



Chheng P., Baran E., Touch B.T. 2004 Synthesis of all published information on beardless barb *Cyclocheilichthys apogon* ("trey srawka kdam") based on FishBase 2004. WorldFish Center and Inland Fisheries Research and Development Institute, Phnom Penh, Cambodia. 12 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.

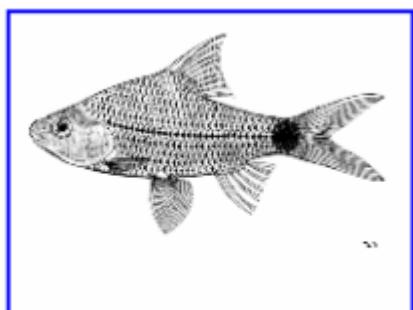
Ref. : Numeric FishBase code corresponding to the reference associated with a specific entry or set of entries; when left empty, the source of information is the MainRef. Note that the references listed at the end of this synopsis are arranged according to their numeric codes, and not alphabetically.

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.

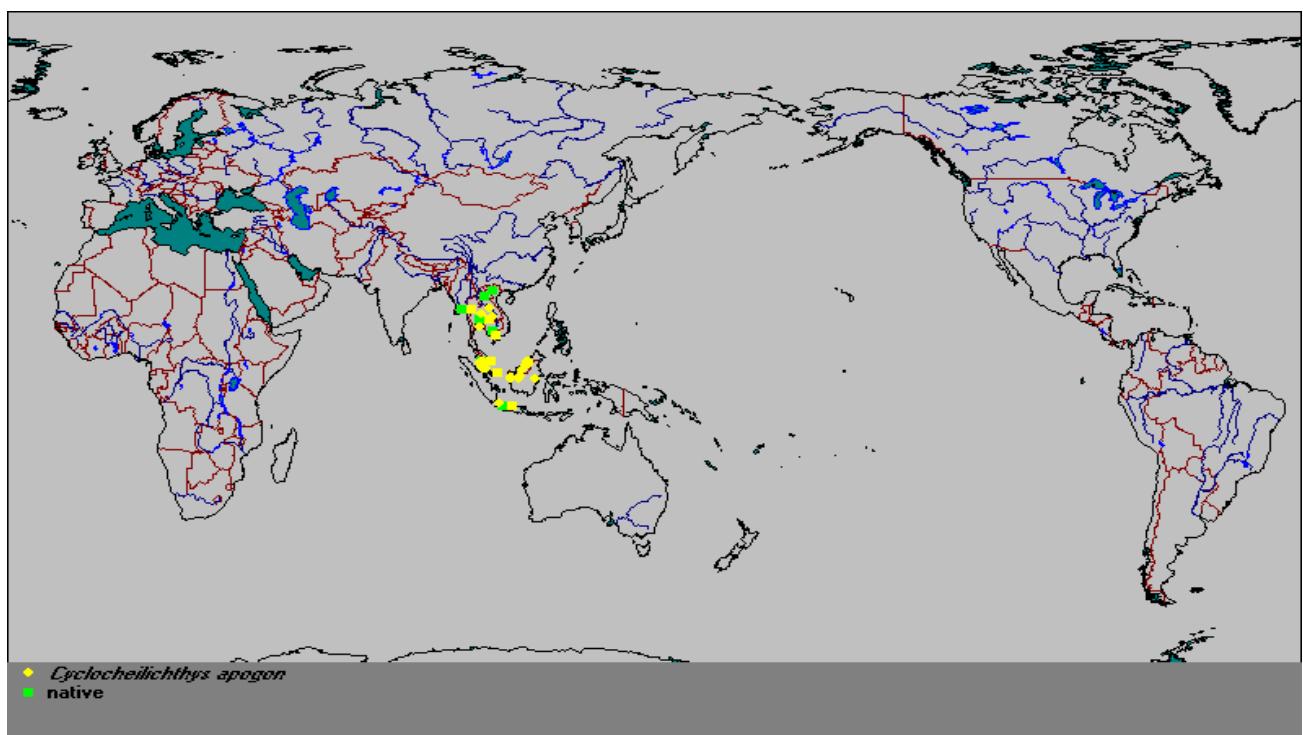
*Cyclocheilichthys apogon* (Valenciennes, 1842)  
Beardless barb



picture (Cyapo\_u1.gif) by [FAO](#)



picture (Cyapo\_u0.jpg) by [Jessen, C.Q.](#)



