Chheng P., Baran E., Touch B.T. 2004 Synthesis of all published information on giant snakehead *Channa micropeltes* (“trey chhdor”), based on FishBase 2004. WorldFish Center and Inland Fisheries Research and Development Institute, Phnom Penh, Cambodia. 16 pp.

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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.

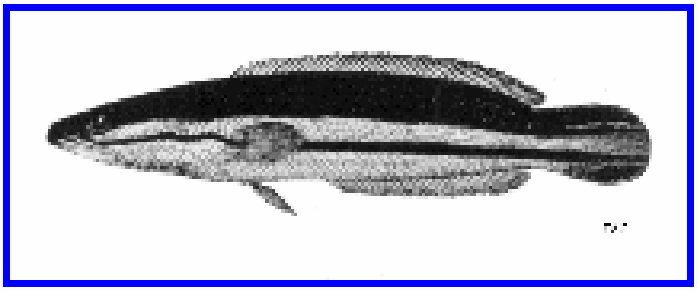
Ref. : Numeric FishBase code corresponding to the reference associated with a specific entry or set of entries; when left empty, the source of information is the MainRef. Note that the references listed at the end of this synopsis are arranged according to their numeric codes, and not alphabetically.

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.

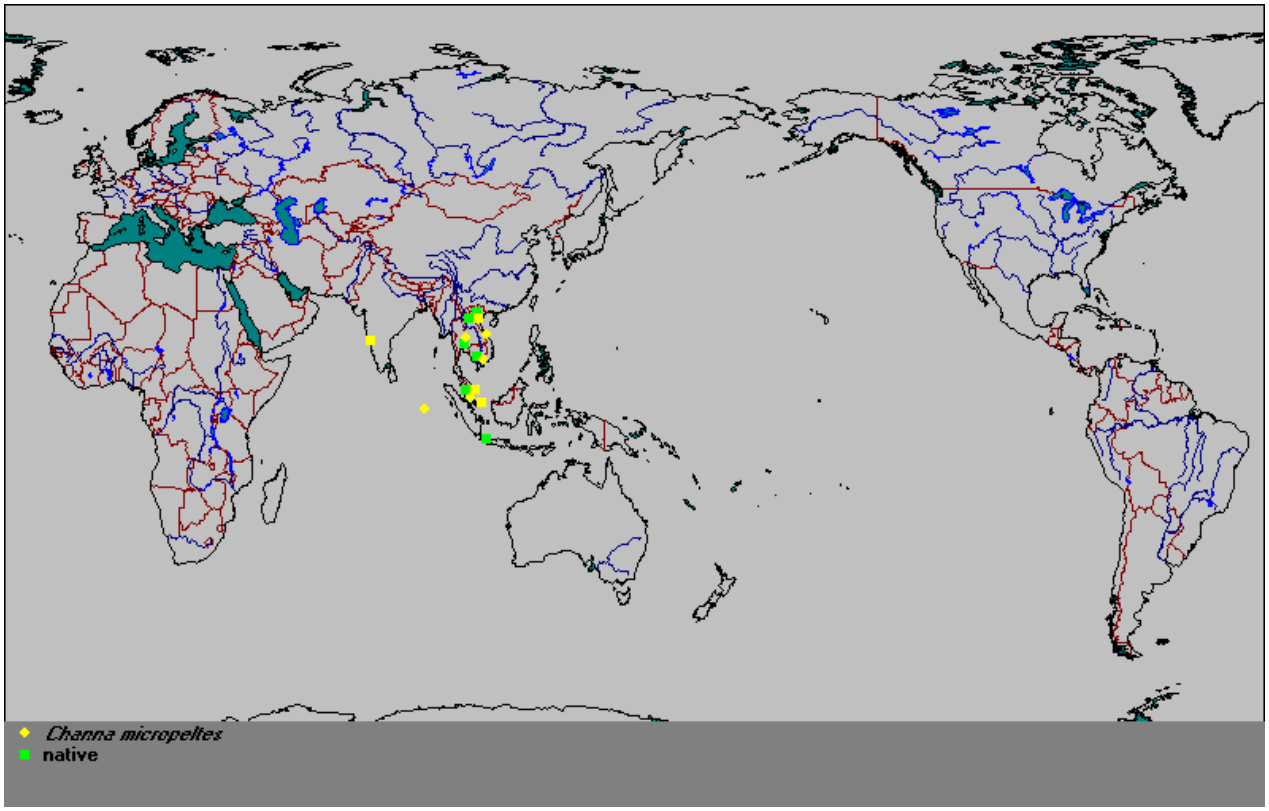
Remarks or Comment fields: The free text included in such fields may have been taken verbatim from the source in "Ref.", in which case this should be regarded as a direct citation (but lacking quotation marks); alternatively, the text may have been modified/adapted from one or several sources. In the latter case, additional "Ref." numbers may be incorporated in the text.

