase: Genera: 5 Species: 30 (Including subspecies) complete : Yes

Remarks: Distribution: southern Asia (Pakistan to Borneo). Barbels usually two pairs: 1 pair of chin barbels. No nasal barbels. Compressed body. With small adipose fin, separate from caudal fin. Dorsal fin close to head region; 1 or 2 spines, 5-7 soft rays. Anal fin 26-46 rays. Vertebrae 39-52. Maximum length about 3 m. Maximum weight 300 kg (*Pangasius gigas*).

Etymology: The Vietnamese name of a fish

Information on the genus *Pangasius*

and its synonyms, after Eschmeyer March 2003 (Ref. 46206)

Neopangasius Status : synonym Gender : masculine

Popta, 1904, p. 180, CAS Ref: 3547

Type by monotypy.

Type species : *Neopangasius nieuwenhuisii* Popta, 1904

Current genus: *Pangasius*

Pangasianodon Status : valid Gender : masculine

Chevey, 1931, p. 538, CAS Ref: 830

Type by monotypy.

Type species : *Pangasianodon gigas* Chevey, 1931

Current genus: *Pangasius*

Pangasius Status : valid Gender : masculine

Valenciennes in Cuvier & Valenciennes, 1840, p. 45, CAS Ref: 1008

Type by monotypy.

Type species : *Pangasius buchanani* Valenciennes, 1840

Current genus: *Pangasius*

Pseudolais Status : synonym Gender : feminine

Vaillant, 1902, p. 51, CAS Ref: 4490

Type by monotypy.

Type species : *Pseudolais tetranema* Vaillant, 1902

Current genus: *Pangasius*

Pseudopangasius Status : synonym Gender : masculine
 Bleeker, 1862, p. 399, CAS Ref: 391
 Type by original designation (also monotypic).
 Type species : *Pangasius polyuranodon* Bleeker, 1852
 Current genus: *Pangasius*

Pteropangasius Status : valid Gender : masculine
 Fowler, 1937, p. 142, CAS Ref: 1425
 Type by original designation (also monotypic).
 Type species : *Pangasius cultratus* Smith, 1931
 Current genus: *Pangasius*

General information on <i>Pangasius hypophthalmus</i>
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Classification

Class : Actinopterygii (ray-finned fishes) Ref: 007432
 Order : Siluriformes
 Family : Pangasiidae (Shark catfishes)
 Subfamily :
 Species : *Pangasius hypophthalmus*
 Author : (Sauvage, 1878)

Environment

Freshwater : Yes Habitat : benthopelagic
 Brackish : No Migrations :
 Saltwater : No Depth range :

Importance

Main catching method

Other methods : (•) Seines (•) Gillnets O Castnets (•) Traps O Spears
 O Trawls O Dredges O Liftnets O Hooks+Lines (•) Other

Used for aquaculture commercial Ref. 007432
 Used as bait never/rarely
 Aquarium fish never/rarely
 Game fish No
 Dangerous fish harmless
 Electrobiolgy no special ability

Size and age

Maximum length (cm) (male/unsexed) : 130 SL (female) : Ref. 007432
 Maximum weight (g) (male/unsexed) : 15,500.00 (female) : Ref. 007432

Remarks

Inhabits large rivers (Ref. 12693). Omnivorous (Ref. 6459), feeding on fish and crustaceans as well as on vegetable debris (Ref. 12693). A migratory species, moving upstream of the Mekong from unknown rearing areas to spawn in unknown areas in May-July and returning to the mainstream when the river waters fall seeking rearing habitats in September -December (Ref. 37772). South of the Khone Falls, upstream migration occurs from October to February, with peak in November-December. This migration is triggered by receding water and appears to be a dispersal migration following the lateral migration from flooded areas back into the Mekong at the end of the flood season. Downstream migration takes place from May to August from Stung Treng to Kandal in Cambodia and further into the Mekong Delta in Viet Nam. The presence of eggs during March to August from Stung Treng to Kandal indicates that the downstream migration is both a spawning and a trophic migration eventually bringing the fish into floodplain areas in Cambodia and Viet Nam during the flood season (Ref. 37770). Common in the lower Mekong, where the young are collected for rearing in floating fish cages. In the middle Mekong it is represented by large individuals that lose the dark coloration of the juveniles and subadults and become grey without stripe (Ref. 12693). One of the most important aquaculture species in Thailand (Ref. 9497).