## Summary information on the family Cyprinidae

Family : Cyprinidae (Minnows or carps)

Order : Cypriniformes

MainRef. : 007463

Class : Actinopterygii (ray-finned fishes)

FamCode : 122

Number of genera : 210 Number

of species : 2010

Occurs in : O Marine

Brackish

Freshwater

Aquarium fishes : many

First fossil record : lower Tertiary Eocene Ref. : 004879

Species currently in FishBase : Genera: 331 Species: 2408 (Including subspecies) complete : Yes

Remarks: Distribution: North America (northern Canada to southern Mexico), Africa, and Eurasia. Pharynx with 1-3 rows of teeth, each row with a maximum of 8 teeth. Usually thin lips, plicae or papillae absent; mouth sometimes suckerlike ( *Garra* and *Labeo* ). With or without barbels. Premaxilla usually borders the upper jaw making the maxilla entirely or almost entirely excluded from the gape. Usually protrusible upper jaw. Dorsal fin with spinelike rays in some. Primitive number of chromosomes 2n=50, some with 48; polyploidy exists. Maximum length at least 2.5 m to probably 3 m in *Catlocarpio siamensis* ; many species less than 5 cm. Mainly non-guarders, but in some species males build nests and/or protect the eggs.

Etymology: Greek, *kyprinos* = goldfish. 1828 ( Ref. 45335).

## Information on the genus *Cyclocheilichthys*

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

*Anematicichthys* Status : synonym Gender : masculine

Bleeker, 1859, p. 371, CAS Ref: 371

Type by monotypy

Type species : *Barbus apogon*

Valenciennes, 1842

Current genus: *Cyclocheilichthys*

*Cyclocheilichthys* Status : valid Gender : masculine

Bleeker, 1859, p. 371, CAS Ref: 16984

Type by monotypy.

Type species : *Systomus apogon*

Valenciennes, 1842

Current genus: *Cyclocheilichthys*

*Cyclocheilos* Status : synonym Gender : masculine

Bleeker, 1859, p. 386, CAS Ref: 24622

Type by monotypy.

Type species : *Barbus macracanthus*

Bleeker, 1853

Current genus: *Cyclocheilichthys*

<i>Oxybarbus</i>	Status : synonym	Gender : masculine
Vaillant, 1893, p. 57, CAS Ref: 4485		
Type by monotypy.		
Type species : <i>Barbus heteronema</i>	Bleeker, 1853	
Current genus: <i>Cyclocheilichthys</i>		
<i>Siaja</i>	Status : synonym	Gender : feminine
Bleeker, 1859, p. 149, CAS Ref: 371		
Type by absolute tautonomy.		
Type species : <i>Cyclocheilichthys (Siaja) siaja</i>	Bleeker, 1851	
Current genus: <i>Cyclocheilichthys</i>		

## General information on *Cyclocheilichthys apogon*

---

### Classification

---

Class	: Actinopterygii (ray-finned fishes)	MainRef.	012693
Order	: Cypriniformes		
Family	: Cyprinidae (Minnows or carps)		
Species	: <i>Cyclocheilichthys apogon</i>		
Author	: (Valenciennes, 1842)	Author Ref.	
	(ex Kuhl) In Cuvier & Valenciennes.		

---

### Environment

---

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

---

### Importance

---

Landing statistics	:	Ref.	004832
Importance to fisheries	: commercial		
Main catching method	:		
Other methods :	<input checked="" type="radio"/> Seines <input type="radio"/> Gillnets <input checked="" type="radio"/> Castnets <input checked="" type="radio"/> Traps <input type="radio"/> Spears <input type="radio"/> Trawls <input type="radio"/> Dredges <input type="radio"/> Liftnets <input type="radio"/> Hooks+Lines <input checked="" type="radio"/> Other		
Used for aquaculture	: never/rarely		
Used as bait	: never/rarely		
Aquarium fish	: commercial	based mainly on capture	Ref. 004537
Game fish	: No		
Dangerous fish	: harmless		
Electrobiology	: no special ability		

