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**SCIENTIFIC COUNCIL MEETING - JUNE 2022****ESTONIAN RESEARCH REPORT FOR 2021**

by

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This Report contains information for Estonian fishing vessels which operated in NAFO RA in 2021. Fishery took place only in SA 3. Catch, effort and length distribution information by sub-areas is from onboard NAFO observers. In Estonia, NAFO observers are employed by the Estonian Marine Institute, and they are also specially trained to collect basic scientific data.

**Sub-area 3****A. Status of the Fishery**

In 2021 two vessels were all year-round fishing in SA3, both targeting only finfish and skates. One trip started in last days of 2020 and was completed in 2021. In 2021, three more trips took place. Observers were on board during all these trips, and they also collected biological samples (Table 1).

Vessels spent majority of the fishing time in zone 3M (Table 2), with a total catch of 1044 tonnes, followed by 3L and 3N with a total catch of 534 and 982 tonnes respectively. The vessels spent the least time in Area 3O, where a very significant total catch of 912 tonnes was caught.

The fishing effort that had an upward trend since 2015 has fallen again in recent years and is now comparable with the middle of the previous decade (Table 3). According to observer estimated catch and discard data, main target species were RED, HKS, and GHL, followed by RHG, YEL and COD in 2021 (Table 4).

In addition to effort and discard information, specifically trained NAFO observers collected length, weight, sex data and otoliths for age reading. Compared to the previous year, the number of samples has increased, especially for by-catch species. The list of collected data is in Table 1. All lengths are TL and length groups (LG) on figures 2-4 are rounded to the nearest half centimeter. Mesh sizes of used OTB trawls in finfish fishery in codend were between 138-146 mm and for skates 285 mm. Length distributions are presented by species as sampled number of fish by subareas (Tables 5-9, figures 1-4).



**Table 1.** Biological sampling list for Estonia in 2021. Gear OTB, Type of Sample OC. \*Number of sexed fish;  
\*\*Only age structures collected, fish are not aged yet.

Country	Species Code	Species Code	Month	Retained/Discarded/Unsorted	No. of samples	No. Measured	No. Sexed*	No. Aged**	No. Weighed
EST	COD	3L	4	Retained	1	22	22	22	20
EST	COD	3M	1	Retained	3	127	75	127	70
EST	COD	3M	7	Retained	3	148	148	148	63
EST	COD	3M	8	Retained	1	49	49	49	21
EST	COD	3N	8	Retained	3	82	82	-	-
EST	COD	3N	8	Discarded	1	42	42	5	-
EST	COD	3N	9	Retained	5	124	124	-	-
EST	COD	3N	9	Discarded	4	95	95	-	-
EST	GHL	3L	10	Retained	2	267	267	84	84
EST	GHL	3L	11	Retained	8	903	903	343	286
EST	GHL	3L	12	Discarded	2	104	104	-	-
EST	GHL	3M	11	Retained	4	317	317	180	116
EST	GHL	3M	12	Retained	1	43	43	43	-
EST	GHL	3M	12	Discarded	1	27	27	-	-
EST	GHL	3N	9	Retained	1	3	3	-	3
EST	GHL	3N	9	Discarded	6	26	26	25	26
EST	RED	3L	2	Retained	2	107	107	107	-
EST	RED	3L	3	Discarded	1	43	-	-	-
EST	RED	3L	7	Retained	2	332	332	27	-
EST	RED	3L	7	Discarded	1	53	53	-	-
EST	RED	3L	8	Retained	1	75	75	-	-
EST	RED	3M	1	Retained	5	414	112	175	-
EST	RED	3M	1	Discarded	2	124	-	-	-
EST	RED	3M	2	Retained	2	82	82	82	40
EST	RED	3M	2	Discarded	1	63	-	-	-
EST	RED	3M	7	Retained	9	1051	1051	1051	-
EST	RED	3M	7	Discarded	2	19	18	19	-
EST	RED	3N	2	Retained	1	36	36	36	30
EST	RED	3N	2	Discarded	1	31	-	-	-
EST	RED	3N	3	Retained	1	44	44	44	40
EST	RED	3N	7	Retained	1	109	109	-	-
EST	RED	3N	8	Retained	3	247	247	102	-
EST	RED	3N	9	Retained	3	300	300	-	-
EST	RED	3N	9	Discarded	2	98	98	-	-
EST	RED	3O	3	Retained	4	248	87	248	80
EST	RED	3O	3	Discarded	1	121	-	-	-
EST	RED	3O	6	Retained	2	463	463	75	-

Country	Species Code	Species Code	Month	Retained/Discarded/Unsorted	No. of samples	No. Measured	No. Sexed*	No. Aged**	No. Weighed
EST	RED	30	8	Retained	3	309	309	25	-
EST	RED	30	8	Discarded	1	27	27		-
EST	YEL	3N	6	Retained	9	909	450	491	-
EST	YEL	3N	6	Discarded	2	91	91	-	-
EST	APQ	3L	12	Discarded	2	3	3	4	-
EST	CAB	3L	12	Discarded	3	25	25	-	-
EST	CAB	3M	12	Discarded	2	9	9	-	-
EST	CFB	3L	10	Discarded	1	7	7	-	-
EST	CFB	3L	12	Discarded	2	28	28	-	-
EST	CFB	3M	12	Discarded	2	50	50	-	-
EST	CYO	3L	12	Discarded	1	1	1	-	-
EST	GDE	3L	11	Discarded	1	33	33	-	-
EST	GDE	3L	12	Discarded	4	123	123	-	-
EST	GDE	3M	12	Discarded	1	10	10	-	-
EST	HAL	3N	9	Retained	4	29	29	-	-
EST	HKS	30	6	Retained	2	175	175	-	-
EST	HKS	30	8	Retained	4	339	339	-	-
EST	HKS	30	8	Discarded	1	50	50	-	-
EST	HKW	30	8	Retained	1	23	23	23	-
EST	ORY	3M	12	Discarded	2	2	2	1	1
EST	PLA	3N	6	Retained	5	136	136	136	-
EST	PLA	3N	6	Discarded	1	23	23	-	-
EST	PLA	3N	9	Retained	5	196	196	-	-
EST	RHG	3L	11	Retained	1	54	54	-	-
EST	RHG	3L	12	Discarded	2	137	137	-	-
EST	RHG	3M	11	Retained	2	106	106	-	-
EST	RHG	3M	12	Retained	1	42	42	-	-
EST	RNG	3L	10	Discarded	1	42	42	-	-
EST	SQI	3N	9	Retained	1	38	38	-	-
EST	SQI	30	8	Retained	2	150	150	-	-
EST	WIT	3N	9	Retained	1	7	7	-	-
TOTAL						9613	8256	3672	880