Synonyms, misidentifications, etc. used for *Pangasius hypophthalmus*

Synonym	Author	Status	Ref.
<i>Pangasius hypophthalmus</i>	(Sauvage, 1878)	new combination	007432
<i>Pangasianodon hypophthalmus</i>	(Sauvage, 1878)	new combination	007432
<i>Helicophagus hypophthalmus</i>	Sauvage, 1878	original combination	007432
<i>Pangasius pangasius</i>	(non Hamilton 1822)	misidentification	007432
<i>Pangasius pleurotaenia</i>	(non Sauvage, 1878)	misidentification	007432
<i>Pangasius sutchi</i>	Fowler, 1937	junior synonym	007432

Common names for *Pangasius hypophthalmus*

Name	Language	Country	Ref.
Pra	Khmer	Cambodia	040380
Trey pra	Khmer	Cambodia	012693
Pa sooai	Laotian	Lao People's Dem. Rep.	009497
Pa sooai khaeo	Laotian	Lao People's Dem. Rep.	009497
Pa souay kheo	Laotian	Lao People's Dem. Rep.	037767
Stripe catfish	English	Thailand	006459
Pla sawai	Thai	Thailand	006459
Iridescent shark-catfish	English	United Kingdom	012693
Sutchi catfish	English	United Kingdom	003691
Swai	English	USA (contiguous states)	004537

Distribution of *Pangasius hypophthalmus*

Asia: Mekong, ChaoPhraya, and perhaps Mekong basins. Introduced into additional river basins for aquaculture.

MainRef.: 007432

Latitudinal range: 19° N - 8° N Temperature range: 22 - 26 °C Ref.: 13371

Status of threat: NL.

Country	Status	Ref.
Bangladesh	introduced	044085
One of the most 'disastrous' alien invasive species brought to the country (Ref. 44085).		
Cambodia	native	007432
Known from the Mekong basin. Found in Grand Lac (Ref. 36654), Tonle Sap River (Ref. 33813) and Lake Tonlé Sap near SiemReap (Ref. 45353). South of the Khone Falls, this species migrates upstream from October to February, peaking in November-December and extending into April from Kandal Province to Stung Treng (Ref. 37770). Migration occurs during full moon at Kratie and Kompong Cham (Ref. 37770). Migrates downstream from May to August from Stung Treng to Kandal and further into the Mekong Delta in Viet Nam, at least to Cai Be (Ref. 37770). This downstream migration is both a spawning and a trophic migration eventually bringing the fish onto floodplain areas during the flood season (Ref. 37770). Exclusively fished by explosives in northern Cambodia (Ref. 12693). Also Ref. 37772.		
Lao People's Dem. Rep.	native	007432
Known from the Mekong River (Ref. 43281). A migratory species that is found around Pak Beng to the Khone Falls (Ref. 37772). Found in Ban Hang Khone at Don Khone, 3 km below the fall line of the great waterfalls of the Mekong basin at Lee Pee (Ref. 9497). Undertakes upstream migration during the wet season in May-June through Hoo SomYai at the Great Fault Line on the Mekong River, Champassack Province (Ref. 37771). Considered one of the important pangasid species in the Khone Falls "lee" (wing) trap fishery during May to July each year (Ref. 37770). Also Ref. 4792, 30857, 37767.		
Philippines	introduced	013428
Recorded from Luzon.		
Singapore	introduced	038466
Has feral populations (Ref. 38466).		
Taiwan	introduced	001739
First successful larviculture in Taiwan occurred in 1976 (Ref. 40297).		
Thailand	native	026336
Known from the Mekong, Chao Phraya and Maeklong basins (Ref. 26336). Recorded from Bangkok (Ref.1632). Migrates upstream from Sungkom District (Nong Khai Province) to Chiang Khong from May to July (Ref. 37770). Most abundant at the central part. Found in large numbers in the upper part of the Ping River. Can be cultured both in ponds and in cages (Ref. 6459). One of the most important aquaculture species where naturally occurring <i>P. hypophthalmus</i> are evidently extremely rare. Cultured fish (pla sawai in Thai) attain a maximum size of about 7 kg, while wild ones (called pla sooi in Issan) reportedly attain 50 kg (Ref.9497). Also Ref. 7432, 37772, 37773.		
Viet Nam	native	007432
Known from the Mekong basin. Migrates downstream from May to August from Stung Treng to Kandal in Cambodia and further into the Mekong Delta in Viet Nam, at least to Cai Be. This downstream migration is both a spawning and a trophic migration eventually bringing the fish onto floodplain areas during the flood season. At An Giang and Dong Thap Provinces, larvae occur every year in June-July during their downstream drift from spawning site somewhere upstream in Cambodia. They are fished in specialized larvae dai nets just south of the Cambodian-Viet Nameese border and are used as stocking materials in the cage culture industry. Fish larvae of 2 cm are reported in May-July. Generally, fish from the Mekong Delta are below 50 cm, dominated by fish below 30 cm (Ref. 37770). Also Ref. 49196.		