---

### Size and age

---

Maximum length	(cm)	(male/unsexed) :	25	TL	(female) :	Ref.	030857
Common length	(cm)	(male/unsexed) :			(female) :		
Maximum weight	(g)	(male/unsexed) :			(female) :		

### Remarks

Inhabits small streams, reservoirs, lakes (Ref. 4832), canals, ditches, and generally areas with slow moving or standing water (Ref. 12693). Occurs in medium to large-sized rivers (Ref. 12975). Typically found around surfaces, such as plant, leaves, branches and tree roots where it browses for small plankton and crustaceans. Moves into flooded forests and non-forested floodplains. Reported to breed late during high-water season from September to October as water levels peak and begin to decline (Ref. 12693). Found in the basin-wide tributary of the lower Mekong (Ref. 36667).

### Synonyms, misidentifications, etc. used for *Cyclocheilichthys apogon*

Synonym	Author	Status	Ref.
<i>Systemus apogon</i>	(Valenciennes, 1842)	new combination	002091
<i>Cyclocheilichthys apogon</i>	(Valenciennes, 1842)	new combination	012693
<i>Barbus apogon</i>	Valenciennes, 1842	original combination	004832
<i>Systemus apogonoides</i>	Bleeker, 1855	junior synonym	002091
<i>Rohteichthys macrolepis</i>	Holly, 1927	junior synonym	013275
<i>Systemus macularius</i>	Blyth, 1860	junior synonym	004832
<i>Cyclocheilichthys rubripinnis</i>	Fowler, 1934	junior synonym	002091

### Common names for *Cyclocheilichthys apogon*

Name	Language	Country	Ref.
Sraka kdam	Khmer	Cambodia	036651
Trey kros	Khmer	Cambodia	012693
Trey sråka kdam	Khmer	Cambodia	036654
Trey sarakardam	Khmer	Cambodia	041486
Trey srawka kdam	Khmer	Cambodia	012693
Seren	Javanese	Indonesia	006107
Redang	Malay	Indonesia	006107
Pa dok ngieu	Laotian	Lao People's Dem. Rep.	037767
Pla ngam lung	Thai	Thailand	009648
Pla nham lung	Thai	Thailand	042982
Pla sai tan	Thai	Thailand	009648
Pla ta deng	Thai	Thailand	009648
Pla ta pien sai	Thai	Thailand	042982
Pla taa dang	Thai	Thailand	042982
Playa	Thai	Thailand	042982
Beardless barb	English	United Kingdom	012693
Beardless barb	English	USA (contiguous states)	004537
Indian river barb	English	USA (contiguous states)	004537
Redeye barb	English	USA (contiguous states)	004537
Cá ba ky do	Vietnamese	Viet Nam	036625

Total = 27

## Distribution of *Cyclocheilichthys apogon*

Asia: Myanmar to Indonesia.

MainRef.: 004832

Latitudinal range: 30° N - 10° S Temperature range: 24 - 26 °C Ref.: 1672

Status of threat: NL.

Country	Status	Ref.
Cambodia	native	012693
	Sometimes sold fresh along the Tonlé Sap and used to make prahoc (Ref. 12693). Known from Beng Kebal Damrey, Stung Treng (Ref. 36654) and Sangke river, Battambang province (Ref. 41486). Also Ref. 36651,36662.	
Indonesia	native	007050
	Found in Sumatra, Lake Tundai, South Borneo (Ref. 42107), and Java. Museum: MZB 3063-66, 3068-3070; CAS 49194-95; USNM 230162-63. Also Ref. 2091,43281.	
Lao People's Dem. Rep.	native	043281
	Found in the Mekong River (Ref. 30857) at Ban Hang Khone in Khong District, Champasak Province (Ref. 37767). Also Ref. 7050.	
Malaysia	native	002091
Myanmar	native	004832
	Also Ref. 12693, 36654,43281.	
Thailand	native	026336
	Occurs in the Maeklong, Chao Phraya, Mekong, Peninsular and Southeast Thailand river systems (Ref. 26336). Widely distributed and an important element in the food supply of the people living along the large rivers (Ref. 4832). Also Ref. 9648,26580, 36654,43281.	
Viet Nam	native	036625
	Found in Mekong delta (Ref. 36625). Also Ref. 7050, 36654.	

