



# Key figures from Norwegian Aquaculture industry 2023

# Rapport

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Key figures from Norwegian Aquaculture Industry 2023

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Merete Fauske

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Summary

This report presents key figures from the Norwegian Aquaculture Industry. The report contains information about all species framed in Norway.

The information is grouped in four groups. Where one group contains information about Atlantic salmon and Rainbow trout. Another group contains information about other fish species than salmon and trout, a third group contains information about molluscs, crustaceans, and echinoderms and finally the fourth group contains information about algae.



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# 1. Licenses

## 1.1. Granted licenses

Figure 1. Number of licenses 2013-2023

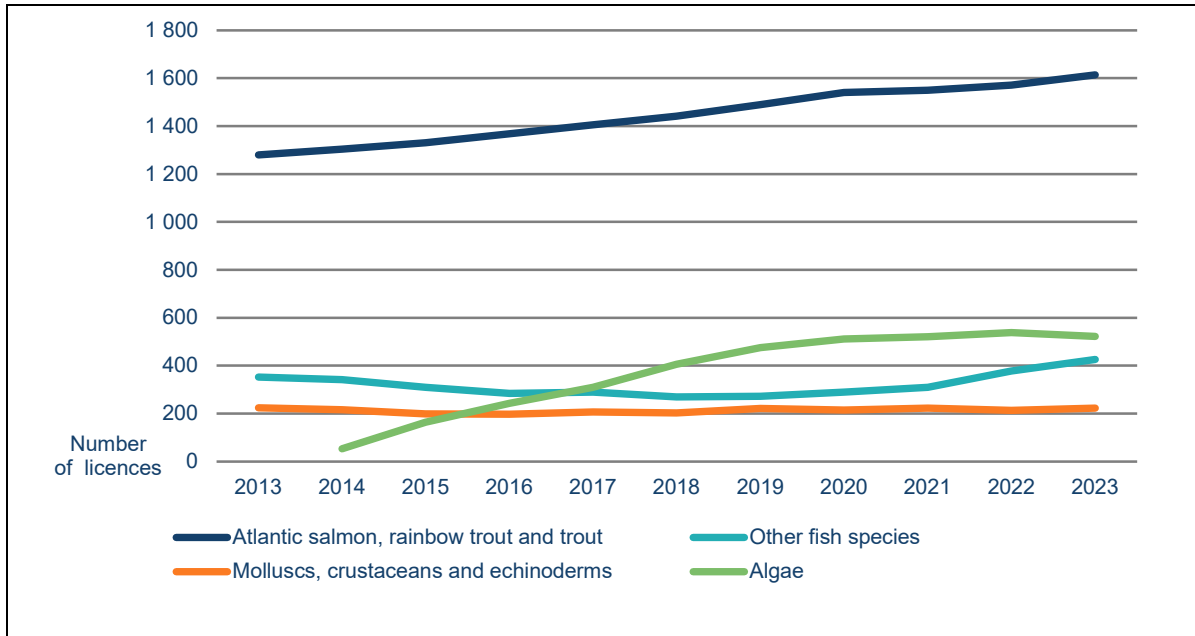


Figure 2. Licenses per 31 December 2023

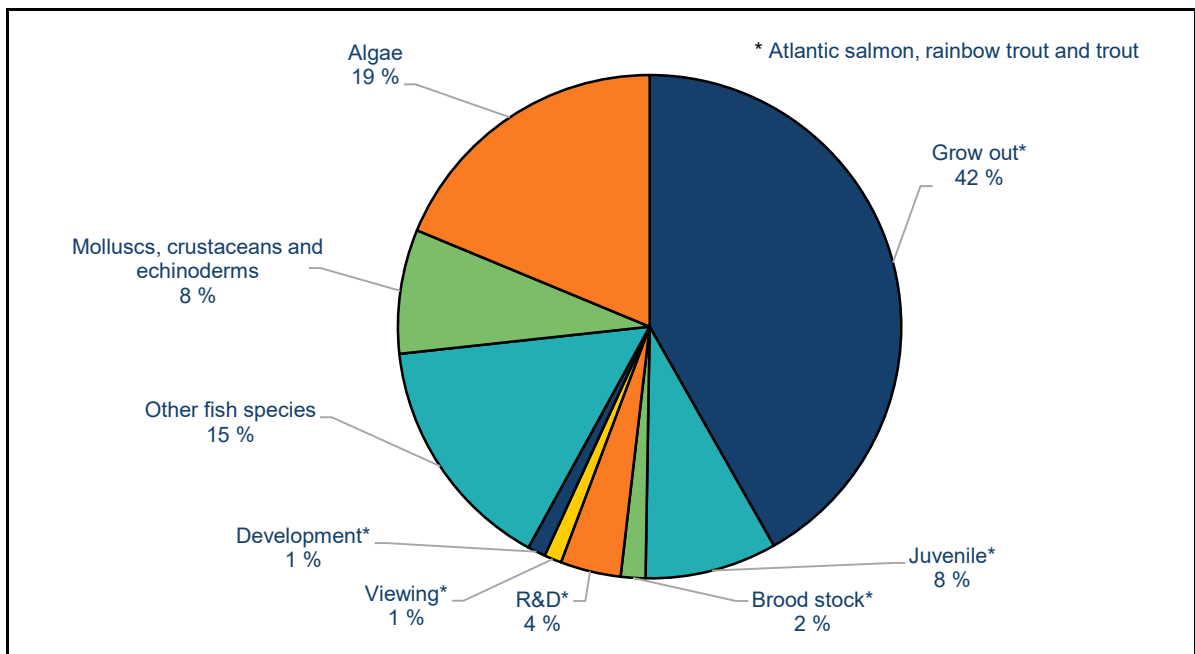


Table 1. Atlantic salmon, rainbow trout and trout. Commercial licenses per 31 December 2023.

	Juvenile	Grow out
<i>County</i>	Number of licenses	Number of licenses
Finnmark	9	111
Troms	13	114
Nordland	37	228
Trøndelag	39	206
Møre og Romsdal	31	118
Vestland	77	268
Rogaland	18	66
Agder	5	26
Other counties	7	27
<b>Total</b>	<b>236</b>	<b>1 164</b>

Table 2. Atlantic salmon, rainbow trout and trout. Licenses with special purpose per 31 December 2023. Number of licenses

<i>County</i>	Brood stock	R&D <sup>1)</sup>	Viewing	Development
Finnmark	0	5	1	0
Troms	1	13	4	8
Nordland	10	25	10	4
Trøndelag	10	20	4	4
Møre og Romsdal	5	9	3	3
Vestland	10	20	8	5
Rogaland	5	14	1	0
Agder	1	1	0	0
Other counties	2	1	0	0
Offshore	0	0	0	8
<b>Total</b>	<b>44</b>	<b>108</b>	<b>31</b>	<b>32</b>

<sup>1)</sup> Research and education

Table 3. Atlantic salmon, rainbow trout and trout. Licenses per 31 December 2023 by production area<sup>1)</sup>.

<i>Area</i>	Numbers of licenses
1. Svenskegrense til Jæren	25
2. Ryfylke	54
3. Karmøy til Sotra	114
4. Nordhordland til Stadt	137
5. Stadt til Hustadvika	72
6. Nordmøre og Sør-Trøndelag	177
7. Nord-Trøndelag med Bindal	75
8. Helgeland til Bodø	111
9. Vestfjorden og Vesterålen	119
10. Andøya til Kvaløya	65
11. Kvaløya til Senja	55
12. Vest-Finnmark	94
13. Øst-Finnmark	16
<b>Total</b>	<b>1 114</b>

<sup>1)</sup> Only licenses covered by the production area regulations

Table 4. Other species. Licenses per 31 December 2023 by county

	Fish	Molluscs, crustaceans, and echinoderms	Sea Ranching	Algae
<b>County</b>	<b>Number of licenses</b>	<b>Number of licenses</b>	<b>Number of licenses</b>	<b>Number of licenses</b>
Finnmark	13	4	0	4
Troms	27	8	0	9
Nordland	55	38	0	146
Trøndelag	59	50	1	28
Møre og Romsdal	71	11	1	15
Vestland	123	69	1	300
Rogaland	33	19	3	2
Agder	15	13	2	16
Other counties	30	10	0	2
<b>Total</b>	<b>426</b>	<b>222</b>	<b>8</b>	<b>522</b>

Table 5. Other species. Licenses per 31 December by species

Other fish species		Molluscs, crustaceans, and echinoderms		Algae	
<b>Species</b>	<b>No.</b>	<b>Species</b>	<b>No.</b>	<b>Species</b>	<b>No.</b>
Atlantic halibut	78	Blue mussel	121	Sea belt	127
Turbot	35	European lobster	27	Babberlocks	108
Wrasse	224	Great Atlantic scallop	41	Tangle	118
Lumpfish	84	Sea urchin	59	Dulse	101
Arctic char	55	Flat and cupped oyster	47	Other's species	447
Atlantic cod	195	Other species	627		
Other species	752				

The licenses for fish species, molluscs, crustaceans, and echinoderms are comprised of several species. In Table 5 licenses are counted several times. The total number of licenses in Table 5 is therefore higher than the total number of licenses presented in Table 4.



