

# ESTONIAN FISHERY

2024

FISHERIES INFORMATION CENTRE





# Estonian Fishery 2024

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**Issued by:**

Fisheries Information Centre, 2026  
[www.kalateave.ee](http://www.kalateave.ee)

ISSN 2228-1495



# **Estonian Fishery**

## 2024

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# Foreword

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## Dear Reader,

If you were to ask the authors of this collection what the most important fisheries event was for them in 2024, the half-joking response might be the relaunch of the Fisheries Information Centre project after a gap year.

Unfortunately, there is not much good news on fisheries as a whole. In 2024, we were not able to rejoice that our fish farming had come out of its long slump, that production had finally started to grow, or that marine fish farming had made the expected leap.

In Pärnu Bay, the most profitable area of our coastal fishery, perch and pikeperch stocks were still at a low. The current state of the stocks of these high-export-value fish species cannot be compared with past times, which is a shame. Fortunately, this was compensated for by abundant catches of herring and smelt. Of course, one of the most lucrative catches for our fishers in almost the entire coastal waters in the last few years has been an alien species that until recently was much maligned: the round goby. The name of the game now is: if you can't kick it out, try to eat it.

As in the past, the rapid increase in the cormorant population could not be controlled during the period described in the yearbook. If we have not been able to curb population growth, what is there to say about limiting the existing population. It seems that the removal of the Sindi dam on Pärnu River was necessary not to improve the state of fish stocks, but to feed the growing cormorant population.

Unfortunately, Russia continued its full-scale imperialist war of conquest in Ukraine in 2024. Heroic Ukraine continued to be the most important export country for our fish catchers and processors. Let us also celebrate the fact that Estonian fish contributes to European freedom.

Lest the foreword give the impression that 2024 is all doom and gloom, the truth is that there are many responsible people working in the fisheries sector and in the agencies and research institutions that support it, and their work must one day bear fruit. Estonian fisheries must survive and thrive.

Eat fish!

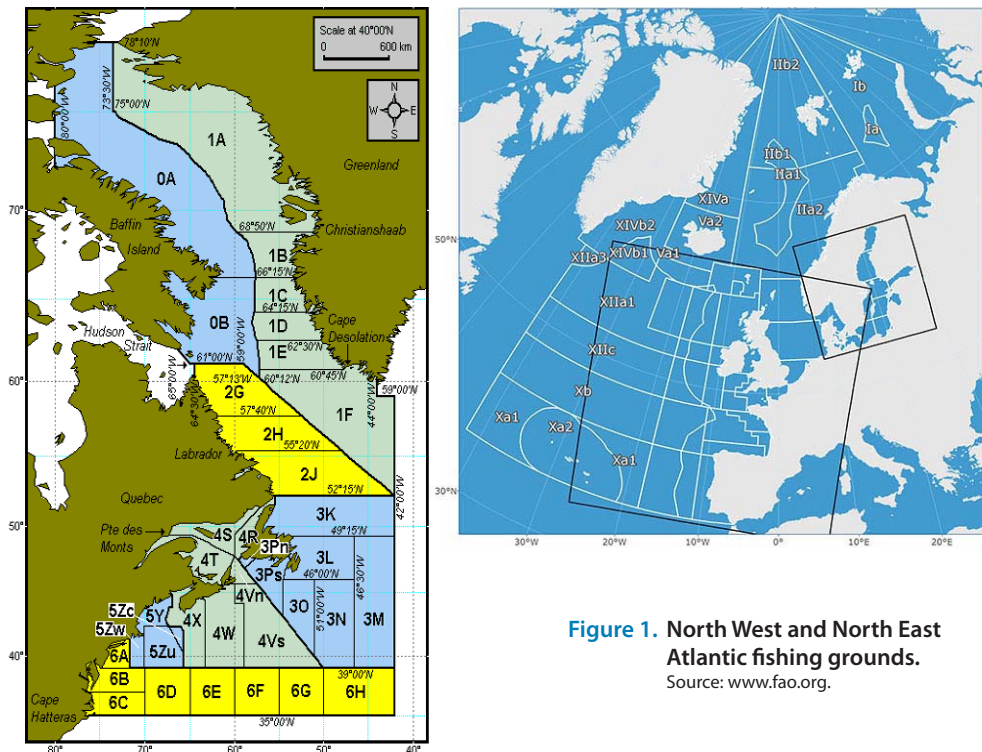
Head of the Fisheries Information Centre  
*Toomas Armulik*

## Abbreviations

<b>B<sub>lim</sub></b>	the biomass limit, the reaching of which should be prevented by fisheries management because, below this level, the risk of stock collapse increases significantly
<b>B<sub>trigger</sub></b>	the minimum spawning stock biomass that ensures the maximum possible yield in the long run at the $F_{MSY}$ fishing mortality
<b>BIAS</b>	Baltic International Acoustic Survey
<b>BITS</b>	Baltic International Trawl Survey
<b>EFF</b>	European Fisheries Fund
<b>EU</b>	European Union
<b>EULS</b>	Estonian University of Life Sciences
<b>F</b>	fishing mortality
<b>F<sub>MSY</sub></b>	fishing mortality at maximum sustainable yield
<b>F<sub>PA</sub></b>	sustainable mortality rate, i.e. maximum sustainable exploitation intensity (fishing mortality precautionary approach)
<b>GT</b>	combined gross tonnage
<b>ICES</b>	International Council for the Exploration of the Sea
<b>EIC</b>	Environmental Investment Centre
<b>MoE</b>	Ministry of the Environment
<b>M</b>	natural mortality
<b>MoRA</b>	Ministry of Rural Affairs
<b>NAFO</b>	Northwest Atlantic Fisheries Organization
<b>NEAFC</b>	North East Atlantic Fisheries Commission
<b>NPUE</b>	number per unit effort
<b>ARIB</b>	Agricultural Registers and Information Board
<b>AFB</b>	Agriculture and Food Board
<b>REM</b>	Ministry of Regional Affairs and Agriculture
<b>SE</b>	Statistics Estonia
<b>SL</b>	standard length: the length of a fish measured from the tip of the snout to the end of scale cover
<b>SSB</b>	spawning stock biomass
<b>TAC</b>	total allowable catch
<b>TL</b>	total length: the length of a fish measured from the tip of the snout to the end of the caudal fin
<b>TW</b>	total weight of a fish
<b>UT EMI</b>	Estonian Marine Institute of the University of Tartu
<b>VFB</b>	Veterinary and Food Board
<b>WPUE</b>	weight per unit effort
<b>Z</b>	total mortality

# Distant-water fishery

Distant-water fishery means fishing outside the Baltic Sea by fishing vessels flying the flag of the Republic of Estonia. Estonian distant-water fishing vessels have fishing rights on three fishing grounds: NAFO, NEAFC, and Svalbard (Figure 1). After acceding to the European Union, Estonia retained fishing rights as a member of these international organisations on the basis of the principle of relative stability and as a share of the fishing quota of the European Union (Aps et al., 2005).



## Fleet

The distant-water fishing fleet consists of trawlers, most of which use bottom trawls. The fish and shrimp caught by a vessel undergo initial or final processing on board the vessel. A vessel's crew usually consists of up to 20 people.

According to the data from the EU Fleet Register, four vessels were owned by two companies in the Estonian distant-water fishery sector as of 31 December 2024. Three ships conducted fishing, with the target species being the northern prawn (*Pandalus borealis*) and fish. The average length of the vessels was 61 metres; the average age in 2024 was 24 years; the combined power of the vessels' main engines was 16,202 kW; and the gross tonnage (GT) was 8,863 tonnes (Table 1).

**TABLE 1.** Main characteristics of Estonian distant-water fishing fleet, 2015–2024

Year	Number of vessels	Combined power of main engines (kW)	Combined gross tonnage (GT)
2015	5	13 174	7 697
2016	5	13 941	8 472
2017	5	13 941	8 472
2018	5	15 385	9 834
2019	5	15 385	9 834
2020	7	18 193	11 598
2021	7	18 193	11 598
2022	6	17 966	10 195
2023	3	14 730	7 261
2024	4	16 202	8 863

Sources: VFB, AFB.

## State of fish stocks and fishing opportunities

The state of fish stocks in **the NAFO area** is assessed by the Scientific Council of NAFO on the basis of exploratory trips and/or commercial fishing data. UT EMI observers on board vessels collect information on Estonia's commercial fishing.

The assessment of stocks takes into consideration the interplay between environmental conditions and species, i.e. an ecosystem approach to fisheries management is used and increasing attention is paid to the protection of vulnerable marine ecosystems. As a result, 27 areas have been closed for commercial bottom trawling in NAFO waters since 2021 and the protection zone for vulnerable marine ecosystems makes up 14% of the NAFO-regulated area (NAFO 2024).

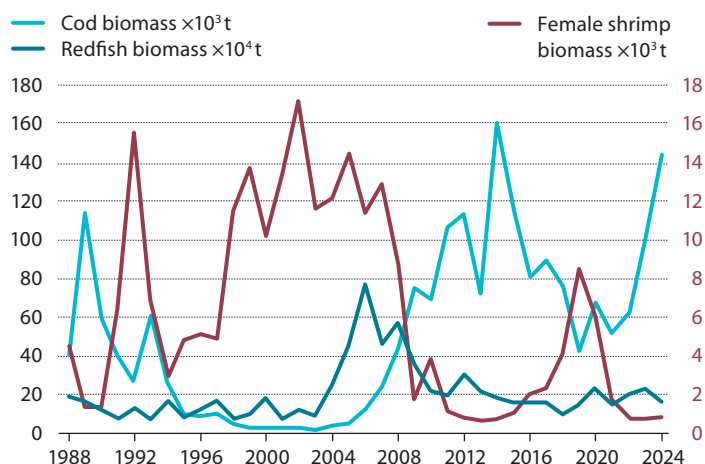
Fishing quotas are agreed between Member States at the annual meetings of NAFO and NEAFC held in autumn. Fishing opportunities depend above all on the state of fish stocks: in the determination of the total allowable catch (TAC), a precautionary approach is applied in the NAFO area, which should ensure the preservation of stocks and the ecosystem.

Bans on the fishing of certain stocks, which have been subject to moratoria for several years (Atlantic cod (*Gadus morhua*), witch flounder (*Glyptocephalus cynoglossus*) and shrimp (*Pandalus borealis*) in division 3M and 3L; American plaice (*Hippoglossoides platessoides*) in divisions 3LNO and 3M; and cod, capelin (*Mallothus villosus*) and shrimp in division 3NO), were extended in NAFO fishing grounds once again.

**The shrimp stock** is back in a deep trough after a brief increase in biomass in 2018–2019 due to lower recruitment in 3M. In 2022, due to the very poor status and unpromising outlook, a ban on fishing in the entire third division was established (NAFO 2024) In the Flemish Cap (3M) and the Grand Banks of Newfound-

**Figure 2. Cod, redfish, and female shrimp biomass in EU trawling studies in district 3M, 1988–2024**

Source: NAFO 2024.



land (3LNO), the shrimp biomass is very low and no directed fisheries are allowed. Due to the limited recruitment and high abundance of predatory fish, the prospects for the further recovery of the stock are very poor (Figure 2). However, on the west coast of Greenland (zones 0 and 1) and in East Greenland, the situation is volatile: some years fishing is possible, but generally, conservative catch limits must be applied (NAFO 2024).

The Flemish Cap (3M) **cod stock** has been above the critical limit ( $B_{lim}$ ) in recent years, but its biomass has been declining since 2017 and has remained stable at low levels. Recruitment is very volatile: The cohort of 2021 was strong, but that of 2023 was again extremely weak. Fishing pressure remains below critical levels ( $F_{lim}$ ), meaning that fishing effort is sustainable unless it is increased. The advice requires fishing effort to be moderate and the stock to be assessed at least every two years (NAFO 2024).

Newfoundland bigeye (3NO) cod remain in a low biomass and depleted state. Recovery is slow and depends on the quality of the recruitment, which has not been sufficient in recent years. Targeted fishing is therefore not recommended; only incidental by-catch is possible.

The biomass of **beaked redfish** and **American redfish** in the Flemish Cap (3M) has declined since 2014 but remains above the historical average. In 2020–2021, the cohorts were very strong, but in 2022–2023 they were very weak, indicating that the biomass will decline further in the coming years. Fishing is allowed under the TAC, but no increase is recommended.

In the Newfoundland Grand Banks (3LN), the stock of beaked redfish and American redfish has been declining since 2015, and it was estimated that there was a 42% risk of the biomass falling below  $B_{lim}$  in 2023, so fishing is not recommended. In area 3O, the stock status is moderate, and prudent management is recommended (NAFO 2024).

**Golden redfish** are critically low in biomass and are therefore prohibited from direct fishing. The redfish quota is the largest of the fishing quotas allocated to Estonia in NAFO fishing grounds (Table 2).

**TABLE 2.** Estonia's fishing quotas for 2015–2024, before charter arrangements and quota transfers, in tonnes and fishing days, by fishing ground, and change therein (%) from 2023 to 2024

Species, scientific name and code	Unit	Fishing ground	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Change (%) in fishing quota from 2023 to 2024
Shrimp or northern prawn, <i>Pandalus borealis</i> , PRA	pp <sup>1</sup>	NAFO 3M	0	0	0	0	0	391	391	0	0	0	0
	tonne	NAFO 3L	0	0	0	0	0	0	0	0	0	0	0
Atlantic redfishes nei, <i>Sebastes</i> spp, RED	tonne	NAFO 3M	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	0
	tonne	NAFO 3LN	514	514	702	702	895	895	895	895	895	895	0
Northern shortfin squid, <i>Illex illecebrosus</i> , SQI	tonne	NAFO 3 and 4	128 <sup>2</sup>	128 <sup>2</sup>	128 <sup>2</sup>	128 <sup>2</sup>	128 <sup>2</sup>	128 <sup>2</sup>	128 <sup>2</sup>	128 <sup>2</sup>	128 <sup>2</sup>	128 <sup>2</sup>	0
	tonne	NAFO 3LMNO	313	297	297	331	332	340	331	318	304	304	0
Greenland halibut, <i>Reinhardtius hippoglossoides</i> , GHL	tonne	NAFO 3LNO	283	283	283	283	283	283	283	283	283	283	0
	tonne	NAFO 3M	153	155	155	124	195	95	17	44	68	130	91.17
Witch flounder, <i>Glyptocephalus cynoglossus</i> , WIT	tonne	NAFO 3NO	0	96	98	49	52	52	52	52	58	61	5.17
	tonne	NEAFC	223	189	216	172	138	195	152	137	131	119	-9.16
Mackerel, <i>Scomber scombrus</i> , MAC	tonne	NEAFC	59 <sup>3</sup>	60 <sup>3</sup>	45 <sup>3</sup>	46 <sup>4</sup>	37 <sup>4</sup>	37 <sup>4</sup>	34 <sup>4</sup>	34 <sup>4</sup>	34 <sup>4</sup>	34 <sup>4</sup>	-29.41
	tonne	NEAFC	20	19	17	15	14	14	11	11	10	8	-20.00
Black scabbardfish, <i>Aphanopus carbo</i> , BSF	tonne	NEAFC	8	8	18	17	18	17	18	16	16	16	0
	tonne	NEAFC	44 <sup>5</sup>	39 <sup>5</sup>	35 <sup>5</sup>	30 <sup>5</sup>	28 <sup>6</sup>	26 <sup>6</sup>	0	0	0	0	0
Atlantic redfishes nei, <i>Sebastes</i> spp, RED	tonne	NEAFC	17	16	16	16	14	14	29	29	29	29	0
	tonne	NEAFC	4	4	4	5	5	5	5	5	5	5	0
Greenland halibut, <i>Reinhardtius hippoglossoides</i> , GHL	tonne	NAFO 3LNO	377	377	377	377	377	377	377	377	377	377	0
	tonne	NAFO 3M	3714	3756	3942	3866	3710	3609	3364	3361	3370	3573	1.16
Shrimp or northern prawn, <i>Pandalus borealis</i> , PRA	PP	Svalbard	377	377	377	377	377	768	768	377	377	377	0
	tonne		377	377	377	377	377	768	768	377	377	377	0
Total	tonne		3714	3756	3942	3866	3710	3609	3364	3361	3370	3573	1.16
	PP		377	377	377	377	377	768	768	377	377	377	0

<sup>1</sup> pp = fishing day

<sup>2</sup> Fishing permitted from 1 July to 31 December 2014–2024 as by-catches.

<sup>3</sup> By-catches are permitted to comprise up to 3% of the quotas for 2009.

<sup>4</sup> May only be taken as by-catches. Landings may not exceed 95% of the quota allocated to each Member State.

<sup>5</sup> Only allowed to be caught from 10 May to 1 July 2015–2017.

<sup>6</sup> Allowed to be caught from 10 May to 31 December 2018–2020.

Sources: REM, VTA, PTA, regulations of the Council of the European Union (EL) 2015/104, 2016/72, 2017/127, 2018/120, 2019/124, 2020/123, 2021/92, 2022/109, 2022/515, 2023/194 and 2024/257.

**The Greenland halibut** is one of the most important species managed by NAFO and is caught both in the Newfoundland Bigeye Box (3KLMNO) and off the coast of Greenland (0+1). The Greenland halibut recovery plan has been successful, and fishing quotas have been more or less stable in recent years (NAFO 2023). The state of the pelagic stock is satisfactory and fishing can continue under the TAC. However, the biomass of Greenland halibut has decreased in coastal areas (Disko Bay, Uummannaq, Upernavik) and the average size of fish is smaller. Catches have decreased and it is recommended to reduce fishing in the area. In the Grand Banks of Newfoundland, fish is managed under a management strategy assessment and harvest control rule (MSE and HCR), and precautionary fishing is allowed (NAFO 2024).

There has been some recovery in the stock of **plaice** in the Newfoundland Grand Banks (3NO), but biomass is still below B<sub>msy</sub>. Recruitment is at an average level, so no rapid improvement is expected. Fishing should be limited to 75% of F<sub>msy</sub> to avoid undue pressure on the stock (NAFO 2024).

There are no new studies on the stock of **skate** (3LNO and 3Ps), but the latest assessment showed that it is above B<sub>lim</sub>. As the volume caught is small, the stock is considered stable. The species is slow-growing and therefore vulnerable to overfishing. It is not recommended to increase fishing until more recent scientific data are available (NAFO 2024).

**Yellowtail flounder** is one of the few species of Newfoundland Grand Banks in a very good stock status. Biomass is large and the stock is considered sustainable. Fishing may continue under TACs, but no significant increase in catches is recommended to avoid the risk of overfishing (NAFO 2024).

The ICES is the body that assesses the status of fish stocks in the **NEAFC fishing grounds**. Shrimp is the most important species for Estonia in the North East Atlantic. It is currently an unregulated species in the Barents Sea.

**The shrimp stock** has expanded since 2014 and the fishery has become more international, but data quality and insufficient harmonisation still limit the accuracy of estimates (Zimmermann *et al.* 2024). The shrimp stock continues to be in good condition and is being used sustainably. However, some vessels find fishing for this stock unattractive and inefficient due to area closures intended to protect young fish and due to the movement of shrimp away from traditional fishing grounds.

The assessment of the **redfish** stock is not complete due to the lack of Russian data. Small-scale fishing is allowed in ICES areas I and II, but in the Irminger Sea a closure has been established for the years 2025–2027.

The **mackerel** stock has declined over the last five years due to low recruitment.

The **blue whiting** stock is in good condition, although strong cohorts are followed by weaker ones.

Improved stocks have been observed, for example, for **North Atlantic greater silver smelt** and **forkbeard**, but precautionary fishing remains a priority (NEAFC 2024).

Assessment and scientific advice concerning stocks in NAFO fishing grounds are available on the website of NAFO ([www.nafo.int](http://www.nafo.int)). Materials on NEAFC fishing grounds can be found on the websites of NEAFC ([www.neafc.org](http://www.neafc.org)) and ICES ([www.ices.dk](http://www.ices.dk)).

## Catches

From 2014 to 2022, distant-water fishing vessels flying the flag of Estonia fished in both NAFO and NEAFC grounds; in 2023 and 2024, fishing was limited to the North East Atlantic, with shrimp and various fish being the target species. Most of the shrimp is caught in division 1a, but catches have also increased in division XIVb in recent years. In 2024, shrimp produced the biggest catch (89% of the total catch), followed by cod (7%) and to a limited degree by Greenland halibut and American plaice (Figure 3, Tables 3 and 4). The latter two species are caught as by-catches in shrimp fishery with combined gear. Shrimp catches decreased in 2024, but cod and Greenland halibut catches increased.

Total distant-water fishery catches have varied to a great extent over the last ten years. Starting from 2015, it rose consistently until 2020, at which point it declined,

**TABLE 3.** Estonia's distant-water fishery catches (t) by species, 2015–2024

Species and scientific name	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
American anglerfish, <i>Lophius americanus</i>	2	7	<1	<1			1	<1		
Atlantic halibut, <i>Hippoglossus hippoglossus</i>	22	30	41	44	44	31	37	31		
American plaice, <i>Hippoglossoides platessoides</i>	537	1 105	1 249	1 689	1 071	1 000	585	488	258	225
Northern prawn, <i>Pandalus borealis</i>	6 740	6 954	7 413	8 019	9 795	9 174	8 810	11 282	12 752	10 990
Silver hake, <i>Merluccius bilinearis</i>	114	57	55	21		20	523	142		
Roundnose grenadier, <i>Coryphaenoides rupestris</i>							4			<1
Haddock, <i>Melanogrammus aeglefinus</i>	30	24	30	<1		4				
Northern shortfin squid, <i>Illex illecebrosus</i>				<1					9	
Atlantic redfish nei, <i>Sebastes</i> spp	1 512	1 656	2 198	3 590	3 252	1 820	1 707	2 018		<1
Wolffish nei, <i>Anarhichas</i> spp	1									<1
Witch flounder, <i>Glyptocephalus cynoglossus</i>	22	40	66	31	27	27	73	4		
Roughhead grenadier, <i>Macrourus berglax</i>	26	13	23	12	3	11	46	3		
Raja rays nei, <i>Raja</i> spp	47	162	304	46	7	2	26	27		
Yellowtail flounder, <i>Limanda ferruginea</i>	342	351	39	347	358	335	315	393		
Greenland halibut, <i>Reinhardtius hippoglossoides</i>	694	1 092	1 142	1 286	1 103	1 067	897	495	98	260
Lanternshark, <i>Etmopterus</i> spp										
Atlantic cod, <i>Gadus morhua</i>	989	529	2 544	2 031	2 159	1 289	1 016	798	746	855
Spotted wolffish, <i>Anarhichas minor</i>	7	8	30	36	15	3				
White hake, <i>Urophycis tenuis</i>				<1	<1		10	2		
<b>Total</b>	<b>11 084</b>	<b>12 027</b>	<b>15 135</b>	<b>17 154</b>	<b>17 834</b>	<b>14 893</b>	<b>14 052</b>	<b>15 681</b>	<b>13 854</b>	<b>12 332</b>

Sources: MORA, REM, VFB, AFB.

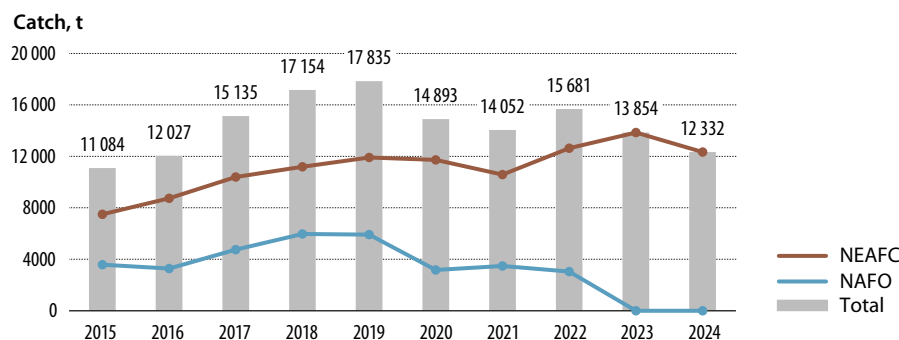
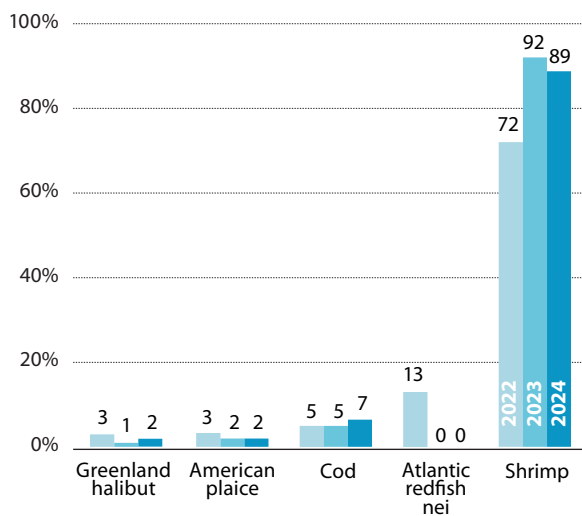
**TABLE 4.** Estonia's distant-water fishery catches (t) by fishing ground and species, 2024

Species and scientific name, code	1a	1b	11b	XIVb	Total
Wolffish nei, <i>Anarhichas</i> spp, CAT				0,384	0,384
Atlantic cod, <i>Gadus morhua</i> , COD	854,561				854,561
Greenland halibut, <i>Reinhardtius hippoglossoides</i> , GHL	171,150			88,892	260,042
American plaice, <i>Hippoglossoides platessoides</i> , PLA	225,397				225,397
Northern prawn, <i>Pandalus borealis</i> , PRA	7 063,422	2 801,541	14,757	1 110,562	10 990,282
Atlantic redfishes nei, <i>Sebastes</i> spp, RED				0,494	0,494
Roundnose grenadier, <i>Coryphaenoides rupestris</i> , RNG				0,452	0,452
<b>Total</b>	<b>8 314,529</b>	<b>2 801,541</b>	<b>14,757</b>	<b>1 200,784</b>	<b>12 331,61</b>

Source: AFB.

**Figure 3. Proportion (%) of catch by main species in distant-water fishery sector, 2022–2024**

Source: VFB.



**Figure 4. Estonia's total distant-water fishery catches (t) by fishing ground, 2015–2024**

Sources: MORA, REM, VFB, AFB.

and then resumed a moderate rise in 2022. This is largely due to technical problems, reduced quota shares and the fact that no fishing trips to the NAFO area have been undertaken in recent years. Catches in the NEAFC region increased steadily from 2005 to 2019, but the catch in 2024 is lower than in 2023 (Figure 4, Table 4). Estonian vessels have not fished in the South West Atlantic since 2013.

Estonia's total catch amounted to 12,332 tonnes in 2024. Catches are mainly landed in Norwegian, Spanish and Portuguese ports, with occasional landings in Iceland.

## Outlook

The shrimp stock of the third division of the North West Atlantic has been in a recession for a long period, and fishing for it was banned for several years before 2020. The opportunity of small-scale fishing allowed in division 3M in 2020 and 2021 was not used by vessels flying the flag of Estonia because it was not considered economically viable. As said above, catch was suspended again starting in 2022 and there are no signs of fish abundance increasing. A switch from the current fishing days-based

approach to a quota-based system in division 3M was under discussion, but the idea was dropped due to the fishing ban.

The state of the stocks in the North West Atlantic is very volatile. Some stocks show signs of recovery; however, owing to the precautionary principle, fishing opportunities are unlikely to be increased considerably in the near future.

Estonian shrimp fishers are increasingly shifting their fishing efforts to the North East Atlantic, where the shrimp stock is in good condition. Estonian distant-water vessels renewed their certificate for shrimp fishing in the Barents Sea from the Marine Stewardship Council. This improves the sector's competitiveness on the world market.

# Baltic Sea fisheries

## COASTAL FISHERY IN THE BALTIC SEA

In 2024, a total of 2241 fishers were entered on fisher's fishing permits in Estonia, of which 2177 were men and 64 women. The oldest male fisher was 94 years old (Table 5), while the oldest two female fishers were 72. Average age of fishers was 55.2–55.3 for men and 49.5 for women.

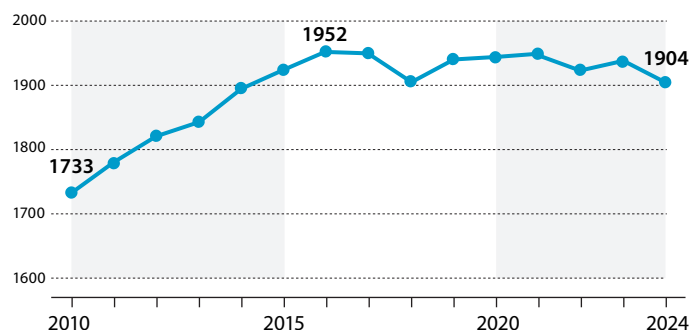
The number of fishers entered on **permits for fishing in the Baltic Sea** was 1904 in 2024, of which 1849 were men and 55 women (Figure 5). The number of coastal fishers thus remains nearly unchanged. The total number of fishers cannot be obtained by adding up numbers county by county, as a fisher can be entered on the permits of several counties (i.e. the total is lower than all counties combined). The total number of fishers fishing on the basis of a fishing permit, however, is not equal to the total number of inland waters fishers and coastal fishers because some fishers operate in both coastal seas and inland waters.

The greatest numbers of fishers are in Saare, Pärnu, Hiiu and Harju counties (Table 6). It is estimated that fishing is the main source of income for no more than 10% of coastal fishers.

**TABLE 5.** Age of fishers, by county, 2024

County	Oldest fisher	Average age of fishers	Number of female fishers
Harju (Baltic Sea)	94	58,5	9
Hiiu (Baltic Sea)	89	53,6	13
Ida-Viru (Baltic Sea)	79	55,5	2
Lääne, sh Vormsi (Baltic Sea)	85	55,4	8
Lääne-Viru (Baltic Sea)	91	57,5	5
Pärnu, incl. Kihnu and Manija (Baltic Sea)	93	53,4	11
Saare, incl. Ruhnu (Baltic Sea)	92	55,6	8
Lakes Peipus, Lämmijärv and Pskov	76	51,1	2
Lake Võrtsjärv	80	52,7	3
Other inland water bodies	85	55,5	9

Sources: MORA, REM, VFB, AFB.



**Figure 5.** Number of coastal fishers fishing in the Baltic Sea, 2010–2024

Sources: MORA, REM, VFB, AFB.

**TABLE 6.** Number of coastal fishers entered on fishing permits, by county, 2014–2024

County	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Harju	307	314	316	309	310	304	304	306	307	312	296
Hiiu	311	319	329	333	333	337	340	345	341	335	341
Ida-Viru	92	97	100	98	93	85	82	92	84	91	81
Lääne (incl. Vormsi)	282	274	288	279	270	280	290	283	277	299	293
Lääne-Viru	133	140	147	141	145	133	144	132	133	129	135
Pärnu, incl. Kihnu and Manija (Baltic Sea)	401	399	402	413	326	392	419	395	379	377	363
Saare (incl. Ruhnu)	431	445	442	448	428	453	457	451	446	455	465
<b>Total</b>	<b>1 895</b>	<b>1 923</b>	<b>1 952</b>	<b>1 950</b>	<b>1 905</b>	<b>1 938</b>	<b>1 943</b>	<b>1 950</b>	<b>1 924</b>	<b>1 935</b>	<b>1 904</b>

Sources: MORA, REM, VFB, AFB.

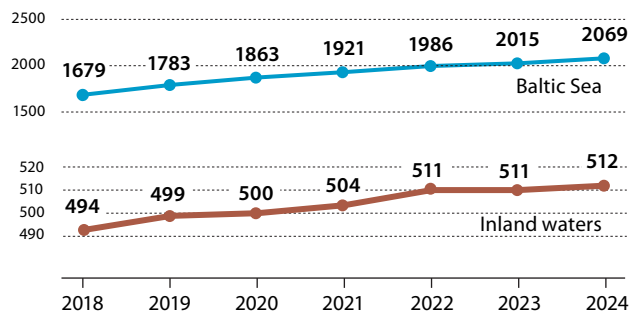
According to the Occupational Register, over 20 years from 2004 to 2024, 4458 **coastal fisher certificates** were issued. With support from the European Maritime and Fisheries Fund, 323 people were trained from 2019 to 2023, and with support from the Maritime, Fisheries and Aquaculture fund, 35 people have been trained since 2024. A total of 358 certificates have thus been issued since 2019. As of 2024, 109 of their holders have not yet been entered on fishing permits, which allows us to suppose that about 30% of those trained are not actively engaged in coastal fishing.

According to the REM Fisheries Information System, the number of vessels under 12 m in length used by Baltic Sea coastal fishers has been steadily increasing since 2016, reaching 2069 in 2024 (Figure 6). The main engines of the vessels used in coastal fishery in 2024 had a combined power of 21,798.81 kW, and the vessels' total gross tonnage was 2395.9 GT. The number of inland waterway vessels, which had also been increasing year on year, slowed down in 2023, but rose again by one boat in 2024 to 512 (Figure 6). The main engines of the vessels used in coastal fishery had a combined power of 21,107.9 kW, and the vessels' total gross tonnage was 1202.16 GT.

As in previous years, the biggest catches taken in 2024 in Estonian coastal fishery were those of herring at around 9156 tonnes, which is significantly less than in 2023 (around 9327 tonnes). The second largest total catch was that of smelt (around 798 tonnes), followed by round goby (around 698 tonnes), perch (about 627 tonnes), ide (about 195 tonnes), flounder (around 117 tonnes), and roach (around 103 tonnes) (Table 7, page 24; Figure 7). The regional distribution of key commercial fish is shown in Figure 8.

**Figure 6.** Number of fishing vessels for coastal and inland fishers in the Baltic Sea in 2018–2024

Source: AFB.



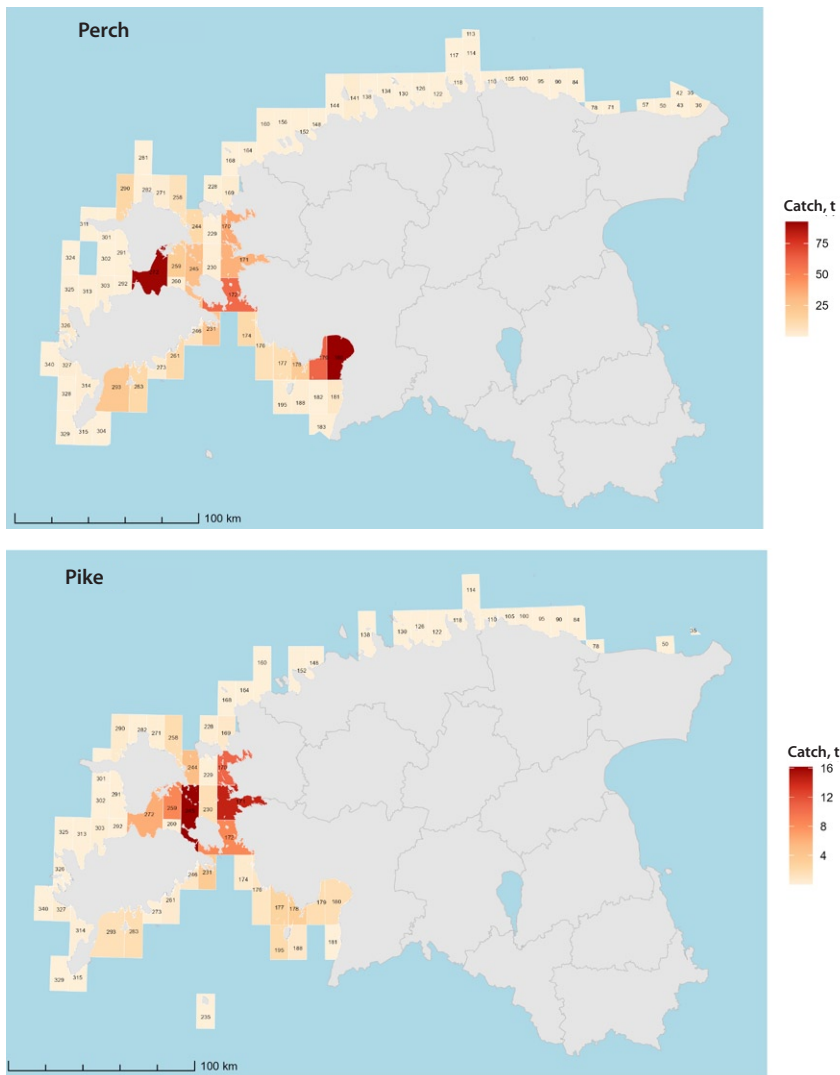
	Catch	Value
Herring	75,6%	40,3%
Smelt	6,6%	11,0%
Round goby	5,8%	9,6%
Perch	5,2%	23,9%
Idle	1,6%	0,8%
Flounder	1,0%	3,6%
Other	4,3%	10,8%

**Figure 7.** Proportions (%) of catches and revenues in coastal fishery, by species, 2024

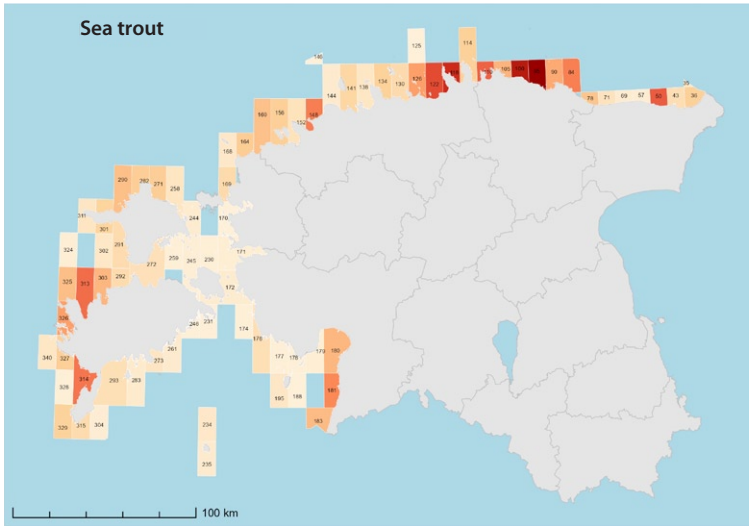
Source: AFB.

