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Masou and coho salmon distribution along Sea of Japan and Sea of Okhotsk mainland coast

Khabarovsky krai,
Primorsky krai,
Sakhalin

Tumnin River



Article (Yu et al, 2010) on population genetic structure of masou

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Population Genetic Structure and Phylogeography of Masu Salmon (*Oncorhynchus masou masou*) Inferred from Mitochondrial and Microsatellite DNA Analyses

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Yu et al, 2010

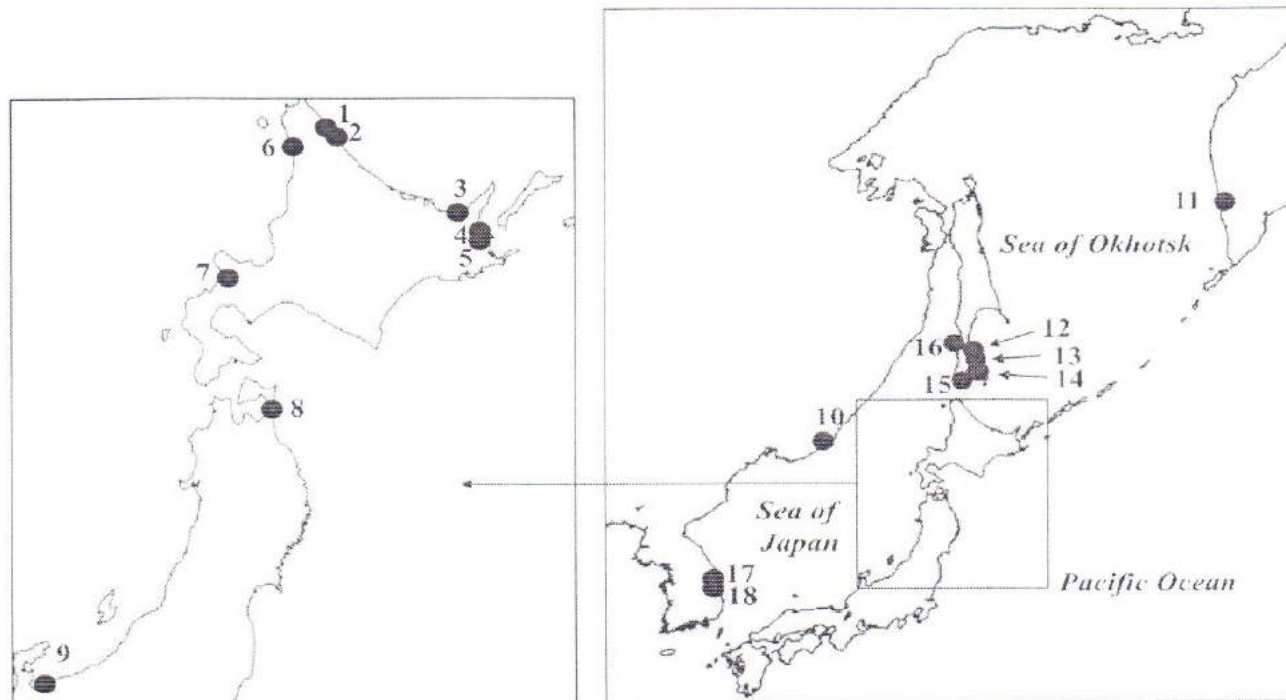


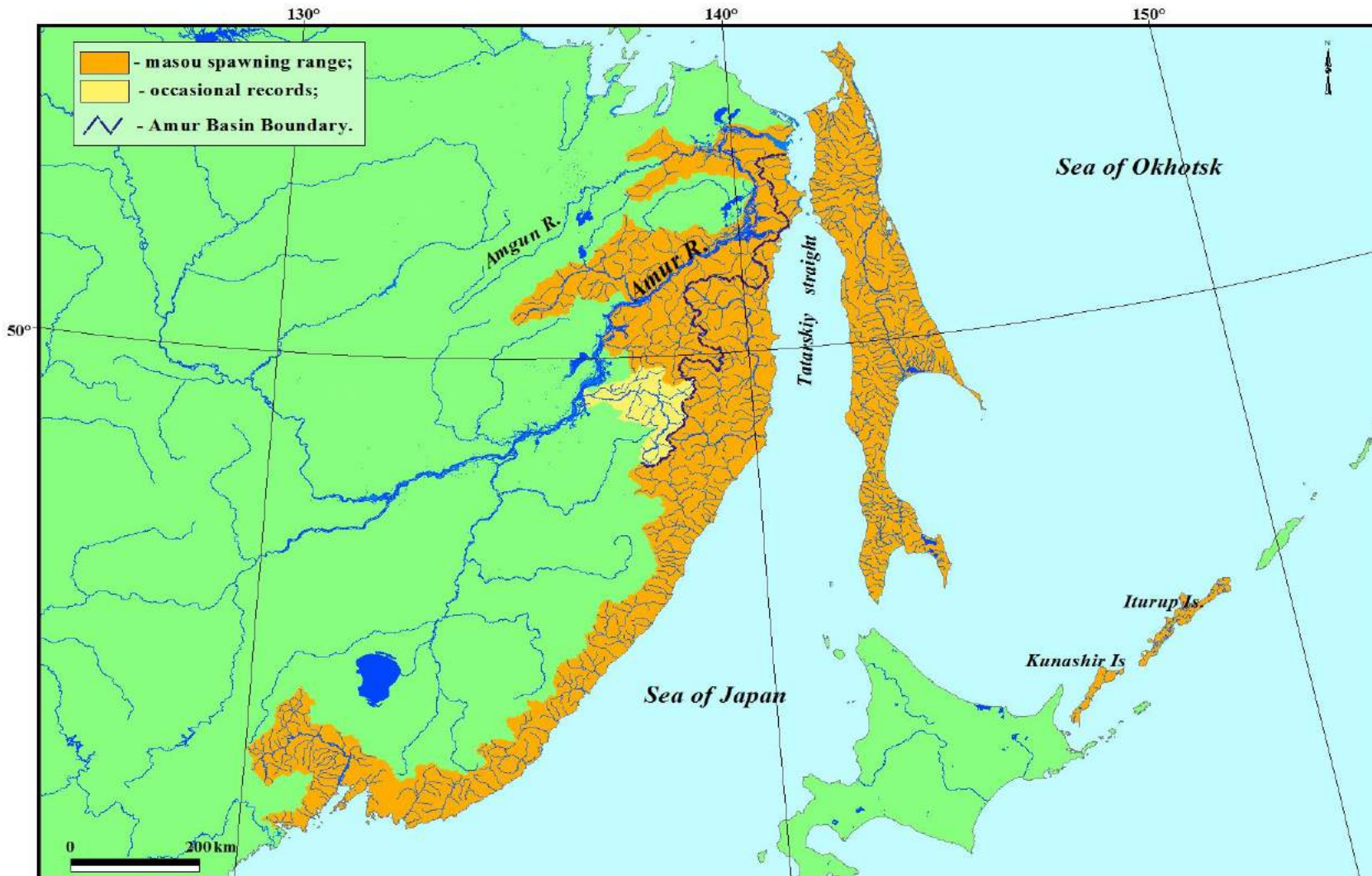
Fig. 1. Map of Japan, Korea, and eastern Russia showing the river locations where masu salmon (*Oncorhynchus masou masou*) were sampled. Sampling locations: Japan: 1, Kitami-horobetsu; 2, Tokushibetsu; 3, Shari; 4, Ichani; 5, Shibetsu; 6, Teshio; 7, Shiribetsu; 8, Oippe; and 9, Jinzu. Russia: 10, Taezanaya; 11, Utka; 12, Belaya; 13, Komisarovk; 14, Sukhopletk; 15, Lutga; 16, Galuboe. Korea: 17, Namdae; 18, Wangpi.

Sea of Japan mainland

Late masou: from Kievka R. to the Korea

Life History Parameter	Value
Run time	August - September
Spawn time	September
Sex ratio (M:F) of anadromous individuals	25:75
% of population that are precocial males	3.9-8.6 %
% of males that are jacks	1 %
% 2.1+ age class of anadromous individuals	20 %
Range in weights of anadromous individuals	2.0 – 3.0 kg
Average density of juveniles in rivers	0,11 ind/m ²

Masou range within Sea of Okhotsk and Sea of Japan, Russia



Sea of Japan mainland

Early masou: from the Tumnin R. to the Kievka R.

