Agenda Item 5.1

Discussion on the submitted data of length and weight of chub mackerels from China and Japan

NPFC 2024 TWG CMSA8 WP13

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Submitted data

- ▶ Raw data submitted from CHINA and JAPAN

- ▶ Japanese data are aggregated into Eastern/Western

- ▶ < 1000 data from Eastern Japan for each quarter

Year	Quarter	China	Eastern Japan	Western Japan
2016	2	104	-	-
	3	261	-	-
	4	61	-	-
2017	1	43	-	-
	2	104	-	-
	3	728	-	-
	4	101	-	-
2018	1	30	4945	695
	2	211	3622	873
	3	22	804	560
	4	61	1822	364
2019	1	52	4044	669
	2	734	2121	784
	3	137	1546	1338
	4	98	1733	1331
2020	1	112	3725	2979
	2	503	1191	3878
	3	436	1096	654
	4	293	6628	596
2021	1	155	5016	1775
	2	331	3733	1664
	3	324	1700	985
	4	115	3996	667
2022	1	-	6818	643
	2	511	4458	646
	3	590	2489	382
	4	365	4232	292
2023	1	-	1391	205
	2	265	-	-
	3	197	-	-

Table 1

Chinese L-W relationship

- Data from 2016-2023
- Mainly between Q2-Q4
- Some quarters show scarce data
- Scarce data may affect estimating parameters
- Large (>40cm FL) are absent
- Heavy (>750g) are present

