

New data on Soviet catches of blue (*Balaenoptera musculus*) and right whales (*Eubalaena japonica*) in the North Pacific

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ABSTRACT

Details are provided on 17 previously unreported catches of blue whales, and 93 catches of North Pacific right whales, all taken illegally by the former USSR. The blue whale catches were made between mid-July and mid-September 1972 in the eastern North Pacific at distances of from 96 to 626 nautical miles from the US west coast (Oregon and Washington); they highlight the inadequacy of the International Observer Scheme, as implemented in 1972, to report or detect illegal whaling. These previously unknown blue whale catches bring the Soviet total to 1,638 for the period 1948–1972. The 93 right whale catches were made during the period 1951–62 around the Kuril Islands, which brings the known total of takes of this species from 1935–1971 to 775 (including 10 taken for scientific research and officially reported at the time).

KEYWORDS: WHALING–MODERN; NORTH PACIFIC; BLUE WHALE; NORTH PACIFIC RIGHT WHALE; KURIL ISLANDS; OBSERVER SCHEME; SOVIET WHALING

INTRODUCTION

It is now well-established that the former USSR conducted a global campaign of illegal whaling for three decades after 1945 (e.g. Yablokov, 1994; Ivashchenko and Clapham, 2014). Since this revelation, extensive efforts have been undertaken to correct the falsified catch record and related information reported by the USSR to the International Whaling Commission (IWC) via the Bureau of International Whaling Statistics (BIWS). The catch record was revised using ‘true’ catch data that had been retained either by former whaling industry biologists or available in public archives in the Russian Federation. Using the true data, Ivashchenko *et al.* (2013) reported corrected catch totals for Soviet whaling operations (1948–79) in the North Pacific. These included 1,621 blue whales, *Balaenoptera musculus* (of which only 858 were officially reported to the IWC), as well as 681 North Pacific right whales, *Eubalaena japonica* (none of which were reported).

Here, we provide details of previously unreported catches of 17 blue whales and 93 right whales, made by Soviet whaling fleets; we also provide updated totals for Soviet catches of these two species in the North Pacific. The new data were discovered in previously unread Soviet whaling industry reports, as noted below.

METHODS AND MATERIALS

As described previously, true catch data for Soviet whaling operations were summarised in formerly secret industry reports that were declassified after Yablokov (1994) revealed the USSR’s illegal whaling. For the North Pacific, these reports were primarily found in Russian public archives; the types and limitations of the reports are described in detail in Ivashchenko *et al.* (2013).

The data summarised here come from a total of 12 scientific reports or whaling station logbooks, all

unpublished, that had not previously been seen by the authors; details are provided below.

RESULTS AND DISCUSSION

Blue whales

Data on the 17 blue whale catches were discovered in the joint scientific report for the *Vladivostok* and *Dalnyi Vostok* whaling fleets for the 1972 whaling season (Isakov *et al.*, 1973).

The catches are listed in Table 1 below. Since the report gives joint figures for the *Vladivostok* and *Dalnyi Vostok*, it is not possible to determine with certainty whether the catches were made by one or both factory fleets. However, although noon position data are known to be not entirely accurate for Soviet fleets (Ivashchenko and Clapham, 2017) they are generally reliable. The positions match those of *Dalnyi Vostok* in the original BIWS data to within 2 or 3 degrees longitude; whereas the *Vladivostok* positions in the original IWS data differ by 24 to 45 degrees longitude. It therefore seems most likely that these whales were taken by the *Dalnyi Vostok*. The report gives the catch data in a table only, with no further discussion or information in the main text. To our knowledge, there were no other illegal catches made by either factory fleet in 1972, although the numbers for legal catches in 1972 reported to BIWS differed from those given in Ivashchenko *et al.* (2013).

These previously unknown catches bring the total Soviet catch of North Pacific blue whales since 1948 to 1,638; revised figures by year and whaling operation are given in Table 2. Catch locations are shown in Fig. 1; these were at distances from the coasts of Washington and Oregon ranging from 96 to 626 n.miles. For convenience and context, Fig. 2 shows the locations of all Soviet blue whale catches ($n = 236$ animals) for which position data are available.

It is not clear how the Soviet fleet was able to kill blue whales in that season (blue whales were completely

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Table 1

Soviet catches of blue whales in the eastern North Pacific by the *Vladivostok* and *Dal'ny Vostok* whaling fleets, 1972. Stomach contents are presumed to be krill in all cases, but this is not specified in the source material (nor were they identified to species).