**Table 2.** Fishing effort (hours) of Estonian fleet targeting finfish in NAFO area by division and month.

<b>2021</b>	<u>Division</u>				
Month	3L	3M	3N	3O	Grand Total
1	5	205			210
2	31	95	33	46	205
3	55		37	147	239
4	21	20	1		42
6			316	72	388
7	105	339	13	6	463
8	48	10	76	327	461
9			272		272
10	36	7			43
11	305	126			431
12	195	230	42		467
Total effort, hrs	801	1032	790	598	3221

**Table 3.** Fishing effort (hours) of Estonian fleet targeting finfish in NAFO area in 2011-2021 by division.

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>3L</b>	1240	531	1413	1425	980	985	1022	1581	1772	1379	801
<b>3M</b>	1550	243	2534	1260	816	486	2702	2922	2590	725	1032
<b>3N</b>	98	796	937	856	999	1483	1130	702	833	534	790
<b>3O</b>	50	48	92	423	578	736	560	229	63	290	598
<b>Total effort, hrs</b>	2938	1619	4976	3965	3373	3690	5414	5434	5258	2928	3221

**Table 4.** Observer estimated retained catch and discard (tonnes) of Estonian fleet in NAFO area by division.

2021	Latin name	3L			3M			3N			3O			All areas total
		kept	disc	total	kept	disc	total	kept	disc	total	kept	disc	total	
ANG	<i>American angler</i>			0.0			0.0			0.0	1.1		1.1	1.1
BSK	<i>Basking shark</i>			0.0		2.5	2.5			0.0			0.0	2.5
CAB	<i>Northern wolffish</i>		0.1	0.1		0.1	0.1			0.0			0.0	0.2
CAS	<i>Anarhichas minor</i>			0.0		0.2	0.2			0.0			0.0	0.2
CFB	<i>Black dogfish</i>		0.1	0.1		0.1	0.1							0.2
COD	<i>Gadus morhua</i>	2.9	0.1	3.0	61.5	0.2	61.7	25.3	1.1	26.4	12.1	0.1	12.2	103.3
GPE												0.1		0.0
GHL	<i>Reinhardtius hippoglossoides</i>	214.0	0.3	214.3	150.5	0.2	150.7	5.3		5.3				370.3
GSK	<i>Sonmuousus microcephalus</i>		3.0	3.0		1.7	1.7		4.1	4.1			0.0	8.8
HAL	<i>Hippoglossus hippoglossus</i>	3.6	0.1	3.7	4.8		4.8	18.5	0.1	18.6	9.2		9.2	36.3
HKS	<i>Silver hake</i>										456.0	2.9	458.9	458.9
HKW	<i>Urophycis tenuis</i>										1.6	0.5	2.1	2.1
MZZ	<i>Osteichthyes</i>		1.6	1.6		2.6	2.6		2.5	2.5		2.4	2.4	9.1
PLA	<i>Hippoglossoides platessoides</i>	4.0	0.1	4.1	16.8	0.1	16.9	54.2	0.5	54.7	7.7	0.1	7.8	83.5
POR	<i>Lamna nasus</i>											0.1	0.1	0.1
RED	<i>Sebastes spp</i>	168.0	0.3	168.3	637.8	1.0	638.8	518.4	1.1	519.5	262.0	0.7	262.7	1589.3
RHG	<i>Macrourus berglax</i>	174.9	1.2	176.1	142.6	1.0	143.6	0.5	0.2	0.7	0.5		0.5	320.9
RNG	<i>Roundnose grenadier</i>		0.1	0.1								0.1		0.2
SKA	<i>Raja spp</i>	1.3	0.3	1.6	10.0	0.2	10.2	9.5	0.7	10.2	4.6	0.1	4.7	26.7
SQI	<i>Northern shortfin squid</i>							0.3		0.3	7.0		7.0	7.3
WIT	<i>Glyptocephalus cynoglossus</i>	2.5	0.1	2.6	46.3	0.2	46.5	1.1	0.1	1.2	18.2		18.2	68.5
YEL	<i>Limanda ferruginea</i>							304.0	0.6	304.6				304.6

**Table 5.** Length distribution (sampled number of fish) of cod in NAFO area. 0-female, 1-male.

COD	3L			3M			3N				Total
	0	1	3L Total	0	1	3M Total	0	1	un	3N Total	
260									1	1	1
265									1	1	1
270									1	1	1
280									3	3	3
290									1	1	1
295									3	3	3
300									4	4	4
305								1		1	1
310									5	5	5
315									1	1	1
320									4	4	4
325									3	3	3
330									6	6	6
335							1		4	5	5
340									10	10	10

COD	3L			3M			3N				Total
	LG, mm	0	1	3L Total	0	1	3M Total	0	1	un	
345									2	2	2
350							1		6	7	7
355									3	3	3
360									4	4	4
365								1	7	8	8
370									3	3	3
375									4	4	4
380									7	7	7
385									7	7	7
390									10	10	10
395								1	3	4	4
400									7	7	7
405									2	2	2
410									3	3	3
415									5	5	5
420									5	5	5
425									2	2	2
430									5	5	5
435									3	3	3
440									3	3	3
445									5	5	5
450									4	4	4
455									2	2	2
460									7	7	7
465									2	2	2
470									4	4	4
475									6	6	6
480									5	5	5
485									4	4	4
490				1	1	2			5	5	7
495									2	2	2
500									5	5	5
505									2	2	2
510		1	1	1	2	3			1	1	5
515									2	2	2
520	1		1						3	3	4
525									7	7	7
530				1		1			6	6	7
535					3	3			2	2	5

COD	3L			3M			3N			Total	
	LG, mm	0	1	3L Total	0	1	3M Total	0	1		un
540		2	2	1	1	2			1	1	5
545				1	1	2			5	5	7
550				2	1	3			7	7	10
555				2	2	4			6	6	10
560				1	3	4			8	8	12
565				3	1	4			5	5	9
570	1	1	2	4	1	5			3	3	10
575				3	4	7			5	5	12
580	2		2	6	7	13			8	8	23
585				2	1	3			7	7	10
590	1		1	5	5	10			3	3	14
595				2	6	8			6	6	14
600				4	5	9			3	3	12
605				2	8	10			5	5	15
610	2		2	2	10	12			5	5	19
615				7		7			4	4	11
620		2	2	2	9	11			4	4	17
625				2	2	4			6	6	10
630	1	1	2	7	5	12			4	4	18
635				2	1	3			2	2	5
640				7	5	12			2	2	14
645				3	3	6			1	1	7
650				7	5	12			1	1	13
655				6	1	7			4	4	11
660	1		1	4	7	11			1	1	13
665				2		2			4	4	6
670	1		1	9	3	12					13
675				6	3	9			2	2	11
680				5	6	11					11
685				5	1	6			1	1	7
690	3		3	5	2	7			1	1	11
695				1		1			1	1	2
700	1		1	4	2	6					7
705				3		3			1	1	4
710				3	5	8			2	2	10
715				4	1	5			2	2	7
720				6	2	8					8
725					2	2			1	1	3
730				5	1	6					6