Figure 1a
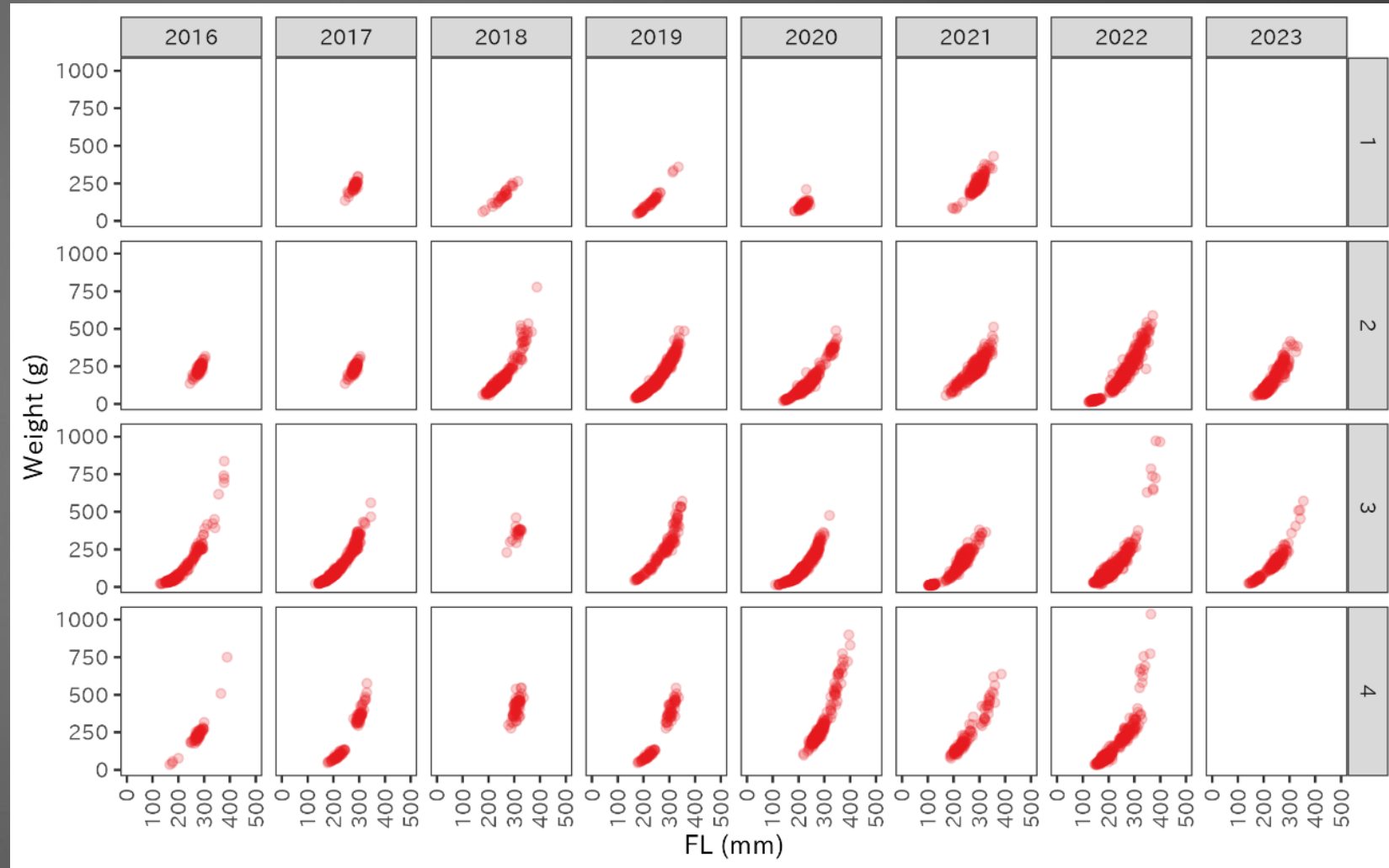
Japanese L-W relationship

- EASTERN prefectures
- Data from 2018-2023
- Abundant throughout the years
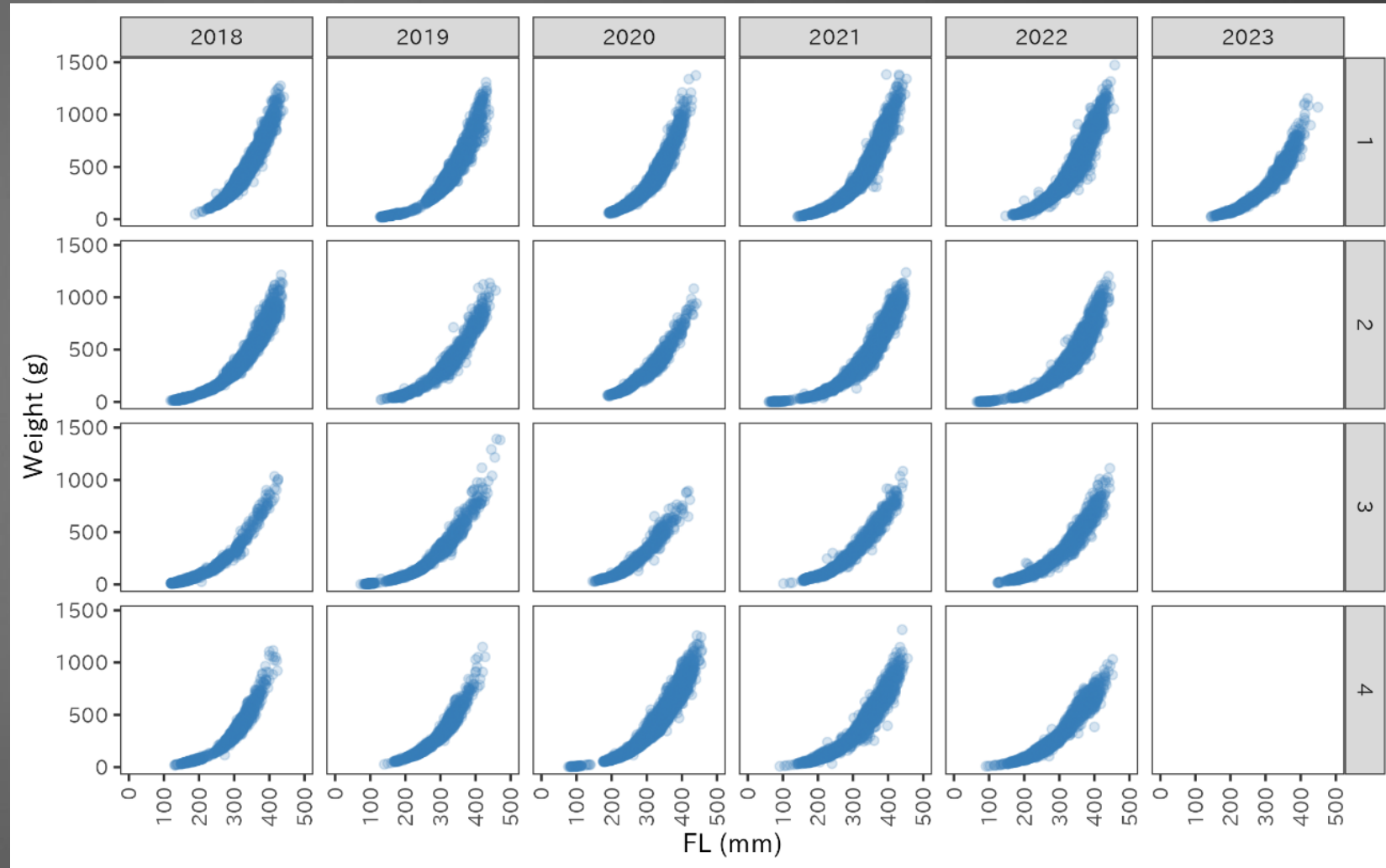- Large (>40cm FL) are present
- Recent relationships are reclining?