## 1.2. Licenses with production

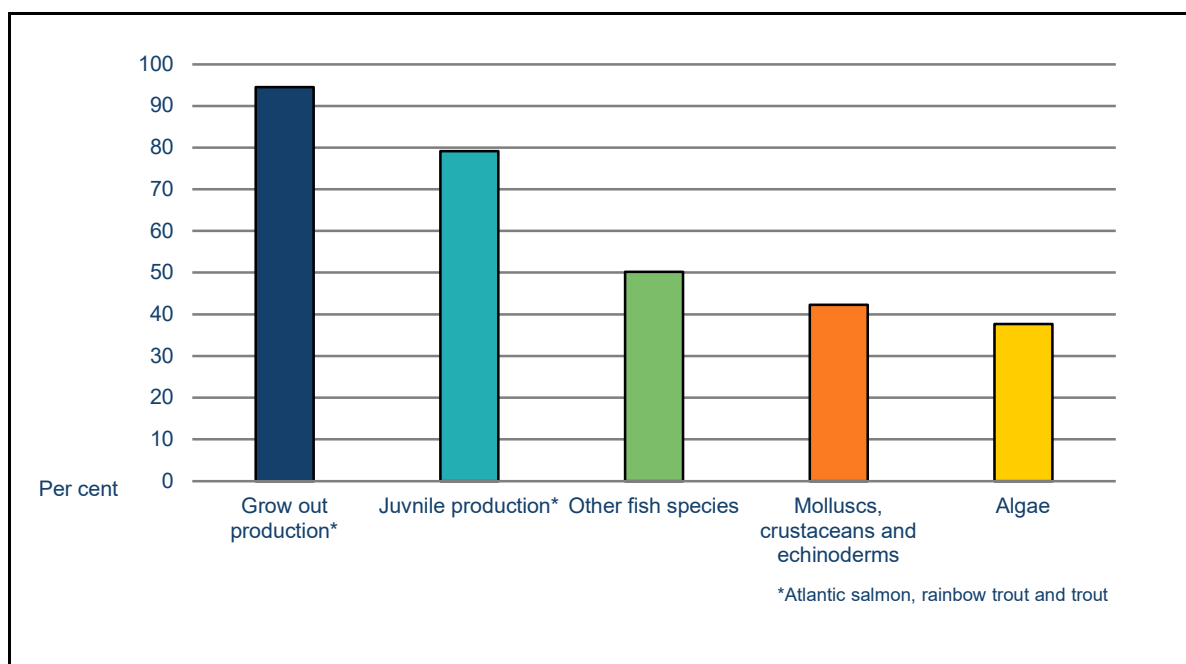
Table 6. Fish. Licenses with production in 2023, preliminary figures

County	Atlantic salmon, rainbow trout and trout		Other fish species	
	Grow out	Hatcheries	Grow out	Hatcheries
Finnmark	115	4	10	1
Troms	134	12	6	3
Nordland	253	29	18	10
Trøndelag	238	36	15	8
Møre og Romsdal	128	21	29	10
Vestland	287	67	45	23
Rogaland	80	13	10	7
Other counties	31	5	9	10
<b>Total</b>	<b>1 266</b>	<b>187</b>	<b>142</b>	<b>72</b>

Table 7. Molluscs, crustaceans, echinoderms, and algae. Licenses with production in 2023, preliminary figures

County	Molluscs, crustaceans, and echinoderms	Algae
Finnmark and Troms	3	2
Nordland	24	60
Trøndelag	35	9
Møre og Romsdal	4	4
Vestland	13	121
Rogaland	9	1
Other counties	6	0
<b>Total</b>	<b>94</b>	<b>197</b>

Figure 3. The percentage of licenses with production 2023, preliminary figures



## 2. License capacity

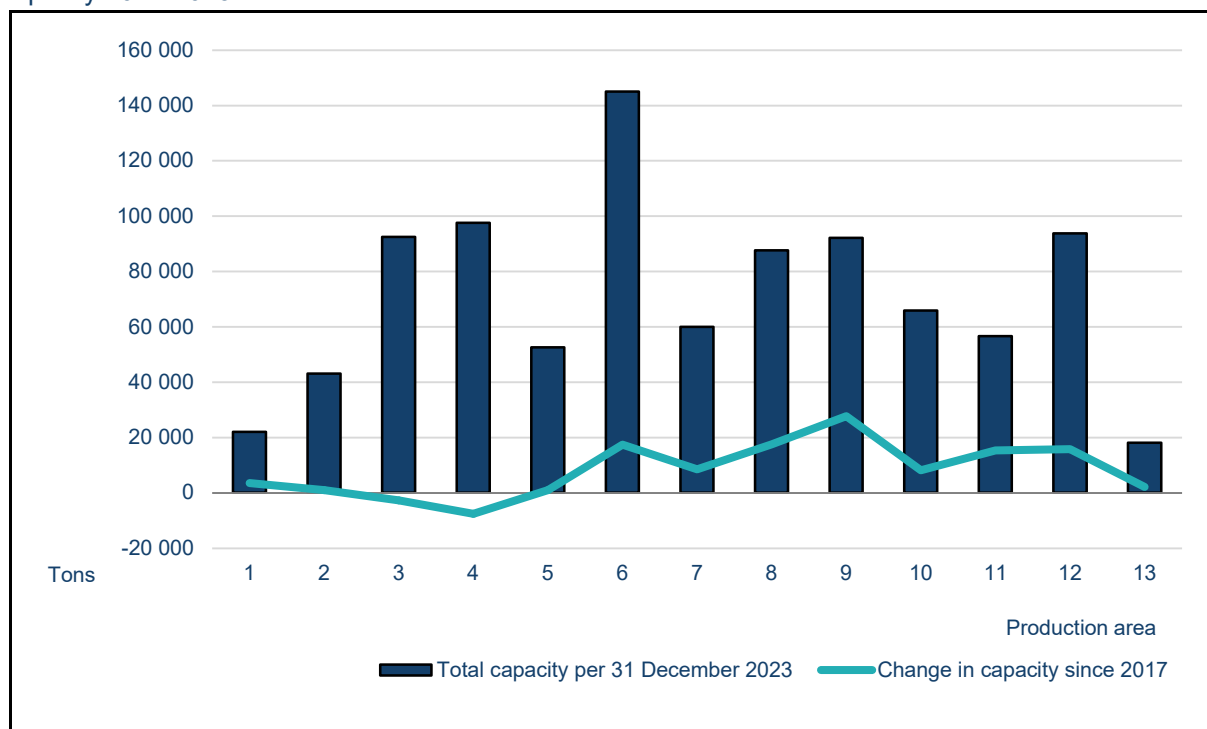
License capacity is measured as daily maximum allowed biomass of live fish. Where biomass is the quantity of live fish at any given time (measured in kg or ton)

Table 8. Atlantic salmon and rainbow trout. License capacity per production area<sup>1)</sup> per 31 December 2023

Production area	Tons
1. Svenskegrense til Jæren	22 064
2. Ryfylke	43 100
3. Karmøy til Sotra	92 513
4. Nordhordland til Stadt	97 587
5. Stadt til Hustadvika	52 626
6. Nordmøre og Sør-Trøndelag	145 093
7. Nord-Trøndelag med Bindal	60 018
8. Helgeland til Bodø	87 692
9. Vestfjorden og Vesterålen	92 129
10. Andøya til Kvaløya	65 897
11. Kvaløya til Senja	56 625
12. Vest-Finnmark	93 803
13. Øst-Finnmark	18 061
<b>Total</b>	<b>927 208</b>

<sup>1)</sup> Only capacity covered by the production area regulations. Capacity measured as daily maximum allowed biomass of live fish.

Figure 4. Total license capacity per 31 December 2023 by production area<sup>1)</sup>, and changes in the capacity 2017-2023



<sup>1)</sup> Kun kapasitet for tillatelser omfattet av produksjonsområdeforskriften

### 3. Production sites

Table 9. Number of production sites in seawater per 31 December 2023

	Atlantic salmon and rainbow trout	Other fish species	Molluscs, crustaceans, and echinoderms	Algae
<b>County</b>	<b>Number</b>	<b>Number</b>	<b>Number</b>	<b>Number</b>
Finnmark	80	2	1	1
Troms	116	8	3	7
Nordland	215	15	36	18
Trøndelag	159	13	43	13
Møre og Romsdal	81	14	3	10
Vestland	270	20	36	54
Rogaland	59	3	4	2
Agder	10	0	6	5
Other counties	0	0	2	1
<b>Total</b>	<b>990</b>	<b>75</b>	<b>134</b>	<b>111</b>

Table 10. Number of production sites on land per 31. December 2023 for production of Atlantic salmon and rainbow trout.

<b>County</b>	Licenses for grow out		Licenses for juveniles	
	Freshwater	Salt water	Freshwater	Salt water
<b>County</b>	<b>Number</b>	<b>Number</b>	<b>Number</b>	<b>Number</b>
Finnmark	0	1	8	0
Troms	1	1	8	0
Nordland	1	4	28	3
Trøndelag	1	3	30	3
Møre og Romsdal	2	6	21	3
Vestland	8	14	49	6
Rogaland	3	1	12	2
Agder	2	2	3	1
Other counties	13	1	7	0
<b>Total</b>	<b>31</b>	<b>33</b>	<b>166</b>	<b>18</b>

## 4. Companies with production

Table 11. Fish. Number of companies with production in 2023, preliminary figures

County	Atlantic salmon, rainbow trout and trout		Other fish species	
	Grow out	Juvenile	Grow out	Juvenile
Finnmark	5	4	3	1
Troms	21	10	2	2
Nordland	41	14	8	8
Trøndelag	17	16	3	7
Møre og Romsdal	13	12	6	7
Vestland	44	39	11	10
Rogaland	16	10	2	7
Other counties	15	5	8	6
<b>Total</b>	<b>172</b>	<b>110</b>	<b>43</b>	<b>48</b>

Table 12. Molluscs, crustaceans, echinoderms, and algae. Number of companies with production of in 2023, preliminary figures

County	Molluscs, crustaceans, and echinoderms	Algae
Finnmark and Troms	2	2
Nordland	2	6
Trøndelag	6	3
Møre og Romsdal	3	4
Vestland	10	8
Rogaland	5	1
Other counties	4	0
<b>Total</b>	<b>32</b>	<b>24</b>

## 5. Employment

Figure 5. Number of employees working with production of fish, molluscs, crustaceans, and echinoderms 2013-2023, preliminary figures