COD	3L			3M			3N			Total	
	LG, mm	0	1	3L Total	0	1	3M Total	0	1		un
735				1	2	3			1	1	4
740				3		3					3
745					1	1					1
750				1		1					1
755				1		1			1	1	2
760				2		2					2
770				2	1	3			1	1	4
775				1		1					1
780				3	2	5					5
785				2	1	3			1	1	4
790	1		1	3	1	4					5
795				1	1	2					2
800				1		1					1
810				1		1					1
815				2		2					2
830				1	1	2					2
835				2	1	3					3
840					1	1					1
850					1	1					1
860				1		1					1
875				1		1			1	1	2
880				1		1					1
895				1		1					1
900				1		1					1
905				1		1					1
950				1		1					1
1070				1		1					1
<b>Total</b>	<b>15</b>	<b>7</b>	<b>22</b>	<b>183</b>	<b>141</b>	<b>324</b>	<b>2</b>	<b>3</b>	<b>338</b>	<b>343</b>	<b>689</b>



**Table 6.** Length distribution (sampled number of fish) of Greenland halibut in NAFO area. 0-female, 1-male and un-unsexed.

GHL	3L			3L Total	3M			3M Total	3N			3N Total	Total
	0	1	un		0	1	un		0	1	un		
200										1		1	1
210									1			1	1
220											1	1	1
225									3	1		4	4
230										1		1	1
235									1			1	1
240									1			1	1
245									1	2	1	4	4
250									3	1		4	4
255			1	1					1			1	2
260											1	1	1
270			1	1									1
275										1		1	1
285			1	1									1
295			1	1			1	1					2
300			2	2									2
305			1	1			1	1					2
310							1	1					1
315							1	1	1			1	2
320	1		1	2			2	2					4
325			3	3									3
330			3	3			2	2					5
335			8	8	1		1	2					10
340			9	9			1	1					10
345		1	11	12			3	3					15
350			9	9			3	3					12
355		1	11	12	2		4	6					18
360			9	9			1	1					10
365			11	11		1	3	4					15
370	1		10	11	1			1					12
375		2	5	7		1	1	2					9
380	1		7	8			1	1	1			1	10
385			6	6		1	1	2	1			1	9
390			10	10	1		3	4					14

GHL	3L			3L Total	3M				3N				Total
	0	1	un		0	1	un	3M Total	0	1	un	3N Total	
395	5	3	7	15	3	1	1	5					20
400	2	2	5	9		2	2	4					13
405		4	9	13	1	1	1	3					16
410	3	2	12	17	2	2		4					21
415	1	4	15	20		1	4	5					25
420	5	5	17	27	1	2	2	5	1			1	33
425	5	6	16	27	2	1		3	1			1	31
430	5	4	18	27	1	1	1	3					30
435	3	4	21	28	2	1	3	6					34
440	6	3	20	29	2	3	3	8					37
445	10	9	28	47	1	4	4	9					56
450	6	3	24	33	5	1	6	12					45
455	10	3	29	42	3	4	4	11					53
460	4	6	23	33	8	3	1	12					45
465	4	1	24	29	5	1	3	9					38
470	11	8	22	41	6	4	6	16	1			1	58
475	6	7	28	41	5	2	3	10					51
480	9	4	24	37	2	1	4	7					44
485	5	6	25	36	4	2	7	13					49
490	11	5	23	39	6		2	8					47
495	12	3	39	54	10	2	7	19					73
500	6	3	11	20		1	4	5	1		1	2	27
505	4	1	19	24	5	2	4	11					35
510	3	3	25	31	4	2	3	9					40
515	11	6	19	36	3	3	5	11					47
520	4	3	14	21	3	3	5	11					32
525	13	2	16	31	9	1	5	15					46
530	5	4	14	23	4	2		6					29
535	8	2	19	29	4	4	3	11					40
540	6	3	11	20	3		2	5					25
545	5	3	24	32	2	1	3	6					38
550	4	2	14	20	3	1	3	7					27
555	12	3	11	26	1	2	4	7					33
560	6		10	16	3	1	2	6					22
565	11		10	21	3		2	5					26
570	4		9	13	3	1	2	6					19

GHL	3L			3L Total	3M				3N				Total
	0	1	un		0	1	un	3M Total	0	1	un	3N Total	
575	6	2	8	16	4		4	8					24
580	6	1	4	11	2		2	4					15
585	5		8	13	3		2	5					18
590	3		6	9	2	1	4	7					16
595	5	1	6	12	3	1	2	6					18
600	4		2	6	1		1	2					8
605	5	1	7	13	2		2	4					17
610	1		6	7	3			3					10
615	6		6	12	3		2	5					17
620	3		6	9	1		2	3					12
625	1		4	5			1	1					6
630	1		1	2	3		1	4					6
635			4	4	1			1					5
640	2		1	3									3
645	2		1	3									3
650	1			1									1
655	1		1	2	1			1					3
665	3		1	4									4
670	1			1	1			1					2
675	3			3									3
690	1			1									1
695	1			1									1
715	1			1									1
725	1			1									1
745					1			1					1
<b>Total</b>	<b>291</b>	<b>136</b>	<b>847</b>	<b>1274</b>	<b>155</b>	<b>68</b>	<b>164</b>	<b>387</b>	<b>18</b>	<b>7</b>	<b>4</b>	<b>29</b>	<b>1690</b>