Figure 1b

Japanese L-W relationship

- WESTERN prefectures
- Data from 2018-2023
- Limited to certain lengths for some quarters
- Large (>40cm FL) are absent since 2022
- May affect estimating the parameters

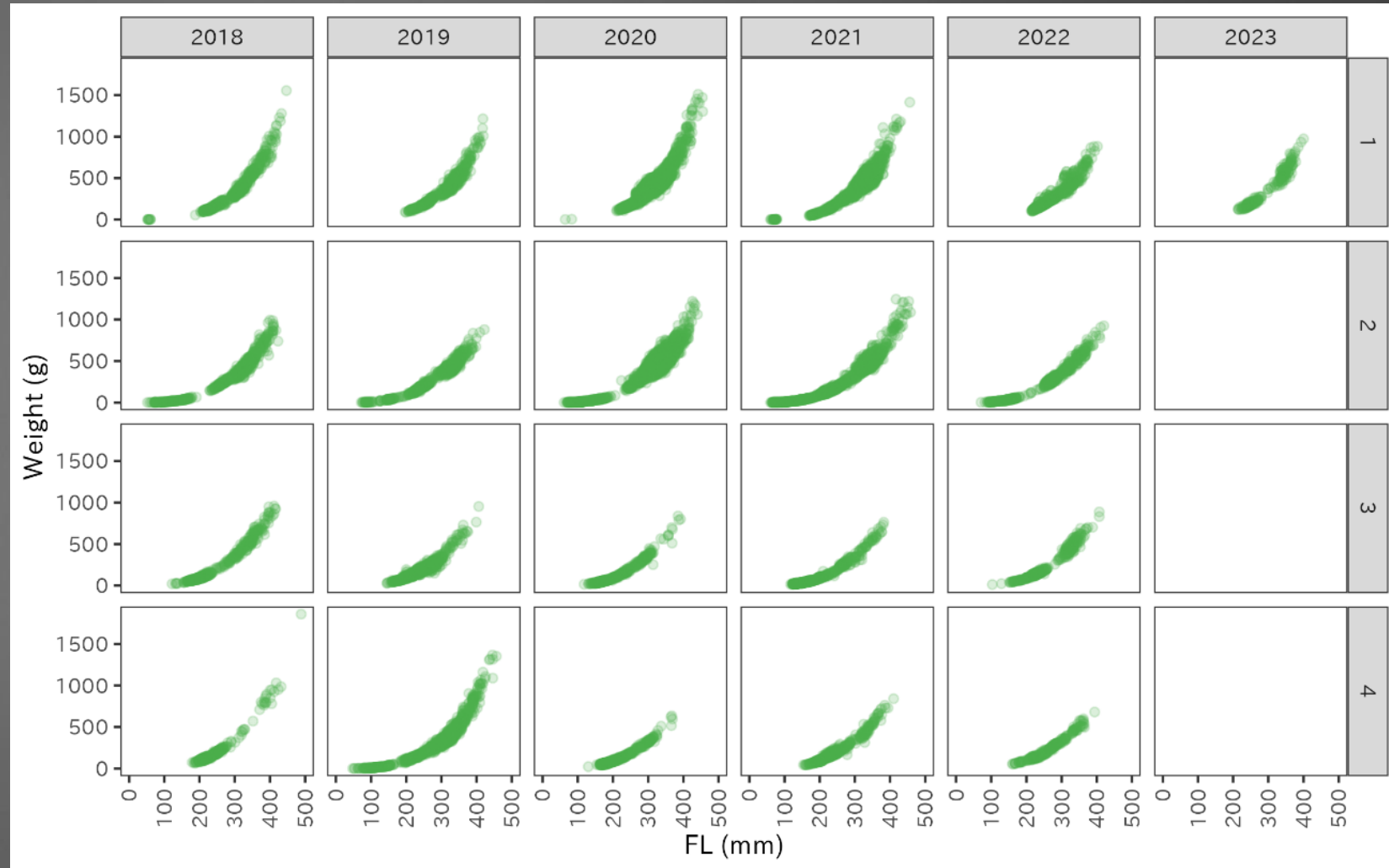Figure 1c

Combined L-W

- ▶ Mostly overwrapped
- ▶ Little difference in some quarters
- ▶ Each data supplements the data gap

