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THE OCCURRENCE OF THE GOLDEN GREY MULLET, *LIZA AURATA* (RISSE, 1810)
IN THE COASTAL WATERS OF THE NETHERLANDS
(PISCES, PERCIFORMES, MUGILIDAE)

H. NIJSSEN, S.J. de GROOT & G. DOORNBOS

ABSTRACT

The Golden grey mullet, *Liza aurata* (Risso, 1810), inhabits the coastal waters of the Netherlands at least since 1939, as was established by re-examining preserved specimens in the collection of the Institute of Taxonomic Zoology (Zoological Museum), Amsterdam. A key to the three Mullet species in the Netherlands (*Chelon labrosus* (Risso, 1826), *Liza ramada* (Risso, 1826), and *Liza aurata* (Risso, 1810)) is provided.

On August 17th, 1980, a Belgian angler caught a specimen of *Liza aurata* in the eastern part of the Oosterschelde (51°29'N 04°10'E), Province of Zeeland. The specimen (fig. 1, standard length 29.6 cm, ZMA 114.449) was bought by Mr. J.M. Verschuure of the Institute for Hydrobiological Research, Yerseke, and sent through the Netherlands Institute for Fisheries Investigations (RIVO), IJmuiden, to the Institute of Taxonomic Zoology, Amsterdam (ZMA).

Two other Mullet species occur in the coastal waters of the Netherlands, viz., the Thick-

lipped grey mullet, *Chelon labrosus* (Risso, 1826) and the Thin-lipped grey mullet, *Liza ramada* (Risso, 1826), the first being more abundant than the latter (Nijssen & de Groot, 1974: 192; 1980: 75-77).

Although the present record of *Liza aurata* concerns the first specimen from the coastal waters of the Netherlands we encountered, its name was listed in 1978 (Witte & Zijlstra: 16) for the Wadden Sea without records of specimens. According to Witte (in litt. 7.XI.1980) this earlier record was based on a personal

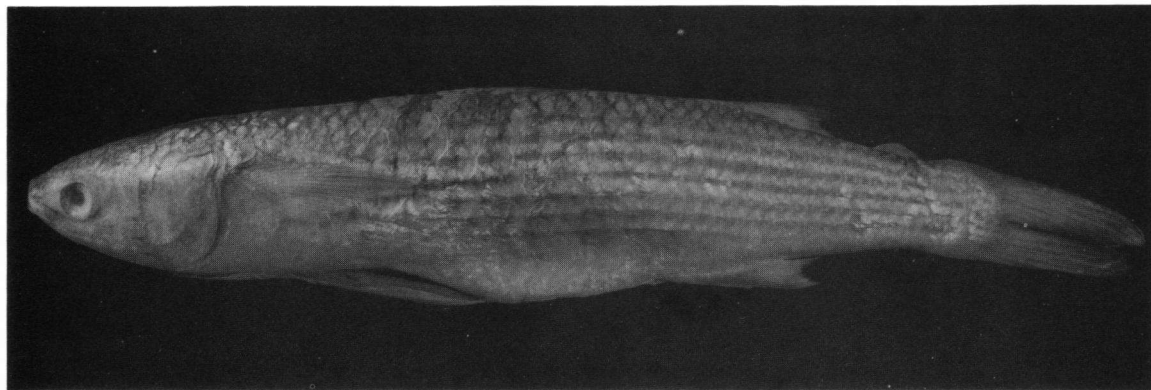


Fig. 1. *Liza aurata* (Risso, 1810), sl 29.6 cm from the Oosterschelde (ZMA 114.449). (Photo by L.A. van der Laan).

communication by Mr. C.M. Schepers of the Netherlands Institute for Sea Research (NIOZ), Texel, who suspected the occurrence of *Liza aurata* in the Wadden Sea. Material was not available. More recently, however, Witte identified some specimens from the Wadden Sea as *Liza aurata*, one of which, caught on May 1st, 1980, was preserved and donated to the Zoological Museum, Amsterdam (ZMA 114.489). We confirmed this identification.

