

NMC SIFCA Grey Mullet MCRS Information

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The National Mullet Club would like to see option 4 introduced for the MCRS and detail the reasons below.

We believe that **option 5** is not practical because;

- If golden greys were to get a smaller MCRS then fishermen can legitimately use smaller mesh sizes increasing the risk of catching undersize thick lips, thin lips, bass and salmonids
- Commercial landings of the 3 species are all grouped together as a generic term 'grey mullet'. To try and differentiate would require a fisherman to positively identify the species being landed, segregate and sort them taking into consideration the different MCRS and releasing any undersize mullet unharmed. Increased handling means increased damage.
- An experienced fisheries representative would need to identify the species at first sale.
- The 3 species are not easy to identify to the extent that Oliver Crimmen, the Senior Fisheries Curator at the Natural History Museum, requires the carcass to properly identify the species
- Two of the three species, thin and thick lipped, which are the most common species netted commercially are particularly easy to get mixed up and are often found together

We therefore believe that option 5 is unworkable.

The two pictures below show how easy it is to mistake one species for another with the golden mark associated with golden greys evident on both species (thick lip and golden grey)



Option 1 although better than most IFCA's this offers very little protection to juvenile mullet and encourages the use of inappropriate gear in so far as mesh sizes and methods used

Option 2 all species 38cm. The rationale for a MCRS as stated in the public consultation para 2.2 is for L50, 50% maturity. Setting the size at that which the Commercial Fishermen wants to sell has nothing to do with conservation and ensuring a sustainable fishery or follows the definition of a MCRS. It is highly inappropriate and simply a total disregard for the natural and public resource,

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sustainability of the fishery and other stakeholders by trying to introduce a market driven MLS (minimum landing size).

Option 3 all species 42cm. It is quite common for an assumption to be made that aligning a grey mullet MCRS at the same size as bass would somehow make sense. It is still not setting a L50, 50% maturity size and would not offer any reduction of netting juvenile bass as the latter are not as slim in profile and are even more 'spiky', meaning that a taught mesh that gills a 42cm grey mullet would gill bass at a much smaller size

Option 4 MLS of 47cm for all 3 species. When deciding upon this or any of the previous options golden grey mullet should not be considered. Golden grey mullet are considerably smaller than the other two species. Although not much is known about their maturity size what we do know is that the majority are under the current 30cm MCRS, they rarely go above 35cm so they are not aligned with the market requirement of 38cm. The golden grey in the picture above weighed 3lb 2oz and was 47cm long, this was quite exceptional, the British rod caught record is 3lb 8oz.

PJ Reay studied golden grey mullet in Langstone harbour. 419 golden grey mullet were netted and only 22, 5% were over 35cm.

Age-group	Sample size (= total numbers caught)	Number of males	Number of females	Observed total length in autumn means with 95% confidence intervals (mm)	Calculated mean total weight in autumn (g)
I	239	Sexes not distinguished		103 ± 2	10
II	76			172 ± 3	47
III	29			226 ± 6	105
IV	14			274 ± 12	181
V	8			301 ± 33	242
VI	12	10	2	335 ± 8	331
VII	19	11	8	348 ± 6	369
VIII	8	3	5	363 ± 16	418
IX	5	0	5	399 ± 17	551
X	2	0	2	426 ± 49	661
XI	3	0	3	456 ± 17	813
XII	2	0	2	458 ± 73	821
XIII	1	0	1	440	733
XIV	1	0	1	503	1083
	419	24	29		

... to the 12 mm mesh seine, whereas age-groups III–XIV were obtained

Figure 1 Reay size data

Data from around Europe demonstrates the following minimum and maximum sizes for golden grey mullet verifying the Reay data from Langstone with respect to maximum size:

Country	Size cm	Survey quantity (n)	Qty over 35cm if stated
Uk Hickling	21-35	73	1
UK Reay	10-50	419	22
North Adriatic	35.1 max		
Adriatic	21-40		
Portugal	2-29	3689	
Turkey	8-39	342	2
Egypt	10-31	1019	

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Brittany	6.8-33.8	86	
Italy	10-24	423	
Greece	6-26	645	

Golden greys are also quite rare in estuaries and harbours and are not, unlike thick and thin lips, tolerant of fresh water. NMC catch data shows in Christchurch harbour in the last 10 years that only 11 golden grey mullet were reported with only 2 over 2lb, about 30cm in length. They are commonly found on sandy beaches where they can be caught with worms and mackerel flesh, lures and with fly fishing equipment. They are the most predatory of the 3 species and therefore the easiest to catch. These two reasons taken into consideration how easy it is to incorrectly identify the 3 mullet species make it unlikely that a significant number of golden greys are netted within the areas covered by this bylaw and in particular Poole and Christchurch.

The most economically important grey mullet species in the UK is the thick lip, both commercially and recreationally where for its sporting qualities it is the most prized of all 3 species. It is also the species for which the L50 size, the recognised figure to set a MCRS, is unequivocal with at least three separate studies coming to the same conclusion that 50% maturity for female thick lips occurs at 47cm in and around UK waters.

