

**Knowledge Base and Catalogue of Salmon Abundance of the Northwestern  
Part of the Pacific Ocean**

by

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## **Abstract**

Knowledge base of the northwestern Pacific nekton resources contains the results of statistical and cartographic treatment of 7833 trawl stations. The calculations are made on the data of 117 scientific-research cruises in the sea within the period from December 24, 1979 to July 17, 2004. The abundance and biomass information is summarized for 13 biostatistical regions, for different seasons and vertical zones of the sea, and grouped into three periods (1979-1990, 1991-1995 and 1996-2004), which differ in climate-oceanological conditions and status of biological resources. A catalogue of tables entitled "Nekton of the northwestern Pacific. Abundance, biomass and species ratio" will be published next year in Russian language. 190 tables of unabridged edition of it contain information on 556 species and groups of nekton, inhabiting in the Ocean pelagial.

This document is prepared with use of the same base and same methods, but it contains only the data on pink, chum, sockeye, coho, chinook and cherry salmons (149 tables). That is why it can be considered as a "Tabular Catalogue of Salmon Abundance of the northwestern part of the Pacific Ocean". Materials of the included tables enable to estimate density of the population and total stock of any salmon species in this area.

In order to improve informational provision of bioresource investigations in the Far-Eastern seas of Russia, a database of trawl stations, performed in this region from 1980's to the present time, was developed in the Laboratory of the Applied Biocenology, TINRO-Center (Dulepova, Volvenko, 2002; Volvenko, 2003a). Later on it is planned to prepare informational products of higher level on its basis. They can be named as knowledge bases of hydrobionts resources, as these bases will contain not raw primary data, but the results of their statistical and cartographic treatment. This work has been conducted in two directions: 1) description of peculiarities of animal spatial-temporal distribution; 2) estimation of species composition, occurrence, population density and total stock of biological resources.

In accordance with the first direction a GIS, containing electronic maps of nekton distribution, is prepared, the atlases of quantitative distribution of nekton species in the Okhotsk and Japan (East) Seas was published (Atlas, 2003, 2004), and the same books of Bering Sea and deep-water Pacific nekton (Atlas, 2005, 2006) are in press. In accordance with the second direction a knowledge base with statistical tables of different parameters of all nekton species abundance was created. The catalogues of tables entitled "Nekton of the Okhotsk Sea. Abundance, biomass and species ratio" (2003), and "Nekton of the northwestern part of the Japan (East) Sea. Abundance, biomass and species ratio" (2004) was published. The same catalogues of Bering Sea and deep-water Pacific nekton (Nekton, 2005, 2006) will be in press.

Materials and methods, used for creation of the abundance, biomass and species ratio tables, are almost identical to those, used for creation of GIS and the atlases (see, for example, Volvenko, 2003a, b, c). At the same time, these informational products describe nekton resources in different ways. An atlas shows peculiarities of spatial distribution of commercial and the most abundant species throughout the area. The tables contain detailed information on composition and abundance of the all nekton. Information like that cannot be integrated by 1x1-degree quadrangles, used for atlas preparation, firstly, because of the limited capacity of the book – it will not hold tens of thousands of tables, and, secondly, because of the lack of initial data – small samples sizes in many quadrangles would have made estimation of most species abundance statistically insignificant. That is why information in the tables for Pacific Ocean is integrated by the following 13 regions (Fig. 1):

- |  |   |
|--|---|
| 1 - Kamchatka Gulf,                                    |   |
| 2 - Kronotsky Bay,                                     | 8 - offshore waters of central and northern Kurils, |
| 3 - Avacha Gulf,                                       | 9 - inshore waters of southern Kurils,              |
| 4 - southeastern Kamchatka,                            | 10 - offshore waters of southern Kurils,            |
| 5 - Kamchatka depression,                              | 11 - Japanese,                                      |
| 6 - offshore waters of Kamchatka and Komandor Islands, | 12 - Polar Front zone ,                             |
| 7 - inshore waters of central and northern Kurils,     | 13 - zone of Subarctic Current.                     |

This zoning of the area (in shorthand form the scheme was published for the first time: Shuntov, 1988; Shuntov et al., 1988) was performed taking into account general scheme of the surface water circulation, bottom relief and location of water mass modifications, identified by temperature-salinity characteristics. Borders of these regions are marked on every map of the appropriate atlas. Their morphometric characteristics are described in detail in the special paper (Volvenko, 2003d).

Another feature of the tables is more careful, in comparison with atlas, selection of initial data. The data of 117 scientific-research and fishery-research cruises in the Pacific deep waters within the period from the end of 1979 to 2004, during which at least one valuable pelagic trawling was made, were used when creating the maps. The following trawlings were not considered as valuable: 1) emergency, 2) technical or adjustment, 3) purely fishery, 4) lasting for more than 3.5 hours or not more than 10 minutes (if in the latter case the trawl was taken out without a catch), and 5) conducted in epipelagic water layers (the depth of headrope towing is down to 200 m) with a speed not less than 3 knots. After quality control the number of sampling was equal to 8440 trawl stations. In order to make the tables, we had to exclude additionally fishery-research trawlings and aiming trawlings by echo records. The matter is that the majority of them contain reliable information only on the most abundant commercial objects, which substantially distorts the real ratio of species abundance. So, sampling amount reduced to 7833 stations (Fig. 1, Table 1).

Number and biomass of every species or intraspecific/interspecific group of animals per caught area unit – a square kilometer – (in ind./km<sup>2</sup> and kg/km<sup>2</sup>) for every trawl station were calculated by formula, described in detail and justified by Volvenko (2003b), and then summarized by the 13 above-mentioned regions. Besides, in order to reveal peculiarities of spatial-temporal distribution of hydrobi-

onts, three more classification and basic data selection principles were introduced:

- A) According to the trawled water layers they are subdivided into:
  - 1) epipelagic - the depth of headrope towing down to 200 m,
  - 2) upper epipelagic - the depth of headrope towing down to 25 m,
  - 3) mesopelagic - the depth of headrope towing down not less than 200 m.
- B) According to seasons<sup>1</sup> they are subdivided into:
  - 1) summer - sampled from June 1 to September 15,
  - 2) autumn - sampled from September 16 to November 30,
  - 3) winter - sampled from December 1 to March 31,
  - 4) spring - sampled from April 1 to May 31.
- C) According to years they are subdivided into three long-term periods:
  - 1) the eighties – 1979(end of December)-1990,
  - 2) the first half of the nineties - 1991-1995,
  - 3) from the second half of the nineties to the present - 1996-2004.

In accordance with this classification 312 tables were obtained. Those of them, calculated on the basis of data of less than 10 trawling stations, are not published. Sampling sizes for the rest 190 tables are given in their titles.

The materials of these tables enable to estimate total stock of any nekton bioresource in the northwestern part of the Pacific Ocean. Using the area method, applied in this work, values of absolute hydrobionts abundance can be calculated approximately<sup>2</sup> by multiplication of mean density (ind./km<sup>2</sup> and kg/km<sup>2</sup>) by a region area (thousand km<sup>2</sup>). The result is obtained in thousands individuals and in tons, respectively. For this it is necessary to use Table 2. It gives areas of the regions, calculated (Volvenko, 2003d) using ArcView GIS 3.2 in four equal-area cartographic projections: Albers conic, Lambert cylindrical, Lambert azimuthal and Sanson-Flamsteed sinusoidal (see, for example, Map projections..., 1994). Peculiarities of these projections poorly affect the result of these calculations, that is why Table 2 gives only average values of four calculation variants.

190 tables of unabridged edition of the tabular guide "Nekton of the northwestern Pacific. Abundance, biomass and species ratio" (2006) contain information on 556 species and groups of nekton, inhabiting in the sea pelagial. This document contains only the data on pink, chum, sockeye, coho, chinook and cherry salmons. That is why it can be considered as a "Tabular Catalogue of Salmon Abundance of the northwestern part of the Pacific Ocean".

In the conclusion I shall notice, that the numerous opponents of catchability coefficient application easily can recount the given here data on their own manners, as in third columns of the tables 3-151 the meaning of coefficient (k) is given. For this purpose there is enough multiplication on it any of density parameters - number or biomass. Others, who basically does not deny necessity of catchability coefficient introduction, but disagree with the accepted here meanings of it, also easily can recount density, multiplying it on our coefficient, and then having divided on their own.

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<sup>1</sup> In this case not calendar but biological seasons of the sea are meant (see Shuntov, 2001).

<sup>2</sup> About limitations of the area method see Volvenko (2000).

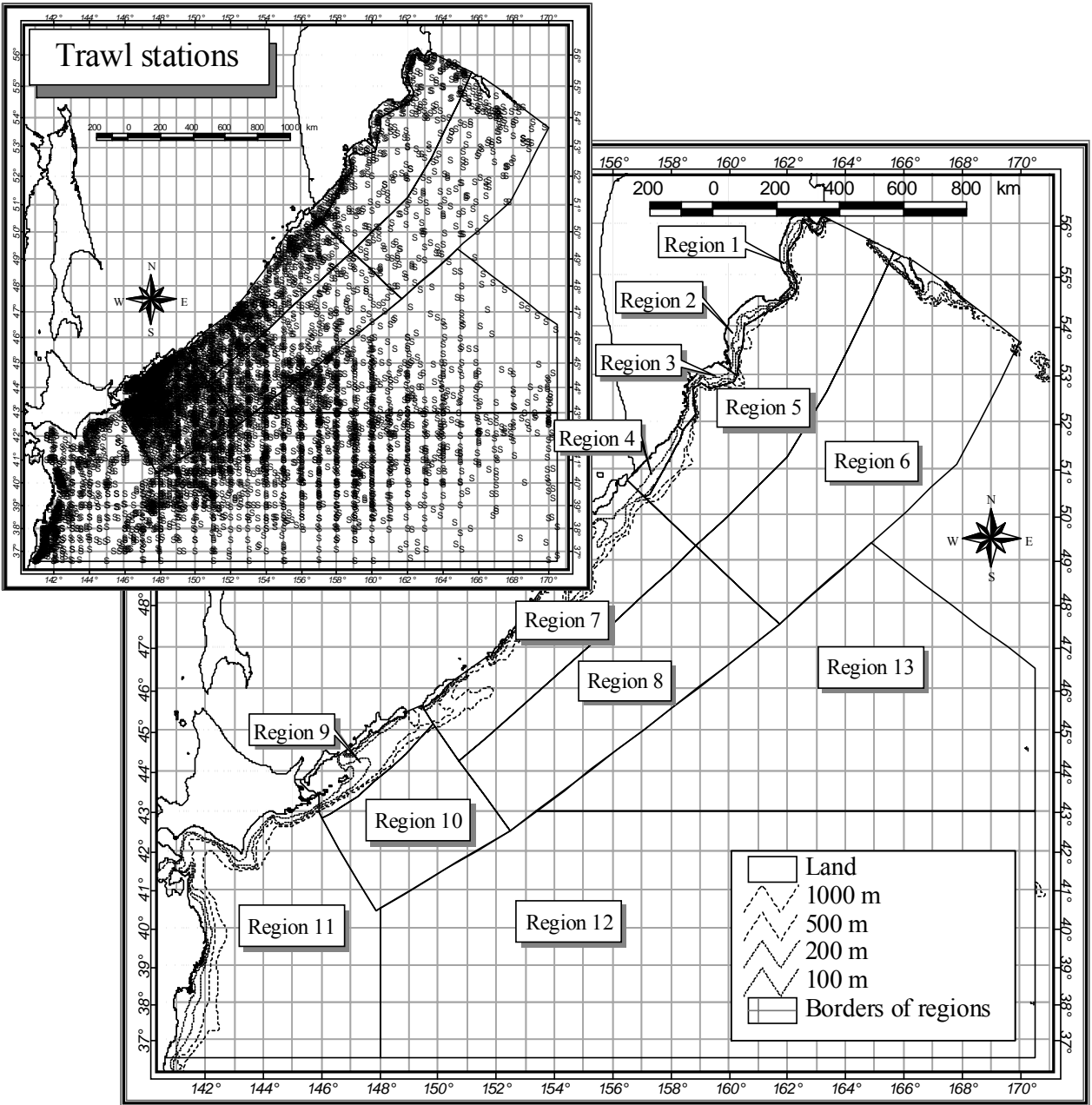


Fig. 1. Standard regions of averaging biostatistical information in the northwestern Pacific, and spatial distribution of 7833 trawl stations made in 117 research cruises during 24-dec-79 – 17-jul-04

Table 1

A list of selected cruises, with indication of a sampling size, conducted in the Pacific Ocean from 80's till 2004

Date		Trawler	Number of stations
starting	ending		
24-Dec-79	4-May-80	BMRT "Mys Junony"	55
16-Jan-80	12-Jun-80	BMRT "Mys Dalniy"	33
19-Feb-80	2-Aug-80	RTMS "Novoulyanovsk"	39
12-May-80	28-Sep-80	RTM "Kamenskoye"	114
20-Jul-80	28-Sep-80	BMRT "Mys Teahiy"	79
26-Jul-80	9-Oct-80	BMRT "Mys Dalniy"	139
29-Jul-80	12-Oct-80	RTMS "Darvin"	128
10-Aug-80	23-Aug-80	BATM "Babaevsk"	55
22-Jan-81	8-Feb-81	RTMS "Darvin"	21
17-Sep-81	29-Dec-81	RTMS "Novokotovsk"	95
15-Sep-81	29-Jan-82	RTMS "Mlechny Put"	134
26-Sep-81	1-Feb-82	BATM "Pulkovsky Meredian"	130
10-Apr-82	5-Sep-82	RTMS "Novoulyanovsk"	148
10-Apr-82	6-Sep-82	RTMS "Gissar"	131
17-Apr-82	29-Apr-82	RTMS "Mlechny Put"	20
25-Apr-82	26-Sep-82	BMRT "Tihookeansky"	122
7-Aug-82	21-Dec-82	BATM "Pioner Nikolaeva"	116
11-Dec-82	5-Apr-83	RTMS "Novoulyanovsk"	61
6-Jan-83	10-May-83	RTMS "Novodrutsk"	8
20-Feb-83	28-Feb-83	RTMA "Professor"	10
18-Apr-83	28-Aug-83	RTMS "Novokotovsk"	135
13-Jun-83	20-Nov-83	RTMS "Prostor"	251
21-Aug-83	23-Nov-83	BMRT "Tihookeansky"	114
29-Sep-83	15-Feb-84	RTMS "Mlechny Put"	102
22-Oct-83	9-Jan-84	RTMS "Darvin"	97
26-Oct-83	10-Apr-84	BATM "Babaevsk"	11
21-Feb-84	3-May-84	BMRT "Mys Teahiy"	65
27-May-84	10-Sep-84	RTMS "Novoulyanovsk"	180
24-Jun-84	28-Nov-84	RTMS "Mlechny Put"	244
6-Nov-84	17-Nov-84	RTMS "Prostor"	5
9-Nov-84	7-Apr-85	RTMS "Gissar"	91
14-Nov-84	2-Apr-85	STM "Omega"	46
19-Jan-85	24-May-85	RTMS "Novoulyanovsk"	16
23-Jun-85	14-Nov-85	RTMS "Prostor"	122
29-Nov-85	28-Dec-85	RTMS "Prof.Kozin"	20
15-Nov-85	12-Mar-86	RTM "Gerakl"	86
21-Nov-85	22-Jan-86	SRTM "Sovremennik"	39
13-Jan-86	27-Feb-86	RTMS "Prof. Nikolsky"	14
8-Feb-86	8-Jul-86	RTMS "Prostor"	204
11-Feb-86	30-Apr-86	BATM "Pulkovsky Meredian"	97
12-Feb-86	21-Jun-86	STM "Ochakov"	47
22-Apr-86	29-Sep-86	BMRT "Prof.Derugin"	166
15-Jun-86	4-Jul-86	SRTM "Shursha"	23
11-Jul-86	11-Jul-86	RTMS "Novokotovsk"	2
14-Aug-86	7-Nov-86	KKRT "More Lazareva"	127
2-Sep-86	9-Dec-86	BATM "Babaevsk"	107
12-Feb-87	1-Jul-87	RTMS "Novokotovsk"	294
9-Apr-87	8-May-87	RTMS "Novoulyanovsk"	60
28-Apr-87	1-May-87	BATM "Pulkovsky Meredian"	6
8-Jun-87	17-Sep-87	RTMS "Novodrutsk"	21

Date		Trawler	Number of stations
starting	ending		
19-Jul-87	8-Dec-87	RTMS "Novoulyanovsk"	236
1-Aug-87	4-Dec-87	RTMS "Gnevniy"	130
21-Oct-87	5-Nov-87	BMRT "Mys Teahiy"	13
21-Nov-87	21-Nov-87	RTMS "Gissar"	1
15-Dec-87	30-Dec-87	STM "Prof. Soldatov"	43
8-Nov-87	31-Jan-88	SRTM "Antiya"	103
7-Mar-88	22-Mar-88	BMRT "Poseydon"	8
25-Apr-88	10-Aug-88	RTMS "Novoulyanovsk"	59
14-Jun-88	15-Jun-88	RTMS "Mlechny Put"	2
7-Jul-88	27-Oct-88	RTMS "Novokotovsk"	225
18-Oct-88	27-Jan-89	BATM "Pulkovsky Meredian"	10
11-Jul-89	18-Nov-89	RTMS "Novoulyanovsk"	197
23-Oct-89	6-Feb-90	RTMS "Gissar"	22
2-Dec-89	5-Mar-90	SRTM "Donchak"	88
3-Feb-90	5-Feb-90	STM "Prof. Levanidov"	3
19-Feb-90	23-Jun-90	STM "TINRO"	114
28-Feb-90	9-Apr-90	RTMS "Mlechny Put"	28
27-Mar-90	30-Mar-90	STM "Prof. Kizevetter"	6
30-Apr-90	23-Jul-90	RTM "Shantar"	11
27-Jun-90	27-Sep-90	RTMS "Gissar"	193
6-Jul-90	18-Jul-90	RTMS "Novoulyanovsk"	4
27-Sep-90	30-Jan-91	RTMS "Novokotovsk"	18
21-Feb-91	22-Jun-91	STM "TINRO"	145
14-Mar-91	3-Apr-91	RTMS "Mlechny Put"	6
6-May-91	27-Jun-91	STM "Prof. Soldatov"	9
7-Jun-91	22-Jun-91	RTMS "Novoulyanovsk"	7
18-Jun-91	24-Jul-91	STM "Prof. Kaganovsky"	27
5-Jul-91	10-Aug-91	STM "Prof. Levanidov"	65
24-Oct-91	28-Dec-91	RTMS "Darvin"	122
8-Nov-91	15-Dec-91	KKRT "Kapitan Oleynichuk"	136
12-Nov-91	28-Dec-91	STM "Prof. Kizevetter"	108
8-Jan-92	10-Mar-92	STM "TINRO"	7
9-Mar-92	13-Apr-92	STM "Prof. Levanidov"	77
3-Jul-92	7-Aug-92	STM "Prof. Levanidov"	20
4-Aug-92	17-Aug-92	RTMS "Novoulyanovsk"	50
16-Jun-93	31-Jul-93	STM "Prof. Kizevetter"	37
27-Jun-93	4-Aug-93	STM "TINRO"	99
5-Jul-93	11-Aug-93	STM "Prof. Soldatov"	36
2-Nov-93	13-Dec-93	STM "Prof. Levanidov"	73
5-Nov-93	7-Jan-94	STM "TINRO"	59
28-Jul-94	1-Aug-94	STM "Prof. Levanidov"	10
16-Aug-94	9-Sep-94	STM "TINRO"	33
9-Nov-94	21-Jan-95	STM "Prof. Levanidov"	98
1-Jun-95	8-Aug-95	STM "Prof. Kizevetter"	100
14-Jun-95	29-Jul-95	STM "Prof. Levanidov"	38
14-Jul-95	31-Jul-95	STM "TINRO"	43
26-Jul-95	27-Aug-95	STM "Prof. Kaganovsky"	53
12-Nov-95	19-Nov-95	STM "Prof. Levanidov"	13
5-Aug-96	9-Sep-96	STM "Prof. Levanidov"	20
17-Aug-96	18-Aug-96	STM "Prof. Kizevetter"	3
28-Aug-97	29-Aug-97	STM "Prof. Levanidov"	5
1-Sep-98	17-Oct-98	STM "TINRO"	14

