

Supplementary Materials

Assessment of *Coilia mystus* and *C. nasus* in the Yangtze River Estuary, China, using a length-based approach

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Table S1. Types and sources of the data available for this study.

Common name (scientific name)	Data type	Year	Gear type	Data source
Osbeck's Grenadier Anchovy (<i>Coilia mystus</i>)	Published L/F data	1982	Drift net and Stow net	Zhang and Hua (1990)
	Published L/F data	1997- 2003	Drift net	Liu et al. (2004)
	Published L/F data	2005	Stow net	Guan et al. (2011)
	Published L/F data	2009	Set stow net	Liu et al. (2012)
	Published L/F data	2012	Trawl	Yu (2014)
	Survey data	2018- 2020	Set gill net	This study
Japanese Grenadier Anchovy (<i>Coilia nasus</i>)	Published L/F data	2006	-	Guan et al. (2010)
	Published L/F data	2011	Drift net	Tian et al. (2014)
	Survey data	2019- 2020	Set gillnet	This study

Table S2. Summary of the length data and sampling size for *C. mystus* and *C. nasus* in the Yangtze River Estuary used in this paper.

Common name (scientific name)	Year	Standard length² (mm)	Sample size
Osbeck's Grenadier	1982	74 – 211	464
Anchovy (<i>Coilia mystus</i>)	1997–2003 ¹	88 – 176	1408
	2005	[110–11] – [205]	201
	2009	[60–70] – [200–210]	1355
	2012	82 – 175	945
	2018–2020	66 – 212	639
Japanese Grenadier	2006	[110–140] – [320–350]	177
Anchovy (<i>Coilia nasus</i>)	2011	228 – 365	180
	2019–2020	82 – 166	160

¹ Converted from total length using a factor of 0.88;

² the length in the square brackets represent the range of length class.

Table S3. The main management measures and the fisheries events of *C. mystus* and *C. nasus*.
in the Yangtze River Estuary (1960s-).

Species	Year	Management measures	Fisheries events	Sources
Osbeck's Grenadier Anchovy (<i>Coilia mystus</i>)	1959	--	Reform of fishing boats and nets started	(Zhang and Hua 1990)
	1970s	--	The fishing effort increased dramatically as the development of the fishing technique and the increase of horse power	(Zhang and Hua 1990)
	1980s	The number of boats and nets for <i>C. mystus</i> fishery was strictly controlled	--	(Zhang and Hua 1990)
	1999	--	Since other fisheries occupied a large amount of water, e.g., set nets for eels and crab larvae, the actual fishing range was reduced; the gear for <i>C. mystus</i> fishing in the Yangtze River Estuary has changed from drift-gill nets to set-gill nets, of which the interception surface increased, resulting in deepening of the damage to the stock; at the same time, the number of fishing boats was still increasing.	(Ni 1999)
	2002	The spring fishing moratorium in the Yangtze River Basin launched (4.1-6.30)	--	(Anon. 2002)
	2003	The number of issued fishing licenses was restricted, but the number of nets was not	The number of nets on per boat increased as a result; the Three Gorges Project began to store water, causing the habitat for <i>C. mystus</i> to move inward along with the fresh water frontal surface and increased its catch rate; besides, fishing operations were concentrated in May gradually and further destroyed its spawning stock.	(Zheng 2012)
	2007	The species was listed in the first batch of "National Key Protected Economic Aquatic Animal and Plant Resources List"	--	(Anon. 2007)
	2016	The fishing ban in the Yangtze River Basin was extended to four months (3.1-6.30)	--	(Anon. 2015)
	2019	Stop of the issuance of	--	(Anon. 2018)

	special fishing licenses for the two <i>Coilia</i> spp.		
2019	The strictest law enforcement action in Chinese history was launched	--	(Anon. 2019)
2020	A ten-year fishing ban in the Yangtze River	--	(Anon. 2020)
1960s	The fishing activities on <i>C. nasus</i> in the Yangtze River Estuary has not started.	--	(Tian et al., 2014)
1980s	The deep-water net was only allowed to operate in some parts of the North Branch in the Yangtze River Estuary	The number of deep-water nets kept increasing; the range extended to most of the waters in the South Branch; a large number of water conservancy construction projects in the middle and lower reaches of the Yangtze River obstructed the reproduction and migration of <i>C. nasus</i> ; the stock declined sharply and the fishing season never appeared.	(Shi and Gong 2003; Liu et al. 2012; Mao et al. 2015)
Japanese Grenadier Anchovy (<i>Coilia nasus</i>)	after 1989	--	The stock of <i>C. nasus</i> was overfished by nets for glass eel (mesh 1mm), deep-water nets and other harmful fishing gear. A large number of juveniles were caught led to the exhaustion of the stock. (Shi and Gong 2003)
	he monitoring vessel began investigating the annual catch of <i>C. nasus</i> .	Except for 2010, the resources kept declining.	(Shi and Gong 2003; Mao et al. 2015)
	2002 - 2003	The same with <i>C. mystus</i>	-- (Zhang et al. 2005; Mao et al. 2015)
	2004	The number of fishing license for <i>C. nasus</i> was further reduced; only one month was allowed to fishing operating (4.1-4.30)	-- (Liu et al. 2012)
	2007 - 2020	The same with <i>C. mystus</i>	--

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