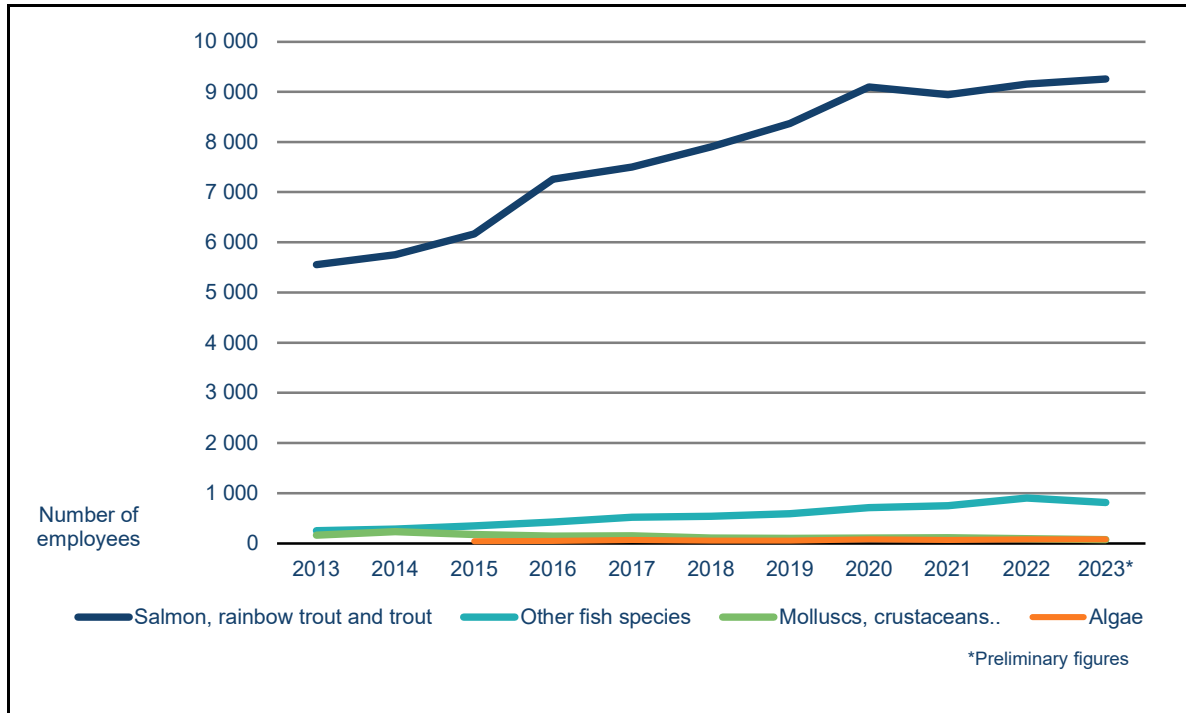
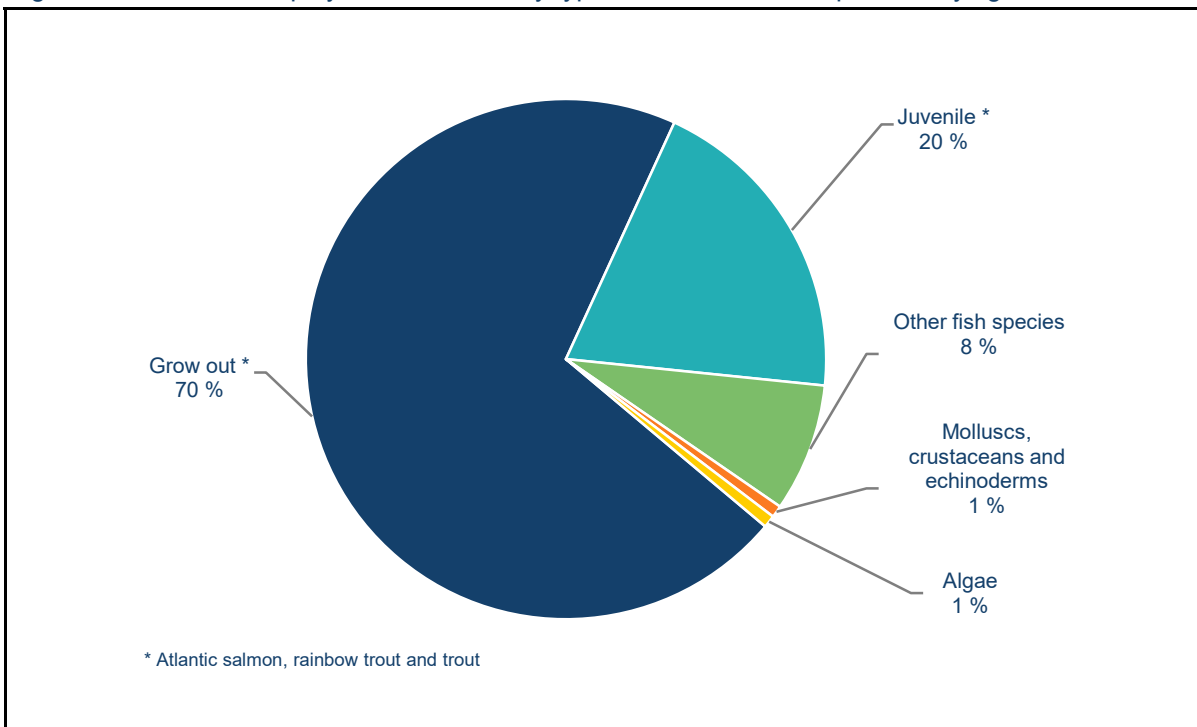


Figure 6. Number of employees distributed by type of license in 2023, preliminary figures



## 5.1. Atlantic salmon, rainbow trout and trout

Table 13. Atlantic salmon, rainbow trout and trout. Employment in 2023, preliminary figures

County	Grow out fish, brood stock, and R&D			Juvenile fish		
	Men	Women	Total	Men	Women	Total
Finnmark and Troms	1 145	249	1 394	212	83	295
Nordland	1 043	278	1 321	244	109	353
Trøndelag	934	183	1 117	224	105	329
Møre og Romsdal	727	157	884	161	76	237
Vestland	1 499	449	1 948	409	227	636
Rogaland	386	87	473	127	25	152
Other counties	85	11	96	13	8	21
<b>Total</b>	<b>5 819</b>	<b>1 414</b>	<b>7 233</b>	<b>1 390</b>	<b>633</b>	<b>2 023</b>

Table 14. Atlantic salmon, rainbow trout and trout. Man-Hours<sup>1)</sup> in 2023, preliminary figures

County	Grow out fish, brood stock, and R&D			Juvenile fish		
	Men	Women	Total	Men	Women	Total
Finnmark and Troms	1 755 392	308 962	2 064 354	332 271	116 429	448 700
Nordland	1 578 371	387 752	1 966 123	387 581	155 889	543 470
Trøndelag	1 534 718	249 520	1 784 238	348 770	134 313	483 083
Møre og Romsdal	1 158 618	221 687	1 380 305	267 097	95 157	362 254
Vestland	1 991 465	437 564	2 429 029	517 993	213 049	731 042
Rogaland	559 102	94 424	653 526	180 493	28 266	208 759
Other counties	122 869	7 086	129 955	21 530	10 606	32 136
<b>Total</b>	<b>8 700 535</b>	<b>1 706 995</b>	<b>10 407 530</b>	<b>2 055 735</b>	<b>753 709</b>	<b>2 809 444</b>

<sup>1)</sup> The Directorate of Fisheries define the number of Man-hour per year as 1845 hours

## 5.2. Other fish species

Table 15. Other fish species. Employment in 2023, preliminary figures

County	Grow out production			Juvenile		
	Men	Women	Total	Men	Women	Total
Finnmark and Troms	27	4	31	8	4	12
Nordland	52	23	75	23	10	33
Trøndelag	28	9	37	53	33	86
Møre og Romsdal	47	3	50	47	28	75
Vestland	52	27	79	101	83	184
Rogaland and other counties	68	19	87	45	22	67
<b>Total</b>	<b>274</b>	<b>85</b>	<b>359</b>	<b>277</b>	<b>180</b>	<b>457</b>

Table 16. Other fish species. Man-Hours<sup>1)</sup> in 2023, preliminary figures

County	Grow out production			Juvenile		
	Men	Women	Total	Men	Women	Total
Finnmark and Troms	33 558	4 874	38 432	11 529	6 780	18 309
Nordland	63 529	20 856	84 385	27 586	12 417	40 003
Trøndelag	29 596	10 118	39 714	74 472	43 037	117 509
Møre og Romsdal	73 274	2 504	75 778	83 557	41 335	124 892
Vestland	76 650	32 261	108 911	139 807	96 681	236 488
Rogaland and other counties	78 260	16 004	94 264	59 856	31 273	91 129
<b>Total</b>	<b>354 867</b>	<b>86 617</b>	<b>441 484</b>	<b>396 807</b>	<b>231 523</b>	<b>628 330</b>

<sup>1)</sup> The Directorate of Fisheries defines the number of Man-hour per year as 1845 hours

### 5.3. Molluscs, crustaceans, and echinoderms

Table 17. Molluscs, crustaceans, and echinoderms. Employment in 2023, preliminary figures

County	Employees			Man-Hours <sup>1)</sup>		
	Men	Women	Total	Men	Women	Total
Finnmark and Troms	:	:	:	:	:	:
Nordland	:	:	:	:	:	:
Trøndelag	11	3	14	7 260	2 100	9 360
Møre og Romsdal	4	1	5	1 140	30	1 170
Vestland	18	4	22	7 234	1 707	8 941
Rogaland	15	4	19	8 845	2 400	11 245
Other counties	6	0	6	2 318	0	2 318
<b>Total</b>	<b>63</b>	<b>13</b>	<b>76</b>	<b>37 347</b>	<b>6 437</b>	<b>43 784</b>

<sup>1)</sup> The Directorate of Fisheries defines the number of Man-hour per year as 1845 hours

### 5.4. Algae

Table 18. Algae. Employment in 2023, preliminary figures

County	Employees			Man-Hours <sup>1)</sup>		
	Men	Women	Total	Men	Women	Total
<b>Total</b>	<b>62</b>	<b>16</b>	<b>78</b>	<b>47 003</b>	<b>11 355</b>	<b>58 358</b>

<sup>1)</sup> The Directorate of Fisheries defines the number of Man-hour per year as 1845 hours

## 6. Sale

### 6.1. Sale of Atlantic salmon and rainbow trout

Figure 7. Sale of Atlantic salmon and rainbow trout (grow out production) 2013-2023