Date		Trawler	Number of stations
starting	ending		
11-Mar-99	12-Mar-99	STM "TINRO"	6
27-Aug-99	10-Oct-99	STM "Prof. Kaganovsky"	14
25-Feb-00	11-Mar-00	STM "TINRO"	19
27-Aug-00	1-Sep-00	STM "TINRO"	12
1-Oct-00	28-Nov-00	BATM "Nikolay Chepik"	4
31-Mar-01	12-Apr-01	STM "TINRO"	29
26-Aug-01	30-Aug-01	STM "TINRO"	13
3-Nov-01	22-Nov-01	STM "Prof. Levanidov"	46
8-Mar-02	13-Mar-02	STM "Prof. Kaganovsky"	18
21-Jul-02	11-Aug-02	STM "Prof. Levanidov"	69
31-Aug-02	5-Sep-02	STM "TINRO"	7
15-Jul-03	22-Sep-03	STM "TINRO"	30
22-Aug-03	27-Aug-03	STM "Prof. Kaganovsky"	17
18-Mar-04	30-Mar-04	STM "Prof. Kaganovsky"	18
9-Jun-04	17-Jul-04	STM "TINRO"	74

Table 2

Water surface area (thousand km<sup>2</sup>) in standard biostatistical regions of the ocean (see Fig. 1)

Region	Area
1	4,44
2	7,86
3	5,82
4	7,48
5	163,87
6	277,47
7	153,13
8	229,49
9	39,31
10	136,17
11	376,85
12	1326,40
13	556,06



Table 3

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 1 (number of trawl stations 34)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	2	5.88%	161.930	1209.823	40.346 ± 36.295	192.542	1392.475	46.618 ± 41.794
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	1	2.94%	48.365	48.365	1.422 ± 1.444	3.047	3.047	0.090 ± 0.091
<i>Oncorhynchus keta</i>	> 30 cm	0.30	4	11.76%	5.732	243.536	8.568 ± 7.285	20.636	386.043	14.555 ± 11.615
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	2	5.88%	9.673	9.980	0.578 ± 0.409	0.871	0.998	0.055 ± 0.039
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	2.94%	793.455	793.455	23.337 ± 23.688	549.841	549.841	16.172 ± 16.415
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	2.94%	7.856	7.856	0.231 ± 0.235	74.868	74.868	2.202 ± 2.235

Table 4

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 2 (number of trawl stations 35)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	2	5.71%	8.880	677.431	19.609 ± 19.632	10.923	829.853	24.022 ± 24.049
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	3	8.57%	6.207	21.315	1.003 ± 0.668	0.303	1.428	0.065 ± 0.044
<i>Oncorhynchus keta</i>	> 30 cm	0.30	3	8.57%	61.640	355.238	19.269 ± 12.593	137.381	556.981	24.013 ± 16.902
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	2.86%	8.261	8.261	0.236 ± 0.239	14.457	14.457	0.413 ± 0.419
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	2	5.71%	7.705	231.318	6.829 ± 6.703	8.861	333.759	9.789 ± 9.671
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	8.57%	25.151	98.188	6.112 ± 3.854	4.192	19.529	1.134 ± 0.726

Table 5

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 3 (number of trawl stations 19)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	5.26%	7.538	7.538	0.397 ± 0.408	10.177	10.177	0.536 ± 0.550
<i>Oncorhynchus keta</i>	> 30 cm	0.30	1	5.26%	37.692	37.692	1.984 ± 2.038	26.761	26.761	1.408 ± 1.447
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	5.26%	9.803	9.803	0.516 ± 0.530	0.686	0.686	0.036 ± 0.037
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	4	21.05%	20.604	68.537	8.220 ± 4.346	4.117	12.461	1.635 ± 0.854

Table 6

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 4 (number of trawl stations 50)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	7	14.00%	6.715	5182.785	110.534 ± 104.684	7.386	6352.035	136.326 ± 128.315
<i>Oncorhynchus keta</i>	> 30 cm	0.30	8	16.00%	7.263	754.302	38.138 ± 20.531	33.410	1801.079	62.452 ± 37.843
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	2.00%	11.137	11.137	0.223 ± 0.225	2.896	2.896	0.058 ± 0.059
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	6.00%	6.715	24.332	1.024 ± 0.643	22.494	66.914	2.708 ± 1.675
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	4	8.00%	20.144	70.564	2.839 ± 1.619	39.929	174.843	6.103 ± 3.785
<i>Oncorhynchus tschawytscha</i>	≤ 30 cm	0.40	5	10.00%	5.214	12.723	0.804 ± 0.378	1.008	2.339	0.156 ± 0.072
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	4	8.00%	6.722	20.144	1.030 ± 0.547	29.913	98.571	4.518 ± 2.465

Table 7

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 5 (number of trawl stations 161)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	11	6.83%	6.985	2113.390	16.253 ± 13.278	0.660	258.632	1.962 ± 1.622
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	41	25.47%	5.664	444.985	24.034 ± 5.334	8.440	551.244	30.079 ± 6.638
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	14	8.70%	3.493	635.495	6.541 ± 4.055	0.332	66.505	0.630 ± 0.421
<i>Oncorhynchus keta</i>	> 30 cm	0.30	63	39.13%	4.657	584.861	39.062 ± 7.626	5.901	1711.109	81.394 ± 16.782
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	4	2.48%	3.493	141.245	1.477 ± 0.967	0.653	41.469	0.431 ± 0.284
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	8	4.97%	6.498	86.719	1.201 ± 0.616	3.624	98.343	1.508 ± 0.725
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	3	1.86%	9.478	51.726	0.466 ± 0.338	0.663	10.072	0.078 ± 0.064
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	68	42.24%	2.940	606.520	24.827 ± 5.090	2.719	543.253	35.251 ± 6.343
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	0.62%	4.657	4.657	0.029 ± 0.029	2.142	2.142	0.013 ± 0.013
<i>Oncorhynchus tschawytscha</i>	≤ 30 cm	0.40	16	9.94%	3.493	44.345	1.031 ± 0.334	0.590	10.111	0.219 ± 0.075
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	13	8.07%	7.356	18.927	0.807 ± 0.227	7.130	47.785	1.992 ± 0.596

Table 8

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 6 (number of trawl stations 164)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	26	15.85%	6.977	5166.549	48.590 ± 32.212	0.816	617.610	6.055 ± 3.888
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	41	25.00%	7.472	349.043	17.148 ± 3.575	7.747	420.513	19.872 ± 4.088
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	24	14.63%	6.505	1085.346	17.779 ± 7.964	0.293	105.601	1.889 ± 0.811
<i>Oncorhynchus keta</i>	> 30 cm	0.30	86	52.44%	6.449	1472.504	65.232 ± 13.817	6.319	2369.932	123.098 ± 26.830
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	10	6.10%	5.309	37.108	0.977 ± 0.348	1.194	11.875	0.298 ± 0.108
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	20	12.20%	3.640	155.233	3.199 ± 1.138	3.051	144.449	3.384 ± 1.105
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	7	4.27%	7.436	202.733	2.107 ± 1.326	0.818	48.752	0.503 ± 0.329
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	107	65.24%	7.009	422.775	52.946 ± 6.311	3.208	566.961	60.430 ± 7.117
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	1	0.61%	5.957	5.957	0.036 ± 0.036	1.787	1.787	0.011 ± 0.011
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	29	17.68%	4.325	46.570	2.797 ± 0.634	0.864	10.401	0.570 ± 0.133
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	19	11.59%	6.883	45.807	1.778 ± 0.477	3.098	158.042	4.523 ± 1.373

Table 9

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 7 (number of trawl stations 598)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	53	8.86%	5.619	14553.948	74.751 ± 29.012	0.562	2628.995	12.192 ± 4.955
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	200	33.44%	6.964	4359.765	71.440 ± 10.603	4.543	4703.811	94.948 ± 12.965
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	55	9.20%	5.478	112691.756	327.677 ± 195.643	0.425	14876.280	43.526 ± 25.758
<i>Oncorhynchus keta</i>	> 30 cm	0.30	243	40.64%	2.835	1436.544	25.744 ± 3.661	6.358	3254.544	66.419 ± 8.748
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	17	2.84%	5.230	172.048	0.855 ± 0.336	0.956	39.399	0.233 ± 0.085
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	69	11.54%	6.354	350.060	3.092 ± 0.790	3.469	197.816	5.034 ± 0.856
<i>Oncorhynchus masou</i>	≤ 30 cm	0.40	1	0.17%	4.676	4.676	0.008 ± 0.008	1.426	1.426	0.002 ± 0.002
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	0.17%	7.758	7.758	0.013 ± 0.013	8.534	8.534	0.014 ± 0.014
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	14	2.34%	5.727	257.252	1.522 ± 0.648	0.740	72.903	0.325 ± 0.150
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	75	12.54%	5.144	3656.627	11.052 ± 6.203	3.097	3465.997	13.598 ± 6.017
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	0.17%	15.068	15.068	0.025 ± 0.025	10.774	10.774	0.018 ± 0.018
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	23	3.85%	5.230	1892.527	6.969 ± 3.636	1.163	403.854	1.616 ± 0.835
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	46	7.69%	6.096	149.052	1.137 ± 0.290	5.979	201.534	2.799 ± 0.566

Table 10

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 8 (number of trawl stations 550)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	55	10.00%	5.604	25738.697	120.932 ± 52.265	1.009	4109.292	22.333 ± 8.793
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	168	30.55%	6.019	2985.243	91.285 ± 12.487	2.302	2403.949	101.543 ± 12.730
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	42	7.64%	6.458	163641.713	385.920 ± 299.346	1.579	32281.366	72.393 ± 58.919
<i>Oncorhynchus keta</i>	> 30 cm	0.30	153	27.82%	3.777	435.593	12.558 ± 1.695	1.998	1306.779	29.818 ± 4.369
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	3	0.55%	6.508	73.299	0.180 ± 0.138	1.985	23.333	0.057 ± 0.044
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	34	6.18%	6.444	209.267	1.304 ± 0.427	3.423	124.092	2.276 ± 0.503
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	8	1.45%	5.957	748.378	2.193 ± 1.423	0.828	91.497	0.340 ± 0.189
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	29	5.27%	5.229	132.778	1.130 ± 0.321	4.473	77.939	1.457 ± 0.316
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	12	2.18%	1.961	78.092	0.534 ± 0.192	0.549	15.358	0.121 ± 0.041
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	33	6.00%	5.065	27.326	0.593 ± 0.108	2.995	97.928	2.377 ± 0.466

Table 11

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 9 (number of trawl stations 1168)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	35	3.00%	2.186	8875.162	24.537 ± 11.584	0.101	1440.826	4.070 ± 1.852
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	108	9.25%	2.767	3674.181	31.872 ± 6.325	4.360	4739.694	43.065 ± 8.542
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	23	1.97%	5.532	2056.817	4.782 ± 2.405	0.206	268.968	0.572 ± 0.299
<i>Oncorhynchus keta</i>	> 30 cm	0.30	174	14.90%	5.051	1670.564	10.715 ± 1.967	8.132	5011.692	34.957 ± 6.444
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.09%	6.719	6.719	0.006 ± 0.006	0.430	0.430	0.000 ± 0.000
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	12	1.03%	6.786	17.916	0.102 ± 0.031	3.444	59.840	0.248 ± 0.086
<i>Oncorhynchus masou</i>	> 30 cm	0.30	4	0.34%	8.669	14.752	0.043 ± 0.022	8.669	17.484	0.044 ± 0.023
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	21	1.80%	2.216	814.777	1.694 ± 0.843	7.230	1805.527	5.181 ± 2.425
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	2	0.17%	17.720	137.694	0.133 ± 0.119	0.115	0.496	0.001 ± 0.000
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	39	3.34%	2.695	73.675	0.516 ± 0.116	5.534	256.941	2.285 ± 0.489

Table 12

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 10 (number of trawl stations 1289)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	54	4.19%	8.068	4211.972	28.297 ± 6.442	1.251	989.779	6.671 ± 1.561
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	97	7.53%	5.770	3869.871	21.804 ± 5.196	4.634	4374.969	22.832 ± 5.171
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	38	2.95%	5.614	1851.533	7.065 ± 2.214	0.627	275.228	0.993 ± 0.322
<i>Oncorhynchus keta</i>	> 30 cm	0.30	246	19.08%	2.361	490.775	10.162 ± 1.058	4.632	1637.660	35.608 ± 3.775
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	11	0.85%	2.310	15.365	0.063 ± 0.021	1.617	43.330	0.170 ± 0.060
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.08%	6.531	6.531	0.005 ± 0.005	1.809	1.809	0.001 ± 0.001
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	19	1.47%	3.623	263.221	0.759 ± 0.313	6.618	1316.103	3.711 ± 1.583
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	36	2.79%	2.310	48.751	0.428 ± 0.088	5.912	263.221	2.089 ± 0.475

Table 13

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 11 (number of trawl stations 875)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	0.11%	16.660	16.660	0.019 ± 0.019	24.990	24.990	0.029 ± 0.029
<i>Oncorhynchus keta</i>	> 30 cm	0.30	55	6.29%	2.312	402.114	2.633 ± 0.627	4.623	1116.984	8.582 ± 1.954
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	2	0.23%	7.469	7.620	0.017 ± 0.012	10.457	28.196	0.044 ± 0.034
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	10	1.14%	6.137	272.519	0.648 ± 0.345	21.972	1362.596	3.109 ± 1.713
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	3	0.34%	6.038	14.218	0.033 ± 0.020	28.437	68.068	0.155 ± 0.095

Table 14

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 12 (number of trawl stations 1418)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	94	6.63%	4.779	13721.047	62.528 ± 13.580	0.956	2951.849	16.272 ± 3.321
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	167	11.78%	3.955	17986.749	161.527 ± 26.758	2.209	12590.725	90.420 ± 16.378
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	38	2.68%	4.669	10923.674	18.578 ± 8.417	0.601	1900.709	3.280 ± 1.472
<i>Oncorhynchus keta</i>	> 30 cm	0.30	121	8.53%	5.023	4357.002	12.107 ± 3.588	5.414	3946.931	14.423 ± 3.295
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.07%	5.301	5.301	0.004 ± 0.004	1.680	1.680	0.001 ± 0.001
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	6	0.42%	6.426	12.749	0.034 ± 0.014	8.292	39.753	0.093 ± 0.043
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.07%	221.061	221.061	0.156 ± 0.156	60.002	60.002	0.042 ± 0.042
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	21	1.48%	7.122	168.364	0.686 ± 0.211	4.694	209.973	0.702 ± 0.227
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	7	0.49%	4.779	20.813	0.046 ± 0.020	0.991	6.868	0.014 ± 0.006
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	27	1.90%	4.242	53.474	0.302 ± 0.076	2.915	92.688	0.513 ± 0.126

Table 15

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 13 (number of trawl stations 502)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	26	5.18%	27.682	2816.685	36.056 ± 11.037	5.730	691.195	8.452 ± 2.477
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	139	27.69%	6.647	11818.633	177.594 ± 36.894	2.412	4836.339	131.492 ± 23.552
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	15	2.99%	5.092	3357.057	11.479 ± 7.177	0.519	470.123	1.665 ± 1.024
<i>Oncorhynchus keta</i>	> 30 cm	0.30	104	20.72%	5.320	932.251	10.672 ± 2.399	2.637	824.683	17.533 ± 3.378
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	17	3.39%	6.575	80.785	0.608 ± 0.202	10.465	202.585	1.398 ± 0.486
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.20%	5.511	5.511	0.011 ± 0.011	1.378	1.378	0.003 ± 0.003
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	48	9.56%	7.279	977.864	8.345 ± 2.478	5.751	1477.553	10.267 ± 3.536
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	6	1.20%	6.041	18.751	0.127 ± 0.055	1.208	6.094	0.037 ± 0.017
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	14	2.79%	5.320	58.685	0.457 ± 0.158	8.054	96.008	1.098 ± 0.340

Table 16

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 2 (number of trawl stations 11)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	2	18.18%	8.880	677.431	62.392 ± 64.511	10.923	829.853	76.434 ± 79.026
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	1	9.09%	6.207	6.207	0.564 ± 0.592	0.546	0.546	0.050 ± 0.052
<i>Oncorhynchus keta</i>	> 30 cm	0.30	3	27.27%	61.640	355.238	61.310 ± 39.366	137.381	556.981	76.404 ± 53.500
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	9.09%	8.261	8.261	0.751 ± 0.788	14.457	14.457	1.314 ± 1.378
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	2	18.18%	7.705	231.318	21.729 ± 21.994	8.861	333.759	31.147 ± 31.749
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	1	9.09%	98.188	98.188	8.926 ± 9.362	19.529	19.529	1.775 ± 1.862

Table 17

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 4 (number of trawl stations 23)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	7	30.43%	6.715	5182.785	240.292 ± 229.961	7.386	6352.035	296.360 ± 281.821
<i>Oncorhynchus keta</i>	> 30 cm	0.30	8	34.78%	7.263	754.302	82.908 ± 43.757	33.410	1801.079	135.764 ± 81.434
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	4.35%	11.137	11.137	0.484 ± 0.495	2.896	2.896	0.126 ± 0.129
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	13.04%	6.715	24.332	2.227 ± 1.386	22.494	66.914	5.888 ± 3.609
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	4	17.39%	20.144	70.564	6.171 ± 3.469	39.929	174.843	13.268 ± 8.157
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	4	17.39%	5.214	11.137	1.194 ± 0.610	1.008	2.339	0.255 ± 0.130
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	4	17.39%	6.722	20.144	2.239 ± 1.165	29.913	98.571	9.822 ± 5.259

Table 18

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 5 (number of trawl stations 113)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	5	4.42%	6.985	279.969	2.770 ± 2.490	0.660	29.784	0.295 ± 0.265
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	41	36.28%	5.664	444.985	34.243 ± 7.410	8.440	551.244	42.856 ± 9.219
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	5	4.42%	3.493	109.633	1.673 ± 1.061	0.332	9.165	0.143 ± 0.091
<i>Oncorhynchus keta</i>	> 30 cm	0.30	62	54.87%	4.657	584.861	55.433 ± 10.513	5.901	1711.109	115.461 ± 23.226
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	4	3.54%	3.493	141.245	2.104 ± 1.377	0.653	41.469	0.614 ± 0.405
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	8	7.08%	6.498	86.719	1.711 ± 0.875	3.624	98.343	2.149 ± 1.030
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	60	53.10%	2.940	606.520	33.286 ± 7.070	5.105	543.253	48.106 ± 8.741
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	0.88%	4.657	4.657	0.041 ± 0.041	2.142	2.142	0.019 ± 0.019
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	11	9.73%	3.493	44.345	1.102 ± 0.450	0.590	10.111	0.240 ± 0.102
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	13	11.50%	7.356	18.927	1.150 ± 0.319	7.130	47.785	2.838 ± 0.838

Table 19

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 6 (number of trawl stations 139)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	24	17.27%	6.977	5166.549	55.544 ± 37.982	0.816	617.610	6.900 ± 4.583
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	41	29.50%	7.472	349.043	20.232 ± 4.168	7.747	420.513	23.446 ± 4.765
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	20	14.39%	6.505	1085.346	19.558 ± 9.350	0.293	105.601	2.108 ± 0.954
<i>Oncorhynchus keta</i>	> 30 cm	0.30	83	59.71%	6.449	1472.504	76.301 ± 16.135	6.319	2369.932	143.815 ± 31.353
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	10	7.19%	5.309	37.108	1.152 ± 0.409	1.194	11.875	0.352 ± 0.127
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	16	11.51%	3.640	155.233	3.024 ± 1.276	3.051	144.449	3.588 ± 1.286
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	6	4.32%	7.436	69.143	1.027 ± 0.570	0.818	22.414	0.242 ± 0.167
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	98	70.50%	7.009	395.818	55.312 ± 6.720	3.208	566.961	65.905 ± 8.119
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	1	0.72%	5.957	5.957	0.043 ± 0.043	1.787	1.787	0.013 ± 0.013
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	28	20.14%	4.325	46.570	3.229 ± 0.740	0.864	10.401	0.656 ± 0.156
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	19	13.67%	6.883	45.807	2.097 ± 0.559	3.098	158.042	5.337 ± 1.612

