Food and Agriculture Organization of the United Nations

World Health Organization

Methylmercury and total mercury in fish

Request for data on methylmercury and total mercury in fish

Issued 14 September 2020

Background

The 13th Session of the Codex Committee on Contaminants in Foods (CCCF13), held in Yogyakarta, Indonesia, from April 29 - May 3, 2019, agreed to continue work on the establishment of maximum levels (MLs) for additional fish species and to re-establish the Electronic Working Group (EWG) led by New Zealand and Canada to prepare proposals for MLs and associated sampling plans for additional fish species for consideration by CCCF14 (2021). In view of the postponement of CCCF14 from 2020 to 2021 due to the pandemic situation there is the opportunity to further progress this work based on the findings in the discussion paper submitted for consideration by Codex members.

We are requesting submission of new / additional data on methylmercury and total mercury in all fish species which has not previously been submitted. The submitted data should cover approximately the last 12 years. Data should be submitted by 15 December, 2020, to allow time for data analysis and drafting and review of the paper. The call for data can also be viewed online at http://www.who.int/foodsafety/en/ or http://www.fao.org/food-safety/scientific-advice/calls-for-data-and-experts/en/. In particular, data is solicited for those fish species for which insufficient data was available at the time the EWG prepared the discussion paper (CX/CF 20/14/11)[*], as identified in Appendix I of the paper, which is reproduced as an Annex to this call for convenience. Fish species for which MLs have already been established, as described in the General Standard for Contaminants in Food and Feed[†] (CXS 193-1995), are excluded from this exercise.

Date for submission
The submission of data is requested before
15 December 2020
This deadline applies to all data to be submitted.

WHO will be compiling data for the EWG. **All new data must be submitted to WHO through the GEMS database, which is now easily accessible on the web.** To access the GEMS database, go to http://www.who.int/foodsafety/areas_work/chemical-risks/gems-food/en/. Please read the "GEMS/Food Database Manual" before attempting to submit data to GEMS. To submit data, you will need an account, and instructions on creating an account are found on page 2 of the manual. For technical questions about submitting data to GEMS, please contact Philippe Verger at WHO (vergerp@who.int and cc andrew.pearson@mpi.govt.nz).

Note that data already submitted to the GEMS Food Database do not need to be re-submitted.

When submitting data to the GEMS/Food database for this work, please:

- Provide complete information on the LOQ and LOD of analytical methods.
- Provide information in the "Local Food Identifier" or "Remark/references" fields of the database to allow more specific identification of samples, e.g., Is a food fresh or processed, including canned, preserved, salted, etc.?
- Provide information on "State of food analysed," i.e., cooked or raw, and on “portion analysed” i.e. fat content, dry weight, as is or as consumed.
- Provide information for both methylmercury and total mercury and indicate if these form a paired analysis;
- Ideally provide information from at least two locations in representative fishery areas;
- Provide binomial (Latin) names of fish species or FAO taxonomic coding;
- Provide information whether it is domestically caught fish or imported fish.

[*] Working documents for CCCF14 are available for downloading from the Codex website:
http://www.fao.org/fao-who-codexalimentarius/meetings/detail/en/?meeting=CCCF&session=14

[†] Codex standards for contaminants including the GSCTFF are available for consultation on the Codex website:
http://www.fao.org/fao-who-codexalimentarius/committees/committee/related-standards/en/?committee=CCCF

SUMMARY TABLE OF RECOMMENDATIONS (FOR CONSIDERATION BY CCCF14) –
ADDITIONAL FISH SPECIES FOR WHICH DATA IS SOUGHT TO CONSIDER THE FEASIBILITY TO ESTABLISH CODEX MAXIMUM LEVELS ARE BOLDED

Common name	Scientific name	Taxonomic grouping	FAO taxonomic code	Mean methylmercury [total mercury] concentration (mg/kg)	Date of review and recommendation
Anchovies	*Engraulidae sp.*	Family	1,21(06)xxx,xx	0.05 [0.07]	2019: No ML required
Anglerfish	***Lophius sp.***	**Genus**	**1,95(01)001,xx**	**0.60 [0.18]**	**2020: Data collection- low sample numbers and wide disparity between methylmercury and total mercury**
Barracuda	***Sphyraena sp.***	**Genus**	**1,77(10)001,xx**	**[0.69]**	**2019: Data collection – low sample numbers and no methylmercury results**
Blue moki	*Latridopsis ciliaris*	Species	1,70(71)309,01	[0.12]	2019: No ML required
Butterfish	*Odax pullus*	Species	1,70(64)003,01	[0.02]	2019: No ML required
Cardinalfish	***Epigonus telescopus***	**Species**	**1,70(96)373,01**	**[1.27]**	**2019: Data collection– no methylmercury results**
Carp	*Cyprinidae*	Family	1,40(02)xxx,xx	0.03 [0.13]	2019: No ML required
Catfish	***Siluriformes sp.***	**Order**	**1,41(xx)xxx,xx**	**[0.41]**	**2020: Data collection – wide disparity in means for species, low sample numbers and no methylmercury results**
Codfish	*Gadinae sp.*	Sub-family	1,48(04)xxx,xx	0.05 [0.07]	2019: No ML required
Cusk-eel	***Ophidiidae***	**Family**	**1,58(02)xxx,xx**	**0.46 [0.46]**	**2020: Average methylmercury exceeds selection criteria; proposed for ML setting**
Cutlassfish	***Trichiuridae sp.***	**Family**	**1,75(06)xxx,xx**	**[0.16]**	**2019: Data collection – wide disparity in means for species, low sample numbers and no methylmercury results**
Eels	*Anguilliformes sp.*	Order	1,43(xx)xxx,xx	0.18 [0.19]	2019: No ML required
Greenling	***Hexagrammidae***	**Family**	**1,78(07)xxx,xx**	**[0.28]**	**2020: Data collection – low sample numbers and no methylmercury results**
Grouper	***Epinephelus sp.***	**Genus**	**1,70(02)042,xx**	**[0.27]**	**2019: No ML required** **Data collection – limited geographic distribution and average approaching the selection criteria**