	Month	Day	Sex	Length (m)	Long.	Lat.	Stomach contents
1	July	17	F	19.6	135 57' W	44 14'	Small qty krill
2	July	17	M	21.8	135 57' W	44 14'	Full
3	July	18	M	20.1	133 53' W	42 44'	Full
4	July	27	M	21.5	128 56' W	43 40'	Full
5	July	27	M	22.0	128 56' W	43 40'	Full
6	August	1	M	21.3	127 52' W	45 16'	Full
7	August	3	F	23.0	126 26' W	44 02'	Full
8	August	22	F	18.5	134 47' W	47 29'	Small qty krill
9	August	22	M	21.6	134 47' W	47 29'	Full
10	August	22	F	24.0	134 47' W	47 29'	Full
11	August	22	M	20.0	134 47' W	47 29'	Full
12	August	22	F	20.3	134 47' W	47 29'	Full
13	August	23	M	17.4	131 59' W	46 17'	Small qty krill
14	September	2	F	20.7	135 21' W	45 43'	Full
15	September	2	M	20.5	135 21' W	45 43'	Full
16	September	2	M	20.0	135 21' W	45 43'	Full
17	September	13	F	20.0	138 46' W	44 42'	Full

Table 2

Soviet catches of blue whales in the North Pacific, 1948–78 (revised after Ivashchenko *et al.* 2013, Table 6). Numbers in parentheses are the officially reported catches. Another 29 blue whales were caught by the Soviet factory ship *Aleut* prior to 1948.

Year	Station/floating factory	<i>Aleut</i>	<i>Kuril Islands</i>	<i>Sovetskaya Rossiya</i>	<i>Vladivostok</i>	<i>Dal'ny Vostok</i>	<i>Slava</i>	Total (reported)
1948		3	–	–	–	–	–	3 (3)
1949		3	–	–	–	–	–	3 (3)
1950		5	2	–	–	–	–	7 (7)
1951		7	9	–	–	–	–	16 (16)
1952		7	17	–	–	–	–	24 (24)
1953		11	10	–	–	–	–	21 (21)
1954		12	23	–	–	–	–	35 (35)
1955		4	27	–	–	–	–	31 (31)
1956		7	45	–	–	–	–	52 (52)
1957		9	44	–	–	–	–	53 (53)
1958		–	14	–	–	–	–	14 (14)
1959		22	19	–	–	–	–	41 (41)
1960		–	14	–	–	–	–	14 (14)
1961		2	15	–	–	–	–	17 (17)
1962		19	11	37	–	–	–	67 (30)
1963		14	1	108	299	88	–	510 (348)
1964		17	–	79	25	67	–	188 (77)
1965		10	–	43	163	–	–	216 (72)
1966		–	–	–	15	45	–	60 (0)
1967		–	–	–	51	43	–	94 (0)
1968		–	–	–	3	28	25	56 (0)
1969		–	–	–	2	15	33	73 (0)
1970		–	–	–	7	12	–	19 (0)
1971		–	–	–	4	3	–	7 (0)
1972		–	–	–	17	–	17 (0)	–
Total		152	251	267	592	301	58	1,638 (878)

protected at that time), since 1972 saw the introduction of the IWC's International Observer Scheme (IOS), which required foreign observers to be placed aboard factory ships. The IOS agreement specifically required that Japan and the USSR exchange observers on each other's factory ships in the North Pacific and the Antarctic. During the 1972 IWC meeting, the IOS report (IWC, 1972) noted that appointments had been made by the Commission for the North Pacific observers and the exchange was between Japan and the USSR. The USSR provided IOS observers for all three of the Japanese factory ships that operated in the North

Pacific in 1972. All of the IOS observers were paid by the government that nominated them but formally reported to the IWC.

At the 1973 IWC meeting, the IOS report (IWC, 1973) provided the details from the observers from the summer of 1972 in the North Pacific. Mr. S. Imazeki, a government supervisor on Japanese factory ships in the Antarctic, was assigned to the *Dal'ny Vostok* and was aboard the vessel from June to September 1972. Mr. M. Mizuno, an officer of a Japanese factory ship in the Antarctic, was assigned to the Soviet factory ship *Vladivostok* for the period June to