**Table 7.** Length distribution (sampled number of fish) of redfish in NAFO area. 0-female, 1-male and un-unsexed.

RED	3L				3M				3N				3O				Total
LG, mm	0	1	un	3L Total	0	1	un	3M Total	0	1	un	3N Total	0	1	un	3O Total	
125			4	4							1	1					5
130			1	1							2	2					3
135			8	8											1	1	9
140			4	4							1	1			3	3	8
145			6	6							1	1			4	4	11
150			2	2							2	2			19	19	23
155			1	1											7	7	8
160			4	4							2	2			29	29	35
165			3	3											8	8	11
170			5	5		1	1	2			9	9			35	35	51
175			2	2							2	2	1		16	17	21
180							5	5			14	14			47	47	66
185			5	5							2	2			33	33	40
190			7	7			18	18			10	10	1	3	53	57	92
195			1	1							4	4	1		33	34	39
200			21	21	1		59	60			11	11	1	1	40	42	134
205						2		2			7	7	3	5	35	43	52
210			15	15	1		39	40			9	9	3	2	31	36	100
215					3	1		4			6	6	3	5	26	34	44
220			11	11			35	35			8	8	2	2	16	20	74
225										3	11	14	3		25	28	42
230			5	5		2	19	21		1	20	21	2	1	18	21	68
235			2	2	2	1		3		7	33	40	2	3	15	20	65
240			13	13		4	11	15		10	48	58	7	16	21	44	130
245			8	8	2	1		3	1	6	38	45		6	32	38	94
250			16	16	1	1	2	4	1	13	49	63	21	12	23	56	139
255			9	9		1		1		1	37	38		2	23	25	73
260			19	19		4	2	6	7	8	47	62	45	23	11	79	166
265		1	16	17	3	3		6	3	2	47	52	1	2	28	31	106
270		4	23	27	2	8	6	16	14	2	51	67	49	12	20	81	191
275	1	3	29	33	3	14		17	6	1	38	45	4		26	30	125
280	1	3	27	31	5	13	4	22	17	4	47	68	29	2	21	52	173
285	5	1	20	26	6	12		18	12	1	37	50	6		34	40	134
290		6	18	24	6	20	7	33	12	2	18	32	28	1	15	44	133

RED	3L				3M				3N				30				Total
LG, mm	0	1	un	3L Total	0	1	un	3M Total	0	1	un	3N Total	0	1	un	30 Total	
295	1		18	19	6	18		24	5		17	22	5		23	28	93
300	3	7	15	25	6	36	20	62	8	1	12	21	14		11	25	133
305		1	14	15	9	33		42	3		8	11			11	11	79
310	2	8	21	31	17	55	22	94	7		6	13	9		11	20	158
315			16	16	12	47		59	1		8	9	2		8	10	94
320	14	10	17	41	36	81	43	160	8		7	15	4		3	7	223
325			16	16	22	54		76	2		6	8			2	2	102
330	10	9	10	29	43	46	32	121	1		2	3	2		1	3	156
335			8	8	49	45		94	1		2	3			1	1	106
340	13		4	17	67	30	41	138	1		2	3	2			2	160
345	2		5	7	65	31		96		1	4	5					108
350	15		2	17	62	16	18	96	1			1					114
355			8	8	49	16		65	1		1	2					75
360	7		4	11	50	12	21	83	1	1	1	3			1	1	98
365	2		6	8	48	4		52									60
370	3		1	4	32	6	7	45									49
375			1	1	31	2		33									34
380	1			1	20		7	27									28
385	1		1	2	6			6									8
390			1	1	10	1	2	13									14
395			1	1	7			7									8
400					7		2	9									9
405			1	1	3			3									4
410					5			5									5
415			1	1	1	1		2									3
420					1		1	2									2
425						1		1									1
430					3		1	4									4
435					1			1									1
440							1	1									1
445					1			1									1
<b>Total</b>	<b>81</b>	<b>53</b>	<b>476</b>	<b>610</b>	<b>704</b>	<b>623</b>	<b>426</b>	<b>1753</b>	<b>113</b>	<b>64</b>	<b>688</b>	<b>865</b>	<b>250</b>	<b>98</b>	<b>820</b>	<b>1168</b>	<b>4396</b>

**Table 8.** Length distribution (sampled number of fish) of yellowtail flounder in NAFO area. 0-female, 1-male and un-unsexed.

YEL LG, mm	3N			3N Total
	0	1	un	
190			1	1
225			1	1
240			1	1
245			1	1
250			2	2
255			1	1
260			2	2
265			2	2
270	1	1	4	6
275	5	2	8	15
280		2	8	10
285	7	2	6	15
290	2	1	7	10
295	2	5	8	15
300	3	5	9	17
305	2	1	22	25
310	1	1	7	9
315	5	8	18	31
320	9	5	22	36
325	10	5	16	31
330	6	2	16	24
335	11	5	18	34
340	12	7	10	29
345	20	9	31	60
350	9	2	15	26
355	18	9	25	52
360	10	3	20	33
365	24	5	30	59
370	16		13	29
375	36		22	58
380	25	1	18	44
385	29		19	48
390	27	1	22	50
395	25	1	20	46

YEL	3N			3N Total
	0	1	un	
400	15	1	23	39
405	10		14	24
410	6		11	17
415	15		12	27
420	6	1	4	11
425	6		4	10
430	11		4	15
435	3		2	5
440	3		5	8
445	5		1	6
450	2		1	3
455	4		1	5
460	2			2
465	1		1	2
470	1		1	2
510	1			1
<b>Total</b>	<b>406</b>	<b>85</b>	<b>509</b>	<b>1000</b>

**Table 9.** Length distribution (sampled number of fish) of other catch and by-catch species in Estonian fisheries in NAFO area. 0-female, 1-male and un-unsexed.

Species	3L				3M			3N				3O				Total
	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un	3O Total	
APQ	2	1		3												3
690	1			1												1
735	1			1												1
785		1		1												1
CAB			25	25		9	9									34
375						1	1									1
385						1	1									1
395			1	1												1
410						1	1									1
415			2	2												2
455			2	2												2
465						1	1									1
470			1	1												1

Species	3L				3M			3N				3O				Total
	LG,mm	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un	
480			3	3												3
485			1	1		1	1									2
490			1	1		1	1									2
495			2	2												2
505			1	1												1
530						1	1									1
535			1	1												1
565			1	1												1
570			1	1												1
615			1	1												1
630			1	1												1
655			1	1												1
735			1	1												1
780						1	1									1
865			1	1												1
1040						1	1									1
1220			2	2												2
1240			1	1												1
<b>CFB</b>			<b>35</b>	<b>35</b>		<b>50</b>	<b>50</b>									<b>85</b>
470						1	1									1
510						1	1									1
525						1	1									1
530						1	1									1
535						2	2									2
540						2	2									2
555						1	1									1
560						1	1									1
565						1	1									1
575						1	1									1
580			1	1		2	2									3
585						2	2									2
590						1	1									1
595						1	1									1
605			1	1		3	3									4
610			1	1		4	4									5
615			1	1		2	2									3
620			2	2		1	1									3
625			1	1		3	3									4



