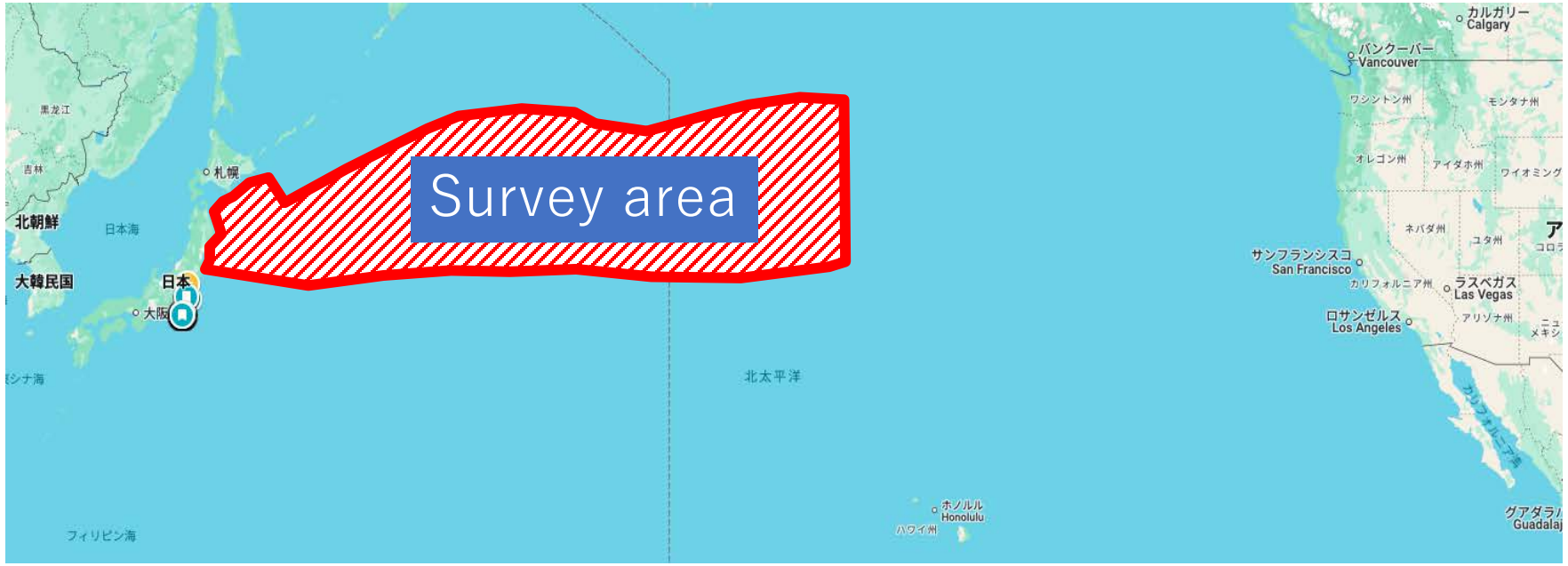
Introduction of Japanese survey and length composition data to be provided

The Japanese survey

- Fishery-independent survey by a surface trawl net to assess annual situation of the fishery target for Japanese PS industry
- Since 2003–, every Jun. –Jul., 143E–165W by 4°, 8–18℃
- Covers the habitat of age 1 fish in this season
- The result has been provided to NPFC as an abundance index