Table 20

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 7 (number of trawl stations 476)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	46	9.66%	5.619	14553.948	87.031 ± 36.155	0.562	2628.995	14.159 ± 6.180
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	199	41.81%	6.964	4359.765	89.325 ± 13.195	4.543	4703.811	118.702 ± 16.104
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	50	10.50%	5.478	112691.756	409.825 ± 245.745	0.549	14876.280	54.436 ± 32.354
<i>Oncorhynchus keta</i>	> 30 cm	0.30	241	50.63%	2.835	1436.544	32.306 ± 4.552	6.358	3254.544	83.342 ± 10.859
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	17	3.57%	5.230	172.048	1.075 ± 0.421	0.956	39.399	0.293 ± 0.107
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	68	14.29%	6.354	350.060	3.864 ± 0.990	3.469	197.816	6.309 ± 1.068
<i>Oncorhynchus masou</i>	≤ 30 cm	0.40	1	0.21%	4.676	4.676	0.010 ± 0.010	1.426	1.426	0.003 ± 0.003
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	0.21%	7.758	7.758	0.016 ± 0.016	8.534	8.534	0.018 ± 0.018
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	14	2.94%	5.727	257.252	1.912 ± 0.814	0.740	72.903	0.409 ± 0.189
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	75	15.76%	5.144	3656.627	13.884 ± 7.791	3.097	3465.997	17.083 ± 7.555
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	0.21%	15.068	15.068	0.032 ± 0.032	10.774	10.774	0.023 ± 0.023
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	23	4.83%	5.230	1892.527	8.755 ± 4.567	1.163	403.854	2.031 ± 1.048
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	46	9.66%	6.096	149.052	1.428 ± 0.364	5.979	201.534	3.516 ± 0.708

Table 21

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 8 (number of trawl stations 481)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	44	9.15%	5.604	25738.697	127.222 ± 59.570	1.009	4109.292	22.983 ± 9.982
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	161	33.47%	6.019	2985.243	96.557 ± 13.274	2.302	2403.949	112.951 ± 14.354
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	35	7.28%	6.458	163641.713	440.261 ± 342.305	1.579	32281.366	82.636 ± 67.376
<i>Oncorhynchus keta</i>	> 30 cm	0.30	146	30.35%	3.777	435.593	13.282 ± 1.823	1.998	1306.779	30.703 ± 4.471
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	3	0.62%	6.508	73.299	0.206 ± 0.158	1.985	23.333	0.065 ± 0.050
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	30	6.24%	6.444	209.267	1.382 ± 0.484	3.423	124.092	2.359 ± 0.559
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	8	1.66%	5.957	748.378	2.508 ± 1.627	0.828	91.497	0.389 ± 0.216
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	29	6.03%	5.229	132.778	1.292 ± 0.366	4.473	77.939	1.666 ± 0.361
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	12	2.49%	1.961	78.092	0.610 ± 0.219	0.549	15.358	0.138 ± 0.047
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	30	6.24%	5.065	27.326	0.609 ± 0.118	2.995	97.928	2.392 ± 0.498



Table 22

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 9 (number of trawl stations 737)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	24	3.26%	2.186	8875.162	31.519 ± 17.280	0.101	1440.826	5.223 ± 2.761
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	101	13.70%	2.767	3674.181	49.101 ± 9.941	4.360	4739.694	66.490 ± 13.427
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	18	2.44%	5.532	2056.817	5.294 ± 3.098	0.206	268.968	0.651 ± 0.405
<i>Oncorhynchus keta</i>	> 30 cm	0.30	158	21.44%	5.051	1670.564	14.907 ± 2.967	8.132	5011.692	50.814 ± 9.872
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.14%	6.719	6.719	0.009 ± 0.009	0.430	0.430	0.001 ± 0.001
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	11	1.49%	6.786	17.916	0.141 ± 0.045	3.444	59.840	0.371 ± 0.134
<i>Oncorhynchus masou</i>	> 30 cm	0.30	4	0.54%	8.669	14.752	0.068 ± 0.034	8.669	17.484	0.070 ± 0.036
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	20	2.71%	2.216	814.777	2.673 ± 1.336	7.230	1805.527	8.190 ± 3.842
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	2	0.27%	17.720	137.694	0.211 ± 0.188	0.115	0.496	0.001 ± 0.001
<i>Oncorhynchus tschawyscha</i>	> 30 cm	0.30	32	4.34%	2.767	72.995	0.589 ± 0.140	5.534	256.941	2.564 ± 0.619

Table 23

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 10 (number of trawl stations 1051)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	44	4.19%	8.068	4211.972	33.008 ± 7.857	1.251	989.779	7.780 ± 1.900
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	82	7.80%	5.770	3869.871	24.677 ± 6.301	4.634	4374.969	26.545 ± 6.309
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	31	2.95%	5.614	1851.533	8.303 ± 2.704	0.826	275.228	1.178 ± 0.394
<i>Oncorhynchus keta</i>	> 30 cm	0.30	219	20.84%	2.620	490.775	11.175 ± 1.200	4.632	1422.946	40.209 ± 4.328
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	11	1.05%	2.310	15.365	0.077 ± 0.026	1.617	43.330	0.208 ± 0.073
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.10%	6.531	6.531	0.006 ± 0.006	1.809	1.809	0.002 ± 0.002
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	19	1.81%	3.623	263.221	0.931 ± 0.383	6.618	1316.103	4.552 ± 1.941
<i>Oncorhynchus tschawyscha</i>	> 30 cm	0.30	28	2.66%	2.310	42.851	0.358 ± 0.083	5.912	263.221	1.736 ± 0.465

Table 24

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 11 (number of trawl stations 552)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	0.18%	16.660	16.660	0.030 ± 0.030	24.990	24.990	0.045 ± 0.045
<i>Oncorhynchus keta</i>	> 30 cm	0.30	43	7.79%	2.519	402.114	3.645 ± 0.966	6.460	1116.984	12.062 ± 3.028
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	2	0.36%	7.469	7.620	0.027 ± 0.019	10.457	28.196	0.070 ± 0.054
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	10	1.81%	6.137	272.519	1.028 ± 0.547	21.972	1362.596	4.928 ± 2.714
<i>Oncorhynchus tschawyscha</i>	> 30 cm	0.30	3	0.54%	6.038	14.218	0.052 ± 0.032	28.437	68.068	0.246 ± 0.151

Table 25

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 12 (number of trawl stations 932)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	41	4.40%	4.779	13721.047	46.823 ± 17.767	0.956	2951.849	11.323 ± 4.033
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	70	7.51%	3.955	17986.749	87.576 ± 24.187	2.209	12590.725	56.348 ± 16.427
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	17	1.82%	6.007	1386.233	4.522 ± 2.041	0.601	228.541	0.733 ± 0.334
<i>Oncorhynchus keta</i>	> 30 cm	0.30	59	6.33%	5.023	4357.002	9.301 ± 4.787	7.378	3946.931	12.053 ± 4.561
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.11%	5.301	5.301	0.006 ± 0.006	1.680	1.680	0.002 ± 0.002
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	2	0.21%	6.598	7.136	0.015 ± 0.010	8.292	20.122	0.030 ± 0.023
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.11%	221.061	221.061	0.237 ± 0.237	60.002	60.002	0.064 ± 0.064
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	13	1.39%	7.164	168.364	0.749 ± 0.271	4.800	132.953	0.744 ± 0.259
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	0.32%	4.779	14.421	0.026 ± 0.017	1.434	4.326	0.008 ± 0.005
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	15	1.61%	4.242	53.474	0.235 ± 0.087	2.915	92.688	0.493 ± 0.168

Table 26

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-2004. Region # 13 (number of trawl stations 374)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	10	2.67%	27.682	2303.982	13.772 ± 7.246	5.730	691.195	3.709 ± 2.030
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	108	28.88%	7.095	7102.744	152.334 ± 33.037	2.412	4603.733	139.412 ± 27.661
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	6	1.60%	5.185	3357.057	9.636 ± 8.996	0.519	470.123	1.367 ± 1.260
<i>Oncorhynchus keta</i>	> 30 cm	0.30	80	21.39%	6.365	361.495	9.811 ± 1.989	7.563	677.730	18.157 ± 3.873
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	16	4.28%	6.575	80.785	0.768 ± 0.267	10.465	202.585	1.766 ± 0.643
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.27%	5.511	5.511	0.015 ± 0.015	1.378	1.378	0.004 ± 0.004
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	30	8.02%	7.280	977.864	9.453 ± 3.274	5.751	1477.553	11.468 ± 4.652
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	2	0.53%	6.755	11.073	0.048 ± 0.035	1.466	2.768	0.011 ± 0.008
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	12	3.21%	7.382	58.685	0.537 ± 0.203	8.054	96.008	1.392 ± 0.452

Table 27

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 2 (number of trawl stations 11)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	2	18.18%	8.880	677.431	62.392 ± 64.511	10.923	829.853	76.434 ± 79.026
<i>Oncorhynchus keta</i>	> 30 cm	0.30	3	27.27%	61.640	355.238	61.310 ± 39.366	137.381	556.981	76.404 ± 53.500
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	9.09%	8.261	8.261	0.751 ± 0.788	14.457	14.457	1.314 ± 1.378
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	2	18.18%	7.705	231.318	21.729 ± 21.994	8.861	333.759	31.147 ± 31.749

Table 28

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 4 (number of trawl stations 11)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	7	63.64%	6.715	5182.785	502.429 ± 491.388	7.386	6352.035	619.662 ± 601.972
<i>Oncorhynchus keta</i>	> 30 cm	0.30	7	63.64%	27.841	754.302	172.692 ± 86.989	63.386	1801.079	280.833 ± 166.280
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	27.27%	6.715	24.332	4.656 ± 2.838	22.494	66.914	12.311 ± 7.371
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	4	36.36%	20.144	70.564	12.903 ± 6.978	39.929	174.843	27.742 ± 16.670
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	4	36.36%	6.722	20.144	4.681 ± 2.305	29.913	98.571	20.538 ± 10.471

Table 29

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 5 (number of trawl stations 76)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	41	53.95%	5.664	444.985	50.914 ± 10.535	8.440	551.244	63.721 ± 13.099
<i>Oncorhynchus keta</i>	> 30 cm	0.30	55	72.37%	6.983	584.861	80.939 ± 14.804	16.222	1711.109	169.554 ± 32.879
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	2	2.63%	48.295	141.245	2.494 ± 1.969	11.813	41.469	0.701 ± 0.569
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	6	7.89%	6.498	38.415	1.122 ± 0.576	3.624	98.343	2.630 ± 1.464
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	46	60.53%	2.940	245.865	32.947 ± 6.314	5.105	368.359	54.426 ± 10.270
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	2	2.63%	8.781	9.659	0.243 ± 0.172	2.125	2.248	0.058 ± 0.041
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	10	13.16%	7.567	18.927	1.334 ± 0.424	7.130	43.022	3.047 ± 1.017

Table 30

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 6 (number of trawl stations 70)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	40	57.14%	7.472	349.043	40.022 ± 7.608	7.747	420.513	46.399 ± 8.671
<i>Oncorhynchus keta</i>	> 30 cm	0.30	62	88.57%	6.449	872.537	114.694 ± 23.061	7.223	1788.905	228.907 ± 49.808
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	10	14.29%	3.640	66.170	2.603 ± 1.098	11.284	144.449	5.562 ± 2.357
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	1.43%	69.143	69.143	0.988 ± 0.995	22.414	22.414	0.320 ± 0.323
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	51	72.86%	7.009	355.007	65.278 ± 10.351	5.760	566.961	85.860 ± 13.297
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	8	11.43%	6.883	45.807	1.620 ± 0.738	8.626	158.042	5.577 ± 2.685

Table 31

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 7 (number of trawl stations 340)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	1	0.29%	5.847	5.847	0.017 ± 0.017	1.667	1.667	0.005 ± 0.005
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	196	57.65%	6.964	4359.765	125.446 ± 18.129	4.543	4703.811	166.775 ± 22.043
<i>Oncorhynchus keta</i>	> 30 cm	0.30	199	58.53%	6.358	1436.544	36.545 ± 5.937	6.358	3254.544	95.786 ± 14.208
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.29%	7.271	7.271	0.021 ± 0.021	1.781	1.781	0.005 ± 0.005
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	55	16.18%	6.354	90.773	3.119 ± 0.576	9.681	197.816	7.887 ± 1.403
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	2	0.59%	11.695	15.431	0.080 ± 0.057	3.590	4.737	0.024 ± 0.017
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	53	15.59%	6.096	3656.627	16.828 ± 10.878	3.097	3465.997	20.416 ± 10.524
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	0.29%	15.068	15.068	0.044 ± 0.044	10.774	10.774	0.032 ± 0.032
<i>Oncorhynchus tschawyscha</i>	> 30 cm	0.30	39	11.47%	6.096	149.052	1.763 ± 0.500	5.979	201.534	4.230 ± 0.945

Table 32

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 8 (number of trawl stations 372)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	153	41.13%	6.019	2985.243	118.436 ± 16.197	3.976	2403.949	138.074 ± 17.204
<i>Oncorhynchus keta</i>	> 30 cm	0.30	129	34.68%	3.777	435.593	14.455 ± 2.220	1.998	1306.779	37.750 ± 6.222
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	23	6.18%	6.444	46.827	1.083 ± 0.271	14.022	124.092	2.743 ± 0.692
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	9	2.42%	6.964	16.900	0.247 ± 0.085	12.095	55.028	0.697 ± 0.259
<i>Oncorhynchus tschawyscha</i>	> 30 cm	0.30	23	6.18%	6.468	27.326	0.602 ± 0.134	5.170	69.625	2.299 ± 0.515

Table 33

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 9 (number of trawl stations 752)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	3	0.40%	5.559	64.984	0.106 ± 0.088	0.101	0.395	0.001 ± 0.001
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	107	14.23%	2.767	3674.181	49.493 ± 9.769	4.360	4739.694	66.873 ± 13.194
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	4	0.53%	12.466	139.761	0.408 ± 0.260	0.206	5.780	0.016 ± 0.010
<i>Oncorhynchus keta</i>	> 30 cm	0.30	133	17.69%	5.749	738.626	12.371 ± 2.047	11.880	2771.034	41.270 ± 7.329
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.13%	6.719	6.719	0.009 ± 0.009	0.430	0.430	0.001 ± 0.001
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	10	1.33%	6.786	17.916	0.127 ± 0.042	7.046	59.840	0.359 ± 0.131
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	0.13%	13.190	13.190	0.018 ± 0.018	12.794	12.794	0.017 ± 0.017
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	13	1.73%	2.216	814.777	1.278 ± 1.088	7.230	620.783	1.346 ± 0.860
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	2	0.27%	17.720	137.694	0.207 ± 0.185	0.115	0.496	0.001 ± 0.001
<i>Oncorhynchus tschawyscha</i>	> 30 cm	0.30	25	3.32%	2.767	73.675	0.462 ± 0.127	5.534	206.289	1.759 ± 0.460

Table 34

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 10 (number of trawl stations 845)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	88	10.41%	5.770	3152.365	26.283 ± 6.338	4.634	4374.969	32.452 ± 7.708
<i>Oncorhynchus keta</i>	> 30 cm	0.30	168	19.88%	2.620	467.903	12.337 ± 1.441	4.632	1637.660	44.591 ± 5.351
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	5	0.59%	2.310	15.365	0.042 ± 0.023	1.617	43.330	0.138 ± 0.073
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	10	1.18%	7.709	263.221	0.843 ± 0.439	15.780	1316.103	4.151 ± 2.204
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	23	2.72%	2.310	48.751	0.531 ± 0.130	5.912	263.221	2.609 ± 0.696

Table 35

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 11 (number of trawl stations 98)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	4	4.08%	27.890	144.789	2.717 ± 1.660	97.542	535.720	9.583 ± 5.995
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	1.02%	7.620	7.620	0.078 ± 0.078	28.196	28.196	0.288 ± 0.289
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	1.02%	6.038	6.038	0.062 ± 0.062	39.248	39.248	0.400 ± 0.403

Table 36

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 12 (number of trawl stations 585)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	20	3.42%	6.429	278.427	2.108 ± 0.713	6.429	328.823	2.287 ± 0.755
<i>Oncorhynchus keta</i>	> 30 cm	0.30	14	2.39%	5.023	60.712	0.517 ± 0.183	5.414	177.178	1.165 ± 0.433
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	2	0.34%	6.503	6.598	0.022 ± 0.016	20.122	20.808	0.070 ± 0.049
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	3	0.51%	22.186	34.324	0.154 ± 0.090	51.766	102.971	0.357 ± 0.217
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	3	0.51%	4.359	53.474	0.110 ± 0.092	6.705	92.688	0.192 ± 0.160

Table 37

Salmon abundance in epipelagic water layer in summer. The data of the years 1979-2004. Region # 13 (number of trawl stations 291)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	74	25.43%	7.827	3719.424	102.829 ± 22.655	8.357	4603.733	119.581 ± 27.983
<i>Oncorhynchus keta</i>	> 30 cm	0.30	53	18.21%	6.702	361.495	9.699 ± 2.375	13.217	677.730	18.279 ± 4.539
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	15	5.15%	6.575	80.785	0.956 ± 0.341	13.060	202.585	2.233 ± 0.824
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	6	2.06%	7.280	448.216	3.974 ± 2.298	5.751	607.152	5.372 ± 3.010
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	10	3.44%	8.216	58.685	0.634 ± 0.257	8.054	96.008	1.552 ± 0.550

Table 38

Salmon abundance in upper epipelagic water layer in summer. The data of the years 1979-2004. Region # 5 (number of trawl stations 73)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	41	56.16%	5.664	444.985	53.006 ± 10.902	8.440	551.244	66.339 ± 13.555
<i>Oncorhynchus keta</i>	> 30 cm	0.30	55	75.34%	6.983	584.861	84.265 ± 15.292	16.222	1711.109	176.522 ± 33.995
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	2	2.74%	48.295	141.245	2.596 ± 2.050	11.813	41.469	0.730 ± 0.593
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	6	8.22%	6.498	38.415	1.169 ± 0.600	3.624	98.343	2.738 ± 1.523
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	46	63.01%	2.940	245.865	34.301 ± 6.527	5.105	368.359	56.663 ± 10.614
<i>Oncorhynchus tschawyscha</i>	≤ 30 cm	0.40	2	2.74%	8.781	9.659	0.253 ± 0.179	2.125	2.248	0.060 ± 0.042
<i>Oncorhynchus tschawyscha</i>	> 30 cm	0.30	10	13.70%	7.567	18.927	1.389 ± 0.440	7.130	43.022	3.172 ± 1.057

Table 39

Salmon abundance in upper epipelagic water layer in summer. The data of the years 1979-2004. Region # 6 (number of trawl stations 69)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	40	57.97%	7.472	349.043	40.602 ± 7.697	7.747	420.513	47.071 ± 8.772
<i>Oncorhynchus keta</i>	> 30 cm	0.30	62	89.86%	6.449	872.537	116.356 ± 23.338	7.223	1788.905	232.224 ± 50.427
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	10	14.49%	3.640	66.170	2.641 ± 1.113	11.284	144.449	5.643 ± 2.390
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	1.45%	69.143	69.143	1.002 ± 1.009	22.414	22.414	0.325 ± 0.327
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	50	72.46%	7.009	355.007	66.027 ± 10.476	5.760	566.961	86.716 ± 13.464
<i>Oncorhynchus tschawyscha</i>	> 30 cm	0.30	8	11.59%	6.883	45.807	1.644 ± 0.749	8.626	158.042	5.658 ± 2.723