## Summary information (no. of records) available for *Cyclocheilichthys apogon*

Level: species in general		StockCode: 004832	MainRef.: 004832
Asia: Myanmar to Indonesia.			
Ecology	1	Max. sizes	1
Food Items	1	FAO catches	15502
Food consumption	0	Genetics	1
Diet composition	1	Allele frequency	0
Ration	0	Heritability	0
Predators	0	Reproduction	0
Morphology	1	Spawning	0
Processing	0	Eggs	0
Growth/mortality	2	Egg dev't.	0
Maturity	0	Larvae	:0
Recruitment	0	Larval dynamics	: 0
L/Wrelat.	0	Aquaculture	0
		Strains	0
		Diseases	0
		Ciguatera	0
		Ecotoxicology	0
		Metabolism	0
		Gill area	0
		Swimming Type	0
		Swimming speed	0
		Vision	:0
		Brains	0
		Introductions	0
		Occurrence	129

## Morphology of *Cyclocheilichthys apogon*

## Level : species in general

StockCode : 010636

Main Ref.: Main Ref.

Appearance refers to :  females  males

## DIAGNOSTIC CHARACTERS

No barbels; black blotch at caudal base; rows of black spots along scale rows (Ref. 43281).

## SEX ATTRIBUTES

specialized organs : different appearance : different colors :

## MERISTIC CHARACTERS

Lateral Lines interrupted : No

#### Gill clefts (sharks/rays only)

Gill rakers on lower limb total : 11 - 11  
                   on upper limb -

## Vertebrae preanal

### Caudal fin

Shape of fin : forked

Attributes : more or less normal

## Paired fins

Pectoral attributes : more or less normal

Pectoral attributes : more or less normal  
Pelvics attributes : more or less normal

Pelvis attributes : more or less normal  
position : abdominal before origin of D1

## Genetic information for *Cyclocheilichthys apogon*

**Level** : species in general

MainRef.: 030184

Locality : Central Thailand, Thailand

Chromosome number (haploid) :25

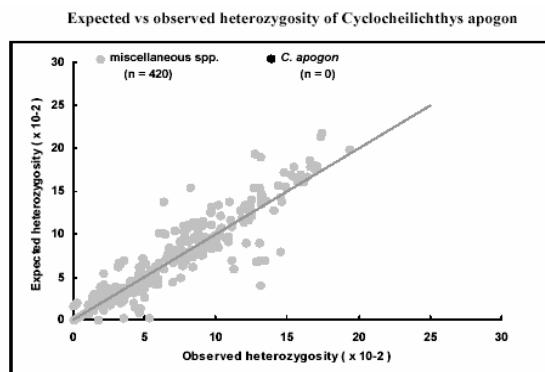
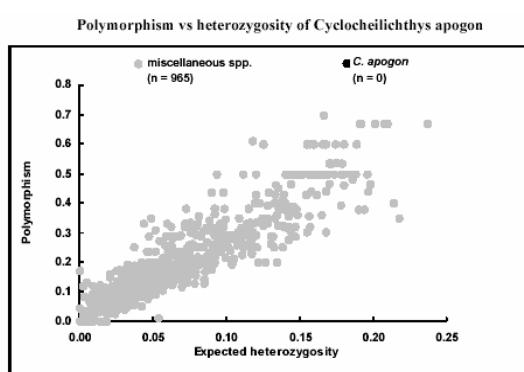
Ref.: 030168