**Figure 8.** Catches (t) of key target species in different fishing squares, 2024

Sources: MORA, REM, UT EMI.

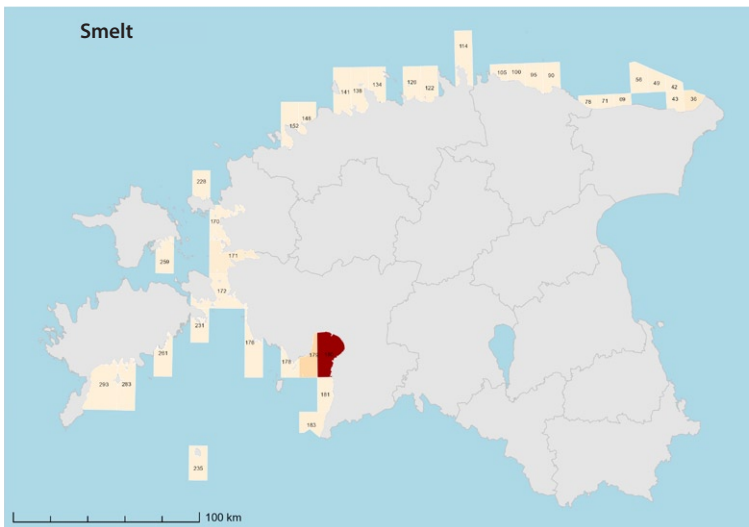
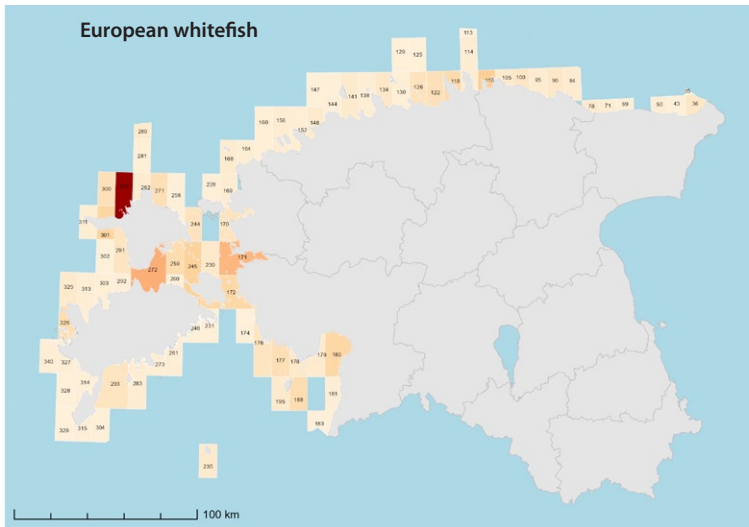






**Figure 8 (continued).**  
Catches (t) of key target species in different fishing squares, 2024

Source: MORA, REM, UT EMI.



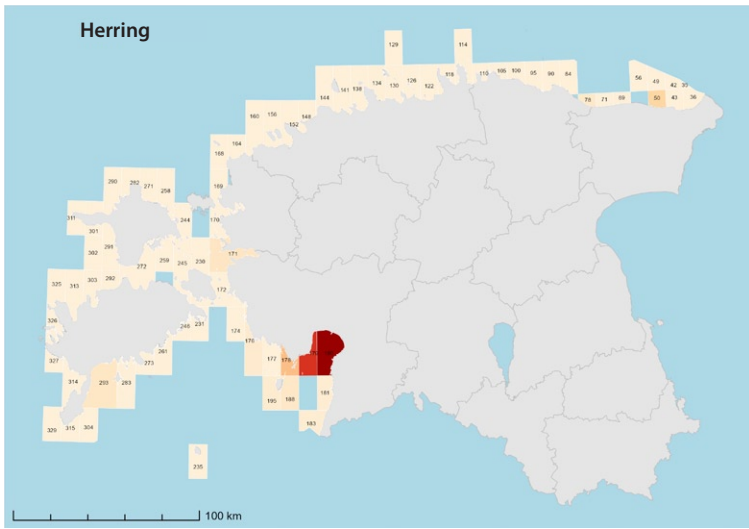
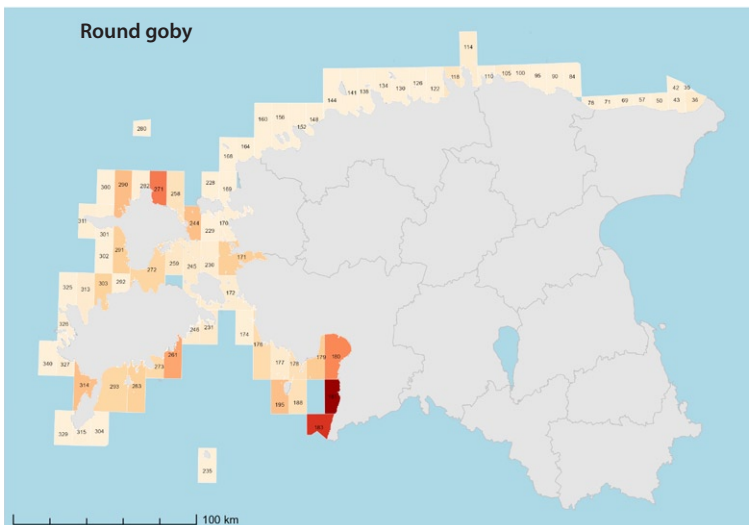
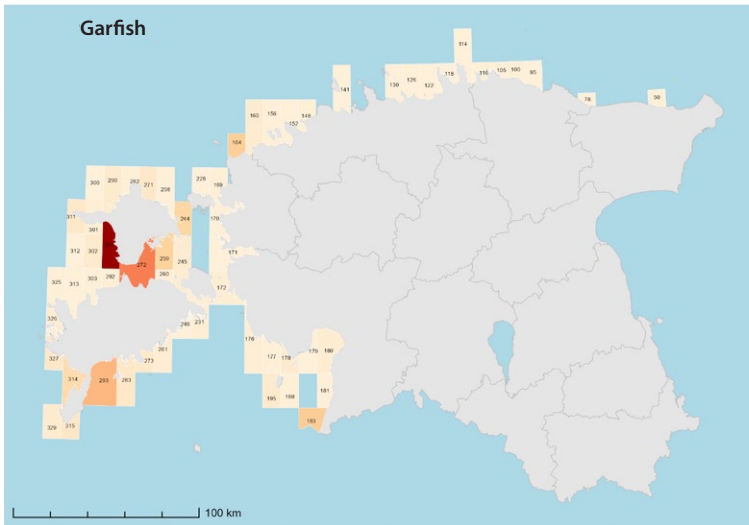


Figure 8 (continued).  
Catches (t) of key target species in different fishing squares, 2024

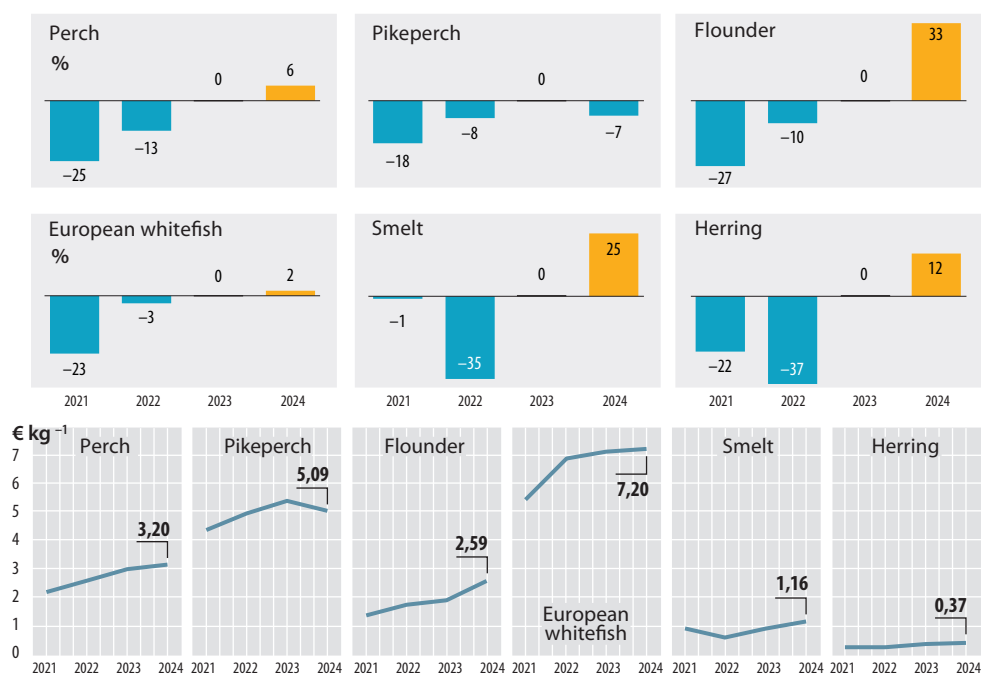
Source: MORA, REM, UT EMI.



In Estonian coastal fishing, perch usually leads in terms of catch when calculated on the basis of the year's average first-sale prices, but in 2021, 2023 and 2024, herring was the highest priced. The estimated total value of the catch in 2024 was around 3.4 million euros. Perch came second (approx. 2.0 million euros), followed by smelt (approx. 0.9 million euros), round goby (approx. 0.8 million euros), and flounder (about 0.3 million euros; Table 8, page 25).

In 2024, the income from coastal fishing increased to around 8.4 million euros on the basis of first-sale prices (in 2023, it was about 7.7 million euros; Table 8, p. 25). The first purchase price (excluding trawl and inland catches) of all the main inshore catches also increased, with herring up 12%, smelt up 25%, round goby up 24%, perch up 6%, and flounder up 33% (Figure 9; Table 9, page 26).

Fishing efforts decline in years when the abundance of fish is low as well as when fishers find better-paid jobs. However, fishing efforts will grow as soon as the cost-effectiveness or relative cost-effectiveness of fishing increases, given that the maximum amount of permitted fishing gear is high. The maximum amount of permitted fishing gear should be adjusted according to the state of the stock, which is currently not the case.



**Figure 9.** Change (%) in average first-sale prices of fish species most important to coastal fishery (not including trawl and inland catches) in 2021–2024 compared to 2023

Sources: MORA, REM, PTA.

**TABLE 7.** Coastal fishery catches (t) and proportions (%) of total catch from the Baltic Sea, by species, 2019–2024

Species	2019 Catch %		2020 Catch %		2021 Catch %		2022 Catch %		2023 Catch %		2024 Catch %	
Perch	979,16	9,1	748,68	7,1	792,22	6,8	759,95	8,2	792,81	6,6	626,71	5,2
Eel	0,98	<0,1	1,52	<0,1	1,93	<0,1	1,56	<0,1	2,42	<0,1	2,37	<0,1
European plaice					<0,01	<0,1	<0,01	<0,1				
Eelpout	0,01	<0,1	0,06	<0,1	0,16	<0,1	0,03	<0,1	<0,01	<0,1	0,01	<0,1
Anglerfish					<0,01	<0,1	<0,01	<0,1				
Turbot	0,20	<0,1	0,38	<0,1	0,25	<0,1	0,20	<0,1	0,10	<0,1	0,37	0,1
Pike	76,31	0,7	76,91	0,7	59,84	0,5	54,95	0,6	100,81	0,8	97,76	0,8
Chinese mitten crab			<0,01	<0,1	<0,01	<0,1	<0,01	<0,1	<0,01	<0,1	<0,01	<0,1
European seabass			<0,01	<0,1	<0,01	<0,1	<0,01	<0,1				
Gibel carp	64,97	0,6	73,31	0,7	53,81	0,5	56,29	0,6	74,20	0,6	66,06	0,5
Lamprey	0,13	<0,1	0,04	<0,1	0,06	<0,1	0,17	<0,1	0,06	<0,1	1,16	<0,1
Common carp	0,52	<0,1	0,19	<0,1	0,10	<0,1	0,11	<0,1	0,19	<0,1	0,30	<0,1
Cephalopods							<0,01	<0,1				
Ruff	55,77	0,5	37,54	0,4	22,04	0,2	14,45	0,2	11,05	0,1	13,52	0,1
Sprat	0,05	<0,1	0,35	<0,1	0,34	<0,1	0,38	<0,1	0,21	<0,1	0,26	<0,1
Two-spotted goby					0,01	<0,1	<0,01	<0,1				
Crucian carp					0,49	<0,1	0,64	<0,1	0,66	<0,1	10,14	0,1
Pikeperch	52,14	0,5	20,04	0,2	52,77	0,5	24,12	0,3	22,68	0,2	20,96	0,2
Bream	8,85	0,1	6,28	0,1	5,28	<0,1	5,58	0,1	8,06	0,1	5,94	<0,1
Flounder	149,66	1,4	175,92	1,7	114,91	1,0	107,84	1,2	97,81	0,8	116,66	1,0
Tench	3,73	<0,1	3,73	<0,1	1,50	<0,1	2,38	<0,1	3,62	<0,1	2,93	<0,1
Burbot	2,02	<0,1	1,25	<0,1	0,90	<0,1	0,86	<0,1	1,03	<0,1	0,67	<0,1
Salmon	8,44	0,1	10,76	0,1	7,45	0,1	7,34	0,1	7,39	0,1	5,8	<0,1
Sea trout	16,82	0,2	16,79	0,2	14,76	0,1	15,99	0,2	15,60	0,1	13,23	0,1
Four-horned sculpin	0,04	<0,1	0,03	<0,1	0,04	<0,1	0,11	<0,1	0,01	<0,1	0,07	<0,1
European whitefish	16,21	0,1	25,24	0,2	24,96	0,2	24,03	0,3	15,85	0,1	15,65	0,1
Smelt	501,74	4,6	915,47	8,7	720,24	6,2	704,43	7,6	657,00	5,5	797,74	6,6
Lumpfish			<0,01	<0,1	<0,01	<0,1	<0,01	<0,1	<0,01	<0,1		
Sunbleak							<0,01	<0,1				
Gobiidae, nei							<0,01	<0,1				
Silver bream	34,96	0,3	35,25	0,3	27,20	0,2	22,24	0,2	42,86	0,4	28,31	0,2
Rudd	2,53	<0,1	2,49	<0,1	2,50	<0,1	3,48	<0,1	3,21	<0,1	3,48	<0,1
Herring	8 293,11	76,7	7 734,97	73,7	9 175,65	78,4	6 805,51	73,1	9 327,81	77,6	9 155,86	75,6
Starry sturgeon					<0,01	<0,1	<0,01	<0,1				
Siberian sturgeon			<0,01	<0,1	<0,01	<0,1	<0,01	<0,1				
Ide	50,42	0,5	48,11	0,5	65,06	0,6	68,69	0,7	126,73	1,1	195,00	1,6
Roach	120,76	1,1	145,67	1,4	124,59	1,1	177,99	1,9	165,56	1,4	103,25	0,9
Dwarf mud crab							<0,01	<0,1				
Dace	0,03	<0,1					0,02	<0,1	0,06	<0,1	<0,01	<0,1
Cod (Atlantic cod)	1,30	<0,1	1,36	<0,1	0,86	<0,1	1,11	<0,1	1,25	<0,1	0,86	<0,1
Garfish	130,09	1,2	121,53	1,2	104,73	0,9	159,32	1,7	106,91	0,9	53,96	0,4
Sturgeon							<0,01	<0,1				
Asp			<0,01	<0,1	<0,01	<0,1	<0,01	<0,1				
Bleak	0,02	<0,1	0,05	<0,1	0,12	<0,1	0,02	<0,1	0,04	<0,1	0,17	<0,1
Rainbow trout	0,24	<0,1	0,34	<0,1	0,17	<0,1	0,09	<0,1	0,12	<0,1	2,21	<0,1
Vimba bream	118,71	1,1	80,46	0,8	74,80	0,6	85,86	0,9	87,86	0,7	75,15	0,6
Twaite shad	<0,01	<0,1					0,03	<0,1	2,35	<0,1	0,93	<0,1
Common sand eel	0,03	<0,1			0,04	<0,1	0,02	<0,1				
Round goby	118,95	1,1	211,21	2,0	255,62	2,2	205,60	2,2	340,88	2,8	698,44	5,8
<b>Total</b>	<b>10 808,91</b>	<b>100,0</b>	<b>10 495,95</b>	<b>100,0</b>	<b>11 705,40</b>	<b>100,0</b>	<b>9 311,41</b>	<b>100,0</b>	<b>12 017,26</b>	<b>100,0</b>	<b>12 115,96</b>	<b>100,0</b>

Sources: MORA, REM, PTA.

**TABLE 8.** Value of coastal fishery catches from the Baltic Sea and proportion (%) of total value by species, 2021–2024

Species	2021		2022		2023		2024	
	Value	%	Value	%	Value	%	Value	%
Perch	1 784,92	29,22	1 980,28	37,97	2 386,44	31,07	2 006,79	23,88
Eel	28,44	0,47	22,91	0,44	41,12	0,54	42,53	0,51
Eelpout	0,16	<0,1	0,03	<0,1				
Pike	98,15	1,61	111,84	2,14	204,93	2,67	168,01	2,00
Gibel carp	12,96	0,21	14,64	0,28	20,12	0,26	16,99	0,20
Lamprey	0,27	<0,1	1,22	<0,1	0,39	<0,1	7,08	0,08
Carp	0,19	<0,1	0,24	<0,1	0,21	<0,1	0,44	<0,1
Ruff	5,15	0,08	4,47	0,09	3,56	<0,1	3,47	<0,1
Sprat	0,16	<0,1			0,07	<0,1	0,14	<0,1
Crucian carp			0,06	<0,1	0,26	<0,1	2,84	<0,1
Pikeperch	235,73	3,86	121,72	2,33	124,06	1,61	106,64	1,27
Bream	2,89	<0,1	3,84	0,07	6,07	0,08	4,86	0,06
Flounder	163,37	2,67	189,45	3,63	190,84	2,48	301,91	3,59
Tench	2,45	<0,1	4,04	0,08	5,01	0,07	4,54	0,05
Burbot	1,25	<0,1	1,23	<0,1	1,54	<0,1	0,96	<0,1
Salmon	58,98	0,97	83,59	1,60	87,71	1,14	62,33	0,74
Sea trout	109,11	1,79	156,72	3,00	170,11	2,21	128,83	1,53
European whitefish	136,56	2,24	165,96	3,18	112,43	1,46	112,70	1,34
Smelt	659,75	10,80	426,66	8,18	610,44	7,95	924,12	11,00
Silver bream	3,77	0,06	4,71	0,09	9,05	0,12	6,22	0,07
Rudd	0,31	<0,1	0,92	<0,1	0,86	<0,1	1,12	<0,1
Herring	2 356,26	38,58	1 424,99	27,32	3 078,45	40,07	3 386,74	40,30
Ide	33,48	0,55	28,06	0,54	49,90	0,65	65,81	0,78
Roach	81,35	1,33	117,57	2,25	103,46	1,35	71,38	0,85
Cod (Atlantic cod)	1,73	<0,1	2,53	<0,1	2,97	<0,1	2,07	<0,1
Garfish	80,12	1,31	147,74	2,83	92,65	1,21	96,44	1,15
Bleak							0,02	<0,1
Rainbow trout	0,87	<0,1	0,56	<0,1			13,16	0,16
Vimba bream	48,80	0,80	56,47	1,08	57,02	0,74	55,81	0,66
Twaite shad			0,03	<0,1	2,88	<0,1	0,86	<0,1
Round goby	200,66	3,29	143,05	2,74	319,20	4,16	808,69	9,62
<b>Total</b>	<b>6 107,85</b>	<b>100,00</b>	<b>5 215,56</b>	<b>100,00</b>	<b>7 681,74</b>	<b>100,00</b>	<b>8 403,52</b>	<b>100,00</b>

Sources: MoRA, VFB, AFB, official publication Ametlikud Teadaanded.

**TABLE 9.** Average first-sale price (€ kg<sup>-1</sup>) in 2014–2024, considering the weighted average prices for the year and the coastal, trawl and inland catch and price, as well as the change in percentage compared to 2023

Species	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Change
Perch	1,39	1,56	1,83	1,95	2,30	2,37	2,22	2,06	2,22	2,78	2,88	+4%
Eel	7,41	7,34	7,20	8,35	9,43	8,64	7,08	6,96	7,65	6,02	6,61	+10%
Eelpout	0,50	0,12	0,04	0,18	0,19	0,17	0,20	0,21	1,00	0,45	0,43	-4%
Pike	1,20	1,49	1,52	1,62	1,78	1,56	1,53	1,71	1,98	2,00	1,75	-12%
Gibel carp	0,16	0,23	0,26	0,25	0,27	0,24	0,21	0,24	0,26	0,27	0,26	-5%
Lamprey	4,63	5,39	4,94	4,98	4,37	3,46	2,82	3,00	3,02	3,21	2,99	-7%
Common carp	1,38	0,89	1,05	1,66	1,87	0,78	1,73	1,13	2,05	1,09	1,46	+34%
Ruff	0,13	0,19	0,15	0,22	0,21	0,21	0,23	0,22	0,32	0,30	0,24	-20%
Sprat	0,21	0,33	0,18	0,18	0,17	0,17	0,17	0,19	0,22	0,37	0,40	+9%
Crucian carp	0,27	0,33	0,49	0,38	0,75	0,30			0,26	0,35	0,28	-20%
Pikeperch	3,40	3,77	3,37	3,37	3,42	3,03	2,84	3,59	4,19	4,39	3,92	-11%
Bream	0,73	0,69	0,53	0,47	0,47	0,57	0,67	0,51	0,55	0,56	0,54	-3%
Flounder	0,73	0,84	0,84	0,88	0,98	1,06	1,09	1,02	1,43	1,29	2,37	+83%
Tench	1,28	1,44	1,46	1,40	1,60	1,47	1,55	1,63	1,88	1,61	1,63	+1%
Burbot	0,87	0,96	0,74	0,75	0,77	0,64	0,50	0,62	0,87	0,83	0,92	+12%
Salmon	4,40	4,97	5,93	6,79	7,50	8,03	8,10	7,92	11,39	11,88	10,75	-10%
Sea trout	2,87	4,94	4,84	6,94	7,17	7,43	7,72	7,39	9,80	10,90	9,73	-11%
Four-horned sculpin					0,15				0,21	0,38	0,43	+13%
European whitefish	4,03	4,70	5,40	6,04	5,91	5,92	5,06	5,47	6,91	7,09	7,20	+2%
Smelt	0,66	0,35	0,43	0,40	0,70	0,48	0,75	0,90	0,59	0,88	1,02	+16%
Shorthorn sculpin											0,41	
Silver bream	0,13	0,11	0,08	0,10	0,09	0,09	0,10	0,15	0,24	0,22	0,23	+7%
Rudd	0,11	0,10	0,12	0,17	0,21	0,07	0,10	0,12	0,27	0,27	0,32	+20%
Herring	0,20	0,19	0,19	0,19	0,17	0,18	0,18	0,20	0,21	0,33	0,39	+19%
Ide	0,66	0,46	0,56	0,58	0,57	0,44	0,50	0,51	0,41	0,40	0,34	-14%
Roach	0,61	0,52	0,61	0,55	0,63	0,58	0,61	0,72	0,67	0,59	0,66	+12%
Atlantic cod	1,25	0,68	0,98	1,50	0,95	0,29	3,44	3,02	4,73	4,25	5,82	+37%
Garfish	1,16	0,68	1,06	0,72	0,68	0,53	0,60	0,78	0,93	0,87	1,79	+106%
Bleak											0,10	
Rainbow trout			5,00		6,88	5,48	4,82	5,00	6,00		5,95	
Vimba bream	0,53	0,43	0,46	0,48	0,52	0,48	0,44	0,65	0,66	0,65	0,74	+14%
Twaite shad									1,00	1,23	0,93	-24%
Round goby	0,20	0,06	0,15	0,16	0,19	0,36	0,59	0,78	0,70	0,94	1,16	+24%

Source: Official publication Ametlikud Tedaanded.

## Dynamics of coastal fishery catches in different parts of the Baltic Sea

### ■ Gulf of Finland

Trap nets and gill nets are the main fishing gear in coastal fishing. In 2024, the greatest amounts of fish by species caught with them in the Gulf of Finland were herring, flounder, smelt, round goby, and perch (Table 10, p. 34).

As in previous years, herring catch generated the highest revenue (around 265,000 euros). In terms of profitability, herring was followed by sea trout (around 79,000 euros), flounder (about 71,000 euros), salmon (around 55,000 euros), and perch (around 42,000 euros). Compared to 2023, the revenue from whitefish decreased significantly.

**Herring** is caught in the Gulf of Finland mainly using trap nets. The highest catch of the years 2007–2024 was landed in 2015 (1657 tonnes). The catch landed in 2024 (717 tonnes) was lower than the average for the period observed (1012 tonnes).

**Flounder** is usually caught using gill nets and mainly in the western part of the gulf. Catches of flounder have been declining for a longer period, but the 2024 catch (27 tonnes) was higher than the 2023 catch (26 tonnes). The lowest catch of the period from 2007–2024 (18 tonnes) came in 2021. A rapid increase in the stock is not expected in the coming years, but the hydrological conditions in the Baltic Sea have become more favourable for this species.

**Perch** is mostly caught using gill nets, with the proportion of trap net catches varying from year to year. The perch catch was much lower than the average for the years under observation (30 tonnes), and the 13 tonnes of 2024 was lower than the 2023 figure.

**European whitefish** is caught in the Gulf of Finland mainly with gill nets. Whitefish catches have exceeded the 20-tonne limit in two years (2007 and 2008). The whitefish catch landed in 2024 (3.4 tonnes) was only larger than the figure for the previous year (3.3 tonnes).

**Smelt** is generally also caught using gill nets. The catch of smelt made in 2024 amounted to 25 tonnes, the most since 2007. In 2023, this figure was 16 tonnes.

**Sea trout** and **salmon** are mainly caught with gill nets as well. Over the period from 2007 to 2024, the largest catch of sea trout was landed in 2016, and for salmon 2017. Compared with the catch figures of 2023 (sea trout 10.5 tonnes and salmon 6.8 tonnes), the catches of these valuable species were lower in 2024: 8.1 tonnes for sea trout and 5.1 tonnes for salmon. In summary, the total salmon catch in 2024 was average, while the sea trout catch was lower than the long-term average.

The catch of **round goby**, an invasive alien species, mainly caught with a trap net, decreased for the first time in 2013 by almost twofold after a consistent and rapid increase in the preceding years and has thereafter both declined and increased. In early summer of 2018, mass die-off of round goby occurred almost in the entire coastal sea due to a disease outbreak. Only 0.7 tonnes of this species

was caught in the Gulf of Finland in 2019. The population has since recovered rapidly. In 2024, a record 20 tonnes was caught. The abundance of round goby is higher than the catch data from the monitoring data would suggest. It is therefore expected that round goby catches in the Gulf of Finland have the potential to increase.

**To sum up**, the total catch in the Gulf of Finland in 2024 was 842 tonnes, less than the 968 tonnes in 2023, and lower than the average catch for 2007–2024. If herring, considered a mass fish, is not taken into account, the catch of 2024 was higher than the previous year's catch.

## ■ High seas

Fishing gear used in coastal regions towards the Central Baltic near Saaremaa and Hiiumaa includes gill nets, trap nets, seine nets and, to a very little extent, longlines. Longlines used to be employed mainly in eel fishing, but their importance has declined as the eel stock is in recession. The catch landed in 2024 was led by the first time by round goby followed by flounder, ide, perch, garfish, roach, gibel carp, herring, European whitefish, pike, and sea trout (Table 11, p. 36).

For the first time, round goby was the largest source of income for offshore coastal fishers in 2024 (around 204,000 euros). In terms of catch value, it was followed by flounder (around 188,000 euros), perch (around 110,000 euros), European whitefish (around 40,000 euros), and garfish (around 40,000 euros).

**Flounder** is mainly caught with gill nets. The share of trap nets is much lower, and the share of seine catches has been even lower in the last six years. Flounder caught increased to 73 tonnes in 2024 after a drop in the three previous years.

**Garfish** are mainly caught by trap net. Catches of this fish have increased in the last decade. The 2023 catch of 14 tonnes was average for the period 2007–2024, but the 2024 figure of 22 tonnes was greater.

**Herring** is mainly caught with trap nets, but gill nets are also used and their share is higher than in other parts of coastal waters. Herring catch was largest in 2014 (18 tonnes). The catch in 2024 (6 tonnes) exceeded only the 2023 figure (4 tonnes). In terms of coastal catch volume, herring ranked third during the period 2013–2016, sixth during the period 2017–2020, fourth in 2021, seventh in 2022, 10th in 2023, and eighth in 2024.

The **round goby** catch rose to 176 tonnes in 2024 (2023: 46 tonnes). Stocks of this invasive non-native species have been rising for the last decade; after a mass die-off and sudden dwindling of the catches in 2018, it has reached record levels.

The catch of **perch** in 2024 was 34 tonnes, which was a few hundred kilos more than in 2023, setting a record for the period under review.

The catch of **roach** (9 tonnes) also grew in comparison with the preceding year (5 tonnes).

The catch of **ide** was the highest of the period from 2007–2024 (40 tonnes), making this species the largest freshwater fish again.

The **European whitefish** catch in 2024 (6 tonnes) exceeded the average for the period under review (3 tonnes).

Catches of **sea trout** and **salmon** (3 and 0.1 tonnes, respectively) increased year over year. The first yielded a little more than the data series average; the second much less.

**All in all**, the huge catch of round goby on the offshore coasts of Saaremaa and Hiiumaa made the total catch in 2024 the largest of the period considered.

## ■ Väinameri Sea

Fishing gear used in the Väinameri Sea includes mostly gill nets and trap nets. The relative importance of longlines in fishery is small; in 2013, 2014, and 2019–2024, seine nets were also used to a limited extent. Catches made in the Väinameri Sea are dominated by freshwater species. The catch landed in 2024 was dominated by perch, followed by herring, ide, round goby and pike (Table 12, p. 38).

As is traditional, the perch catch generated the highest value in 2024: around 906,000 euros. In terms of profitability, pike was about 122,000 euros, round goby ranked third (around 94,000 euros), followed by herring (around 79,000 euros), ide (about 45,000 euros), and European whitefish (around 32,000 euros).

**Perch** as the most important species to coastal fishers has produced substantial catches during the last 12 years (2013–2024) in the Väinameri Sea. Perch has mainly been fished using gill nets, but from 2014–2018, almost equivalent quantities were landed with trap nets. In 2019, for the first time, the proportion of trap nets was higher than that of gill nets (61% and 38%, respectively). In 2020, 57% was landed by trap net, in 2021, 54%, in 2022, 59%, in 2023, 55%, and in 2024, 53%. The importance of the trap net is up because the perch catch rose severalfold in the Väinameri Sea in 2013. Fishers did not respond immediately, but in 2014, they re-employed the trap nets that had been set aside during the intervening years when the abundance of fish was low. The perch catch of 2019 (425 tonnes) was the largest since the perch stock crisis of the early 1990s. Since then, a figure that high has not been seen. The catch landed in 2024 (285 tonnes) was lower than the average for the period observed (317 tonnes).

**Pike** is caught using both trap nets and gill nets. The share of the latter was about two-thirds until 2018, at which point there was an even split between the two types of net in the total catch and then the trap nets have had the upper hand. The 2023 catch of 74 tonnes set a record for the period under review (2007–2024), but the 2024 figure of 71 tonnes was second.

The main type of **herring fishing gear** is the trap net. Herring catches were big in 2009, 2010, 2013, and 2018, but there were also thin years, e.g. only 45 tonnes in 2019. The catch of 212 tonnes in 2024 is among the highest in the period.

Historically, most of the **gibel carp caught** has been taken with gill nets, but from 2021 the trap net haul exceeds the gill net catch. The highest catch of the years 2007–2024 was landed in 2014. The catch figure for 2024 (23 tonnes) was slightly better than average for the data series.

The catch of **garfish**, which is mostly caught using trap nets, amounted to 15 tonnes in 2024, being smaller than in 2023 (16 tonnes) and also smaller than the average of the data series.

The catch of **ide** has increased since 2013, and the 133 tonnes caught in 2024 was a record in the series. While in 2018 the quantity of ide caught in trap nets exceeded the quantity caught with gill nets for the first time during the period under review, in the next four years, the share of trap nets was around two-thirds, and even greater in the last two years.

The 37-tonne catch of **vimba bream** was at a record high in 2019, but catches declined sharply in the following years. Both 2023 and 2024 had a catch of 13 tonnes, which is slightly above the average for the period (12 tonnes). In 2023, the majority of vimba bream was caught using trap nets, which was the first time that had happened, but gill nets made up the lion's share of the 2024 catch yet again.

While gill nets have usually prevailed in fishing for **roach**, the quantity of roach caught in trap nets was considerably higher than the quantity caught with gill nets in the five years before 2024 (2019–2023). The roach catch of 2024 (27 tonnes) was mostly taken with gill nets and was much lower than the 2023 record (54 tonnes) but still above the average (25 tonnes).

The **eel** catch in 2024 (296 kg) increased slightly year-over-year. The average catch for the years surveyed is 235 kg.

The **pikeperch** catch was lower than the average for the years 2007–2024 (3 tonnes) for the seventh year in a row. However, the result for 2024 (0.7 tonnes) showed a slight increase compared to 2023 (0.4 tonnes). In the catches of pikeperch, the proportion of trap nets also outstripped that of gill nets in the last six years.

**Round goby** is mainly caught by trap net, and catches have been increasing steadily over the last five years. The 81 tonnes caught in 2024 was the biggest ever.

In summary, the largest catch of the period 2007–2024 was taken from the Väinameri Sea in 2024. If herring is not taken into consideration, the best total catch was likewise in 2024. The record catch was largely due to the round goby. The status of fish stocks in the Väinameri Sea has been good in recent years.

## ■ Gulf of Riga

The most common fishing gear used in the Gulf of Riga (except Pärnu Bay) includes gill nets and trap nets, with seine nets and longlines being used to a lesser extent. The biggest catches taken from the gulf during the period from 2007–2024 were those

of herring, followed by perch, round goby, roach, garfish, and flounder. Since 2023, round goby has risen to second after herring. In 2024, round goby was followed by perch, roach, gibel carp, pike, garfish, ide, and flounder (Table 13, p. 40).

The value of the perch catch taken from the Gulf of Riga was around 391,000 euros in 2024, and the total price of round goby was about the same. Less income came from herring (around 255,000 euros), roach (around 27,000 euros), and flounder (around 26,000 euros).

**Herring** is caught in the Gulf of Riga mostly with trap nets and less so with gill nets. The smallest catch in the period 2007–2024 was taken in 2022 (280 tonnes). The 2024 figure rose to 689 tonnes but was still below the average (853 tonnes).

The proportions of fishing gear used for catching **garfish** are similar to those of herring. The catch taken in 2024 (12 tonnes) was less than half of the average for the data series (31 tonnes). In addition to stocks, garfish catches depend to a considerable extent on herring quotas and how fast quotas are reached as well as on the weather conditions prevailing during the fishing period.

Gill nets are preferred in **perch** fishing, but considerable quantities are also caught using trap nets. The perch catch increased slightly between 2021 and 2023, but in 2024 (122 tonnes) it was below the average of the previous two years and the period under review (173 tonnes).

Whereas the 2022 **roach** catch was the highest of the period under review (118 tonnes), in 2023 (44 tonnes) and 2024 (38 tonnes), it was lower than the average (46 tonnes). While gill nets were preferred over trap nets in roach fishery from 2012–2015, 2017, and 2024, trap nets prevailed in the other years of the period.

**Flounder** is mostly caught with trap nets and less so with gill nets; considerable quantities were also caught with seine nets in some years. While in 2018–2023, the largest share was taken with net catches, in 2024, the greatest share was taken with trap nets. The flounder catch taken in 2024 (10 tonnes) was less than the average for the data series (16 tonnes).

The **gibel carp** catch in 2024 was 16 tonnes, which is above the average for the period 2007–2024 (13 tonnes). Gibel carp is mostly caught using trap nets and gill nets.

The proportions of gill nets and trap nets are more or less equal in **pike** fishery. The catch landed in 2024 (15 tonnes) was higher than the average for the period observed (9 tonnes).