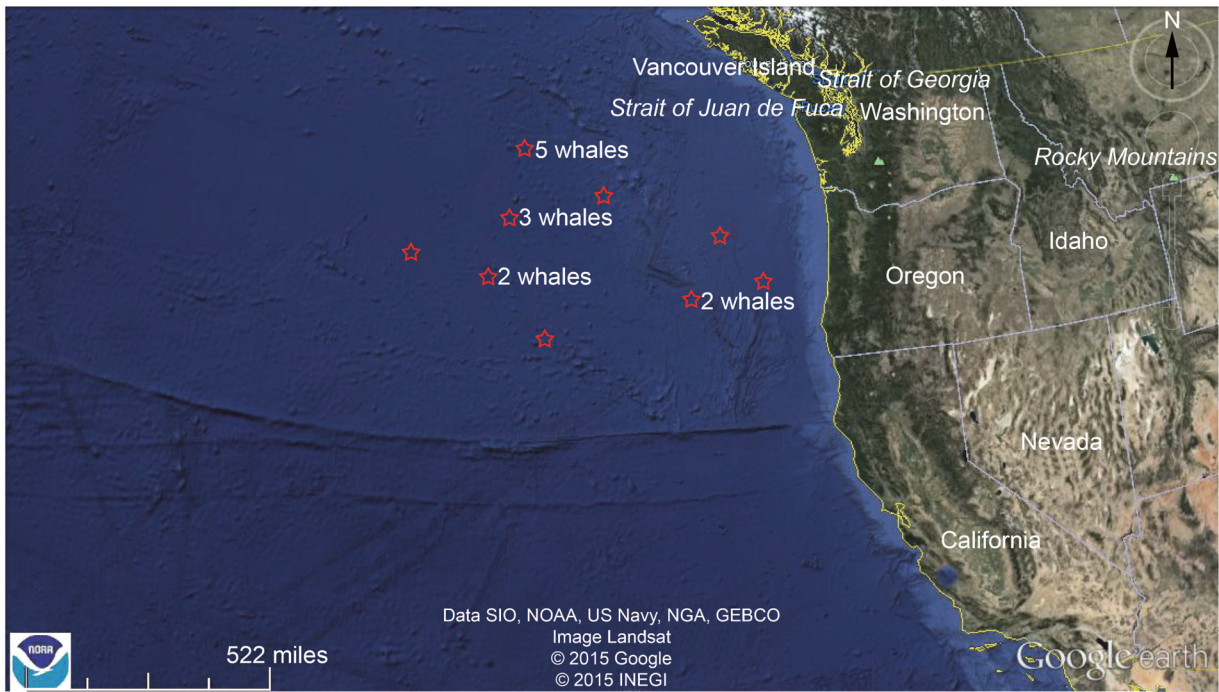


Fig. 1. Locations of previously unreported Soviet blue whale catches in 1972. Stars with no text represent single animals.