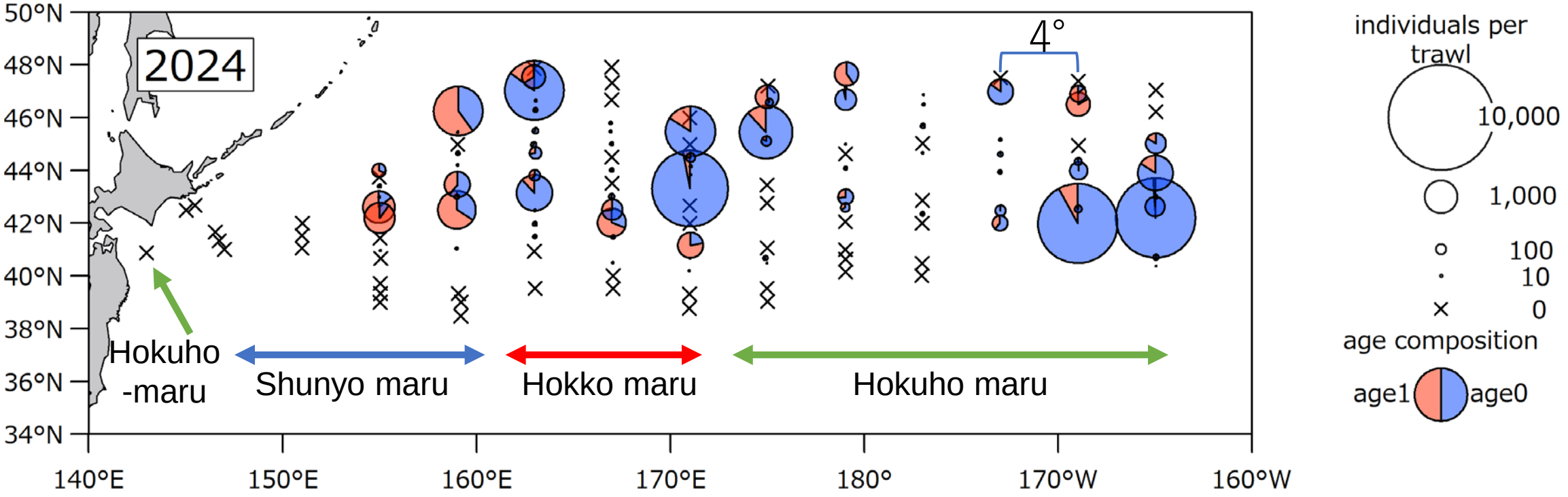
Surface trawl

Survey in 2024

- The three research ships were used.
- The same type trawl (NST-99) was used in all ships.
- The trawl surveys were conducted at 137 stations from 15th June to 13th July.

*Gross Tonnage (GT) in Japanese law

Results of the 2024 survey

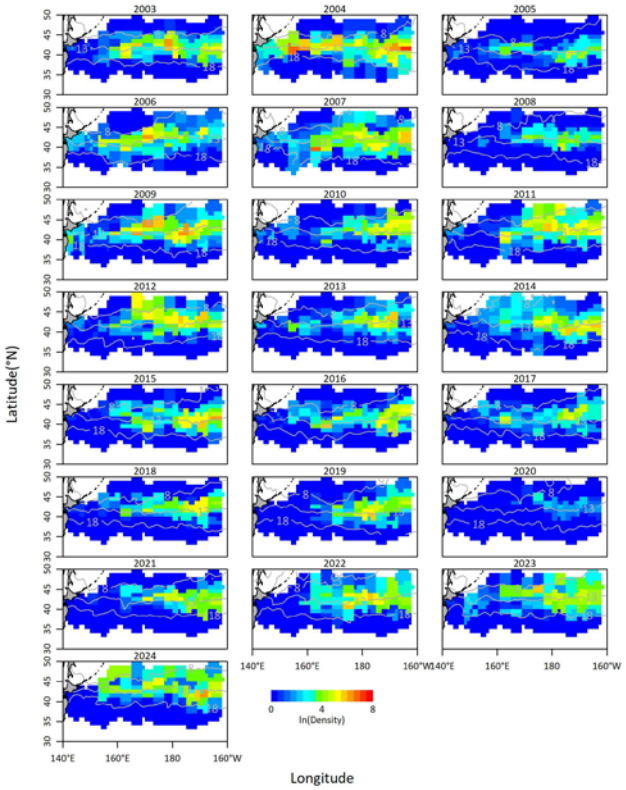


- 1h trawl at each sampling station during the daytime
- 40,044 individuals were caught through the survey
- PS occurred between 155E and 165W
- The age 1 fish was mainly distributed between 155E and 159E