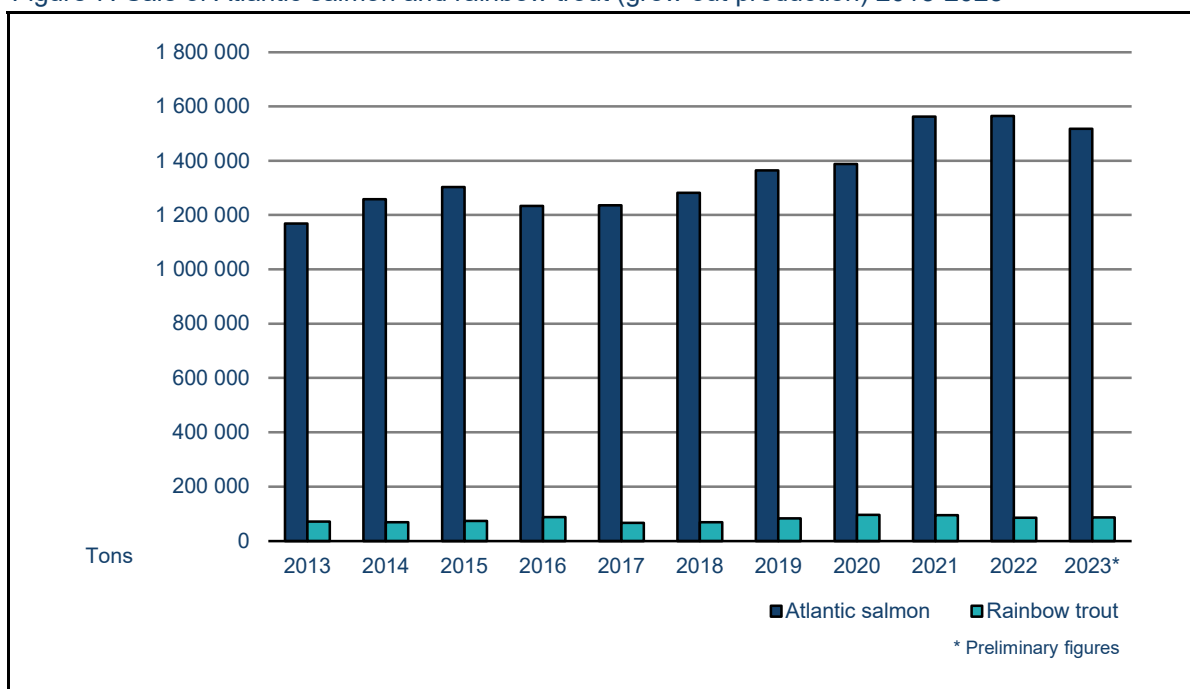


Table 19. Atlantic salmon and rainbow trout. Sale of slaughtered fish in 2023, preliminary figures. Quantity in metric tons round weight, value in 1000 NOK and prices in NOK per kg

County	Grow out production					
	Atlantic salmon			Rainbow trout		
	Quantity	Value	Price per kg	Quantity	Value	Price per kg
Finnmark	115 990	8 179 123	70.52	0	0	0
Troms	225 617	16 114 344	71.42	0	0	0
Nordland	352 520	25 106 384	71.22	0	0	0
Trøndelag	228 692	16 767 696	73.32	69	2 936	42.34
Møre og Romsdal	206 064	14 027 770	68.07	13 389	942 006	70.36
Vestland	263 847	18 655 831	70.71	71 778	4 428 909	61.70
Rogaland	106 401	6 542 513	61.49	952	54 613	57.35
Other counties	18 384	1 148 637	62.48	149	9 025	60.44
<b>Total</b>	<b>1 517 516</b>	<b>106 542 299</b>	<b>70.21</b>	<b>86 338</b>	<b>5 437 489</b>	<b>62.98</b>

Table 20. Atlantic salmon and rainbow trout. Sale for the 10 largest companies in Norway. Weight in tons

Year	Total sale	10 largest	Percentage
2019	1 447 332	955 460	66.0
2020	1 484 565	976 858	65.8
2021	1 657 075	1 107 959	66.9
2022	1 636 900	1 136 437	69.4
2023 <sup>1)</sup>	1 604 473	1 106 308	69.0

1) Preliminary figures



Figure 8. Sale of juvenile fish of Atlantic salmon and rainbow trout 2013-2023

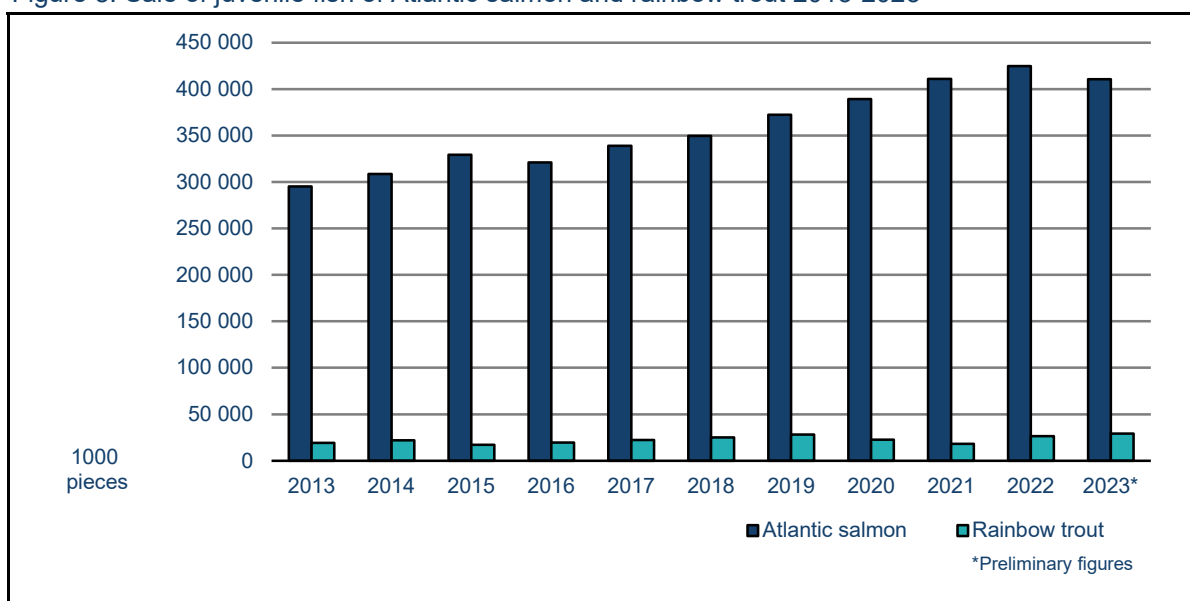


Table 21. Atlantic salmon and rainbow trout. Sale of juvenile fish in 2023, preliminary figures. Numbers in 1000 pieces, value in 1000 NOK and prices in NOK per fish

County	Juvenile fish					
	Atlantic salmon			Rainbow trout		
	Number	Value	Price per fish	Number	Value	Price per fish
Finnmark and Troms	80 082	1 703 048	21.27	0	0	0
Nordland	101 940	2 043 197	20.04	0	0	0
Trøndelag	83 189	1 760 210	21.16	1 289	26 757	20.76
Møre og Romsdal	39 713	833 981	21.00	4 764	119 891	25.17
Vestland	76 231	2 273 798	29.83	22 702	585 554	25.79
Rogaland	24 489	912 967	37.28	235	5 900	25.11
Other counties	5 126	88 310	17.23	186	3 401	18.28
<b>Total</b>	<b>410 770</b>	<b>9 615 511</b>	<b>23.41</b>	<b>29 176</b>	<b>741 503</b>	<b>25.41</b>

Table 22. Atlantic salmon and rainbow trout. Sale of juvenile fish by size group in 2023, preliminary figures. Numbers in 1000 pieces

County	Juvenile fish					
	Atlantic salmon			Rainbow trout		
	< 250 grams	> 250 grams	Total	< 250 grams	> 250 grams	Total
Finnmark and Troms	71 947	8 135	80 082	0	0	0
Nordland	92 916	9 024	101 940	0	0	0
Trøndelag	70 914	12 275	83 189	1 289	0	1 289
Møre og Romsdal	30 451	9 262	39 713	3 355	1 409	4 764
Vestland	55 815	20 416	76 231	19 295	3 407	22 702
Rogaland	9 716	14 773	24 489	235	0	235
Other counties	5 126	0	5 126	123	63	186
<b>Total</b>	<b>336 885</b>	<b>73 885</b>	<b>410 770</b>	<b>24 297</b>	<b>4 879</b>	<b>29 176</b>

**Size groups:**

< 250 grams = weight under 250 grams

> 250 grams = weight over 250 grams

## 6.2. Sale of other fish species

Figure 9. Sale of other fish species 2013-2023

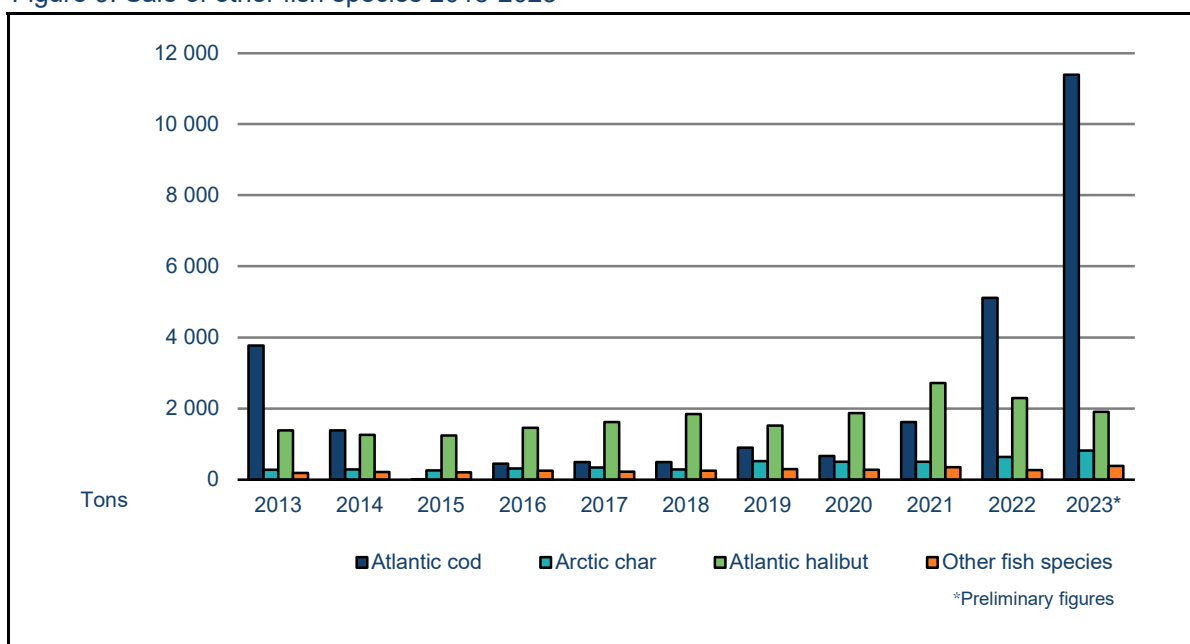


Table 23. Other fish species. Sale of slaughtered fish in 2023, preliminary figures. Quantity in metric tons round weight and value in 1000 NOK