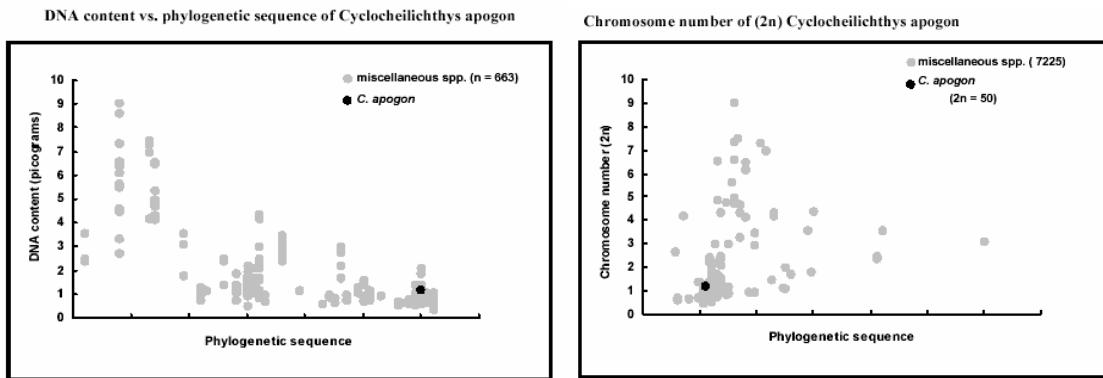
Chromosome number (diploid)

Ref.: 030168

### Genetic marker(s) present

DNA content (picogram, haploid)





## Ecology of *Cyclocheilichthys apogon*

Level : species in general	StockCode : 010636 010313	Main Ref.: 013497
<b>Habitats</b>		
Streams : Yes	Lakes : Yes	Caves : No
Estuaries/lagoons/brackish seas : No		
Intertidal : No	soft : No	rocky : No
Marine : No	oceanic : No	neritic : No
tropical	soft bottom: No	hard bottom: No
<b>Feeding</b>		
Feeding Type : plants/detritus+animals (troph. 2.2-2.79)		Ref.: 013497
<b>Trophic level(s) :</b>	<b>Original sample</b>	<b>Unfished population</b>
Estimation method	Troph s.e.	Troph s.e.
From diet composition : 2.8 0.34	2.9 0.28	Troph of juv./adults.
From indiv. food items : 3.1 0.30	<i>m</i> <i>m</i>	Tentative trophic level
<b>Additional remarks</b>		
Feeds mainly on insects (Ref. 13497).		

## Food items for *Cyclocheilichthys apogon*

Level: species in general	StockCode: 010636
<u>Food item</u>	
<b>zooplankton</b>	
plank. crust.	n.a./other plank, crustaceans
	unidentified Ref.
	Ref.: 012693

## Diet composition of *Cyclocheilichthys apogon*

Level : species in general

StockCode : 010636

Main : : 013497

Locality : Bukit Merah Reservoir, between September 1979 to August 1980

Stage of fish sampled : juv./adults

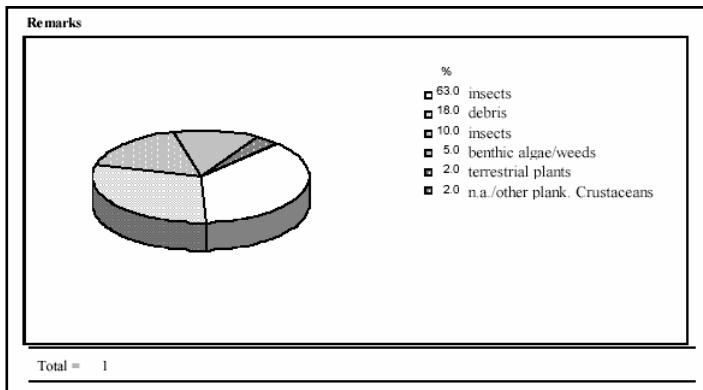
Number : 35

Months covered by the study

O Jan. O Feb. O Mar. O April O May O June O July O Aug. O Sep. O Oct. O Nov. O Dec.

### Food group (%)

63.0	insects, mainly Chironomidae, some Chaoboridae, Dysticidae, unid. larvae & nymphs, larvae
18.0	debris, n.a./others
10.0	insects, both aquatic and terrestrial forms of Diptera, Odonata, etc., adults
5.0	benthic algae/weeds, n.a./others
2.0	terrestrial plants, n.a./others
2.0	n.a./other plank. Crustaceans, Copepoda, Cladocera, Decapoda, juv./adults
100.0	Total