Table 40

Salmon abundance in upper epipelagic water layer in summer. The data of the years 1979-2004. Region # 7 (number of trawl stations 329)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	1	0.30%	5.847	5.847	0.018 ± 0.018	1.667	1.667	0.005 ± 0.005
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	195	59.27%	6.964	4359.765	129.026 ± 18.696	4.543	4703.811	171.510 ± 22.722
<i>Oncorhynchus keta</i>	> 30 cm	0.30	198	60.18%	6.358	1436.544	37.733 ± 6.126	6.358	3254.544	98.890 ± 14.654
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.30%	7.271	7.271	0.022 ± 0.022	1.781	1.781	0.005 ± 0.005
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	55	16.72%	6.354	90.773	3.223 ± 0.595	9.681	197.816	8.151 ± 1.447
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	2	0.61%	11.695	15.431	0.082 ± 0.059	3.590	4.737	0.025 ± 0.018
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	53	16.11%	6.096	3656.627	17.390 ± 11.241	3.097	3465.997	21.099 ± 10.875
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	0.30%	15.068	15.068	0.046 ± 0.046	10.774	10.774	0.033 ± 0.033
<i>Oncorhynchus tschawyscha</i>	> 30 cm	0.30	39	11.85%	6.096	149.052	1.822 ± 0.517	5.979	201.534	4.371 ± 0.976

Table 41

Salmon abundance in upper epipelagic water layer in summer. The data of the years 1979-2004. Region # 8 (number of trawl stations 347)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	150	43.23%	6.019	2985.243	126.552 ± 17.283	3.976	2403.949	147.524 ± 18.339
<i>Oncorhynchus keta</i>	> 30 cm	0.30	124	35.73%	3.777	435.593	14.118 ± 2.212	1.998	1306.779	35.981 ± 5.943
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	23	6.63%	6.444	46.827	1.161 ± 0.290	14.022	124.092	2.940 ± 0.741
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	9	2.59%	6.964	16.900	0.264 ± 0.091	12.095	55.028	0.747 ± 0.278
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	22	6.34%	6.468	27.326	0.616 ± 0.141	5.170	65.780	2.264 ± 0.516

Table 42

Salmon abundance in upper epipelagic water layer in summer. The data of the years 1979-2004. Region # 9 (number of trawl stations 515)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	3	0.58%	5.559	64.984	0.155 ± 0.128	0.101	0.395	0.001 ± 0.001
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	100	19.42%	2.767	3674.181	70.252 ± 14.133	4.360	4739.694	95.130 ± 19.088
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	4	0.78%	12.466	139.761	0.595 ± 0.380	0.206	5.780	0.023 ± 0.015
<i>Oncorhynchus keta</i>	> 30 cm	0.30	120	23.30%	5.749	738.626	15.389 ± 2.679	12.714	2771.034	54.566 ± 10.080
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.19%	6.719	6.719	0.013 ± 0.013	0.430	0.430	0.001 ± 0.001
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	10	1.94%	6.786	17.916	0.185 ± 0.062	7.046	59.840	0.524 ± 0.191
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	0.19%	13.190	13.190	0.026 ± 0.026	12.794	12.794	0.025 ± 0.025
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	13	2.52%	2.216	814.777	1.867 ± 1.590	7.230	620.783	1.967 ± 1.256
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	2	0.39%	17.720	137.694	0.302 ± 0.270	0.115	0.496	0.001 ± 0.001
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	23	4.47%	2.767	22.706	0.493 ± 0.112	5.534	137.103	2.072 ± 0.531

Table 43

Salmon abundance in upper epipelagic water layer in summer. The data of the years 1979-2004. Region # 10 (number of trawl stations 648)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	76	11.73%	5.770	3152.365	32.909 ± 8.223	4.634	4374.969	40.613 ± 9.995
<i>Oncorhynchus keta</i>	> 30 cm	0.30	144	22.22%	2.620	423.875	14.058 ± 1.699	4.632	1422.946	52.804 ± 6.440
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	5	0.77%	2.310	15.365	0.055 ± 0.029	1.617	43.330	0.179 ± 0.096
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	10	1.54%	7.709	263.221	1.099 ± 0.572	15.780	1316.103	5.414 ± 2.873
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	16	2.47%	2.310	42.851	0.432 ± 0.127	5.912	263.221	2.121 ± 0.710

Table 44

Salmon abundance in upper epipelagic water layer in summer. The data of the years 1979-2004. Region # 11 (number of trawl stations 84)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	4	4.76%	27.890	144.789	3.170 ± 1.935	97.542	535.720	11.180 ± 6.991
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	1.19%	7.620	7.620	0.091 ± 0.091	28.196	28.196	0.336 ± 0.338
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	1.19%	6.038	6.038	0.072 ± 0.072	39.248	39.248	0.467 ± 0.470

Table 45

Salmon abundance in upper epipelagic water layer in summer. The data of the years 1979-2004. Region # 12 (number of trawl stations 534)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	15	2.81%	6.429	278.427	1.791 ± 0.743	6.429	328.823	2.041 ± 0.799
<i>Oncorhynchus keta</i>	> 30 cm	0.30	9	1.69%	5.023	60.712	0.447 ± 0.189	14.483	177.178	1.043 ± 0.455
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.19%	6.598	6.598	0.012 ± 0.012	20.122	20.122	0.038 ± 0.038
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	3	0.56%	22.186	34.324	0.169 ± 0.099	51.766	102.971	0.391 ± 0.238
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	3	0.56%	4.359	53.474	0.121 ± 0.101	6.705	92.688	0.211 ± 0.176

Table 46

Salmon abundance in upper epipelagic water layer in summer. The data of the years 1979-2004. Region # 13 (number of trawl stations 262)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	74	28.24%	7.827	3719.424	114.211 ± 25.073	8.357	4603.733	132.817 ± 30.984
<i>Oncorhynchus keta</i>	> 30 cm	0.30	53	20.23%	6.702	361.495	10.773 ± 2.631	13.217	677.730	20.303 ± 5.027
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	15	5.73%	6.575	80.785	1.062 ± 0.378	13.060	202.585	2.481 ± 0.914
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	6	2.29%	7.280	448.216	4.414 ± 2.551	5.751	607.152	5.967 ± 3.342
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	10	3.82%	8.216	58.685	0.704 ± 0.286	8.054	96.008	1.723 ± 0.610

Table 47

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 2 (number of trawl stations 11)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	3	27.27%	6.207	21.315	3.191 ± 2.094	0.303	1.428	0.207 ± 0.140
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	27.27%	25.151	98.188	19.448 ± 11.966	4.192	19.529	3.610 ± 2.261



Table 48

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 3 (number of trawl stations 10)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	10.00%	9.803	9.803	0.980 ± 1.033	0.686	0.686	0.069 ± 0.072
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	4	40.00%	20.604	68.537	15.618 ± 7.828	4.117	12.461	3.106 ± 1.533

Table 49

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 4 (number of trawl stations 26)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	1	3.85%	7.263	7.263	0.279 ± 0.285	33.410	33.410	1.285 ± 1.310
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	3.85%	11.137	11.137	0.428 ± 0.437	2.896	2.896	0.111 ± 0.114
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	5	19.23%	5.214	12.723	1.545 ± 0.707	1.008	2.339	0.301 ± 0.134

Table 50

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 5 (number of trawl stations 52)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	11	21.15%	6.985	2113.390	50.322 ± 41.243	0.660	258.632	6.075 ± 5.040
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	14	26.92%	3.493	635.495	20.253 ± 12.501	0.332	66.505	1.950 ± 1.300
<i>Oncorhynchus keta</i>	> 30 cm	0.30	8	15.38%	4.657	42.698	2.647 ± 1.123	5.901	76.493	4.197 ± 1.929
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	2	3.85%	3.493	44.743	0.928 ± 0.870	0.653	15.399	0.309 ± 0.299
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	2	3.85%	21.349	86.719	2.078 ± 1.726	8.689	34.244	0.826 ± 0.683
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	3	5.77%	9.478	51.726	1.442 ± 1.046	0.663	10.072	0.241 ± 0.198
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	19	36.54%	4.657	606.520	27.019 ± 12.628	2.719	543.253	26.729 ± 11.869
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	1.92%	4.657	4.657	0.090 ± 0.090	2.142	2.142	0.041 ± 0.042
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	13	25.00%	3.493	44.345	2.706 ± 0.968	0.590	10.111	0.562 ± 0.217
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	3	5.77%	7.356	10.748	0.551 ± 0.319	15.263	47.785	1.714 ± 1.082

Table 51

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 6 (number of trawl stations 71)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	25	35.21%	7.422	5166.549	112.137 ± 74.316	0.816	617.610	13.973 ± 8.964
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	1.41%	10.683	10.683	0.150 ± 0.152	11.089	11.089	0.156 ± 0.157
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	22	30.99%	6.505	1085.346	40.873 ± 18.172	0.293	105.601	4.345 ± 1.847
<i>Oncorhynchus keta</i>	> 30 cm	0.30	24	33.80%	7.942	1472.504	37.599 ± 21.270	6.319	2369.932	58.657 ± 34.662
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	10	14.08%	5.309	37.108	2.256 ± 0.785	1.194	11.875	0.689 ± 0.244
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	10	14.08%	7.822	155.233	4.823 ± 2.400	3.051	61.990	2.332 ± 1.044
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	6	8.45%	7.436	202.733	3.893 ± 2.913	0.818	48.752	0.846 ± 0.694
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	51	71.83%	7.026	422.775	55.614 ± 9.904	3.208	447.126	51.740 ± 8.799
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	1	1.41%	5.957	5.957	0.084 ± 0.084	1.787	1.787	0.025 ± 0.025
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	26	36.62%	4.325	46.570	6.171 ± 1.365	0.864	10.401	1.268 ± 0.289
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	11	15.49%	7.770	32.979	2.509 ± 0.824	3.098	78.223	4.949 ± 1.761

Table 52

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 7 (number of trawl stations 120)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	38	31.67%	5.619	14553.948	322.765 ± 141.379	0.562	2628.995	51.478 ± 24.157
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	4	3.33%	7.582	35.012	0.579 ± 0.343	6.293	42.277	0.629 ± 0.392
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	42	35.00%	5.478	112691.756	1615.739 ± 972.455	0.645	14876.280	214.503 ± 128.012
<i>Oncorhynchus keta</i>	> 30 cm	0.30	42	35.00%	2.835	478.954	24.626 ± 6.479	7.086	1072.499	59.298 ± 14.966
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	16	13.33%	5.230	172.048	4.202 ± 1.648	0.956	39.399	1.146 ± 0.416
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	13	10.83%	7.615	350.060	6.492 ± 3.583	3.469	133.637	2.678 ± 1.417
<i>Oncorhynchus masou</i>	≤ 30 cm	0.40	1	0.83%	4.676	4.676	0.039 ± 0.039	1.426	1.426	0.012 ± 0.012
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	0.83%	7.758	7.758	0.065 ± 0.065	8.534	8.534	0.071 ± 0.071
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	11	9.17%	5.727	257.252	7.259 ± 3.192	0.740	72.903	1.530 ± 0.742
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	22	18.33%	5.144	186.804	7.396 ± 2.472	5.126	249.617	9.917 ± 3.081
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	21	17.50%	5.230	1892.527	33.407 ± 18.012	1.163	403.854	7.746 ± 4.133
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	7	5.83%	7.492	16.545	0.669 ± 0.260	9.964	61.289	1.964 ± 0.829

Table 53

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 8 (number of trawl stations 107)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	21	19.63%	5.957	25738.697	422.386 ± 252.894	1.315	4109.292	70.657 ± 41.025
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	3	2.80%	8.610	9.960	0.256 ± 0.147	7.932	9.960	0.248 ± 0.143
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	23	21.50%	6.458	163641.713	1809.213 ± 1537.553	1.579	32281.366	346.962 ± 303.149
<i>Oncorhynchus keta</i>	> 30 cm	0.30	19	17.76%	7.666	292.743	11.616 ± 3.729	13.388	337.421	16.479 ± 4.713
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	3	2.80%	6.508	73.299	0.927 ± 0.712	1.985	23.333	0.291 ± 0.226
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	7	6.54%	7.942	209.267	2.447 ± 1.970	3.423	75.964	1.069 ± 0.726
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	8	7.48%	5.957	748.378	11.274 ± 7.305	0.828	91.497	1.747 ± 0.966
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	14	13.08%	7.942	132.778	3.927 ± 1.519	4.473	77.939	3.451 ± 1.087
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	11	10.28%	6.509	78.092	2.724 ± 0.963	1.881	15.358	0.615 ± 0.207
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	9	8.41%	5.065	14.753	0.885 ± 0.296	3.444	97.928	4.198 ± 1.585

Table 54

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 9 (number of trawl stations 271)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	13	4.80%	2.186	8875.162	86.421 ± 49.256	0.444	1440.826	13.767 ± 7.827
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	0.37%	7.348	7.348	0.027 ± 0.027	11.169	11.169	0.041 ± 0.041
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	10	3.69%	6.210	2056.817	18.830 ± 10.318	0.845	268.968	2.347 ± 1.288
<i>Oncorhynchus keta</i>	> 30 cm	0.30	38	14.02%	5.051	1670.564	11.517 ± 6.290	8.132	5011.692	35.542 ± 18.903
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.37%	8.610	8.610	0.032 ± 0.032	3.444	3.444	0.013 ± 0.013
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	0.37%	8.669	8.669	0.032 ± 0.032	8.669	8.669	0.032 ± 0.032
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	8	2.95%	7.348	359.998	3.752 ± 2.028	13.373	1805.527	18.579 ± 10.153
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	10	3.69%	3.983	72.995	0.710 ± 0.319	8.325	256.941	3.648 ± 1.466

Table 55

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 10 (number of trawl stations 350)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	5	1.43%	9.667	293.203	1.642 ± 0.979	1.257	52.604	0.296 ± 0.176
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	0.29%	9.205	9.205	0.026 ± 0.026	13.807	13.807	0.039 ± 0.040
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	3	0.86%	31.628	1228.326	3.762 ± 3.519	5.598	143.068	0.443 ± 0.410
<i>Oncorhynchus keta</i>	> 30 cm	0.30	70	20.00%	2.361	490.775	7.417 ± 1.726	6.703	1286.433	22.997 ± 4.973
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	6	1.71%	4.817	9.313	0.131 ± 0.054	6.519	27.078	0.293 ± 0.132
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	7	2.00%	3.623	135.764	0.715 ± 0.453	14.493	729.731	3.582 ± 2.386
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	11	3.14%	3.053	13.032	0.255 ± 0.082	9.158	122.869	1.205 ± 0.469

Table 56

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 11 (number of trawl stations 385)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	33	8.57%	2.519	402.114	4.385 ± 1.321	7.558	1116.984	14.381 ± 4.069
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.26%	7.469	7.469	0.019 ± 0.019	10.457	10.457	0.027 ± 0.027
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	10	2.60%	6.137	272.519	1.474 ± 0.783	21.972	1362.596	7.066 ± 3.889
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	2	0.52%	8.301	14.218	0.058 ± 0.043	28.437	68.068	0.251 ± 0.192

Table 57

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 12 (number of trawl stations 167)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	1	0.60%	14.609	14.609	0.087 ± 0.088	36.522	36.522	0.219 ± 0.219
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	0.60%	8.848	8.848	0.053 ± 0.053	53.087	53.087	0.318 ± 0.319

Table 58

Salmon abundance in epipelagic water layer in autumn. The data of the years 1979-2004. Region # 13 (number of trawl stations 58)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	2	3.45%	5.320	30.124	0.611 ± 0.530	15.428	42.174	0.993 ± 0.777
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	1.72%	5.320	5.320	0.092 ± 0.093	20.215	20.215	0.349 ± 0.352

Table 59

Salmon abundance in upper epipelagic water layer in autumn. The data of the years 1979-2004. Region # 4 (number of trawl stations 11)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	1	9.09%	7.263	7.263	0.660 ± 0.693	33.410	33.410	3.037 ± 3.186
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	9.09%	11.137	11.137	1.012 ± 1.062	2.896	2.896	0.263 ± 0.276
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	4	36.36%	5.214	11.137	2.496 ± 1.202	1.008	2.339	0.534 ± 0.257

Table 60

Salmon abundance in upper epipelagic water layer in autumn. The data of the years 1979-2004. Region # 5 (number of trawl stations 27)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	5	18.52%	6.985	279.969	11.591 ± 10.536	0.660	29.784	1.235 ± 1.121
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	5	18.52%	3.493	109.633	7.000 ± 4.404	0.332	9.165	0.599 ± 0.377
<i>Oncorhynchus keta</i>	> 30 cm	0.30	7	25.93%	4.657	42.698	4.168 ± 1.941	5.901	76.493	5.961 ± 3.066
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	2	7.41%	3.493	44.743	1.787 ± 1.689	0.653	15.399	0.595 ± 0.581
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	2	7.41%	21.349	86.719	4.003 ± 3.340	8.689	34.244	1.590 ± 1.321
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	13	48.15%	4.657	606.520	45.543 ± 23.980	9.314	543.253	46.514 ± 22.468
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	3.70%	4.657	4.657	0.172 ± 0.176	2.142	2.142	0.079 ± 0.081
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	8	29.63%	3.493	44.345	3.677 ± 1.762	0.590	10.111	0.785 ± 0.398
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	3	11.11%	7.356	10.748	1.060 ± 0.608	15.263	47.785	3.301 ± 2.072

Table 61

Salmon abundance in upper epipelagic water layer in autumn. The data of the years 1979-2004. Region # 6 (number of trawl stations 57)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	23	40.35%	7.422	5166.549	135.326 ± 92.545	0.816	617.610	16.810 ± 11.160
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	1.75%	10.683	10.683	0.187 ± 0.189	11.089	11.089	0.195 ± 0.196
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	18	31.58%	6.505	1085.346	47.451 ± 22.515	0.293	105.601	5.118 ± 2.290
<i>Oncorhynchus keta</i>	> 30 cm	0.30	21	36.84%	7.942	1472.504	45.216 ± 26.473	6.319	2369.932	69.592 ± 43.152
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	10	17.54%	5.309	37.108	2.810 ± 0.966	1.194	11.875	0.858 ± 0.301
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	6	10.53%	7.822	155.233	4.176 ± 2.826	3.051	61.990	1.920 ± 1.194
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	5	8.77%	7.436	33.584	1.292 ± 0.680	0.818	4.174	0.198 ± 0.101
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	43	75.44%	7.026	395.818	52.060 ± 9.996	3.208	447.126	51.766 ± 10.286
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	1	1.75%	5.957	5.957	0.105 ± 0.105	1.787	1.787	0.031 ± 0.032
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	25	43.86%	4.325	46.570	7.513 ± 1.648	0.864	10.401	1.541 ± 0.349
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	11	19.30%	7.770	32.979	3.125 ± 1.013	3.098	78.223	6.165 ± 2.170

Table 62

Salmon abundance in upper epipelagic water layer in autumn. The data of the years 1979-2004. Region # 7 (number of trawl stations 110)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	38	34.55%	5.619	14553.948	352.108 ± 154.040	0.562	2628.995	56.158 ± 26.327
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	4	3.64%	7.582	35.012	0.632 ± 0.374	6.293	42.277	0.687 ± 0.428
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	42	38.18%	5.478	112691.756	1762.624 ± 1060.542	0.645	14876.280	234.003 ± 139.605
<i>Oncorhynchus keta</i>	> 30 cm	0.30	42	38.18%	2.835	478.954	26.864 ± 7.034	7.086	1072.499	64.689 ± 16.240
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	16	14.55%	5.230	172.048	4.584 ± 1.795	0.956	39.399	1.250 ± 0.453
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	13	11.82%	7.615	350.060	7.082 ± 3.907	3.469	133.637	2.922 ± 1.544
<i>Oncorhynchus masou</i>	≤ 30 cm	0.40	1	0.91%	4.676	4.676	0.043 ± 0.043	1.426	1.426	0.013 ± 0.013
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	0.91%	7.758	7.758	0.071 ± 0.071	8.534	8.534	0.078 ± 0.078
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	11	10.00%	5.727	257.252	7.919 ± 3.478	0.740	72.903	1.669 ± 0.809
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	22	20.00%	5.144	186.804	8.068 ± 2.689	5.126	249.617	10.819 ± 3.350
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	21	19.09%	5.230	1892.527	36.444 ± 19.639	1.163	403.854	8.450 ± 4.506
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	7	6.36%	7.492	16.545	0.730 ± 0.283	9.964	61.289	2.142 ± 0.903