Species	3L				3M			3N				3O				Total
	LG,mm	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un	
630			2	2		1	1									3
635						2	2									2
640						1	1									1
645			2	2		1	1									3
650			1	1		1	1									2
655			2	2		2	2									4
660						1	1									1
665			3	3		1	1									4
670			1	1		1	1									2
675			2	2												2
680			1	1												1
685			2	2												2
695			1	1		1	1									2
700						1	1									1
705						2	2									2
710			1	1		1	1									2
715			3	3		1	1									4
720			1	1												1
735			2	2												2
740			1	1		1	1									2
745			1	1		1	1									2
755			1	1												1
800			1	1												1
CYO	1			1												1
1100	1			1												1
GDE			156	156		10	10									166
300			1	1												1
315						1	1									1
325			1	1												1
330			1	1												1
335			2	2												2
350			2	2												2
355			3	3												3
365			4	4												4
370			4	4												4
375			3	3		1	1									4

Species	3L				3M			3N				3O				Total
	LG,mm	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un	
380			6	6		1	1									7
385			2	2												2
390			3	3												3
395			8	8												8
400			5	5												5
405			9	9		1	1									10
410			8	8		1	1									9
415			13	13												13
420			3	3		1	1									4
425			17	17		1	1									18
430			7	7		1	1									8
435			10	10		1	1									11
440			4	4												4
445			3	3												3
450			6	6												6
455			10	10												10
460			2	2												2
465			6	6												6
470			4	4		1	1									5
475			3	3												3
485			2	2												2
490			1	1												1
495			2	2												2
515			1	1												1
HAL											29	29				29
595											1	1				1
600											1	1				1
610											1	1				1
715											1	1				1
775											1	1				1
810											1	1				1
815											1	1				1
825											1	1				1
840											1	1				1
850											1	1				1
855											1	1				1
860											1	1				1
870											1	1				1

Species	3L				3M			3N				3O				Total
	LG,mm	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un	
880										1	1					1
905										1	1					1
910										1	1					1
930										1	1					1
935										1	1					1
940										1	1					1
945										1	1					1
955										1	1					1
965										2	2					2
1005										1	1					1
1010										1	1					1
1020										1	1					1
1030										1	1					1
1240										1	1					1
1260										1	1					1
HKS														564	564	564
195														1	1	1
210														1	1	1
215														3	3	3
220														1	1	1
235														3	3	3
240														5	5	5
245														3	3	3
250														13	13	13
255														24	24	24
260														26	26	26
265														23	23	23
270														19	19	19
275														36	36	36
280														28	28	28
285														24	24	24
290														21	21	21
295														27	27	27
300														23	23	23
305														21	21	21
310														27	27	27
315														21	21	21
320														29	29	29

Species	3L				3M			3N				3O				Total		
	LG,mm	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un		3O Total	
325															19	19	19	
330															13	13	13	
335															15	15	15	
340															16	16	16	
345															18	18	18	
350															15	15	15	
355															11	11	11	
360															6	6	6	
365															10	10	10	
370															4	4	4	
375															9	9	9	
380															1	1	1	
385															6	6	6	
390															5	5	5	
395															6	6	6	
400															4	4	4	
405															3	3	3	
410															2	2	2	
415															2	2	2	
420															4	4	4	
425															5	5	5	
430															3	3	3	
440															3	3	3	
445															1	1	1	
450															1	1	1	
470															1	1	1	
485															1	1	1	
505															1	1	1	
<b>HKW</b>															<b>16</b>	<b>7</b>	<b>23</b>	<b>23</b>
565															1	1	1	
575															1	1	1	
590															2	2	2	
595															1	1	1	
605															1	1	1	
625															1	1	1	
650															1	1	1	
655															1	1	1	
685															1	1	1	

Species	3L				3M			3N				3O				Total	
	LG,mm	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un		3O Total
695													1			1	1
700													1			1	1
710													1			1	1
715													1			1	1
720													1			1	1
725													1			1	1
745													1	1		2	2
760													1			1	1
770													1			1	1
805													1			1	1
815													1			1	1
865													1			1	1
ORY						1	1	2									2
325						1		1									1
395							1	1									1
PLA									98	38	219	355					355
195											1	1					1
205											1	1					1
255											1	1					1
260											1	1					1
265											1	1					1
275											1	1					1
285									2		2	4					4
290										1	3	4					4
295										1	1	2					2
300										1		1					1
305										1	3	4					4
310											3	3					3
315									1	1	5	7					7
320									2	2	4	8					8
325										5	2	7					7
330										2	5	7					7
335									1	1	4	6					6
340											7	7					7
345									1	3	6	10					10
350									4	2	2	8					8

Species	3L				3M			3N				3O				Total
	LG,mm	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un	
355								5	3	12	20					20
360								1	3	4	8					8
365								4	3	7	14					14
370								5		5	10					10
375								4	6	3	13					13
380								4		8	12					12
385								3	2	4	9					9
390								4		5	9					9
395								3		2	5					5
400								2		3	5					5
405								2		1	3					3
410								3		4	7					7
415								6	1	8	15					15
420								7		5	12					12
425								4		6	10					10
430										4	4					4
435								5		4	9					9
440								3		6	9					9
445								3		7	10					10
450								2		5	7					7
455								1		7	8					8
460										7	7					7
465										2	2					2
470								3		7	10					10
475								2		2	4					4
480								2		6	8					8
485								1		7	8					8
490										3	3					3
495								2		3	5					5
500								2		3	5					5
505										6	6					6
510										2	2					2
515										2	2					2
520										1	1					1
530										1	1					1
535										1	1					1
540								1		1	2					2
545										2	2					2
550								1			1					1