Life History Parameter	Value
Run time	Mid May – Mid July
Spawn time	August
Sex ratio (M:F) of anadromous individuals	45:55
% of population that are precocial males	3 % (Tumnin); 5 % (Kievka)
% of males that are jacks	NA
% 2.1+ age class of anadromous individuals	75 %
Range in weights of anadromous individuals	3.0 – 8.3 kg
Average density of juveniles in rivers	NA

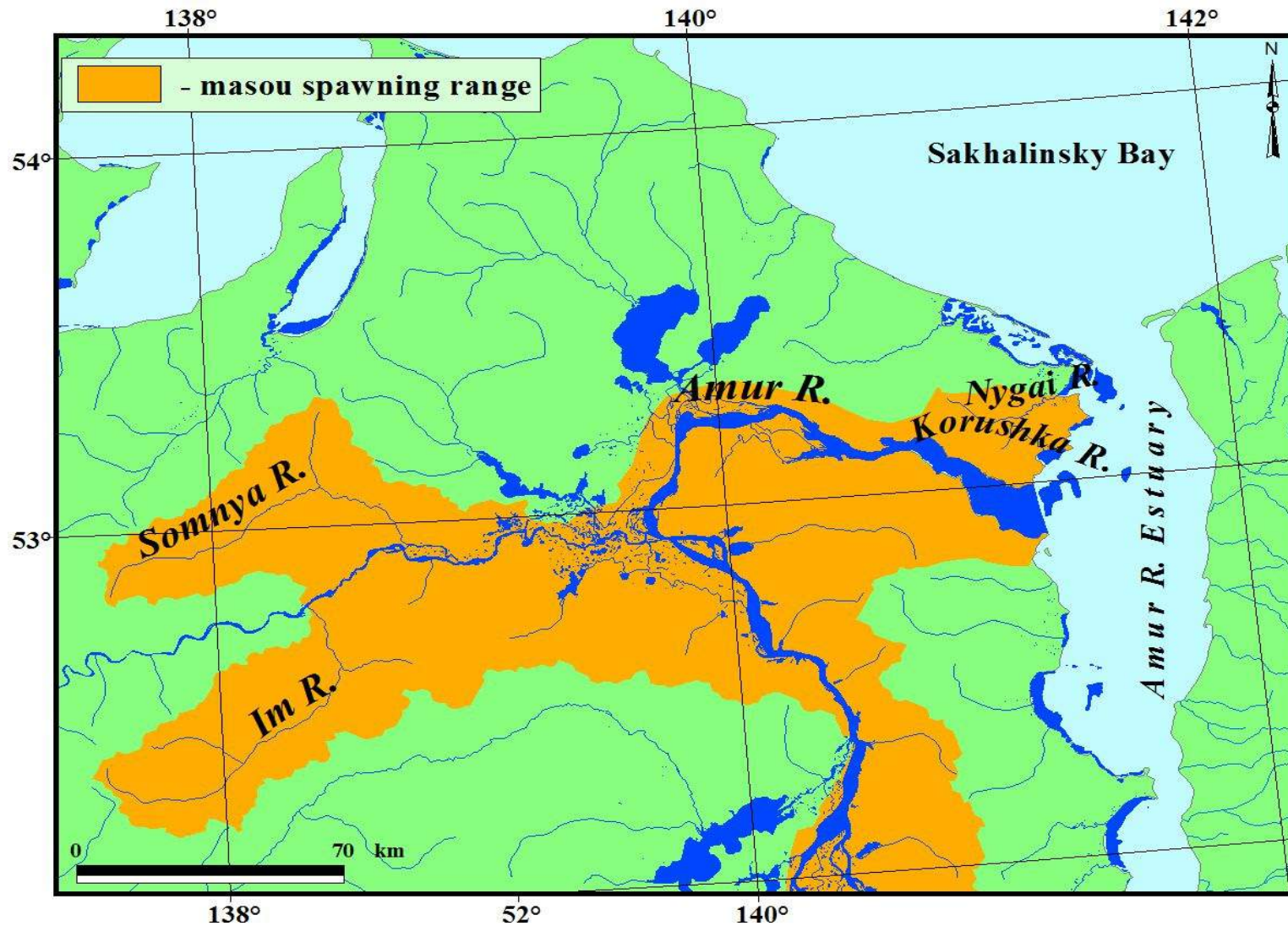
Masou from Tumnin R.: 3-5 kg



Amur R. and Eastern Sakhalin. Early masou (Semenchenko, 1989; Smirnov, 1975; Gritsenko, 2002)

Life History Parameter	Value
Run time	June - July
Spawn time	August
Sex ratio (M:F) of anadromous individuals	24:76 (Nabil) 33:67 (Tym) Amur ????
% of population that are precocial males	NA
% of males that are jacks	NA
% 2.1+ age class of anadromous individuals	80 % (Poronai, Tym) Amur ????
Range in weights of anadromous individuals	2.3 – 3.1 kg (Amur) 1.2 – 3.6 kg (Tym)
Average density of juveniles in rivers	NA