Upon re-examination of the material in our collection, we found more specimens of *Liza aurata*, viz., two specimens (ZMA 108.119), collected on July 21st, 1939, at Domburg, Province of Zeeland, recorded and identified as *Mugil ramada* by Redeke (1941: 227-231), and nine (ZMA 111.663/111.669, ZMA 111.671/111.672) out of eleven specimens, deposited and identified as *Liza ramada* by Boer (see also: Boer, 1971: 62-64), the remaining two specimens being the true *Liza ramada* (ZMA 111.670, ZMA 111.673), all collected in the Wadden Sea near Texel, Province of Noord-Holland from March through May, 1971.

Living *Liza aurata* is easily recognizable by conspicuous gold-coloured spots on cheeks and gill covers, in combination with thin lips and long pectoral fins.

For identification of the three Mullet species in the coastal waters of the Netherlands, the following key is provided, modified after Trewavas & Ingham (1972: 17-18), and Wheeler (1978: 270-274).

- 1a) Upper lip broad, its depth half the eye-diameter or larger, its lower border with several (1-4) rows of papillae.....
 *Chelon labrosus* (Risso, 1826)
 E - Thick-lipped grey mullet
 F - Mullet lippu
 D - Dicklippige Meeräsche
 N - Diklipharder
 Common along the Dutch coast as well as in harbours, especially during the summer (Schelde-estuary, Wadden Sea).
- 1b) Upper lip narrow, its depth less than half the eye-diameter, its lower border without papillae..... 2
- 2a) Body thick-set. Posterior end of preorbital bone (at corner of mouth) more or less truncate, coarsely toothed (rounded) on its posterior edge (fig. 2a). Teeth on edge of upper lip minute (bristle-like). Pectoral fin short, when folded forward, nearly reaching the eye, 6.47-8.72 in standard length. Interorbital width 0.88-0.93 in standard length. A small black spot at the pectoral fin-base..... *Liza ramada* (Risso, 1826)
 E - Thin-lipped grey mullet
 F - Mullet porc
 D - Dünnlippige Meeräsche
 N - Dunlipharder
 Fairly common along the Dutch coast, especially during the summer. Penetrates into fresh waters.
- 2b) Body slender. Posterior end of preorbital bone more or less acute, finely toothed (pointed) on its posterior edge (fig. 2b). Teeth on edge of upper lip moderately large. Pectoral fin longer than in *L. ramada*, when folded forward, its tip reaching or beyond the pupil of the eye, 4.93-5.60 in standard length. Interorbital width 0.94-1.06 in standard length. No black spot at the pectoral fin-base. Conspicuous golden spot on gill-cover.....
 *Liza aurata* (Risso, 1810)