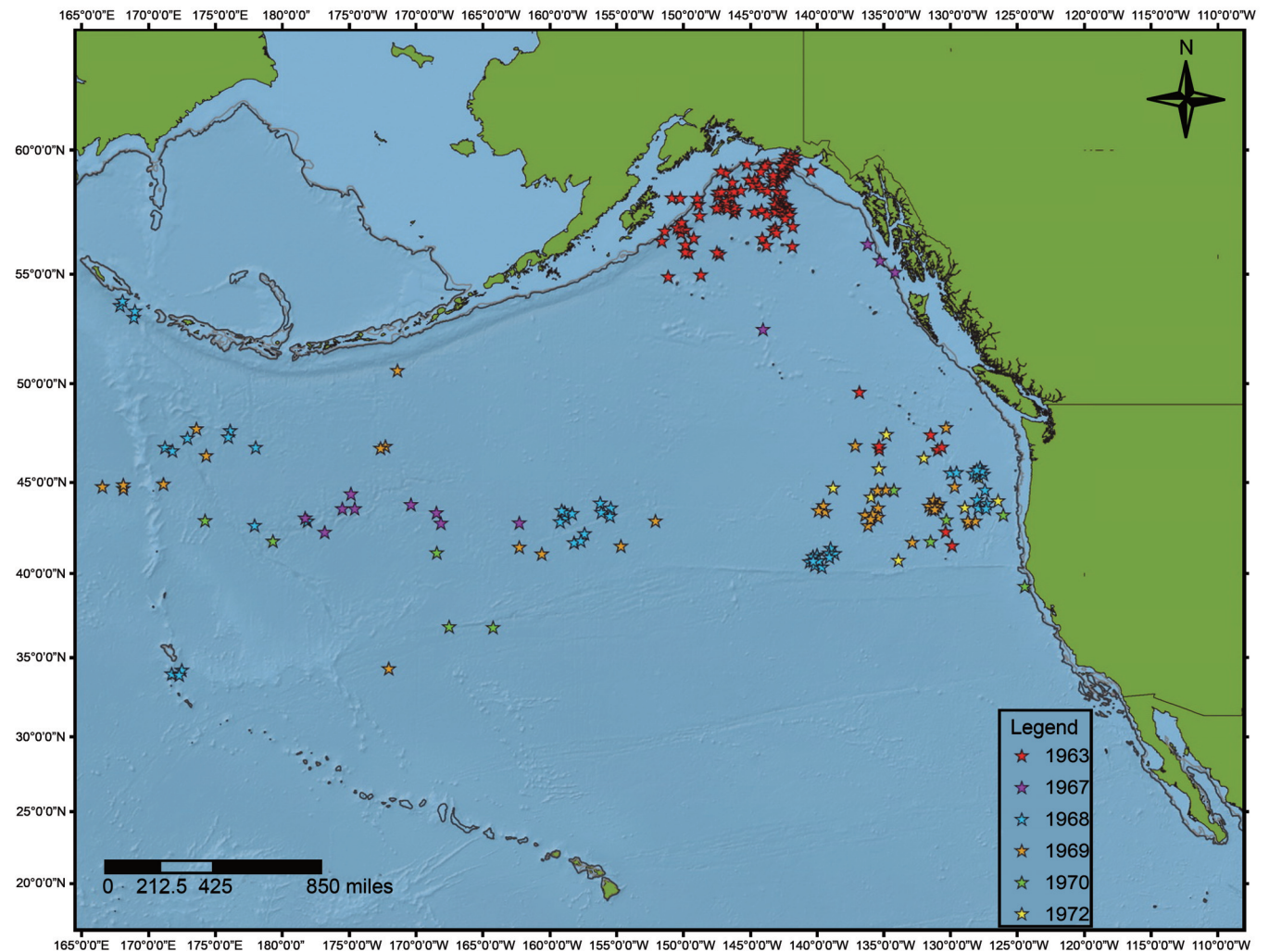


Fig. 2. Locations of all Soviet blue whale catches ($n = 236$) for which position data exist.

September 1972. Both observers were aboard when the blue whale catches were made. All of the IOS observers were provided with copies of the Convention and Schedule and a memorandum outlining their duties. They were asked to deal with serious infractions immediately and inform the Commission as soon as possible but ‘no serious infractions were reported’. Imazeki reported only that six undersized whales were taken (five fin and one sei whale), and Mizuno reported that two undersized whales were landed (one fin and one sei whale). The infractions reported are minor compared to the catch of blue whales which had been protected in the North Pacific since the 1966 season³. It is possible that this small number of blue whales were processed at night when the observers were sleeping, but this also shows the limitation of the IOS. Therefore, as has been noted by others (Mikhalev *et al.*, 2009), it is clear from the blue whale takes reported here that illegal catches continued at some level despite implementation of the IOS.

³At the 1965 Commission meeting, no objections were made by any of the Contracting Governments present, including the USSR, for the binding amendment proposed to paragraph 4(1) of the Schedule under which “it is forbidden to kill or to attempt to kill blue whales in the North Pacific Ocean and its dependent waters north of the Equator for five years beginning with the 1966 season”. In a statement by the USSR delegation at the Special Meeting of Commissioners from North Pacific Member Nations, which took place in Honolulu, Hawaii, from 14 to 17 February 1966, they stated ‘it supports the resolution [*sic*] of the Commission forbidding the taking of blue whales in the North Pacific for five years from the 1966 season’ (IWC, 1967, p.72). At the 1970 meeting of the IWC Scientific Committee, it was recommended ‘that the present ban on killing blue and humpback whales be extended for at least three years beginning with the 1971 season’ (IWC, 1971, p.21). The Contracting Governments at the 1970 Commission meeting agreed with the Scientific Committee and extended the existing North Pacific ban on killing blue whales.

North Pacific right whales

All of the 93 ‘new’ right whale catches summarised here were made by the Soviet land whaling stations in the Kuril Islands (Fig. 3) between 1951 and 1962 (Table 3).

More detailed information on 34 of these whales was found in logs of catches kept by the land stations; these logs were later deposited in public archives. Details are summarised in Table 3, which for the sake of completeness also includes 10 right whales (not included in the overall total of 34) killed for scientific research in 1955 and officially reported to the IWC. Location data are available for some catches; the accuracy of this information is unknown but it likely provides a good general guide to where whales were taken within the Kurils.

Lengths are given for most of the whales, and range from 10.75m (described in the report concerned as a calf, although from its length we would consider it to be more than one year of age) to 11 whales with lengths equal to or more than 17m. Weights are also given for many animals, although it is not clear how these were calculated. In the report on 10 whales taken for scientific research in 1955, Klumov (1962) notes that, where possible, the weight of individual whales was calculated by weighing body parts as the animals were butchered, although apparently no allowance was made for loss of blood. Therefore, weights given are certainly underestimated; Lockyer (1976) suggested by at least 6% for baleen whales based upon limited data. There is no information on how weights were calculated for whales killed in other years, but the fact that Table 3 includes instances of whales that are heavier than others despite being of shorter length implies that the whaling stations were not