Introductions of *Pangasius hypophthalmus*

Level: species in general

Asia: Mekong, Chao Phraya, and perhaps Mekong basins. Introduced into additional river basins for aquaculture.

Year : 1990 Established : yes Ref. 044085

Introduced : to Bangladesh from Thailand

Reason : unknown

Comments : One of the most 'disastrous' alien invasive species brought to the country.

Level: species in general

Year : 1978 Established : probably no Ref. 013686

Introduced : to China Main from Thailand

Reason : aquaculture

Comments : Experimentally cultured in Guangdong Province.

Level: species in general

Year : 1969 Established : no Ref. 001739

Introduced : to Taiwan Thailand

Reason : aquaculture

Comments : Introduced by Ling from Indonesia. Not adapted to the cooler climate of Taiwan and although it has some potential for aquaculture, it is maintained mainly as an ornamental species.

Level: species in general

Year : Unknown Established : Unknown Ref. 009420

Introduced : to Guam from Unknown

Reason : aquaculture

Comments : Assumed to be introduced for aquaculture.

Level: species in general

Year : 1972 Established : no Ref. 001739

Introduced : to Indonesia from Thailand

Reason : aquaculture

Comments : Artificially bred and has a good prospect for aquaculture.

Level: species in general

Year : 1978 Established : probably yes Ref. 006096

Introduced : to Philippines from Thailand

Reason : fisheries

Comments : Reintroduced in 1982. Artificially bred in ponds and reservoirs. Recorded from Luzon.

Level: species in general

Year : unknown Established : yes Ref. 038466

Introduced : to Singapore from Unknown

Reason : aquaculture

Comments : New helminth gill parasites from imported cultured catfish in Malaysia were recently described and it is likely that these parasites are now also present in Singapore.

Total = 27

Established: yes = 1

probably yes = 1

Summary information (no. of records) available for <i>Pangasius hypophthalmus</i>
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Level: species in general

StockCode: 007432

MainRef.: 007432

Ecology	1	Max. sizes	0	Strains	0
Food Items	6	FAO catches	15502	Diseases	12
Food consumption	0	Genetics	1	Ciguatera	0
Diet composition	0	Allele frequency	0	Ecotoxicology	0
Ration	0	Heritability	0	Metabolism	0
Predators	0	Reproduction	1	Gill area	0
Morphology	1	Spawning	3	Swimming Type	0
Processing	0	Eggs	: 0	Swimming speed	:0
Growth/mortality	0	Egg dev't.	0	Vision	:0
Maturity	0	Larvae	:0	Brains	0
Recruitment	0	Larval dynamics	: 0	Introductions	7
L/Wrelat.	1	Aquaculture	0	Occurrence	38

Morphology of <i>Pangasius hypophthalmus</i>

Level : species in general

StockCode : 014046

Main Ref.: 012693

Appearance refers to : O females O males

DIAGNOSTIC CHARACTERS

Fins dark grey or black; 6 branched dorsal-fin rays; gill rakers normally developed; young with a black stripe along lateral line and a second long black stripe below lateral line, large adults uniformly grey (Ref. 12693). Dark stripe on the middle of anal fin; dark stripe in each caudal lobe; small gill rakers regularly interspersed with larger ones (Ref. 43281).