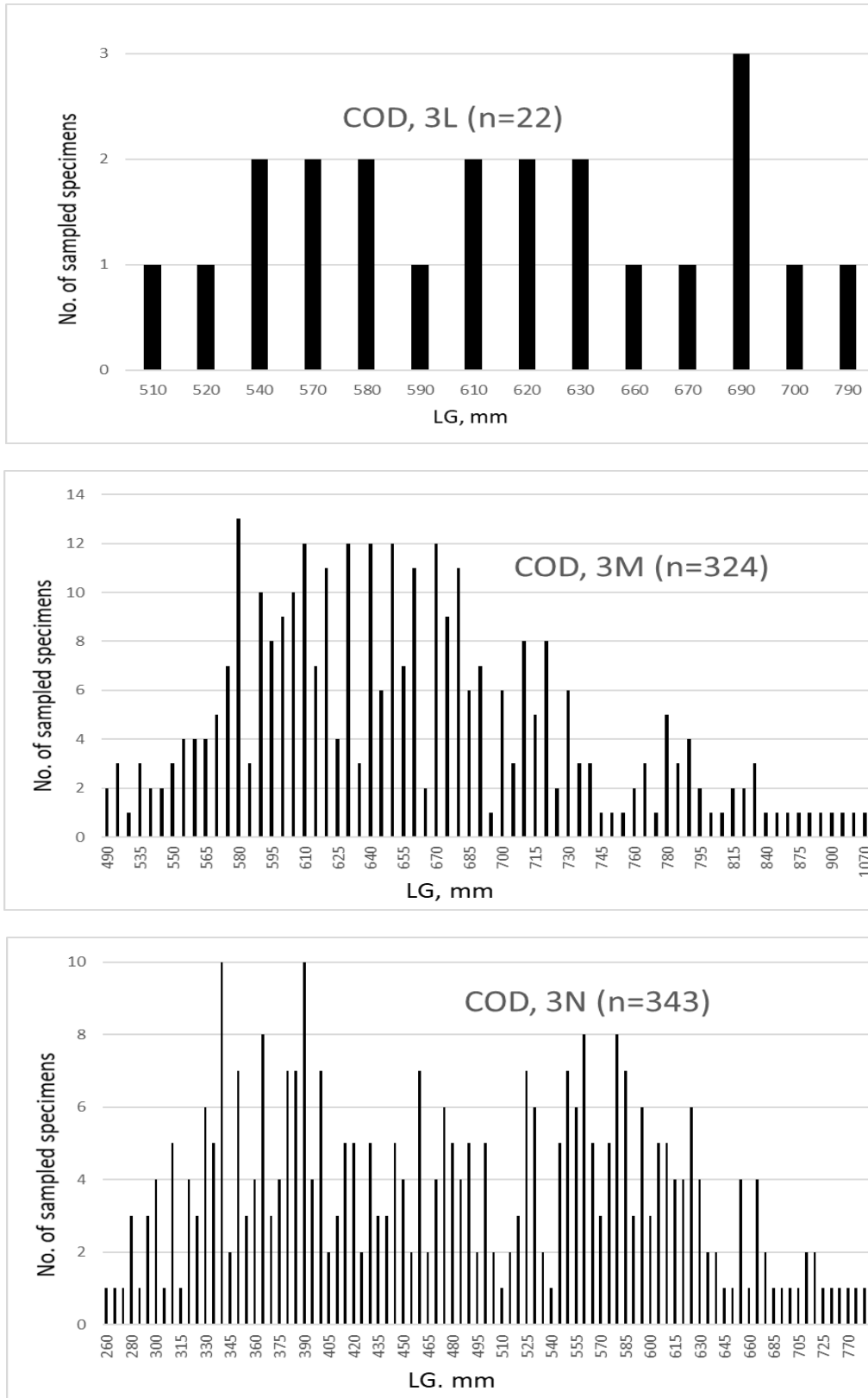
Species	3L				3M			3N				3O				Total	
	LG,mm	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un		3O Total
555									1			1					1
575									1			1					1
<b>RHG</b>			<b>191</b>	<b>191</b>			<b>148</b>	<b>148</b>									<b>339</b>
265			1	1													1
280			1	1													1
285			1	1													1
295			3	3													3
305			3	3													3
310			3	3													3
315			2	2													2
320			3	3													3
325			1	1													1
330			3	3													3
335			3	3													3
340			8	8													8
345			8	8		1	1										9
350			4	4													4
355			8	8		1	1										9
360			3	3													3
365			5	5													5
370			3	3													3
375			8	8													8
380			3	3													3
385			5	5		1	1										6
390			4	4													4
395			6	6		5	5										11
400			2	2		4	4										6
405			5	5		1	1										6
410			2	2		3	3										5
415			6	6		3	3										9
420			9	9		1	1										10
425			5	5		5	5										10
430			5	5		3	3										8
435			3	3		4	4										7
440			1	1		3	3										4
445			3	3		2	2										5
450			2	2		1	1										3
455			2	2		7	7										9

Species	3L				3M			3N				3O				Total
	LG,mm	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un	
460			3	3		3	3									6
465			3	3		7	7									10
470			4	4		3	3									7
475			1	1		5	5									6
480			4	4		3	3									7
485			3	3		10	10									13
490			1	1		4	4									5
495			1	1		4	4									5
500						1	1									1
505			3	3		5	5									8
510						4	4									4
515			3	3		4	4									7
520			4	4		5	5									9
525			4	4		3	3									7
530			1	1		3	3									4
535			2	2		7	7									9
540			2	2												2
545			2	2		1	1									3
550						4	4									4
555			2	2		1	1									3
560			2	2		1	1									3
565						2	2									2
580						2	2									2
585						2	2									2
590			1	1												1
595			1	1		1	1									2
600			2	2												2
610						1	1									1
615			1	1		4	4									5
625			1	1		1	1									2
630			1	1												1
645						1	1									1
650						1	1									1
655						1	1									1
660						1	1									1
670						1	1									1
675			1	1		1	1									2
680						2	2									2
685						1	1									1