According to official statistics, **ruff** has mainly been caught with gill nets and mostly near the island of Kihnu in the past few years. In 2016–2020, the majority of the ruff catch was declared from trap nets, and the 1.3 tonne result in 2021 was mainly caught with nets, yet the meagre figures for 2022 (0.7 tonnes) and 2023 and 2024 (0.2 tonnes) were declared primarily as trap net catch. The by-catch of ruff in gill net fishing for perch generally indicates that gill nets with a smaller than permitted mesh size are used in perch and now also in round goby fishery.

**Vimba bream** is caught mainly with gill nets and on a considerably smaller scale also with trap nets. The catch landed in 2024 (4 tonnes) was average for the period observed.

**European whitefish** is caught in the Gulf of Riga mostly with gill nets. The whitefish catch for 2020 and 2021 set records for the period (3.7 and 4.2 tonnes), while the catches in 2022 (2.6 tonnes) and 2023 (2.4 tonnes) were still above the average for the period (2.1 tonnes), and the 2024 result was already lower (1.6 tonnes). The increase in the catches of European whitefish has not been due to the reproduced Finnish whitefish but an increase in the number of local Estonian whitefish species.

The catch of **round goby**, which is caught mainly using trap nets, reached an unprecedented level in 2024 (337 tonnes).

**In summary**, the total catch taken in the Gulf of Riga in 2024 was lower than the average of the period from 2007–2024. Leaving out herring, the catch in 2024 was greater than the result for all previous years. The increased catch of round goby played a major role in the increase in total catch.

## ■ Pärnu Bay

The fishing gear used in Pärnu Bay includes mainly gill nets and trap nets, with longlines and seine nets being employed on a small scale. No seine net catch was declared in 2023 or 2024 for Pärnu Bay. From 2007 to 2024, the species caught in the greatest amounts in these fishing grounds were herring, perch, smelt, pikeperch, vimba bream, and round goby (Table 14, p. 42). The year 2024 likewise saw the greatest amounts of herring followed by smelt, perch, round goby, and vimba bream. In terms of both the value and volume of catches, Pärnu Bay is undeniably the most important coastal fishing area in Estonia.

The species with the greatest value in Pärnu Bay is herring, which was sold for around 2,786,000 euros in 2024. Smelt brought in about 875,000 euros, followed by perch (around 557,000 euros), pikeperch (around 100,000 euros), and round goby (around 97,000 euros).

**Herring** is caught mainly using pound nets and its catches fluctuated to a great extent in the period from 2007 to 2024. The catch landed in 2024 (7532 tonnes) was lower than the catch landed the previous year (7895 tonnes) but higher than the average for the last 18 years (6522 tonnes). Catches depend on coastal fishing quotas as well as on the weather prevailing in the fishing period.

**Perch** is caught mainly with gill nets and trap nets, with the proportions of these types of fishing gear in catch differing from year to year. A record high catch of perch (1055 tonnes) was landed in 2014; it was the first year when perch catch exceeded a thousand tonnes during the period under review. Catches decreased in subsequent years and have remained below average (55 tonnes) since 2018. The perch catch for 2024 was 174 tonnes, which is less than ever before during the period under review.

The catch of **smelt** in 2024 (756 tonnes) was greater than that of 2023 (636 tonnes) and significantly above average. Unlike the Gulf of Finland, where gill nets represent the main fishing gear, in Pärnu Bay almost all of the smelt catch is taken using trap nets.

After falling to the lowest level of the data series (19 tonnes) in 2020, the catch of **pikeperch** had remained in a slump. The catch in 2024 (20 tonnes) exceeded only the 2020 figure. After the spring prohibition on fishing was established, a large share of pikeperch is landed with nets from under the ice in the winter period.

The stock of **vimba bream** used to depend mainly on the situation in spawning rivers, most of which are Latvian rivers flowing into the Gulf of Riga. The removal of the Sindi dam from the Pärnu River has quickly increased vimba stocks. In 2023, the catch was 68 tonnes, and in 2024, 56 tonnes, which is above the average for the period (51 tonnes). Most vimba bream is caught using trap nets.

**Garfish** is mostly caught using pound nets. The largest garfish catch in the period from 2007 to 2024 was landed in Pärnu Bay in 2022 (92 tonnes). The 2024 catch of 0.7 tonnes was exceptionally poor. On average, 25 tonnes of garfish are caught annually in Pärnu Bay.

**In summary**, catches taken from Pärnu Bay have been fluctuating greatly. The total catch landed in 2024 was higher than the average for the period 2007–2024. The total catch is most affected by mass species – herring and smelt. If these species are not taken into consideration, the total catch of all other fish species has been below average since 2019, while the figure for 2024 was the lowest.

**TABLE 10. Species composition and catches (kg) of commercial fishing in Gulf of Finland (ICES subdivision 32) by coastal fishing gear type, 2012–2024 (as of March 2025)**

Species <sup>1</sup>	2012 Total	2013 Total	2014 Total	2015 Total	2016 Total	2017 Total	2018 Total	2019 Total	2020 Total	2021 Total
Perch	24 369	68 597	43 041	18 106	18 098	15 471	10 187	6 635	9 010	8 672
Eel	660	609	388	330	330	132	57	55	67	125
Arctic char								2		
Eelpout	16	49	9	10	2	6	9	4	4	
Pike	2 349	2 984	2 882	2 552	2 036	1 367	2 185	2 151	2 047	1 278
Gibel carp	8 307	6 933	8 249	8 171	7 612	6 213	5 260	3 647	6 099	3 980
Lamprey	3		2	14				6	0,2	1
Turbot	35	16	22	18	79	138	219	100	160	147
Carp	23	13	16	9	9		6	1	10	6
Ruff	220	185	121	43	51	19	6	22	20	13
Sprat	34	802	434	24	91	49	106	4	287	84
Crucian carp										60
Pikeperch	697	2127	285	286	188	66	188	54	24	67
Bream	914	952	497	562	595	172	184	184	104	342
Flounder	67 446	75 261	65 655	63 823	51 926	32 973	30 937	30 566	33 799	18 433
Tench	62	13	37	38	37	33	156	117	10	57
Burbot	26	40	44	48	24	27	13	17	6	17
Salmon	3 500	5 281	3 720	3 948	4 703	7 062	6 450	6 957	9 259	6 437
Sea trout	10 696	8 968	9 769	11 414	13 461	12 872	9 787	11 087	11 162	9 150
Four-horned sculpin	67	26	27	264	10	15	2	3	4	7
European whitefish	11 378	14 011	11 027	7034	7297	6367	8990	5163	7873	5089
Smelt	12 085	15 255	17 749	20 049	14 101	7015	3708	3864	21 618	17 360
Shorthorn sculpin										
Silver bream	527	991	226	209	114	506	183	106	112	91
Rudd	442	82	276	167	50	182	39	16	28	18
Herring	698 456	982 538	1 253 544	1 656 531	1 112 999	1 189 006	944 848	1 223 515	1 225 684	1 302 604
Ide	64	94	261	547	774	1 384	1 190	894	965	1555
Roach	3 112	2 249	2 638	2 179	2 651	2 261	1 247	1 137	717	786
Cod	1 440	2 404	3 329	1 787	854	315	321	947	1 159	717
Garfish	5 134	665	971	6 381	2 626	5 398	342	4 671	3 078	1 848
Bleak	127	52	1		31		5	8	45	53
Rainbow trout	38	42	32	26	70	65	54	43	65	78
Vimba bream	1 276	1 316	896	1 034	2 041	1 883	1 219	1 376	1 725	1 126
Twaite shad	6						0,2			
Round goby	16 809	8 565	11 169	8 902	11 888	15 965	6 924	716	3 017	4 955
<b>Total<sup>2</sup></b>	<b>870 317</b>	<b>1 201 201</b>	<b>1 437 314</b>	<b>1 814 609</b>	<b>1 254 746</b>	<b>1 306 967</b>	<b>1 034 820</b>	<b>1 304 068</b>	<b>1 338 157</b>	<b>1 385 165</b>

<sup>1</sup> The catch also includes Atlantic sturgeon, anglerfish, grayling, two-spotted goby, mackerel, longspined bull-head, lumpfish, belica, black goby, sichel, thicklip grey mullet, common seasnail, Siberian sturgeon, dace, European chub, and other sturgeon species.

<sup>2</sup> Also includes the quantity of the species specified in comment 1.

<sup>3</sup> The complete data used to calculate the mean can be found on the PTA website <https://pta.agri.ee/ettevotjale-tootjale-ja-turustajale/kutseline-kalapuuk/puugistatistika>.

Sources: MORA, REM, PTA..

Table 10 abbreviations: TN – Trap net, SN – Seine net, GN – Gill net, LL – Longline

Species	2022				2023				2024				2007–24 average <sup>3</sup>
	TN	GN	LL	Total	TN	GN	LL	Total	TN	GN	LL	Total	
Perch	4 674	5 419	5	10 098	6 009	13 328	25	19 361	3 466	979	6	13 211	29 863
Eel	39			39	69			69	55			55	630
Arctic char									3			3	0,3
Eelpout													11
Pike	122	519		641	437	833		1 271	753	572		1 325	1 858
Gibel carp	332	3 399		3 731	268	2 413	5	2 685	133	2 454		2 587	5 532
Lamprey	12	6		18						2		2	5,8
Turbot	1	115		116	1	58		59	4	141		144	80
Carp										1		1	7,1
Ruff		2		2	0	84		84	0,1	10		10	78
Sprat	170	47		217	106	40		146	19	11		30	178
Crucian carp	17	153	3	173	19	72	9	99	51	771		822	66
Pikeperch	13	85		97	18	13		31	38	82		120	1361
Bream	51	43		93	209	223	1	432	119	28		147	821
Flounder	1 690	25 378	31	27 098	1 300	24 381	77	25 758	3 184	24 085	5	27 273	56 789
Tench	9	23		32	5	153		158	10	10		20	62
Burbot	13	1		14		8		8	1	2		3	26
Salmon	3 849	2 665		6 514	4 024	2 809		6 833	2 863	2 321		5 185	5 143
Sea trout	1 485	8 949	6	10 440	2 970	7 520		10 490	1 992	6 108	15	8 115	10 386
Four-horned sculpin		14		14		7		7		6		6	28
European whitefish	1 126	4 527		5 653	593	2 658		3 251	1 074	2 340		3 414	9 779
Smelt	81	5 055		5 136	37	16 191		16 228	46	25 338		25 383	13 954
Shorthorn sculpin						6		6		3		3	0,5
Silver bream		17		17		26		26		32		32	380
Rudd	8	2		10	3			3	25	2		28	122
Herring	832 250	1 731		833 980	857 824	2 000		859 823	714 941	2 207		717 148	1 011 622
Ide	302	3 477		3 779	839	6 608		7 447	3 930	5 838		9 767	1 666
Roach	229	538		767	291	308		599	436	217		653	2 115
Cod	1	683		684		851		851	2	628		630	1 247
Garfish	1 788	292		2 080	1 478	240		1 718	3 315	627		3 942	4 492
Bleak	7			7	28	0		29	11	2		13	31
Rainbow trout	5	41		46	12	42		54	74	125		199	83
Vimba bream	268	1 066		1 334	728	1 192	1	1 922	393	1 251		1 643	1 698
Twaiite shad		0		0	177	83		260	55	35		90	21
Round goby	4 372	1 361	3	5 735	7 111	947	2	8 060	18 295	1 953		20 248	7 170
<b>Total</b>	<b>852 912</b>	<b>65 612</b>	<b>48</b>	<b>918 522</b>	<b>884 559</b>	<b>83 094</b>	<b>120</b>	<b>967 773</b>	<b>755 286</b>	<b>86 938</b>	<b>26</b>	<b>842 251</b>	<b>1 167 312</b>

**TABLE 11.** Species composition and catches (kg) of commercial fishing in Central Baltic (ICES subdivisions 28.2 and 29.2) by coastal fishing gear type, 2012–2024 (as of March 2025)

Species <sup>1</sup>	2012 Total	2013 Total	2014 Total	2015 Total	2016 Total	2017 Total	2018 Total	2019 Total	2020 Total	2021 Total
Perch	5 945	22 695	23 208	12 072	16 319	11 447	23 554	13 817	12 756	14 985
Eel	347	251	144	130	96	55	44	99	119	224
Eelpout	3	23	28	13	1	7	0,4			0,2
Pike	1 353	3 721	3 299	2 581	2 300	1 841	4 115	2 978	2 539	1 849
Gibel carp	3 125	2 412	2 984	3 354	3 325	3 697	4 017	5 472	5 309	3 732
Turbot	47	20	67	25	80	169	282	71	140	85
Ruff	135	703	431	403	349	301	365	754	74	173
Sprat		5		1	86	1	105	2		54
Crucian carp										23
Pikeperch		15	4		5				1	
Bream	1	5	9	1		13	1	241	3	113
Flounder	122 738	145 620	111 530	101 450	119 147	120 730	95 137	91 243	103 563	70 400
Tench	29	45	35	24	322	23	508	75	125	165
Burbot	504	567	468	439	369	377	499	302	188	223
Salmon	491	458	488	638	1246	610	773	638	528	242
Sea trout	4 577	3 630	3 287	2 977	4 426	2 749	4 315	3 778	3 831	2 977
Four-horned sculpin		5	10	10	1	1	0,4			1
Longspined bullhead										
European whitefish	2 658	4 658	4 575	3 765	3 396	2 896	2 238	2 606	5 330	3 636
Smelt	2				1	24	56	21	6	9
Silver bream	190	143	2		95	5	14	40	281	1
Rudd	283	79	72	8	6	6	6	8	15	12
Herring	9 591	13 337	18 341	9 666	12 779	9 045	8 759	7 176	7 915	9 427
Ide	2 253	3 768	4 247	4 557	6 846	9 936	9 923	9 530	10 067	27 961
Roach	5 269	4 837	8 258	4 970	8 206	6 579	9 580	6 198	4 410	6 997
Cod	1 460	1 913	2 704	1 415	619	294	506	303	131	93
Garfish	2 190	2 204	3 162	7 263	11 952	14 763	21 775	23 745	29 255	25 657
Bleak	10	13	9	5	13	16	7	1		
Rainbow trout	31	120	109	24	49	57	250	173	119	71
Vimba bream	7	36	71	46	125	26	84	26	82	175
Twaite shad			1	1						
Round goby	1	10	103	778	21 140	16 514	7 840	10 792	16 746	20 777
<b>Total<sup>2</sup></b>	<b>163 232</b>	<b>211 296</b>	<b>187 647</b>	<b>156 614</b>	<b>213 300</b>	<b>202 181</b>	<b>194 752</b>	<b>180 088</b>	<b>203 529</b>	<b>190 068</b>

<sup>1</sup> The catch also includes Atlantic sturgeon, anglerfish, common carp, mackerel, lumpfish, sichel, thicklip grey mullet, gudgeon, Siberian sturgeon, and dace.

<sup>2</sup> Also includes the quantity of the species specified in comment 1.

<sup>3</sup> The complete data used to calculate the mean can be found on the PTA website <https://pta.agri.ee/ettevotjale-tootjale-ja-turustajale/kutseline-kalapuuk/puugistatistika>.

Sources: MORA, REM, VFB.

Table 11 abbreviations: TN – Trap net, SN – Seine net, GN – Gill net, LL – Longline

	2022					2023					2024					2007–24 average <sup>3</sup>
	TN	SN	GN	LL	Total	TN	SN	GN	LL	Total	TN	SN	GN	LL	Total	
	11 257	14	7 935		19 205	15 580	63	18 466	24	34 133	19 155	355	14 862	3	34 376	15 005
	186		1		187	244		3	1	248	249			2	251	257
											1				1	8
	2 625	248	695		3 568	3 225		965		4 190	2 970	10	785		3 765	2 616
	1 706		2 143		3 848	2 613		5 852	6	8 471	3 275		4 619		7 894	3 708
	1		37		38			23		23	5		51		56	72
	107				107	164		1		165	1 109		27		1 135	298
	1				1						170				170	26
			52		52			267		267	67		598		664	56
	2		3		5	3		3		6			3		3	2,4
											4		2		6	30
	7 414	24	53 356		60 793	5 937	379	49 849		56 165	9 403	101	63 055		72 559	114 129
	89		25		114	272		78		350	376		113		489	148
	130		19		149	103		7		110	28		2		29	461
	47		54		100	10		46		56	15		99		114	543
	86		3 046		3 131	41		2 839		2 879	123		3 301		3 424	3 348
			80		80								0,4		0,4	7
													11		11	0,6
	605		6 554		7 159	8		4 874		4 882	150	135	5 239		5 524	3 485
																10
						151		128		279	2 482		313		2 795	216
	83				83			10		10	326		8		335	70
	6 360		384		6 744	3 347		468		3 815	5 352		614		5 966	9 124
	7 019		7 710	5	14 733	14 148		10 963		25 111	25 547	67	14 153	2	39 768	10 168
	5 331		639		5 970	2 567		2 254	10	4 830	7 782		1 639		9 420	6 323
	44		321		365	28		264		291	54		127		181	875
	29 596		3 142		32 738	9 173		5 085		14 258	17 088		4 950	22	22 060	14 244
	1				1	1				1	8				8	11
			31		31	1		59		60	42		1 792		1 834	178
	27		74		101	22		93		115	23		119		142	62
	1		1		2	1		8		10	142		83		224	14
	24 868		106		24 973	44 339		214		44 553	173 808		2 636		176 444	18 926
	97 584	286	86 410	5	184 285	101 979	442	102 818	40	205 279	269 753	668	119 200	29	389 649	204 424

**TABLE 12.** Species composition and catches (kg) of commercial fishing in Central Baltic (ICES subdivision 29.4) by coastal fishing gear type, 2012–2024 (as of March 2025))

Species <sup>1</sup>	2012 Total	2013 Total	2014 Total	2015 Total	2016 Total	2017 Total	2018 Total	2019 Total	2020 Total	2021 Total
Perch	32 521	152 062	246 738	226 789	292 148	274 496	373 062	424 766	278 358	250 055
Eel	171	123	123	80	39	42	32	69	111	154
Eelpout	2		4	149	2	1		0,1		
Pike	24 194	43 262	44 955	37 059	26 810	26 622	41 794	51 135	53 371	46 279
Gibel carp	25 615	23 138	40 716	29 541	25 694	18 873	18 556	15 659	19 131	17 994
Lamprey								5	7	3
Turbot		4	8	3	27	82	168	30	62	3
Carp	23	26	29	12	19	6	10	1	28	9
Ruff	3 994	4 676	13 565	8 160	14 728	11 504	13 491	26 915	21 958	10 945
Sprat	2	32	4		15	20	51	13	14	37
Crucian carp										9
Pikeperch	395	8 044	16 674	10 308	6 983	3 932	1 400	2 267	408	527
Bream	483	1 031	3 520	2 615	1 301	1 986	1 036	1 659	2 057	1 564
Flounder	9 080	8 131	5 751	4 620	4 206	5 073	5 900	3 535	5 581	7 876
Tench	2 321	2 686	4 189	2 049	1 401	1 100	1 576	1 314	1 454	504
Burbot	880	1 768	3 146	3 473	2 969	2 496	1 592	1 292	812	548
Salmon	227	127	138	57	91	83	90	91	55	86
Sea trout	736	698	334	303	377	245	270	214	163	224
European whitefish	2 714	2 850	4 197	4 762	3 626	4 718	4 201	5 070	6 412	6 309
Smelt	81	60	17	29	62	611	94	612	1 091	6 073
Silver bream	14 902	17 396	22 982	23 814	19 304	27 168	26 287	30 683	29 755	23 085
Rudd	899	1 590	2 324	1 999	1 833	1 195	1 026	1 918	2 191	1 599
Herring	142 635	133 157	122 460	97 329	119 960	122 778	196 768	45 550	70 515	113 477
Ide	2 107	3 086	7 061	10 253	17 590	21 387	29 779	31 978	31 100	30 004
Roach	19 359	23 320	26 536	27 980	26 251	25 438	23 033	40 724	36 675	26 269
Cod	58	78	107	166	17	9	19	16	27	41
Garfish	8 705	4 088	6 488	23 486	10 726	23 527	11 564	20 019	18 924	13 305
Bleak	182		54	819	60	15	33	8	7	72
Rainbow trout			1	14	4	48	16	15	153	25
Vimba bream	3 921	5 769	9 612	17 203	12 997	18 944	21 359	37 280	23 544	11 521
Twaite shad							1			
Round goby	13	0,15		49	93	5028	12 192	5053	15 452	19 611
<b>Total<sup>2</sup></b>	<b>296 216</b>	<b>437 209</b>	<b>581 732</b>	<b>533 120</b>	<b>589 331</b>	<b>597 428</b>	<b>785 399</b>	<b>747 888</b>	<b>619 415</b>	<b>588 207</b>

<sup>1</sup> Also represented in the catch are Atlantic sturgeon, European seabass, four-horned sculpin, stickleback, dace, European chub, asp, and sand goby.

<sup>2</sup> Also includes the quantity of the species specified in comment 1.

<sup>3</sup> The complete data used to calculate the mean can be found on the PTA website <https://pta.agri.ee/ettevotjale-tootjale-ja-turustajale/kutseline-kalapuuk/puugistatistika>.

Sources: MORA, REM, PTA.

Table 12 abbreviations: TN – Trap net, SN – Seine net, GN – Gill net, LL – Longline

	2022					2023					2024					2007–24 average <sup>3</sup>
	TN	SN	GN	LL	Total	TN	SN	GN	LL	Total	TN	SN	GN	LL	Total	
	163 002	819	115 521	2	279 344	174 301	2042	140 870	6	317 219	150 610	970	131 407	18	283 004	195 460
	276		6	5	288	257		6		263	296		1		296	235
																11
	23 367	159	17 763		41 289	52 405	1 006	20 187	1	73 599	49 640	41	21 283		70 964	35 381
	9 766		8 470		18 114	11 900		9 576		21 477	16 879		5 758	1	22 638	22 464
						3				3	6				6	1,3
	12		34		46			2		2	1		113		114	30
						34				34			15		15	19
	6 288		191		6 479	3 653		229		3 882	7 781		116		7 897	8 924
								1		1	9				9	18
	6		1		7	9		9		18	2 232		2 223		4 456	249
	1 030		904		1 934	186		187		372	324		398		722	3 068
	1 198		1 170		2 368	1 000		409		1 410	766		1 067		1 834	1 379
	895		2 180	4	3 080	1 387		1 126		2 513	1 285		1 624		2 909	6 419
	359		407		766	1 415		536		1 951	808		266		1 074	1 688
	68		258		326	371		373		744	251		302		553	1 312
			8		8	26		13		39	42		28		70	93
	35		115		149	60		85		146	85		71		156	306
	357		4 740		5 097	391		3 452		3 843	396		4 021		4 417	3 822
	6 070		177		6 247	4 997		159		5 156	11 293		131		11 423	1 868
	4 748		9 940		14 688	26 265		8 850		35 115	10 750		7 501		18 251	19 327
	1 228		463		1 691	1 045		943		1 988	677		975		1 652	1 606
	63 574		317		63 891	141 100		604		141 707	211 715		743		212 458	127 581
	30 425		13 283	6	43 714	67 932		16 159	8	84 098	110 142		22 977		133 118	26 093
	17 973		7 957		25 930	43 010		11 408		54 418	12 891		14 248	4	27 143	25 441
	3		6		9	6		9		15	3		12		15	41
	11 399		3 262	1	14 662	11 353		4 469		15 822	12 671		2 053	3	14 727	17 614
	8				8	4		4		8	62				62	88
			1		1			2		2	41		36		77	21
	2 618		7 105		9 724	7 323		5 488		12 811	5 006		7 950		12 956	11 583
			1		1	665		29		693	28		24		51	42
	19 548		264		19 812	30 605		257		30 862	80 314		550		80 864	10 502
	<b>364 131</b>	<b>978</b>	<b>194 542</b>	<b>18</b>	<b>559 669</b>	<b>581 701</b>	<b>3 048</b>	<b>225 445</b>	<b>15</b>	<b>810 209</b>	<b>687 002</b>	<b>1011</b>	<b>225 891</b>	<b>26</b>	<b>913 931</b>	<b>522 704</b>

**TABLE 13.** Species composition and catches (kg) of commercial fishing in the Gulf of Riga (ICES subdivision 28.1, except Pärnu Bay) by coastal fishing gear type, 2012–2024 (as of March 2025)

Species <sup>1</sup>	2012 Total	2013 Total	2014 Total	2015 Total	2016 Total	2017 Total	2018 Total	2019 Total	2020 Total	2021 Total
Perch	148 083	212 042	198 721	222 426	231 080	155 377	216 219	159 923	116 170	117 670
Eel	603	539	335	205	218	222	152	207	282	474
Eelpout	2	10	3		9			3		5
Pike	6 454	9 964	10 579	7 385	7 759	7 913	17 362	16 063	14 353	8 342
Gibel carp	10 316	9 329	14 083	12 838	16 473	18 734	20 171	15 748	17 351	14 894
Lamprey	10				2			5		
Turbot					1				19	14
Carp		11	9	57	3	33	5			14
Ruff	7 976	4 711	4 081	4 764	5 734	5 646	1 561	2 948	1 145	1 349
Sprat	105	336	138	154	168	71	346	30	45	166
Crucian carp		1 099				2	1			298
Pikeperch	2 585	2 652	1 631	720	664	301	351	512	462	513
Bream	250	172	176	201	332	268	141	211	102	660
Flounder	12 403	18 637	17 856	20 730	18 388	17 348	24 709	16 547	20 435	10 869
Tench	901	1 192	2 619	2 855	1 735	1 310	2 448	2 190	2 141	774
Burbot	216	327	1 035	780	286	150	113	365	223	96
Salmon	796	257	382	473	489	390	341	361	334	334
Sea trout	1 140	1 107	1 011	1 239	1 548	1 183	1 576	1 432	1 345	2 048
Four-horned sculpin	1			15	6	2	20	33	23	28
European whitefish	1 625	1 827	2 153	2 129	2 209	1 331	893	1 809	3 677	4 177
Smelt	396	902	23	881	22	12	55	19	1	47
Silver bream	421	331	837	2 438	7 211	2 216	1 978	2 669	2 469	3 224
Rudd		2		41	557	164	669	586	82	834
Herring	793 359	580 067	851 761	875 555	767 642	653 815	572 215	822 900	318 611	665 502
Ide	44	97	355	610	1 715	3 001	8 102	7 992	5 943	5 500
Roach	26 501	19 895	28 013	42 263	109 115	33 188	42 133	51 059	78 410	67 187
Dace										
European chub				1				32		
Cod	443	804	856	533	349	123	125	28	45	6
Garfish	8 882	11 521	24 906	33 359	33 189	87 059	37 765	56 106	28 617	35 910
Bleak	21	30		21	7		86			
Rainbow trout		32	18		13	5	12	6	2	1
Vimba bream	3 577	6 074	5 584	5 390	4 332	4 053	3 453	4 103	3 925	3 275
Twaite shad										
Round goby	88	506	7 906	20 859	49 262	68 860	56 753	44 880	91 348	155 738
<b>Total<sup>2</sup></b>	<b>1 027 195</b>	<b>884 472</b>	<b>1 175 069</b>	<b>1 258 919</b>	<b>1 260 520</b>	<b>1 062 775</b>	<b>1 009 756</b>	<b>1 208 767</b>	<b>707 558</b>	<b>1 099 958</b>

<sup>1</sup> Also represented in the catch are Atlantic sturgeon, bighead carp, sea lamprey, lumpfish, stickleback, and lesser sand eel.

<sup>2</sup> Also includes the quantity of the species specified in comment 1.

<sup>3</sup> The complete data used to calculate the mean can be found on the PTA website <https://pta.agri.ee/ettevotjale-tootjale-jaturustajale/kutseline-kalapuuk/puugistatistika>.

Sources: MORA, REM, PTA.

Table 13 abbreviations: TN – Trap net, SN – Seine net, GN – Gill net, LL – Longline

	2022				2023					20234					2007–24 average <sup>3</sup>
	TN	GN	LL	Total	TN	SN	GN	LL	Total	TN	SN	GN	LL	Total	
	52 800	70 744	70	123 615	62 020	35	68 880	1 498	132 433	40 659		80 130	1279	122 068	173 245
	316		4	320	343			18	361	467			17	484	646
	27			27	4				4	4		1		5	16
	3 695	3 440		7 135	6 000		9 585	8	15 593	7 869		7 208	15	15 092	9 052
	6 312	8 533	4	14 849	5 000		7 933	100	13 032	8 024	8	7 713	330	16 075	13 326
												3		3	1,4
					1		19		20	5		52		57	6,1
	12	14		26	7				7	2		7		9	21
	679	37	6	722	205		31	1	237	224		3		227	4 536
		163		163			60		60			47		47	109
	93	296		389	34		117		151	156		731		887	202
	16	272		288	9		315		324	58		360		418	1 160
	140	115		255	113		96		209	215		56		271	212
	4 963	4 977	6	9 946	3 942		5 045	4	8 991	5 412		4 654	14	10 080	16 283
	1 001	466		1 467	854		260		1 114	1 226		124		1 350	1 382
	322	34		356	104		41		145	36		25		61	299
	44	100		144	5		70		75	46		124		170	415
	87	1 758		1 844	88		1 495		1 583	104		1 127		1 232	1 195
		19		19			1		1			61		61	12
	54	2 592		2 646	22		2 340		2 362	46		1 550		1 596	2 141
	6	5		11	11		14		25	5 074		108		5 182	935
	4 456	1 802		6 257	3 983		2 879		6 885	4 092		2 343	39	6 474	2 520
	659	995		1 654	490		657		1 147	422		818		1 240	394
	271 622	8 112		279 734	407 392		3 594		410 985	679 587		8 940		688 527	852 518
	2 299	4 028		6 382	4 963		4 768		9 868	5 899		5 509	407	11 815	3 485
	93 765	24 506	1	118 272	24 528		19 614		44 292	16 319	5	21 553	474	38 352	45 543
	20			20	61				61	2				2	5,4
					45		21		66	12		18		30	7,2
	12	31		43	33		56		89						283
	16 173	1 454		17 627	35 973	54	1 746		37 774	10 924		1 566		12 490	31 076
										67				67	16
										2		85		87	12
	677	4 441		5 117	504		5 002		5 510	1 332		2 832		4 164	4 173
					344		10		354	258		36		295	36
	123 444	1 989	1	125 433	171 697	19	5 470		177 186	333 143		3 856	10	337 009	63 102
	<b>583 693</b>	<b>140 976</b>	<b>92</b>	<b>24 761</b>	<b>728 773</b>	<b>108</b>	<b>140 116</b>	<b>1944</b>	<b>870 941</b>	<b>1 121 687</b>	<b>13</b>	<b>151 641</b>	<b>2585</b>	<b>1 275 926</b>	<b>1 228 374</b>

**TABLE 14.** Species composition and catches (kg) of commercial fishing in Pärnu Bay (fishing squares 178–180) by coastal fishing gear type, 2012–2024 (as of March 2025)

Species <sup>1</sup>	2012 Total	2013 Total	2014 Total	2015 Total	2016 Total	2017 Total	2018 Total	2019 Total	2020 Total	2021 Total
Perch	338 862	761 605	1 054 968	1 043 423	847 901	832 473	513 711	374 015	332 388	400 788
Eel	128	132	66	98	102	235	214	554	946	952
Eelpout	372	1 072	136	598	41	253	510	1	56	152
Pike	1 057	5 969	3 726	2 212	2 719	2 614	2 616	4 053	4 603	2 090
Gibel carp	19 556	11 332	21 722	16 093	7 565	17 226	16 544	24 624	25 421	13 213
Lamprey	349	996	304	201	85	120	75	112	34	57
Carp	78	246	151	300	164	65	58	516	155	61
Ruff	38 855	28 488	17 102	10 798	16 473	24 986	33 307	25 137	14 343	9 561
Crucian carp		2 302								102
Pikeperch	143 140	109 327	154 683	71 705	98 870	51 783	64 023	49 301	19 147	51 664
Bream	9 450	6 612	8 728	4 854	4 374	5 188	8 081	6 553	4 010	2 605
Flounder	1 232	2 405	3 320	7 756	6 901	10 408	12 217	12 987	12 541	7 332
Tench	8	68		55	17		5	38	1	
Burbot	36	101	259	354	173	114	29	40	19	19
Salmon	322	700	492	471	297	748	499	425	586	349
Sea trout	132	264	191	207	111	235	340	375	294	359
European whitefish	2 053	2 414	3 904	1 800	1 739	878	1 070	1 597	1 951	5 747
Smelt	285 721	490 197	210 889	325 865	343 645	163 914	280 005	497 230	892 756	696 752
Silver bream	17 215	11 967	6 393	3 313	2 676	2 068	8 244	1 461	2 631	801
Rudd		8		5			45		180	35
Herring	5 444 876	5 378 670	5 289 522	6 651 588	6 851 104	6 397 467	6 341 867	6 194 639	6 112 242	7 084 635
Ide		1	38	3	20	54	91	145	37	39
Roach	23 556	20 781	27 857	17 673	15 995	18 610	18 064	21 650	25 460	23 346
Cod	9	57	22	23	27	11	8	10	2	7
Garfish	127	658	8 317	45 452	11 510	45 014	3 422	25 648	41 652	28 006
Bleak			85	513						
Rainbow trout							3			
Vimba bream	44 468	43 219	67 807	69 260	53 938	63 109	71 211	75 927	51 188	58 706
Twaite shad										
Lesser sand eel	192	735	37	325	145	32	50	25		30
Round goby				38	7 026	32 949	35 750	57 522	84 650	54 542
<b>Total<sup>2</sup></b>	<b>6 371 790</b>	<b>6 880 325</b>	<b>6 880 717</b>	<b>8 274 990</b>	<b>8 273 624</b>	<b>7 671 553</b>	<b>7 412 057</b>	<b>7 374 613</b>	<b>119 938</b>	<b>8 442 000</b>

<sup>1</sup> Also represented in the catch are mullets, bighead carp, four-horned sculpin, sea lamprey, stickleback, stellate sturgeon, dace, and European chub.

<sup>2</sup> Also includes the quantity of the species specified in comment 1.

<sup>3</sup> The complete data used to calculate the mean can be found on the PTA website <https://pta.agri.ee/ettevotjale-tootjale-ja-turustajale/kutseline-kalapuuk-puugistatistika>.

Sources: MORA, REM, PTA.

Table 14 abbreviations: TN – Trap net, SN – Seine net, GN – Gill net, LL – Longline

	2022				2023				2024				2007–24 average <sup>3</sup>	
	TN	SN	GN	LL	Total	TN	GN	LL	Total	TN	GN	LL		Total
	276 655		51 030	8	327 693	249 492	40 216	3	289 711	137 967	36 085		174 052	550 614
	729				729	1478			1 478	1 284		2	1 286	419
														229
	990		1 323		2 313	2 466	3 669		6 134	4 212	2 405		6 616	2 921
	8 199		7 550	1	15 750	20 350	8 268	3	28 620	12 510	4 355		16 865	17 286
	157				157	61			61	1 147	5		1 152	323
	46		33		79	127	22		149	258	19		277	161
	7 067		77		7 144	6 669	10		6 679	4 178	70		4 248	18 877
	5		14		19	9	117		126	2 844	465		3 309	584
	6 216		15 571	9	21 796	5 021	16 844		21 865	5 054	14 647		19 701	69 993
	2 818		44		2 862	5 984	18		6 002	3 649	34		3 683	5 145
	5 230		1 670	20	6 920	3 268	1 094		4 362	2 662	1 173		3 835	5 516
	2				2	43			43					20
	12		6		18	16	3		19	20	1		21	71
	463		108		571	355	29		383	201	62		263	363
	268		163		431	176	253		429	175	132		307	207
	38		3 439		3 477	24	1 476		1 500	58	637		695	1 815
	692 152		880		693 031	634 359	1 232		635 590	753 662	2 095		755 756	479 244
	760		518		1 278	488	63		551	758	2		760	8 239
			40		40	66			66	117	108		225	34
	5 621 147		18		5 621 165	7 894 585	77		7 894 662	7 531 738	2 198		7 531 761	6 522 385
	39		44		83	93	82		175	402	1		531	71
	25 923		1 123	4	27 050	58 983	2 422	2	61 407	25 480	2		27 678	22 764
	3		3		6	1	5		6	5			6	13
	92 111		108		92 219	37 249	96		37 345	743	5		745	25 275
										22	6 807		22	35
	8		7		15					12	56		17	1,9
	62 871		6 709	1	69 581	63 690	3 815	1	67 506	49 441	6 807		56 249	51 303
	31				31	1 031			1 031	210	56		266	74
			20		20									96
	28 987		659		29 646	78 915	1 300		80 215	83 461	415		83 876	25 901
	<b>6 832 926</b>	<b>20</b>	<b>91 137</b>	<b>43</b>	<b>6 924 126</b>	<b>9 064 995</b>	<b>81 109</b>	<b>9</b>	<b>9 146 113</b>	<b>8 622 266</b>	<b>71 932</b>	<b>2</b>	<b>8 694 200</b>	<b>7 809 990</b>

## TRAWL FISHERY IN THE BALTIC SEA

### Stocks and catches of herring, sprat and cod and future outlooks

Herring, sprat and cod are internationally regulated/managed fish species, regarding which the ICES issues annual stock assessments and management recommendations for different fishing grounds and stock units.

