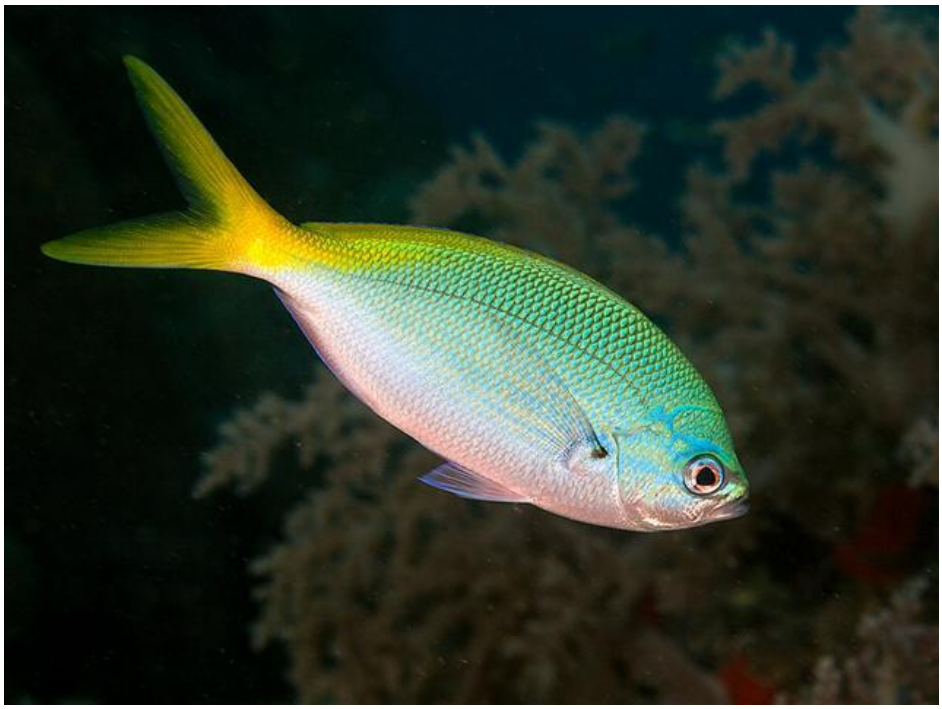
Caesio cuning

Redbelly yellowtail fusilier

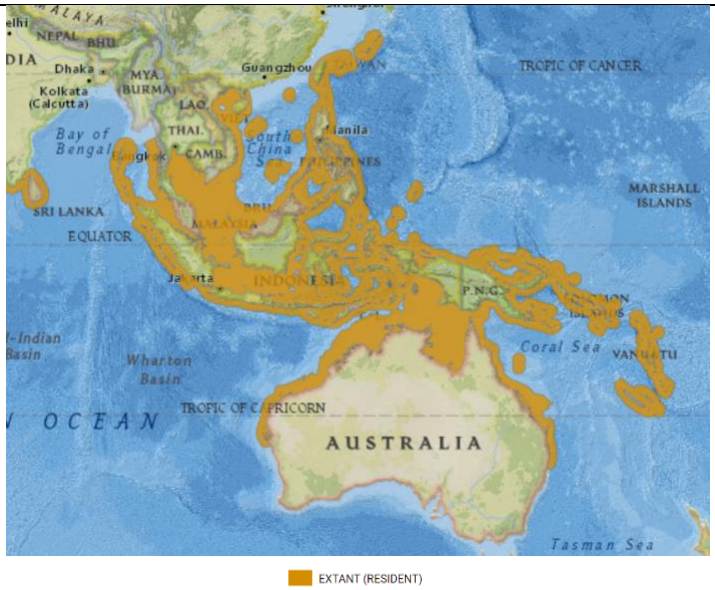


Scientific classification	
Kingdom:	Animalia
Phylum:	Chordata
Class:	Actinopterygii
Order:	Perciformes
Family:	Caesionidae
Genus:	*Caesio*
Species:	***C. xanthonota***
Binomial name	
Caesio xanthonota Bleeker, 1853	

A. Environment/Ecology:

Marine; reef-associated; non-migratory; depth range 1 - 60 m (Ref. 86942). Tropical; 31°N - 28°S, 76°E - 172°E (Ref. 402)

B. Distribution:



Indo-West Pacific: Sri Lanka to Vanuatu; southern Japan to northern Australia.