Channa micropeltes (Cuvier, 1831)
Giant snakehead



picture (Chamic_u0.gif) by FAO

picture (Chamic_u0.jpg) by Baird, I.G.



Summary information on the family *Channidae*

Family : Channidae (Snakeheads)
Order : Perciformes MainRef. : 007463
Class : Actino:pterygii (ray-finned fishes) FamCode : 431
Number of genera : 2
Number of species : 21
Occurs in : O Marine
O Brackish
⊙ Freshwater
Species currently in FishBase : Genera: 2 Species: 31 (Including subspecies) complete : Yes
Remarks: Distribution: tropical Africa (three species) and southern Asia. Elongate body; lower jaw protruding. Dorsal and anal fin bases long. Pelvic fins may be lacking in some; with 6 rays when present. No spines in fins. Scales ctenoid or cycloid. Airbreathing through suprabranchial organ. About 1.2 m maximum length. Important in aquaculture and commonly used in rice-fish farming. Some species are widely introduced. Number of species: 26 (Ref. 36343).
Etymology: Greek, channe, -es = anchovy (Ref. 45335).

Information on the genus *Channa* and its synonyms, after Eschmeyer March 2003 (Ref. 46206)

Bostrychoides Status : synonym Gender : masculine
Lacepède, 1801, p. 144, CAS Ref: 2710
Type by monotypy.
Type species : *Bostrychoides oculatus* Lacepède, 1801
Current genus: *Channa*

Channa Status : valid Gender : feminine
Scopoli (exGronow), 1777, p. 459, CAS Ref: 3990
Type by subsequent monotypy.
Type species : *Channa orientalis* Bloch& Schneider, 1801
Current genus: *Channa*

Channa Status : not available Gender : feminine
Gronow, 1763, p. 135, CAS Ref: 1910
Type species : ,
Current genus:

Ophicephalus Status : synonym Gender : masculine
Bloch, 1793, p. 137, CAS Ref: 4868
Type by subsequent designation.
Type species : *Ophicephalus striatus* Bloch, 1793
Current genus: *Channa*

Philypnoides Status : synonym Gender : masculine
Bleeker, 1849, p. 19, CAS Ref: 319
Type by monotypy.
Type species : *Philypnoides surakartensis* Bleeker, 1849
Current genus: *Channa*

Psiloides Status : other Gender : masculine
Fischer, 1813,p. 74, 111, CAS Ref: 1331
Type by being a replacement name.
Type species : *Bostrychoides oculatus* Lacepède, 1801
Current genus: *Channa*

Pterops Status : synonym Gender : masculine
Rafinesque, 1815, p. 84, 91, CAS Ref: 3584
Type by being a replacement name.
Type species : *Bostrychoides oculatus* Lacepède, 1801
Current genus: *Channa*

General information on *Channa micropeltes*

Classification

Class	: Actinopterygii (ray-finned fishes)	MainRef.	002091
Order	: Perciformes		
Family	: Channidae (Snakeheads)		
Species	: *Channa micropeltes*		
Author	: (Cuvier, 1831)	Author Ref.	