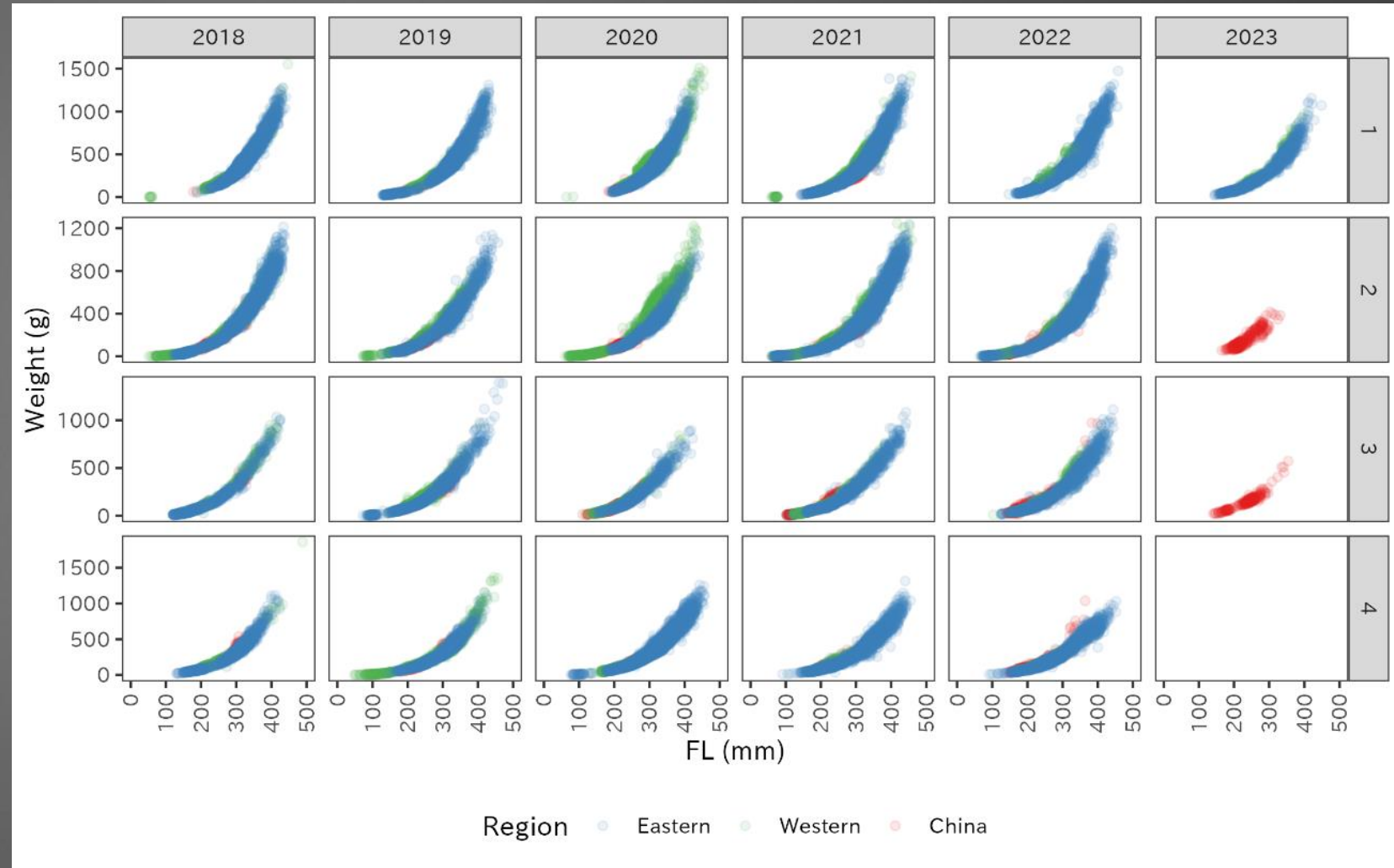- ▶ OVERALL, L-W relationship among three regions can be considered as SIMILAR