#### ■ Herring

Herring (*Clupea harengus membras* L.) is a subspecies of Atlantic herring that inhabits the entire Baltic Sea, forming local populations. Based on the time of spawning, a distinction is made between spring-spawning herring, which spawn from March to June, and autumn-spawning herring, which spawn in August and September and whose proportion has been less than 5% since the 1970s in all areas. During the last few decades, however, the share of autumn-spawning herring has slightly increased, e.g. on the south coast of the island of Saaremaa and in the spawning grounds in the north-east part of the Gulf of Riga.

Herring and sprat stocks are assessed in accordance with the methodology of the ICES, while biological material is collected under Regulation (EU) 2017/1004 of the European Parliament and of the Council as well as Implementing Decision (EU) 2021/1168 of the European Commission.

Unlike sprat, which is treated as a single stock unit (i.e. population) across the Baltic Sea, in the case of herring, the state of stocks is assessed and advice for exploitation is given for four stock units, as shown in Figure 10.

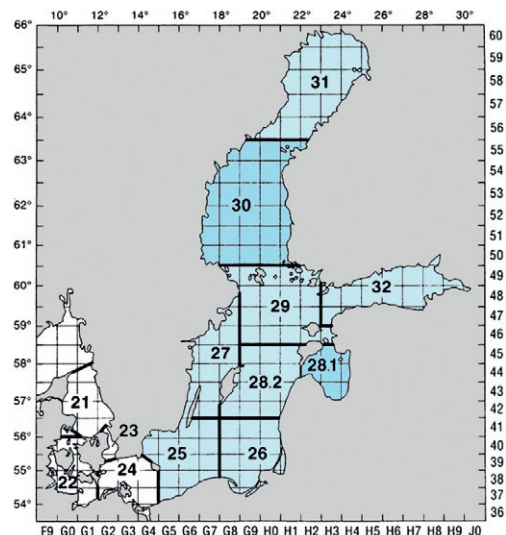
The Gulf of Riga and the Bothnian Sea (and possibly also the Bothnian Bay) are inhabited by local natural herring populations, but Central Baltic herring (in subdivisions 25-28.2, 29 and 32) comprises several populations (Gulf of Finland herring, Swedish coast herring, et al.).

The following overview primarily discusses the Central Baltic herring and Gulf of Riga herring stock units, as these are of more interest to Estonian fishers.

**Figure 10. Agreed herring stock units in the Baltic Sea:**

- Central Baltic herring (also referred to as open sea herring) (ICES subdivisions 25–27, 28.2, 29 and 32)
- Gulf of Riga herring (subdivision 28.1)
- Bothnian Sea herring (subdivision 30)
- Bothnian Bay herring (subdivision 31)

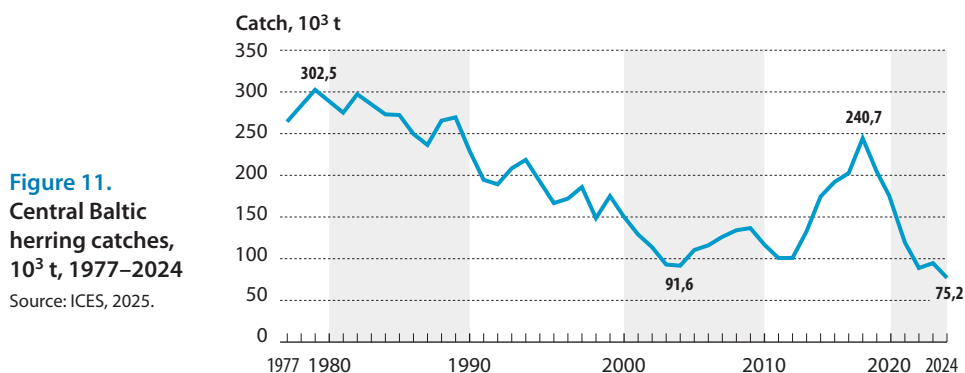
Source: ICES, 2025.



### Central Baltic herring (subdivisions 25-27, 28.2, 29 and 32)

After years of decline, the herring catch taken from the Central Baltic increased to 137,000 tonnes in 2010, then decreased to 101,000 tonnes in 2012 and 2013 due to reductions in TACs, but increased again over the period from 2014 to 2018 due to improved fishing opportunities, reaching 240,739 tonnes in 2018. Catches then declined again due to a reduction in fishing opportunities, and they stood at 75,236 tonnes in 2024, which also includes open sea herring caught in the Gulf of Riga. That is 24% less than the 2023 figure. Not including the Gulf of Riga indicator, the herring catch in the Central Baltic was 67,616 tonnes in 2024, which was slightly more than the allowable total catch agreed for this management unit  $TAC_{2022} = 67,368$  tonnes).

Unlike the previous period when the main herring fishing countries were Sweden and Poland, Russia has replaced Sweden in the rankings since 2022 (Figure 11). In 2024, Russia's share was 31%, Poland's was 20% and Sweden's was 15% of the total catch. Estonia's catch was 9,600 tonnes, which accounted for approximately 13% of the total catch (Table 15). In 2024, the highest catches of herring, both by weight and by number, were recorded in subdivision 26 (Figure 12). The herring stock in the Gulf of Finland (subdivision 32), which temporarily increased in previous years, probably due to some stock relocation, has now declined again.

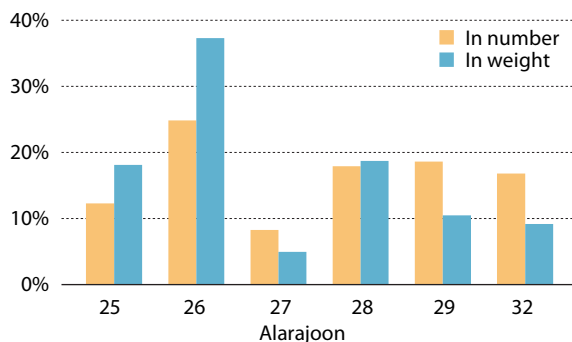


**TABLE 15.** Central Baltic herring catches by country (10<sup>3</sup> t), 2010–2024 and share (%) in 2024

Year	Denmark	Estonia	Finland	Germany	Latvia	Lithuania	Poland	Russia	Sweden	Total
2010	5,9	17,9	21,6	2,2	3,9	1,5	25,0	9,1	50,0	136,7
2011	3,6	14,9	19,2	2,7	3,4	2,0	28,0	8,5	36,2	116,8
2012	2,0	11,4	18,0	0,9	2,6	1,8	25,5	13,0	26,2	101,5
2013	2,9	12,6	18,2	1,4	3,5	1,7	20,6	10,0	29,5	100,5
2014	4,5	15,3	27,9	1,7	4,9	2,1	27,3	15,9	34,9	134,5
2015	0,8	18,8	31,6	2,9	5,7	4,7	39,0	20,9	50,6	174,9
2016	2,6	20,1	28,9	4,3	8,4	5,2	41,0	24,2	56,0	190,6
2017	6,3	23,3	40,7	3,6	7,9	4,0	40,1	22,3	51,2	199,4
2018	7,7	24,3	45,4	4,0	11,2	6,6	49,3	25,4	66,9	240,7
2019	5,4	21,5	37,0	1,8	7,6	6,1	40,3	25,8	55,6	201,0
2020	6,7	17,1	31,9	0,8	5,2	5,6	35,9	26,0	45,3	174,5
2021	6,6	12,5	19,8	0,6	3,8	4,3	26,7	23,7	30,8	129,0
2022	2,1	7,7	10,3	0,3	4,2	1,8	17,8	25,3*	14,6	84,1
2023	5,2	11,2	13,7	0,6	5,7	1,5	19,9	24,5*	16,4	98,7
2024	1,1	9,6	8,1	0,6	4,6	1,1	15,0	23,5	11,6	75,2
	<b>Proportion %</b>									
2024	1	13	11	1	6	1	20	31	15	

\* Russian catch data are estimates

Source: ICES, 2025.



**Figure 12. Central Baltic herring: proportion of catch in weight and number in 2024**

Source: ICES, 2025.

The average age composition of herring catches has been relatively similar over time: age groups 1-3 prevail, representing around 50% of catches. This can be attributed to the domination of pelagic cohorts mainly composed of younger herring in trawl catches (Figure 13). Unlike sprat, greater stability of age composition has been observed in herring catches, which is due to the smaller variation in the abundance of herring year classes.

The mean body weight of herring has decreased considerably over the past decades throughout the Baltic Sea, accounting for just 40–50% of the common weight level of the 1970s and 1980s in the age groups that are more abundant today. The mean body weight has stabilised at a low level since the 2000s. However, in 2024, it increased significantly in almost all age groups (Figure 14).

Herring spawning stock biomass ( $SSB / MSY B_{trigger}$ ) was 0.7 in early 2025, which is much lower than the recommended spawning stock biomass but higher than the indicator for the last few decades (Figure 15). This ratio has not been above the recommended level since 1985. From 1990 to the present, only four herring cohorts have been observed whose abundance at age 1 exceeded the long-term average, with the most recent such cohort being that of 2022 (Figure 16). The short-term future of the stocks depends on the number of 2023–2025 cohorts because they will make up the predominant share of the spawning stock and catch in the near future.

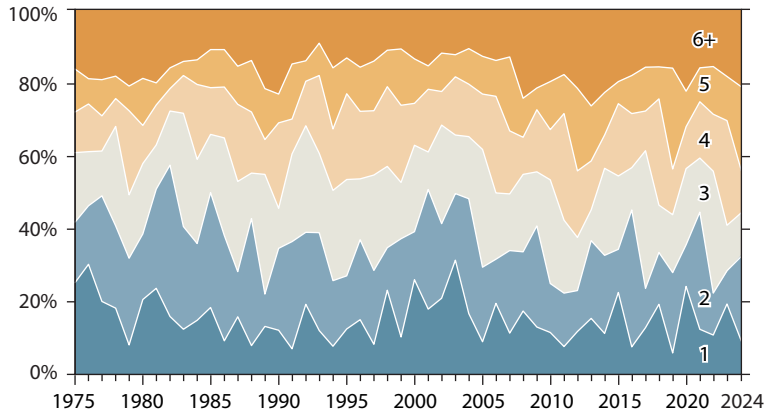
The stock status of Central Baltic herring is mostly assessed against the reference levels of fishing mortality and biomass. The most important of these are the following:

- (1) Comparison of spawning stock biomass (SSB) against minimum spawning stock biomass that ensures the maximum yield ( $MSY B_{trigger}$ ) at fishing mortality  $F_{MSY}$
- (2) Comparison of actual fishing mortality ( $F$ ) against maximum sustainable yield fishing mortality ( $F_{MSY}$ ), which enables maximum catches to be taken in the long run without endangering stocks

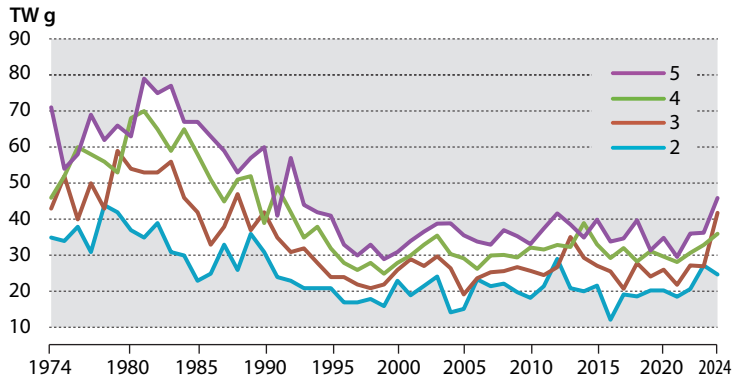
Looking at herring fishing mortality in the Central Baltic since 1974, there appears to be a period of particularly high mortality (1994–2002) when the actual mortality rate significantly exceeded the recommended level. This was one of the reasons for the decline in stocks. The relative fishing mortality of herring declined in 2010–2013, then exceeded the  $F_{MSY}$  level in 2015–2021, but fell back well below it in 2022–2024 (Figure 15).

According to the EU's multi-annual management plan (MAP), the total catch for 2026 should be in the range of 120,378 to 157,996 tonnes. A total catch exceeding the level that corresponds to  $F_{MSY}$  is possible only if the specific conditions set out in the

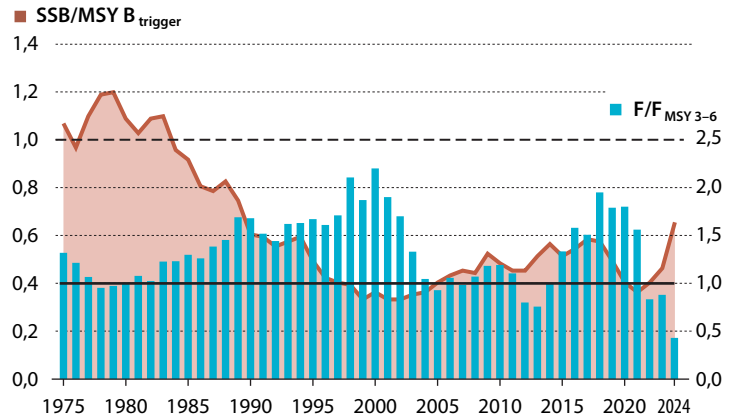
**Figure 13. Central Baltic herring: average age composition of catches, 1975–2024**  
 1: age 1, 2: age 2 etc., 6+: age 6 and older  
 Source: ICES, 2025.



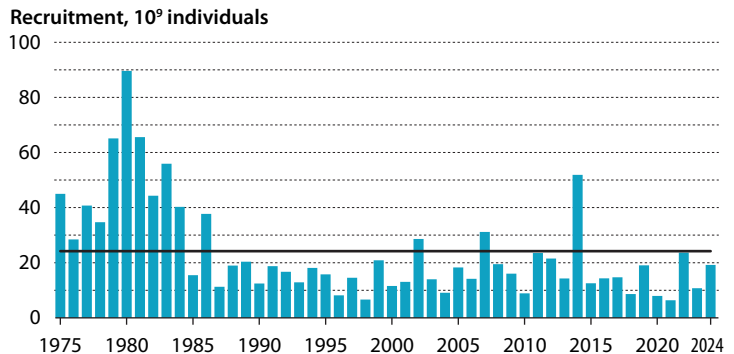
**Figure 14. Central Baltic herring: dynamics of mean body weight (TW) of herring aged 2–5, 1974–2024**  
 Source: ICES, 2025.



**Figure 15. Relative spawning stock biomass for Central Baltic herring (SSB / MSY B<sub>trigger</sub>) in 1975–2024 and relative fishing mortality for 3–6-year-old herring (F<sub>3-6</sub> / F<sub>MSY</sub>) in 1975–2024**  
 The horizontal line denotes F<sub>MSY</sub> and the dotted line is the minimum MSY B<sub>trigger</sub> for maximum sustainable biomass.  
 Source: ICES, 2025.



**Figure 16. Central Baltic herring: dynamics of abundance of recruitment (age 0), 1975–2024**  
 The horizontal line marks the long-term average.  
 Source: ICES, 2025.



MAP are met. For 2025, the ICES recommended a total catch of up to 125,344 tonnes, and the agreed quota is 110,881 tonnes.

The ICES gives recommendations for the stock unit, which means that catches of the Central Baltic herring traditionally taken from the Gulf of Riga should be deducted from and catches of gulf herring caught in the Central Baltic should be added to the quantity recommended by the ICES. As a result, the total allowable catch of herring in subdivisions 25-27, 28.2, 29 and 32 is expected to amount to 154,542 tonnes in 2026.

### Gulf of Riga herring (subdivision 28.1)

Gulf of Riga herring are only fished by Estonian and Latvian fishers. The proportion of Latvia's catches has been 60–70% in the last couple of decades. According to Latvian researchers, a significant part of Latvian herring catches (around 10–20%) was not reflected in official statistics until 2010 (Table 16). From 2019 onwards, the herring catch started to increase, reaching 48,200 tonnes in 2023. The year 2024, however, was characterised by a decline, and 38,772 tonnes of herring were caught (Figure 17).

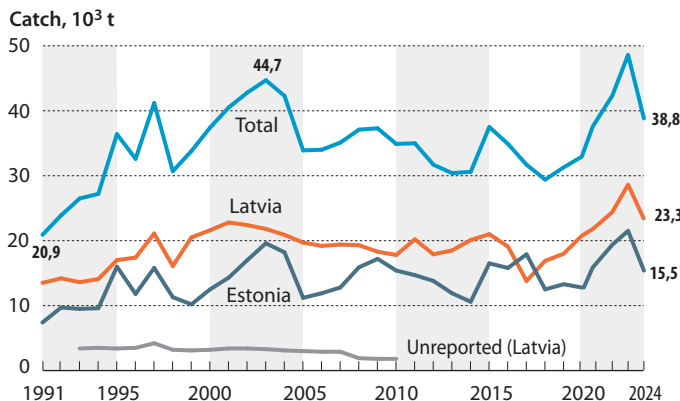
In addition to local gulf herring, catches include Central Baltic herring that spawns in the Gulf of Riga. Both varieties come under a single catch quota. The proportion of Central Baltic herring in the total herring catch taken from the Gulf of Riga has been less than 5% in recent years.

The long-term age structure of herring catches from the Gulf of Riga is generally similar to that of Central Baltic herring catches. The only difference is the greater variation in the abundance of the Gulf of Riga year classes, especially since the 1990s. The year 2024 was characterised by the very large proportion of one-year-old herring in the catch (Figure 18).

**TABLE 16.** Gulf of Riga herring: Estonian, Latvian and unreported landings (10<sup>3</sup> t), 2010–2024

Year	Estonia	Latvia	Unreported (Latvia)	Total
2010	15,4	17,8	1,8	34,9
2011	14,7	20,2	–	34,9
2012	13,8	17,9	–	31,7
2013	11,9	18,5	–	30,4
2014	10,6	20,1	–	30,6
2015	16,5	21,0	–	37,5
2016	15,8	19,1	–	34,9
2017	17,9	13,8	–	31,7
2018	12,5	16,9	–	29,4
2019	13,3	18,0	–	31,3
2020	12,2	21,0	–	33,2
2021	16,1	22,0	–	38,1
2022	18,8	24,2	–	43,0
2023	20,7	27,5	–	48,2
2024	15,5	23,3	–	38,8

Source: ICES, 2025.



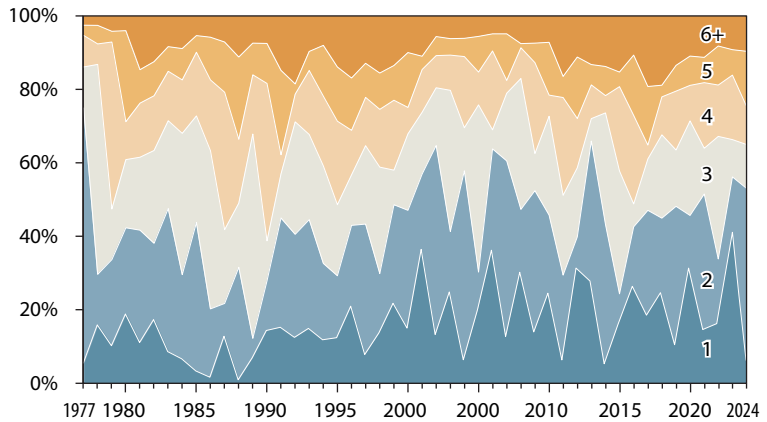
**Figure 17.** Gulf of Riga herring: Estonian, Latvian and unreported landings (10<sup>3</sup> t), 1991–2024

Source: ICES, 2025.

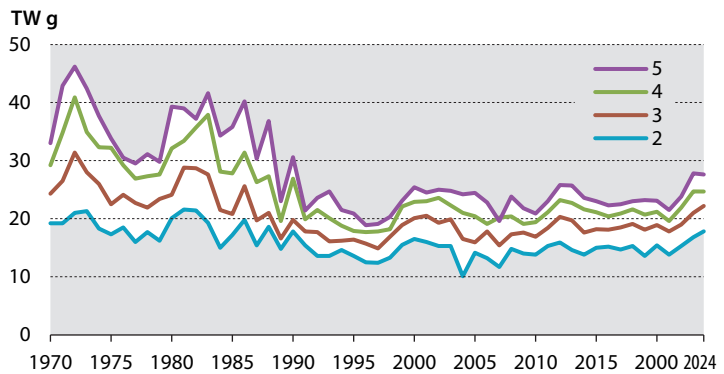
Similar to Central Baltic herring, the mean body weight of different age groups of herring caught in the Gulf of Riga has decreased significantly compared to the early 1980s. It has stabilised over the last few decades, albeit at a low level. Now, however, some increase in average body mass has been observed for several years (Figure 19).

Since the 1990s, the spawning stock biomass of Gulf of Riga herring is up to twice the level of the 1970s (Figure 20). The Gulf of Riga herring catch has displayed a similar trend: catches have ranged from 25,000–40,000 tonnes since the second half of the 1990s, which is twice as high as in the 1970s and 1980s (ICES, 2025).

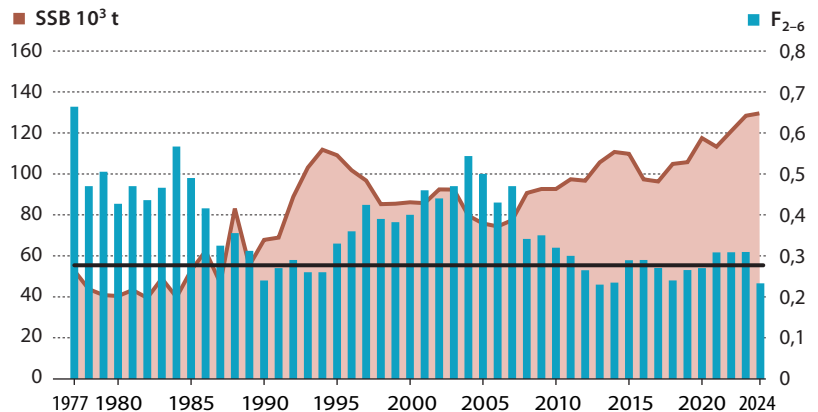
**Figure 18.** Gulf of Riga herring: age composition of catches, 1977–2024  
1: age 1, 2: age 2 etc., 6+: age 6 and older  
Source: ICES, 2025.



**Figure 19.** Gulf of Riga herring: dynamics of mean body weight (TW) of herring aged 2–5, 1970–2024  
Source: ICES, 2025.



**Figure 20.** Central Baltic herring: spawning stock biomass (SSB) and fishing mortality in age group 2–6 ( $F_{2-6}$ ), 1977–2024  
The horizontal line represents the maximum sustainable fishing mortality for sustainable yield  $F_{MSY} = 0.28$   
Source: ICES, 2025.



The good condition of the stock, compared with that in the 1970s and 1980s, was mostly due to the abundance of the 1990–2006 year classes. Then again, the cohorts that were born after the cold winters of 1996, 2003, and 2006 were of a medium or smaller size in the Gulf of Riga during that period (Figure 21); the 2023 cohort was also very low. The year-class strength of Gulf of Riga herring seems to depend on the severity of the winter and the abundance of zooplankton in spring, which determines the feeding conditions of juveniles in spring and thus their survival. The mild winters in the last couple of decades have apparently been favourable for the reproduction of Gulf of Riga herring. However, looking separately at the data of the past ten years or so, it appears that the abundance of the year classes of 2011–2012, 2015, 2017, 2019, and 2022 exceeded the average, while those of 2010, 2013–2014, 2016, and 2018 proved small in number. The outlook for catches in the near future is greatly influenced by the strong 2022 year class (Figure 21). At the beginning of 2025, the spawning stock biomass of Gulf of Riga herring amounted to 119,208 tonnes, which exceeded the long-term average (84,052 tonnes) by more than 40%.

It should be remembered that catches of Gulf of Riga herring are currently mainly dependent on the TAC. Although management of the stock has generally been sustainable in the Gulf of Riga in the recent past, high fishing mortality is a major concern. This phenomenon can likely be explained by the low body weight of the herring.

The status of the Gulf of Riga herring stock is assessed against the reference levels of fishing mortality mentioned above. According to current estimations, the sustainable fishing mortality  $F_{PA}$  is 0.35, the maximum fishing mortality for sustainable yield  $F_{MSY}$  is 0.28, and  $B_{trigger}$  is 72,907 tonnes for Gulf of Riga herring.

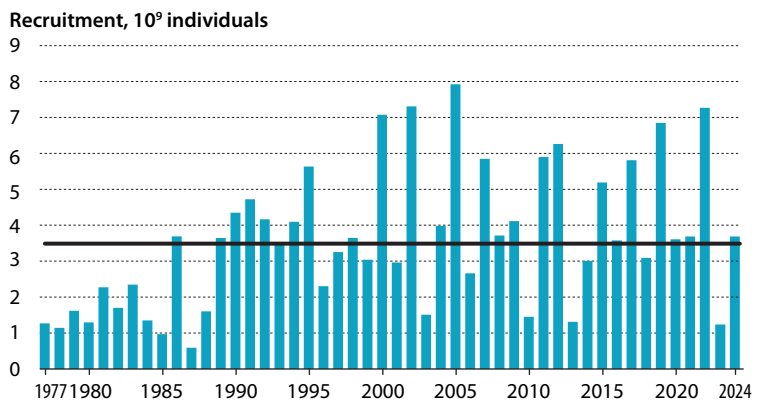
Applying the MAP, the 2026 catch will range between 23,962 and 35,643 tonnes. A total catch exceeding the level that corresponds to  $F_{MSY}$  (0.28), i.e. 30,913 tonnes, can be taken subject to the specific conditions set out in the MAP. For 2025, the ICES recommended a total catch of up to 39,233 tonnes.

Since the recommendation of the ICES only concerns gulf herring, the TAC for the Gulf of Riga is to be calculated by deducting the catch of gulf herring assumed to be taken in the Central Baltic from, and adding the average catch of herring from the Central Baltic taken in the Gulf of Riga to, the recommendation for 2025. This results in a recommended quota for the Gulf of Riga management area of 34,367 tonnes in 2026, which is 17.5% less than in 2025.

**Figure 21. Gulf of Riga herring: dynamics of abundance of recruitment (age 1), 1977–2024**

The horizontal line marks the long-term average.

Source: ICES, 2025.



The condition of Central Baltic herring and, to a lesser extent, possibly also Gulf of Riga herring may improve if sprat stocks decrease, as this would reduce food competition between sprat and herring and lead to an increase in the mean body weight of herring. This would contribute to a reduction in the fishing mortality of both stock units, which in turn would create preconditions for increased fishing opportunities. Long-term dynamics (from 1977) indicate, however, that despite the high biomass of Gulf of Riga herring, the fishing mortality of this stock unit was usually below the  $F_{MSY}$  level (Figure 20).

## ■ Sprat

Sprat (*Sprattus sprattus balticus*) is a pelagic fish, like herring. The main biological difference lies in the high fecundity and pelagic spawning of sprat (its spawn roe develops while floating in water, whereas herring mostly spawns on benthic vegetation). Also, sprat is a so-called batch spawner, which means that, unlike herring, it spawns in parts and over a longer period of time. These characteristics cause remarkable variation in the reproduction of sprat, which depends on whether the environmental conditions prevailing in a particular year are favourable for embryonic development and growth of larvae.

The main spawning grounds of sprat in the Baltic Sea are located on the slopes of the Bornholm and Gotland deeps as well as in the Gdansk Deep, partly overlapping with the spawning grounds of cod. In periods when sprat abundance is high, sprat move out of these reproduction centres, which are characterised by the best environmental conditions, and spread throughout the Baltic Sea, except in freshwater areas in the northern part of the Bothnian Bay and the eastern part of the Gulf of Finland. Sprats are also present in the Gulf of Riga in relatively low numbers. In addition to fishing, the state of sprat stocks is primarily influenced by the abundance of its main natural enemy – the cod. During the periods when cod abundance is high, there are few sprats in the Baltic Sea, and vice versa. Some researchers believe, however, that sprat may also act as a ‘predatory fish’ for cod, feeding on its pelagic roe. Of course, this situation only occurs on the spawning grounds of cod.

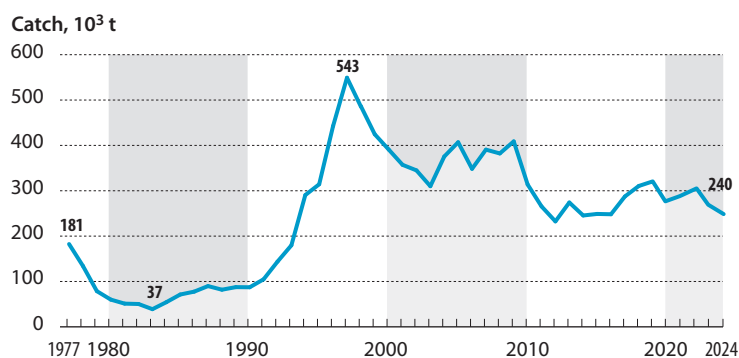
Over the last decade, catches of Baltic sprat have ranged from 240,000 to 318,000 tonnes depending on the total allowable catch (TAC). The catch landed in 2024 amounted to 239,888 tonnes, or 2% less than the agreed TAC (245,200 tonnes) (Table 17, Figure 22). Poland (23%), Russia (17%) and Sweden (16%) landed the largest catches of sprat in 2024. According to ICES’ preliminary estimates, Estonia’s catch was 24,143 tonnes (10%).

The age composition of the stocks and catches of sprat is characterised by the dominance of younger age groups: the 1–3 age group usually accounts for 50–80% of catches, depending on the abundance of cohorts (Figure 23).

Changes in the body weight of sprat generally followed the corresponding trend of herring in the 1990s and 2000s. However, the decline in the mean body weight of sprat was significantly slower compared to that of herring in the 1990s, and the mean body weight of sprats of the same age currently amounts to 70–75% of the figure from the first half of the 1980s. The mean body weight increased somewhat in 2012–2013 but declined again in the period 2014–2019. As of 2022, the average body weight of sprat has started growing again (Figure 24).

**Figure 22.** Sprat catches from the Baltic Sea ( $10^3$  t), 1977–2024

Source: ICES, 2025.



**TABLE 17.** Sprat catches from the Baltic Sea by country ( $10^3$  t), 2010–2024

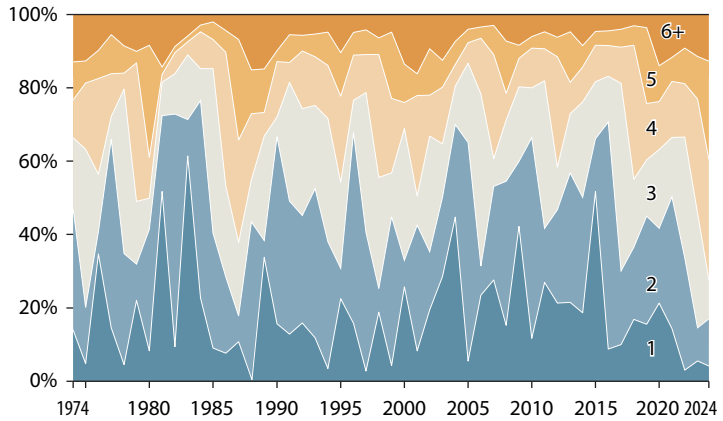
Year	Denmark	Estonia	Finland	Germany	Latvia	Lithuania	Poland	Russia	Sweden	Total
2010	43,0	47,9	24,4	17,8	45,9	9,2	56,7	25,6	70,4	341
2011	31,1	35,0	15,8	11,4	33,4	9,9	55,3	19,5	56,2	268
2012	19,4	27,7	9,0	11,3	30,7	11,3	62,1	25,0	46,5	243
2013	26,1	29,8	11,1	10,3	33,3	10,4	79,7	22,6	49,7	273
2014	25,0	28,5	11,7	10,2	30,8	9,6	56,9	23,4	46,0	242
2015	22,5	24,0	12,0	10,3	30,5	11,0	62,2	30,7	44,1	247
2016	19,7	23,7	16,9	10,9	28,1	11,6	59,3	34,6	42,4	247
2017	29,9	25,3	16,1	13,6	35,7	12,5	68,4	38,7	48,3	289
2018	28,0	29,3	16,4	15,2	37,1	16,2	79,4	41,4	49,1	312
2019	34,4	29,2	16,1	14,6	38,9	16,2	82,4	40,7	45,1	318
2020	29,0	24,3	12,5	8,9	28,9	11,2	72,5	45,7	41,1	274
2021	24,8	25,6	14,8	12,0	29,1	11,4	79,2	43,4	44,8	285
2022	26,2	27,3	13,5	14,9	31,4	11,9	79,8	42,2	53,8	301
2023	24,2	24,8	14,7	12,2	28,8	11,2	66,5	39,1	44,3	266
2024	24,2	24,1	11,7	10,9	24,1	11,0	54,2	40,5	39,2	240

Source: ICES, 2025.

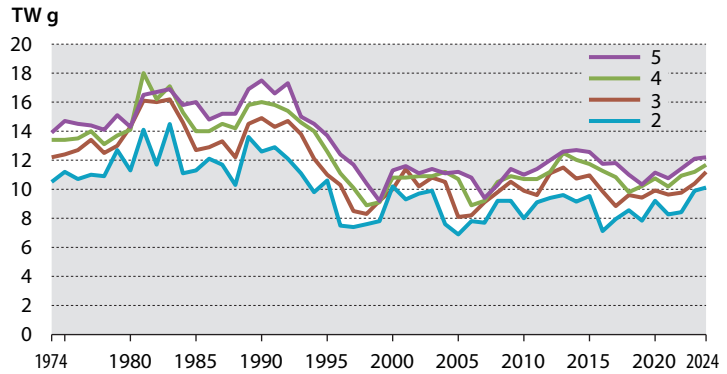
Sprat in the Baltic Sea is treated as a single stock unit and therefore a single total allowable catch (TAC) is specified for sprat, which covers the entire Baltic Sea.

The abundance and biomass of sprat started to increase rapidly in the second half of the 1980s when the abundance of cod declined significantly. In 1994, the SSB for sprat exceeded 1.42 million tonnes; thereafter, the highly abundant year classes of 1994 and 1995 took the figure to a record 1.7 million tonnes in 1997. From 2004 to 2011 the SSB was 0.7–1.3 million tonnes and then it started consistently decreasing, since the year classes for 2009 and 2012–2013 were small and fishing mortality was high. The very large year class in 2014, which swelled the SSB in 2016–2018 once again, had become exhausted by 2022–2023. Sprat recruitment has been extremely low in 2021–2023, which will probably lead to a drop in the entire spawning stock in the near future (Figures 25 and 26). The 2024 sprat cohort, however, is stronger than average, and this could improve the future prospects for the sprat stock. At the beginning of 2025, the ICES estimated the SSB of sprat to amount to 572,087 tonnes, which is almost 40% lower than the long-term average (Figure 26) but exceeds  $B_{\text{trigger}}$  (541,000 tonnes).

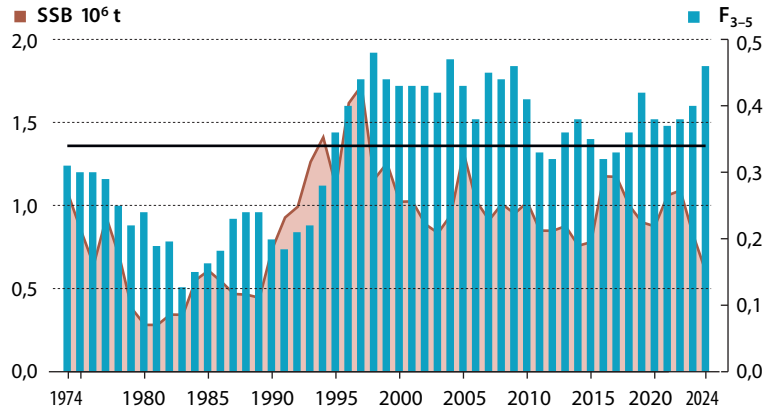
**Figure 23.**  
Average age composition of sprat catches, 1974–2024  
1: age 1, 2: age 2 etc.,  
6+: age 6 and older  
Source: ICES, 2025.



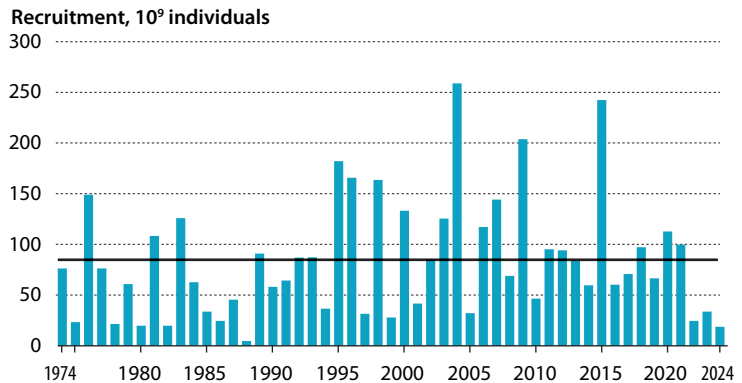
**Figure 24.**  
Central Baltic herring: dynamics of mean body weight (TW) of herring aged 2–5, 1974–2024  
Source: ICES, 2025.