County	Quantity	Value	Species	Quantity	Quantity
Finnmark and Troms	287	14 737	Atlantic cod	11 389	449 573
Nordland	2 883	97 077	Arctic char	814	58 695
Trøndelag	3 301	119 219	Atlantic halibut	1 903	259 360
Møre og Romsdal	2 869	218 751	Other species	386	41 512
Vestland	3 631	182 049	<b>Total</b>	<b>14 492</b>	<b>809 139</b>
Rogaland and other counties	1 521	177 307			
<b>Total</b>	<b>14 492</b>	<b>809 139</b>			

Table 24. Other fish species. Sale of juveniles in 2023, preliminary figures. Quantity in 1000 pieces and value in 1000 NOK

Species	Quantity	Value
Atlantic cod	13 002	225 242
Arctic char	1 181	8 317
Atlantic halibut	1 450	40 452
Other species	174	0
<b>Total</b>	<b>15 807</b>	<b>274 012</b>

### 6.3. Sale of Molluscs, Crustaceans, and Echinoderms

Figure 10. Sale of molluscs, crustaceans, and echinoderms for human consumption 2013-2023

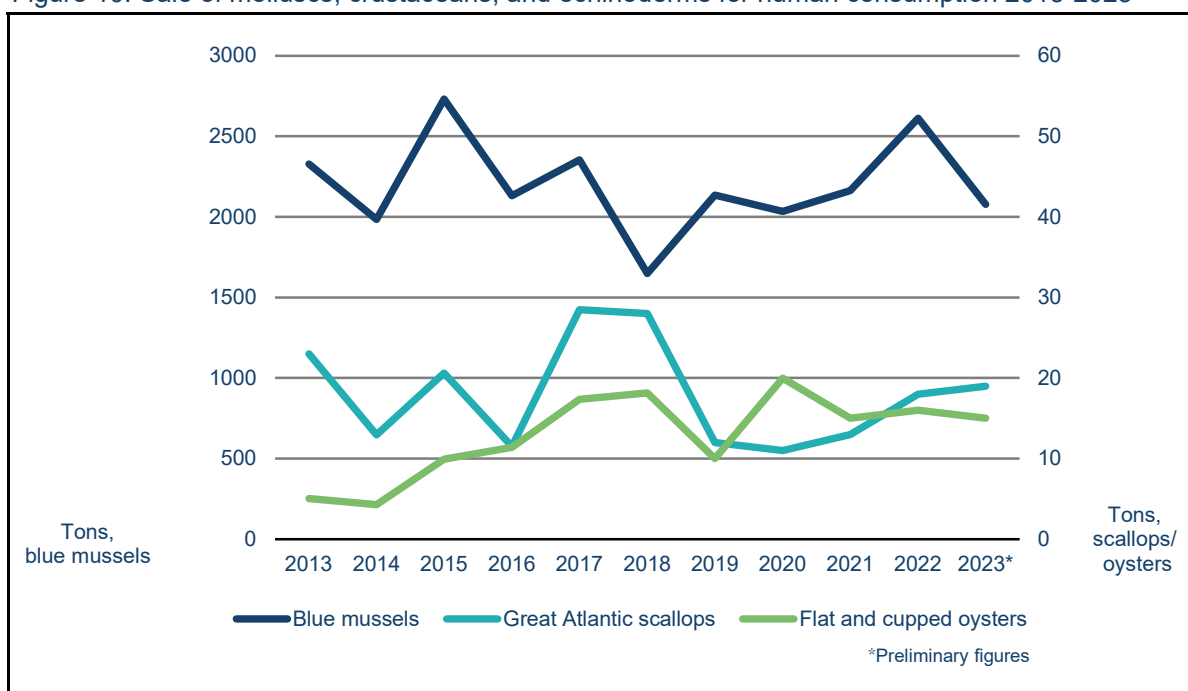


Table 25. Molluscs, crustaceans, and echinoderms. Sale for human consumption in 2023, preliminary figures. Quantity in metric tons and value in 1000 NOK

County	Quantity	Value	Species	Quantity	Value
Finnmark and Troms	:	:	Blue mussels	2 077	35 282
Nordland	:	:	Great Atlantic scallops	19	1 210
Trøndelag	1 266	22 812	Oysters	15	1 086
Møre og Romsdal	0	0	Other species	0	78
Hordaland	34	2 281	<b>Total</b>	<b>2 112</b>	<b>37 656</b>
Rogaland	0	10			
Other counties	33	385			
<b>Total</b>	<b>2 112</b>	<b>37 656</b>			

## 6.4. Sale of Algae

Figure 11. Sale of farmed algae for food or human consumption 2015-2023

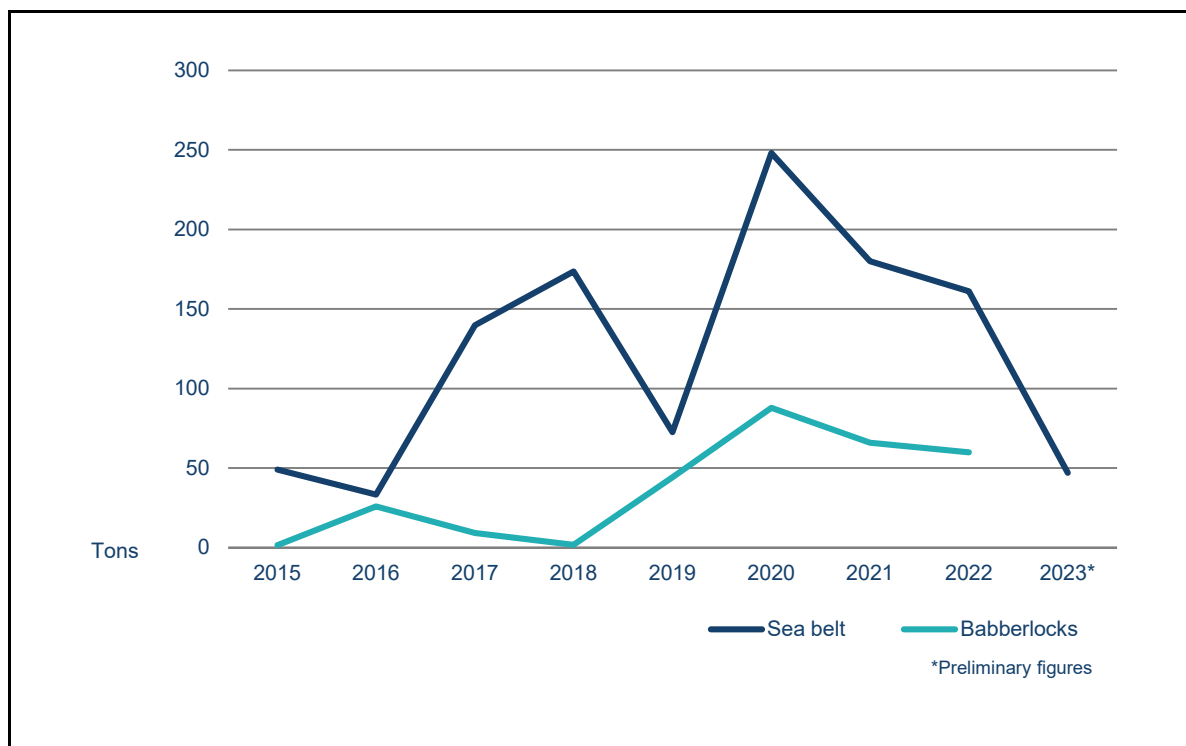


Table 26. Algae. Sale for food or human consumption in 2023, preliminary figures. Quantity in metric tons and value in 1000 NOK

Species	Quantity	Value
Sea belt	47	1 014
Babberlocks	90	3 548
Other species	0	0
<b>Total</b>	<b>137</b>	<b>4 561</b>

## 7. Losses in the production

### Definitions:

- Dead fish: Number fish physically taken out of the bag-net. Cause of this type of death could be illness, wounds etc. without clearly specifying the cause.
- Turn out from slaughterhouse: Number of fish discarded at slaughterhouse due to maturity, defects, blemishes etc.
- Escapes: Number of fish that have escaped in conjunction with an accident.
- Other losses: Number of fish lost due to predation, theft, counting mistakes and other causes.

Table 27. Atlantic salmon. Losses in the production in 2023, preliminary figures. Quantity in 1000 pieces

County	Dead	Rejected	Escapes	Others	Total
Finnmark	4 886	329	0	649	5 865
Troms	7 368	186	0	1 886	9 441
Nordland	11 186	600	0	487	12 273
Trøndelag	9 438	292	0	231	9 961
Møre og Romsdal	7 126	473	0	207	7 806
Vestland	15 035	1 027	1	1 428	17 491
Rogaland	4 512	378	0	180	5 070
Other species	236	31	0	78	345
<b>Total</b>	<b>59 786</b>	<b>3 317</b>	<b>1</b>	<b>5 147</b>	<b>68 251</b>

Table 28. Rainbow trout. Losses in the production in 2023, preliminary figures. Quantity in 1000 pieces

County	Dead	Rejected	Escapes	Others	Total
Finnmark	0	0	0	0	0
Troms	0	0	0	0	0
Nordland	0	0	0	0	0
Trøndelag	7	1	0	1	9
Møre og Romsdal	304	0	0	-22	283
Vestland	2 103	124	15	257	2 500
Rogaland	18	1	0	0	19
Other species	12	0	0	1	13
<b>Total</b>	<b>2 444</b>	<b>127</b>	<b>15</b>	<b>237</b>	<b>2 823</b>

Table 29. Other fish species. Losses in the production in 2023, preliminary figures. Quantity in 1000 pieces

County	Dead	Rejected	Escapes	Others	Total
Finnmark and Troms	193	0	0	3	196
Nordland	235	32	1	122	390
Trøndelag	619	19	0	23	660
Møre og Romsdal	108	83	0	308	499
Vestland	201	34	0	57	292
Rogaland and other counties	122	19	0	7	149
<b>Total</b>	<b>1 479</b>	<b>187</b>	<b>1</b>	<b>519</b>	<b>2 186</b>

## 8. Cleaner fish

### 8.1. Use of cleaner fish

Figure 12. Number of cleaner fish in the cages with Atlantic salmon and rainbow trout 2013-2023