Table 63

Salmon abundance in upper epipelagic water layer in autumn. The data of the years 1979-2004. Region # 8 (number of trawl stations 90)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	21	23.33%	5.957	25738.697	502.170 ± 300.443	1.315	4109.292	84.003 ± 48.730
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	3	3.33%	8.610	9.960	0.304 ± 0.175	7.932	9.960	0.294 ± 0.170
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	23	25.56%	6.458	163641.713	2150.953 ± 1828.961	1.579	32281.366	412.499 ± 360.629
<i>Oncorhynchus keta</i>	> 30 cm	0.30	17	18.89%	7.666	292.743	13.360 ± 4.406	13.388	337.421	18.772 ± 5.552
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	3	3.33%	6.508	73.299	1.102 ± 0.847	1.985	23.333	0.346 ± 0.269
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	7	7.78%	7.942	209.267	2.909 ± 2.343	3.423	75.964	1.271 ± 0.863
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	8	8.89%	5.957	748.378	13.404 ± 8.681	0.828	91.497	2.077 ± 1.148
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	14	15.56%	7.942	132.778	4.669 ± 1.798	4.473	77.939	4.103 ± 1.283
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	11	12.22%	6.509	78.092	3.239 ± 1.138	1.881	15.358	0.732 ± 0.244
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	7	7.78%	5.065	14.753	0.797 ± 0.308	3.444	97.928	4.019 ± 1.768

Table 64

Salmon abundance in upper epipelagic water layer in autumn. The data of the years 1979-2004. Region # 9 (number of trawl stations 192)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	9	4.69%	2.186	8875.162	98.060 ± 65.453	0.444	1440.826	15.607 ± 10.391
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	0.52%	7.348	7.348	0.038 ± 0.038	11.169	11.169	0.058 ± 0.058
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	8	4.17%	6.210	2056.817	17.987 ± 11.835	0.845	268.968	2.354 ± 1.552
<i>Oncorhynchus keta</i>	> 30 cm	0.30	36	18.75%	5.051	1670.564	15.821 ± 8.865	8.132	5011.692	48.505 ± 26.626
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.52%	8.610	8.610	0.045 ± 0.045	3.444	3.444	0.018 ± 0.018
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	0.52%	8.669	8.669	0.045 ± 0.045	8.669	8.669	0.045 ± 0.045
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	7	3.65%	7.348	359.998	5.250 ± 2.859	13.373	1805.527	26.130 ± 14.316
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	8	4.17%	3.983	72.995	0.895 ± 0.443	8.325	256.941	4.133 ± 1.900

Table 65

Salmon abundance in upper epipelagic water layer in autumn. The data of the years 1979-2004. Region # 10 (number of trawl stations 336)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	5	1.49%	9.667	293.203	1.711 ± 1.020	1.257	52.604	0.308 ± 0.183
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	0.30%	9.205	9.205	0.027 ± 0.027	13.807	13.807	0.041 ± 0.041
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	3	0.89%	31.628	1228.326	3.918 ± 3.665	5.598	143.068	0.461 ± 0.427
<i>Oncorhynchus keta</i>	> 30 cm	0.30	67	19.94%	2.717	490.775	7.612 ± 1.796	6.703	1286.433	23.430 ± 5.167
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	6	1.79%	4.817	9.313	0.137 ± 0.057	6.519	27.078	0.305 ± 0.137
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	7	2.08%	3.623	135.764	0.744 ± 0.472	14.493	729.731	3.731 ± 2.485
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	11	3.27%	3.053	13.032	0.265 ± 0.085	9.158	122.869	1.255 ± 0.488

Table 66

Salmon abundance in upper epipelagic water layer in autumn. The data of the years 1979-2004. Region # 11 (number of trawl stations 273)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	25	9.16%	2.519	402.114	5.178 ± 1.807	7.558	1116.984	17.444 ± 5.601
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.37%	7.469	7.469	0.027 ± 0.027	10.457	10.457	0.038 ± 0.038
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	10	3.66%	6.137	272.519	2.078 ± 1.104	21.972	1362.596	9.964 ± 5.480
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	2	0.73%	8.301	14.218	0.082 ± 0.060	28.437	68.068	0.353 ± 0.270

Table 67

Salmon abundance in upper epipelagic water layer in autumn. The data of the years 1979-2004. Region # 12 (number of trawl stations 125)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	1	0.80%	14.609	14.609	0.117 ± 0.117	36.522	36.522	0.292 ± 0.293
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	0.80%	8.848	8.848	0.071 ± 0.071	53.087	53.087	0.425 ± 0.426

Table 68

Salmon abundance in epipelagic water layer in winter. The data of the years 1979-2004. Region # 5 (number of trawl stations 32)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	3	9.38%	17.513	43.112	2.758 ± 1.672	36.076	69.266	4.659 ± 2.760
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	1	3.13%	6.832	6.832	0.213 ± 0.217	1.606	1.606	0.050 ± 0.051

Table 69

Salmon abundance in epipelagic water layer in winter. The data of the years 1979-2004. Region # 6 (number of trawl stations 23)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	1	4.35%	6.977	6.977	0.303 ± 0.310	0.942	0.942	0.041 ± 0.042
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	2	8.70%	6.909	6.909	0.601 ± 0.424	0.470	0.760	0.053 ± 0.039
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	5	21.74%	9.212	82.911	7.178 ± 4.049	7.370	115.339	9.858 ± 5.627
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	13.04%	6.832	6.909	0.894 ± 0.503	0.956	1.298	0.149 ± 0.085

Table 70

Salmon abundance in epipelagic water layer in winter. The data of the years 1979-2004. Region # 7 (number of trawl stations 87)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	14	16.09%	11.656	2074.652	68.544 ± 31.550	1.836	331.662	12.777 ± 5.736
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	13	14.94%	5.632	785.233	23.703 ± 12.858	0.425	116.516	3.314 ± 1.807
<i>Oncorhynchus keta</i>	> 30 cm	0.30	1	1.15%	8.421	8.421	0.097 ± 0.097	19.957	19.957	0.229 ± 0.231
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	1.15%	9.409	9.409	0.108 ± 0.109	7.527	7.527	0.087 ± 0.087
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	1.15%	12.081	12.081	0.139 ± 0.140	2.537	2.537	0.029 ± 0.029
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	2	2.30%	56.130	102.578	1.824 ± 1.345	14.875	22.145	0.426 ± 0.307



Table 71

Salmon abundance in epipelagic water layer in winter. The data of the years 1979-2004. Region # 8 (number of trawl stations 62)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	34	54.84%	5.604	9126.073	343.826 ± 152.329	1.009	1872.703	76.179 ± 31.841
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	4	6.45%	7.195	2258.362	56.395 ± 41.054	2.302	843.784	20.532 ± 15.126
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	19	30.65%	11.826	12885.391	301.134 ± 214.571	1.774	1870.975	43.404 ± 31.121
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	4	6.45%	7.813	28.227	0.847 ± 0.505	15.392	56.453	1.889 ± 1.067
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	5	8.06%	5.229	37.254	1.649 ± 0.883	8.366	62.140	2.563 ± 1.344
<i>Oncorhynchus tschawytscha</i>	≤ 30 cm	0.40	1	1.61%	1.961	1.961	0.032 ± 0.032	0.549	0.549	0.009 ± 0.009
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	1	1.61%	7.304	7.304	0.118 ± 0.119	2.995	2.995	0.048 ± 0.049

Table 72

Salmon abundance in epipelagic water layer in winter. The data of the years 1979-2004. Region # 9 (number of trawl stations 139)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	19	13.67%	4.737	1517.079	37.116 ± 15.144	0.962	261.240	7.358 ± 2.944
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	9	6.47%	5.532	94.069	1.265 ± 0.715	0.553	9.407	0.146 ± 0.074
<i>Oncorhynchus keta</i>	> 30 cm	0.30	3	2.16%	9.236	67.394	0.652 ± 0.500	17.548	127.173	1.171 ± 0.934
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.72%	14.996	14.996	0.108 ± 0.108	16.870	16.870	0.121 ± 0.122
<i>Oncorhynchus masou</i>	> 30 cm	0.30	2	1.44%	13.449	14.752	0.203 ± 0.144	12.540	17.484	0.216 ± 0.155
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	4	2.88%	2.695	41.506	0.455 ± 0.315	21.560	178.478	2.569 ± 1.598

Table 73

Salmon abundance in epipelagic water layer in winter. The data of the years 1979-2004. Region # 10 (number of trawl stations 91)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	49	53.85%	8.068	4211.972	394.500 ± 82.845	1.251	989.779	93.360 ± 20.194
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	7	7.69%	7.843	3869.871	64.007 ± 44.207	8.784	1300.124	21.558 ± 14.818
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	35	38.46%	5.614	1851.533	85.606 ± 27.248	0.627	275.228	12.367 ± 4.141
<i>Oncorhynchus keta</i>	> 30 cm	0.30	8	8.79%	6.484	19.063	0.857 ± 0.314	10.305	34.274	1.868 ± 0.686
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	1.10%	6.531	6.531	0.072 ± 0.072	1.809	1.809	0.020 ± 0.020
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	2	2.20%	7.822	7.878	0.173 ± 0.122	6.618	15.645	0.245 ± 0.187
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	2	2.20%	6.873	7.203	0.155 ± 0.109	28.812	37.799	0.732 ± 0.522

Table 74

Salmon abundance in epipelagic water layer in winter. The data of the years 1979-2004. Region # 11 (number of trawl stations 230)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	11	4.78%	2.312	83.715	1.105 ± 0.483	4.623	175.802	3.196 ± 1.289

Table 75

Salmon abundance in epipelagic water layer in winter. The data of the years 1979-2004. Region # 12 (number of trawl stations 388)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	87	22.42%	4.820	13721.047	218.473 ± 48.364	1.103	2951.849	56.483 ± 11.745
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	45	11.60%	6.715	12029.391	130.514 ± 43.604	2.209	3977.846	46.124 ± 14.858
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	27	6.96%	4.669	10923.674	61.435 ± 30.556	0.934	1900.709	10.663 ± 5.323
<i>Oncorhynchus keta</i>	> 30 cm	0.30	27	6.96%	6.600	386.705	5.057 ± 1.643	7.378	607.680	6.594 ± 2.350
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	0.77%	6.426	8.642	0.057 ± 0.033	8.292	39.753	0.207 ± 0.133
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	4	1.03%	7.122	149.447	0.618 ± 0.427	5.156	209.973	0.694 ± 0.556
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	4	1.03%	4.955	20.813	0.117 ± 0.068	0.991	6.868	0.034 ± 0.021
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	5	1.29%	6.861	45.534	0.192 ± 0.123	5.883	40.851	0.279 ± 0.141

Table 76

Salmon abundance in epipelagic water layer in winter. The data of the years 1979-2004. Region # 13 (number of trawl stations 89)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	26	29.21%	27.682	2816.685	203.370 ± 59.644	5.730	691.195	47.672 ± 13.319
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	30	33.71%	6.793	11818.633	341.796 ± 162.721	2.412	4836.339	133.112 ± 65.312
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	15	16.85%	5.092	3357.057	64.746 ± 40.372	0.519	470.123	9.390 ± 5.760
<i>Oncorhynchus keta</i>	> 30 cm	0.30	21	23.60%	6.457	144.995	7.791 ± 2.279	3.874	268.241	11.374 ± 3.727
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	2	2.25%	9.006	17.954	0.303 ± 0.226	10.465	41.294	0.582 ± 0.480
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	18	20.22%	12.153	170.288	11.199 ± 3.071	7.404	180.434	9.301 ± 2.694
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	6	6.74%	6.041	18.751	0.716 ± 0.308	1.208	6.094	0.207 ± 0.094
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	3	3.37%	7.382	23.391	0.447 ± 0.293	10.136	51.768	0.890 ± 0.624

Table 77

Salmon abundance in upper epipelagic water layer in winter. The data of the years 1979-2004. Region # 5 (number of trawl stations 13)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	7.69%	27.637	27.637	2.126 ± 2.213	43.759	43.759	3.366 ± 3.504
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	1	7.69%	6.832	6.832	0.526 ± 0.547	1.606	1.606	0.124 ± 0.129

Table 78

Salmon abundance in upper epipelagic water layer in winter. The data of the years 1979-2004. Region # 6 (number of trawl stations 13)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	1	7.69%	6.977	6.977	0.537 ± 0.559	0.942	0.942	0.072 ± 0.075
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	2	15.38%	6.909	6.909	1.063 ± 0.749	0.470	0.760	0.095 ± 0.069
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	5	38.46%	9.212	82.911	12.700 ± 6.983	7.370	115.339	17.441 ± 9.721
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	23.08%	6.832	6.909	1.583 ± 0.868	0.956	1.298	0.264 ± 0.146

Table 79

Salmon abundance in upper epipelagic water layer in winter. The data of the years 1979-2004. Region # 7 (number of trawl stations 37)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	7	18.92%	11.656	1540.264	72.673 ± 46.421	1.836	323.455	15.153 ± 9.733
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	8	21.62%	5.632	785.233	32.115 ± 22.512	0.549	116.516	4.634 ± 3.331
<i>Oncorhynchus keta</i>	> 30 cm	0.30	1	2.70%	8.421	8.421	0.228 ± 0.231	19.957	19.957	0.539 ± 0.547
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	2.70%	12.081	12.081	0.327 ± 0.331	2.537	2.537	0.069 ± 0.070
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	2	5.41%	56.130	102.578	4.289 ± 3.166	14.875	22.145	1.001 ± 0.721

Table 80

Salmon abundance in upper epipelagic water layer in winter. The data of the years 1979-2004. Region # 8 (number of trawl stations 37)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	23	62.16%	5.604	9126.073	432.385 ± 249.661	1.009	1872.703	94.450 ± 51.509
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	2.70%	7.195	7.195	0.194 ± 0.197	2.302	2.302	0.062 ± 0.063
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	12	32.43%	24.332	12885.391	491.350 ± 359.956	3.163	1870.975	70.887 ± 52.213
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	5	13.51%	5.229	37.254	2.763 ± 1.466	8.366	62.140	4.294 ± 2.230
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	1	2.70%	1.961	1.961	0.053 ± 0.054	0.549	0.549	0.015 ± 0.015
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	2.70%	7.304	7.304	0.197 ± 0.200	2.995	2.995	0.081 ± 0.082

Table 81

Salmon abundance in upper epipelagic water layer in winter. The data of the years 1979-2004. Region # 9 (number of trawl stations 29)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	12	41.38%	4.737	1517.079	149.048 ± 68.781	0.962	261.240	29.392 ± 13.262
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	6	20.69%	5.532	94.069	4.893 ± 3.331	0.553	9.407	0.548 ± 0.339
<i>Oncorhynchus keta</i>	> 30 cm	0.30	2	6.90%	9.236	13.996	0.801 ± 0.579	17.548	17.985	1.225 ± 0.866
<i>Oncorhynchus masou</i>	> 30 cm	0.30	2	6.90%	13.449	14.752	0.972 ± 0.688	12.540	17.484	1.035 ± 0.742
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	1	3.45%	8.391	8.391	0.289 ± 0.294	28.947	28.947	0.998 ± 1.016

Table 82

Salmon abundance in upper epipelagic water layer in winter. The data of the years 1979-2004. Region # 10 (number of trawl stations 65)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	39	60.00%	8.068	4211.972	524.868 ± 111.778	1.251	989.779	124.208 ± 27.231
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	4	6.15%	7.843	3869.871	69.831 ± 60.687	8.784	1300.124	23.621 ± 20.357
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	28	43.08%	5.614	1851.533	113.999 ± 37.551	0.826	275.228	16.658 ± 5.721
<i>Oncorhynchus keta</i>	> 30 cm	0.30	8	12.31%	6.484	19.063	1.200 ± 0.435	10.305	34.274	2.616 ± 0.948
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	1.54%	6.531	6.531	0.100 ± 0.101	1.809	1.809	0.028 ± 0.028
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	2	3.08%	7.822	7.878	0.242 ± 0.171	6.618	15.645	0.342 ± 0.262
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	1	1.54%	7.203	7.203	0.111 ± 0.112	28.812	28.812	0.443 ± 0.447

Table 83

Salmon abundance in upper epipelagic water layer in winter. The data of the years 1979-2004. Region # 11 (number of trawl stations 97)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	8	8.25%	7.297	83.715	2.517 ± 1.134	15.325	175.802	7.167 ± 3.017

Table 84

Salmon abundance in upper epipelagic water layer in winter. The data of the years 1979-2004. Region # 12 (number of trawl stations 155)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	37	23.87%	5.442	13721.047	280.111 ± 105.399	1.103	2951.849	67.687 ± 23.861
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	17	10.97%	6.903	5365.183	55.862 ± 36.071	2.209	1928.072	19.851 ± 12.874
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	13	8.39%	9.493	1386.233	22.662 ± 11.838	1.424	228.541	3.714 ± 1.944
<i>Oncorhynchus keta</i>	> 30 cm	0.30	16	10.32%	6.600	386.705	7.907 ± 3.413	7.378	607.680	10.784 ± 5.035
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.65%	7.136	7.136	0.046 ± 0.046	8.292	8.292	0.053 ± 0.054
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	0.65%	69.934	69.934	0.451 ± 0.453	48.410	48.410	0.312 ± 0.313
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	1	0.65%	14.421	14.421	0.093 ± 0.093	4.326	4.326	0.028 ± 0.028
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	2	1.29%	7.354	7.427	0.095 ± 0.067	5.883	40.851	0.302 ± 0.267

Table 85

Salmon abundance in upper epipelagic water layer in winter. The data of the years 1979-2004. Region # 13 (number of trawl stations 39)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	10	25.64%	27.682	2303.982	132.070 ± 68.093	5.730	691.195	35.567 ± 19.140
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	12	30.77%	7.095	5320.457	155.166 ± 138.073	2.412	1696.954	50.021 ± 44.029
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	6	15.38%	5.185	3357.057	92.408 ± 87.122	0.519	470.123	13.106 ± 12.203
<i>Oncorhynchus keta</i>	> 30 cm	0.30	10	25.64%	7.095	74.371	6.293 ± 2.624	7.563	120.331	7.605 ± 3.489
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	2.56%	9.006	9.006	0.231 ± 0.234	10.465	10.465	0.268 ± 0.272
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	9	23.08%	29.527	170.288	18.987 ± 6.495	22.588	180.434	14.703 ± 5.605
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	2	5.13%	6.755	11.073	0.457 ± 0.333	1.466	2.768	0.109 ± 0.080
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	2	5.13%	7.382	9.006	0.420 ± 0.299	17.347	51.768	1.772 ± 1.407

Table 86

Salmon abundance in epipelagic water layer in spring. The data of the years 1979-2004. Region # 7 (number of trawl stations 51)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	1	1.96%	6.232	6.232	0.122 ± 0.123	15.579	15.579	0.305 ± 0.309

Table 87

Salmon abundance in epipelagic water layer in spring. The data of the years 1979-2004. Region # 11 (number of trawl stations 162)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	0.62%	16.660	16.660	0.103 ± 0.103	24.990	24.990	0.154 ± 0.155
<i>Oncorhynchus keta</i>	> 30 cm	0.30	7	4.32%	3.058	49.979	0.590 ± 0.333	6.460	141.608	1.842 ± 0.973