Environment

Freshwater	: Yes	Habitat	: benthopelagic
Brackish	: No	Migrations	:
Saltwater	: No	Depth range	: 100

Importance

Landing statistics	: from 1,000 to 10,000 tonnes	Ref.	004931
Importance to fisheries	: commercial		
Other methods :	(•) Seines (•) Gillnets O Castnets (•) Traps	O Spears	
O Trawls O Dredges	O Liftnets O Hooks+Lines	O Other	
Used for aquaculture	: commercial	Ref.	012108
Used as bait	: never/rarely	Ref.	
Aquarium fish	: commercial	Ref.	004537
Game fish	: Yes	Ref.	004833
Dangerous fish	: harmless	Ref.	
Electrobiology	: no special ability	Ref.	

Size and age

Maximum length	(cm)	(male/unsexed) :	130 SL	(female) :	Ref.	030857
Common length	(cm)	(male/unsexed) :		(female) :	Ref.	
Maximum weight	(g)	(male/unsexed) :	20,000.00	(female) :	Ref.	004835

Remarks
Usually associated with deep water bodies (Ref. 27732). Found in large streams and canals (Ref. 4833), with standing or slowly flowing water (Ref. 12693). Preys mainly on fish but also feeds on some crustaceans. Utilized as a food fish (Ref. 4931).

Synonyms, misidentifications, etc. used for *Channa micropeltes*

Synonym	Author	Status	Ref.
Ophicephalus bivittatus	Bleeker, 1845	junior synonym	002091
Channa diplogramme	(nonDay, 1865)	misidentification	027732
Ophiocephalus micropeltes	Cuvier, 1831	misspelling	040966
Ophicephalus micropeltes	Cuvier, 1831	original combination	002091
Channa micropeltes	(Cuvier, 1831)	new combination	002091
Ophicephalus serpentinus	Cuvier, 1831	junior synonym	002091
Ophicephalus stevensii	Bleeker, 1853	junior synonym	002091
Ophiocephalus studeri	Volz, 1903	junior synonym	002091

Common names for *Channa micropeltes*

Name	Language	Country	Ref.
Trey chhdaur	Khmer	Cambodia	012693
Trey chhdor	Khmer	Cambodia	036654
Trey diep	Khmer	Cambodia	012693
Malabar snakehead	English	India	004833
Kamal fish	Malay	Indonesia	
Pa do	Laotian	Lao People's Dem. Rep.	004792
Pa meng phou	Laotian	Lao People's Dem. Rep.	037767
Toman	Malay	Malaysia	004835
Singapore dalag	English	Philippines	012157
Snakehead fish	English	Thailand	006459
Pla ai pok	Thai	Thailand	009648
Pla cha do	Thai	Thailand	009648
Pla ma lang poo	Thai	Thailand	009648
Giant snakehead	English	United Kingdom	012693
Indonesian snakehead	English	United Kingdom	012108
Giant snakehead	English	USA (contiguous states)	004537
Red snakehead	English	USA (contiguous states)	004537
Cá bong	Vietnamese	Viet Nam	036625

Distribution of *Channa micropeltes*

Asia: Mekong and Chao Phraya basins; the Malay Peninsula, and the islands of Sumatra and Borneo. Material from India usually referred to as this species actually represents a distinct species. MainRef.: 027732

Latitudinal range: 10° N - 1° N Temperature range: 25 - 28 °C Ref.: 1672

Status of threat: NL.

Country	Status	Ref.
Cambodia	native	012693

Occurs in the Mekong basin (Ref. 12693). Found around the Tonle Sap river, Great Lake (Ref. 36651, 36686) and Siem (Ref. 36654). Also Ref. 27732, 33813, 36662, 37772.

India	misidentificat	004833

Restricted to Kerala (Ref. 4833,43640). Material from India usually referred to as this species actually represents a distinct species for which the earliest available name is C. diplogramme Day 1865 (Ref. 27732). Reported a decline of its population due to destructive fishing activities (Ref. 45212).

Indonesia	native	002091

Occurs in Sumatra and Borneo (Ref. 27732). Also Ref. 7050.