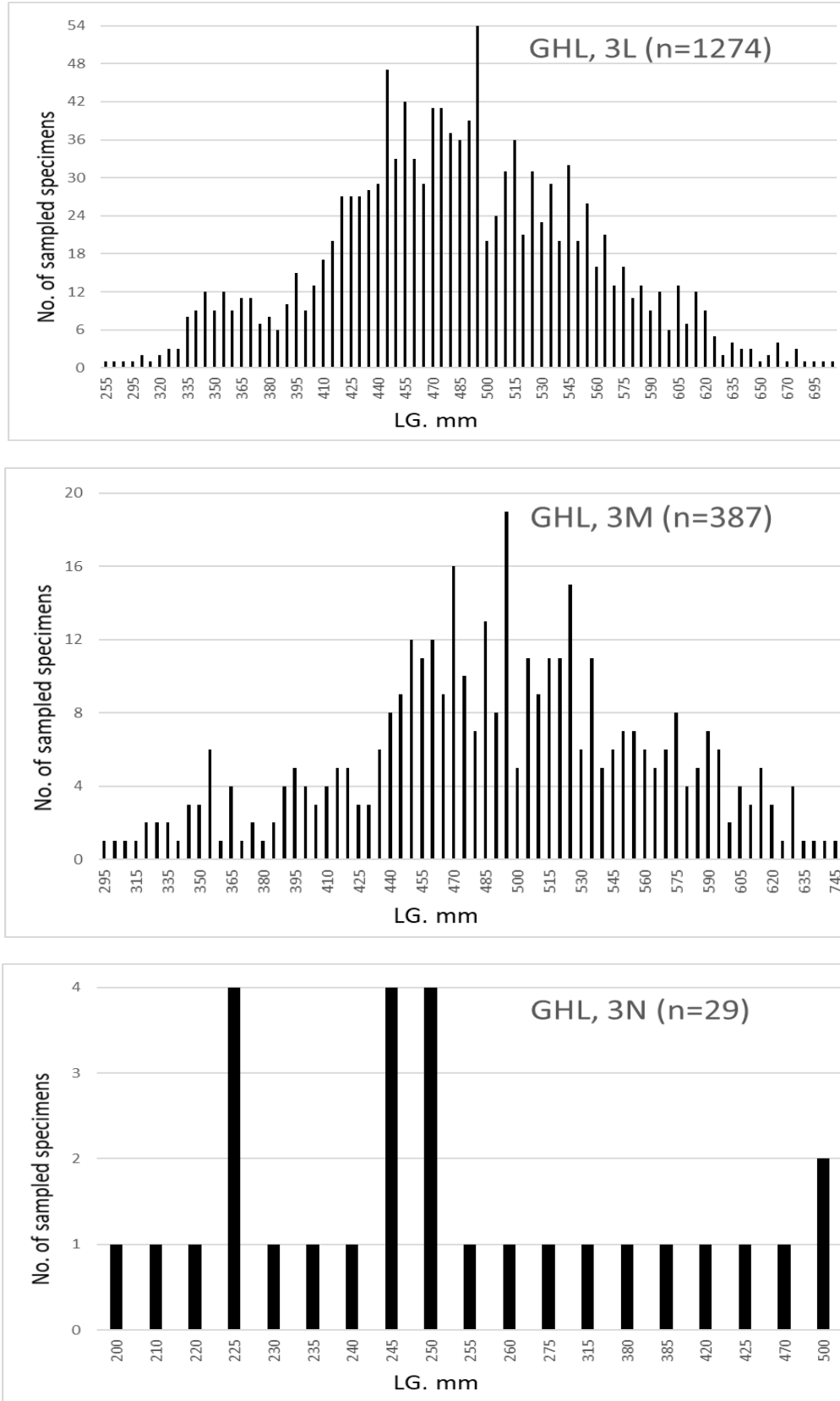


Species	3L				3M			3N				3O				Total
	LG,mm	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un	
695			1	1												1
705						1	1									1
710						1	1									1
730						1	1									1
745			2	2												2
770			1	1												1
<b>RNG</b>			<b>42</b>	<b>42</b>												<b>42</b>
100			3	3												3
105			1	1												1
110			4	4												4
115			4	4												4
120			2	2												2
125			4	4												4
130			5	5												5
135			5	5												5
140			2	2												2
145			3	3												3
150			3	3												3
155			2	2												2
170			1	1												1
175			2	2												2
180			1	1												1
<b>SQI</b>										<b>38</b>	<b>38</b>			<b>150</b>	<b>150</b>	<b>188</b>
185														1	1	1
190														2	2	2
195														4	4	4
200														10	10	10
205														16	16	16
210										1	1			21	21	22
215										3	3			25	25	28
220										5	5			22	22	27
225										2	2			14	14	16
230										6	6			15	15	21
235										6	6			11	11	17
240										4	4			8	8	12
245										3	3			1	1	4

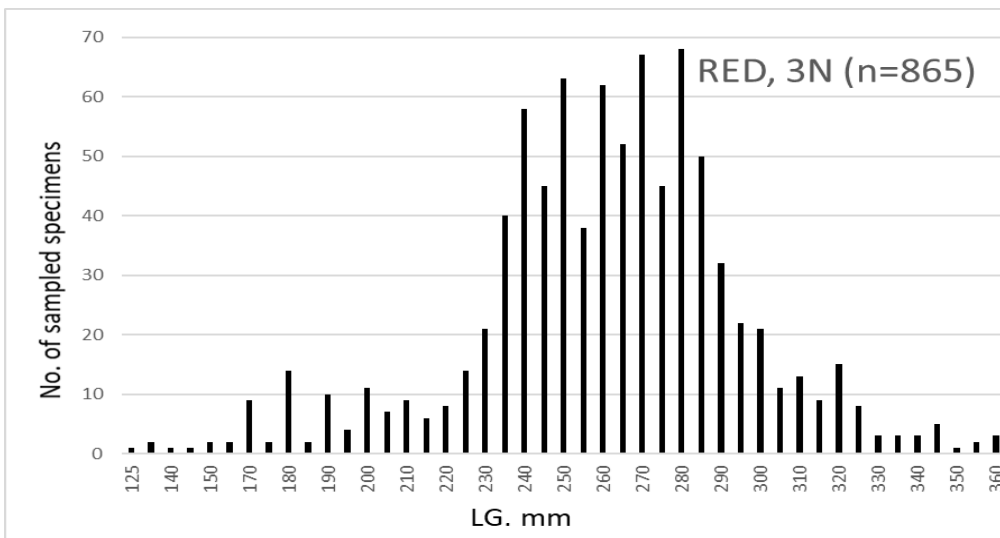
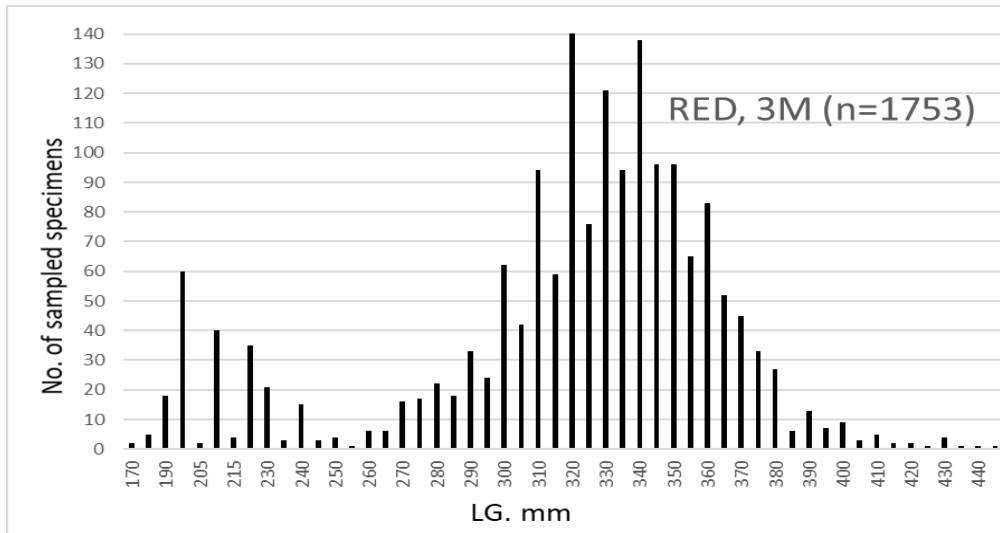
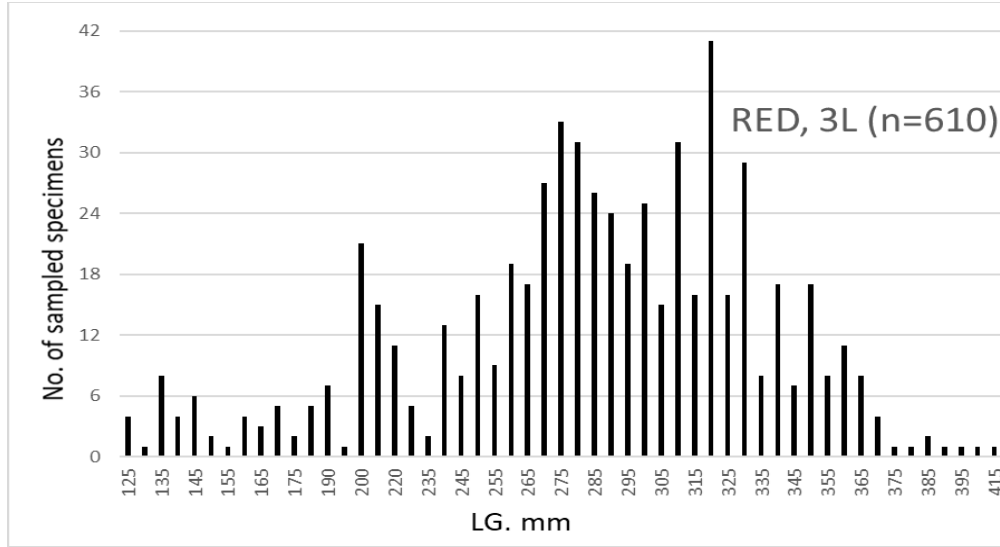
Species	3L				3M			3N				30				Total
	0	1	un	3L Total	0	un	3M Total	0	1	un	3N Total	0	1	un	30 Total	
250										3	3					3
255										2	2					2
260										1	1					1
270										2	2					2
WIT										7	7					7
355										1	1					1
365										2	2					2
375										1	1					1
395										1	1					1
400										1	1					1
450										1	1					1
<b>Total</b>	<b>3</b>	<b>1</b>	<b>449</b>	<b>453</b>	<b>1</b>	<b>218</b>	<b>219</b>	<b>98</b>	<b>38</b>	<b>293</b>	<b>429</b>	<b>16</b>	<b>7</b>	<b>714</b>	<b>737</b>	<b>1838</b>