C. Length at first maturity / Size / Weight / Age:

Maturity: L_m ? range ? - ? cm Max length : 60.0 cm TL male/unsexed; (Ref. 402)

D. Short description

Dorsal spines (total): 10; Dorsal soft rays (total): 14-16; Anal spines: 3; Anal soft rays: 10 - 12. Deep-bodied (Ref. 48636). Scales center lighter than margins; lower 1/3 white, sometimes suffused by pink; prominent black markings on caudal fin absent. 4-5 scales on cheek; predorsal scales 20-26; scaled dorsal and anal fins. Upper peduncular scale rows 9-11; lower peduncular scale rows usually 12-14. Distinguished from *C. teres* in having a continuous supra-temporal band of scales across the dorsal midline. Basioccipital process for attachment of Baudelot's ligament absent. Post maxillary process single; posterior end of maxilla blunt. Color: Upper body if not yellow, grayish blue; lower sides and belly white or pinkish. Pectoral, pelvic and anal fins white to pink. Large yellow tail. Dorsal fin yellow posteriorly and grayish blue anteriorly. Length usually at 35 cm (Ref. 48636). Head length 2.8-3.6 in SL; body depth 3.0-4.2 in SL (Ref. 90102).

E. Biology

Often in silty areas with low visibility at 1-30 m depth (Ref. 90102). Inhabits coastal areas, usually over rocky and coral reefs. Forms schools in midwater and feeds on zooplankton. Oviparous, with numerous, small pelagic eggs (Ref. 402). Taken primarily by handline in Sri Lanka; caught mostly by fish traps in western Thailand and Malaysia; caught in trawls in the Gulf of Thailand; caught by a variety of methods including drive-in nets, fish traps and gill nets in Indonesia, the Philippines and Papua New Guinea. The most ancestral living caesionid species.

F. Life cycle and mating behavior

(NA)

G. Fisheries

(NA)

H. IUCN Red List Status

- **Geographic Range**
  NUMBER OF LOCATIONS
  UPPER DEPTH LIMIT : 1 metres
  LOWER DEPTH LIMIT : 60 metres

  RANGE DESCRIPTION
  Caesio cuning ranges from southern Japan to northern Australia and from Sri Lanka to Vanuatu (Carpenter 1987). It is also described as being present in Fiji (Seeto and Baldwin 2010) and has recently been recorded off Goa, India (Padate et al. 2010). The depth range for this species is one to 60 m (Carpenter 1987).
- **Population**
  CURRENT POPULATION TREND : Stable
  There is pronounced regional structure in C. cuning between western Sumatra and the rest of the Coral Triangle as well as between central and Southeast Asia and eastern Indonesia (Ackiss et al. 2013). Caesio cuning is heavily exploited throughout its range. In the Philippines, it is very heavily exploited, but it is still one of the few caesionids still regularly encountered in the Philippine fish markets. Caesio cuning is still locally abundant in the Philippines (K. Carpenter pers. comm. 2015).
  Surveys around the Solomon islands more populous regions showed a mean density of 470.1/ha, and surveys around the remote islands showed a mean density of 2,422.3/ha (A. Green, unpublished data). Overall, in the Solomons, this species is quite abundant (Allen 2006). Surveys from Raja Ampat showed the mean density to be 1,313.5/ha (A. Green, unpublished data).