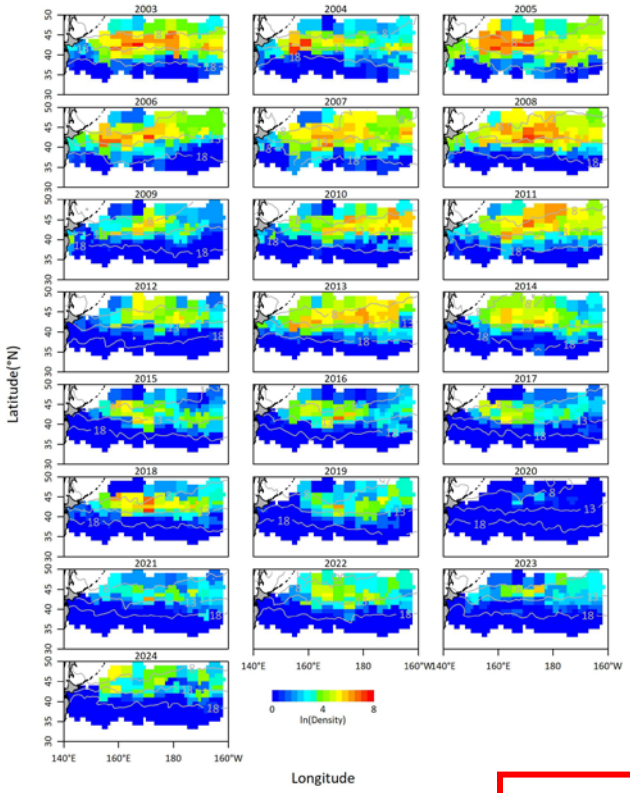
Abundance indices

- The densities (catch / area swept) of age 0 and 1 fish are smoothed by the VAST model
- Sums of the densities throughout the survey area are provided as abundance indices
- Total biomass index for BSSPM
- Age 0 and 1 indices for SS3