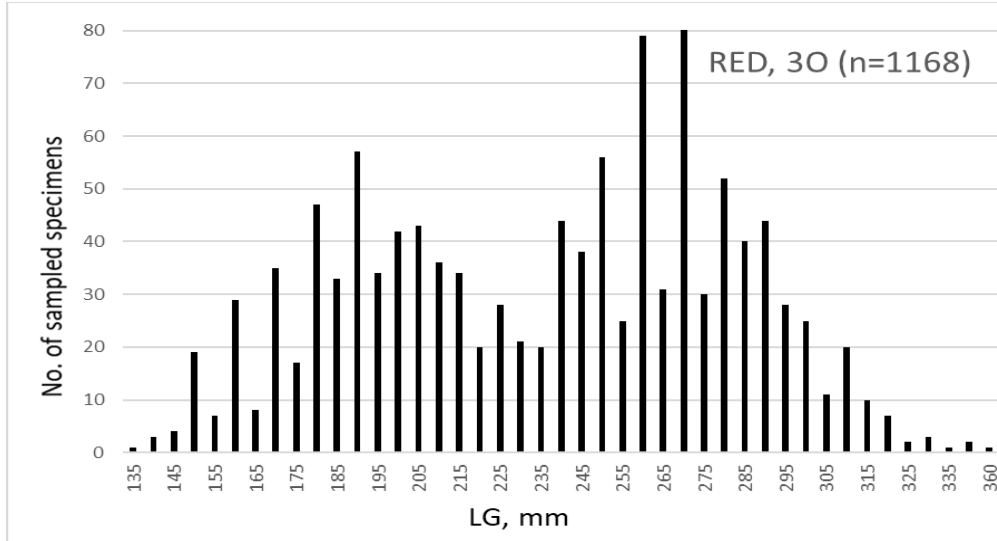


**Figure 1.** Estonian fisheries length distribution (number of sampled specimens) of cod in Div. 3L, 3M and 3N.

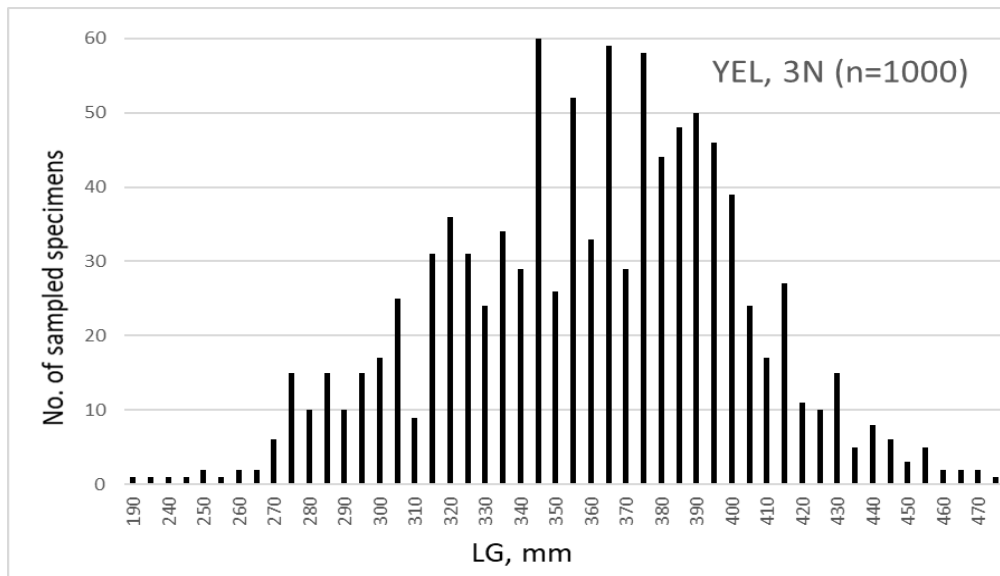


**Figure 2.** Estonian fisheries length distribution of Greenland halibut in Div. 3L, 3M and 3N.





**Figure 3.** Estonian fisheries length distribution of redfish in Div. 3L, 3M, 3N and 30.



**Figure 4.** Estonian fisheries length distribution of yellowtail flounder in Div. 3N.