Lao People's Dem. Rep.	native	043281

Known from the Mekong basin (Ref. 43281). Found in the lower Xe Bangfai, tributary of the Mekong basin (Ref. 27732), around Pak Beng to the Khone Falls (Ref. 37772) and Ban Hang Khone, a village on an island in the middle of the mainstream Mekong River just below the Great Khone Waterfalls in Khong District, Champasak Province (Ref. 37767). Also Ref. 4792, 30857.

Malaysia	native	004835
Myanmar	questionable	004833
Singapore	introduced	038466
Thailand	native	026336

Occurs in the Chao Phraya and Mekong basins (Refs. 27732, 9648), Maeklong, Peninsular and Southeast Thailand river systems (Ref. 26336). Captured from the wild for the ornamental fish trade (Ref. 6459) Also Ref.7306,37772,37773,43638.

Viet Nam native 027732

Occurs in the Mekong basin (Ref. 27732). Also Ref. 4835, 36625, 36654.

Total native = 6 Total introduced = 1

Introductions of *Channa micropeltes*

Level: species in general

Asia: Mekong and Chao Phraya basins; the Malay Peninsula, and the islands of Sumatra and Borneo. Material from India usually referred to as this species actually represents a distinct species.

Year : 1989 Established : unknown Ref. 012157
Introduced : to Philippines from Unknown
Reason : ornamental

Level: species in general

Asia: Mekong and Chao Phraya basins; the Malay Peninsula, and the islands of Sumatra and Borneo. Material from India usually referred to as this species actually represents a distinct species.

Year : unknown Established : yes Ref. 038466
Introduced : to Singapore from Unknown
Reason : unknown

Level: species in general

Asia: Mekong and Chao Phraya basins; the Malay Peninsula, and the islands of Sumatra and Borneo. Material from India usually referred to as this species actually represents a distinct species.

Year : unknown Established : no Ref.
Introduced : to USA from Unknown
Reason : ornamental
Comments : Collected from open waters in Maine, Massachusetts and Rhode Island. This tropical/subtropical species could not become established in those temperate waters. The pathway into these New England states was likely aquarists who released their 'pets' when they grew too large for their aquaria and/or it became too costly to feed them.

Total = 13 Established: yes = 0 probably yes = 0

Summary information (no. of records) available for *Channa micropeltes*

Level: species in general StockCode: 027732 Main Ref.: 027732
Asia: Mekong and Chao Phraya basins; the Malay Peninsula, and the islands of Sumatra and Borneo. Material from India usually referred to as this species actually represents a distinct species.

Ecology	1	Max. sizes	1	Strains	0
Food Items	5	FAO catches	15502	Diseases	0
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	0	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	3
L/Wrelat.	1	Aquaculture	0	Occurrence	54

Total = 1

Morphology of *Channa micropeltes*

Level : species in general **StockCode : 000358** **Main Ref.:** 027732
Appearance refers to : O females O males

DIAGNOSTIC CHARACTERS
A broad, dark longitudinal stripe in adults; two black longitudinal stripes with a bright orange intermediate area in juveniles (Ref. 27732)

DESCRIPTIVE CHARACTERS

Body shape lateral : elongated Dorsal head profile : more or less straight
Operculum present : No
Type of eyes : more or less normal
Horizontal stripes : present
Vertical stripes : absent
Operculum present : absent
Type of eyes : absent
Spots : no spots

MERISTIC CHARACTERS

Lateral Lines interrupted : No
Scales on lateral line 83 -94
Vertebrae prenatal

Dorsal fins

Number of fins :1 spines total : soft-rays total
Adipose fin : absent finlets dorsal : finlets ventra

