Data revision report of Japan as of 2024

Mikihiko Kai and Keisuke Sato

Fisheries Resources Institute,
Japan Fisheries Research and Education Agency

Introduction

ISC Statistic Working Group (STATWG) decided that it is required to submit data revision report to the STATWG when data revision is made, and the revision meets the specific condition (Anon. 2014). After July 1, 2023, Japan revised the catch in weight (mt) data "Category 1c" including catch for shortfin mako for 1994-2022 due to the update of benchmark stock assessment for shortfin mako (ISC, 2024).

Data revision

1. Category 1c

1.1. Shortfin mako

The gear-specific annual catches of shortfin mako caught by Japanese fleets between 1994 and 2022 were updated using the same catch estimation methods used in the benchmark stock assessment in 2024 (ISC, 2024). The overall calculation methods of gear-specific annual catches were described in the working document paper (Uosaki and Kai, 2019) presented at STATWG meeting in 2019. The large differences of the annual catch estimates between two tables (**Table 1**) were caused by the different values of annual CPUEs for longline fleets due to the change in the standardization model from GLM to spatio-temporal GLMMs (Kai, 2023a,b) and by the different proportions of the catch for shortfin mako shark to all sharks in the estimation of catches for other gears (Kai, 2023c; Kai and Yano, 2023).

Reference

Anon. 2014. Report of the Statistics Working Group. International Scientific Committee for Tunas and Tuna-like Species in the North Pacific Ocean. July 10-11, 2014.

ISC, 2024. Stock Assessment of Shortfin Mako Shark in the North Pacific Ocean Through 2022, ISC 24 Plenary Report and Documents.

Kai, M., 2023a. Spatio-temporal model for CPUE standardization: Application to shortfin mako caught by Japanese offshore and distant water shallow-set longliner in the western and central North Pacific. ISC/23/SHARKWG-1/02.

Kai, M., 2023b. Spatio-temporal model for CPUE standardization: Application to shortfin mako caught by longline of Japanese research and training vessels in the western and central North Pacific. ISC/23/SHARKWG-1/03.

Kai. M., 2023c. Update of annual catches for shortfin mako caught by Japanese offshore and distant water longliner in the North Pacific Ocean from 1994 to 2022. ISC/23/SHARKWG-1/05.

Kai, M., and Yano, T., 2023. Updated annual catches of shortfin mako caught by Japanese coastal fisheries in the

North Pacific Ocean from 1994 to 2022. ISC/23/SHARKWG-1/04.

Uosaki, K., and Kai, M., 2019. Data revision report of Japan as of 2019. ISC19/STATWG/WP-01.

Table 1. Category 1 shortfin mako catch by gear.

BEFORE (on July 1, 2023)

Species	year	Drift gill-net	Longline	Others	Total
SMA	1994	123	747.87	17.64	888.51
SMA	1995	103.06	985.25	13.19	1101.5
SMA	1996	101.06	1152.4	14	1267.46
SMA	1997	127.49	877.27	15.05	1019.81
SMA	1998	130.23	667.02	12.14	809.39
SMA	1999	176.44	1051.36	12.91	1240.71
SMA	2000	155.58	1019.67	13.67	1188.92
SMA	2001	155.75	1131.68	13.67	1301.1
SMA	2002	121.94	802.99	4.69	929.62
SMA	2003	228.74	848.92	5.68	1083.34
SMA	2004	133.5	919.96	0.79	1054.25
SMA	2005	154.89	937.72	42.85	1135.46
SMA	2006	177.88	996.06	5.65	1179.59
SMA	2007	243.83	1040.51	14.63	1298.97
SMA	2008	212.49	968.04	13.69	1194.22
SMA	2009	294.17	1200.83	1.48	1496.48
SMA	2010	272	916.7	19.65	1208.35
SMA	2011	162.98	648.38	11.47	822.83
SMA	2012	229.46	716.27	1.83	947.56
SMA	2013	344.68	699.87	9.41	1053.96
SMA	2014	263.22	784.39	3.31	1050.92
SMA	2015	334.13	552.78	11.45	898.36
SMA	2016	445.69	1020.07	15.66	1481.42
SMA	2017	271.13	701.99	9.8	982.92
SMA	2018	223.22	862.25	28.24	1113.71
SMA	2019	213.61	842.54	3.3	1059.45
SMA	2020	194.27	663.97	15.81	874.05
SMA	2021	133.47	442.17	22.97	598.61
SMA	2022	133.47	442.17	22.97	598.61

AFTER (on June 1, 2024)

Species	year	Drift gill-net	Longline	Others	Total
SMA	1994	110.45877	1416	22	1548
SMA	1995	92.54654	1710	15	1818
SMA	1996	90.75531	1626	18	1734
SMA	1997	114.48902	1474	17	1605
SMA	1998	116.95195	1327	13	1457
SMA	1999	158.44863	1922	14	2094
SMA	2000	139.71542	1688	16	1843
SMA	2001	139.86468	1640	16	1796
SMA	2002	121.937	1387	5	1514
SMA	2003	228.73615	1298	6	1532
SMA	2004	133.50362	1284	1	1418
SMA	2005	154.94791	1354	43	1552
SMA	2006	177.87603	1474	6	1657
SMA	2007	243.83372	1628	15	1886
SMA	2008	212.48888	1291	14	1517
SMA	2009	294.17396	1633	1	1928
SMA	2010	272.00108	1445	20	1737
SMA	2011	146.35787	820	11	977
SMA	2012	206.06531	967	2	1175
SMA	2013	344.67498	755	9	1109
SMA	2014	263.22224	1054	3	1321
SMA	2015	334.12653	1112	11	1457
SMA	2016	445.68967	1268	16	1729
SMA	2017	271.12689	874	10	1155
SMA	2018	223.2158	995	28	1247
SMA	2019	213.60528	883	3	1100
SMA	2020	194.27171	549	16	759
SMA	2021	133.47128	474	23	630
SMA	2022	160.56503	618	41	819

Difference

Species	year	Drift gill-net	Longline	Others	Total
SMA	1994	-13	668	4	659
SMA	1995	-11	725	2	716
SMA	1996	-10	473	4	467
SMA	1997	-13	597	2	585
SMA	1998	-13	660	1	647
SMA	1999	-18	870	1	854
SMA	2000	-16	668	2	654
SMA	2001	-16	509	2	495
SMA	2002	0	584	0	584
SMA	2003	0	449	0	449
SMA	2004	0	364	0	364
SMA	2005	0	417	0	417
SMA	2006	0	478	0	478
SMA	2007	0	587	0	587
SMA	2008	0	323	0	323
SMA	2009	0	432	0	432
SMA	2010	0	528	0	528
SMA	2011	-17	171	0	155
SMA	2012	-23	251	0	227
SMA	2013	0	55	0	55
SMA	2014	0	270	0	270
SMA	2015	0	559	0	559
SMA	2016	0	248	0	248
SMA	2017	0	172	0	172
SMA	2018	0	133	0	133
SMA	2019	0	41	0	41
SMA	2020	0	-115	0	-115
SMA	2021	0	31	0	31
SMA	2022	27	176	18	220