Although there is less evidence for thin lip mullet L50 is as stated in the consultation document substantiated by the evidence available, as being similar to that of thick lipped mullet, therefore it is appropriate to have the same MCRS for both species.

Any reduction in the MCRS from the L50 47cm would not provide adequate protection to the female thick lip mullet and jeopardise the entire fishery. The extremely slow growing nature of mullet

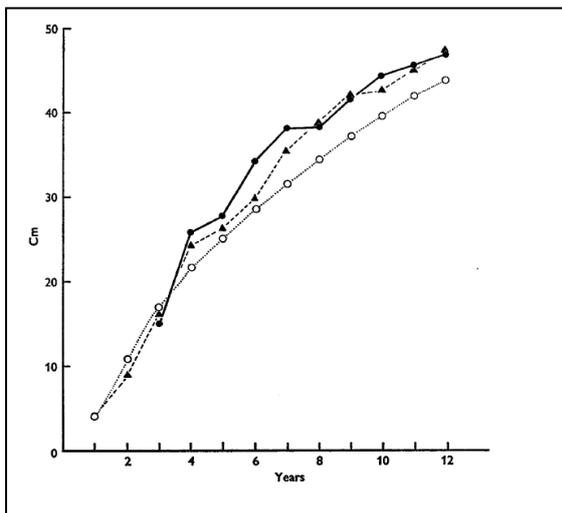


Figure 2. Growth of Thick-lipped Mullet from England and the Isles of Man and Scillies: closed circles from scales, triangles from operculum (Hickling, 1970) using total length. Open circles are from Kennedy and Fitzmaurice (1969) using fork length.

species, Hickling found a female thick lip can be 12 years old before maturity and possibly only spawn every 2 years, that means considerable mortality would occur in these later years as survival in the inshore estuaries and harbours would be less and less likely.

For example if a MCRS were set at 42cm the average time a female thick lip would have to evade the nets is another 3 years according to data in figure 2.

A MCRS should be set with a biological rather than an economical objective with size driven simply by market demand. L50 is the minimum recommended minimum to achieve a balance between growth and maturity and easing overfishing as more fish are allowed to spawn at least once.

Examination of the evidence for a MCRS for grey mullet overwhelmingly concludes it should be set

at a minimum of 47cm to provide protection for the most threatened and commercially important species the thick lip mullet *Chelon labrosus*. If

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References

Adriatic: Kraljević, M.; Dulčić, J., 1996: Age, growth and mortality of the golden grey mullet *Liza aurata* (Risso, 1810) in the eastern Adriatic. Arch. Fish. Mar. Res. 44, 69–80.

Egypt: Mehanna S.F. 2004. Population dynamics of keeled mullet, *Liza carinata* and golden grey mullet, *Liza aurata*, at the Bitter Lakes, Egypt. Egyptian Journal of Aquatic Research Vol 30(B), 315-321

Turkey (Homa Lagoon): Ilkyay A T, Firat K, Saka S, Kinacigil H T (2006). Age, growth and Sex Ratio of golden grey mullet, *Liza aurata* (Risso, 1810) in Homa Lagoon (Izmir Bay, Aegean Sea).

N Adriatic : Kraljević, M.; Dulčić, J., 1996: Age, growth and mortality of the golden grey mullet *Liza aurata* (Risso, 1810) in the eastern Adriatic. Arch. Fish. Mar. Res. 44, 69–80.

Portugal : Arruda, L. M.; Azevedo, J. N.; Neto, A. I., 1991: Age and growth of the grey mullet (Pisces, Mugilidae) in Ria de Aveiro (Portugal). Sci. Mar. 55, 497–504.

UK: Hickling, C. F., 1970: A contribution to the natural history of the English grey mullet (Pisces, Mugilidae). J. Mar. Biol. Ass. UK 50, 609–633.

Brittany: Thong, L. H., 1969: Contribution a l'étude de la biologie des Mugilides (Poissons, Teleostéens) des cotes du Massif Armoricain. Trav. Fac. Sci. Rennes, Oceanogr. Biol. 2, 55–136.

Italy: Andaloro, F., 1983: Contribution on the knowledge of the age and growth of the Marsala lagoon golden mullet, *Liza aurata* (Risso, 1810). Rapp. Comm. Int. Mer. Méditerran. 28, 81–82.

West Greece: Konides, A.; Anastasopoulou, K.; Photis, G.; Koussouris, T.; Diapoulis, A., 1992: Growth of four Mugilidae species in Western Greek lagoons. 27th European Mar. Biol. Symp. Trinity College, Univ. Dublin, Ireland, 7–11 September 1992.

UK Langstone: Reay 1987, A British population of the grey mullet, *Liza aurata*

A Butterworth, A Burt 2018. Vulnerability and Over-Exploitation of Grey Mullet in UK Waters