Caudal fin

Shape of fin : more or less truncate
Attributes : more or less normal

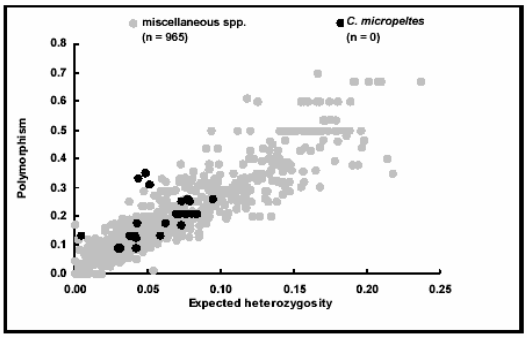
Paired fins

Pectoral attributes : more or less normal
Pelvics attributes : more or less normal
position : abdominal behind origin of D1

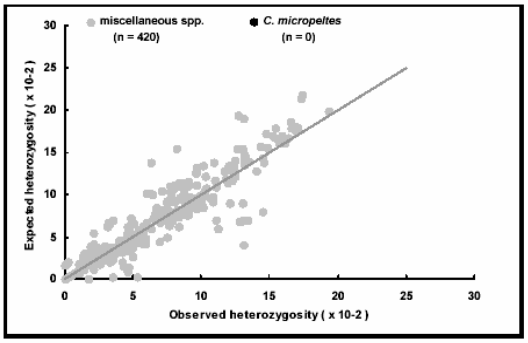
Genetic information for *Channa micropeltes*

Level : species in general — MainRef: 012337
Locality : Unspecified
Chromosomenumber (haploid) : : 22 — Ref: 012337
Chromosome number (diploid) : 44 — Ref: 012337
Genetic marker(s) present : No

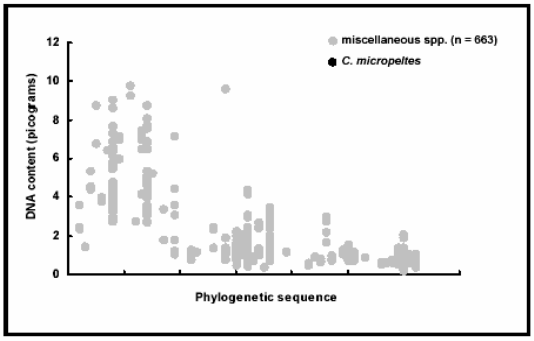
Polymorphism vs heterozygosity of Channa micropeltes



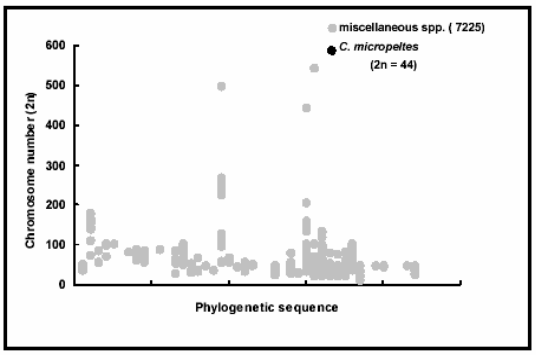
Expected vs observed heterozygosity of Channa micropeltes



DNA content vs. phylogenetic sequence of Channa micropeltes



Chromosome number of (2n) Channa micropeltes



FAO Aquaculture Production Data for *Channa micropeltes*

Country (Area)		1984 1991 1998	1985 1992 1999	1986 1993 2000	1987 1994 2001	1988 1992	1989 1992	1990 1992
Malaysia (4)	(t)	0	0	0	0	0	0	0
	(US$'000)	0	0	0	0	0	0	0
	(t)	0	0	108	18	181	212	280
	(US$'000)	0	0	240	38	319	443	579
	(t)	595	1,241	1,242	1,126			
	(US$'000)	850	2,201	2,200	1,876			
Singapore (4)	(t)	0	0	0	0	0	0	0
	(US$'000)	0	0	0	0	0	0	0
	(t)	0	0	0	0	65	43	100
	(US$'000)	0	0	0	0	222	122	321
	(t)	200	380	500	613			
	(US$'000)	479	1,233	2,219	2,155			
Thailand (4)	(t)	183	630	386	325	198	295	500
	(US$'000)	166	497	331	285	164	313	548
	(t)	700	905	762	838	639	700	593
	(US$'000)	823	1,074	1,005	1,113	769	998	609
	(t)	1,398	119	80	102			
	(US$'000)	1,080	88	60	77			
	(mt)	183	630	386	325	198	295	500
Total: 3	(US$'000)	166	497	331	285	164	313	548
	(mt)	700	905	870	856	885	955	973
	(US$'000)	823	1,074	1,246	1,151	1,311	1,563	1,509
	(mt)	2,193	1,740	1,822	1,841			
	(US$'000)	2,409	3,522	4,479	4,108			