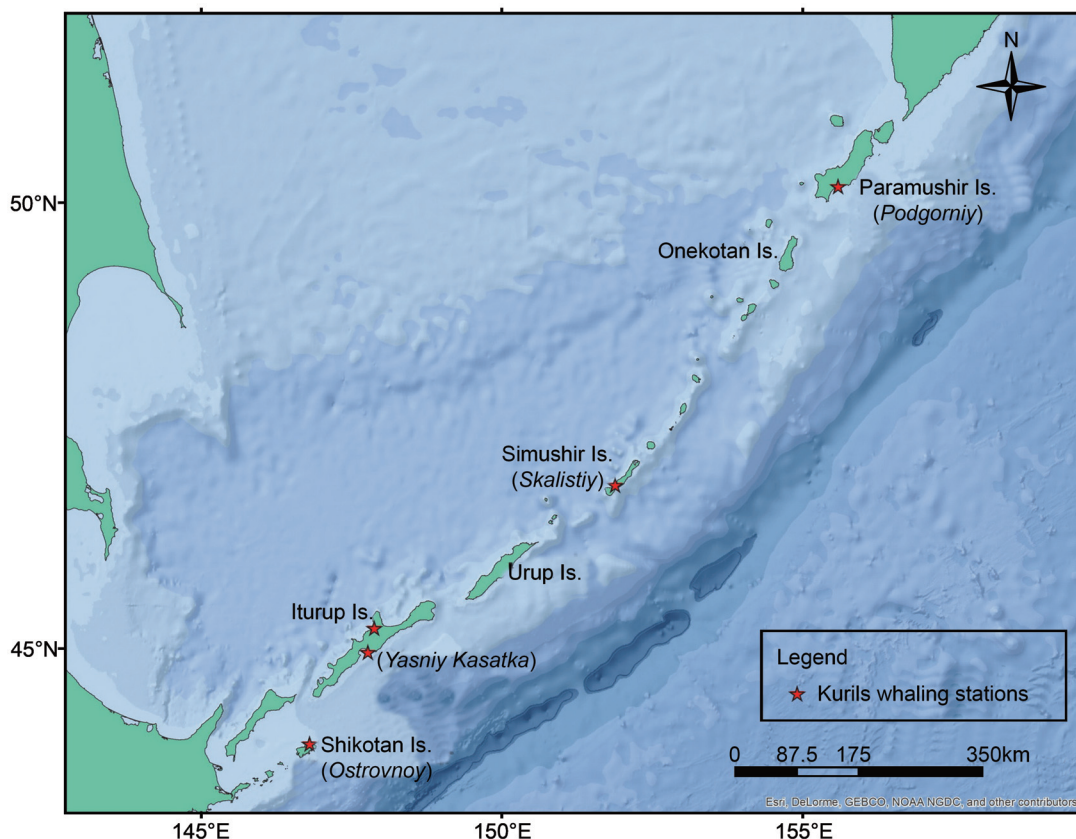


Fig. 3. Location of Soviet shore whaling stations in the Kuril Islands.