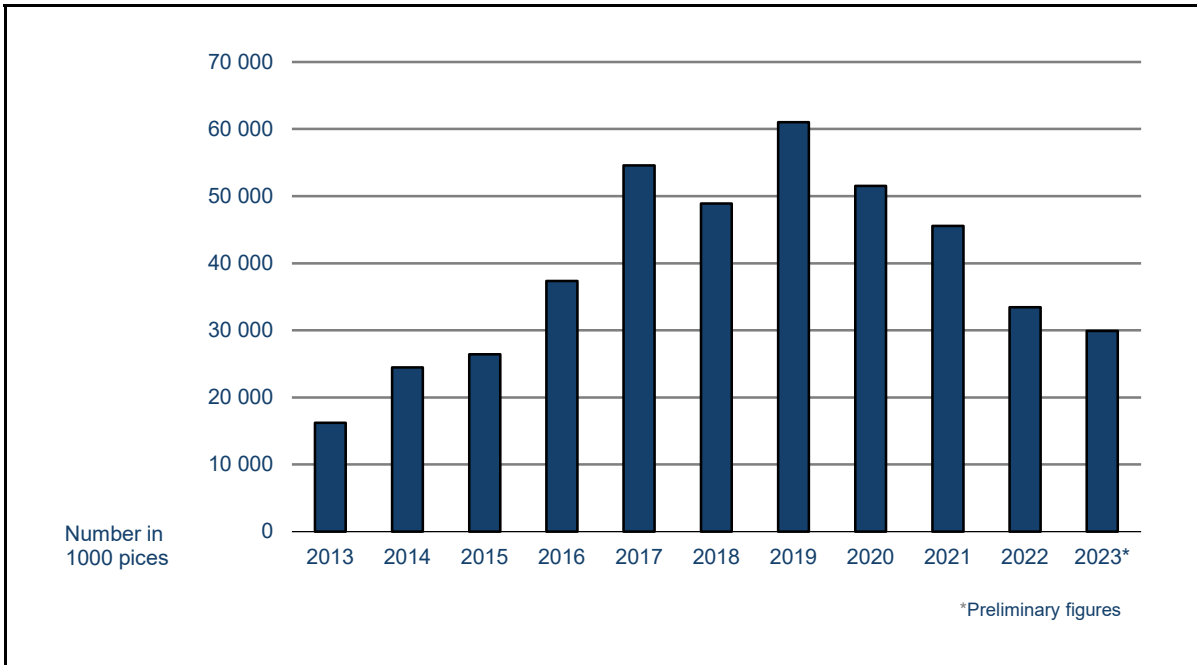


Figure 13. Percentage of farmed and wild catch cleaner fish in cages with Atlantic salmon and rainbow trout 2013-2023

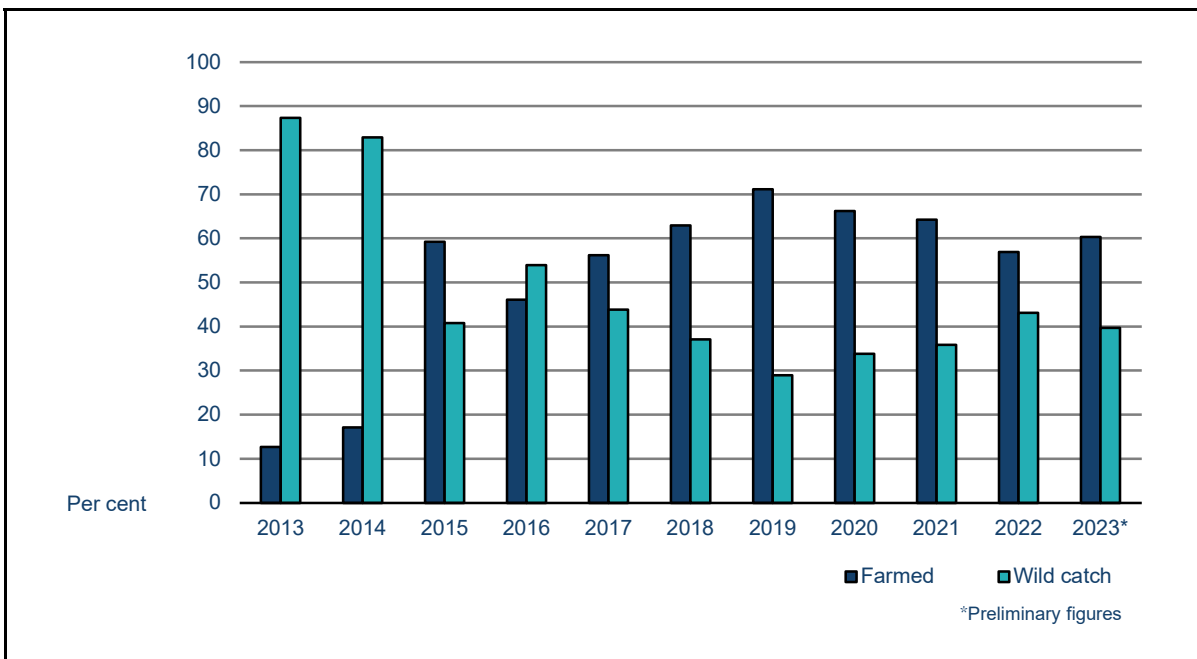


Table 30. Cleaner fish. Number of fish (farmed and wild catch) in cages with Atlantic salmon and rainbow trout in 2023, preliminary figures. Numbers in 1000 pieces and value in 1000 NOK

<b>County</b>	<b>Number</b>	<b>Value</b>
Finnmark and Troms	838	15 209
Nordland	470	9 956
Trøndelag	5 950	183 012
Møre og Romsdal	2 471	93 872
Vestland	12 218	327 025
Rogaland	7 192	154 528
Other counties	756	22 255
<b>Total</b>	<b>29 894</b>	<b>805 859</b>

Table 31. Cleaner fish. Number of cleaner fish (farmed and wild catch) in cages with Atlantic salmon and rainbow trout by species in 2023, preliminary figures. Number in 1000 pieces and value in 1000 NOK

<b>Species</b>	<b>Number</b>	<b>Value</b>
Lumpfish	15 020	330 262
Ballan wrasse	3 682	268 395
Gold-sinny wrasse	4 282	89 549
Corkwing wrasse	6 800	115 894
Rock cook	110	1 759
Non specified	0	0
<b>Total</b>	<b>29 894</b>	<b>805 859</b>

## 8.2. Farmed cleaner fish

Table 32. Cleaner fish. Sale of farmed cleaner fish to producers of Atlantic salmon and rainbow trout in 2023, preliminary figures. Numbers in 1000 pieces and value in 1000 NOK

<b>County</b>	<b>Number</b>	<b>Value</b>
Ballan wrasse	3 505	227 253
Lumpfish	13 968	291 362
Other species	0	0
<b>Total</b>	<b>17 473</b>	<b>518 615</b>

## 9. Export

### 9.1. Export of farmed Atlantic salmon

Figure 14. Main markets for Atlantic salmon in 2023, based on sales quantity

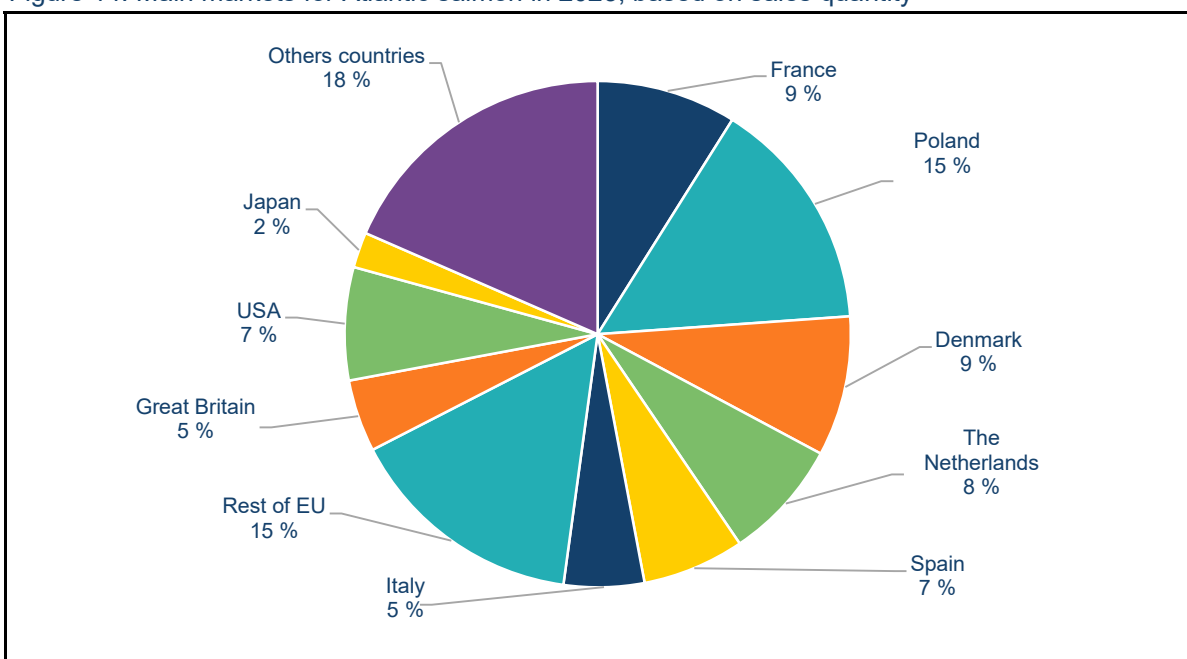


Table 33. Atlantic salmon. Export specified by country. Weight in metric tons (round weight) and value in 1000 NOK. Source: Norwegian Seafood Council

Country	2022			2023			Changes (%)	
	Weight	Value	NOK/kg	Weight	Value	NOK/kg	Weight	Value
Poland	213 868	13 547 022	63,34	216 296	16 413 229	75,88	1 %	21 %
France	140 887	9 865 779	70,03	128 988	10 897 716	84,49	-8 %	10 %
Denmark	126 255	8 536 136	67,61	129 458	10 045 766	77,60	3 %	18 %
The Netherlands	114 013	7 864 575	68,98	111 124	9 072 380	81,64	-3 %	15 %
Spain	97 095	6 667 928	68,67	94 186	7 931 776	84,21	-3 %	19 %
Rest of EU	306 894	21 774 013	70,95	295 087	24 292 975	82,32	-4 %	12 %
<b>EU</b>	<b>999 013</b>	<b>68 255 453</b>	<b>68,32</b>	<b>975 139</b>	<b>78 653 841</b>	<b>80,66</b>	<b>-2 %</b>	<b>15 %</b>
Great Britain	73 635	4 965 125	67,43	66 542	5 596 491	84,11	-10 %	13 %
USA	99 033	8 892 073	89,79	104 317	10 737 322	102,93	5 %	21 %
Japan	41 024	2 673 042	65,16	32 663	2 947 361	90,24	-20 %	10 %
South Korea	36 648	3 215 259	87,73	33 964	3 539 320	104,21	-7 %	10 %
Other countries	226 341	17 619 520	77,84	233 187	20 832 073	89,34	3 %	18 %
<b>Total</b>	<b>1 475 694</b>	<b>105 620 472</b>	<b>71,57</b>	<b>1 445 812</b>	<b>122 306 408</b>	<b>84,59</b>	<b>-2 %</b>	<b>16 %</b>