**Figure 25.**  
Sprat spawning stock biomass (SSB) and fishing mortality in age groups 3–5 ( $F_{3-5}$ ), 1974–2024  
The horizontal line represents the maximum sustainable fishing mortality for sustainable yield  $F_{MSY} = 0.34$   
Source: ICES, 2025.



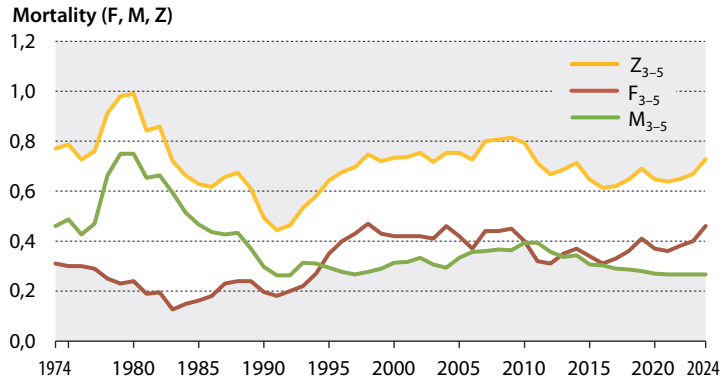
**Figure 26.**  
Dynamics of sprat recruitment (age 1), 1974–2024  
The horizontal line marks the long-term average.  
Source: ICES, 2025.



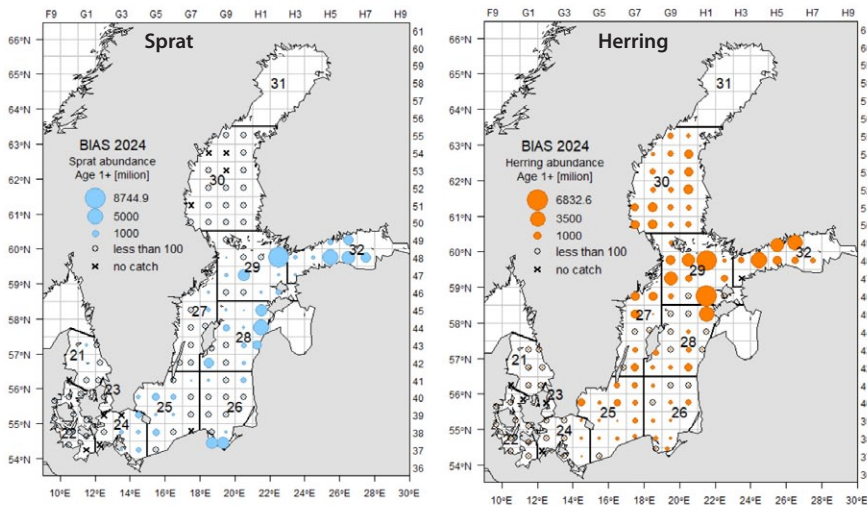
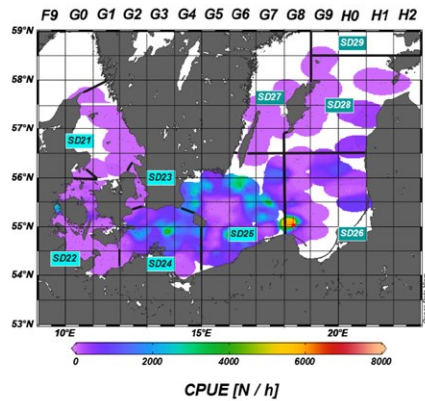
The international autumn acoustic surveys of pelagic fish stocks conducted in the Baltic Sea in 2024 indicate that a significant portion of both sprat and Baltic herring stocks are located in the northeastern part of the Baltic Sea (Figure 28, ICES 2025). The permanence of this displacement and the reasons for it are not yet known.

The current status of the sprat stock in the economic zone of Estonia can be regarded as relatively satisfactory. However, it should be noted that fishing prospects still depend on the overall status of the stock in the Baltic Sea, i.e. the relatively favour-

**Figure 27.** Fishing mortality ( $F_{3-5}$ ), natural mortality ( $M_{3-5}$ ) and total mortality ( $Z_{3-5}$ ) of sprat, 1974–2024  
Source: ICES, 2025.



**Figure 28.** Location of Eastern Baltic cod (right), Central Baltic sprat and herring in the third and fourth quarters of 2024  
Sources: Data from the ICES' Baltic International Trawl Survey (BITS) and Baltic International Acoustic Survey (BIAS), ICES 2025.



able situation in local waters does not automatically mean better fishing opportunities for local fishers. In its advice of 2025, the ICES classifies the current level of exploitation of the Baltic sprat stock as unsustainable, given that the fishing mortality rate for the period from 2018 strongly exceeded  $F_{MSY}$  (0.34) and  $F_{PA}$  (0.35) (Figure 25). Then again, as the sprat stock is extremely dependent on recruitment, any assessment of the prospects of the stock is plagued by considerable uncertainties.

Natural mortality prevailed, in particular, from 1978–1986, when the spawning stock biomass of cod was high (250,000 to 300,000 tonnes). Since 1994, the overall mortality of sprat has primarily depended on fishing mortality (Figure 27), which should be reduced to ensure the sustainability of the sprat stock, especially given the current low cod stock. This is further emphasised by the fact that the spatial overlap between cod and sprat has significantly decreased in recent years (Figure 28).

According to the EU's multi-annual management plan (MAP), the total catch of sprat for 2026 should be in the range of 176,056 to 230,518 tonnes. A total catch exceeding the level that corresponds to  $F_{MSY}$  (0.34), i.e. 224,616 tonnes, can be taken subject to the specific conditions set out in the MAP. For 2025, the ICES recommended a total catch of up to 169,131 tonnes;  $TAC_{2025}$  is 183,700 tonnes.

### ■ Cod in the eastern Baltic (subdistricts 25–32)

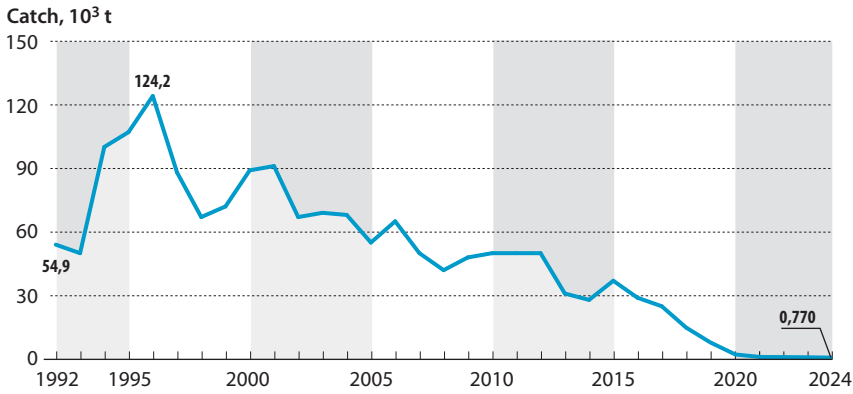
Being a marine fish species, the distribution and abundance of cod (*Gadus morhua callarias*) in the brackish Baltic Sea depend on suitable reproduction conditions. The low salinity of the Baltic Sea is generally not conducive to the wide distribution of cod. The main spawning grounds of cod are located on the slopes of the Bornholm, Gdansk and Gotland deeps.

As in the case of sprat, subject to the availability of favourable salinity, oxygen and temperature conditions, the high fecundity of cod may rapidly increase its abundance. This last occurred in the late 1970s when the spawning stock biomass of cod tripled in less than a decade. However, a lack of favourable reproduction conditions

**TABLE 18.** Catches of Eastern Baltic cod by country (t), 2010–2024 (ICES' estimates)

Year	Denmark	Estonia	Finland	Germany	Latvia	Lithuania	Poland	Russia	Sweden	Total
2010	10 739	796	826	3 908	5 001	3 140	11 433	4 264	10 169	50 277
2011	10 842	1 180	958	3 054	4 916	3 017	11 348	5 022	10 031	50 368
2012	12 102	686	1 201	2 432	4 269	2 212	14 007	3 954	10 109	50 972
2013	6 052	247	399	540	2 442	1 744	11 761	2 870	5 299	31 354
2014	6 035	165	349	676	2 000	1 088	11 026	3 444	4 125	28 908
2015	9 652	188	387	1 477	2 586	1 974	12 937	3 512	4 628	37 341
2016	6 756	2	57	918	2 717	1 698	9 583	3 392	4 189	29 312
2017	6 109	1	191	337	2 079	1 726	6 484	4 124	4 405	25 456
2018	2 668	1	53	231	1 237	684	5 687	3 376	1 862	15 799
2019	1 051	2	85	281	251	111	3 180	2 701	665	8 327
2020	20	2	24	12	76	11	376	1 778	11	2 310
2021	15	2	35	20	11	2	66	1 225	8	1 384
2022	33	1	30	5	15	2	100	900	9	1 095
2023	15	1	26	5	18	2	114	799	9	989
2024	2	1	18	3	14	2	87	635	8	770

Source: ICES, 2025.



**Figure 29.** Catches of Eastern Baltic cod (t), 1992–2024

Source: ICES, 2025.

(no inflow of saline water from the North Sea) and intense and at times uncontrollable fishing, especially in the early 1990s, led to the depletion of the biomass at the same pace. Cod stocks have remained at low levels in the eastern part of the Baltic Sea since the 1990s. In 2013–2014, the catch decreased further: while in 2010–2012 it was around 50,000 tonnes, in 2018 only 15,799 tonnes was caught, 8,327 tonnes in 2019 and thereafter even less. Catches of cod in subdivisions 25–32 in 2024 were estimated by the ICES at only 770 tonnes. The Total Allowable Catch (TAC, EU only) was 595 tonnes as by-catches only. However, if the undersized cod landed (4 tonnes) and the figure for subdivision 24 (9 tonnes) are added to the catches taken in subdivisions 25–32, the total catch of cod in the Eastern Baltic amounted to 783 tonnes in 2024.

The cod catch was divided mainly between Russian and Polish fishers, who accounted for 82% and 11% of the total catch, respectively (Figure 18, Table 29). Russia's catches for sprat, herring and cod are merely estimates since Russia has not sent its catch data to ICES since 2022. There is still no commercial cod resource in Estonian waters, and directed fishing for this species is not economically reasonable.

In 2010–2014, the ICES advice for the exploitation of Eastern Baltic cod was based on the EU Multi-annual Management Plan for Cod Stocks in the Baltic Sea, according to which the recommended fishing mortality of cod ( $F_{MTG}$ ) is 0.3. Implementation of the Management Plan requires an analytical assessment of stocks (fishing mortality rate). Unfortunately, no analytical assessment of the stock could be made during the period from 2015 to 2020. There were several reasons for this, notably changes in the reproduction capacity of the cod population and the slowdown of growth due to poor oxygen conditions, the different distribution patterns of cod and its important food target—sprat (see Figure 28, p. 52)—and likely also a parasitic infection transmitted from grey seals. This has led to a situation where Eastern Baltic cod does not end up in commercial fishing catches as adult fish, even in the case of the generations for which the initial abundance estimate from the ICES Baltic international trawl survey (BITS) was promising. This means that a large proportion of cod no longer reaches the minimum catch length, i.e. 35 cm (TL).

From 2015 to 2018, therefore, the ICES gave its advice for the exploitation of Eastern Baltic cod on the basis of its Approach to Data-Limited Stocks (DLS), i.e. the rules that the ICES applies when no comprehensive scientific information on a stock unit is available. According to the DLS approach, advice is given on the basis of the

dynamics of an index describing the size of biomass. In the case of cod, it has been decided to use the average CPUE (kg/h) of individuals  $\geq 30$  cm in BITS test trawling catches as the index. In order to formulate the advice on exploitation, the average yield of the last two years is compared with that of the preceding three years. The resulting advice is then either proportionately increased or reduced, as appropriate.

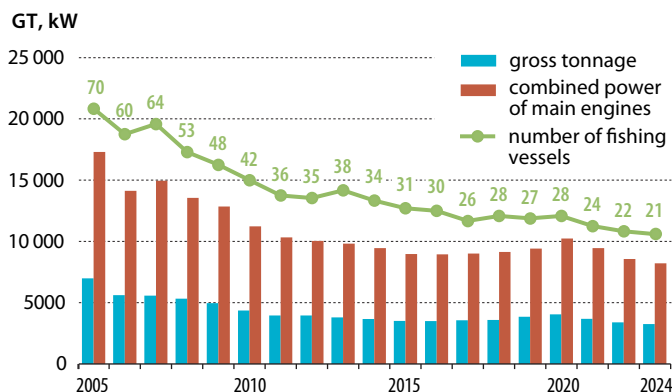
During the period 2019–2025, the ICES used the Stock Synthesis Model, which is based on an analysis of the length composition of a given cod stock, the results of which indicated that the biomass of the stock unit in question (0.45) is critically low, below  $B_{lim}$  (0.64). Therefore, the ICES recommended that fishing for Eastern Baltic cod be stopped starting from 2020. This advice also applies to the part of the Eastern Baltic cod stock that is caught in subdivision 24.

## ESTONIA'S TRAWL FLEET IN THE BALTIC SEA

In 2024, catches were reported for a total of 21 trawlers with a combined main engine power of 8344 kW and a combined gross tonnage (GT) of 3275. The average age of the vessels was 37 years, and a total of 105 people were employed on them. Compared to 2023, the number of trawlers engaged in fishing decreased by one in 2024. Examining the change in the number of trawlers in 2005–2024, we see that in 2019–2021, the decrease in the number of trawlers slowed, staying at around 27–28 ships, and resumed again in 2022 (Figure 30). Starting in the same year, Estonia's Baltic Sea trawler fleet consists of only >18-metre ships (Figure 31).

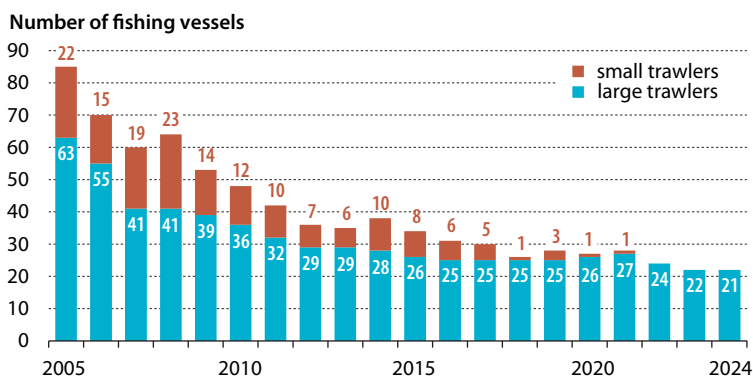
**Figure 30.** Number, combined gross tonnage (GT), and combined power of main engines (kW) of fishing vessels engaged in fishing, 2005–2024

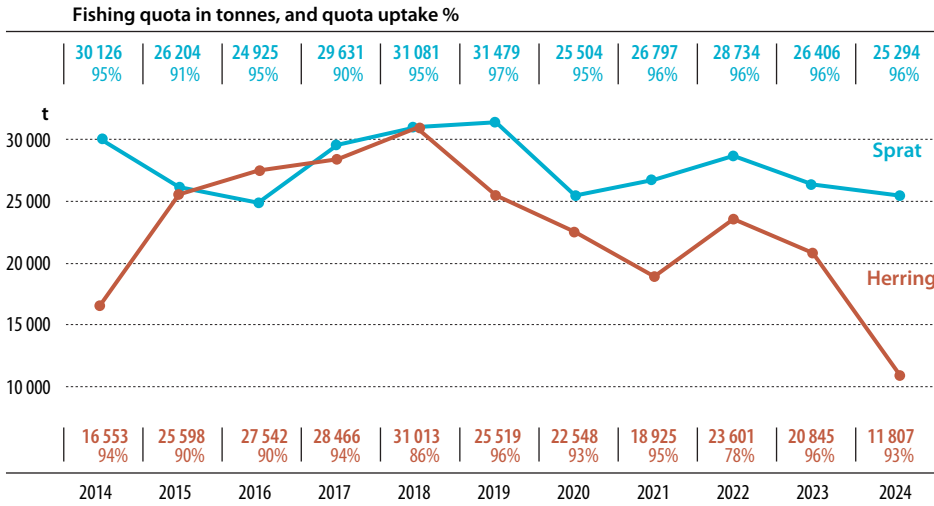
Sources: AFB, VFB.



**Figure 31.** Number of large (18–40 m) and small (12–18 m) ships participating in the catch in Estonia's Baltic Sea trawl fleet, 2005–2024

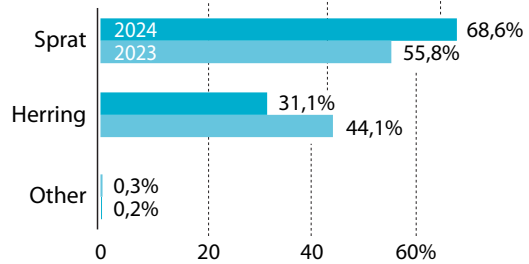
Sources: AFB, VFB.





**Figure 32. Estonian trawl fleet’s final sprat and herring quotas (after exchanges and transfers) and quota uptake (%), 2014–2024** Sources: AFB, VFB.

The Estonian trawl fleet’s final sprat and herring quotas (after exchanges and transfers) continued decreasing for a second year and were 25,294 and 11,807 tonnes, respectively, in 2024 (Figure 32). While the sprat quota fell by 4% over the year, the herring quota fell by as much as 43%, reflecting the smallest allowable catch in at least the last 15 years. In 2024, catches of sprat were 4% lower than the year before, and catches of herring decreased by 45%. However, quota uptake was quite high for both species, standing at 96% and 93%, respectively. Unlike sprat and herring, there was no directed fishing for cod in 2024.



**Figure 33. Share of fish species caught by Estonian trawlers in the Baltic Sea in 2023–2024** (Other: four-horned sculpin, smelt, stickleback, eelpout, cod, and shorthorn sculpin) Source: AFB.

Based on fishing vessels’ fishing permits, the fishing opportunities for sprat and herring were shared by 16 companies.

The total catch taken from the Baltic Sea by the Estonian Baltic trawl fleet on the basis of fishing vessels’ fishing permits amounted to 35,335 tonnes in 2024. Based on average first-sale prices, the value of the catch was 15.3 million euros. (The respective figures for 2023 were 45,488 and 15.6 million euros.) In addition to sprat and herring, there were small catches of four-horned sculpin, smelt, stickleback and others (Figure 33). The proportion of trawlers in Estonian fishers’ commercial fishing in the Baltic Sea amounted to 74% in 2024.

Sprat and herring were mainly landed at Estonian ports, where the catch was sold to fish freezing or processing companies, unless the fishing company itself was

**TABLE 19.** Landings in Estonian ports of fish caught from the Baltic Sea by Estonian trawlers in 2024

County	Place of landing	Landings, t	Proportion (%) of total landings of trawlers
Lääne	Dirhami	8 952	28,82
Harju	Miiduranna	5 491	17,68
Saare	Saare County	4 002	12,89
Saare	Roomassaare	2 772	8,93
Harju	Paldiski South Harbour	2 636	8,49
Saare	Veere	2 394	7,71
Harju	Meeruse	1 510	4,86
Saare	Mõntu	1 194	3,84
Harju	Loksa	724	2,33
Harju	Bekkeri	458	1,47
Pärnu	Virtsu	415	1,34
Lääne	Westmeri	294	0,95
Lääne	Rohuküla	169	0,54
Pärnu	Pärnu	26	0,08
Lääne-Viru	Kunda	20	0,06

Source: AFB.

**TABLE 20.** Landings (t) of fish caught from the Baltic Sea by Estonian trawlers, by country, in 2023–2024

Species	Year	Estonia	Latvia
Sprat	2023	25 246	119
	2024	24 173	64
Herring	2023	16 985	3 054
	2024	6 838	4 142
Smelt	2023	35	16
	2024	13	15
Four-horned sculpin	2023	2	11
	2024	14	39
Eelpout	2023	1	11
	2024	5	11
Stickleback	2023	5	
	2024	12	8
Cod	2023		
	2024	0,007	
Shorthorn sculpin	2023	3	
	2024		
<b>Total</b>	2023	42 277	3 211
	2024	31 055	4 279

Source: AFB.

engaged in the processing and marketing of fish. In total, Estonian Baltic Sea trawlers landed fish in 2024 in 15 ports (Table 19). The largest quantity of fish came ashore in the ports of Dirhami, Miiduranna, and Saaremaa, which accounted for more than half of the fish caught. Fish also arrived in Latvian ports (Table 20). Compared to 2023, the proportion of fish landed in foreign ports increased in 2024 from 7% to 12%.

The overall economic situation was good in the fisheries sector and demand for the sector's production remained stable in 2024. Even though almost half as many herring were allowed to be caught compared to the previous year, the annual reports show that the total turnover and profit of companies did not decrease much in 2024 (down 2% and 1.5%, respectively). This was mainly due to the rise in the selling price of output. Compared to 2023, the average first sale price for sprat and herring rose 19% and 39%, respectively, in 2024. While in 2023, a kilogram of sprat and herring cost 36 and 32 cents, respectively, an average of 43 and 44 cents was paid in 2024.

Estonian sprat and herring were mainly exported to foreign markets in frozen form. According to Statistics Estonia's foreign trade data, in 2024, 33,453 tonnes of frozen sprat and herring were exported to foreign markets, which was 6% less than the year before (35,767 tonnes). At the same time, the total value of the goods increased by 12%, reaching 24.9 million euros (compared to 22.3 million euros in 2023). The main export markets included Ukraine (20,138 tonnes), Belarus (2704 tonnes), Latvia (2339 tonnes), Moldova (1745 tonnes), and Denmark (1502 tonnes).

# Inland fisheries

## LAKE VÖRTSJÄRV FISHERY

In 2024, commercial fishing catches from Lake Võrtsjärv totalled 193.4 tonnes (Table 21, Figure 34), which was 7.2% less than in the previous year (21 tonnes). Despite the overall decline, catches of both eel (51.8 tonnes) and pikeperch (81.3 tonnes) remained high, but pike catches (13.6 tonnes) fell to their lowest level since the 1970s. The catch of bream (38.8 tonnes) was almost the same as in the two previous years.

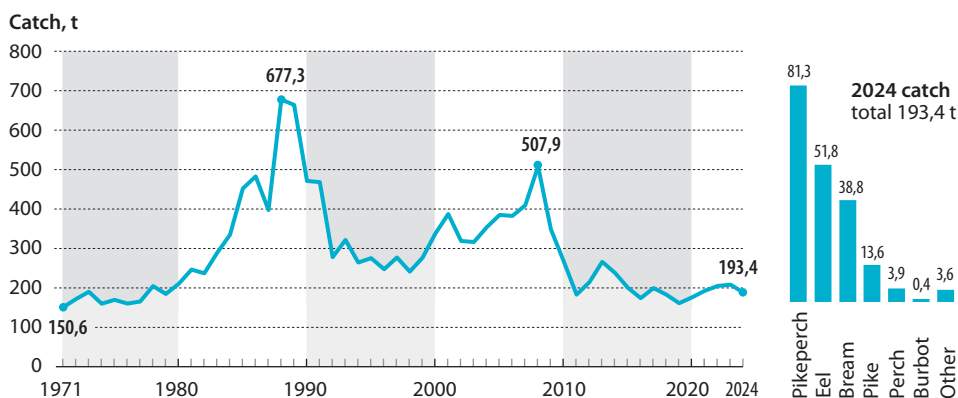
The proportion of fishing gear used was similar to the previous year. In 2024, 60% (115 tonnes) of the total catch was caught in trap nets. The biggest catches taken with the help of trap nets were those of eel (45%), bream (27%) pikeperch (13%),

**TABLE 21.** Catches (t) from Lake Võrtsjärv, 2000–2024

Year	Eel	Pikeperch	Pike	Bream	Burbot	Perch	Other	Second-rate fish	Total
2000	38,8	29,5	40,7	54,4	3,8	18,3	2,0	150,1	337,6
2001	37,6	32,8	50,8	56,8	4,0	12,6	0,2	191,7	386,5
2002	20,4	25,2	44,8	30,5	3,5	9,7	0,1	184,3	318,5
2003	26,4	19,2	49,8	42,3	6,0	14,2	0,1	157,9	315,9
2004	20,1	27,3	55,5	59,1	4,1	10,1	0,1	176,9	353,2
2005	17,6	46,7	52,6	57,3	2,5	15,4	–	192,5	384,6
2006	19,9	42,3	79,5	65,5	2,8	44,1	0,1	127,9	382,1
2007	21,5	29,7	57	105,2	3,6	17,1	0,1	174,6	408,8
2008	20,5	48,3	31,6	158,2	7,8	10,8	1,7	229,0	507,9
2009	13,6	74,1	33	81,5	2,9	9,0	1,6	131,9	347,6
2010	10,3	29,1	34,3	56,9	2,3	13,7	0,8	119,2	266,6
2011	11,3	40,7	32,2	77,9	2,3	16,9	1,2	–	182,5
2012	12,6	39,9	47,7	88,3	3,8	13,9	7,5	–	213,7
2013	12,7	40,5	70,1	79,3	5,2	9,7	47,8*	–	265,3
2014	13,3	60,1	64,2	79,1	2,7	5,5	12,6	–	237,5
2015	12,3	44,1	44,2	80,8	2,4	2,8	13,1	–	199,7
2016	13,0	42,3	45,3	61,2	1,5	5,0	5,2	–	173,5
2017	13,8	81,6	34,4	54,6	1,3	7,1	6,0	–	198,8
2018	16,7	71,8	39,3	44,9	1,2	3,6	4,9	–	182,4
2019	19,6	50,5	35,0	44,0	1,6	5,1	4,7	–	160,5
2020	35,8	42,2	31,9	56,4	2,3	3,7	3,1	–	175,4
2021	44,8	61,0	25,5	53,4	1,5	2,6	3,3	–	192,1
2022	49,5	92,3	17,9	38,2	0,9	3,4	2,5	–	204,7
2023	55,2	87,9	18,5	37,5	0,4	4,8	3,1	–	207,4
2024	51,8	81,3	13,6	38,8	0,4	3,9	3,6	–	193,4

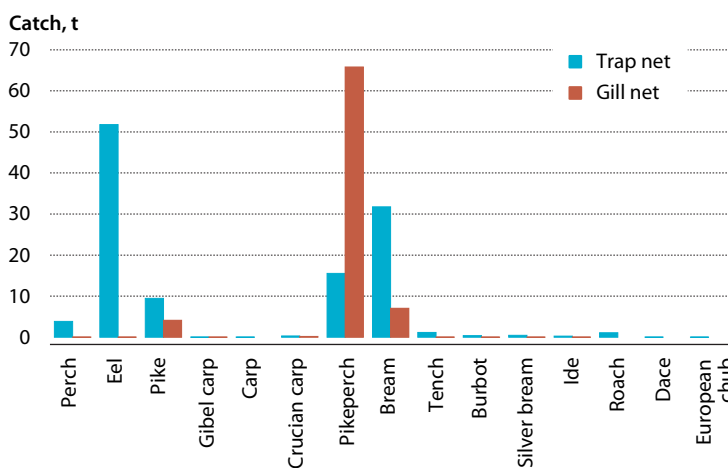
\* Including 40 tonnes of gibel carp.

Source:AFB.

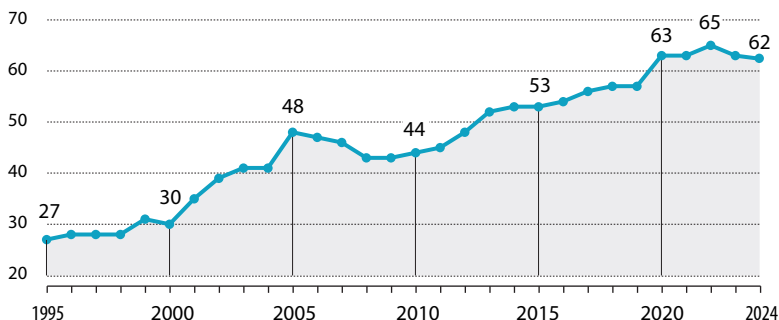


**Figure 34.** Lake Vörtsjärv fish catch in tonnes 1971–2024 Source: PTA..

and pike (8%; Figure 35). In gill nets, the largest share of catches was still taken by pikeperch (85%, 65.7 tonnes), with a smaller share by bream (9%, 7 tonnes) and pike (5%, 4 tonnes). In 2024, a total of 323 trap nets and 321 gill nets were permitted to be used in Lake Vörtsjärv; there has been no change in amount of gear for years. Fishing authorisations were issued to 62 fishers or companies, and catches were registered by 56 companies (Figure 36).



**Figure 35.** Species composition of commercial fishing catches from Lake Vörtsjärv in 2024 by fishing gear type Source: AFB.



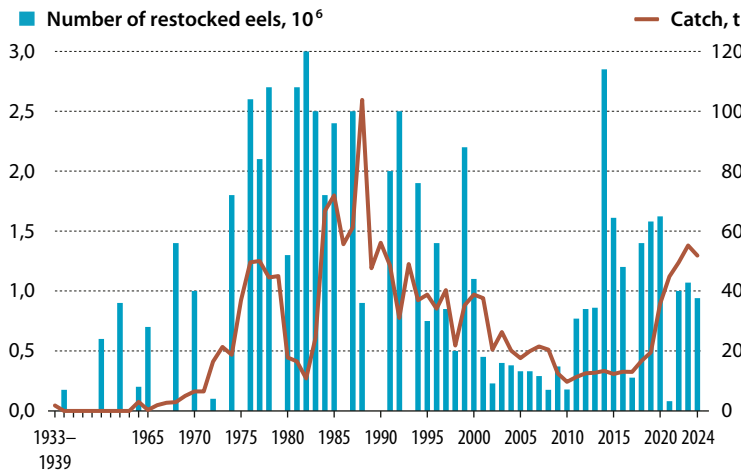
**Figure 36.** Number of commercial fishing permits issued for Lake Vörtsjärv, 1995–2024 Sources: AFB, VFB.

## ■ Eel

A total of 3.5 tonnes less eel was caught in Lake Võrtsjärv than in 2023, but the yield (51.8 tonnes, Figure 37) was still well above the historical average (31.7 tonnes). The most successful fishing months were May, June, and September, for which a total catch of 28.7 tonnes of eel was recorded. Eels restocked in 2016 and now eight years old were caught the most using trap nets; these eels made up 34% of the catch (Figure 38). The average length of eels caught was 65.1 cm, and their average body mass was 534 g.

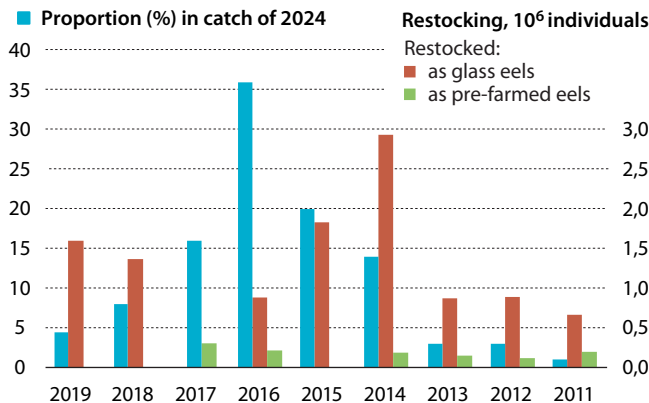
The proportion of migrating silver eel in the commercial harvest was 5%. The determined age ranged from 8 to 13 years, so the oldest specimens belonged to the 2011 cohort, but there were still very many individuals from the 2014–2015 cohort. The parasite *Anguillicoloides crassus* infected 62% of the eels analysed (N = 200), with an average infection intensity of 8.8 parasites per fish.

The biomass of migrating silver eels was estimated at 92.6 tonnes. As in the previous year, the potential biomass of outmigrating eels exceeded the theoretical biomass  $B_0$  (the initial biomass before human impact). However, it should be borne in mind that the  $B_0$  estimate is based on the earliest available data (from the 1930s), and the catches of commercial fishers may not be fully recorded. Therefore, it is likely that the actual biomass of outmigrating silver eel is somewhat lower than calculated.



**Figure 37.** Proportion of restocked eel cohorts in test fishing catches in 2024

Source: EULS.



**Figure 38.** Eel restocking (number of individuals) and catches (t) in Lake Võrtsjärv, 1933–2024

Source: EULS.

The natural escape of eels into Lake Võrtsjärv has been hindered since the 1950s, when the Narva hydroelectric power plant was built, which means that the entire eel stock of the lake consists of restocked fish. Over the years, both glass and pre-farmed eels have been released into Lake Võrtsjärv and, according to research, the lake is a high-quality living environment for eels. Tests with tagged eels have shown that eels can reach the Baltic Sea via Emajõgi River, Lake Peipus and Narva River.

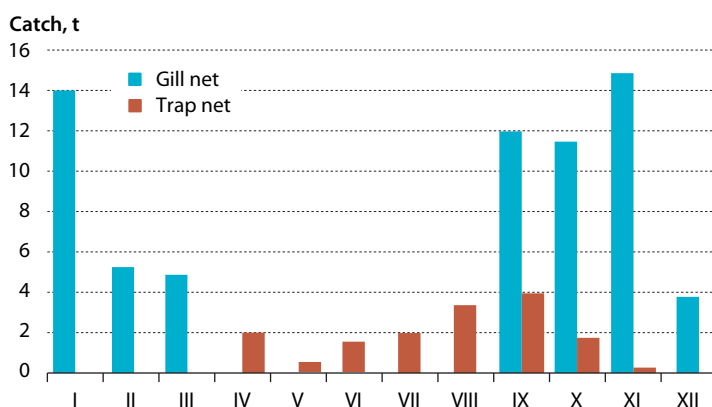
The growth rate of eels in Lake Võrtsjärv largely depends on the stage at which they are released into the lake. It has been found that fish released as glass eels reach the fishing size (TL = 55 cm) faster than pre-farmed fish. In recent years, eels aged 6–8 years have prevailed in catches.

Restocking in Võrtsjärv and small lakes is organised by MTÜ Võrtsjärve Kalanduspiirkond and funded by the Environment Investment Centre, which also collects the fees for fishing rights. On 11 January 2024, a total of 286.3 kg of glass eels (approximately 945,000 individuals) were introduced into Lake Võrtsjärv. As in previous years, the French company EURL Aguirrebarrena was the supplier. Due to the delays before restocking and the subsequent drop in air temperature, the mortality of the restocked eels was estimated by researchers at the Estonian University of Life Sciences as up to 4%.

## ■ Pikeperch

A total of 81.3 tonnes of perch was caught in Lake Võrtsjärv in 2024. This is 7% less than in 2023 but much more than the average of the last decade (63 tonnes). Most of the catch (65.8 tonnes) was taken with gill nets, with January, September, October, and November proving the most successful months. In December, no proper ice cover formed on Lake Võrtsjärv, so the highest catches were in January and November. A total of 15.5 tonnes of pikeperch was registered in trap net fishing, which was 6.1 tonnes more than in 2023 (Figure 39).

In winter test fishing, 2–6-year-old pikeperch were caught in gill nets, of which 6-year-old specimens accounted for half of the catch. The average length of the pikeperch caught was TL = 59.4 cm and weight TW = 2298 g. In the autumn test catches, the 1–7-year-old age group was represented, but the 6-year-old cohort was again the most numerous (26% of the catch). The average length and mass of the pikeperch caught was TL = 48.8 cm and weight TW = 1424 g. Based on the allowed fishing



**Figure 39.** Pikeperch catches by month and fishing gear in 2024

Source: AFB.

opportunities, an average of 205 kg of pikeperch per gill net and 48 kg per trap net was caught in 2024. The test catches showed that, as in 2023, the majority of the catch (89%) in trap nets was mainly undersized 1–3-year-olds.

In 2024, the pikeperch spawning season was predominantly in late May. The catch of one-summer-old pikeperch grew by 40% in test autumn trawling compared to 2023, reaching 56 individuals per trawling hour. Of these, predatory individuals accounted for 46% and plankton-feeding pikeperch 54%. This ratio has remained almost unchanged in recent years. As in 2023, the one-summer-old pikeperch's changeover to predation was certainly influenced by the lack of Peipus smelt, the stock of which had still not recovered from the low. The pikeperch mainly fed on bream and ruffe, and to a lesser extent bleak and roach.

The abundance and biomass of pikeperch stock in Lake Võrtsjärv was high and exploitation (catches) was moderate.

## ■ Pike

The pike catch landed (13.6 tonnes) decreased by 4.9 tonnes compared to 2023. As in previous years, 70% of the catch was taken by trap net and the best month was May (2.9 tonnes; Figure 40).

The main reason for the decline in pike catches is the low stock and the change in the minimum size that came into force in 2024, which means that only pike of at least 50 centimetres in length (instead of 45 cm) can be caught in all Estonian waters. In Lake Võrtsjärv, where pike reach maturity between 35 and 50 cm, this means that they can spawn once or twice before being caught.