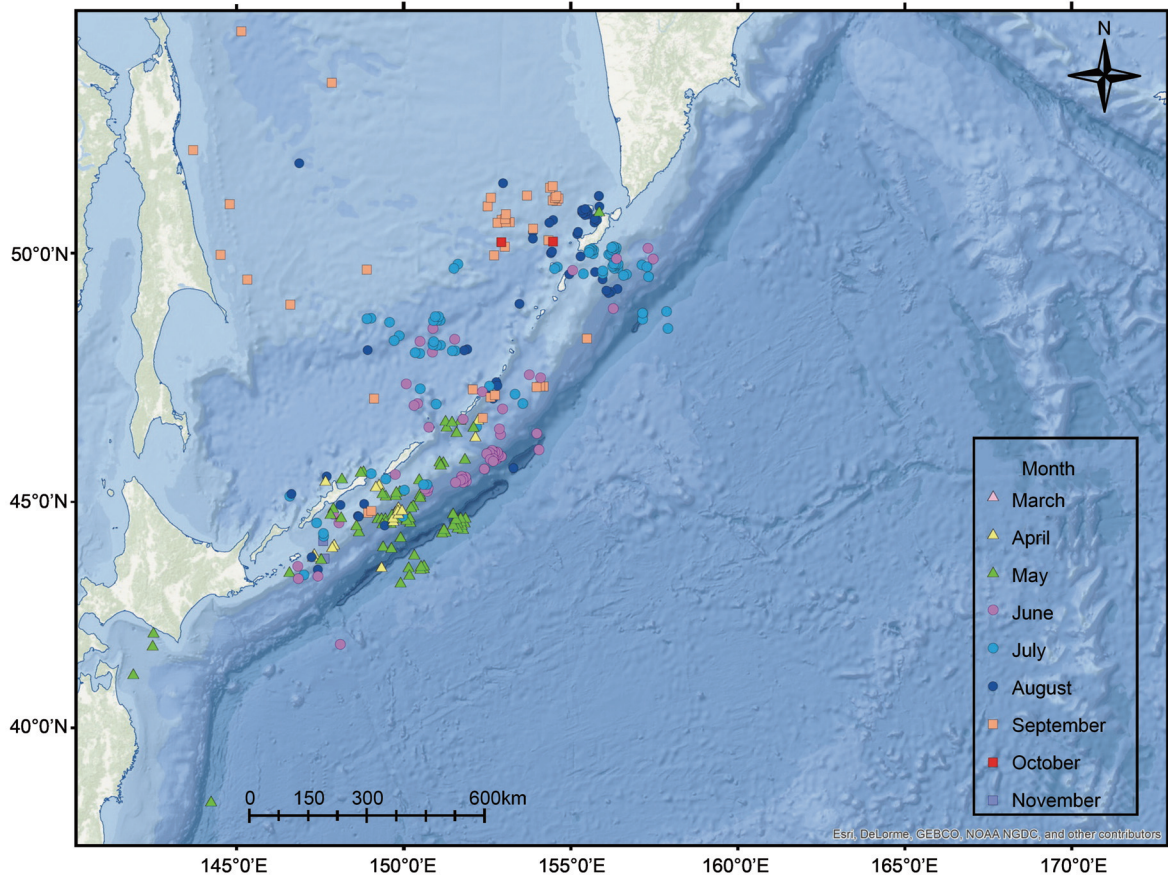


Fig. 4. Locations of Soviet catches or sightings of right whales in the Kuril Islands and Okhotsk Sea (where known) for the period 1951–1968.

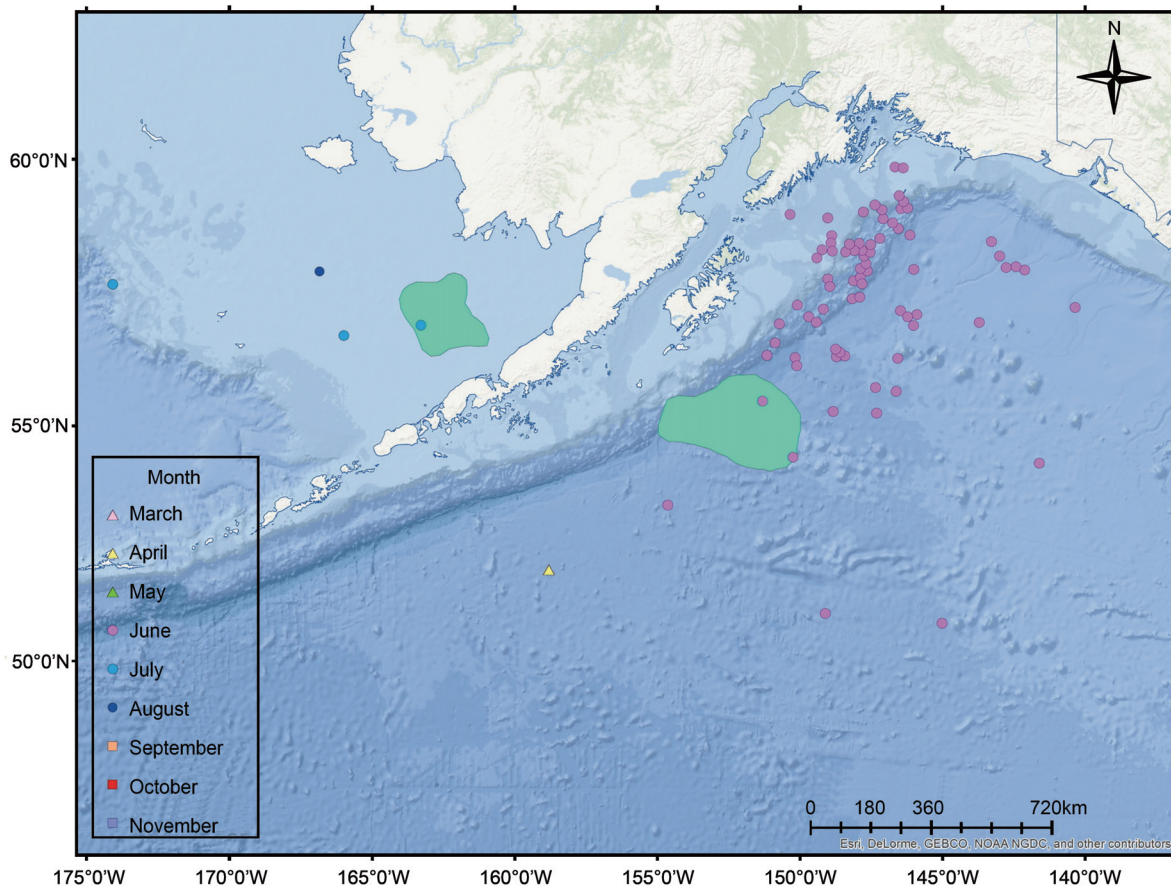


Fig. 5. Locations of Soviet catches of right whales in the 1960s off Alaska in the eastern North Pacific (where known). The two green ‘blobs’ were identified as catch areas in the 1960s by Doroshenko (2000). See Ivashchenko and Clapham (2012) for further details and discussion.

Table 3

Catches of North Pacific right whales from the Kuril Islands, 1951–63. When 'Kurils' is given as the area, the specific land station is unknown. All 10 catches made in 1955 were previously reported to the IWC as being for scientific research; others represent previously unpublished data.