- **Habitat and Ecology**
  System : Marine
  Habitat type : Marine Neritic, Marine Intertidal
  HABITAT AND ECOLOGY *DETAIL*
  Caesio cuning is a schooling, broadcast spawner, and adults are highly mobile (Ackiss et al. 2013). The diet of this species consists of salps, doliolids, pteropods, heteropods, chaetognaths and open-water zooplankton (Hamner et al. 1988). Caesaio cuning is primarily a reef-associated species but also inhabits rocky and sandy mangrove habitats (Barnes et al. 2012). The maximum recorded length for this species is 60 cm TL (Carpenter 1988).
- **THREATS**
  - Fishing & harvesting aquatic resources

  Caesio cuning is subject to local population declines from overfishing (Ackiss et al. 2013), but this is not thought to be occurring over a substantial portion of its range at this time
- **Use and Trade**
  Caesio cuning is commonly found in markets throughout the Coral Triangle and is targeted by artisanal fishers (Ackiss et al. 2013). It is taken in trawls over soft-bottom habitats, as well as by handlines, traps, drive-in nets and gill nets (Carpenter 1988).
- **Conservation Action**

In-place land/water protection

- Occurs in at least one protected area : Yes

CONSERVATION ACTIONS *DETAIL*

There are no species-specific conservation efforts in place for C. cuning; however, the range of this species overlaps with a number of marine protected areas (IUCN and UNEP 2014) such as the Dauin (Negros Oriental) and Camotes (Cebu) marine reserves in the Philippines and the Nguna-Pele Marine Protected Area Network in Vanuatu.

I. More Information:

1) Stocks

2) Ecology

Ecology of ***Caesio cuning***

Main Ref.	Carpenter, K.E., 1988
Distribution	Pelagic and schooling species which occurs inshore (Ref. 75154). This species tolerates turbid waters more than other species of caesionids. The most abundant caesionid in reef areas characterized by low underwater visibility.

Substrate

Substrate	**Soft Bottom Hard Bottom**: rocky;
Special habitats	**Coral Reefs**;
Special habitats Ref.	Nguyen, N.T. and V.Q. Nguyen, 2006

Feeding

Feeding type	mainly animals (troph. 2.8 and up)
Feeding type ref	Carpenter, K.E., 1988
Feeding habit	selective plankton feeding
Feeding habit ref	Carpenter, K.E., 1988

Trophic level(s)

	Original sample		**Unfished population**		**Remark**
Estimation method	Troph	s.e.	Troph	s.e.	
From diet composition					
Ref.					
From individual food items	3.40	0.45			Tentative trophic level derived from

						1 + troph of a single food item

3) Diet

(NA)

4) Reproduction

(NA)

5) Maturity

(NA)

6) Spawning

(NA)

7) Spawning aggregation

(NA)

8) Fecundity

(NA)

9) Eggs

Egg Characteristics of ***Caesio cuning***

Main Ref.	Carpenter, K.E., 1988
Place of Development	buoyant (pelagic)
Shape of Egg	spherical
Additional Characters	Eggs are small and numerous (Ref. 402).
Get Information on	Scirus

10) Egg development

(NA)

11) Age/Size

List of Population Characteristics records for ***Caesio cuning***
n = 2

Sex	Wmax	Lmax (cm)	Tmax (y)	Country	Locality
unsexed		50		Global	East Indies
unsexed		60		Global	unspecified

12) Growth

(NA)

13) Length-weight

Length-Weight Parameters for *Caesio cuning*

Length-weight (log *a* vs *b*) graph [n=4]

Sort by a b Country Locality

Score	a	b	Doubtful?	Sex	Length (cm)	Length type	r^2	SD b	SD $\log_{10}$ a	n	Country	Locality
0.99	0.05620	2.838		unsexed	12.5 - 27.0	SL	0.993	0.123	0.1520	19	Philippines	Davao Gulf / 2009-2012
0.00	0.01374	3.000		unsexed	29.0 - 29.0	TL				1		
0.00	0.03146	3.000	Yes	unsexed		SL				1		
0.98	0.01487	3.121		mixed	19.5 - 24.3	FL	0.978			9	New Caledonia	

14) Length-length

15) Length-frequencies

Length-length Parameters for *Caesio cuning*
[n=4]

Unknown length	a	b	Known length	r	Length range (cm)	Sex of fish
SL	0.000	0.759	TL		29 - 29	unsexed
TL	0.000	1.204	FL		-	unsexed
TL	1.778	1.270	SL	0.987	12.5 - 27	unsexed
TL	0.000	1.288	SL		-	unsexed