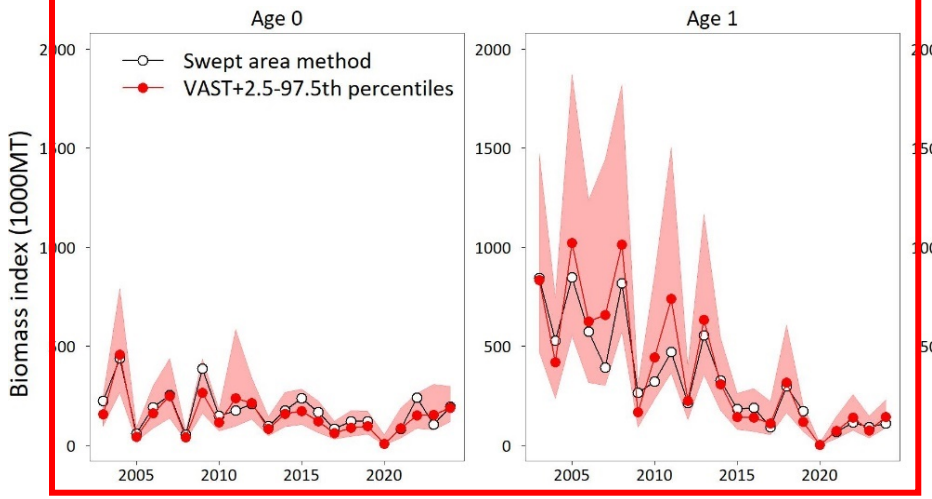
Age 0



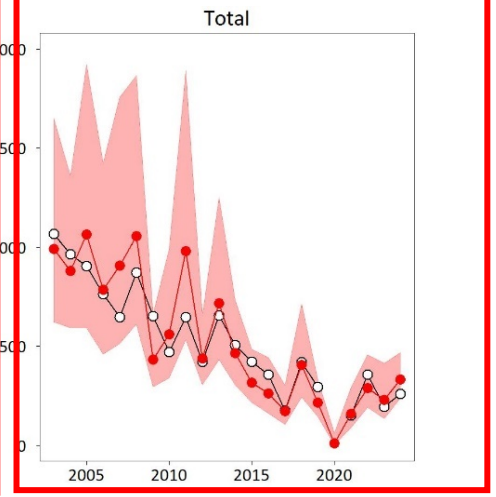
Age 1



for SS3



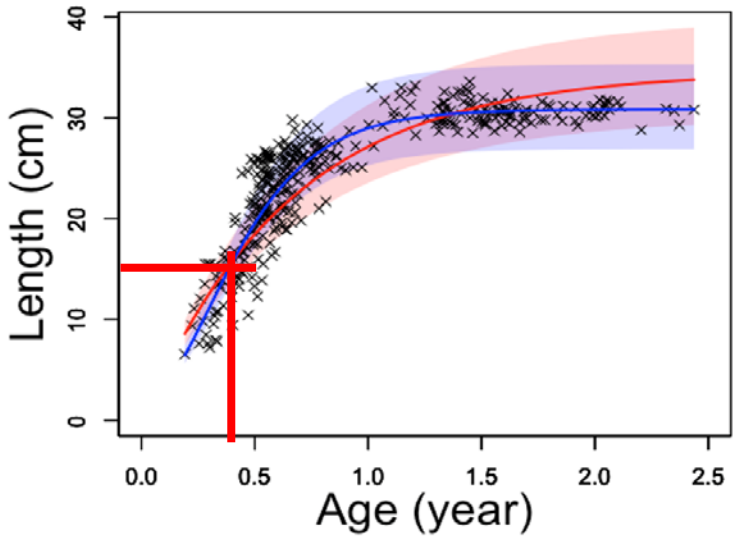
for BSSPM



NOTE THAT…

- Fish < 15cm can escape from the trawl net
- Age 0 > 15cm in summer can be fishery target within the year

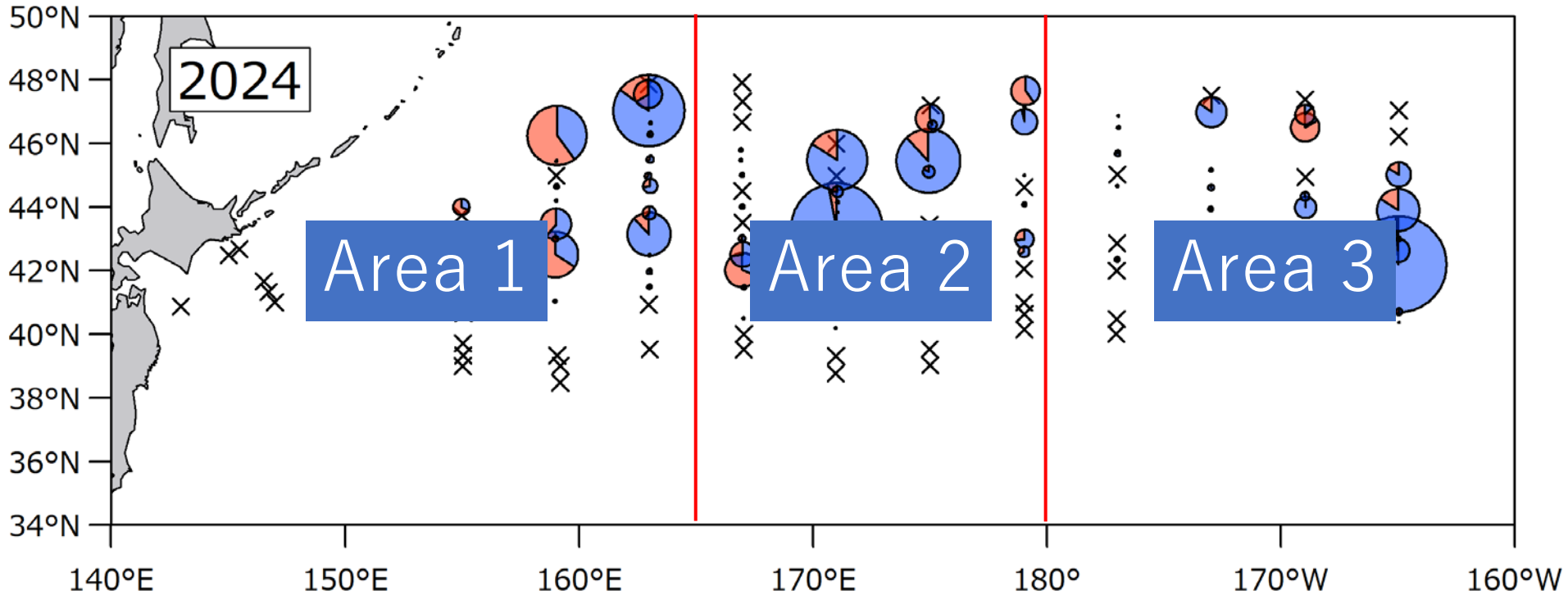
- The age 0 index covers > 0.4 or 0.5 years old