Year	Month	Day	Area	Lat. N	Long. E	No. whales	Length (m)	Blubber thickness (cm)	Details	Source
1951	June	19	Podgorniy	–	–	1	14.5	20	Product weight = 23.4t	Anon (1957a)
1951	June	28	Podgorniy	–	–	1	17.3	26	Product weight = 40.2t	Anon (1957a)
1951	July	9	Podgorniy	–	–	1	11.8	16.2	Product weight = 15.8t	Anon (1957a)
1951	July	10	Podgorniy	–	–	1	13.2	21.6	Product weight = 18.5t	Anon (1957a)
1951	July	12	Podgorniy	–	–	1	12.2	17	Product weight = 16t	Anon (1957a)
1951	July	16	Podgorniy	–	–	1	17.2	23	Product weight = 44.9t	Anon (1957a)
1951	July	18	Podgorniy	–	–	1	15	20.4	Product weight = 40.2t	Anon (1957a)
1953	April	–	Kurils	46.70	152.23	1	15.9	16.5	Weight = 46.1t	Anon (1953)
1953	May	–	Kurils	43.48	146.58	1	14.9	19.1	Weight = 44.6t	Anon (1953)
1953	June	–	Kurils	44.72	147.90	1	14.3	16	Weight = 60.2t	Anon (1953)
1953	June	–	Kurils	44.53	148.07	1	18.1	14	Weight = 93.9t	Anon (1953)
1953	July	–	Kurils	43.42	147.02	1	17.2	19	Weight = 67.7t	Anon (1953)
1953	August	–	Kurils	43.80	147.25	1	16.9	24.2	Weight = 70.5t	Anon (1953)
1953	August	–	Kurils	43.53	147.43	1	11.7	12.3	Weight = 37.6t	Anon (1953)
1953	August	–	Kurils	44.92	148.12	1	11.3	11.7	–	Anon (1953)
1954	May	–	Kurils	–	–	1	14.8	–	–	Anon (1954)
1954	June	–	Kurils	43.33	146.85	1	13.2	–	–	Anon (1954)
1954	June	–	Kurils	43.38	147.43	1	15.2	–	Weight = 55t	Anon (1954)
1954	July	–	Kurils	–	–	1	15.6	–	Weight = 56t	Anon (1954)
1955	May	17	Kurils	45.13	149.77	1	18.3	–	Pregnant female (1.9m embryo)	Klumov (1962)
1955	June	1	Kurils	46.38	152.90	1	17	–	Mature male; weight = 66.134t	Klumov (1962)
1955	June	19	Kurils	47.02	150.42	1	16.3	–	Lactating female; weight = 58.59t	Klumov (1962)
1955	July	13	Kurils	49.73	157.28	1	17.06	–	Mature male; weight = 53.485t	Klumov (1962)
1955	July	22	Kurils	49.57	156.58	1	17.4	–	Lactating female with calf; weight = 106.5t	Klumov (1962)
1955	July	22	Kurils	49.70	154.52	1	10.75	–	Male calf	Klumov (1962)
1955	August	10	Kurils	50.78	155.35	1	16.6	–	Mature male; weight = 63.13t	Klumov (1962)
1955	August	10	Kurils	50.37	155.20	1	16.6	–	Mature male	Klumov (1962)
1955	August	11	Kurils	51.08	155.85	1	11.35	–	Immature female, possibly just weaned	Klumov (1962)
1955	August	28	Kurils	50.00	154.42	1	17.8	–	Pregnant female (4.4m embryo)	Klumov (1962)
1955	–	–	Kurils	–	–	13	–	–	No further information	Klumov (1956)
1956	June	–	Kasatka	–	–	1	16.6	11.8	Female; weight = 80t	Anon (1956)
1956	–	–	Podgorniy	–	–	10	–	–	No further information	Klumov (1957)
1956	–	–	Skalistsiy	–	–	35	–	–	No further information	Klumov (1957)
1957	May	–	Skalistsiy	–	–	1	17.8	25	Weight = 76t	Anon (1957b)
1957	May	–	Skalistsiy	–	–	1	19.0	25	Weight = 106.7t	Anon (1957b)
1957	May	–	Skalistsiy	–	–	1	14.3	15?	Weight = 42.6t	Anon (1957b)
1957	May	–	Skalistsiy	–	–	1	15.7	19.5	Weight = 59.5t	Anon (1957b)
1957	June	–	Podgorniy	–	–	1	–	–	Weight = 64.2t	Anon (1957b)
1957	–	–	Kurils	–	–	1	–	–	No information	Anon (1957c)
1958	May	–	Yasniy	–	–	1	17.5	15.8	Weight = 70.0t	Anon (1958)
1958	May	–	Yasniy	–	–	1	14.5	13.5	Weight = 53.2t	Anon (1958)
1958	June	–	Skalistsiy	–	–	1	16.0	21.5	Weight = 54?t	Anon (1958)
1959	May	–	Kasatka	–	–	1	18.4?	25.2	Weight = 114t; length decimal difficult to read	Anon (1959)
1960	–	–	Kurils	–	–	1	–	–	Weight = 60.8t	Anon (1960)
1961	–	–	Kurils	–	–	2	–	–	Combined weight = 64.0t	Anon (1961)
1962	April	–	Kurils	–	–	1	–	–	Weight = 20.3t	Anon (1962)

calculating weight based upon a standard length-weight formula. It is possible that some estimate of total weight was derived from the weight of products obtained.