16) Morphometrics

Morphometric Data for ***Caesio cuning***
n = 2

Picture Name	Length		Lifestage	Aspect ratio
Cacun_u1.jpg	15.7	SL	unsexed	3.66
Cacun_u2.jpg	17.2	SL	unsexed	2.97

Picture Used	Cacun_u1.jpg
Size (cm)	15.7 SL, 20.5
Sex	unsexed
Total length (TL)	587 pixels
Standard length	77.3 % TL
Fork length	84.2 % TL
Pre-anal length	48.7 % TL
Pre-dorsal length	24.9 % TL
Pre-pelvic length	24.4 % TL
Pre-pectoral length	20.8 % TL
Body depth	31.3 % TL
Head length (HL)	20.1 % TL
Eye diameter	30.5 % HL
Pre-orbital length	20.3 % HL
Aspect ratio of caudal fin	3.66009
Remarks	1

Picture Used	Cacun_u2.jpg
Size (cm)	17.2 SL, 23.1
Sex	unsexed
Locality	
Total length (TL)	591 pixels
Standard length	78.8 % TL
Fork length	84.4 % TL
Pre-anal length	48.9 % TL
Pre-dorsal length	23.0 % TL
Pre-pelvic length	25.4 % TL
Pre-pectoral length	19.3 % TL
Body depth	32.8 % TL
Head length (HL)	20.1 % TL
Eye diameter	22.7 % HL
Pre-orbital length	17.6 % HL

	Aspect ratio of caudal fin	2.97018

17) Morphology

Morphology Data of ***Caesio cuning***

Identification keys

Abnormalities

Main Ref.	Carpenter, K.E., 1987
Appearance refers to	Male; Female

Sex attributes

Specialized organs	no special organs
Different appearance	males alike females
Different colors	males alike females

Descriptive characteristics of juvenile and adult

Striking features	none
Body shape lateral	fusiform / normal
Cross section	compressed
Dorsal head profile	more or less straight
Type of eyes	more or less normal
Type of mouth/snout	more or less normal
Position of mouth	terminal
Type of scales	ctenoid scales
Diagnosis	Deep-bodied (Ref. 48636). Scales center lighter than margins; lower 1/3 white, sometimes suffused by pink; prominent black markings on caudal fin absent. 4-5 scales on cheek; predorsal scales 20-26; scaled dorsal and anal fins. Upper peduncular scale rows 9-11; lower peduncular scale rows usually 12-14. Distinguished from *C. teres* in having a continuous supra-temporal band of scales across the dorsal midline. Basioccipital process for attachment of Baudelot's ligament absent. Post maxillary process single; posterior end of maxilla blunt. Color: Upper body if not yellow, grayish blue; lower sides and belly white or pinkish. Pectoral, pelvic and anal fins white to pink. Large yellow tail. Dorsal fin yellow posteriorly and grayish blue anteriorly. Length usually at 35 cm (Ref. 48636). Head length 2.8-3.6 in SL; body depth 3.0-4.2 in SL (Ref. 90102).

Meristic characteristics of Caesio cuning

Lateral Lines	1 Interrupted: No
Scales on lateral line	45 - 51
Scale rows above lateral line	7 - 9
Scale rows below lateral line	15 - 18
Scales around caudal peduncle	21 - 25

Barbels	0
on lower limb	24 - 27
on upper limb	11 - 13
total	35 - 40

Fins

Dorsal fin(s)

Attributes	extending over most of the back length
Fins number	1
Finlets No.	Dorsal 0 - 0
	Ventral 0 - 0
Spines total	10 - 10
Soft-rays total	14 - 16
Adipose fin	absent

Caudal fin

Attributes	forked; more or less normal

Anal fin(s)

Fins number	1
Spines total	3 - 3
Soft-rays total	10 - 12

Paired fins

Pectoral	Attributes more or less normal
	Spines 0
	Soft-rays 17 - 20
Pelvics	Attributes more or less normal
	Position thoracic beneath origin of D1
	Spines 1
	Soft-rays 5 - 5

18) Larvae

(NA)

19) Recruitment

(NA)

20) Abundance

(NA)

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