### Maximum weight/length/age of *Cyclocheilichthys apogon*

Locality : Malaysia, Kejin River, Sarawak, 1980

StockCode : 010636

Max weight (g) : 18 total weight

Ref. : 038745

Max length (cm) : 8.1 SL Same specimen for WL : Yes

Sex : unsexed

Total = 1

## Growth and mortality of *Cyclocheilichthys apogon*

Country	L <sub>∞</sub> (cm)	W <sub>∞</sub> (g)	K <sub>t</sub> (/year)	t <sub>0</sub> (y)	Sex	Ref.
Malaysia	12.2 SL		0.367		unsexed	038745
Thailand	30 TL		0.32		unsexed	043031

## References used for *Cyclocheilichthys apogon*

- 001632 Suvatti, C. 1981. Fishes of Thailand. Royal Institute of Thailand, Bangkok. 379 p. [not seen]
- 001672 Riehl, R. and H.A. Baensch. 1991. Aquarien Atlas. Band. 1. Melle: Mergus, Verlag für Natur- und Heimtierkunde, Germany. 992 p.
- 001830 Eschmeyer, W.N. 1990. Catalog of the genera of recent fishes. California Academy of Sciences, San Francisco, USA. 697 p.
- 002091 Roberts, T.R. 1989. The freshwater fishes of Western Borneo (Kalimantan Barat, Indonesia). Mem. Calif. Acad. Sci. 14:210 p.
- 004517 Hureau, J.-C. 1991. La base de données GICIM: Gestion informatisée des collections ichthyologiques du Muséum. p. 225-227. In Atlas Préliminaire des Poissons d'Eaux Douce de France. Conseil Supérieur de la Pêche, Ministère de l'Environnement, CEMAGREF et Muséum National d'Histoire Naturelle, Paris.
- 004537 Robins, C.R., R.M. Bailey, C.E. Bond, J.R. Brooker, E.A. Lachner, R.N. Lea and W.B. Scott. 1991. World fishes important to North Americans. Exclusive of species from the continental waters of the United States and Canada. Am. Fish. Soc. Spec. Publ. (21):243 p.
- 004832 Talwar, P.K. and A.G. Jhingran. 1991. Inland fishes of India and adjacent countries. Volume 1. A.A. Balkema, Rotterdam. 541 p.
- 006107 Schuster, W.H. and R. Djajadiredja. 1952. Local common names of Indonesian fishes. W.V. Hoeve, Bandung, Indonesia. 276 p.
- 007050 Kottelat, M., A.J. Whitten, S.N. Kartikasari and S. Wirjoatmodjo. 1993. Freshwater fishes of Western Indonesia and Sulawesi. Periplus Editions, Hong Kong. 221 p.
- 007494 Varjo, M. 1981. Kalannimiluettelo (List of Finnish fish names). LuonnonTutkija 85:1-60.
- 010937 Anon. 1996. Fish collection database of the University of British Columbia Fish Museum. University of British Columbia, Vancouver, Canada.
- 012693 Rainboth, W.J. 1996. Fishes of the Cambodian Mekong. FAO Species Identification Field Guide for Fishery Purposes. FAO, Rome, 265 p.
- 012975 Taki, Y. 1978. An analytical study of the fish fauna of the Mekong basin as a biological production system in nature. Research Institute of Evolutionary Biology Special Publications no. 1, 77 p. Tokyo, Japan.
- 013275 Kottelat, M. and A.J. Whitten. 1996. Freshwater fishes of Western Indonesia and Sulawesi: additions and corrections. Periplus Editions, Hong Kong. 8 p.
- 013371 Riehl, R. and H.A. Baensch. 1996. Aquarien Atlas, Band 1. 10th edition. Mergus Verlag, Melle, Germany. 992 p.
- 013497 Yap, S.-Y. 1988. Food resource utilization partitioning of fifteen fish species at Bukit Merah Reservoir, Malaysia. Hydrobiologia 157:143-160.
- 026336 Vidhayanon, C., J. Karnasuta and J. Nabhitabhata. 1997. Diversity of freshwater fishes in Thailand. Office of Environmental Policy and Planning, Bangkok. 102 p.
- 026580 Doi, A. 1997. A review of taxonomic studies of cypriniform fishes in Southeast Asia. Jap. J. Ichthyol. 44(1): 1-33.
- 030168 Magtoon, W. and R. Arai. 1989. Karyotypes of five *Puntius* species and one *Cyclocheilichthys* species (Pisces, Cyprinidae) from Thailand. Bull. Natn. Sci. Mus., Ser.A. 15(3): 167-175. Tokyo.
- 030857 Baird, I. G., V. Inthaphaisy, P. Kisouvannalath, B. Phylavanh and B. Mounoupouhom. 1999. The fishes of southern Lao. Lao Community Fisheries and Dolphin Protection Project. Ministry of Agriculture and Forestry, Lao PDR. 161 p.
- 031402 Swedish Museum of Natural History. 1999. NRM Ichthyology collection database. Ichthyology Section, Department of Vertebrate Zoology, Swedish Museum of Natural History, Stockholm, Sweden.