Table 88

Salmon abundance in epipelagic water layer in spring. The data of the years 1979-2004. Region # 12 (number of trawl stations 278)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	7	2.52%	4.779	2381.316	14.020 ± 9.512	0.956	709.902	4.164 ± 2.839
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	102	36.69%	3.955	17986.749	637.312 ± 118.101	2.774	12590.725	392.018 ± 78.546
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	11	3.96%	5.145	951.161	9.018 ± 4.330	0.601	248.921	1.849 ± 0.995
<i>Oncorhynchus keta</i>	> 30 cm	0.30	79	28.42%	7.087	4357.002	53.559 ± 17.991	8.000	3946.931	61.785 ± 16.192
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.36%	5.301	5.301	0.019 ± 0.019	1.680	1.680	0.006 ± 0.006
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.36%	12.749	12.749	0.046 ± 0.046	11.474	11.474	0.041 ± 0.041
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.36%	221.061	221.061	0.795 ± 0.797	60.002	60.002	0.216 ± 0.216
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	14	5.04%	7.164	168.364	2.313 ± 0.869	4.694	132.953	1.861 ± 0.729
<i>Oncorhynchus tschawytscha</i>	≤ 30 cm	0.40	3	1.08%	4.779	9.453	0.070 ± 0.042	1.434	2.836	0.022 ± 0.013
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	18	6.47%	4.242	50.475	1.008 ± 0.286	2.915	68.423	1.631 ± 0.470

Table 89

Salmon abundance in epipelagic water layer in spring. The data of the years 1979-2004. Region # 13 (number of trawl stations 64)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	35	54.69%	6.647	7102.744	450.140 ± 144.465	5.184	4297.850	302.567 ± 97.102
<i>Oncorhynchus keta</i>	> 30 cm	0.30	28	43.75%	6.365	932.251	28.218 ± 15.082	2.637	824.683	37.692 ± 15.689
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	1.56%	5.511	5.511	0.086 ± 0.087	1.378	1.378	0.022 ± 0.022
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	24	37.50%	7.279	977.864	31.814 ± 15.706	8.516	1477.553	43.171 ± 23.746

Table 90

Salmon abundance in upper epipelagic water layer in spring. The data of the years 1979-2004. Region # 11 (number of trawl stations 98)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	1.02%	16.660	16.660	0.170 ± 0.171	24.990	24.990	0.255 ± 0.256
<i>Oncorhynchus keta</i>	> 30 cm	0.30	6	6.12%	3.058	49.979	0.900 ± 0.545	6.460	141.608	2.671 ± 1.564

Table 91

Salmon abundance in upper epipelagic water layer in spring. The data of the years 1979-2004. Region # 12 (number of trawl stations 118)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	4	3.39%	4.779	174.887	1.879 ± 1.519	0.956	49.187	0.525 ± 0.427
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	38	32.20%	3.955	17986.749	610.217 ± 179.037	2.774	12590.725	409.736 ± 124.700
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	4	3.39%	6.007	354.765	5.946 ± 4.034	0.601	55.199	0.914 ± 0.624
<i>Oncorhynchus keta</i>	> 30 cm	0.30	33	27.97%	7.087	4357.002	60.928 ± 37.457	8.000	3946.931	76.007 ± 35.035
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.85%	5.301	5.301	0.045 ± 0.045	1.680	1.680	0.014 ± 0.014
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.85%	221.061	221.061	1.873 ± 1.881	60.002	60.002	0.508 ± 0.511
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	9	7.63%	7.164	168.364	4.560 ± 1.989	4.800	132.953	3.701 ± 1.677
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	2	1.69%	4.779	5.263	0.085 ± 0.060	1.434	1.790	0.027 ± 0.019
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	9	7.63%	4.242	50.475	1.110 ± 0.496	2.915	68.423	2.093 ± 0.887

Table 92

Salmon abundance in upper epipelagic water layer in spring. The data of the years 1979-2004. Region # 13 (number of trawl stations 34)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	22	64.71%	26.837	7102.744	617.597 ± 258.644	10.198	4297.850	452.684 ± 176.268
<i>Oncorhynchus keta</i>	> 30 cm	0.30	17	50.00%	6.365	241.355	17.686 ± 7.560	9.057	563.737	34.552 ± 17.142
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	2.94%	5.511	5.511	0.162 ± 0.165	1.378	1.378	0.041 ± 0.041
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	15	44.12%	7.777	977.864	48.182 ± 29.104	10.064	1477.553	63.300 ± 43.914

Table 93

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 1 (number of trawl stations 20)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	1	5.00%	48.365	48.365	2.418 ± 2.481	3.047	3.047	0.152 ± 0.156
<i>Oncorhynchus keta</i>	> 30 cm	0.30	2	10.00%	5.732	26.614	1.617 ± 1.381	20.636	63.608	4.212 ± 3.377
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	2	10.00%	9.673	9.980	0.983 ± 0.694	0.871	0.998	0.093 ± 0.066

Table 94

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 2 (number of trawl stations 24)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	3	12.50%	6.207	21.315	1.463 ± 0.971	0.303	1.428	0.095 ± 0.065
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	12.50%	25.151	98.188	8.914 ± 5.597	4.192	19.529	1.654 ± 1.055

Table 95

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 3 (number of trawl stations 16)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	6.25%	9.803	9.803	0.613 ± 0.633	0.686	0.686	0.043 ± 0.044
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	4	25.00%	20.604	68.537	9.761 ± 5.111	4.117	12.461	1.941 ± 1.004

Table 96

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 4 (number of trawl stations 35)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	1	2.86%	7.263	7.263	0.208 ± 0.211	33.410	33.410	0.955 ± 0.969
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	4	11.43%	5.214	12.723	0.830 ± 0.443	1.008	1.953	0.157 ± 0.079

Table 97

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 5 (number of trawl stations 63)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	9	14.29%	6.985	2113.390	41.297 ± 34.018	0.660	258.632	4.993 ± 4.156
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	13	20.63%	3.493	635.495	16.345 ± 10.333	0.332	66.505	1.576 ± 1.074
<i>Oncorhynchus keta</i>	> 30 cm	0.30	4	6.35%	4.657	25.082	0.720 ± 0.439	5.901	57.312	1.384 ± 0.953
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	1.59%	3.493	3.493	0.055 ± 0.056	0.653	0.653	0.010 ± 0.010
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	3	4.76%	9.478	51.726	1.190 ± 0.863	0.663	10.072	0.199 ± 0.163
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	10	15.87%	4.657	62.705	4.367 ± 1.664	2.719	50.258	3.992 ± 1.391
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	1.59%	4.657	4.657	0.074 ± 0.075	2.142	2.142	0.034 ± 0.034
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	11	17.46%	3.493	44.345	1.924 ± 0.788	0.590	10.111	0.404 ± 0.177
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	1.59%	7.356	7.356	0.117 ± 0.118	47.785	47.785	0.758 ± 0.765



Table 98

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 6 (number of trawl stations 44)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	8	18.18%	20.094	5166.549	163.496 ± 120.221	2.803	617.610	20.222 ± 14.499
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	14	31.82%	6.505	1085.346	57.517 ± 29.116	0.293	105.601	5.785 ± 2.951
<i>Oncorhynchus keta</i>	> 30 cm	0.30	13	29.55%	6.774	78.561	8.691 ± 2.727	7.625	98.541	11.094 ± 3.680
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	2	4.55%	5.634	17.816	0.533 ± 0.427	1.510	5.939	0.169 ± 0.140
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	8	18.18%	3.640	54.256	3.626 ± 1.590	3.051	27.128	2.323 ± 0.956
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	5	11.36%	8.649	202.733	6.113 ± 4.706	0.908	48.752	1.346 ± 1.123
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	19	43.18%	7.512	422.775	45.010 ± 12.993	3.208	283.554	39.842 ± 10.707
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	1	2.27%	5.957	5.957	0.135 ± 0.137	1.787	1.787	0.041 ± 0.041
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	10	22.73%	4.325	29.693	2.753 ± 1.014	0.864	5.634	0.511 ± 0.190
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	4	9.09%	7.822	32.498	1.648 ± 0.906	9.405	78.223	4.057 ± 2.409

Table 99

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 7 (number of trawl stations 267)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	16	5.99%	5.847	2074.652	20.620 ± 10.169	1.399	331.662	3.232 ± 1.564
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	24	8.99%	7.381	747.540	14.650 ± 4.598	4.543	838.201	17.204 ± 5.484
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	15	5.62%	6.984	10456.956	55.422 ± 40.564	0.663	1147.889	6.397 ± 4.516
<i>Oncorhynchus keta</i>	> 30 cm	0.30	33	12.36%	2.835	394.496	3.674 ± 1.574	6.358	822.010	9.525 ± 3.441
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	5	1.87%	5.230	172.048	0.898 ± 0.661	1.046	39.399	0.213 ± 0.153
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.37%	9.409	9.409	0.035 ± 0.035	7.527	7.527	0.028 ± 0.028
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	8	3.00%	11.382	257.252	2.486 ± 1.344	0.740	72.903	0.547 ± 0.318
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	12	4.49%	5.144	3656.627	15.350 ± 13.732	3.097	3465.997	15.160 ± 13.028
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	10	3.75%	5.230	1892.527	12.578 ± 8.049	1.203	403.854	2.926 ± 1.847
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	6	2.25%	6.096	27.487	0.314 ± 0.142	16.570	61.289	0.998 ± 0.427

Table 100

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 8 (number of trawl stations 367)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	21	5.72%	5.957	25738.697	113.339 ± 73.404	1.315	4109.292	19.040 ± 11.917
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	64	17.44%	6.019	2985.243	63.582 ± 15.155	3.976	2403.949	57.820 ± 13.150
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	19	5.18%	11.826	163641.713	508.905 ± 447.342	1.579	32281.366	97.724 ± 88.178
<i>Oncorhynchus keta</i>	> 30 cm	0.30	67	18.26%	3.777	301.714	6.088 ± 1.177	1.998	1041.918	16.502 ± 3.719
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	2	0.54%	6.508	73.299	0.217 ± 0.201	1.985	23.333	0.069 ± 0.064
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	6	1.63%	7.813	209.267	0.735 ± 0.577	3.423	75.964	0.535 ± 0.275
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	6	1.63%	5.957	748.378	3.076 ± 2.126	0.828	91.497	0.473 ± 0.281
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	12	3.27%	7.102	132.778	0.960 ± 0.428	4.473	55.028	1.007 ± 0.322
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	9	2.45%	6.509	78.092	0.686 ± 0.277	1.881	15.358	0.150 ± 0.058
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	13	3.54%	5.065	14.753	0.360 ± 0.102	18.267	97.928	1.903 ± 0.567

Table 101

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 9 (number of trawl stations 977)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	23	2.35%	2.186	8875.162	27.592 ± 13.806	0.444	1440.826	4.452 ± 2.196
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	27	2.76%	2.767	536.927	3.046 ± 0.983	4.360	771.448	3.297 ± 1.122
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	18	1.84%	5.532	2056.817	5.538 ± 2.872	0.553	268.968	0.675 ± 0.358
<i>Oncorhynchus keta</i>	> 30 cm	0.30	101	10.34%	5.051	1670.564	6.465 ± 1.922	8.132	5011.692	20.152 ± 5.958
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.10%	14.177	14.177	0.015 ± 0.015	7.046	7.046	0.007 ± 0.007
<i>Oncorhynchus masou</i>	> 30 cm	0.30	3	0.31%	8.669	14.752	0.038 ± 0.022	8.669	17.484	0.040 ± 0.024
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	16	1.64%	2.216	814.777	1.984 ± 1.008	8.971	1805.527	6.132 ± 2.899
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	2	0.20%	17.720	137.694	0.159 ± 0.142	0.115	0.496	0.001 ± 0.001
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	17	1.74%	2.695	73.675	0.308 ± 0.116	5.534	256.941	1.273 ± 0.424

Table 102

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 10 (number of trawl stations 1083)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	23	2.12%	9.667	1377.597	5.454 ± 1.752	1.257	270.117	1.161 ± 0.385
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	46	4.25%	5.770	3075.846	10.279 ± 3.599	4.634	3031.060	10.301 ± 3.617
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	17	1.57%	5.702	1228.326	2.946 ± 1.382	0.627	143.068	0.368 ± 0.171
<i>Oncorhynchus keta</i>	> 30 cm	0.30	189	17.45%	2.361	467.903	9.000 ± 1.080	4.632	1637.660	32.347 ± 4.055
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	4	0.37%	2.310	7.126	0.016 ± 0.009	1.617	27.078	0.048 ± 0.029
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	17	1.57%	3.623	263.221	0.888 ± 0.372	14.493	1316.103	4.397 ± 1.883
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	31	2.86%	2.310	48.751	0.467 ± 0.103	5.912	263.221	2.366 ± 0.562

Table 103

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 11 (number of trawl stations 720)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	0.14%	16.660	16.660	0.023 ± 0.023	24.990	24.990	0.035 ± 0.035
<i>Oncorhynchus keta</i>	> 30 cm	0.30	37	5.14%	2.312	402.114	2.299 ± 0.707	4.623	1116.984	7.104 ± 2.075
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.14%	7.620	7.620	0.011 ± 0.011	28.196	28.196	0.039 ± 0.039
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	10	1.39%	6.137	272.519	0.788 ± 0.419	21.972	1362.596	3.778 ± 2.081
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	2	0.28%	6.038	14.218	0.028 ± 0.021	28.437	39.248	0.094 ± 0.067

Table 104

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 12 (number of trawl stations 1206)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	65	5.39%	4.779	13721.047	65.551 ± 15.818	0.956	2951.849	16.961 ± 3.858
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	139	11.53%	3.955	17986.749	183.556 ± 31.313	2.686	12590.725	103.969 ± 19.212
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	28	2.32%	4.669	10923.674	21.019 ± 9.889	0.601	1900.709	3.726 ± 1.729
<i>Oncorhynchus keta</i>	> 30 cm	0.30	105	8.71%	5.023	4357.002	13.871 ± 4.214	5.414	3946.931	16.552 ± 3.869
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.08%	5.301	5.301	0.004 ± 0.004	1.680	1.680	0.001 ± 0.001
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	6	0.50%	6.426	12.749	0.040 ± 0.017	8.292	39.753	0.110 ± 0.050
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	11	0.91%	12.037	128.147	0.297 ± 0.125	4.694	132.953	0.378 ± 0.158
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	4	0.33%	4.779	14.421	0.028 ± 0.015	0.991	4.326	0.008 ± 0.005
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	24	1.99%	4.242	53.474	0.331 ± 0.089	2.915	92.688	0.537 ± 0.143

Table 105

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 13 (number of trawl stations 322)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	13	4.04%	28.196	2816.685	27.242 ± 12.566	7.331	563.337	5.752 ± 2.470
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	52	16.15%	8.357	11818.633	180.381 ± 53.974	3.530	4836.339	102.741 ± 27.264
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	7	2.17%	5.092	3357.057	13.785 ± 10.620	0.713	470.123	1.920 ± 1.485
<i>Oncorhynchus keta</i>	> 30 cm	0.30	32	9.94%	5.320	932.251	6.076 ± 3.053	3.874	824.683	8.252 ± 3.262
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	0.93%	6.575	17.954	0.104 ± 0.066	10.465	41.294	0.230 ± 0.149
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	13	4.04%	12.153	446.787	3.092 ± 1.577	15.006	607.152	4.073 ± 2.131
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	0.93%	6.041	18.751	0.098 ± 0.065	1.208	6.094	0.027 ± 0.020
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	4	1.24%	5.320	23.391	0.150 ± 0.086	10.136	51.768	0.394 ± 0.224

Table 106

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 4 (number of trawl stations 12)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	1	8.33%	7.263	7.263	0.605 ± 0.632	33.410	33.410	2.784 ± 2.908
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	25.00%	5.214	5.762	1.360 ± 0.743	1.008	1.429	0.294 ± 0.163

Table 107

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 5 (number of trawl stations 27)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	3	11.11%	6.985	279.969	11.034 ± 10.552	0.660	29.784	1.184 ± 1.123
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	4	14.81%	3.493	109.633	6.132 ± 4.363	0.332	9.165	0.520 ± 0.373
<i>Oncorhynchus keta</i>	> 30 cm	0.30	3	11.11%	4.657	7.942	0.751 ± 0.436	5.901	13.971	1.106 ± 0.662
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	3.70%	3.493	3.493	0.129 ± 0.132	0.653	0.653	0.024 ± 0.025
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	4	14.81%	4.657	55.077	3.697 ± 2.278	9.314	50.258	4.350 ± 2.442
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	3.70%	4.657	4.657	0.172 ± 0.176	2.142	2.142	0.079 ± 0.081
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	6	22.22%	3.493	44.345	2.956 ± 1.734	0.590	10.111	0.644 ± 0.393
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	3.70%	7.356	7.356	0.272 ± 0.278	47.785	47.785	1.770 ± 1.804

Table 108

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 6 (number of trawl stations 24)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	6	25.00%	41.067	5166.549	289.404 ± 221.002	4.752	617.610	35.661 ± 26.631
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	10	41.67%	6.505	1085.346	97.228 ± 52.670	0.293	105.601	9.908 ± 5.342
<i>Oncorhynchus keta</i>	> 30 cm	0.30	10	41.67%	6.774	78.561	12.090 ± 4.463	7.625	98.137	12.093 ± 4.617
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	2	8.33%	5.634	17.816	0.977 ± 0.785	1.510	5.939	0.310 ± 0.258
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	4	16.67%	3.640	35.741	2.298 ± 1.561	3.051	26.806	1.920 ± 1.223
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	4	16.67%	8.649	33.584	2.760 ± 1.572	0.908	4.174	0.436 ± 0.233
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	11	45.83%	7.512	229.318	41.635 ± 15.509	3.208	283.554	42.923 ± 16.987
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	1	4.17%	5.957	5.957	0.248 ± 0.254	1.787	1.787	0.074 ± 0.076
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	9	37.50%	4.325	29.693	4.634 ± 1.750	0.864	5.634	0.846 ± 0.327
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	4	16.67%	7.822	32.498	3.021 ± 1.636	9.405	78.223	7.438 ± 4.375

Table 109

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 7 (number of trawl stations 160)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	10	6.25%	5.847	1591.036	14.054 ± 10.175	1.399	217.332	1.975 ± 1.392
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	24	15.00%	7.381	747.540	24.447 ± 7.594	4.543	838.201	28.710 ± 9.061
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	11	6.88%	6.984	10456.956	87.068 ± 67.579	0.663	1147.889	9.947 ± 7.516
<i>Oncorhynchus keta</i>	> 30 cm	0.30	31	19.38%	2.835	394.496	6.024 ± 2.615	6.358	822.010	15.596 ± 5.702
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	5	3.13%	5.230	172.048	1.499 ± 1.103	1.046	39.399	0.355 ± 0.255
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	8	5.00%	11.382	257.252	4.149 ± 2.239	0.740	72.903	0.913 ± 0.531
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	12	7.50%	5.144	3656.627	25.616 ± 22.937	3.097	3465.997	25.299 ± 21.758
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	10	6.25%	5.230	1892.527	20.989 ± 13.424	1.203	403.854	4.883 ± 3.080
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	6	3.75%	6.096	27.487	0.524 ± 0.236	16.570	61.289	1.666 ± 0.710

Table 110

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 8 (number of trawl stations 311)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	13	4.18%	5.957	25738.697	128.954 ± 86.584	1.315	4109.292	21.570 ± 14.053
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	62	19.94%	6.019	2985.243	64.013 ± 15.970	3.976	2403.949	64.212 ± 15.210
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	14	4.50%	17.870	163641.713	599.912 ± 527.986	1.579	32281.366	115.230 ± 104.076
<i>Oncorhynchus keta</i>	> 30 cm	0.30	63	20.26%	3.777	130.330	5.855 ± 0.972	1.998	500.985	15.054 ± 2.742
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	2	0.64%	6.508	73.299	0.257 ± 0.237	1.985	23.333	0.081 ± 0.075
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	2	0.64%	7.942	209.267	0.698 ± 0.674	3.423	75.964	0.255 ± 0.245
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	6	1.93%	5.957	748.378	3.629 ± 2.508	0.828	91.497	0.558 ± 0.332
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	12	3.86%	7.102	132.778	1.132 ± 0.505	4.473	55.028	1.189 ± 0.379
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	9	2.89%	6.509	78.092	0.810 ± 0.326	1.881	15.358	0.177 ± 0.069
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	12	3.86%	5.065	14.753	0.392 ± 0.116	18.267	97.928	2.021 ± 0.631