Common name	Scientific name	Taxonomic grouping	FAO taxonomic code	Mean methylmercury [total mercury] concentration (mg/kg)	Date of review and recommendation
Hapuku	***Polyprion oxygeneios***	**Species**	**1,70(05)058,02**	**[0.33]**	**2019: Data collection – low sample numbers and no methylmercury results**
Herring	*Clupeidae sp.*	Family	1,21(05)xxx,xx	0.04 [0.04]	2019: No ML required
Kahawai	*Arripis trutta*	Species	1,70(29)051,02	[0.24]	2019: No ML required
Ling	***Lotidae sp.***	**Sub-family**	**1,48(04)xxx,xx**	**[0.28]**	**2019: Data collection for individual species – cusk and blue ling**
Mahi-mahi	*Coryphaena hippurus*	Species	1,70(28)071,01	[0.23]	2019: No ML required
Medusafish	*Centrolophidae sp.*	Family	1,769(08)xxx,xx	[0.11]	2019: No ML required
Merluccid hake	*Merlucciidae sp.*	Family	1,48(05)xxx,xx	0.20 [0.13]	2019: No ML required
Mullet	*Mugilidae sp.*	Family	1,65(01)xxx,xx	0.02 [0.14]	2019: No ML required
Orange Roughy	***Hoplostethus atlanticus***	**Species**	**1,61(05)002,02**	**0.43 [0.56]**	**2020: Average methylmercury exceeds selection criteria; proposed for ML setting**
Pacific red gurnard	*Chelidonichthys kumu*	Species	1,78(02)003,01	[0.11]	2019: No ML required
Perch	*Percidae sp.*	Family	1,70(14)xxx,xx	[0.20]	2019: No ML required
Phycid hake	***Phycidae***	**Sub-family**	**1,48(04)xxx,xx**	**[0.13]**	**2019: No ML required** **Data collection for individual species – white hake**
Pike	***Escoidae sp.***	**Family**	**1,24(03)xxx,xx**	**[0.29]**	**2019: No ML required** **Data collection – limited geographic distribution and average approaching the selection criteria**
Pomfrets	*Brama sp.*	Genus	1,70(27)003,xx	[0.07]	2019: No ML required
Porgies	*Sparidae sp.*	Family	1,70(39)xxx,xx	[0.17]	2019: No ML required
Rays and skate	*Rajiformes sp.*	Order	1,10(xx)xxx,xx	[0.18]	2019: No ML required
Red cod	*Pseudophycis bachus*	Species	1,48(02)014,01	[0.06]	2019: No ML required
Redbait	*Emmelichthys nitidus*	Species	1,70(30)010,01	[0.15]	2019: No ML required
Right eyed flounder & sole	*Pleuronectidae sp./ Soleidae sp.*	Family	1,83(02)xxx,xx and 1,83(03)xxx,xx	0.11 [0.21]	2019: No ML required

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Rockfish	*Sebastes sp.*	Genus	1,78(01)001,xx	[0.19]	2019: No ML required
Sablefish	***Anoplopoma fimbria***	**Species**	**1,78(08)004,01**	**[0.43]**	**2020: Data collection– no methylmercury results**
Salmonids	*Salmonidae sp.*	Family	1,23(01)xxx,xx	0.03 [0.04]	2019: No ML required
Sea bass	***Unknown***	**Unknown**	**Unknown**	**[0.21]**	**2019: No ML required** **Data collection – species not clearly identifiable**
Short nosed chimera	***Chimaeridae sp.***	**Family**	**1,12(01)xxx,xx**	**[0.38]**	**2019: Data collection – no methylmercury results**
Snake mackerel	***Gempylidae sp.***	**Family**	**1,75(05)xxx,xx**	**[0.39]**	**2020: Data collection– no methylmercury results**
Snapper	***Lutjanus sp.***	**Genus**	**1,70(32)xxx,xx**	**[0.30]**	**2019: Data collection– low sample numbers and no methylmercury results**
Sturgeon	*Acipenseridae sp.*	Family	1,17(01)xxx,xx	[0.08]	2020: No ML required
Temperate bass	*Moronidae sp.*	Family	1,70(04)xxx,xx	0.04 [0.18]	2019: No ML required
Tilapia	*Oreochromis sp.)*	Genus	1,70(59)051,xx	[0.01]	2020: No ML required
Toothfish	***Dissostichus sp.***	**Genus**	**1,70(92)015,xx**	**[0.41]**	**2020: Data collection– no methylmercury results**
Turbot	*Psetta maxima*	Species	1,83(05)092,01	[0.08]	2019: No ML required
Typical smelt	*Osmeridae sp.*	Family	1,23(04)xxx,xx	0.07 [0.06]	2019: No ML required
Wolffish	*Anarhichas sp.*	Genus	1,71(02)001,xx	0.12 [0.10]	2019: No ML required