DESCRIPTIVE CHARACTERS

Striking features : none
 Body shape lateral : elongated
 Operculum present :No
 Type of eyes : more or less normal
 Position/type of mouth : terminal

Pigmentation on trunk and tail

Horizontal stripes
 Vertical stripes absent
 Diagonal stripes absent
 Curved stripes absent
 Spots no spots
 Caudal fin more than one spot or stripe
 Anal fin (A1) one spot or stripe

Dorsal fins

Number of fins : 1
 Adipose fin : present

Paired fins

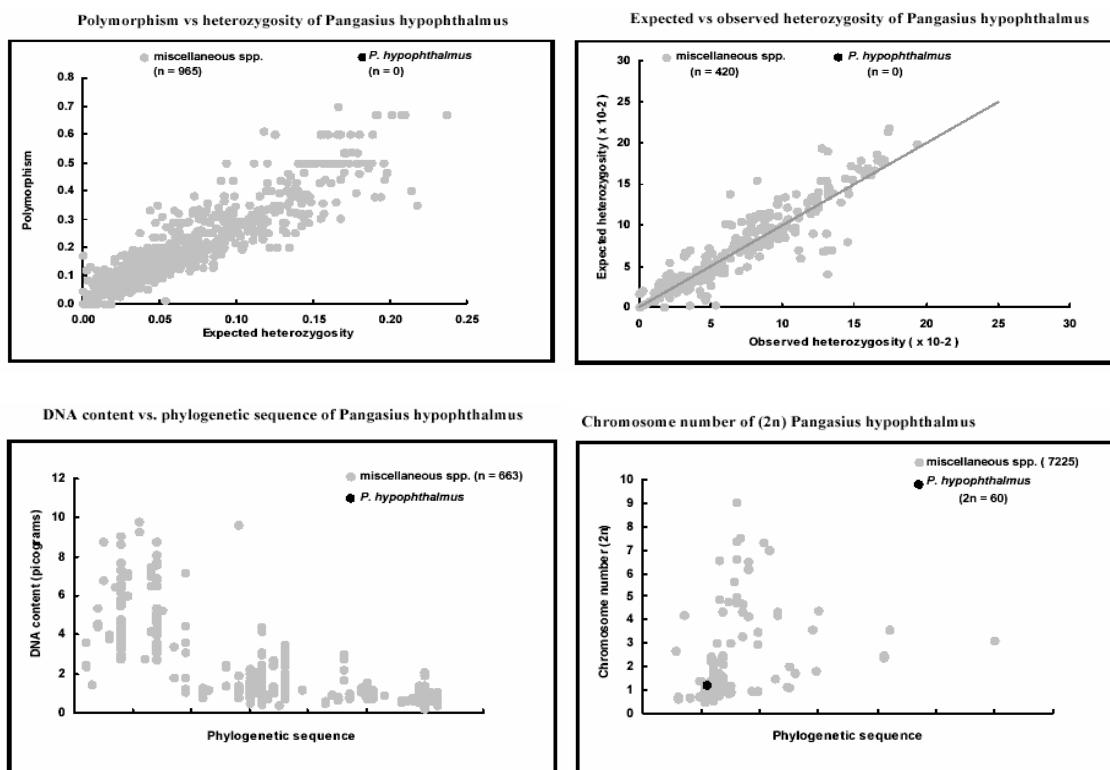
Pectoral attributes : more or less normal
 Pelvics attributes : more or less normal
 position : abdominal behind origin of D1
 spines : sift rays: 8 -9

Genetic information for *Pangasius hypophthalmus*

Level : species in general
 Chromosome number (haploid) : 30
 Chromosome number (diploid) : 60
 Genetic marker(s) present : No
 Remarks: Hybridization expt.