The average length of pike take by test trap net fishing in 2024 on Võrtsjärv was  $L = 44.3$  cm; body weight,  $TW = 593$  g. Both figures were much lower than a year ago, when they were 47.8 cm and 720 g respectively. Given the new minimum size, undersized specimens accounted for 76.9% of the trap net test catch. The age range was dominated by specimens between 2 and 8 years old, with three- and four-year-old pike predominating (61.5%). The three-year-old cohort was exclusively undersized, but already sexually mature, with half of the four-year-olds having reached legal size. The proportion of large pike ( $L > 70$  cm) in the test trap net increased by 1.3% compared to 2023, accounting for 2.6% of the total catch.

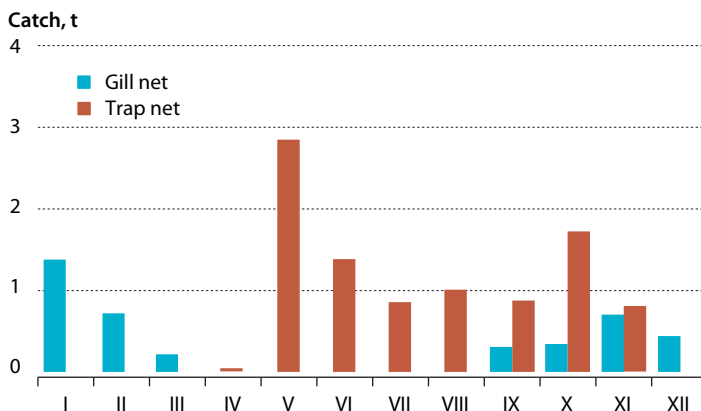


Figure 40. Pike catches by month and fishing gear in 2024

Source: AFB.

In 2024, pike spawned mainly in the first half of April. As water temperatures cooled in mid-April and only started to warm up again at the end of the month, some specimens also spawned at the end of April. The most important food items for pike were ruff, roach, and bream. The abundance and biomass of pike stocks in Lake Vörtsjärv was low and the exploitation rate (catch) high.

## ■ Bream

The bream catch in 2024 (38.8 tonnes; Figure 41) was slightly higher than in previous years, but the yield in the test trawling (164 kg/h) decreased by 26% compared to 2023. The majority of the bream biomass was made up of 1–6-year-old fish, as it was a year ago. Larger bream (TW > 1 kg), which are important for the commercial sector, contributed 13% of the biomass, which was 2% more than in 2023.

In the commercial fishery, most of the bream was caught by trap (84%), and the most successful month was May, when over 12 tonnes were recorded. Test fishing with trap nets showed that commercially significant individuals made up 31% of the bream caught and 27% of the bream caught in gill nets. Both figures remained more or less the same as 2023. In trap net fishing, the bulk of the catch by number consisted of 1–5-year-old bream, for which there is currently no marketing outlet and which are released back into the lake.

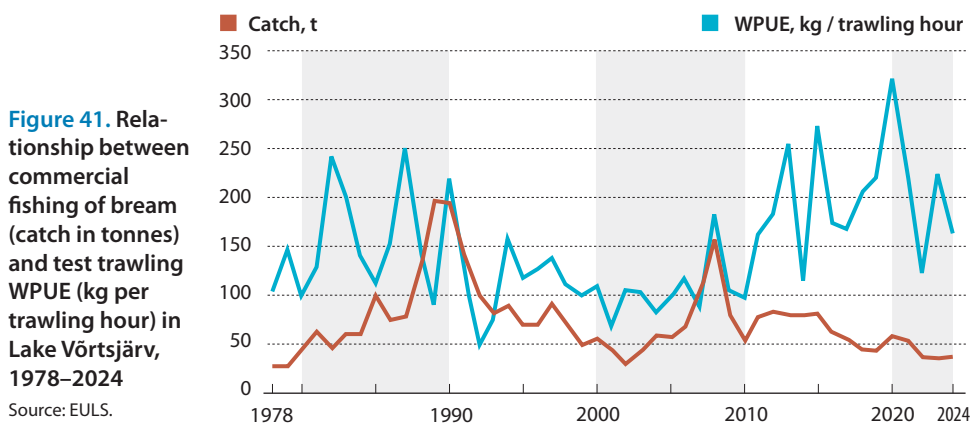
The abundance and biomass of bream stocks in Lake Vörtsjärv was low and the exploitation rate (catch) high.

The catch forecast for the most important fish species in Lake Vörtsjärv in the coming years is presented in Table 22.

**TABLE 22. General assessment of state of stocks and fishing mortality in Lake Vörtsjärv from 2024–2026, by key species**

Species	State of stocks			Level of stock utilisation
	2024	until 2025	until 2026	
Eel	1	1	1	B
Pikeperch	1	2	2	B
Pike	4	4	4	C
Bream	1	1	1	A
Perch	3	3	3	D
Burbot	4	4	4	D
Lake Peipus (dwarf) smelt	3	3		–

Note: **State of stocks** – 1: good; 2: moderate; 3: poor; 4: depleted; **fishing mortality** – A: low; B: moderate; C: high; D: insufficient data. Source: EULS..



## LAKE PEIPUS FISHERY

Fishing opportunities and catches in 2024 were higher or close to the 2023 levels but still below the long-term average in most cases (Tables 23 and 24). Fishing was carried out on the basis of fishing gear-based individual quotas, as in 2023, and no substantive changes were made to the lake's fishing regime.

### State of fish stocks and changes

In 2024, the stock of **pikeperch**, one of the lake's main commercial fish species, increased (Figure 42) and reached a moderate status. In the first half of the year, the stock consisted mainly of pikeperch born in 2020, and in the second half, of the young 2023 year class. In 2024, the cohort with higher than average abundance accrued (Figure 43), so the stock could increase further in the coming years.

**TABLE 23.** Estonia's state fishing quota in tonnes in Lakes Peipus and Lämmijärv, 2011–2024

Species	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Average
Pikeperch	672	714	650	650	650	758	866	677	695	954	566	447	470	513	663
Perch	900	1400	1000	800	850	1032	1182	1288	1562	1255	499	842	895	979	1034
Pike	110	160	165	120	125	121	131	86	119	175	144	137	125	106	130
Bream	600	614	650	750	710	761	836	915	844	1025	1214	853	735	771	806
Roach	305	300	280	350	275	300	350	250	280	360	295	355	400	380	320
Whitefish	5	3	2	1	1	1	1	1	1	1	1	1	1	1	2
Smelt*	5	5	5	5	5	5	5	400	150	200	170	5	5	5	69
Vendace	10	15	15	25	15	15	45	400	325	170	89	49	10	15	86
Burbot	50	50	50	50	50	50	50	50	50	50	50	55	55	55	51
Ruff	300	300	150	150	150	150	150	150	150	150	150	150	150	150	171
Other species**	50	50	25	25	25	25	1	0	25	25	25	25	25	25	25
<b>Total</b>	<b>3007</b>	<b>3611</b>	<b>2992</b>	<b>2926</b>	<b>2856</b>	<b>3217</b>	<b>3618</b>	<b>4217</b>	<b>4200</b>	<b>4366</b>	<b>3202</b>	<b>2919</b>	<b>2871</b>	<b>3000</b>	<b>3357</b>

\* In 2011–2017 and 2022–2023, the quota was intended only for test fishing, while in 2018–2021, it was also for commercial fishery.

Sources: MOE, REM, UT EMI.

\*\* Until 2016, and in 2019–2024 – tench, ide, silver bream, crucian carp, vimba bream, and eel; in 2017 – only eel; no quota was allocated in 2018.

**TABLE 24.** Estonian fish catch (including research fishing catch) in tonnes in Lakes Peipus and Lämmijärv, 2011–2024

Species	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Average
Pikeperch	672	646	637	599	420	720	839	667	653	908	564	386	381	481	612
Perch	757	1061	914	787	818	1000	661	553	786	1246	497	836	822	897	831
Pike	100	153	143	120	94	94	97	78	105	110	91	80	85	82	102
Bream	578	577	604	748	676	665	758	664	574	574	678	622	500	515	624
Roach	225	207	185	217	211	194	191	185	152	175	199	192	199	213	196
Smelt	0	<1	<1	<1	<1	4	4	355	19	56	149	<1	<1	<1	42
Whitefish	<1	<1	<1	1	<1	<1	<1	1	<1	<1	1	<1	1	<1	<1
Vendace	1	3	10	22	13	15	45	313	303	143	84	47	10	11	73
Burbot	30	21	23	20	17	26	44	39	46	45	48	27	22	19	30
Other species	9	3	5	6	8	5	4	5	3	4	4	3	2	4	5
<b>Total</b>	<b>2371</b>	<b>2671</b>	<b>2520</b>	<b>2521</b>	<b>2256</b>	<b>2723</b>	<b>2644</b>	<b>2860</b>	<b>2640</b>	<b>3261</b>	<b>2314</b>	<b>2192</b>	<b>2021</b>	<b>2222</b>	<b>2515</b>

Sources: MORA, REM, VFB, AFB.

The status of **perch**, the other main fish caught, was also moderate. As in 2023, the 2019 and 2020 cohorts were predominant. The lake's perch stock may decline in the future, as no substantial recruitment is expected based on 2024 data.

The stock of the third most important species, **breem**, remained in good condition. Unlike pikeperch and perch, the bream stock is made up of fish from many year classes, with a predominance of fish born in 2018 and earlier.

**The stock of pike** remained moderate in 2024, with the bulk of the stock being made up of individuals born in 2016–2020. The stock of this species may increase in the future.

**Roach** was still in good condition, although there was a slight decline. Fish born in 2014–2015 mainly made up the stock.

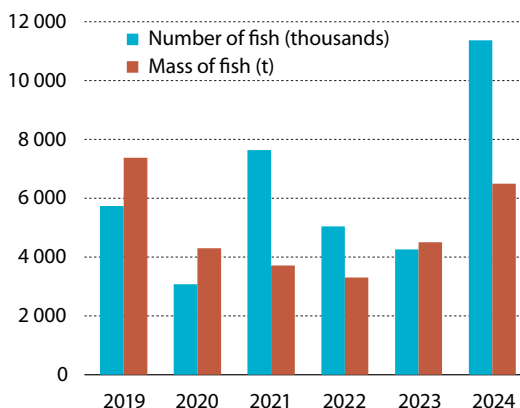
The state of the **Peipus smelt** was so poor at the end of 2023 that no commercial fishing was allowed in 2024. In 2024, the condition did not improve and consisted mainly of one-summer-old fish.

The **vendace stock** was also in a poor state and was mostly made up of fish from the 2020 and 2023 year classes. In 2024, a new vendace year class of limited abundance was added.

The stocks of **burbot** and **Lake Peipus whitefish** were at the same low level as the year before and these species were only allowed to be landed as by-catches. In 2024, stocking of Peipus whitefish (350,000) and one-summer-old fish (8255 fish with an average weight of 45 grams) continued in Lake Peipus.

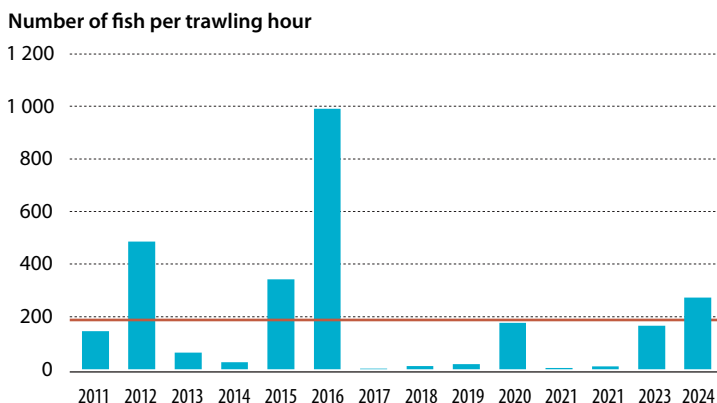
**Figure 42.** Pikeperch stock of Lake Peipus (number of fish in thousands and mass in tonnes) in the autumn of the years 2019–2024 (excluding one-summer-old fish)

Source: UT EMI.



**Figure 43.** Abundance of one-summer-old pikeperch in Lake Peipus (number of fish per trawling hour) in the autumn of the years 2011–2024 (the red line marks the average abundance)

Source: UT EMI.



## Fishing regime and use of fishing rights

The lake's fishing regime in 2024 was almost the same as in 2023. The only change was to allow fishing for vendace from 21 June to 20 July, instead of the previous period (all of July). No additional closures due to quota exhaustion were necessary this time.

The national quotas were claimed in large numbers, with the highest rates for pikeperch and perch (Table 25). They were not fully used up because the quota carry-over from 2023 was only distributed in late autumn, when weather conditions no longer allowed intensive fishing. The quota remainder of the most important commercial fish (pikeperch, perch, pike, bream, roach) for 2024 was also carried over to 2025. The high uptake of quotas shows that companies have embraced the new system and know how to make good use of their fishing opportunities.

Not all of the authorised fishing capacity was used. There were 218 days of fishing on the lake with a fine-meshed seine net, but 300 days were allowed. Large-meshed seine nets were used even less, only 50 days instead of the 300 allowed. Trap net and gill net fishing intensity was also lower than the authorised capacity allowed: during the month, a maximum of about 600 trap nets (instead of 906 authorised) and around 2200 open-water nets (instead of 3000 authorised) were used.

In 2024, 80 companies fished with 163 fishers (Table 26). It is noteworthy that about half of the fishers (85) fished for several companies, i.e. their names were on the permits of different companies. There could be several reasons for this. For example, the traps of one company (and with them the right to sell quotas) may have been given to another company, or there may have been a temporary shortage of labour.

**TABLE 25. Estonian catches (incl. research fishing), quotas and balances (t) and quota uptake levels (%) in Lakes Peipus and Lämmijärv in 2024**

Species	Catch	Quota	Balance	Uptake
Pikeperch	481	513	32	94
Perch	897	979	82	92
Pike	82	106	24	77
Bream	515	771	256	67
Roach	213	380	167	56
Whitefish	0,46	1	1	46
Smelt	0,15	5	5	3
Vendace	11	15	4	72
Burbot	19	55	36	34
Ruff	0,16	150	150	0
Other species	4	25	21	14
<b>Total</b>	<b>2 222</b>	<b>3 000</b>	<b>778</b>	<b>74</b>

Sources: REM, PTA

**TABLE 26. Number of companies and fishers related to Lakes Peipus and Lämmijärv, 2011–2024**

	Companies*	Fishers**
2011	70	406
2012	68	383
2013	66	367
2014	69	367
2015	71	325
2016	68	302
2017	67	282
2018	72	264
2019	84	259
2020	85	238
2021	85	211
2022	83	200
2023	86	180
2024	80	163

\* Companies that have claimed their fishing permits and registered a catch.

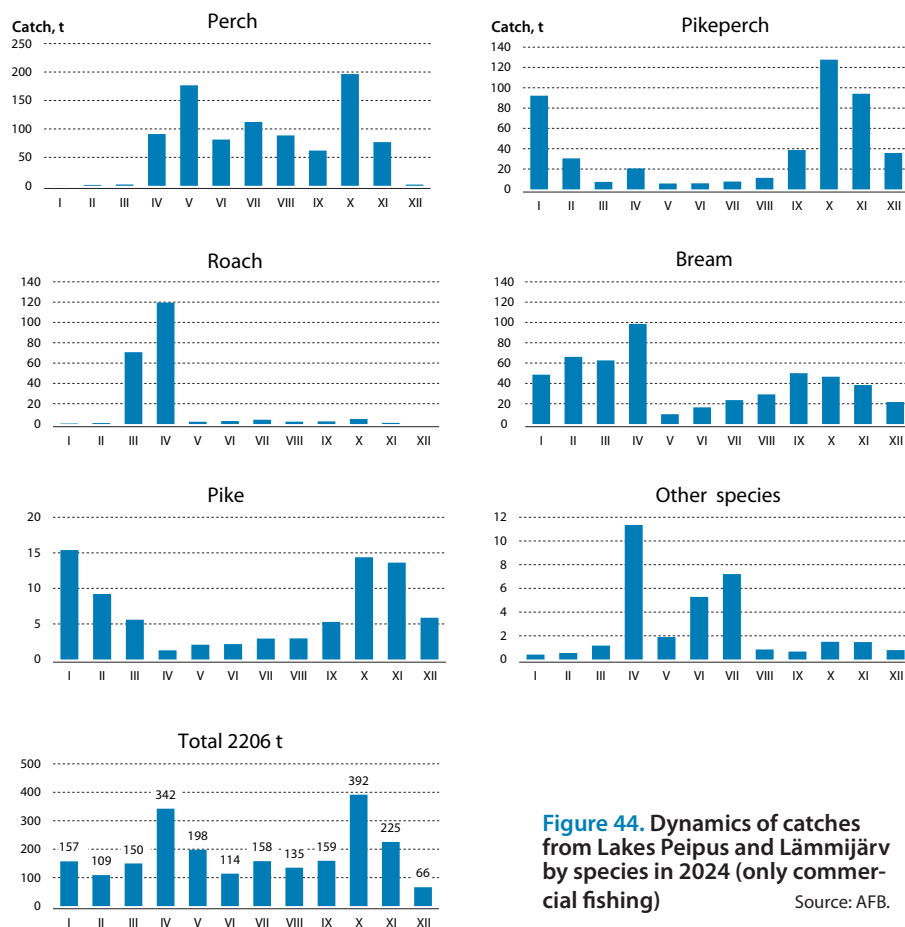
\*\* Fishers are persons indicated on fishing permits.

Sources: AFB, VFB.

## Catches, their value and landing sites

Compared to the previous couple of years, the catches of both pikeperch and perch increased in 2024, while changes in the catches of other commercial fish were less significant (Table 24). The proportion of predatory and mainly-for-export fish (pikeperch, perch, pike, burbot) remained high at 67%. Non-predatory fish and species of mainly local importance (bream, roach, vendace, smelt, ruff) made up 33%, and plankton-feeding species (vendace, smelt) dropped below 1% of the total catch of the Estonian side of the lake.

The highest-yielding catch months in 2024 were spring and summer, but not for all commercial fish species. Pikeperch and pike were caught most in winter and autumn, perch in spring and autumn, and bream and roach in spring (Figure 44). Various types of trap nets were still the most productive fishing gear, accounting for around half of the annual catch. For the second year in a row, the catch using Danish seines was relatively high, while the catch of nets remained more or less at the level of the last few years (Table 27).



**Figure 44.** Dynamics of catches from Lakes Peipus and Lämmijärv by species in 2024 (only commercial fishing)

Source: AFB.

**TABLE 27.** Catches (t) from Lakes Peipus and Lämmijärv (without research fishing), average for type of fishing gear and proportions (%), 2011–2024

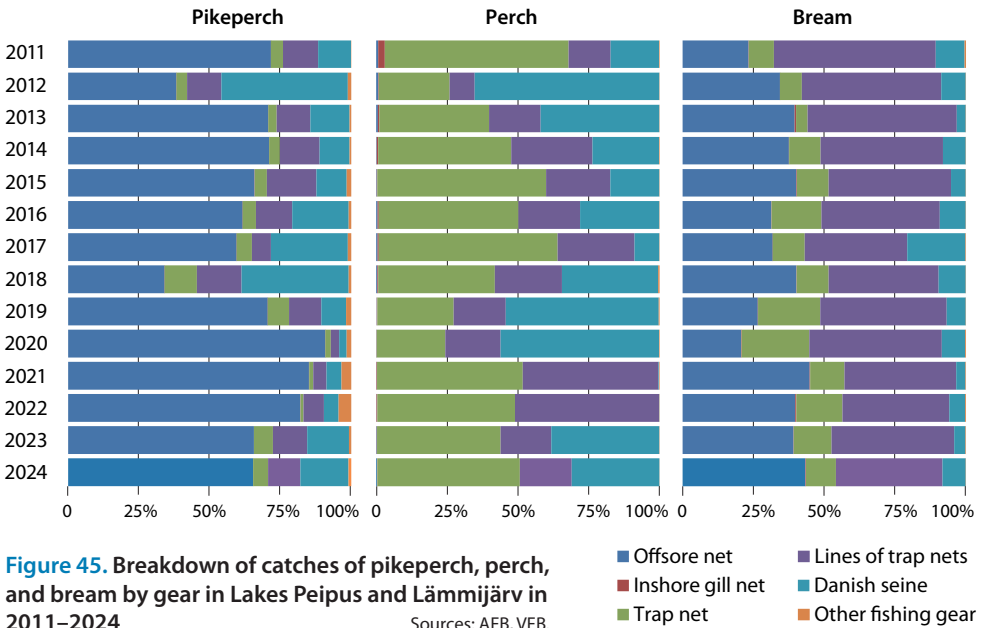
Fishing gear	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Offshore gill nets	673	553	779	798	617	719	814	545	664	997	843	615	501	594
Inshore gill nets	77	60	57	99	93	83	71	84	76	74	134	137	101	109
Trap/fyke nets	671	403	458	539	629	712	657	599	630	614	446	572	511	576
Lines of trap nets	635	564	664	733	657	671	609	585	559	649	619	757	496	502
Smelt trap nets	0	0	0	0	0	0	0	355	20	57	150	0	0	0
Pound nets	0	0	0	0	0	4	6	153	123	52	29	12	4	5
Danish seines	287	1058	524	320	225	494	451	507	527	778	53	57	387	413
Other fishing gear*	10	13	8	11	12	12	16	8	15	19	23	20	6	7
<b>Total</b>	<b>2353</b>	<b>2651</b>	<b>2490</b>	<b>2500</b>	<b>2232</b>	<b>2695</b>	<b>2626</b>	<b>2837</b>	<b>2615</b>	<b>3239</b>	<b>2298</b>	<b>2172</b>	<b>2006</b>	<b>2206</b>

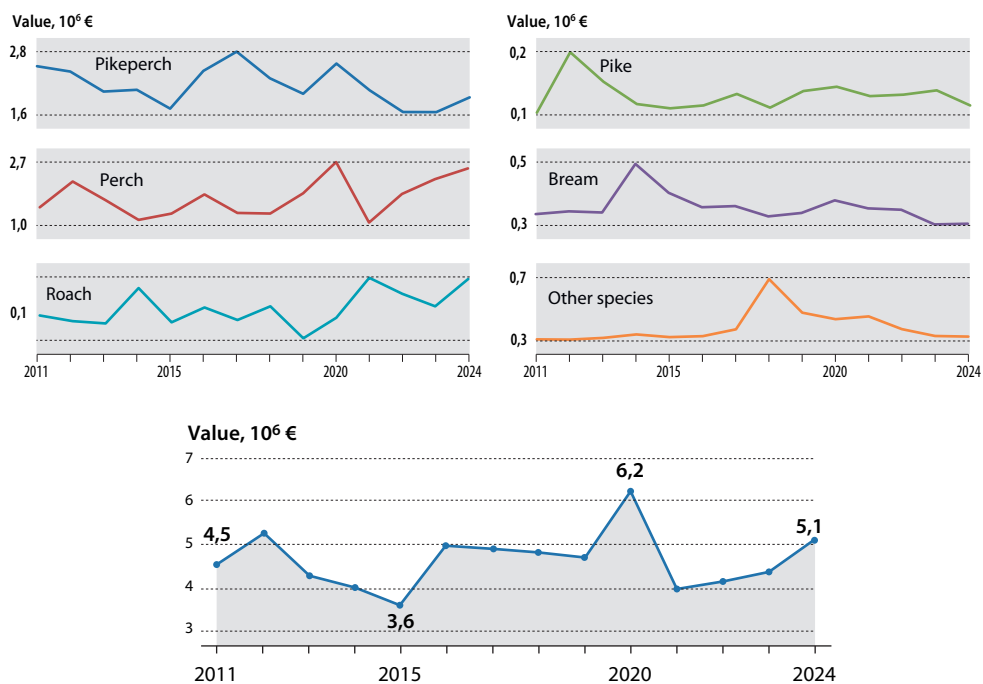
\*Mostly catches of anchored seines.

Sources: MORA, REM, VFB, AFB.

Pikeperch continued to be caught mainly with offshore nets, perch with trap nets, lines of trap nets and Danish seines, and bream with trap nets, lines of trap nets and offshore nets (Figure 45). As usual, the most valuable commercial fish were by far the pikeperch and perch, which, at Estonian average first purchase prices, generated sales of around 4.4 million euros, or 88% of the 5.1-million-euro total value of the lake’s catch (Figure 46). The value of catches of bream and other commercial fish was again low, totalling only around 0.6 million euros.

Fish caught from the lake was landed in nearly 46 ports, most of which were on Lakes Peipus and Lämmijärv and some of which were also located on Emajõgi River. In terms of landings, the port of Kallaste was in first place with around 289 tonnes, followed by the port of Varnja with 220 tonnes, and the port of Lohusuu with 191 tonnes. Another six lakeside ports landed between 100 and 140 tonnes of fish during the year, the others less.





**Figure 46.** Values of catches taken from Lakes Peipus and Lämmijärv and total value (€10<sup>6</sup>) by species, 2011–2024

Sources: MORA, REM, AFB, VFB, Ametlikud Teadaanded.

## Changes in the fishing sector

Fishing dynamics have changed under conditions of fishing gear-based individual quotas. Whereas in the earlier ‘Olympic’ era of fishing, the emphasis was on spring and summer, the focus is now on autumn. Furthermore, during the ‘Olympic’ era, all kinds of additional fishing bans were common in Lake Peipus and Lake Lämmijärv, but these have now disappeared.

There has been no consistent change in the fishing intensity using nets and traps so far, but for the second year in a row, fine-meshed Danish seines have been used. The authorised fishing capacity is not fully used, but nor is there a need to change the limit on the amount of gear. Different companies prefer to use different types of fishing gear to catch their quotas; moreover, the choice of gear sometimes depends to a large extent on environmental conditions.

## EMAJÕGI RIVER FISHERY

Emajõgi River is a very important fishing area for professional and recreational fishers. The official annual catch by fishers fishing on the river has fluctuated between 16 and 191 tonnes this millennium, but it has been on an upward trend over the past dozen years, and 2024 was a record year. Catch figures for recreational fishers are not continuously recorded, but according to a survey-based study of recreational fishing, this indicator may have been even higher than that of professional fishers in certain periods (Jalak, Rakko 2012).

### Species composition, abundance and catch of fish in Emajõgi River

The Emajõgi River connects the two largest lakes in Estonia—Lake Peipus and Lake Võrtsjärv—as well as numerous oxbow lakes, tributaries, etc. Over the past ten years, 11 fish species have been consistently recorded in the official catch of professional fishers fishing in Emajõgi River, and a total of 17 species have been recorded during this period (Table 28). As the 100 km river is an important migratory route for fish, fish in the process of migration are the main target for fishers. Species composition, abundance and changes in different months are affected by fishing management and species protection restrictions.

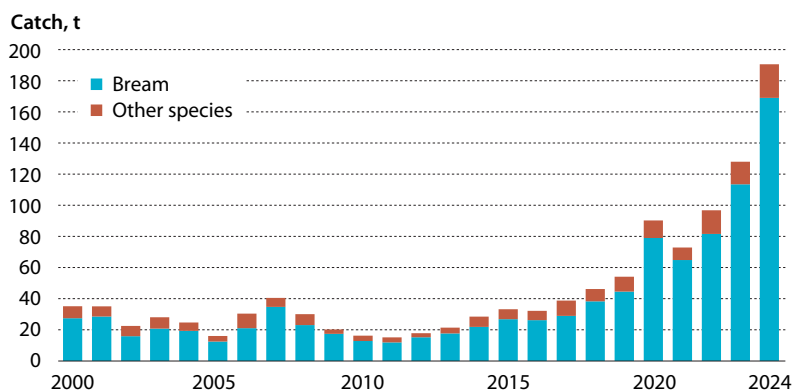
Bream is the main species caught in Emajõgi River, catches of which have increased steadily since 2011. In 2024, based on data provided by professional fishers, the largest amount of bream was caught, namely 169.9 tonnes, which is almost 14 times more than at the beginning of the previous decade.

Over the past 10 years, the share of bream in the annual catches of commercial fishers on Emajõgi River has averaged 84.1%. Between 2015 and 2024, this figure

**TABLE 28.** Official commercial fishing catches (kg) from Emajõgi River by species, 2015–2024

Species	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Perch	193	216	289	378	793	395	309	986	772	1597
Eel	4	14	26	34	29	48	32	28	91	102
Pike	1 701	1 064	748	1 793	1 913	2 571	2 041	1 901	3 159	4 882
Gibel carp	–	30	–	–	–	–	–	–	–	–
Common carp	3	2	14	–	–	–	29	7	–	10
Ruff	–	2	9	–	–	–	–	–	–	–
Crucian carp	197	91	62	155	159	137	65	476	83	339
Pikeperch	141	250	487	732	1 675	1 385	1 722	2 432	1 831	2 685
Bream	26 819	26 195	28 923	38 302	44 576	78 984	64 808	81 597	113 464	169 890
Tench	660	225	299	342	502	292	373	309	367	693
Burbot	45	53	122	163	119	155	227	245	156	421
Silver bream	126	35	97	74	52	23	23	23	19	15
Lake Peipus whitefish	6	–	1	–	–	–	13	11	34	6
Rudd	–	–	–	15	–	–	–	–	–	5
Ide	507	249	361	302	662	277	271	979	972	1 960
Roach	2 789	3 728	7 366	3 890	3 603	5 948	2 931	7 741	7 008	8 324
Rainbow trout	–	–	1	–	–	–	–	–	–	–
<b>Total</b>	<b>33 189</b>	<b>32 154</b>	<b>38 804</b>	<b>46 179</b>	<b>54 083</b>	<b>90 215</b>	<b>72 843</b>	<b>96 735</b>	<b>127 956</b>	<b>190 929</b>

Sources: MORA, REM, VFB, AFB.



**Figure 47.** Dynamics of the official catch of commercial fishing in Emajõgi River and the share of bream therein, 2000–2024.

Sources: MoRA, VFB, AFB.

fluctuated within a range of just 14.5 percentage points (74.5–89%). It has been observed that in years with lower bream catches, the total catch of other fish species is generally also lower (Figure 47).

In addition to bream, commercial fishing in Emajõgi River yields large quantities of roach (average catch share 8.3% in 2015–2024), pike (3.0%) and pikeperch (1.6%), and somewhat less ide (0.9%), perch (0.8%), and tench (0.7%), and tiny quantities of 10 other species of fish (total 0.7%, Table 28). Unlike bream, the share of other fish in the catch has been variable in these years, for example, in the case of tench and pikeperch, it fluctuated sevenfold. The largest catch of roach was in 2017 (19%), while the analogous figure for pike came in 2015 (5.1%), although the largest catches of roach and pike—8.3 and 4.9 tonnes, respectively—were recorded by professional fishers in 2024. In addition to the above species, the same year saw record catches of ide, tench, pikeperch, perch, burbot, and eel; a year earlier Peipus Wels catfish as well. Only in the case of a few lower-value species (such as tench and silver bream) was the largest catch in the early years of the period in question.

Protected fish species, mostly asp and catfish, also get caught in fishing gear, but they are not reflected in the fishers' catches as these fish must be released alive. Grayling is more of an occasional visitor in the river, and the weatherfish and spined loach do not usually get caught in traps due to their small body size. Sturgeon fishing is also prohibited under the current fishing regulations. Then again, as far as is known, only alien and probably farmed sturgeon species have been observed in Emajõgi River. Estonia's only native sturgeon species, the Atlantic sturgeon, cannot enter Emajõgi River from the sea.

Undersized fish must be released as well. In Emajõgi River, the minimum sizes primarily concern eel, pike, pikeperch, bream, tench, burbot, and whitefish. Some species for which the minimum size has been established (brown trout, vendace, vimba bream) rarely find their way into Emajõgi River.

The fish yield in Emajõgi River is uneven in different months (Figure 48), and it can also differ significantly in the same months of different years. For example, in most years the main share of bream is caught in the first half of the year. While on average it accounts for 56% of the annual bream catch, in 2016 it was as high as 84%,

but in 2019 it was only 27%. However, the years 2018–2020 were exceptional, as commercial fishers landed more bream in the second half of the year than in the first.

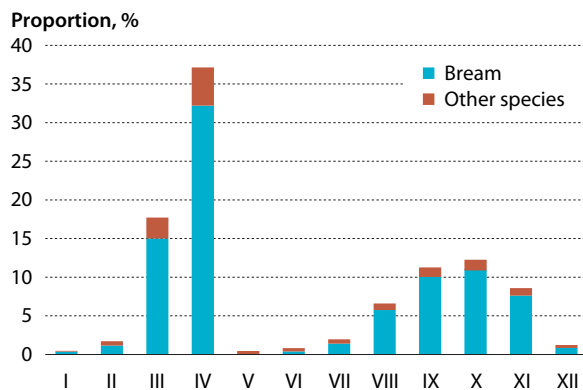
In addition to bream, the first half of the year's catch of roach, ruff, whitefish, silver bream, crucian carp, gibel carp, burbot, and common carp also exceeded the respective average figures for the second half of the year over the past ten years. However, the majority of the perch, ide, tench, pike, pikeperch, eel, and rudd catches are caught in the second half of the year. In terms of months, professional fishers catch the most fish in April (on average 38%), the only exception has been the aforementioned 2019, when there was an exceptionally impressive bream catch in October.

## Fishery management

The large fluctuations in the catch of different fish species in different months are primarily due to their migration period (Figure 48) and fishing management restrictions. The largest bream catch is obtained during its migration to spawning grounds just before the ban on commercial fishing gear comes into effect (from 1 May to 10 June). The majority of the pike catch (60% on average from 2015–2024) is caught in the second half of the year, partly because the fishing ban for this species lasts from 15 March to 30 April. Pikeperch fishing is prohibited from 5 May to 10 June, which is why the autumn catch for this species is also higher. Tench, which is not allowed to be caught by commercial means from 20 June to 20 July, is also more abundant in the catches of commercial fishers in the second half of the year (63%). For the aforementioned species—bream, pike, and pikeperch—the duration of the closure periods has been shortened since 2021.

For the purpose of the efficient management and conservation of fish stocks, restrictions on fishing have been established for Emajõgi River, which are based on the time and place of concentration of fish. For example, from 1 May to 15 June, fishing is prohibited from the mouth of the Emajõgi River to the beginning of the Koosa River, and from 1 April to 30 June in the meander scars of Emajõgi River from the mouth of the Pedja River to the Kärevere highway bridge. Fishing with professional fishing gear is prohibited year-round in the meander scars of Emajõgi River and from the source of Emajõgi River to the new road bridge in Jõesuu.

Commercial fishers used five types of gear on Emajõgi River from 2015–2024. Their use depends on ice conditions, water level, and temperature regime, among



**Figure 48.** Monthly distribution of official commercial fishery catches (%) from Emajõgi River, 2015–2024

Sources: MORA, REM, VFB, AFB.

other factors. The lion's share of catches – 88.9% on average – was taken using one-wing trap nets (river trap nets), while 5.8% of catches was taken with inshore seines. The proportion of catch taken by other means was negligible: fyke nets with a mouth height of three metres and above covered 0.6%, traps with a mouth height of up to one metre covered 4.4%, and gill nets covered an average of 0.3% of the annual catch. The least frequent type of fishing in 2015–2024 was done with open-water traps (in one of the years observed).

In 2024, the total registered catch value taken by commercial fishers on Emajõgi River was approximately 120,000 euros based on first-sale prices, of which 95,000 euros were from bream. The highest price per kilo was for eel (9.20 euros on average), followed by pikeperch (2.50 euros). While bream caught in Emajõgi River has previously been relatively valuable compared to bream caught in, for example, Lake Võrtsjärv, the current price per kilo of bream from both Lake Võrtsjärv and Lake Peipus is almost at the same level as that from Emajõgi (0.55 euro/kg).

## Investigations of fish stocks on the Emajõgi

The current management of bream fishing on Emajõgi River can be considered sustainable. In addition to the commercial fish species, the status of the asp has been studied and the possibility of a limited fishery for this species is under consideration. A study of downstream eel migration in Emajõgi River is underway.

Between 2009 and 2012, the LIFE-Environment and Climate Action Programme project 'Saving life in meanders and oxbow lakes of Emajõgi River on Alam-Pedja NATURA 2000 area' (HAPPYFISH) was implemented with the aim of opening up the estuaries of the meander scars in the Emajõgi River basin and improving the condition of fish spawning grounds. In the years since, fish catches in Emajõgi River have steadily increased.

In recent years, work has been done to improve the quality of fish spawning grounds, especially in the Lower Pedja area. One of the objectives of the LIFE programme's strategic integrated project 'Implementation of Climate Change Adaptation Activities in Estonia' (AdaptEst) is also to restore and improve spawning areas. The positive impact of the restoration efforts so far is likely to be reflected in the year-on-year increase in catches of bream and other fish species in Emajõgi River. Thanks to what has been done and the new plans, catches of the main commercial species are expected to remain high.

## LAMPREY FISHING ON ESTONIAN RIVERS

Lamprey is highly valued in Estonia and in our neighbouring countries. The estimated first-sale price for lamprey in 2024 was 3 euros/kg. As with salmon and sea trout, it remained roughly the same as in 2022 and fell compared to 2023, placing lamprey in 11th place out of 42 species in the ranking of average first-sale prices. Outside the Narva region, the price of a kilo of lamprey rose so high (up to 10 euros) at times that it was surpassed in all but one month by the price of eel caught in Lake Võrtsjärv.