Data to be provided

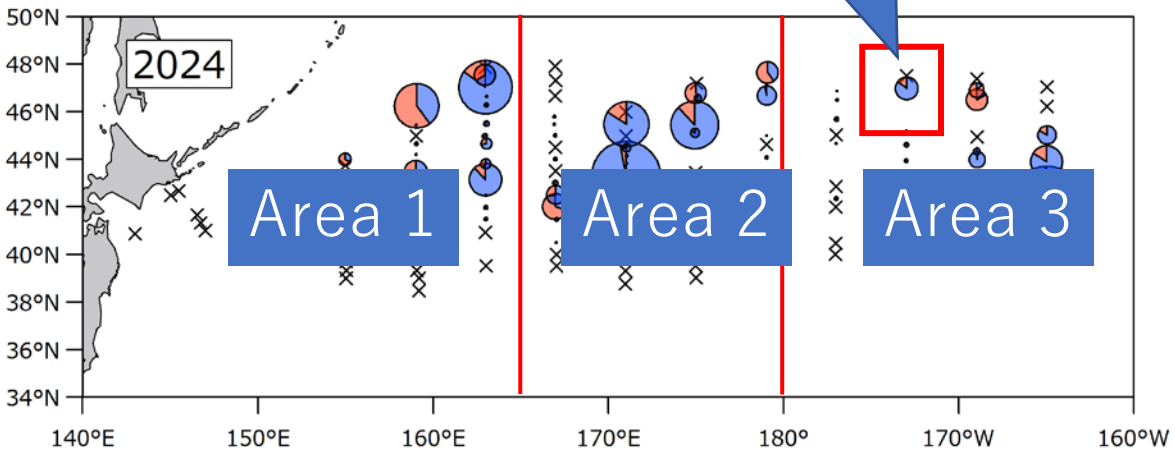
Agenda 8. Other matters↵

The WG NSAM **requested** Japan to provide length composition data from Japanese surveys as follows: total number of catch individuals in each 1 cm size class by three areas, west of 165°E, 165°E – 180° and 180° - 165°W, from 2003 to the most recent year.↵



Size distribution calculation

- 500 fish was sampled
- 80 out of the 500 were measured
- The frequency of each size class is raised by 500/80