MainRef.: 034370

Ref: 034919



General information on the reproduction of *Pangasius hypophthalmus*

Level : species in general, StockCode : 014046 MainRef
Mode and Type of Reproduction
 Mode : dioecism
 Fertilization : external
 Spawning frequency : one clear seasonal peak per year
 Batch spawner : No
 Reproductive guild : nonguarders Open water/substratum egg scatterers
 Assuming same reproductive mode as *P. conchophilus*.

Spawning Information for *Pangasius hypophthalmus*

Locality : Cambodia, Mekong basin from Stung Treng to Kandal

Stock code: 014046

Season (% of mature females; 111= presence of mature females) :

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					111	111					

Comment: Eggs occur during March to August, with a strong peak in June-July.

Locality : Laos , Mekong basin at Xayabouri

Stock code: 014046

Season (% of mature females; 111= presence of mature females) :

Main ref: 037770

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					111	111	111				

Comment: Based on presence of eggs and milt during migration.

Locality : Thailand , Mekong basin at Loei

Stock code: 014046

Season (% of mature females; 111= presence of mature females) :

Main ref: 037770

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					111	111	111				

Comment: Based on presence of eggs and milt during migration.

Ecology of <i>Pangasius hypophthalmus</i>
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Level : species in general

StockCode: 014046 014154

Main Ref.: 033813

Habitats

Ref: 033813

Streams : Yes Lake: Yes Cave: No

Estuaries/lagoons/brackish seas: No

Intertidal : No soft : No rocky : No mangroves/marchs/swamps: No

Marine : No oceanic : No neritic : No coral reefs: No

tropical soft bottom : No hard bott0m: No seagrass beds: No macrophyte: No

Feeding

Feeding Type : plants/detritus+animals (troph. 2.8 and up)

Ref: 033813

Feeding habit : hunting macrofauna (predator)

Trophic level(s):

Original sample

Unfished population

Remarks

Estimation method

Troph s.e

troph s.e

From indiv. food item:

3.3 0.50

- -

Trophic level estimate

Food items for *Pangasius hypophthalmus*

Level: species in general

stock code: 014046

Food item				Ref.
nekton				
finfish	bony fish	unidentified	<i>unidentified fish</i>	049196
	n.a./other finfish	unidentified	<i>unidentified</i>	012693
plants				
other plants	benthic algae/weeds	unidentified	<i>unidentified vegetable debris</i>	012693
	periphyton	unidentified	<i>unidentified</i>	012693
zoobenthos				
benth. crust.	n.a./other benth.	unidentified	<i>unidentified</i>	012693
	crustaceans			
insects	insects	unidentified	<i>unidentified</i>	033813
Total: 6				

Length-Weight relationships of *Pangasius hypophthalmus*

($W = a * L^b$ with Length in cm and Weight in g)

Locality	: 84 - 91.5 TL	Sample size :2: 0.0152	StockCode : 014046
Length range	Correlation coefficient : :		Main Ref. 040637
a	3		
b	: L-W relationship calculated from data in Ref. 40637.		Sex : unsexed
Comment	Total = 1		

Diseases reported for *Pangasius hypophthalmus*

StockCode: 014046 Main : 026129

Parasitic infestations (protozoa, worms, etc.) , Silurodiscoides Infestation

Ref. : 026129

Causative agent : *Silurodiscoides sp.*

Occurrence : Luzon, Philippines, 1992

eggs fry females in the wild
 larvae juveniles males in culture

Remarks: Infestation occurs most commonly in the gills. Records are from aquarium and the genus *Silurodiscoides* has not yet been recorded from Philippine natural waters. This report involves an aquarium fish that is imported from Hongkong and was examined in Quezon City (Lumanlan et al 1992).

StockCode: 014046

Main Ref. : 026129

Parasitic infestations (protozoa, worms, etc.) , Cryptobia Infestation

Ref. : 041806

Cryptobia branchialis

Causative agent : *Cryptobia sp.*

Occurrence : Luzon, Philippines, 1992

O eggs O fry O females O in the wild
O larvae O juveniles O males ● in culture

Remarks : Infestation occurs most commonly in the gills and the skin. Records are from fishes imported for aquaculture and the aquarium fish trade (Lumanlan et al. 1992).