Table 111

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 9 (number of trawl stations 595)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	15	2.52%	2.186	8875.162	36.297 ± 21.332	0.444	1440.826	5.814 ± 3.389
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	22	3.70%	2.767	536.927	4.140 ± 1.528	4.360	771.448	4.416 ± 1.715
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	13	2.18%	5.532	2056.817	6.265 ± 3.831	0.553	268.968	0.792 ± 0.501
<i>Oncorhynchus keta</i>	> 30 cm	0.30	88	14.79%	5.051	1670.564	8.210 ± 2.943	8.132	5011.692	27.813 ± 9.296
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.17%	14.177	14.177	0.024 ± 0.024	7.046	7.046	0.012 ± 0.012
<i>Oncorhynchus masou</i>	> 30 cm	0.30	3	0.50%	8.669	14.752	0.062 ± 0.037	8.669	17.484	0.065 ± 0.039
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	15	2.52%	2.216	814.777	3.245 ± 1.655	8.971	1805.527	10.045 ± 4.759
<i>Oncorhynchus sp.</i>	≤ 30 cm	0.40	2	0.34%	17.720	137.694	0.261 ± 0.233	0.115	0.496	0.001 ± 0.001
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	12	2.02%	2.767	72.995	0.310 ± 0.138	5.534	256.941	1.297 ± 0.536

Table 112

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 10 (number of trawl stations 862)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	13	1.51%	9.667	1377.597	4.784 ± 1.989	1.257	270.117	0.969 ± 0.398
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	34	3.94%	5.770	3075.846	12.285 ± 4.514	4.634	3031.060	12.225 ± 4.532
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	10	1.16%	14.589	1228.326	3.260 ± 1.713	1.420	143.068	0.413 ± 0.212
<i>Oncorhynchus keta</i>	> 30 cm	0.30	163	18.91%	2.620	423.875	9.759 ± 1.218	4.632	1422.946	36.559 ± 4.691
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	4	0.46%	2.310	7.126	0.020 ± 0.011	1.617	27.078	0.060 ± 0.037
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	17	1.97%	3.623	263.221	1.115 ± 0.467	14.493	1316.103	5.524 ± 2.365
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	23	2.67%	2.310	42.851	0.383 ± 0.098	5.912	263.221	1.966 ± 0.562

Table 113

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 11 (number of trawl stations 408)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	1	0.25%	16.660	16.660	0.041 ± 0.041	24.990	24.990	0.061 ± 0.061
<i>Oncorhynchus keta</i>	> 30 cm	0.30	25	6.13%	2.519	402.114	3.341 ± 1.208	6.460	1116.984	10.451 ± 3.561
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.25%	7.620	7.620	0.019 ± 0.019	28.196	28.196	0.069 ± 0.069
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	10	2.45%	6.137	272.519	1.391 ± 0.739	21.972	1362.596	6.667 ± 3.670
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	2	0.49%	6.038	14.218	0.050 ± 0.038	28.437	39.248	0.166 ± 0.119

Table 114

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 12 (number of trawl stations 765)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	21	2.75%	4.779	13721.047	49.401 ± 21.489	0.956	2951.849	11.724 ± 4.863
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	46	6.01%	3.955	17986.749	97.952 ± 29.181	2.774	12590.725	65.442 ± 19.955
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	12	1.57%	6.007	1386.233	4.780 ± 2.446	0.601	228.541	0.774 ± 0.400
<i>Oncorhynchus keta</i>	> 30 cm	0.30	44	5.75%	5.023	4357.002	10.766 ± 5.826	7.378	3946.931	14.058 ± 5.551
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.13%	5.301	5.301	0.007 ± 0.007	1.680	1.680	0.002 ± 0.002
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	2	0.26%	6.598	7.136	0.018 ± 0.013	8.292	20.122	0.037 ± 0.028
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	5	0.65%	21.740	128.147	0.314 ± 0.183	28.262	132.953	0.483 ± 0.243
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	2	0.26%	4.779	14.421	0.025 ± 0.020	1.434	4.326	0.008 ± 0.006
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	12	1.57%	4.242	53.474	0.249 ± 0.104	2.915	92.688	0.497 ± 0.194

Table 115

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1979-1990. Region # 13 (number of trawl stations 237)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	4	1.69%	28.196	1242.854	7.636 ± 5.494	7.331	242.492	1.697 ± 1.120
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	33	13.92%	8.357	7102.744	123.485 ± 45.111	5.452	4297.850	87.682 ± 28.334
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	2	0.84%	132.460	3357.057	14.724 ± 14.203	23.732	470.123	2.084 ± 1.990
<i>Oncorhynchus keta</i>	> 30 cm	0.30	16	6.75%	6.702	241.355	2.035 ± 1.077	14.075	563.737	4.202 ± 2.435
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	2	0.84%	6.575	9.006	0.066 ± 0.047	10.465	22.355	0.138 ± 0.104
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	4	1.69%	12.485	446.787	2.958 ± 2.100	19.040	607.152	4.222 ± 2.861
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	1	0.42%	6.755	6.755	0.029 ± 0.029	1.466	1.466	0.006 ± 0.006
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	2	0.84%	9.006	10.668	0.083 ± 0.059	44.805	51.768	0.407 ± 0.289

Table 116

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 1 (number of trawl stations 14)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	2	14.29%	161.930	1209.823	97.982 ± 89.558	192.542	1392.475	113.215 ± 103.106
<i>Oncorhynchus keta</i>	> 30 cm	0.30	2	14.29%	15.422	243.536	18.497 ± 18.000	24.598	386.043	29.332 ± 28.533
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	7.14%	793.455	793.455	56.675 ± 58.815	549.841	549.841	39.274 ± 40.757
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	7.14%	7.856	7.856	0.561 ± 0.582	74.868	74.868	5.348 ± 5.550

Table 117

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 2 (number of trawl stations 11)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	2	18.18%	8.880	677.431	62.392 ± 64.511	10.923	829.853	76.434 ± 79.026
<i>Oncorhynchus keta</i>	> 30 cm	0.30	3	27.27%	61.640	355.238	61.310 ± 39.366	137.381	556.981	76.404 ± 53.500
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	9.09%	8.261	8.261	0.751 ± 0.788	14.457	14.457	1.314 ± 1.378
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	2	18.18%	7.705	231.318	21.729 ± 21.994	8.861	333.759	31.147 ± 31.749



Table 118

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 4 (number of trawl stations 14)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	7	50.00%	6.715	5182.785	394.765 ± 382.620	7.386	6352.035	486.877 ± 468.803
<i>Oncorhynchus keta</i>	> 30 cm	0.30	6	42.86%	27.841	754.302	131.544 ± 70.465	63.386	1801.079	207.002 ± 133.146
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	7.14%	11.137	11.137	0.796 ± 0.826	2.896	2.896	0.207 ± 0.215
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	21.43%	6.715	24.332	3.658 ± 2.251	22.494	66.914	9.673 ± 5.854
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	4	28.57%	20.144	70.564	10.138 ± 5.580	39.929	174.843	21.797 ± 13.235
<i>Oncorhynchus tschawytscha</i>	≤ 30 cm	0.40	1	7.14%	11.137	11.137	0.796 ± 0.826	2.339	2.339	0.167 ± 0.173
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	4	28.57%	6.722	20.144	3.678 ± 1.858	29.913	98.571	16.137 ± 8.412

Table 119

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 5 (number of trawl stations 75)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	1	1.33%	7.810	7.810	0.104 ± 0.105	0.664	0.664	0.009 ± 0.009
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	32	42.67%	5.664	444.985	43.376 ± 10.009	8.440	551.244	54.567 ± 12.485
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	1	1.33%	23.431	23.431	0.312 ± 0.315	2.124	2.124	0.028 ± 0.029
<i>Oncorhynchus keta</i>	> 30 cm	0.30	39	52.00%	6.983	584.861	53.549 ± 13.194	16.222	1103.920	100.428 ± 23.827
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	5	6.67%	6.498	38.415	1.011 ± 0.573	16.506	98.343	2.616 ± 1.483
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	39	52.00%	2.940	236.529	23.251 ± 5.273	5.105	368.359	42.336 ± 9.624
<i>Oncorhynchus tschawytscha</i>	≤ 30 cm	0.40	3	4.00%	6.832	11.656	0.351 ± 0.207	1.328	2.477	0.072 ± 0.043
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	7	9.33%	7.567	10.526	0.779 ± 0.286	14.377	43.022	2.459 ± 0.972

Table 120

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 6 (number of trawl stations 95)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	18	18.95%	6.977	132.716	8.157 ± 2.352	0.816	15.268	1.087 ± 0.310
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	35	36.84%	7.472	349.043	26.798 ± 5.802	7.747	420.513	30.683 ± 6.611
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	10	10.53%	6.909	98.746	4.053 ± 1.584	0.470	11.927	0.581 ± 0.227
<i>Oncorhynchus keta</i>	> 30 cm	0.30	48	50.53%	6.449	703.240	39.441 ± 10.547	6.319	1388.630	60.152 ± 17.008
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	8	8.42%	5.309	37.108	1.439 ± 0.566	1.194	11.875	0.437 ± 0.175
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	9	9.47%	8.454	155.233	3.400 ± 1.814	4.634	144.449	4.123 ± 1.819
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	2	2.11%	7.436	69.143	0.806 ± 0.735	0.818	22.414	0.245 ± 0.237
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	66	69.47%	7.009	395.818	50.724 ± 8.202	5.760	447.126	56.445 ± 8.374
<i>Oncorhynchus tschawytscha</i>	≤ 30 cm	0.40	19	20.00%	5.309	46.570	3.554 ± 0.983	0.956	10.401	0.747 ± 0.211
<i>Oncorhynchus tschawytscha</i>	> 30 cm	0.30	8	8.42%	6.883	32.979	1.102 ± 0.466	3.098	58.387	2.285 ± 0.937

Table 121

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 7 (number of trawl stations 251)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	36	14.34%	5.619	14553.948	156.105 ± 68.091	0.562	2628.995	25.600 ± 11.661
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	137	54.58%	6.964	4359.765	141.199 ± 23.996	6.293	4703.811	189.661 ± 29.122
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	40	15.94%	5.478	112691.756	721.725 ± 464.038	0.425	14876.280	96.895 ± 61.161
<i>Oncorhynchus keta</i>	> 30 cm	0.30	142	56.57%	6.752	1436.544	31.824 ± 7.244	8.297	3254.544	74.923 ± 15.635
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	11	4.38%	5.619	60.495	0.989 ± 0.373	0.956	19.633	0.297 ± 0.118
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	56	22.31%	6.354	90.773	4.320 ± 0.776	3.469	197.816	10.097 ± 1.832
<i>Oncorhynchus masou</i>	≤ 30 cm	0.40	1	0.40%	4.676	4.676	0.019 ± 0.019	1.426	1.426	0.006 ± 0.006
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	0.40%	7.758	7.758	0.031 ± 0.031	8.534	8.534	0.034 ± 0.034
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	6	2.39%	5.727	105.594	0.982 ± 0.584	0.802	21.183	0.193 ± 0.117
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	46	18.33%	6.690	243.598	5.336 ± 1.376	3.265	365.028	9.148 ± 2.136
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	13	5.18%	5.536	205.271	3.224 ± 1.344	1.163	49.386	0.738 ± 0.309
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	24	9.56%	6.202	44.998	1.064 ± 0.266	5.979	160.266	3.361 ± 0.909

Table 122

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 8 (number of trawl stations 154)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	34	22.08%	5.604	9126.073	161.800 ± 65.632	1.009	1872.703	34.387 ± 13.457
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	82	53.25%	6.964	1468.015	137.909 ± 23.055	2.302	1810.047	174.849 ± 27.794
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	23	14.94%	6.458	12885.391	165.507 ± 88.650	1.718	1870.975	25.658 ± 13.095
<i>Oncorhynchus keta</i>	> 30 cm	0.30	68	44.16%	6.690	435.593	21.803 ± 4.181	10.882	1306.779	47.549 ± 10.152
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.65%	19.373	19.373	0.126 ± 0.126	5.812	5.812	0.038 ± 0.038
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	25	16.23%	6.444	46.827	2.471 ± 0.580	5.288	124.092	5.629 ± 1.460
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	2	1.30%	13.062	64.576	0.504 ± 0.429	1.763	11.688	0.087 ± 0.077
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	15	9.74%	5.229	43.541	1.613 ± 0.514	8.273	77.939	2.644 ± 0.819
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	1.95%	1.961	20.081	0.270 ± 0.183	0.549	5.356	0.073 ± 0.049
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	16	10.39%	6.468	27.326	0.962 ± 0.264	2.995	65.780	2.898 ± 0.831

Table 123

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 9 (number of trawl stations 131)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	10	7.63%	5.793	1005.844	12.874 ± 8.177	0.395	261.240	3.086 ± 2.104
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	58	44.27%	6.189	3674.181	207.364 ± 46.330	5.818	4739.694	284.321 ± 61.587
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	5	3.82%	6.293	134.855	1.331 ± 1.043	0.206	4.518	0.064 ± 0.038
<i>Oncorhynchus keta</i>	> 30 cm	0.30	47	35.88%	5.749	244.352	15.634 ± 3.606	12.714	776.212	51.150 ± 11.530
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.76%	6.719	6.719	0.051 ± 0.051	0.430	0.430	0.003 ± 0.003
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	7	5.34%	7.298	17.916	0.575 ± 0.226	3.444	59.840	1.571 ± 0.689
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	4	3.05%	7.348	9.436	0.251 ± 0.125	7.230	15.777	0.375 ± 0.192
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	16	12.21%	6.202	32.185	1.617 ± 0.441	20.120	219.746	8.526 ± 2.584

Table 124

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 10 (number of trawl stations 165)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	31	18.79%	8.068	4211.972	185.258 ± 47.461	1.251	989.779	44.498 ± 11.567
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	33	20.00%	6.785	3869.871	63.040 ± 25.525	8.784	1557.989	54.829 ± 14.844
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	21	12.73%	5.614	1851.533	35.859 ± 14.604	0.826	275.228	5.346 ± 2.235
<i>Oncorhynchus keta</i>	> 30 cm	0.30	39	23.64%	7.537	490.775	12.276 ± 3.538	10.305	1286.433	37.777 ± 9.984
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	7	4.24%	7.015	15.365	0.391 ± 0.152	6.519	43.330	1.013 ± 0.424
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.61%	6.531	6.531	0.040 ± 0.040	1.809	1.809	0.011 ± 0.011
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	0.61%	7.878	7.878	0.048 ± 0.048	6.618	6.618	0.040 ± 0.040
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	5	3.03%	5.838	16.222	0.280 ± 0.134	13.695	57.343	0.791 ± 0.415

Table 125

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 11 (number of trawl stations 154)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	18	11.69%	7.297	147.196	4.215 ± 1.336	15.325	671.801	15.546 ± 5.398
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.65%	7.469	7.469	0.049 ± 0.049	10.457	10.457	0.068 ± 0.068
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	0.65%	8.301	8.301	0.054 ± 0.054	68.068	68.068	0.442 ± 0.443

Table 126

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 12 (number of trawl stations 171)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	29	16.96%	5.442	1425.376	56.204 ± 15.336	1.141	412.048	15.314 ± 4.231
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	28	16.37%	6.903	2666.763	44.894 ± 18.555	2.209	905.296	16.540 ± 6.303
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	10	5.85%	5.145	315.761	5.821 ± 2.787	0.926	51.558	0.924 ± 0.448
<i>Oncorhynchus keta</i>	> 30 cm	0.30	16	9.36%	6.600	181.511	2.570 ± 1.154	8.000	113.822	2.868 ± 0.923
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.58%	221.061	221.061	1.293 ± 1.297	60.002	60.002	0.351 ± 0.352
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	10	5.85%	7.122	168.364	3.595 ± 1.497	4.800	209.973	3.157 ± 1.516
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	1.75%	5.095	20.813	0.182 ± 0.129	1.121	6.868	0.057 ± 0.042
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	3	1.75%	7.427	13.971	0.170 ± 0.102	18.512	40.851	0.463 ± 0.286

Table 127

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 13 (number of trawl stations 140)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	13	9.29%	27.682	2459.580	66.628 ± 27.014	5.730	691.195	17.076 ± 6.810
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	64	45.71%	6.647	1907.606	108.233 ± 23.447	2.412	1703.477	87.915 ± 19.905
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	8	5.71%	5.154	1141.881	9.454 ± 8.201	0.519	190.694	1.554 ± 1.369
<i>Oncorhynchus keta</i>	> 30 cm	0.30	47	33.57%	6.365	78.229	7.698 ± 1.348	2.637	132.364	12.841 ± 2.256
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	2.14%	7.683	8.216	0.168 ± 0.097	13.060	21.527	0.399 ± 0.234
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.71%	5.511	5.511	0.039 ± 0.040	1.378	1.378	0.010 ± 0.010
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	34	24.29%	7.279	977.864	19.611 ± 7.416	5.751	1477.553	23.470 ± 10.983
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	2.14%	10.308	11.073	0.230 ± 0.132	2.768	3.505	0.069 ± 0.040
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	2	1.43%	7.382	8.216	0.111 ± 0.079	17.347	27.607	0.321 ± 0.233

Table 128

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 4 (number of trawl stations 10)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	7	70.00%	6.715	5182.785	552.671 ± 542.839	7.386	6352.035	681.628 ± 664.949
<i>Oncorhynchus keta</i>	> 30 cm	0.30	6	60.00%	27.841	754.302	184.162 ± 95.726	63.386	1801.079	289.802 ± 184.459
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	10.00%	11.137	11.137	1.114 ± 1.174	2.896	2.896	0.290 ± 0.305
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	30.00%	6.715	24.332	5.121 ± 3.106	22.494	66.914	13.542 ± 8.064
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	4	40.00%	20.144	70.564	14.193 ± 7.606	39.929	174.843	30.516 ± 18.238
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	1	10.00%	11.137	11.137	1.114 ± 1.174	2.339	2.339	0.234 ± 0.247
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	4	40.00%	6.722	20.144	5.149 ± 2.503	29.913	98.571	22.591 ± 11.386

Table 129

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 5 (number of trawl stations 63)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	1	1.59%	7.810	7.810	0.124 ± 0.125	0.664	0.664	0.011 ± 0.011
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	32	50.79%	5.664	444.985	51.638 ± 11.650	8.440	551.244	64.960 ± 14.525
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	1	1.59%	23.431	23.431	0.372 ± 0.375	2.124	2.124	0.034 ± 0.034
<i>Oncorhynchus keta</i>	> 30 cm	0.30	39	61.90%	6.983	584.861	63.749 ± 15.405	16.222	1103.920	119.557 ± 27.772
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	5	7.94%	6.498	38.415	1.204 ± 0.681	16.506	98.343	3.115 ± 1.763
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	37	58.73%	2.940	236.529	26.717 ± 6.156	5.105	368.359	48.728 ± 11.243
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	4.76%	6.832	11.656	0.417 ± 0.246	1.328	2.477	0.086 ± 0.051
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	7	11.11%	7.567	10.526	0.928 ± 0.339	14.377	43.022	2.928 ± 1.150

Table 130

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 6 (number of trawl stations 90)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	18	20.00%	6.977	132.716	8.610 ± 2.475	0.816	15.268	1.147 ± 0.326
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	35	38.89%	7.472	349.043	28.287 ± 6.089	7.747	420.513	32.388 ± 6.938
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	10	11.11%	6.909	98.746	4.278 ± 1.670	0.470	11.927	0.613 ± 0.239
<i>Oncorhynchus keta</i>	> 30 cm	0.30	48	53.33%	6.449	703.240	41.632 ± 11.093	6.319	1388.630	63.493 ± 17.896
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	8	8.89%	5.309	37.108	1.519 ± 0.597	1.194	11.875	0.461 ± 0.184
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	9	10.00%	8.454	155.233	3.589 ± 1.914	4.634	144.449	4.352 ± 1.918
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	2	2.22%	7.436	69.143	0.851 ± 0.776	0.818	22.414	0.258 ± 0.251
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	65	72.22%	7.009	395.818	53.391 ± 8.573	5.760	447.126	59.283 ± 8.742
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	19	21.11%	5.309	46.570	3.751 ± 1.034	0.956	10.401	0.788 ± 0.222
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	8	8.89%	6.883	32.979	1.164 ± 0.491	3.098	58.387	2.412 ± 0.988