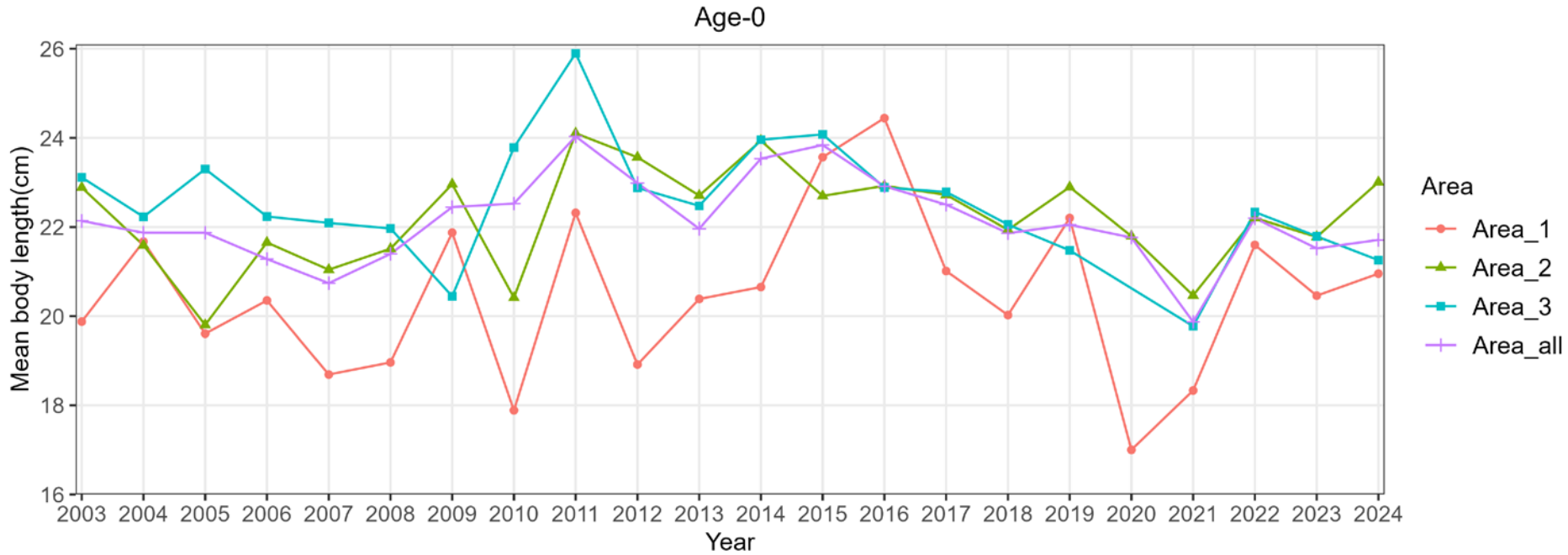


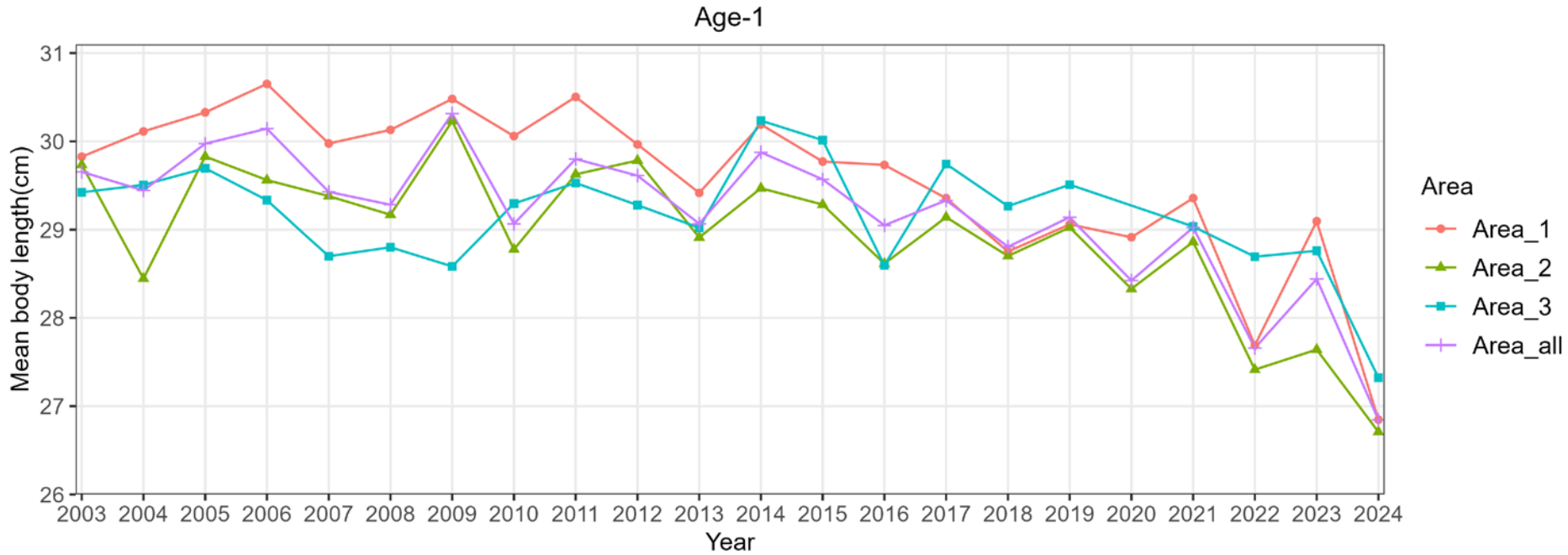
- about 100 fish were randomly selected from the sample at each survey station
- measurement of the body length is conducted in the laboratory
- Size distribution of each sample set was raised to the total catch number of the corresponding station.
- Size distribution for each station was summed within each area