General information on the reproduction of *Channa micropeltes*

Level : species in general, **StockCode : 000358** **MainRef : 001672**

Mode and Type of Reproduction

Mode : dioecism
Fertilization : external
Batch spawner : No
Reproductive guild : guarders

Ecology of *Channa micropeltes*

Level : **species in general** **StockCode: 000358 000344** **MainRef.: 012693**

Habitats

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 bottm: No seagrass beds: No macrophyte: No

Feeding

Feeding Type : Mainly animals (troh 2.8 and up) Ref: 012693
Feeding Habit : hunting macrofauna (predation) Ref: 012975

Trophic level(s):	**Original sample**	**Unfished population**	**Remarks**
Estimation method	Troph s.e	troph s.e	
From indiv. food item:	3.9 0.56	- -	propic level estimate

Food items for *Channa micropeltes*

Level: species general				**StockCode: 000358**
in				
Food item				Ref.
nekton				
finfish	bony fish	unidentified	*unidentified*	033813
		unidentified	*unidentified*	004796
others				
herps	n.a./other reptiles	unidentified larvae	*unidentified*	004796
zoobenthos				
benth. crust.	n.a./other benth. crustaceans	unidentified	*unidentified*	033813
worms	n.a./other annelids	Lumbricidae	*unidentified*	004796
Total: 5				

Maximum weight/length/age of *Channa micropeltes*

Locality	**India, not specified**		**StockCode : 000358**
Max weigh (g): 20000	total weight	Same specimen for WL : No	Ref. : 043641
Max length (cm) : 100	TL	Same specimen for WL : No	Sex : unsexed

Length-Weight relationships of *Channa micropeltes*

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

Locality			**StockCode : 000358**
Length range	: 70-70 TL	Sample: 1	MainRef: 040637
a	: 0.0219	Correlation coefficient :	
b	: 3		
Comment	: L-W relationship calculated from data in Ref. 40637.		

FAO Annual Catch Data (in tonnes) for *Channa micropeltes*

Country									
1950	**19501**	**1952**	**1953**	**1954**	**195**	**1956**	**1957**	**1958**	**1959**
1960	**19601**	**1962**	**1963**	**1964**	**1965**	**196**	**1967**	**1968**	**1969**
1970	**1971**	**1972**	**1973**	**1974**	**1975**	**1976**	**1977**	**1978**	**1979**
1980	**19801**	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**
1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
2000	**2001**								
Indonesia			FAO Area:	4					
2,100	2,100	2,400	2,800	2,600	3,000	3,400	3,700	3,100	4,100
4,000	4,500	4,600	4,700	4,700	4,600	5,600	5,800	5,000	5,000
4,900	4,800	4,900	4,300	4,716	5,036	9,946	9,513	8,145	8,189
8,801	8,482	7,619	8,866	9,599	10,103	9,024	10,071	10,424	9,554
8,523	10,128	7,910	7,903	13,236	9,021	11,615	10,117	8,253	8,787
7,771	7,060								
Total: 1									
2,100	2,100	2,400	2,800	2,600	3,000	3,400	3,700	3,100	4,100
4,000	4,500	4,600	4,700	4,700	4,600	5,600	5,800	5,000	5,000
4,900	4,800	4,900	4,300	4,716	5,036	9,946	9,513	8,145	8,189
8,801	8,482	7,619	8,866	9,599	10,103	9,024	10,071	10,424	9,554
8,523	10,128	7,910	7,903	13,236	9,021	11,615	10,117	8,253	8,787
7,771	7,060								

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