StockCode: 014046

Main Ref. : 026129

Parasitic infestations (protozoa, worms, etc.) , Trichodinosis

Ref. : 000193

Trichodinella sp.; Trichodina infestation

Causative agent : *Trichodina sp.*

Occurrence : Luzon, Philippines, 1992

O eggs O fry O females O in the wild
O larvae O juveniles O males ● in culture

Prevalence : common

Parasitic infestations (protozoa, worms, etc.) , White spot Disease

Ref. : 000193

Ich, Ichthyophthiriasis, similar symptoms: Cryptocaryon irritans (occurs in freshwater, Cryptocaryon is the marine counterpart).

Causative agent : *Ichthyophthirius multifiliis*

Occurrence : Luzon, Philippines, 1992

O eggs O fry O females O in the wild
O larvae O juveniles O males ● in culture

Prevalence : common Type of culture :

Remarks: Infestation occurs most commonly in the gills and the skin. The records pertains to fishes imported for aquaculture purposes and the ornamental fish trade (Lumanlan et al.1992).

StockCode: 014046

MainRef. : 047494

Parasitic infestations (protozoa, worms, etc.) , Enteric Septicaemia of Catfish

Ref. : 048850

Causative agent : *Edwardsiella ictaluri*

Occurrence : Mekong Delta, Viet Nam, 2001

O eggs O fry O females O in the wild
O larvae O juveniles O males ● in culture

StockCode: 014046 MainRef. : 048502

Others, DMS Ref. : 048502

Delayed Mortality Syndrome; Environmental Shock; Brain Damage

Causative agent : *N.A.*

Occurrence : not specified

O eggs O fry ● females O in the wild
O larvae O juveniles ● males ● in culture

StockCode: 014046

MainRef. : 048502

Parasitic infestations (protozoa, worms, etc.) , Sporozoa Infection (Hennegya sp.)

Ref. : 041805

Henneguya Infection

Causative agent : *Hennegya sp.*

Occurrence : not specified

O eggs O fry ● females O in the wild
O larvae O juveniles ● males ● in culture

StockCode: 014046

MainRef. : 048502

Parasitic infestations (protozoa, worms, etc.) , Dactylogyrus Gill Flukes Disease Ref. : 000060

Helminthose (gills)

Causative agent : *Dactylogyrus sp.*

Occurrence : not specified

O eggs O fry O females O in the wild
O larvae O juveniles O males O in culture

FAO aquaculture production data for *Pangasius hypophthalmus*

Country (Area)		1984	1985	1986	1987	1988	1989	1990
		1991	1992	1993	1994	1992	1992	1992
		1998	1999	2000	2001			
Singapore (4)	(t)	0	0	0	0	0	0	0
	(US\$'000)	0	0	0	0	0	0	0
	(t)	0	0	0	0	0	0	0
	(US\$'000)	0	0	0	0	0	0	0
	(t)	0	20	0	0			
	(US\$'000)	0	71	0	0			
Thailand (4)	(t)	8,174	13,786	13,786	13,786	20,353	13,786	13,786
	(US\$'000)	3,712	4,839	4,620	4,839	8,063	4,839	6,262
	(t)	14,518	14,183	11,990	13,189	12,000	10,300	6,860
	(US\$'000)	7,112	7,779	6,028	6,676	6,228	5,914	3,611
	(t)	11,200	11,339	13,231	7,740			
	(US\$'000)	4,609	5,955	6,922	4,257			
Total: 2	(mt)	8,174	13,786	12,574	11,822	20,353	13,539	13,340
	(US\$'000)	3,712	4,839	4,620	4,594	8,063	4,852	6,262
	(mt)	14,518	14,183	11,990	13,189	12,000	10,300	6,860
	(US\$'000)	7,112	7,779	6,028	6,676	6,228	5,914	3,611
	(mt)	11,200	11,359	13,231	7,740			
	(US\$'000)	4,609	6,026	6,922	4,257			

References used for *Pangasius hypophthalmus*

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