Will be provided in the next SSCPS with a document.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Year	Area	N_5	N_6	N_7	N_8	N_9	N_10	N_11	N_12	N_13	N_14	N_15	N_16	N_17	N_18	N_19
2	2003	1	0	0	0	0	0	0	40.595186	280.469886	794.059611	1212.06535	1571.03219	1198.27201	987.620807	1096.43922	1348.3
3	2003	2	0	0	0	0	10.624683	39.325758	39.325758	25.765152	45.096703	28.814617	47.104912	128.485319	205.768451	569.557278	835.52
4	2003	3	0	0	0	0	0	0	0	0	0	0	0	6.446927	21.936527	53.206965	227.00
5	2004	1	0	0	0	0	0	0	0	63.678319	399.05423	1551.41272	2176.24833	1924.63927	2145.89214	2423.35758	1881
6	2004	2	0	0	0	5.167513	5.167513	10.335025	10.335025	12.440288	13.588566	68.340138	700.484939	2597.30838	3022.87146	2275.18733	2480
7	2004	3	0	0	0	0	0	0	2.236667	652.47381	2510.94619	6208.96081	6192.53248	3946.22105	4122.93573	3330.58125	3775.9
8	2005	1	0	0	0	0	0	4.641618	88.190751	287.780347	250.647399	55.699422	41.774566	155.492254	257.355951	476.794469	420.02
9	2005	2	0	0	0	0	0	0	0	7.209302	0	7.060606	28.242424	225.939394	171.740259	43.506493	73.78
10	2005	3	0	1	0	0	0	0	0	0	0	1	5.394052	11.935503	117.060231	397.698616	668.37
11	2006	1	0	0	0	0	0	0	0	171.812903	390.350452	519.805888	1535.14319	2530.25933	1768.40804	1482.905	2432.0
12	2006	2	0	0	0	0	0	0	0	26.88	63.84	228.665	517.4771	920.938441	1561.81309	1559.83531	1782.8
13	2006	3	0	0	0	0	0	1.173554	0	0	1.173554	14.088947	23.515191	35.338961	35.313752	34.003411	43.36
14	2007	1	0	0	0	0	0	0	0	26.95	371.236005	905.017043	915.847921	1569.03412	3106.56005	4403.00053	3609.7
15	2007	2	0	0	0	0	0	8.126667	28.506667	28.506667	78.393333	313.573333	532.968123	629.927204	786.143178	1063.74559	528.16
16	2007	3	0	0	0	0	0	0	0	2.904762	14.113915	141.89314	900.436053	2069.88747	2469.56797	2075.93794	921.11
17	2008	1	0	0	0	0	0	0	0	0	0	0	1.052632	2.105263	3.157895	16.852632	121.92
18	2008	2	0	0	0	0	0	0	16.050251	1.803653	1.803653	16.050251	68.583968	156.573155	174.628328	256.493301	253.76
19	2008	3	0	0	0	0	0	0	0	0	0	26.54	159.24	384.83	464.45	288.960773	445.03
20	2009	1	0	0	0	0	0	0	0.959538	3.83815	6.716763	25.57151	34.20415	90.329103	142.156764	173.221264	158.88

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1						1	2	3	4	5	6	7	8	9	10	11	12	13	14
2	2003				2003														
3		Area_1		2003_Area_1_all	Area_1												6	22	
4			0	2003_Area_1_Age-0	0												6	22	
5			1	2003_Area_1_Age-1	1														
6			Unidentified		9														
7				2003_Area_1		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.
8		Area_2		2003_Area_2_all	Area_2									1	15	20	13	25	
9			0	2003_Area_2_Age-0	0									1	13	20	13	25	
10			1	2003_Area_2_Age-1	1														
11			Unidentified		9										2				
12				2003_Area_2		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.
13		Area_3		2003_Area_3_all	Area_3														
14			0	2003_Area_3_Age-0	0														
15			1	2003_Area_3_Age-1	1														
16			Unidentified		9														
17				2003_Area_3		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.
18		Area_all		2003_Area_all_all	Area_all									1	15	20	19	47	
19			0	2003_Area_all_Age-0	0									1	13	20	19	47	
20			1	2003_Area_all_Age-1	1														
21			Unidentified		9										2				
22				2003_Area_all		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.


Age-0
Mean body length(cm)
26
24
22
20
18
16
2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024
Year
Area
Area_1
Area_2
Area_3
Area_all


Age-1
Mean body length(cm)
31
30
29
28
27
26
2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024
Year
Area
Area_1
Area_2
Area_3
Area_all