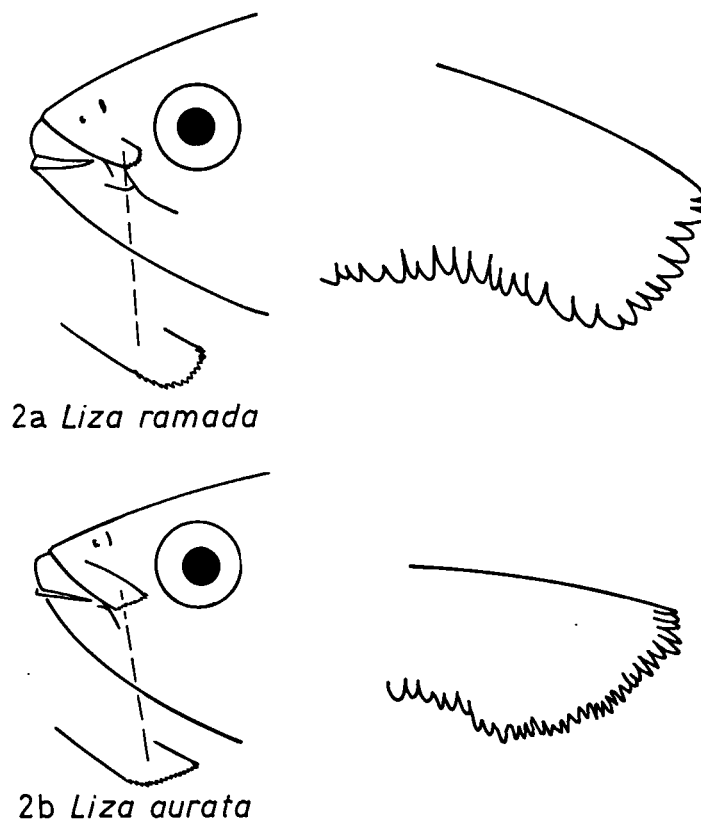


Fig. 2. Side view of heads of *Liza ramada* (2a) and of *Liza aurata* (2b), showing preorbital bones (6x enlarged), collected in the Wadden Sea (ZMA 111.670 and ZMA 111.667).

E - Golden grey mullet
 F - Mullet doré
 D - Goldmeeräsche
 N - Goudharder
 Scarce along the Dutch coast, only during the summer.

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Dr. H. Nijssen,
 Instituut voor Taxonomische Zoölogie (Zoölogisch Museum),
 Postbus 20125,
 1000 HC Amsterdam,
 The Netherlands.

Dr. S.J. de Groot,
 Rijksinstituut voor Visserijonderzoek,
 Postbus 68,
 1970 AB IJmuiden,
 The Netherlands.

Drs. G. Doornbos,
 Delta Instituut voor Hydrobiologisch Onderzoek,
 Vierstraat 28,
 4401 EA Yerseke,
 The Netherlands.

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Table I. Data on *Liza aurata* and *Liza ramada* from Dutch waters.
sl = standard length; P = pectoral fin length; wi - interorbital width.

<i>LIZA AURATA</i> (Risso, 1810)								
reg.no.	sex	sl	P	wi	sl/P	sl/wi	locality	date
ZMA 111.664	♀	40.8	72.8	42.3	5.60	0.96	Wadden Sea, Texel	III/IV-1971
ZMA 111.663	♀	38.3	72.7	40.7	5.27	0.94	Wadden Sea, Texel	III/IV-1971
ZMA 111.665	♂	34.4	66.4	33.8	5.19	1.02	Wadden Sea, Texel	21/27-IV-1971
ZMA 111.672	♂	33.8	62.5	33.6	5.41	1.01	Wadden Sea, Texel	3-V-1971
ZMA 108.119a	-	30.2	56.4	29.2	5.35	1.03	Zeeland, Domburg	21-VII-1939
ZMA 114.449	-	29.6	53.8	29.2	5.50	1.01	Zeeland, Oosterschelde	17-VIII-1980
ZMA 111.669	♀	29.3	56.6	29.2	5.18	1.00	Wadden Sea, Texel	21/27-IV-1971
ZMA 108.119b	-	27.2	50.6	26.6	5.38	1.02	Zeeland, Domburg	21-VII-1939
ZMA 111.671	♀	26.9	50.0	25.5	5.38	1.05	Wadden Sea, Texel	28-IV/1-V-1971
ZMA 111.666	♀	25.4	48.2	24.4	5.27	1.04	Wadden Sea, Texel	21/27-IV-1971
ZMA 111.668	♂	23.9	48.5	23.1	4.93	1.03	Wadden Sea, Texel	21/27-IV-1971
ZMA 111.667	♂	23.8	47.4	23.2	5.02	1.03	Wadden Sea, Texel	21/27-IV-1971
ZMA 114.489	-	23.8	43.4	22.5	5.48	1.06	Wadden Sea, Texel	1-V-1980
<i>LIZA RAMADA</i> (Risso, 1826)								
ZMA 110.706	-	40.0	59.3	45.5	6.75	0.88	Slotermeer, Friesland	27-VI-1928
ZMA 111.670	♀	30.6	47.3	33.1	6.47	0.92	Wadden Sea, Texel	21/27-IV-1971
ZMA 110.708a	-	29.0	35.1	32.0	8.26	0.91	Zaan River, N-Holland	1924
ZMA 111.673	♂	28.8	--	31.0	--	0.93	Wadden Sea, Texel	V-1971
ZMA 110.708b	-	25.8	29.6	28.7	8.72	0.90	Zaan River, N-Holland	1924

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