- 031982** Anon. 1999. Fish collection database of the Natural History Museum, London (formerly British Museum of Natural History (BMNH)). Natural History Museum, London (formerly British Museum of Natural History (BMNH)).
- 035508** Anon. 2000. The ichthyological collection of the Zoological Museum Hamburg (ZMH). Division of Ichthyology and Herpetology, Zoological Museum Hamburg (ZMH).
- 036625** Khoa, T.T. and T.T.T. Huong. 1993. Dinh Loai Cá Nuóc Ngot Vùng Đồng Bang Sông Cuu Long. Khoa Thuy San Truong Dai Hoc Can Tho, p 3-8.
- 036651** Thuok, N and L. Sina. 1997. Review of the fisheries and aquaculture sector in Cambodia. p. 35-36. CMB\95\003. "Natural Resources-Based Development Strategy for the Tonle Sap Area.
- 036654** Kottelat, M. 1985. Fresh-water fishes of Kampuchea. *Hydrobiologia* 121:249-279.
- 036662** Lamberts, D and T. Sarath. 1997. Base line information on the ecology of the fish and the habitats of the flood area of the Tonlé Sap Lake in SiemReap province, Cambodia. GCP/CMB/002/BEL.
- 036686** Anon. 1998. Natural resources-based development strategy for the Tonlé Sap area, Cambodia. Final report: Sectoral Studies. CMB/95/003, Vol. 2 partB.
- 037767** Baird, I.G. 1998. Preliminary fishery stock assessment results from Ban Hang Khone, Khong District, Champasak Province, Southern Lao PDR. Technical Report. Center for Protected Areas and Watershed Management, Department of Forestry, Agriculture and Forestry Division, Champasak Province, Lao, People's Democratic Republic. 112 p.
- 038732** Anon. 2001. Fish collection database of the National Museum of Natural History (Smithsonian Institution). Smithsonian Institution - Division of Fishes.
- 038745** Watson, D.J. and E.K. Balon. 1985. Determination of age and growth in stream fishes of northern Borneo. *Environ. Biol. Fish.* 13(1):59-70.
- 040380** Lieng, S., C. Yim and N.P. van Zalinge. 1995. Freshwater fisheries of Cambodia, I: the bagnet (dai) fishery in the Tonle Sap river. *Asian Fish. Sci.* 8:255-262.
- 040919** Anon. 2001. Fish collection database of the Zoological Museum, University of Copenhagen. Zoological Museum, University of Copenhagen.
- 041414** Anon. 2002. Fish collection database of the American Museum of Natural History. American Museum of Natural History, Central Park West, NY 10024-5192, USA.
- 041486** Rot, T. 2002. Uy fishery in the Sangke River Battambang province, Cambodia. Department of Fishery, PhnomPenh, Cambodia, 7p.
- 042107** Doi, A., R. Komatsu and D.I. Hartoto. 2000. Fish occurring in a black water Oxbow Lake in South Borneo. *Rep. Suwa Hydrobiol.* 12:25-28.
- 042982** Chuenpagdee, R. 2002. Checklist of Thai names and scripts. Personal communication, April 2002.
- 043031** Moreau, J. and B. Sricharoendham. 1999. Growth, mortality and recruitment of fish populations in an Asian man made Lake Rajjaprabha Reservoir (Thailand) as assessed by length frequency analysis. *Asian Fish. Sci.* 12(3)277-288.
- 043281** Kottelat, M. 2001. Fishes of Laos. WHT Publications Ltd., Colombo 5, Sri Lanka. 198 p.
- 047438** Anon. 2003. Fish collection of the Royal Ontario Museum. Royal Ontario Museum.