According to official data, lamprey was caught in 32 watercourses in Estonia (Table 29), and in a negligible amount also in the coastal sea in 2024. Only commercial fishing is allowed. Compared to 34.8 tonnes in 2023, the catch of river lamprey in 2024 rose to 39.1 tonnes, according to official data, which is more than half a million individuals per year. The biggest catches continue to be taken from Narva River (67% of total catch in 2024), while the ranking of the other lamprey rivers in

**TABLE 29. Commercial lamprey catches (kg) taken from Estonian water bodies in 2023 and 2024 according to official data**

	2023	2024
<b>Narva River</b>	<b>22 272</b>	<b>26 155</b>
<b>Other inland water bodies</b>	<b>12 462</b>	<b>11 754</b>
incl. Reiu River	2 634	2 738
Pärnu River	1 769	1 552
Jägala River	851	931
Rannametsa River	1 107	868
Uruste Stream	1 022	785
Pirita River	600	748
Kunda River	445	669
Vääna River	628	638
Lemme River	350	443
Vasalemma River	464	351
Valgejõgi River	638	276
Nõva River	177	257
Keila River	219	213
Selja River	213	212
Häädemeeste River	214	171
Riguldi River	158	163
Sauga River	337	139
Pada River	67	129
Pudisoa River	110	86
Mustoja River	19	84
Vainupea River	65	81
Loode Stream	152	79
Loobu River	57	43
Treimani Stream	48	43
Toolse River	12	28
Priivitsa Stream	15	15
Ura River	19	7
Timmkanal River	–	5
Altja Stream	–	2
Tõstamaa River	–	1
Loo River	–	1
Audru River	66	–
Kadaka River	8	–
<b>Coastal sea</b>	<b>64</b>	<b>1163</b>
incl. Gulf of Riga	61	1155
Gulf of Finland	–	2
Central Baltic	3	6
<b>Total</b>	<b>34 798</b>	<b>39 072</b>

Source: AFB.

terms of catches varies from year to year. In 2024, the Reiu, Pärnu, Jägala, and Rannametsa rivers, the Uruste stream, and the Pirita, Kunda, and Vääna rivers stood out more clearly in terms of annual catches of more than half a tonne. Along with Narva River, lamprey catches on these eight watercourses accounted for 90% of Estonia's total lamprey catch. While the 2023 lamprey catch was also significant in the Valgejõgi, Vasalemma, and Lemme rivers, the 2024 catch in the Valgejõgi River was not.

When comparing the last two years of lamprey catches by river, there were roughly the same number of increases and decreases. For the smaller watercourses, this meant that the total catch remained similar year on year, while the large Narva River experienced a significant increase. On an absolute scale, yields increased most in the Kunda and Pirita rivers, at 224 and 148 kg more than a year ago, respectively. Yields fell most in the Valgejõgi River, dropping by 362 kg.

**TABLE 30. Official lamprey catches (t) in Estonia, 2015–2024**

Year	Total catch	Narva River	Other inland water bodies	Coastal sea
2015	46,7	34,5	12,0	0,2
2016	30,8	21,2	9,5	0,1
2017	40,9	26,9	13,9	0,1
2018	24,9	16,5	8,3	0,1
2019	34,0	21,6	12,2	0,1
2020	35,8	22,7	13,1	<0,1
2021	26,8	19,4	7,4	0,1
2022	27,2	21,5	5,5	0,2
2023	34,8	22,3	12,5	0,1
2024	39,1	26,2	11,8	1,2
<b>Total</b>	<b>341,0</b>	<b>232,8</b>	<b>106,2</b>	<b>2,3</b>

Sources: MoRA, VFB, AFB.

Looking at the official lamprey catches over the last decade, 2024 was fairly good compared to the mediocre figures from 2023. Table 30 details the lamprey catches taken from Narva River because this large river provides the bulk of Estonia's total catch each year, and changes occurring there might overshadow the rest of the trends. Over the last ten years, the average proportion of lamprey catches from Narva River has been 68% (63–79%). Only around 0.6% of the total catch is taken from the coastal sea.

The river lamprey catch has been variable: during the more unfavourable times of the last century, the smallest annual catch was 3 tonnes and the largest reached 102 tonnes. This instability is partly due to the fact that individuals of one year class are fished for and the catch depends on the abundance of the particular year class. Against this backdrop, catches taken in the past decade have been relatively stable.

The estimated revenue from lamprey sales, based on average first-sale prices, amounted to about 165,000 euros in 2024. The catch value varied across regions. A large part of the revenue (around 73,000 euros) was earned by fishers fishing on the Narva River, and this revenue has significant economic importance in the region. The large share of the sales revenue generated by lamprey caught outside Narva River is striking: 56% of the total sales revenue was produced by catches that made up only 33% of the total catch in Estonia. Therefore, despite the smaller quantities caught, the rest of the lamprey rivers are financially comparable to Narva River.

Lamprey is caught using cone traps and lamprey fyke nets in Estonian rivers. The maximum amount of fishing gear was the same in 2024 as it was a year before (Table 31). The bulk of the maximum number of cone traps (15,000) was allocated to Narva River, but lamprey fyke nets were not used in this river. For other inland waters, 3300 cone traps and 81 lamprey fyke nets were allocated.

While cone traps account for the bulk of catches (Table 32), the share of fyke nets in total catches was only 1.2% in 2024. The largest fyke net catch was in Jägala River (30% of the total fyke net catch), with larger catches in the Pudisoo, Keila and Vääna rivers (46% in total), and the remaining 24% was split between six watercourses.

Exceptionally, the catch from rivers by lamprey fyke nets in 2024 was below that of coastal fishing. This was above all due to the significantly higher share of trap/fyke

**TABLE 31.** Maximum number of lamprey fishing gear permitted to be used in inland water bodies in 2024 under commercial fishers' permits

County	Cone trap	Lamprey fyke net
Ida-Viru	15 000	–
Pärnu	2000	15
Harju	700	45
Lääne-Viru	500	17
Lääne	100	–
Saare	–	4
<b>Total</b>	<b>18 300</b>	<b>81</b>

Source: State Gazette.

**TABLE 32.** Official commercial lamprey catches (kg) in 2023 and 2024, by fishing gear

Fishing ground and gear	2023	2024
<b>Narva River (cone trap)</b>	<b>22 272</b>	<b>26 155</b>
<b>Coastal sea</b>	<b>64</b>	<b>1163</b>
incl. open-water fyke net	13	512
gill net	–	10
line of fyke nets	3	–
trap/fyke net with a mouth height of up to 1–3 m	44	595
trap/fyke net with a mouth height of up to 1 m	4	46
<b>Other inland water bodies</b>	<b>12 462</b>	<b>11 754</b>
incl. Lamprey fyke net	699	454
cone trap	11 763	11 300
<b>Total</b>	<b>34 798</b>	<b>39 072</b>

Source: AFB.

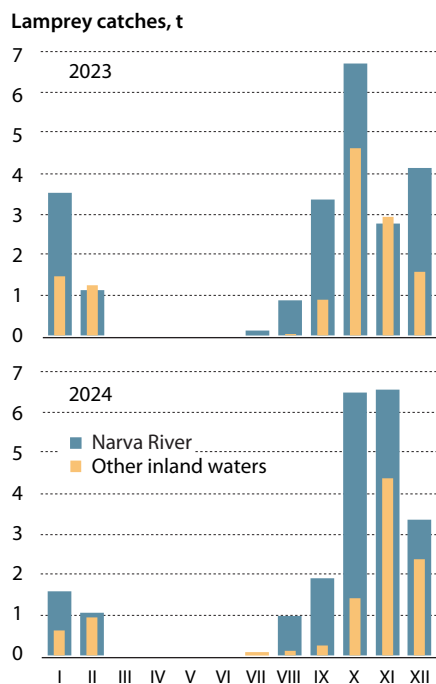
nets (with a mouth height of up to 1–3 m) compared to the previous year. More than half a tonne of river lamprey was caught with each gear type.

The temporal distribution of the catches of river lamprey by month is shown in Figure 49. The highest catch in 2024 was in November, when over seven tonnes of river eels were caught, which is one tonne more than in October 2023. The catch in the Narva River in October 2024 was of the same magnitude. The increase in catches may be linked to the arrival of windier weather, lower water temperatures, and increased volumetric flow.

For consumers, lamprey is of the best quality in autumn. It has just finished feeding and is migrating to wintering grounds at that time. Lamprey will spawn in the spring and will not eat in the meantime; thus, its weight and body length begin to decline due to starvation and the production of reproductive products. Its weight and length will decrease by approximately 20% and 15%, respectively, and its fat content will decline as well. Therefore, in view of the rational exploitation of stocks, the current temporal restriction on fishing serves its purpose (fishing in rivers is prohibited from 1 March to 30 June).

For decades, shrinking spawning grounds have been the main factor behind the decrease in the abundance of lamprey. Lamprey migrating from the sea to rivers to spawn can reproduce only in rapid sections of rivers, but access to these is severely limited due to dams. The situation has begun to improve in recent years because the state has initiated the construction of fish passes in dams. They have already been completed on many rivers, and this has happened on several larger rivers in the last few years. For example, in 2024, a fish pass as a section of rapids was built to replace the Püssi dam on Purtse River. In 2025, a study on river migration was launched there as part of IP CleanEst, an integrated project for improving the status of water bodies in Ida-Viru and Lääne-Viru counties, which is part of the LIFE Programme for the Environment and Climate Action. Based on the preliminary results, the river lamprey successfully pass through the Püssi fish ladder on their migration, reaching the spawning grounds established during the project, including Ojamaa River. Recently, the Vanaveski dam on Vasalemma River was replaced with a fish migration route, which also allows the river lamprey to repopulate historical breeding areas.

The opening of the Sindi dam for the migration of fish in Pärnu River is worth highlighting in this regard; a huge area is again available for breeding, wintering before spawning, and larval growth. The range of the lamprey, which previously only



**Figure 49.** Dynamics of official commercial lamprey catches taken from Estonian inland water bodies in different months of 2023 and 2024  
Source: AFB.

reached the Sindi dam, now extends to the city of Paide, and to various tributaries and streams of different sizes. All of this work is essential to improve the status of Estonia's fish population and increase exploitable stock. It is hoped that a solution will be found to the water supply problem of the Narva River gorge, which is currently kept dry. This would enable the lamprey stock of Narva River to be increased considerably.

Lamprey has a special conservation status in the European Union – while being one of the species in need of protection according to the Habitats Directive (92/43/EEC), it may be caught in a manner and volume that does not jeopardise the good conservation status of populations. Thus, overfishing of lamprey must be avoided and its habitats must be improved for stock management as well as conservation purposes.

In summary, fishing for lamprey is important in Estonia. Lamprey is still in good enough condition to provide fishing opportunities. The situation is expected to improve further in the coming years thanks to the restoration of the quality of river habitats.

# Recreational fishing

## Changes in the recreational fishing sector

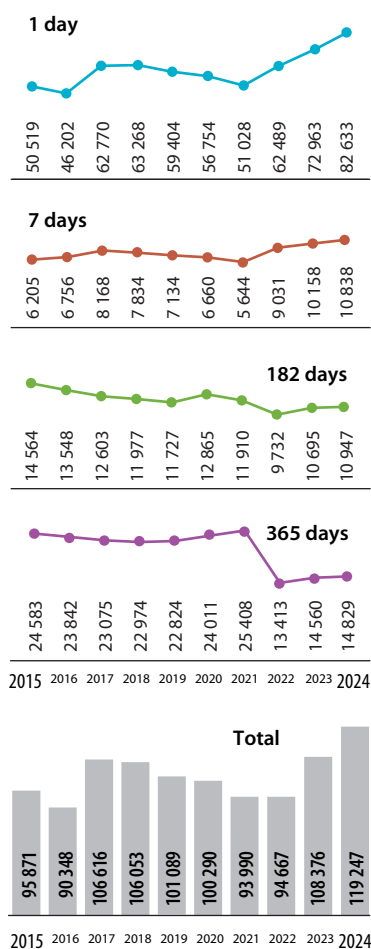
On 1 July 2024, the **recreational fishing fees**, which had remained unchanged since 2012, increased. In view of the need for investment to replenish and conserve fish stocks and keep the sector functioning, keeping fees at their current level would no longer have provided sufficient resources. Depending on the season, the price increase ranged between 25% and 52%. The fishing rights fee is now 2 euros for 24 hours, 5 euros for seven days, 17 euros for 182 days, and 27 euros for 365 days.

In the beginning of 2024, the minimum sizes for two important commercial fish were changed: the minimum size for **pike** was increased from 45 cm to 50 cm in all water bodies, and the minimum size for **perch** caught from the sea increased from 19 cm to 21 cm. The aim of the amendment was to ensure that specimens of these species had a chance to spawn at least once before being caught. This will support the natural reproduction of populations and the conservation of fish stocks.

In 2024, **ide** and **vimba bream** were added to the list of species with a restricted catch quantity; a maximum of 15 and 20 fish may be caught per day respectively. This list already includes bream (15 specimens), pikeperch and pike (up to five each per day), perch (up to 15 kg), salmon and sea trout (up to two fish in total, for example, two salmon, two trout, or one salmon and one trout). The purpose of the limits is to disperse fishing pressure and ensure that catches are more equitably distributed among recreational fishers and that the replenishment of the stock is sustainable.

## Fishing with a recreational fishing licence

The popularity of recreational fishing continued to grow rapidly. While in 2022, interest in recreational fishing declined slightly following the pandemic, from 2023 onwards, the number of fishers has increased again. However, 2024 saw a record increase in recreational fishing licences: while there were 108,376 active permits in 2023 (including both Estonians and foreigners), it grew by almost 11,000 in 2024, reaching 119,247 (Figure 50) and exceeding the long-term average (2012–2023) by approximately 20%.



**Figure 50.** Number of persons with recreational fishing right by duration of right, 2015–2024

Sources: MOE, REM.

In 2022, there were 41,473 Estonian resident fishers with unique personal identification codes; this had risen to 46,806 in 2023 and 49,755 in 2024 (Table 33), which is much higher than the average for the last decade (44,227). Including those who catch fish on the basis of a fishing card and those who fish for free (who make up about one-third of fishers), the number of recreational fishers was 58,830 in 2022, 66,024 in 2023, and 70,057 in 2024. For comparison, before the restoration of independence, membership of a club was compulsory. In 1991, the number of recreational fishers was approximately 57,000 (the membership of the Estonian Fishermen’s Association).

The share of foreigners also continued to increase, reaching levels comparable to the pre-pandemic period (Figure 51). In 2024, nationals from 60 countries fished in Estonia. Latvian recreational fishers continued to account for the largest number, at nearly 12,000 (Table 34). They were followed by Lithuanians and Ukrainians.

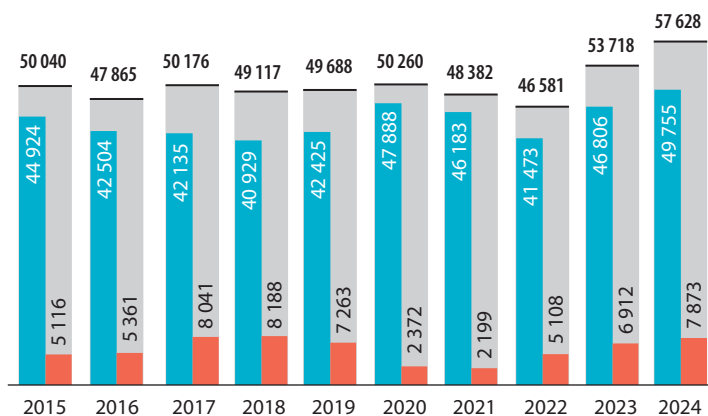
### Fishing on the basis of fishing card

In 2024, 42,866 fishing cards were issued. Compared to 2023, this figure increased by 6445, an increase of nearly 18% (Table 35). The largest absolute increase in the number of fishing permits was for gill nets (3658 cards), while the fastest relative increase in the number of

**Figure 51.** Number of persons with recreational fishing rights by origin, 2015–2024

Sources: MOE, REM.

- Total
- Nationals of Estonia
- Foreigners



**TABLE 33.** Number of recreational fishers, 2015–2023

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Fishing right holders with an Estonian ID code (not including people exempted from fees)*	44 924	42 504	42 135	40 929	42 425	47 888	46 183	41 473	46 806	49 755
Holders of free fishing rights (30% of those fishing for a fee)	13 477	12 751	12 641	12 279	12 728	14 366	13 854	12 441	14 041	14 926
Fishing card holders with an Estonian ID code	9 093	9 189	9 943	9 778	10 085	11 320	10 041	10 194	10 730	11 287
<b>Total</b>	<b>67 494</b>	<b>64 444</b>	<b>64 719</b>	<b>62 986</b>	<b>65 238</b>	<b>73 574</b>	<b>70 078</b>	<b>64 108</b>	<b>71 577</b>	<b>75 968</b>
Number of both fishing right and fishing card holders	4 593	4 618	5 163	4 906	5 077	5 126	5 527	5 278	5 553	5 911
<b>Number of Estonian recreational fishers</b>	<b>62 901</b>	<b>59 826</b>	<b>59 556</b>	<b>58 080</b>	<b>60 161</b>	<b>68 448</b>	<b>64 551</b>	<b>58 830</b>	<b>66 024</b>	<b>70 057</b>

\* People exempted from fees: students under 16 years of age; pensioners; people who faced political persecution during Soviet times and persons equated with the above; disabled persons; persons with partial or no capacity for work.

Sources: research and recreational fishing database, Environmental Board.

permits was in Matsalu National Park, where the number of permits more than doubled (112%).

A significant change was made to the way recreational fishing is organised in Matsalu National Park. The previous system was based on rather complex regional designations (e.g. A, B, C, D, E, K, J2, M1, and M2), and the limits on fishing rights depended on specific date ranges. A fixed monthly limit applied in the Välislaht and Väinameri areas. The fee paid for the right to fish depended on the fishing season, which made it difficult for amateur enthusiasts to obtain a fishing card and the fee difficult to predict.

The previous detailed monthly system was changed to a simpler system of zones and periods of validity in 2024. Under the new system, catch limits were concentrated in three major zones, simplifying and streamlining the conditions for applying for and interpreting a fishing card. In the rivers and the Eastern and Western Väinameri target zones, the fishing card limit was completely abolished. In the Välislaht and the Salmi zone, fishing rights were still restricted, but the system was also clarified: the number of cards is no longer linked to a monthly

**TABLE 34.** Number of recreational fishing rights purchased by country in 2023 and 2024 (top 30)

Country, code	Number of permits	
	2023	2024
Latvia, LV	10 635	12 014
Lithuania, LV	695	990
Ukraine, UA	357	320
Finland, FI	219	268
Germany, DE	167	202
United Kingdom, UK	27	70
Poland, PL	77	66
Moldova, MD	25	32
Russia, RU	47	26
United States of America, US	21	26
Belarus, BY	13	23
Switzerland, CH	15	21
Sweden, SE	36	19
France, FR	11	16
Austria, AT	12	15
Italy, IT	14	12
Czechia, CZ	11	11
Israel, IL	4	10
Netherlands, NL	16	8
Norway, NO	6	8
Hungary, HU	4	8
Ireland, IE	5	7
Romania, RO	7	4
Australia, AU	4	4
Slovakia, SK	10	3
Libya, LY	14	3
Georgia, GE	6	2
Spain, ES	4	2
Denmark, DK	4	1
Mongolia, MN	8	0

Source: research and recreational fishing database.

**TABLE 35. Number of fishing cards issued by fishing gear and fishing ground, 2015–2024**

Fishing gear	Fishing ground	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Gill net	Sea*	6 271	6 320	9 409	7 907	9 250	22 388	16 373	15 721	16 290	19 097
	Lakes Peipus, Pskov and Lämmijärv**	820	815	771	1 442	1 348	1 538	1 553	3 608	2 747	2 419
	Rivers and small lakes***	609	403	1 205	1 728	3 553	3 978	3 404	3 141	3 254	2 938
	<b>Total</b>	<b>7700</b>	<b>7538</b>	<b>11 385</b>	<b>11 077</b>	<b>14 151</b>	<b>27 904</b>	<b>21 330</b>	<b>22 470</b>	<b>22 291</b>	<b>24 454</b>
Hand line, simple hand line, spinning reel, fly hook, pulling device	Endla Nature Reserve	1 272	1 055	1 158	1 138	720	916	750	832	859	980
	Matsalu National Park	1 802	1 811	1 719	1 669	2 364	2 444	2 241	2 068	2 373	5 029
	Silma Nature Reserve	1 555	982	1 396	894	1 023	984	1 011	1 120	1 152	2 033
	<b>Total</b>	<b>4 629</b>	<b>3 848</b>	<b>4 273</b>	<b>3 701</b>	<b>4 107</b>	<b>4 344</b>	<b>4 002</b>	<b>4 020</b>	<b>4 384</b>	<b>8 042</b>
Spinning reel, fly hook	Trout fishing grounds	1 069	980	1 222	1 096	943	1 475	2 049	1 868	2 026	1 855
	Salmon fishing grounds	1 653	3 607	5 014	3 222	3 436	4 669	3 333	3 040	4 944	5 662
	<b>Total</b>	<b>2 722</b>	<b>4 587</b>	<b>6 236</b>	<b>4 318</b>	<b>4 379</b>	<b>6 144</b>	<b>5 382</b>	<b>4 908</b>	<b>6 970</b>	<b>7 517</b>
Longline (100 hooks)	Sea	288	155	155	93	131	186	118	116	98	88
	Lakes Peipus, Pskov ja Lämmijärv	50	38	36	27	35	69	44	27	29	43
	Lake Võrtsjärv	291	188	197	215	186	229	158	109	159	200
	Emajõgi River	102	114	104	95	71	67	50	59	31	38
	Other lakes and rivers	409	429	460	419	398	425	331	268	321	343
	<b>Total</b>	<b>1 140</b>	<b>924</b>	<b>952</b>	<b>849</b>	<b>821</b>	<b>976</b>	<b>701</b>	<b>579</b>	<b>638</b>	<b>712</b>
Crayfish trap and dip-net	Lakes, rivers	906	997	1 408	1 326	1 476	1 670	1 476	1 805	1 741	1 601
Harpoon gun and harpoon	Lakes Kuremaa ja Saadjärv	401	451	318	372	254	374	211	243	278	413
Hoopnet, dragnet	Small lakes	73	51	43	28	38	43	30	11	14	10
Trap net	Small lakes	–	28	62	66	88	88	56	110	105	117
<b>Total number of fishing cards</b>		<b>17 571</b>	<b>18 424</b>	<b>24 677</b>	<b>21 737</b>	<b>25 314</b>	<b>41 516</b>	<b>33 188</b>	<b>34 146</b>	<b>36 421</b>	<b>42 866</b>

\* For fishing at sea, week-long gill net permits were introduced in 2017. At the same time, month-long gill net permits remained in use. From 2020, only week-long gill net permits can be used.

\*\* During the years 2015–2017, gill net permits were issued for lakes Peipus, Pskov and Lämmijärv for the period from 1 March to 4 May; from 2018 for two periods: 1–31 March and 1 April to 5 May. From 2022, only week-long gill net permits are available.

\*\*\* For fishing in Lake Võrtsjärv, week-long gill net permits were introduced in 2018, while month-long gill net permits remained in use in parallel. As of 2020, only week-long gill net permits are available for Lake Võrtsjärv. As regards the other inland water bodies, there were no permits with two validity periods in parallel; week-long gill net permits apply from 2019 (except for Lake Peipus, where the changeover to week-long permits occurred in 2022).

Source: research and recreational fishing database.

**TABLE 36. Fees received for professional, recreational and special fishing rights in millions of euros in 2014–2024**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Total commercial fishing fees</b>	<b>0,766</b>	<b>0,751</b>	<b>0,761</b>	<b>0,840</b>	<b>0,803</b>	<b>0,815</b>	<b>0,906</b>	<b>1,018</b>	<b>1,078</b>	<b>1,140</b>	<b>1,099</b>
incl. trawling fee	0,226	0,217	0,195	0,218	0,212	0,197	0,158	0,148	0,163	0,179	0,160
coastal fishing fee	0,346	0,356	0,366	0,404	0,386	0,390	0,417	0,418	0,465	0,412	0,418
distant-water fishing fee	0,194	0,179	0,199	0,218	0,206	0,228	0,331	0,452	0,450	0,549	0,521
<b>Total recreational fishing fees</b>	<b>0,675</b>	<b>0,757</b>	<b>0,743</b>	<b>0,770</b>	<b>0,742</b>	<b>0,732</b>	<b>0,744</b>	<b>0,690</b>	<b>0,766</b>	<b>0,742</b>	<b>0,914</b>
incl. fishing card fee	0,186	0,279	0,299	0,310	0,292	0,294	0,267	0,243	0,282	0,267	0,283
fishing fee	0,488	0,478	0,444	0,460	0,451	0,439	0,488	0,448	0,484	0,475	0,631
<b>Total special fishing fees</b>	<b>0,022</b>	<b>0,015</b>	<b>0,023</b>	<b>0,014</b>	<b>0,022</b>	<b>0,028</b>	<b>0,013</b>	<b>0,007</b>	<b>0,013</b>	<b>0,013</b>	<b>0,024</b>
<b>Grand total</b>	<b>1,463</b>	<b>1,523</b>	<b>1,527</b>	<b>1,624</b>	<b>1,568</b>	<b>1,573</b>	<b>1,663</b>	<b>1,716</b>	<b>1,858</b>	<b>1,895</b>	<b>2,037</b>

Note: The trawling fee is a fishing fee payable by companies fishing in the Baltic Sea under the fishing permit of a fishing vessel; the coastal fishing fee is a fishing fee payable by companies fishing in the Baltic Sea (and inland bodies of water) under the fishing permit of a fisher; the distant-water fishing fee is a fishing fee payable by companies fishing outside the jurisdiction of Estonia under the fishing permit of a fishing vessel; the special fishing fee comprises a fee payable for the right to fish under a special fishing permit and a fee for the sale of fish caught under a special fishing permit.

Sources: Environmental Board, MEAC, MOR, REM.

calendar cycle but was replaced by seven-day fishing cards. The abolition of fishing card limits in several areas led to a significant increase in card sales compared to the previous situation.

## Fees payable for fishing rights

In 2024, the amount of recreational fishing fees received was significantly higher than in previous years (Table 36). Fees of 631,062 euros were received for recreational fishing rights, and 283,075 euros for fishing cards, making a total of 914,137 euros. Compared to 2023 (741,853 euros), recreational fishing revenue increased by around 23%. The increase was mainly driven by recreational fishing rights, which increased by around 33% compared to 2023 thanks to higher fees from 1 July 2024.

A total of 1,099,257 euros was paid for commercial fishing rights in 2024. This figure has remained more or less stable in recent years. In addition, 23,856 euros was paid for special fishing rights, mostly comprising fees for the sale of fish caught mainly from Lake Peipus under special fishing permits.

The money from the fishing rights is split between the state budget and the Environmental Investment Centre (EIC). The EIC allocates its share to support fisheries-related activities and projects. In 2024, the EIC's environmental programme supported 60 fisheries projects with 598,343 euros (Table 37). The number of projects funded was lower than in 2023, when 129 projects were funded, but the amount of EIC funding remained broadly the same. The projects were mainly aimed at restoring fish stocks and fish habitats and developing fishing conditions and fishing tourism in local communities and municipalities.

**TABLE 37. Number and amount of support for fisheries projects funded by the Environmental Investment Centre in 2012–2024**

Year	Number of projects	Support allocated
2012	39	1 115 766
2013	37	1 697 256
2014	40	1 601 444
2015	35	1 101 201
2016	30	793 957
2017	31	716 222
2018	52	1 572 612
2019	22	415 200
2020	26	328 278
2021	44	525 065
2022	40	575 693
2023	129	603 036
2024	60	598 343

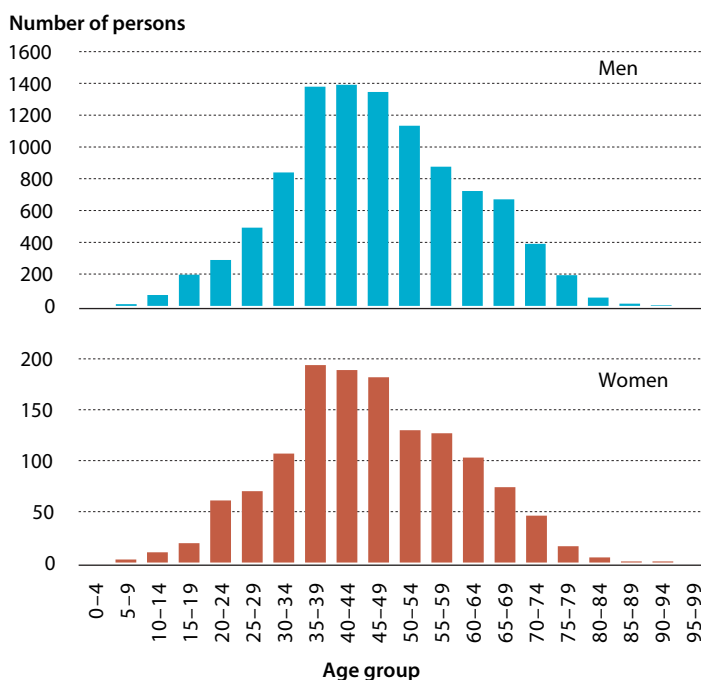
Source: EIC.

## Gender and age distribution of fishers operating based on the fishing card

There are three types of recreational fishing in Estonia: longline fishing, recreational fishing, and fishing taking place based on fishing card. Rod fishing is a free public right and the angler may use one hand rod. Recreational fishing rights allow the use of a variety of fishing gear and are free of charge for people with favoured status (see explanation in Table 33), with a fee for others (see also Figures 50 and 51). The fishing permit grants the right to use a gill net, longline, fyke net, crayfish trap or pot, lift net, or dip net. Fishing cards are required for angling in the Endla, Silma and Matsalu protected areas, as well as in the trout rivers of Central Estonia and the salmon and trout rivers of northern Estonia (see also Table 35).

**Figure 52. Age distribution of men and women based on fishing card data in 2024**

Sources: MOE, REM.



Of the fishers with an Estonian personal identification code, 10,006 men and 1338 women bought a fishing card in 2024. The share of women is therefore around 13%. Comparing fishing with hunting, in 2024, there were 15,591 hunters in Estonia with a hunting licence, of whom 14,900 were men (about 96%) and 691 were women (about 4%). This suggests that, while both hobbies are predominantly male, women are much more attracted to fishing than hunting, accounting for more than three times the proportion of fishers than hunters.

The youngest male fishing card holder was seven years old; the oldest was 95. For women, the corresponding figures were 9 and 91 years. The age distribution of fishing card holders showed that middle-aged fishers are the most frequent users of fishing cards, with slightly fewer older fishers (Figure 52). There were significantly fewer fishers in the younger age groups, with the biggest increase starting from the age of 35 for both women and men. For men, the increase started to slow down after the age of 55, for women five years earlier, from the age of 50.

Although the proportion of men among those fishing with a fishing card was clearly higher than that of women, women were not absent in any age group. Moreover, female participation was more stable and more even, while men showed more peaks in certain age groups.

While men were equally likely to use all the fishing gear authorised by the fishing card, women tended to prefer longlines, which they used in nature reserves and on salmon rivers, and crayfish gear. Fishers under 20 years of age showed a similar pattern.

# Aquaculture

## Overview of sector

In 2024, 50 aquaculture farms were registered with the Agriculture and Food Board as aquaculture producers, of which 29 farmed fish and 21 farmed crayfish (Figure 53). Compared with 2023, the volume of production of commercial fish and crayfish decreased by 45 tonnes in 2024 and total output amounted to 963.5 tonnes (Table 38). Roe production was more than 21 tonnes, i.e. more than twice as high as in 2023.

There were no changes in the species being farmed. Rainbow trout was the most common species farmed, making up 86.65% of the total. Other species farmed in larger quantities include eel, carp, sturgeon and African catfish.

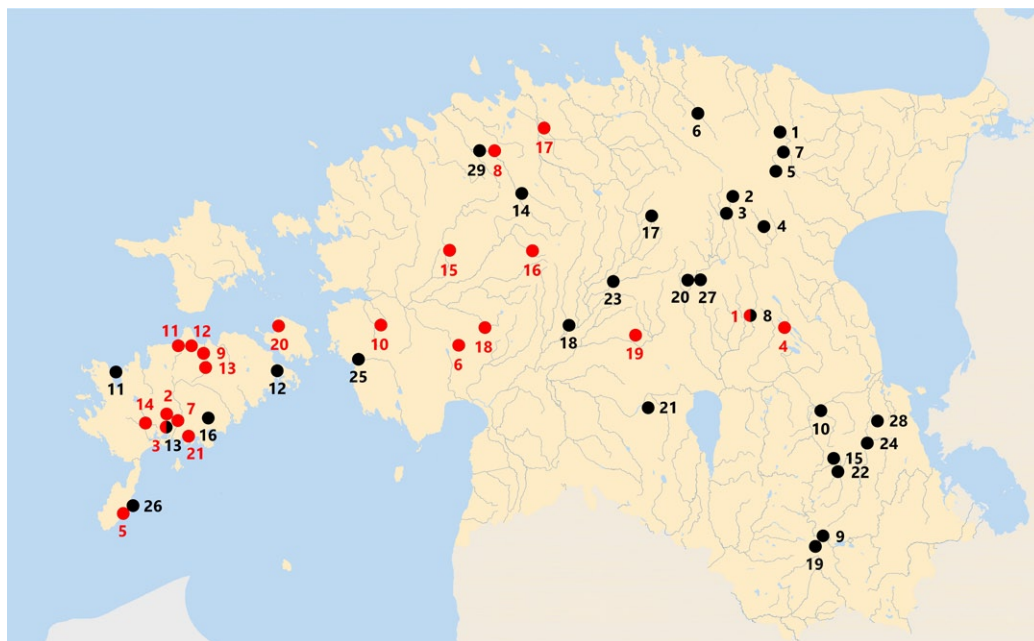
The volume of fish farming in sea cages did not increase in 2024. Estonia's only sea farm is operating within the limits of maximum production as authorised by the environmental permit, but no new sea farms have been established. As of 2024, the Consumer Protection and Technical Regulatory Authority (TTJA) has issued a construction permit for establishing an open-sea fish farm in the Tagalaha estuary area. The permit allows for the production of rainbow trout in ponds with an estimated annual recruitment of 2050–2182 tonnes. There continues to be great interest in

**TABLE 38.** Sales volume of Estonian fish farms' raw fish (t), 2011–2024

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Eel	2,0	*	*	127,0	*	*	*	*	*	*	*	*	36,6	*
Crayfish	0,6	0,1	0,4	0,2	0,6	0,7	0,8	0,6	0,9	1,09	0,7	0,6	0,5	0,5
Carp	37,5	38,2	43,7	*	*	33,8	*	*	29,8	*	*	16,4	*	*
Rainbow trout	333,8	455,3	465,5	569,6	559,0	680,4	702,2	804,1	927,0	869,9	711,9	677,5	784,8	834,9
Other fish	18,7	87,2	223,5	172,1	238,7	152,9	167,4	139,0	104,3	168,9	136,9	106,3	96,6	63,9
<b>Total</b>	<b>392,6</b>	<b>580,8</b>	<b>733,2</b>	<b>868,9</b>	<b>798,3</b>	<b>867,7</b>	<b>870,5</b>	<b>944,0</b>	<b>1062,0</b>	<b>1039,9</b>	<b>849,5</b>	<b>800,8</b>	<b>918,5</b>	<b>963,5</b>
	Fish roe for human consumption													
	0,1	4,1	5,0	3,1	7,3	4,9	3,8	3,2	6,3	10,6	21,2	2,7	9,9	21,4

\*Data cannot be published due to data protection requirements.

Source: Statistics Estonia.



**Figure 53.** Fish farms licensed and operating by the Agriculture and Food Board, and crayfish farms licensed as of 2024

Sources: Land Board, AFB.