Table 131

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 7 (number of trawl stations 239)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	35	14.64%	5.619	14553.948	163.870 ± 71.487	0.562	2628.995	26.869 ± 12.243
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	137	57.32%	6.964	4359.765	148.289 ± 25.118	6.293	4703.811	199.184 ± 30.459
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	39	16.32%	5.478	112691.756	757.933 ± 487.316	0.549	14876.280	101.758 ± 64.229
<i>Oncorhynchus keta</i>	> 30 cm	0.30	142	59.41%	6.752	1436.544	33.422 ± 7.594	8.297	3254.544	78.684 ± 16.385
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	11	4.60%	5.619	60.495	1.038 ± 0.392	0.956	19.633	0.312 ± 0.124
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	56	23.43%	6.354	90.773	4.537 ± 0.813	3.469	197.816	10.604 ± 1.918
<i>Oncorhynchus masou</i>	≤ 30 cm	0.40	1	0.42%	4.676	4.676	0.020 ± 0.020	1.426	1.426	0.006 ± 0.006
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	0.42%	7.758	7.758	0.032 ± 0.033	8.534	8.534	0.036 ± 0.036
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	6	2.51%	5.727	105.594	1.031 ± 0.613	0.802	21.183	0.203 ± 0.123
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	46	19.25%	6.690	243.598	5.604 ± 1.444	3.265	365.028	9.607 ± 2.240
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	13	5.44%	5.536	205.271	3.386 ± 1.411	1.163	49.386	0.775 ± 0.324
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	24	10.04%	6.202	44.998	1.117 ± 0.279	5.979	160.266	3.530 ± 0.954

Table 132

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 8 (number of trawl stations 147)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	31	21.09%	5.604	9126.073	143.462 ± 67.374	1.009	1872.703	29.570 ± 13.630
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	79	53.74%	6.964	1468.015	143.019 ± 24.064	2.302	1810.047	182.373 ± 28.975
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	21	14.29%	6.458	12885.391	171.382 ± 92.856	1.718	1870.975	26.606 ± 13.716
<i>Oncorhynchus keta</i>	> 30 cm	0.30	68	46.26%	6.690	435.593	22.841 ± 4.363	10.882	1306.779	49.813 ± 10.602
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.68%	19.373	19.373	0.132 ± 0.132	5.812	5.812	0.040 ± 0.040
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	25	17.01%	6.444	46.827	2.589 ± 0.606	5.288	124.092	5.897 ± 1.526
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	2	1.36%	13.062	64.576	0.528 ± 0.449	1.763	11.688	0.092 ± 0.081
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	15	10.20%	5.229	43.541	1.690 ± 0.538	8.273	77.939	2.770 ± 0.857
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	3	2.04%	1.961	20.081	0.283 ± 0.191	0.549	5.356	0.077 ± 0.052
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	16	10.88%	6.468	27.326	1.008 ± 0.276	2.995	65.780	3.036 ± 0.869

Table 133

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 9 (number of trawl stations 110)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	7	6.36%	5.793	1005.844	14.710 ± 9.737	0.395	261.240	3.543 ± 2.506
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	58	52.73%	6.189	3674.181	246.951 ± 54.431	5.818	4739.694	338.601 ± 72.284
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	5	4.55%	6.293	134.855	1.585 ± 1.243	0.206	4.518	0.076 ± 0.046
<i>Oncorhynchus keta</i>	> 30 cm	0.30	47	42.73%	5.749	244.352	18.619 ± 4.240	12.714	776.212	60.915 ± 13.550
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	0.91%	6.719	6.719	0.061 ± 0.061	0.430	0.430	0.004 ± 0.004
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	6	5.45%	7.298	17.916	0.548 ± 0.234	3.444	59.840	1.717 ± 0.807
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	4	3.64%	7.348	9.436	0.299 ± 0.149	7.230	15.777	0.446 ± 0.228
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	15	13.64%	6.202	32.185	1.829 ± 0.515	20.120	219.746	8.989 ± 2.859

Table 134

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 10 (number of trawl stations 156)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	31	19.87%	8.068	4211.972	195.946 ± 50.081	1.251	989.779	47.065 ± 12.207
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	31	19.87%	6.785	3869.871	58.663 ± 26.477	8.784	1557.989	55.334 ± 15.615
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	21	13.46%	5.614	1851.533	37.928 ± 15.436	0.826	275.228	5.654 ± 2.363
<i>Oncorhynchus keta</i>	> 30 cm	0.30	39	25.00%	7.537	490.775	12.984 ± 3.735	10.305	1286.433	39.956 ± 10.536
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	7	4.49%	7.015	15.365	0.413 ± 0.160	6.519	43.330	1.072 ± 0.448
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.64%	6.531	6.531	0.042 ± 0.042	1.809	1.809	0.012 ± 0.012
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	0.64%	7.878	7.878	0.051 ± 0.051	6.618	6.618	0.042 ± 0.043
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	5	3.21%	5.838	16.222	0.296 ± 0.141	13.695	57.343	0.836 ± 0.438

Table 135

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 11 (number of trawl stations 143)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus keta</i>	> 30 cm	0.30	18	12.59%	7.297	147.196	4.539 ± 1.436	15.325	671.801	16.742 ± 5.804
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	1	0.70%	7.469	7.469	0.052 ± 0.052	10.457	10.457	0.073 ± 0.073
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	1	0.70%	8.301	8.301	0.058 ± 0.058	68.068	68.068	0.476 ± 0.478

Table 136

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 12 (number of trawl stations 147)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	20	13.61%	5.442	1284.650	39.775 ± 13.709	1.141	334.009	10.780 ± 3.694
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	24	16.33%	6.903	2666.763	45.493 ± 21.160	2.209	905.296	16.685 ± 7.171
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	5	3.40%	18.249	278.141	3.791 ± 2.371	2.555	51.558	0.623 ± 0.405
<i>Oncorhynchus keta</i>	> 30 cm	0.30	15	10.20%	6.600	181.511	2.942 ± 1.340	8.000	113.822	3.264 ± 1.069
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.68%	221.061	221.061	1.504 ± 1.509	60.002	60.002	0.408 ± 0.410
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	8	5.44%	7.164	168.364	3.117 ± 1.423	4.800	126.975	2.203 ± 1.045
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	1	0.68%	5.263	5.263	0.036 ± 0.036	1.790	1.790	0.012 ± 0.012
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	3	2.04%	7.427	13.971	0.197 ± 0.119	18.512	40.851	0.538 ± 0.333

Table 137

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1991-1995. Region # 13 (number of trawl stations 105)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	6	5.71%	27.682	2303.982	31.818 ± 22.702	5.730	691.195	9.381 ± 6.789
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	52	49.52%	7.095	1907.606	112.290 ± 26.651	2.412	1703.477	102.294 ± 25.260
<i>Oncorhynchus keta</i>	≤ 30 cm	0.40	4	3.81%	5.185	69.345	1.090 ± 0.741	0.519	9.593	0.164 ± 0.111
<i>Oncorhynchus keta</i>	> 30 cm	0.30	39	37.14%	6.365	78.229	8.227 ± 1.577	7.563	132.364	13.795 ± 2.669
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	2.86%	7.683	8.216	0.225 ± 0.129	13.060	21.527	0.531 ± 0.312
<i>Oncorhynchus nerka</i>	≤ 30 cm	0.40	1	0.95%	5.511	5.511	0.052 ± 0.053	1.378	1.378	0.013 ± 0.013
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	25	23.81%	7.280	977.864	22.724 ± 9.721	5.751	1477.553	26.013 ± 14.323
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	1	0.95%	11.073	11.073	0.105 ± 0.106	2.768	2.768	0.026 ± 0.026
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	2	1.90%	7.382	8.216	0.149 ± 0.105	17.347	27.607	0.428 ± 0.311

Table 138

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 5 (number of trawl stations 23)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	1	4.35%	7.227	7.227	0.314 ± 0.321	0.708	0.708	0.031 ± 0.031
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	9	39.13%	9.396	339.538	26.795 ± 15.421	10.389	415.764	32.621 ± 18.873
<i>Oncorhynchus keta</i>	> 30 cm	0.30	20	86.96%	9.943	546.596	96.846 ± 26.873	8.601	1711.109	238.484 ± 80.021
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	3	13.04%	44.743	141.245	10.186 ± 6.726	11.813	41.469	2.986 ± 1.977
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	13.04%	9.463	86.719	5.110 ± 3.927	3.624	34.244	2.024 ± 1.553
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	19	82.61%	9.568	606.520	86.013 ± 28.298	8.180	543.253	97.771 ± 27.275
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	2	8.70%	8.781	9.659	0.802 ± 0.567	2.125	2.248	0.190 ± 0.134
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	5	21.74%	9.947	18.927	2.792 ± 1.199	7.130	26.074	3.845 ± 1.747



Table 139

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 6 (number of trawl stations 25)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	6	24.00%	9.785	128.775	10.656 ± 5.789	11.089	145.644	13.763 ± 7.026
<i>Oncorhynchus keta</i>	> 30 cm	0.30	25	100.00%	10.264	1472.504	262.753 ± 70.911	11.178	2369.932	559.424 ± 137.289
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	12.00%	9.785	20.783	1.685 ± 1.012	8.012	33.167	2.442 ± 1.565
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	22	88.00%	10.264	289.959	75.358 ± 15.348	6.599	566.961	111.807 ± 27.265
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	7	28.00%	10.703	45.807	4.572 ± 2.024	8.626	158.042	13.849 ± 7.086

Table 140

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 7 (number of trawl stations 80)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	1	1.25%	13.129	13.129	0.164 ± 0.165	2.035	2.035	0.025 ± 0.026
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	39	48.75%	7.534	323.480	42.109 ± 8.348	6.329	484.580	57.256 ± 11.305
<i>Oncorhynchus keta</i>	> 30 cm	0.30	68	85.00%	7.836	753.104	80.326 ± 12.299	20.076	2319.873	229.623 ± 36.131
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	1.25%	23.509	23.509	0.294 ± 0.296	7.934	7.934	0.099 ± 0.100
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	12	15.00%	6.989	350.060	9.438 ± 5.353	3.651	133.637	5.857 ± 2.482
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	17	21.25%	7.523	408.376	14.638 ± 6.187	3.277	682.121	22.346 ± 9.799
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	1.25%	15.068	15.068	0.188 ± 0.190	10.774	10.774	0.135 ± 0.136
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	16	20.00%	6.989	149.052	4.110 ± 1.933	7.139	201.534	7.044 ± 2.752

Table 141

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 8 (number of trawl stations 29)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	22	75.86%	12.770	1413.646	194.276 ± 60.459	12.732	2017.306	265.577 ± 82.098
<i>Oncorhynchus keta</i>	> 30 cm	0.30	18	62.07%	11.593	401.152	45.351 ± 16.411	21.575	1068.902	104.173 ± 39.371
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	10.34%	10.481	43.497	2.302 ± 1.602	25.804	93.333	6.499 ± 4.066
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	2	6.90%	10.037	10.593	0.711 ± 0.503	12.095	12.605	0.852 ± 0.602
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	4	13.79%	10.874	11.999	1.579 ± 0.760	31.078	48.851	5.617 ± 2.742

Table 142

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 9 (number of trawl stations 60)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	2	3.33%	5.559	9.181	0.246 ± 0.179	0.101	0.222	0.005 ± 0.004
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	23	38.33%	7.475	2917.321	118.092 ± 58.695	6.877	4172.068	163.870 ± 83.083
<i>Oncorhynchus keta</i>	> 30 cm	0.30	26	43.33%	6.862	738.626	69.176 ± 19.354	27.001	2771.034	240.682 ± 71.314
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	4	6.67%	6.786	7.845	0.488 ± 0.240	12.486	32.164	1.286 ± 0.684
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	1.67%	13.190	13.190	0.220 ± 0.222	12.794	12.794	0.213 ± 0.215
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	1.67%	7.412	7.412	0.124 ± 0.125	12.600	12.600	0.210 ± 0.212
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	6	10.00%	6.786	41.506	1.505 ± 0.785	8.551	178.478	5.132 ± 3.161

Table 143

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 10 (number of trawl stations 41)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	18	43.90%	7.540	3152.365	160.274 ± 82.500	9.662	4374.969	225.061 ± 114.842
<i>Oncorhynchus keta</i>	> 30 cm	0.30	18	43.90%	10.141	196.969	32.361 ± 9.145	43.931	709.194	112.998 ± 30.181
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	2.44%	8.576	8.576	0.209 ± 0.212	15.780	15.780	0.385 ± 0.390

Table 144

Salmon abundance in epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 13 (number of trawl stations 40)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	23	57.50%	12.602	3719.424	397.915 ± 136.240	17.895	4603.733	515.462 ± 178.665
<i>Oncorhynchus keta</i>	> 30 cm	0.30	25	62.50%	10.717	361.495	58.081 ± 15.209	18.840	677.730	108.661 ± 29.308
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	11	27.50%	9.744	80.785	6.202 ± 2.333	18.240	202.585	14.294 ± 5.661
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	2.50%	448.216	448.216	11.205 ± 11.348	556.967	556.967	13.924 ± 14.102
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	8	20.00%	9.300	58.685	4.141 ± 1.780	8.054	96.008	9.478 ± 3.603

Table 145

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 5 (number of trawl stations 23)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	1	4.35%	7.227	7.227	0.314 ± 0.321	0.708	0.708	0.031 ± 0.031
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	9	39.13%	9.396	339.538	26.795 ± 15.421	10.389	415.764	32.621 ± 18.873
<i>Oncorhynchus keta</i>	> 30 cm	0.30	20	86.96%	9.943	546.596	96.846 ± 26.873	8.601	1711.109	238.484 ± 80.021
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	3	13.04%	44.743	141.245	10.186 ± 6.726	11.813	41.469	2.986 ± 1.977
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	13.04%	9.463	86.719	5.110 ± 3.927	3.624	34.244	2.024 ± 1.553
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	19	82.61%	9.568	606.520	86.013 ± 28.298	8.180	543.253	97.771 ± 27.275
<i>Oncorhynchus tshawytscha</i>	≤ 30 cm	0.40	2	8.70%	8.781	9.659	0.802 ± 0.567	2.125	2.248	0.190 ± 0.134
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	5	21.74%	9.947	18.927	2.792 ± 1.199	7.130	26.074	3.845 ± 1.747

Table 146

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 6 (number of trawl stations 25)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	6	24.00%	9.785	128.775	10.656 ± 5.789	11.089	145.644	13.763 ± 7.026
<i>Oncorhynchus keta</i>	> 30 cm	0.30	25	100.00%	10.264	1472.504	262.753 ± 70.911	11.178	2369.932	559.424 ± 137.289
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	12.00%	9.785	20.783	1.685 ± 1.012	8.012	33.167	2.442 ± 1.565
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	22	88.00%	10.264	289.959	75.358 ± 15.348	6.599	566.961	111.807 ± 27.265
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	7	28.00%	10.703	45.807	4.572 ± 2.024	8.626	158.042	13.849 ± 7.086

Table 147

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 7 (number of trawl stations 77)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	1	1.30%	13.129	13.129	0.171 ± 0.172	2.035	2.035	0.026 ± 0.027
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	38	49.35%	7.534	323.480	41.121 ± 8.380	6.329	484.580	55.893 ± 11.340
<i>Oncorhynchus keta</i>	> 30 cm	0.30	68	88.31%	7.836	753.104	83.456 ± 12.647	20.076	2319.873	238.569 ± 37.177
<i>Oncorhynchus kisutch</i>	≤ 30 cm	0.40	1	1.30%	23.509	23.509	0.305 ± 0.307	7.934	7.934	0.103 ± 0.104
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	12	15.58%	6.989	350.060	9.806 ± 5.560	3.651	133.637	6.085 ± 2.577
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	17	22.08%	7.523	408.376	15.208 ± 6.422	3.277	682.121	23.217 ± 10.173
<i>Oncorhynchus sp.</i>	> 30 cm	0.30	1	1.30%	15.068	15.068	0.196 ± 0.197	10.774	10.774	0.140 ± 0.141
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	16	20.78%	6.989	149.052	4.270 ± 2.007	7.139	201.534	7.319 ± 2.856

Table 148

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 8 (number of trawl stations 23)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	20	86.96%	12.770	1413.646	239.652 ± 73.678	17.495	2017.306	328.304 ± 99.911
<i>Oncorhynchus keta</i>	> 30 cm	0.30	15	65.22%	11.593	401.152	52.611 ± 20.474	21.575	1068.902	120.181 ± 49.229
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	3	13.04%	10.481	43.497	2.902 ± 2.018	25.804	93.333	8.195 ± 5.110
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	2	8.70%	10.037	10.593	0.897 ± 0.634	12.095	12.605	1.074 ± 0.759
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	2	8.70%	10.874	11.999	0.995 ± 0.703	31.078	44.258	3.275 ± 2.352

Table 149

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 9 (number of trawl stations 32)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	≤ 30 cm	0.40	2	6.25%	5.559	9.181	0.461 ± 0.336	0.101	0.222	0.010 ± 0.008
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	21	65.63%	7.475	2917.321	204.978 ± 108.078	6.877	4172.068	285.297 ± 153.267
<i>Oncorhynchus keta</i>	> 30 cm	0.30	23	71.88%	7.475	738.626	126.661 ± 33.408	31.020	2771.034	443.763 ± 124.320
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	4	12.50%	6.786	7.845	0.914 ± 0.442	12.486	32.164	2.411 ± 1.266
<i>Oncorhynchus masou</i>	> 30 cm	0.30	1	3.13%	13.190	13.190	0.412 ± 0.419	12.794	12.794	0.400 ± 0.406
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	3.13%	7.412	7.412	0.232 ± 0.235	12.600	12.600	0.394 ± 0.400
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	5	15.63%	6.786	17.925	1.525 ± 0.711	8.551	48.172	4.044 ± 2.037

Table 150

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 10 (number of trawl stations 33)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	17	51.52%	7.540	3152.365	187.699 ± 101.926	9.662	4374.969	264.507 ± 141.908
<i>Oncorhynchus keta</i>	> 30 cm	0.30	17	51.52%	10.141	196.969	39.629 ± 11.029	43.931	709.194	136.737 ± 36.301
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	3.03%	8.576	8.576	0.260 ± 0.264	15.780	15.780	0.478 ± 0.486

Table 151

Salmon abundance in upper epipelagic water layer irrespective of a season. The data of the years 1996-2004. Region # 13 (number of trawl stations 32)

Salmon species	Size group	k	Occurrence stn.		Number, ind./km <sup>2</sup>			Biomass, kg/km <sup>2</sup>		
			number	share	minimal	maximal	average	minimal	maximal	average
<i>Oncorhynchus gorbuscha</i>	> 30 cm	0.30	23	71.88%	12.602	3719.424	497.393 ± 166.523	17.895	4603.733	644.327 ± 218.535
<i>Oncorhynchus keta</i>	> 30 cm	0.30	25	78.13%	10.717	361.495	72.601 ± 18.193	18.840	677.730	135.826 ± 35.165
<i>Oncorhynchus kisutch</i>	> 30 cm	0.30	11	34.38%	9.744	80.785	7.752 ± 2.866	18.240	202.585	17.867 ± 6.971
<i>Oncorhynchus nerka</i>	> 30 cm	0.30	1	3.13%	448.216	448.216	14.007 ± 14.231	556.967	556.967	17.405 ± 17.684
<i>Oncorhynchus tshawytscha</i>	> 30 cm	0.30	8	25.00%	9.300	58.685	5.176 ± 2.200	8.054	96.008	11.847 ± 4.429

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