With these caveats in mind, the catches contain some remarkably large animals. The four heaviest whales were: (1) 18.1m, 93.9 tons, sex unreported, taken in June 1953; (2) 17.4m female, 106.5 tons, July 1955; (3) 19m, 106.7 tons, sex unreported, May 1957; and (4) 18.4m (the decimal is difficult to read in the report), weight listed as 114 tons, sex unreported. In previously reported data on Soviet catches of North Pacific right whales, Ivashchenko and Clapham (2012) reported several animals whose length exceeded 18m.

Catches of an additional 46 right whales were found in a scientific report (Klumov, 1957) summarising research conducted in the year 1956 in the Kuril Islands (including at the five Soviet Kuril shore whaling stations which were

operated by Japan prior to World War 2). In an unnumbered table on page 11 of the report, 46 right whales are broken down by sex (24 males, 22 females); these were all examined at the Soviet Kuril whaling stations, with most (35 animals) taken by the Skalistsiy land station on Simushir Island in the central Kurils. There was no further information on the biological details of these catches.

The new data bring the known total of right whale catches by the USSR for the period 1935–1971 to 771 (including the 10 taken for scientific research in 1955). Table 4 breaks these catches down by year and area; this is as complete an accounting as available at present. The possibility that some additional data will be found cannot be ruled out, but it is unlikely that there were many more catches than summarised here.

Locations for Soviet right whale catches are known in only some cases. For the sake of completeness, we have

Table 4

Soviet catches of North Pacific right whales by year and area, 1935–71 (revised with new data). ENP = Eastern North Pacific. Unk = Unknown area. Differences in totals between this table and those shown in Ivashchenko and Clapham (2012) and Ivashchenko *et al.* (2013) reflect new data found during the present study.

Year	Total catch	Eastern North Pacific			Western North Pacific				
		Gulf of Alaska	Aleutian Islands	Bering Sea	ENP Pelagic	Okhotsk Sea	Kuril Islands	Kamchatka	Unk
1935	1	–	–	–	–	–	–	1	–
1936	0	–	–	–	–	–	–	–	–
1937	1	–	–	–	–	–	–	1	–
1938	0	–	–	–	–	–	–	–	–
1939	2	–	–	–	–	–	–	2	–
1940	0	–	–	–	–	–	–	–	–
1941	0	–	–	–	–	–	–	–	–
1942	0	–	–	–	–	–	–	–	–
1943	0	–	–	–	–	–	–	–	–
1944	3	–	–	–	–	–	–	–	3
1945	1	–	–	–	–	–	–	–	1
1946	1	–	–	–	–	–	–	–	1
1947	0	–	–	–	–	–	–	–	–
1948	0	–	–	–	–	–	–	–	–
1949	0	–	–	–	–	–	–	–	–
1950	0	–	–	–	–	–	–	–	–
1951	7	–	–	–	–	–	7	–	–
1952	0	–	–	–	–	–	–	–	–
1953	8	–	–	–	–	–	8	–	–
1954	4	–	–	–	–	–	4	–	–
1955	10	–	–	–	–	–	23	–	–
1956	46	–	–	–	–	–	46	–	–
1957	6	–	–	–	–	–	6	–	–
1958	3	–	–	–	–	–	3	–	–
1959	2	–	–	–	–	–	2	–	–
1960	1	–	–	–	–	–	1	–	–
1961	2	–	–	–	–	–	2	–	–
1962	24	–	21	–	–	–	1	–	2
1963	266	253	10	–	3	–	–	–	–
1964	200	87	–	113	–	–	–	–	–
1965	20	20	–	–	–	–	–	–	–
1966	3	3	–	–	–	–	–	–	–
1967	134	3	–	3	–	126	–	–	2
1968	6	–	–	–	–	6	–	–	–
1969	1	–	–	–	1	–	–	–	–
1970	0	–	–	–	–	–	–	–	–
1971	10	–	–	–	–	10	–	–	–
Total	775	366	31	116	4	142	103	4	9

plotted these together with right whale sightings in the Kurils and Okhotsk Sea in Fig. 4; it is not possible to distinguish sightings and catches in the source material. Catches (only) in the eastern North Pacific are plotted in Fig. 5. The distribution and timing of the catches has either been discussed previously (Ivashchenko and Clapham, 2012) or is beyond the scope of the present paper.

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