Table 34. Atlantic salmon. Export specified by product. Weight in metric tons (round weight) and value in 1000 NOK. Source: Norwegian Seafood Council

Product	2022			2023			Changes (%)	
	Weight	Value	NOK/kg	Weight	Value	NOK/kg	Weight	Value
Fresh fish	1 106 100	78 292 642	70,78	1 093 503	91 071 915	83,28	-1 %	16 %
Fresh filet	207 666	15 353 169	73,93	192 301	17 875 764	92,96	-7 %	16 %
Frozen fish	24 311	1 789 754	73,62	24 135	1 995 364	82,68	-1 %	11 %
Frozen filet	107 733	8 745 218	81,17	104 629	9 807 337	93,73	-3 %	12 %
Other products	29 884	1 439 689	48,18	31 244	1 556 028	49,80	5 %	8 %
<b>Total</b>	<b>1 475 694</b>	<b>105 620 472</b>	<b>71,57</b>	<b>1 445 812</b>	<b>122 306 408</b>	<b>84,59</b>	<b>-2 %</b>	<b>16 %</b>



## 9.2. Export of rainbow trout

Figure 15. Main markets for rainbow trout in 2023, based on sales quantity.

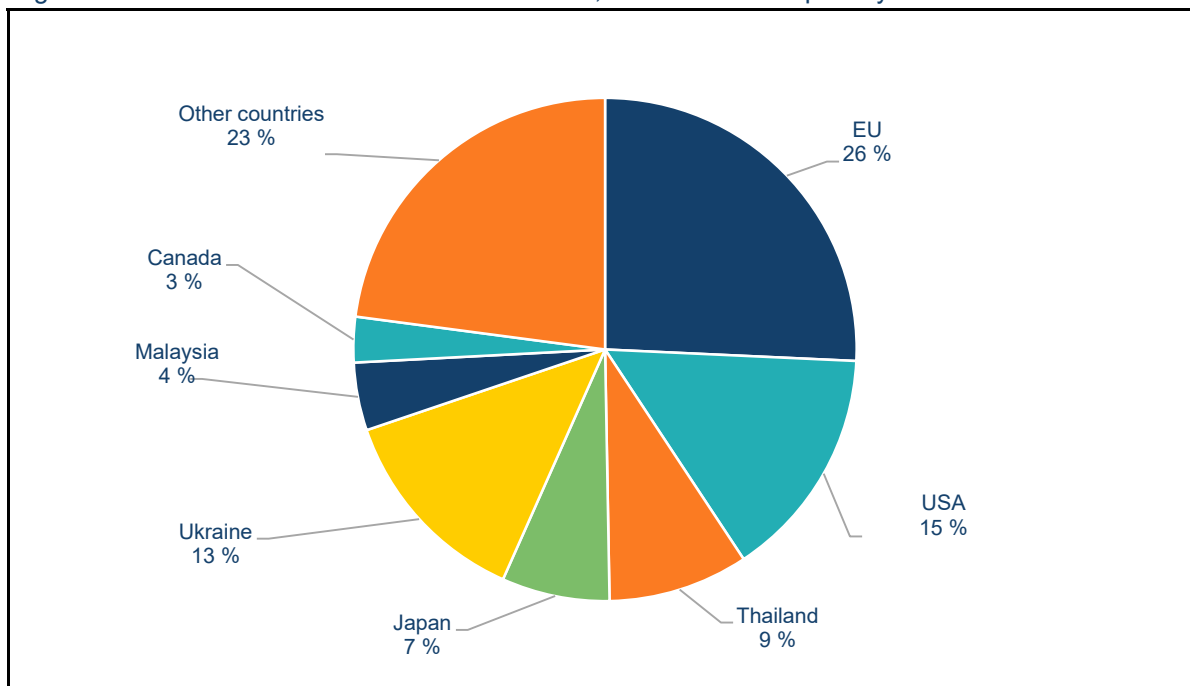


Table 35. Rainbow trout. Export specified by country. Weight in metric tons (round weight) and value in 1000 NOK. Source: Norwegian Seafood Council

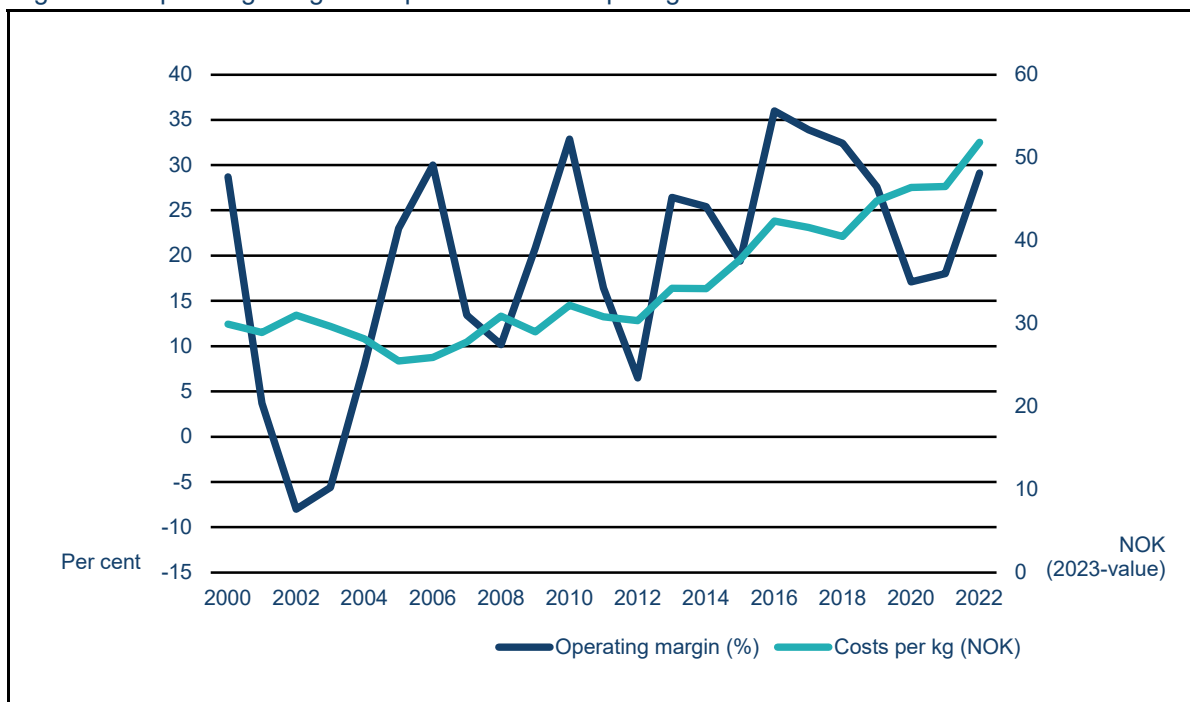
Country	2022			2023			Changes (%)	
	Weight	Value	NOK/kg	Weight	Value	NOK/kg	Weight	Value
EU	17 170	1 161 104	67,62	18 124	1 270 205	70,08	6 %	9 %
USA	12 108	905 061	74,75	10 532	955 678	90,74	-13 %	6 %
Thailand	9 313	706 818	75,90	6 344	529 460	83,45	-32 %	-25 %
Japan	5 366	352 082	65,61	4 877	384 577	78,85	-9 %	9 %
Ukraine	5 329	307 798	57,76	9 260	590 918	63,81	74 %	92 %
Malaysia	3 143	238 522	75,88	3 080	246 806	80,14	-2 %	3 %
Canada	2 373	194 922	82,13	2 045	248 767	121,65	-14 %	28 %
Other countries	13 570	1 138 091	83,87	16 138	1 258 860	83,87	19 %	11 %
<b>Total</b>	<b>68 373</b>	<b>5 004 398</b>	<b>73,19</b>	<b>70 401</b>	<b>5 485 272</b>	<b>77,91</b>	<b>3 %</b>	<b>10 %</b>

Table 36. Rainbow trout. Export specified by product. Weight in metric tons (round weight) and value in 1000 NOK. Source: Norwegian Seafood Council

Product	2022			2023			Changes (%)	
	Weight	Value	NOK/kg	Weight	Value	NOK/kg	Weight	Value
Fresh fish	39 873	3 018 174	75,69	45 720	3 493 334	76,41	15 %	16 %
Fresh filet	11 689	813 366	69,58	9 109	802 121	88,06	-22 %	-1 %
Frozen fish	9 692	560 901	57,87	7 816	486 832	62,29	-19 %	-13 %
Frozen filet	4 994	314 649	63,00	4 457	295 043	66,20	-11 %	-6 %
Other products	2 125	297 307	139,93	3 299	407 941	123,64	55 %	37 %
<b>Total</b>	<b>68 373</b>	<b>5 004 398</b>	<b>73,19</b>	<b>70 401</b>	<b>5 485 272</b>	<b>77,91</b>	<b>3 %</b>	<b>10 %</b>