Figure 2

- ▶ Mostly overwrapped
- ▶ Sometimes curves exhibit different pattern (e.g. lighter at large size)
- ▶ Due to the data abundance (scarce data at large size reclines the curve)
- ▶ Overall, catches from three regions can be considered equivalent
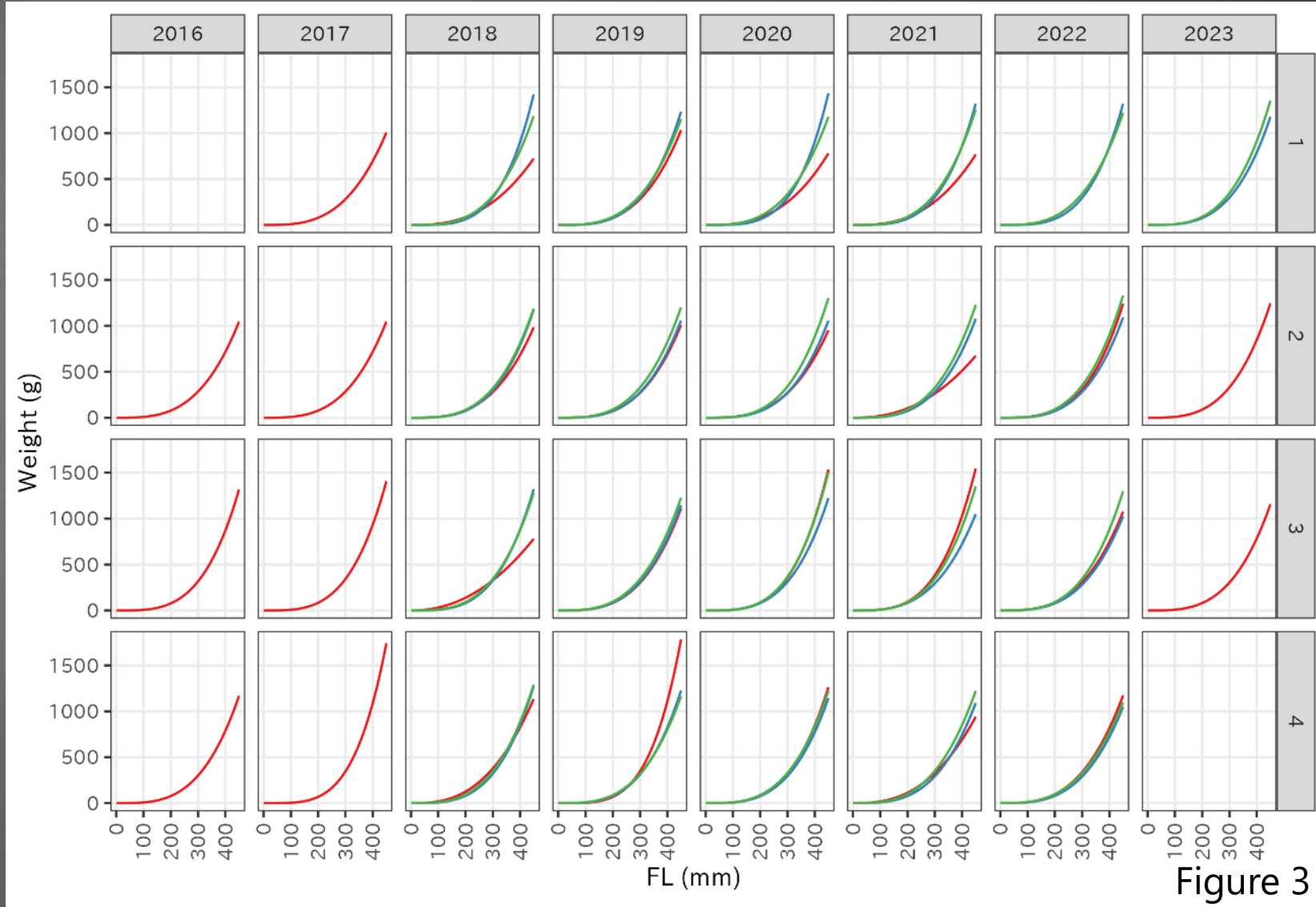- ▶ Comparative study on the further data is feasible

Figure 3