● **Fish farms:**

- |   |   |   |
|---|---|---|
| 1 – Põlula Fish Farm of the State Forest Management Centre OÜ Simuna Ivax (2, 3, 4, 5): | 10 – Riina Kalda's fish farm CARPIO (sole proprietor) | 21 – BM Trade OÜ  |
| 2 – Äntu Fish Farm  | 11 – OÜ Redstorm                                      | 22 – Krei-Jõe OÜ  |
| 3 – Nõmmeveski Fish Farm  | 12 – OÜ AquaMyk                                       | 23 – Aquaculture training and testing base of Järva County Vocational Training Centre |
| 4 – Käriveski Fish Farm   | 13 – OÜ Pähkla Vähi- ja Kalakasvatus                  | 24 – Ahja Kalakasvatus OÜ   |
| 5 – Mõdriku Fish Farm   | 14 – SK Trade OÜ                                      | 25 – OÜ Jaesto  |
| 6 – OÜ Aviiso   | 15 – OÜ Karilatsi Kalamajand                          | 26 – Conversio Design OÜ  |
| Härjanurme Fish Farm (sole proprietor; 7, 8):   | 16 – OÜ Ösel Harvest                                  | 27 – OÜ Vikerkala   |
| 7 – Aravuse Fish Farm   | 17 – Neli Elementi OÜ                                 | 28 – Pärl Kala OÜ   |
| 8 – Jõune Fish Farm   | 18 – For Angula OÜ                                    | 29 – OÜ Forellipüük   |
| 9 – Leokitalu OÜ  | 19 – Paadi Talu OÜ                                    |   |
|   | 20 – Lapavira OÜ                                      |   |

● **Crayfish farms:**

- |  |                                      |   |
|--|--------------------------------------|---|
| 1 – Härjanurme Fish Farm (sole proprietor) | 8 – TP Invest OÜ                     | 16 – Maimar OÜ                          |
| 2 – OÜ Astacus                             | 9 – OÜ Vähilakk                      | 17 – OÜ Selimäe                         |
| 3 – OÜ Pähkla Vähi- ja Kalakasvatus        | 10 – Amento OÜ                       | 18 – Põlde Vähk OÜ                      |
| 4 – Pahur Part OÜ                          | 11 – Jüri Lest (sole proprietor)     | 19 – Peetri A-23 Farm (sole proprietor) |
| 5 – OÜ Vana-Tooma Talu                     | 12 – OÜ Liki Mõis                    | 20 – Rahingu sadam OÜ                   |
| 6 – OÜ Halinga Puu                         | 13 – OÜ Ülejõe Vähi- ja Kalakasvatus | 21 – Merepesa OÜ                        |
| 7 – Metsa Johani Farm (sole proprietor)    | 14 – Varest Invest OÜ                |   |
|  | 15 – Arkadel Invest OÜ               |   |

establishing new marine fish farms, but because the environmental impact assessment required for issuing permits is time-consuming, no additional environmental permits have been issued to date.

There are two representative organisations in the aquaculture sector: the Estonian Association of Fish and Crayfish Farmers and the Estonian Aquaculture Association. The Estonian Offshore Aquaculture Association is a producer organisation uniting eight fish farming companies. Its aim is to increase the production volume of fish farmed at sea, improve the marketing conditions for its members' production, and promote sustainable aquaculture.

## Rainbow trout

The production of rainbow trout as the most common farmed fish species amounted to 834.87 tonnes in 2024, or 50.07 tonnes less than in 2023. Output has been between 700 and 900 tonnes during the last nine years.

In 2024, the average world market price of salmon, which affects the price of rainbow trout as a fish with red flesh, was 8.18 euros per kilogram according to the Sitagri salmon index compiled by the Fish Pool exchange on the Nasdaq OMX Oslo Stock Exchange. This price has remained stable for the last three years.

Among salmonids, Arctic char is also increasingly farmed in Estonia, and the farming of European whitefish and peled (Northern whitefish) is being piloted on a small scale.

## Crayfish farming

There were 21 crayfish farms licensed by the Agriculture and Food Board in Estonia in 2024. The production of crayfish amounted to 0.48 tonnes. In recent years, crayfish output has been declining.

## Algae and mussel cultivation

The only mussel farm in Estonia is located in Tagalahe Bay, Saaremaa, in the immediate vicinity of aquaculture cages. The mussel farm is a compensatory measure that increases the sustainability of sea cage-based farming, as mussels absorb nutrients.

Various studies on algae and mussels are being carried out in order to identify suitable species for cultivation and find solutions for adding value to and marketing these products.

## Fish restocking

Salmon, European eel, Atlantic sturgeon, European whitefish, Lake Peipus whitefish and asp were introduced into Estonian waters in 2024 (Table 39).

The largest quantities of salmon were released into Pärnu and Purtse rivers – 195,297 and 26,818 individuals, respectively. As for eels, 286.46 kg were released into Lake Võrtsjärv and smaller quantities were introduced into lakes Saadjärv, Kaiavere, Kuremaa and Vagula. To restore the Atlantic sturgeon population, 93,450 sturgeon

were released into Narva River and 3630 sturgeon into Pärnu River. For the fourth year in a row, Peipus whitefish were released into Lake Peipus: in 2024, 358,255 larvae and same-year fish were stocked.

## Research and development

Formal education in fish farming is offered at two educational institutions: Estonian University of Life Sciences and Järva County Vocational Training Centre. While the University of Life Sciences focuses on research and studies and organising post-graduate training in fish farming (curriculum ‘Fisheries and Applied Ecology’), Järva County Vocational Training Centre prepares qualified fish farm workers (fish farmer, qualification level 4).

## Grants

In 2024, aquaculture producers could apply for a grant from ARIB under the measure ‘Market development support for fishing and aquaculture products for the period 2021–2027’.

Through the European Maritime and Fisheries Fund, the Rural Development Foundation offers investment loans to companies initiating or engaged in the production of aquaculture products.

**TABLE 39.** Fish and crayfish juveniles released in water bodies in 2024

Species	Age/size	Number
European eel	fry (0.3 g)	330,26 kg
Salmon	one-summer-old	174 083 individuals
	one-year-old	68 922 individuals
	two-year-old	15 941 individuals
European whitefish	larvae	218 000 individuals
	one-summer-old	39 094 individuals
Lake Peipus whitefish	larvae	350 000 individuals
	one-summer-old	8 255 individuals
Atlantic sturgeon	larvae	80 000 individuals
	one-summer-old	16 204 individuals
	one-year-old	614 individuals
Asp	two-year-old	262 individuals
	one-summer-old	1 200 individuals

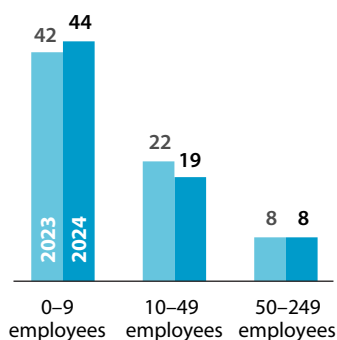
Sources: MoE, State Forest Management Centre, Wildlife Estonia.

# Estonian fish processing industry

## Overview of sector

According to the data entered in the Commercial Register, there were 71 companies in Estonia in 2024 whose main business comprised the processing and canning of fish, crustaceans, and molluscs. In terms of the number of employees<sup>1</sup>, the Estonian fish processing sector was dominated by micro-enterprises with fewer than ten employees (62%). Compared with 2023, the number of micro enterprises increased, and the number of small enterprises decreased in 2024 (Figure 54).

In 2024, the total sales revenue of the companies whose main business is fish processing amounted to 271 million euros, with processing and canning fish, crustaceans and molluscs accounting for 92% of the revenue, i.e. 248 million euros. On average<sup>2</sup>, 1261 people were employed by the companies in 2024.



**Figure 54.** Number of companies whose main business comprised processing and canning fish, crustaceans and molluscs based on average number of employees in 2023 and 2024

Source: Commercial Register.

More than half of the companies that process fish as their main activity were located in Harju and Pärnu counties (Table 40).

Processing and canning of fish, crustaceans and molluscs was an auxiliary activity for 16 companies in 2024. Their sales revenue from this segment amounted to 336,000 euros.

The financial performance of the processing sector in 2024 suggests that the overall economic situation in the sector was satisfactory. Both exports and sales to the domestic market increased, but total profit dropped by 10% compared to 2023. However, sales revenue increased

<sup>1</sup> Commission Recommendation 2003/361/EC divides enterprises into four groups based on the number of employees: (1) microenterprises: 0–9 employees; (2) small enterprises: 10–49 employees; (3) medium-sized enterprises: 50–249 employees; (4) large enterprises: 250 or more employees.

<sup>2</sup> Average number of full-time employees (full-time equivalent)

**TABLE 40.** Number of companies whose main business comprised processing and canning fish, crustaceans, and molluscs based on average number of employees in 2023 and 2024

County	Number of companies	
	2023	2024
Harju	21	20
Pärnu	17	19
Jõgeva	7	7
Tartu	5	7
Saare	6	5
Lääne	4	4
Ida-Viru	4	4
Viljandi	3	2
Põlva	3	2
Hiiu	1	1
Võru	1	–
<b>Total</b>	<b>72</b>	<b>71</b>

Source: Commercial Register.

thanks to higher output prices, which offset rising production costs. At the same time, higher priced products could only be sold if there was demand. To ensure sales of products and stay competitive, several companies applied to the Marine Stewardship Council for an eco-friendly fishing certificate. They also looked for new ways to *reduce costs* and *improve production efficiency*. In addition to the increase in costs, a concern in 2024 for fish processing companies was the decrease in the local raw material quota in 2024: the quota for sprat decreased by 4% and that for herring by as much as 43% compared to 2023.

## Basic and economic indicators and trends of companies whose main business is fish processing

Compared to 2023, the number of fish processing establishments increased (Table 41) and total sales revenue increased by 3%, although sales revenue from the processing and preservation of fish, crustaceans, and molluscs increased by only 1%; the remaining 2% increase came from additional activities. The average number of employees decreased by 57 (5%). The average annual wage cost per employee was 15,811 euros in 2024, up 6% from the preceding year.

Of the 71 fish processing companies, 49 (69%) closed the financial year 2024 with a profit, and the fish processing industry as a whole earned a profit of 13.4 million euros (the corresponding figures for 2023 were 72% and 14.9 million euros). Gross value added grew 18%, reaching 47 million euros. The combined assets of fish processing companies were worth 210 million euros, with fixed assets accounting for 57% (120 million euros).

**TABLE 41.** Basic and economic indicators and trends of companies whose main business is fish processing, 2014–2024

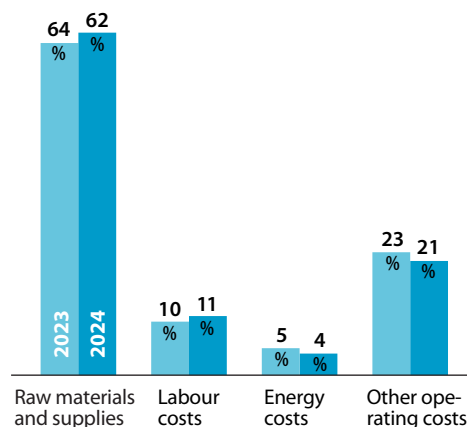
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of companies	64	66	65	73	69	72	71	74	77	72	71
Total sales revenue, €10 <sup>6</sup>	187	187	160	147	150	180	179	191	230	262	271
Average number of employees	1 972	1 935	1 738	1 642	1 609	1 476	1 419	1 361	1 275	1 204	1 261
Average annual wage cost per employee, €	8 701	9 122	9 558	9 999	10 720	11 872	12 417	13 158	13 947	14 927	15 811
Gross value added, €10 <sup>6</sup>	26	34	19	28	27	25	31	29	33	40	47
Investments in fixed assets, €10 <sup>6</sup>	10	11	3	8	11	9	8	7	10	12	5
Debt ratio, %	54	54	51	51	53	55	47	46	44	44	42

Source: Commercial Register.

Compared to 2023, investments in fixed assets decreased by 58% in 2024. The debt ratio, which shows the share of debt (liabilities) in the funding of the assets of companies, was 42% in 2024, and it has consistently decreased during the last 10 years.

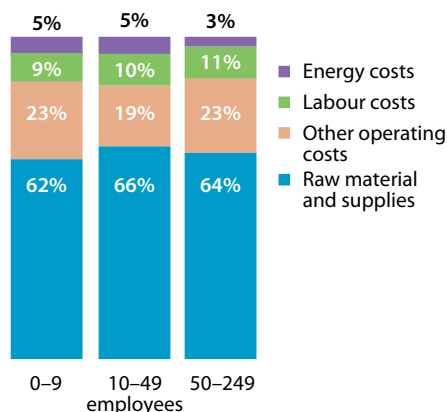
The production-related operating costs of fish processing companies totalled 251 million euros in 2024. Raw materials and supplies accounted for the most significant share of the operating costs (64%), while the proportions of labour and energy costs in operating costs were 11% and 4%, respectively (Figure 55). The production-related operating costs of microenterprises were 29.7 million euros, while for small enterprises, it was 103.7 million euros; and for medium-sized enterprises, 117.1 million euros. The distribution of operating costs was similar in these size classes (Figure 56), but a lower proportion of energy costs in medium-sized enterprises and a higher proportion of costs of raw materials and supplies in small enterprises can be observed.

If we compare the basic and economic indicators in the different size classes of fish processing companies (Table 42), we see that about half (46%) of the total sales revenue of the fish processing industry in 2024 came from eight medium-sized enterprises, which accounted for just 11% of the total number of companies. This size class also employed the highest number of people (51% of the total number of



**Figure 55.** Proportion (%) of production-related operating costs of companies whose main business is fish processing, 2023 and 2024

Source: Commercial Register.



**Figure 56.** Proportion (%) of production-related operating costs in different size classes of fish processing companies in 2024

Source: Commercial Register.

**TABLE 42.** Basic and economic indicators in different size classes of fish processing companies in 2024

Size class	Number of companies	Sales revenue, €10 <sup>6</sup>	Average number of employees	Average annual wage cost per employee, €	Fixed assets, €10 <sup>6</sup>	Investments in fixed assets, €10 <sup>6</sup>	Gross value added, €10 <sup>6</sup>	Debt ratio %
0-9 employees	44	31,5	153	13 177	17,1	1,1	4,4	33
10-49 employees	19	114,9	466	17 365	57,0	2,1	21,9	58
50-249 employees	8	124,6	642	15 310	46,3	1,7	20,6	31

Source: Commercial Register.

employees). The highest average salary was earned at small businesses, which, however, had the highest level of risk compared to the other two groups based on the overall debt ratio.

## Production and sales

According to data from Statistics Estonia, the Estonian fish processing industry sold 80,000 tonnes of fishery products in 2024 (Table 43). Frozen, salted, spiced, dried, deep-frozen, and breaded fish accounted for the bulk of production. Compared to 2023, the quantity of production sold decreased by 9%, which was mainly due to lower fishing opportunities for sprat and herring, which are used as raw material for frozen fish.

In 2024, exports accounted for 60% of the total sales revenue of companies whose main business is fish processing, indicating the high dependence of the Estonian fish processing industry on exports (Table 44). Export grew compared to 2023 by 2% and sales to the internal market was up by 5%.

Tables 45 and 46 list the top ten countries in exports and imports of fish and fishery products in 2024 in terms of both production volume and value. The largest quantities of fish and fishery products of Estonian origin were exported to Ukraine (mainly frozen sprats and herring), but compared to 2023, exports to this country decreased by 11%, from 29,841 tonnes to 26,469 tonnes. At the same time, the value

**TABLE 43.** Sales of the production (10<sup>3</sup> t) of Estonian fish processing industry by product type, 2014–2024

Fishery products	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Fresh and chilled fish meat, fish fillets, minced fish meat	2,4	2,6	1,7	1,8	2,3	2,2	3,2	5,2	4,2	4,4	4,7
Frozen fish	34,0	35,7	30,6	33,4	31,8	41,5	48,6	47,6	72,8	99,6	48,0
Smoked fish	2,5	2,5	1,7	1,8	1,5	1,1	0,7	1,2	1,1	1,0	1,2
Salted, spiced, dried, deep-frozen and breaded fish	14,1	10,9	10,4	10,1	11,3	12,4	14,1	14,4	10,9	11,1	11,8
Culinary fishery products in oil, marinade or sauce	5,5	4,9	4,4	4,7	3,8	3,2	3,7	3,9	3,6	4,6	3,7
Fish preserves	2,6	2,8	0,6	*	0,5	0,6	0,8	0,9	0,4	0,2	0,2
Products unfit for human consumption (e.g. fish meal), fish waste, etc.	6,2	6,6	4,4	1,7	1,3	1,3	7,7	7,5	4,4	9,3	10,3
<b>Total</b>	<b>67,3</b>	<b>66,0</b>	<b>53,8</b>	<b>53,5</b>	<b>52,5</b>	<b>62,3</b>	<b>78,8</b>	<b>80,7</b>	<b>97,4</b>	<b>130,2</b>	<b>79,9</b>

\*Data cannot be published due to data protection requirements.

Source: Statistics Estonia.

**TABLE 44.** Total sales in the domestic market and exports of companies whose main business is fish processing, 2014–2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total sales, €10 <sup>6</sup>	187	187	161	148	150	180	179	191	230	262	271
Domestic market, €10 <sup>6</sup>	55	52	58	61	61	77	68	75	90	104	109
Exports, €10 <sup>6</sup>	132	135	103	86	88	103	111	115	140	158	162
Proportion of exports (%)	71	72	64	58	59	57	62	60	61	60	60

Source: Statistics Estonia.

of exports to Ukraine increased by 9%, indicating a rise in the price of production. Fish products with a higher export value also reached Sweden, Belarus and China. The main importing countries in terms of value of production were Norway, Lithuania and Finland.

**TABLE 45.** Top ten countries in exports and imports of fish and fishery products of Estonian origin in 2024, by production quantity and value

Export volume in tonnes		Export volume in euros	
1. Ukrain	26 469	1. Ukraine	24 577 760
2. Latvia	5 866	2. Sweden	22 539 765
3. Belarus	4 907	3. Belarus	17 923 324
4. Denmark	3 748	4. China	15 978 597
5. Iceland	3 687	5. Finland	11 380 311
6. China	3 432	6. Switzerland	8 163 983
7. Sweden	3 402	7. Belgium	7 212 283
8. Poland	3 153	8. Norway	6 764 471
9. Lithuania	3 016	9. Denmark	6 536 190
10. Moldova	2 123	10. Iceland	6 346 896

Source: Statistics Estonia.

**TABLE 46.** Top ten countries in imports of fish and fishery products in 2024, by country of origin, in terms of production quantity and value

Imports, t		Imports, €	
1. Finland	28 862	1. Norway	62 273 073
2. Norway	10 699	2. Lithuania	23 896 814
3. Lithuania	9 575	3. Finland	20 923 312
4. Latvia	4 810	4. Morocco	12 709 557
5. United States of America	2 092	4, Vietnam	7 800 250
6. Ecuador	1 694	6. Denmark	7 766 282
7. Germany	1 601	7. Ecuador	7 162 142
8. Denmark	1 425	8. Latvia	6 993 140
9. Morocco	1 402	9. Unspecified countries	6 262 826
10. Greenland	1 166	10. China	6 105 111

Source: Statistics Estonia.

# Grants

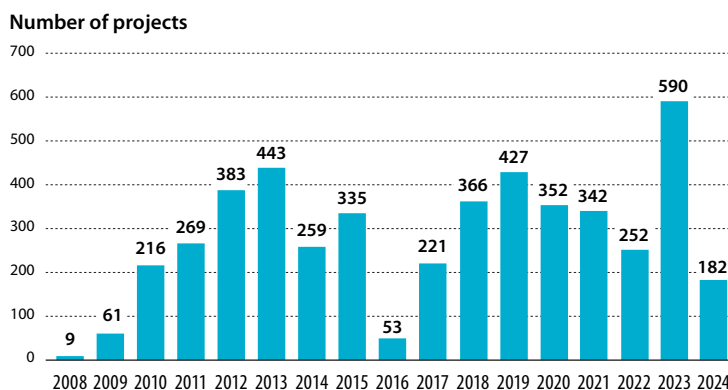
Support has been granted under the European Fisheries Fund (EFF) measures in Estonia since 2008 when 13 projects were supported. Thereafter, the number of projects funded increased until 2024, when it declined sharply (Figure 57).

In 2015, the European Maritime and Fisheries Fund (EMFF) was established, whose programming period spanned the years 2014–2020. In 2016, the first applications for aid from the EMFF were received and the first payments were made to the applicants.

In 2023, the EMFF support period came to an end, and in 2024, a new period started, running from 2021 to 2027, supported by the European Maritime, Fisheries and Aquaculture Fund (EMFAF), created in 2021.

In 2024, support from the EMFAF was granted in the amount of 32,922,016 euros and paid out in the amount of 2,640,305 euros. A total of 182 grant decisions were made and 46 applicants received payments (Table 47).

The highest amounts were allocated to Harju, Tartu, Pärnu, and Jõgeva counties in 2024 (Table 48); the highest numbers of support applications were granted in Pärnu, Hiiu, Lääne, and Harju counties (Table 49). The most money went to Harju County, followed by Pärnu and Tartu counties (Table 50). Hiiu, Pärnu, Harju, and Tartu counties were the leaders in terms of the number of payments (Table 51).



**Figure 57.** Number of projects supported by EFF and EMFF from 2008–2023 and from EMFAF in 2024

Source: ARIB.

**TABLE 47.** Amount and number of applications for which an initial decision was made during the 2024 calendar year, listed by measure

Sub-measure of the EMFAF Operational Programme	Amount of the application receiving the initial approval decision	Number of applications receiving the initial approval decision
F1.1.2 Support for fishing gear improvement	3 616 647	32
F1.1.5 Support for fishing knowledge transfer	3 121 000	1
F1.4.1.2 Support for fisheries inspection and surveillance (administrative capacity)	3 626 963	9
F1.4.2 Support for collection of fisheries data	7 498 054	1
F1.6.1 Support for improvement of fish spawning conditions	28 118	1
F2.1.4 Support for aquaculture knowledge transfer	1 415 000	1
F2.2.2 Support for production and marketing plans	251 340	5
F2.2.3.1 Market development support for fishery and aquaculture products (trade fairs)	407 262	5
F2.2.9 Support for knowledge transfer in the valorisation of aquatic biological resources	4 121 000	1
F3.1.1 Support for implementation of local development strategies	254 568	8
F3.1.2 Operational support for the Fisheries Local Action Group	5 051 324	8
F3.1.3 Support for projects in fisheries areas	3 530 741	110
<b>Total</b>	<b>32 922 016</b>	<b>182</b>

Source: ARIB.

**TABLE 48.** Grants awarded in 2024 (€) by county

County	Granted
Harju County	12 112 466
Tartu County	9 035 169
Pärnu County	4 437 324
Jõgeva County	1 839 998
Hiiu County	1 606 285
Saare County	918 224
Lääne County	858 187
Põlva County	709 338
Lääne-Viru County	626 684
Viljandi County	581 541
Ida-Viru County	196 802
<b>Total</b>	<b>32 922 016</b>

Source: ARIB.

**TABLE 50.** Grants paid in 2024 (€) by county

County	Paid
Harju County	989 486
Pärnu County	410 150
Tartu County	377 303
Hiiu County	230 810
Põlva County	111 191
Viljandi County	88 093
Jõgeva County	70 896
Lääne County	47 391
Saare County	31 821
Lääne-Viru County	31 821
Ida-Viru County	0
<b>Total</b>	<b>2 388 965</b>

Source: ARIB.

**TABLE 49.** Number of aid applications granted by county in 2024

County	Number of applications approved
Pärnu County	48
Hiiu County	36
Lääne County	28
Harju County	22
Jõgeva County	17
Tartu County	14
Viljandi County	11
Saare County	9
Põlva County	7
Lääne-Viru County	6
Ida-Viru County	5
<b>Total</b>	<b>182</b>

Source: ARIB.

**TABLE 51.** Number of payments made by county in 2024

County	Number of payments made
Hiiu County	13
Pärnu County	10
Harju County	6
Tartu County	4
Viljandi County	4
Jõgeva County	3
Lääne County	2
Põlva County	2
Saare County	1
Lääne-Viru County	1
Ida-Viru County	0
<b>Total</b>	<b>46</b>

Source: ARIB.

# Fisheries monitoring

In Estonia, fisheries monitoring and control is carried out by the Environmental Board. The number of inspectors working at the board has varied from year to year, ranging up to 38. Inspectors conduct checks both professional and recreational fishers, as well as verifying compliance with fish handling rules.

In recent years, the main focus of monitoring has been on commercial fishing in the Baltic Sea and Lakes Peipus, Lämmijärv and Pskov. In the Baltic Sea, the target has been to check at least 8% of the landings of sprat and herring caught by Estonian trawlers and 5% of the landings of herring caught with a pound net. A total of 5% of landings on Lakes Peipus, Lämmijärv and Pskov are checked (Table 52).

In the recreational fisheries sector, pike fishing in the Väinameri Sea, river cray-fishing, autumn salmonid fishing in salmon spawning rivers, and bream fishing on Emajõgi River have received the most attention in recent years. The handling of fish is inspected in both fish processing establishments and retail outlets (Table 52).

Inspectors are also actively involved in joint inspections of fishing vessels in the Baltic Sea and the Atlantic Ocean, coordinated by the European Fisheries Control Agency.

In 2024, changes were made to the structure of the Environmental Board. The county offices were merged, leaving two inspection sectors (Table 53).

## Fishing gear with undetermined ownership

Every year, environmental inspectors or vigilant citizens find fishing gear in water bodies that is not marked or labelled or does not allow the identification of the installer or owner. Inspectors remove such equipment from the water body and take it to the Environmental Board for safekeeping. In 2024, 879 pieces of such fishing gear were removed, the majority of which were gill nets, but there were also a large number of crayfish traps and eel traps.

Even in consecutive years, the amount of such gear found can vary widely, depending, among other things, on whether and how long ice cover develops on a body of water, as well as which bodies of water receive more attention from monitoring. However, the number of such pieces of gear has declined slightly in recent years (Table 54 and Figure 58).

**TABLE 52.** Number of inspections by Environmental Board inspectors in 2022–2023

Office	Year	Recreational fishing	Prohibition areas and periods	Commercial fishing	Total
Harju county office	2022	75	79	191	346
	2023	58	86	177	321
Hiiumaa county office	2022	18	19	89	126
	2023	16	18	105	139
Ida-Viru county office	2022	39	24	79	143
	2023	33	21	69	123
Jõgeva county office	2022	11	44	144	199
	2023	18	35	161	214
Järva county office	2022	34	34		68
	2023	31	28	3	62
Lääne county office	2022	34	15	122	171
	2023	39	11	120	170
Lääne-Viru county office	2022	64	12	49	124
	2023	68	7	52	126
Põlva county office	2022	17	57	91	165
	2023	20	44	103	167
Pärnu county office	2022	48	32	262	342
	2023	41	37	288	366
Rapla county office	2022	15	12		27
	2023	7	5	1	13
Saare county office	2022	45	17	143	205
	2023	43	23	179	245
Tartu county office	2022	61	56	35	151
	2023	43	58	45	146
Valga county office	2022	11	11	2	24
	2023	30	22	2	54
Viljandi county office	2022	31	30	44	105
	2023	16	35	46	96
Võru county office	2022	39	44	8	91
	2023	42	47	6	95
<b>Total offices</b>	<b>2022</b>	<b>542</b>	<b>484</b>	<b>1 261</b>	<b>2 287</b>
	<b>2023</b>	<b>503</b>	<b>477</b>	<b>1 357</b>	<b>2 337</b>

Source: Environmental Board

**TABLE 53.** Number of inspections by Environmental Board inspectors in 2024

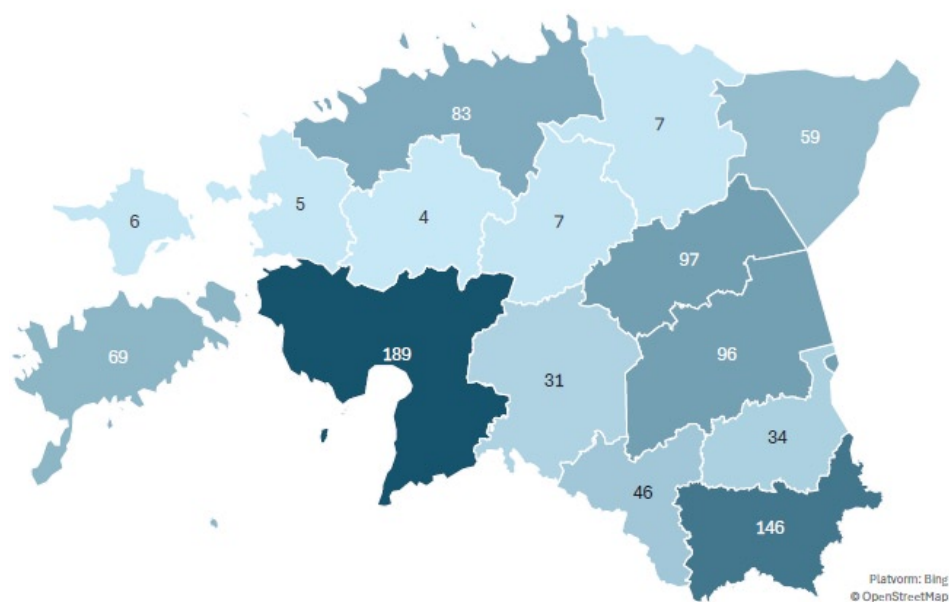
Office	Fish handling	Fishing inspection	Total
Harju and Rapla county office	8	332	1 785
Hiiumaa, Lääne and Saare county office	13	500	1 110
Ida- and Lääne-Viru county office	6	238	995
Jõgeva and Tartu county office	21	344	1 210
Järva, Pärnu and Viljandi county office	13	380	1 542
Põlva, Valga and Võru county office	4	264	1 134
<b>Total offices</b>	<b>70</b>	<b>2 081</b>	<b>7 839</b>

Source: Environmental Board

**TABLE 54.** Quantity of fishing gear with undetermined ownership and number of reports issued regarding them in 2021–2024

County	Gear				Reports			
	2021	2022	2023	2024	2021	2022	2023	2024
Harju County	88	102	116	83	40	41	33	32
Hiiu County	14	5	5	6	3	3	3	3
Ida-Viru County	366	79	35	59	40	43	22	22
Jõgeva County	106	136	54	97	45	54	32	58
Järva County	5	12	14	7	4	4	9	5
Lääne County	13	4	18	5	5	3	9	3
Lääne-Viru County	11	11	14	7	9	8	13	6
Põlva County	72	40	89	34	22	19	37	15
Pärnu County	198	159	93	189	38	32	23	31
Rapla County	3	3	1	4	3	2	1	3
Saare County	130	90	58	69	48	33	35	26
Tartu County	152	134	122	96	77	90	60	63
Valga County	24	29	56	46	14	9	29	31
Viljandi County	39	28	55	31	29	14	16	18
Võru County	203	137	165	146	98	70	77	70
<b>Total</b>	<b>1 424</b>	<b>969</b>	<b>895</b>	<b>879</b>	<b>475</b>	<b>425</b>	<b>399</b>	<b>386</b>

Source: Environmental Board

**Figure 58.** Fishing gear with undetermined ownership in 2024

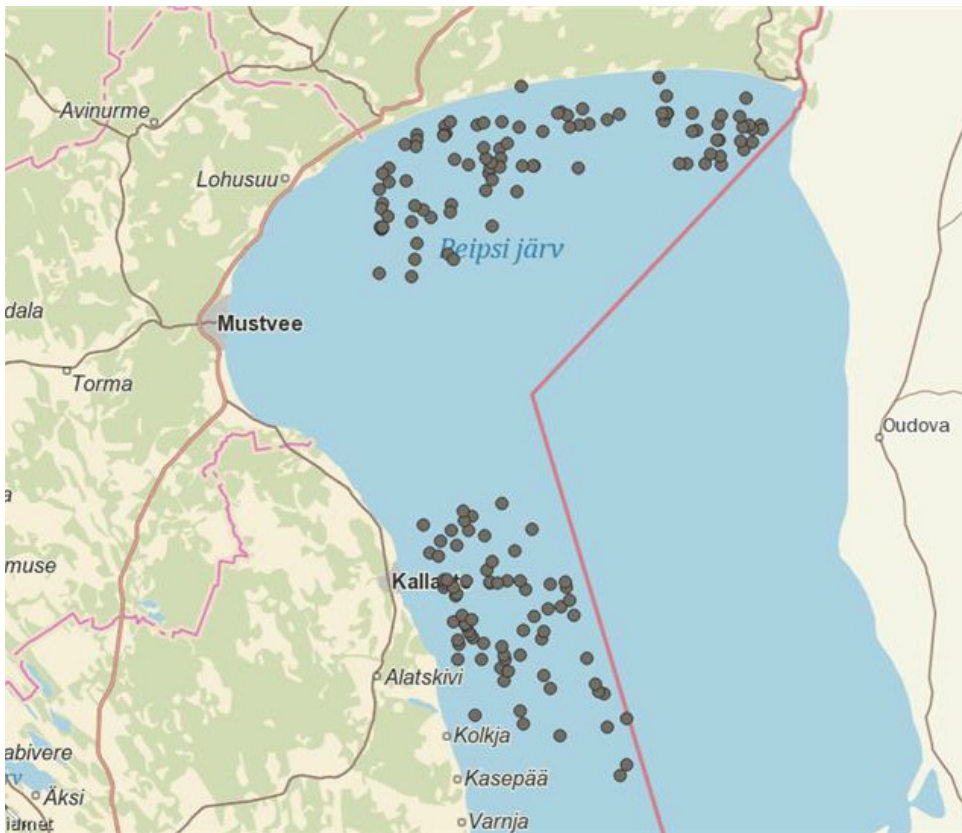
Source: Environmental Board

## Removal of abandoned fishing gear from Lake Peipus in 2025

Since 2006, the Environmental Board has organised ice fishing events on Lake Peipus to search for lost or abandoned fishing gear and remove it from the lake. The 2025 instalment took place in two parts: in late May in the northern part of the lake and in early June in the central and southern part (Figure 59). Local professional and recreational fishers also helped the Environmental Board staff. During the four days, 555 gill nets, one old trap net frame with an anchor, some gear tags and objects used to anchor fishing gear were removed from Lake Peipus.

During the gear removal, records were also kept of the fish caught in the gear. There were 1927 dead fish and 128 viable fish.

Around 1000 hours of labour were spent on the removal operations and around 3000 kilometres were covered for all vessels used.



**Figure 59.** Sites of abandoned and lost fishing gear in the northern, central and southern parts of Lake Peipus in 2025

Source: Environmental Board

## Misdemeanour procedures

In 2024, the Environmental Board opened 342 misdemeanour proceedings (Table 55) and two criminal proceedings (Table 56) for violations of legal acts governing the fishery sector. In Estonia, the number of recreational fishers exceeds the number of professional fishers several times over, and this proportion is also reflected in the number of misdemeanour proceedings initiated. In 2024, the Environmental Board inspected 7764 recreational fishers and 662 pieces of recreational fishing gear and detected more than 250 violations, for which misdemeanour proceedings were opened.

In recreational fishing, the offence is usually committed for fishing during a closed period or area, and in commercial fishing, violations most often concern failure to comply with gear and fishing reporting requirements. If the infringement found has caused damage to natural fish stock, the offender must also pay compensation (Table 57).

**TABLE 55.** Number of violations classified as misdemeanours under the Fishing Act in 2022–2024

Office	2022	2023	2024
Harju and Rapla counties	106	99	87
Hiiu, Lääne and Saare counties	46	62	38
Ida- and Lääne-Viru counties	26	15	21
Jõgeva and Tartu counties	63	111	84
Järva, Pärnu and Viljandi c.	72	75	73
Põlva, Valga and Võru counties	40	44	39
<b>Total</b>	<b>353</b>	<b>406</b>	<b>342</b>

Source: Environmental Board.

**TABLE 56.** Number of criminal cases opened for illegal fishing in 2022–2024

Office	2022	2023	2024
Harju and Rapla counties		1	
Jõgeva and Tartu counties	3	1	1
Järva, Pärnu and Viljandi c.	1	2	
Põlva, Valga and Võru counties			1
<b>Total</b>	<b>4</b>	<b>4</b>	<b>2</b>

Source: Environmental Board.

**TABLE 57.** Estimation of the damage caused by infringements to fish stocks (€) by county in 2022–2024

County	Fishing inspection					
	Damage reports compiled			Amount of damage		
	2022	2023	2024	2022	2023	2024
Harju County	11	12	8	2911,00	1222,20	1376,00
Hiiu County		1	1		7,00	147,00
Ida-Viru County	2	2	6	109,00	372,00	3148,85
Jõgeva County	8	12	1	55 755,60	6173,95	358,50
Järva County			1			105,00
Lääne County	6	5	5	431,80	228,00	474,60
Lääne-Viru County	3	1		164,00	17 150,00	
Põlva County	4	5	10	866,60	570,00	21 277,00
Pärnu County	14	12	17	34 151,30	4040,60	1128,00
Saare County	2	6		14,17	957,80	
Tartu County			4			720,00
Valga County		2	1		385,00	35,00
Viljandi County		3			216,50	
Võru County	1	3	3	3,20	480,00	109,00
<b>Total</b>	<b>51</b>	<b>64</b>	<b>57</b>	<b>94 406,67</b>	<b>31 803,05</b>	<b>28 878,95</b>

Source: Environmental Board.

## Monitoring of recreational fishing on Pärnu River in 2025

In recent years, fishing for pikeperch and perch on Pärnu River has become very popular among recreational anglers, especially in the stretch from the confluence of Reiu River to the mouth of Pärnu River. In 2025, the Environmental Board carried out 58 inspections on the river, during which 1133 recreational fishers were checked. Inspectors from almost all counties took part in the inspections. Fifty-three infringements were detected, of which nine related to undersized fish, and in four cases, the daily pikeperch catch limit was exceeded.

In addition to Pärnu River, inspections were also carried out on Sauga River and Reiu River on the lower course of Pärnu River.

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