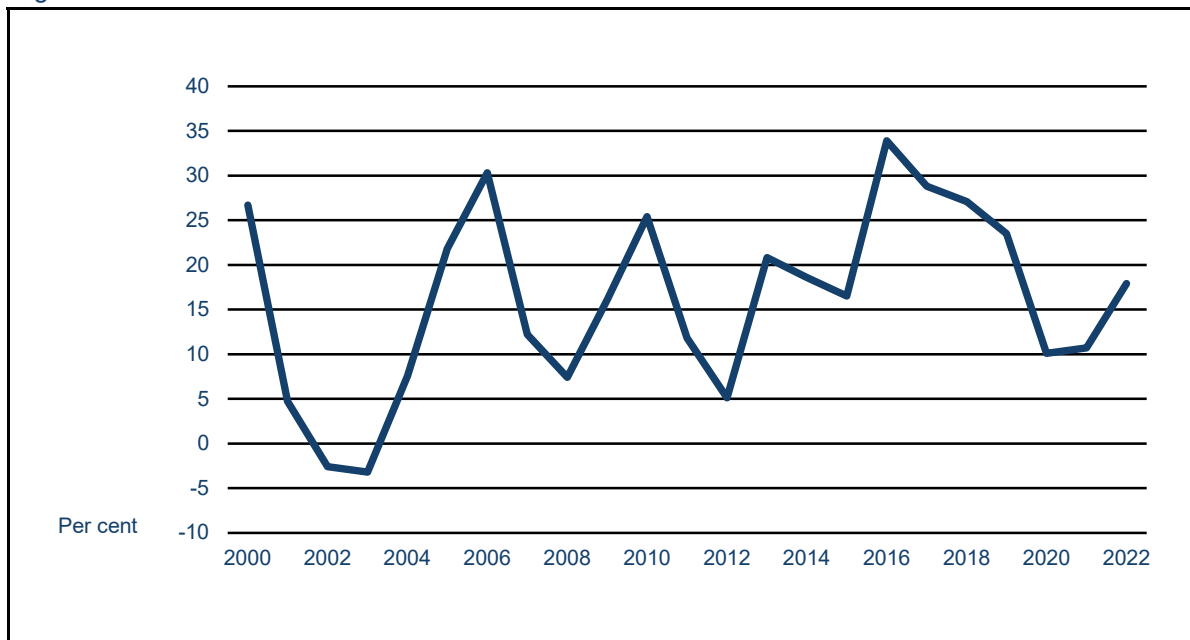
## 10. Economy

Figure 16. Operating margin and production costs per kg 2000-2022<sup>1)</sup>



<sup>1)</sup> Average figures for companies with grow out production of Atlantic salmon and rainbow trout

Figure 17. Return on Total Assets 2000-2022



## 10.1. Key figures

### Definitions:

- Return on Total Assets = ((Operating Profit + Financial Revenues) / Total Assets) \* 100
- Operating Margin = (Operating Profit / Operating Revenues) \* 100
- Quick Ratio = (Total tangible fixed assets / Current liabilities) \* 100
- Equity Ratio = (Total equity / Total assets) \* 100

Table 37. Atlantic salmon and rainbow trout. Key figures in average per company in 2022. Figures in per cent

Key figures	Grow out production	Hatcheries
Return on Total Assets	17.9	5.3
Operating Margin	29.1	11.4
Quick Ratio	177.1	188.5
Equity Ratio	54.5	35.0

Table 38. Atlantic salmon and rainbow trout. Costs per kg produced fish (WFE) in average per company in 2022. Numbers in NOK.

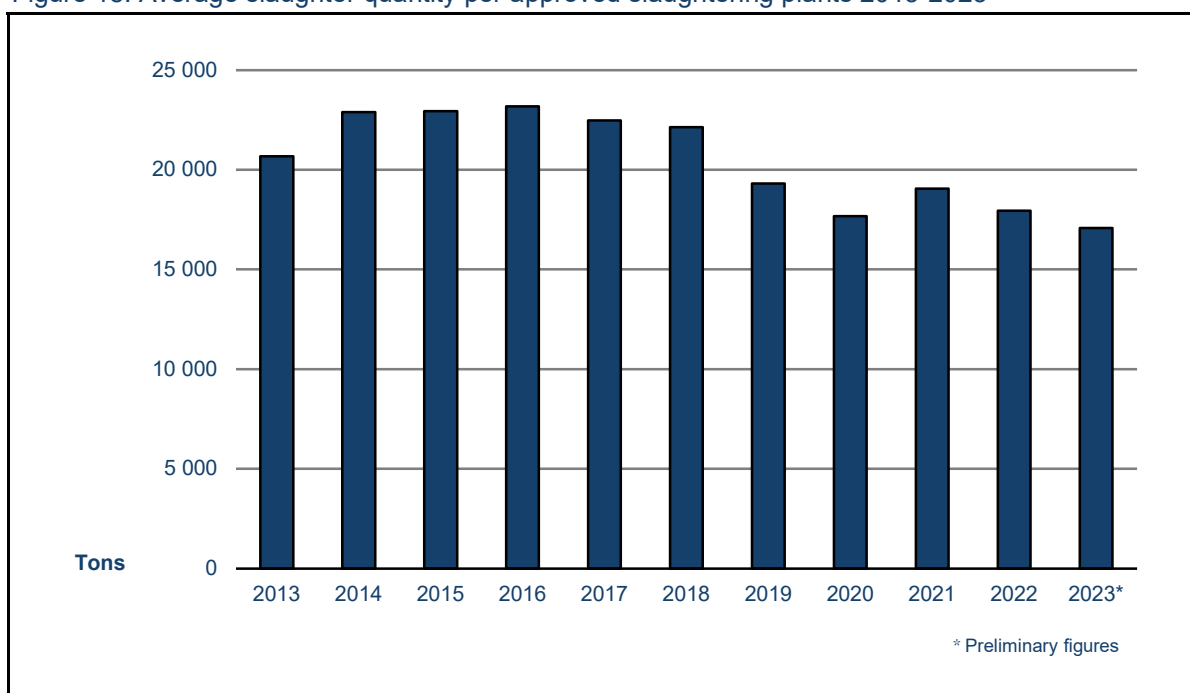
Costs	Grow out production
Smolt costs per kg	5.09
Feeding costs per kg	21.63
Insurance costs (fish) per kg	0.21
Wages and salaries per kg	3.54
Depreciation per kg	3.06
Other operating expenses per kg	11.56
Net Financial Expenses per kg	-0.64
Slaughter costs and freight charges per kg	4.67
<b>Costs per kg produced fish</b>	<b>49.12</b>

Table 39. Atlantic salmon and rainbow trout. Costs per number sold fry and smolt in average per company in 2022. Numbers in NOK.

Costs	Hatcheries
Roe and fry costs	2.29
Feeding costs	2.99
Insurance	0.17
Vaccination costs	2.29
Wages and salaries	2.45
Depreciation	1.84
Electricity costs	1.28
Other operating expenses	3.09
Net financial expenses	0.56
<b>Costs per sold fry and smolt</b>	<b>16.97</b>

## 11. Approved slaughtering plants for salmonids

Figure 18. Average slaughter quantity per approved slaughtering plants 2013-2023



### Definition:

Average slaughtered quantity per approved slaughtering plant is defined as total slaughtered quantity divided by the number of slaughtering plants for salmonids. The number of slaughtering plants in operation is unknown.

Table 40. Number of approved slaughtering plants for farmed salmonids. Source: The Norwegian Food Safety Authority

County	2019	2020	2021	2022	2023
Troms og Finnmark	-	14	13	13	-
Finnmark	4	-	-	-	4
Troms	8	-	-	-	9
Nordland	13	13	14	15	14
Trøndelag	11	10	9	9	10
Møre og Romsdal	6	8	11	11	12
Vestland	28	29	32	36	36
Rogaland	3	4	4	3	4
Other counties	2	6	4	5	5
<b>Total</b>	<b>75</b>	<b>84</b>	<b>87</b>	<b>92</b>	<b>94</b>

## 12. Related activities

### 12.1. Insurance

Table 41. Insurance of farmed fish in Norway. Amount in mill NOK. Source: Finance Norway

	2019	2020	2021	2022	2023
Premium	226,0	238,1	254,0	285,3	305,5
Compensation	271,7	143,7	189,0	141,6	207,5
<b>Accident index</b>	<b>120 %</b>	<b>60 %</b>	<b>74 %</b>	<b>50 %</b>	<b>68 %</b>

### 12.2. Use of veterinary drug in aquaculture

Table 42. Use of veterinary drugs<sup>1)</sup> in the Norwegian fish farming industry. Quantity in kg. Source: Norwegian Institute of Public Health

	2019	2020	2021	2022	2023
Antibacterial agents	213	229	605	396	523
Agents against lice	1 757	3 014	4 359	7 995	8 135
Hydrogen peroxide	4 523 000	5 084 000	4 060 000	3 004 000	1 571 000
Agents against intestinal worms	50	123	40	62	131
Agents against surface infections	43 049	52 923	47 772	49 833	54 205
Anaesthetic agents	16 536	18 665	18 263	13 698	14 931

<sup>1)</sup> The different drugs are used and dosed differently, and the total number in kg can therefore not be summed up

### 12.3. Use of feed

Table 43. Use of feed in the Norwegian fish farming industry. Quantity in metric tons. Source: The Norwegian Seafood Federation

Month	2019	2020	2021	2022	2023
January	119 328	121 137	134 373	119 379	126 060
February	94 181	99 580	103 544	101 639	113 697
March	96 932	115 336	120 938	124 651	132 673
April	116 947	113 603	125 735	116 821	124 269
May	137 246	119 340	148 043	151 453	168 869
June	155 564	157 964	191 123	184 079	185 758
July	200 457	201 533	233 677	220 672	234 663
August	227 255	234 384	263 619	273 904	278 614
September	224 865	236 961	261 558	257 347	263 542
October	205 478	230 930	250 724	250 241	249 059
November	168 718	193 564	201 839	213 616	196 652
December	147 794	164 770	157 880	166 010	136 923
<b>Total</b>	<b>1 894 766</b>	<b>1 989 103</b>	<b>2 193 053</b>	<b>2 179 812</b>	<b>2 210 779</b>

## 12.4. Well boats

Tabell 44. Number of well boats<sup>1)</sup>. Source: The Association of Coastal Ship Owners

<b>County</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Troms og Finnmark	-	1	2	5	-
Finnmark	0	-	-	-	0
Troms	1	-	-	-	7
Nordland	10	2	3	3	3
Trøndelag	7	15	16	16	18
Møre og Romsdal	40	55	64	65	69
Vestland	15	14	19	19	8
Rogaland	9	0	1	1	0
Other counties	4	8	0	0	0
<b>Total</b>	<b>86</b>	<b>95</b>	<b>105</b>	<b>109</b>	<b>105</b>

<sup>1)</sup> Based on members in the Association of Coastal Ship-owners

# Sources

The Norwegian Seafood Council	Export of Atlantic salmon and rainbow trout
The Norwegian Food Safety Authority	Approved slaughtering plants
Finance Norway	Insurance
Norwegian Institute of Public Health	Use of veterinary drugs in aquaculture
Norwegian Seafood Federation:	Use of feed
The Association of Coastal Ship owners	Well boats
The Directorate of Fisheries:	All other figures and tables.





## FISKERIDIREKTORATET

Telefon: 55 23 80 00

E-post: [postmottak@fiskedir.no](mailto:postmottak@fiskedir.no)

Internett: [www.fiskerdir.no](http://www.fiskerdir.no)

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