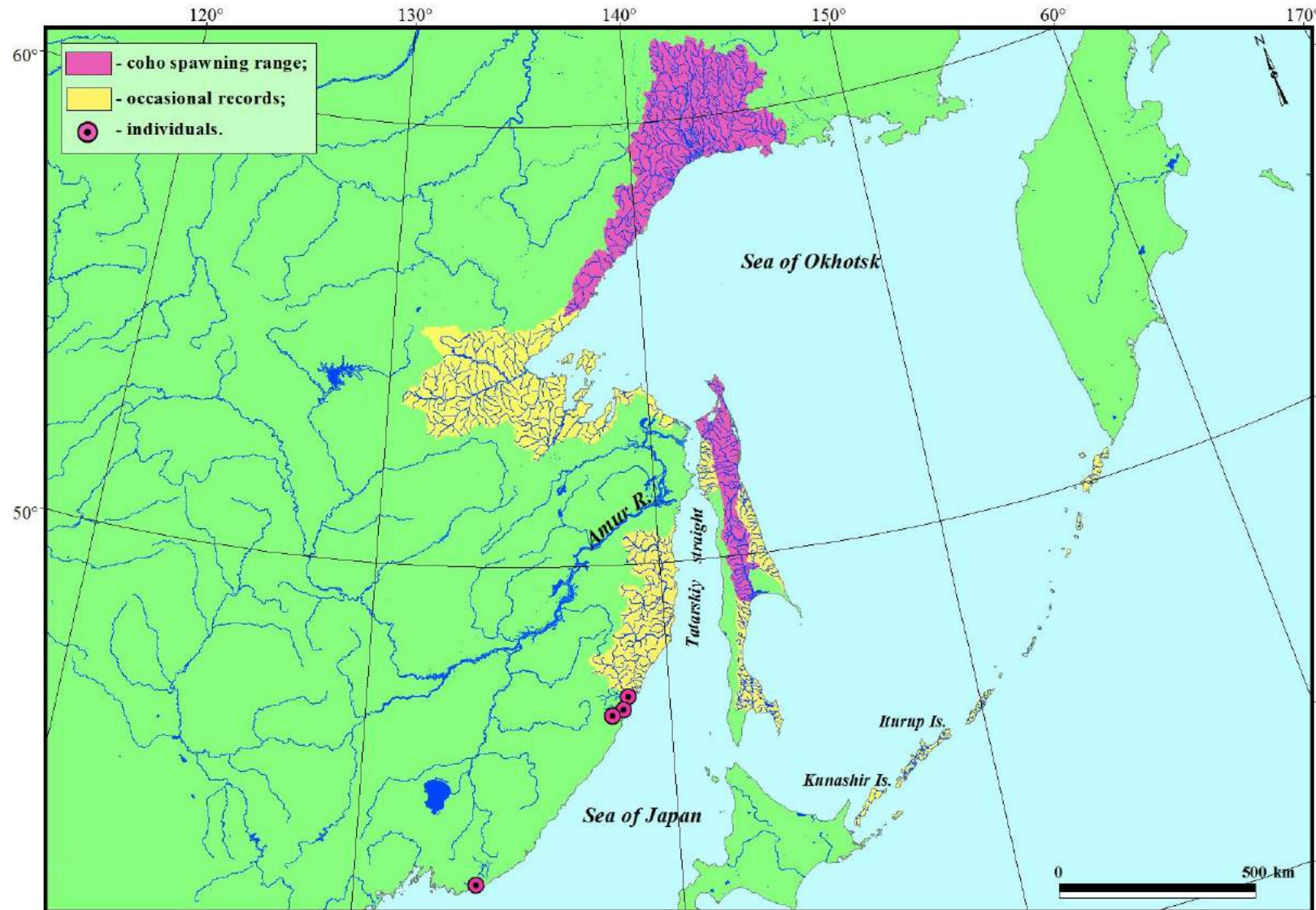
Amur R. and Amgun R. area of masou spawning range



**South of Sakhalin. Early masou:
Aniva Bay, Sea of Okhotsk coast,
Sea of Japan coast (Gritsenko, 2002)**

Life History Parameter	Value
Run time	Mid May - July
Spawn time	August
Sex ratio (M:F) of anadromous individuals	30:70
% of population that are precocial males	10-30%
% of males that are jacks	NA
% 2.1+ age class of anadromous individuals	25-30 %
Range in weights of anadromous individuals	1.0 – 1.2 kg
Average density of juveniles in rivers	NA

Coho spawning range within Sea of Okhotsk and Sea of Japan, Russia



Coho fishing

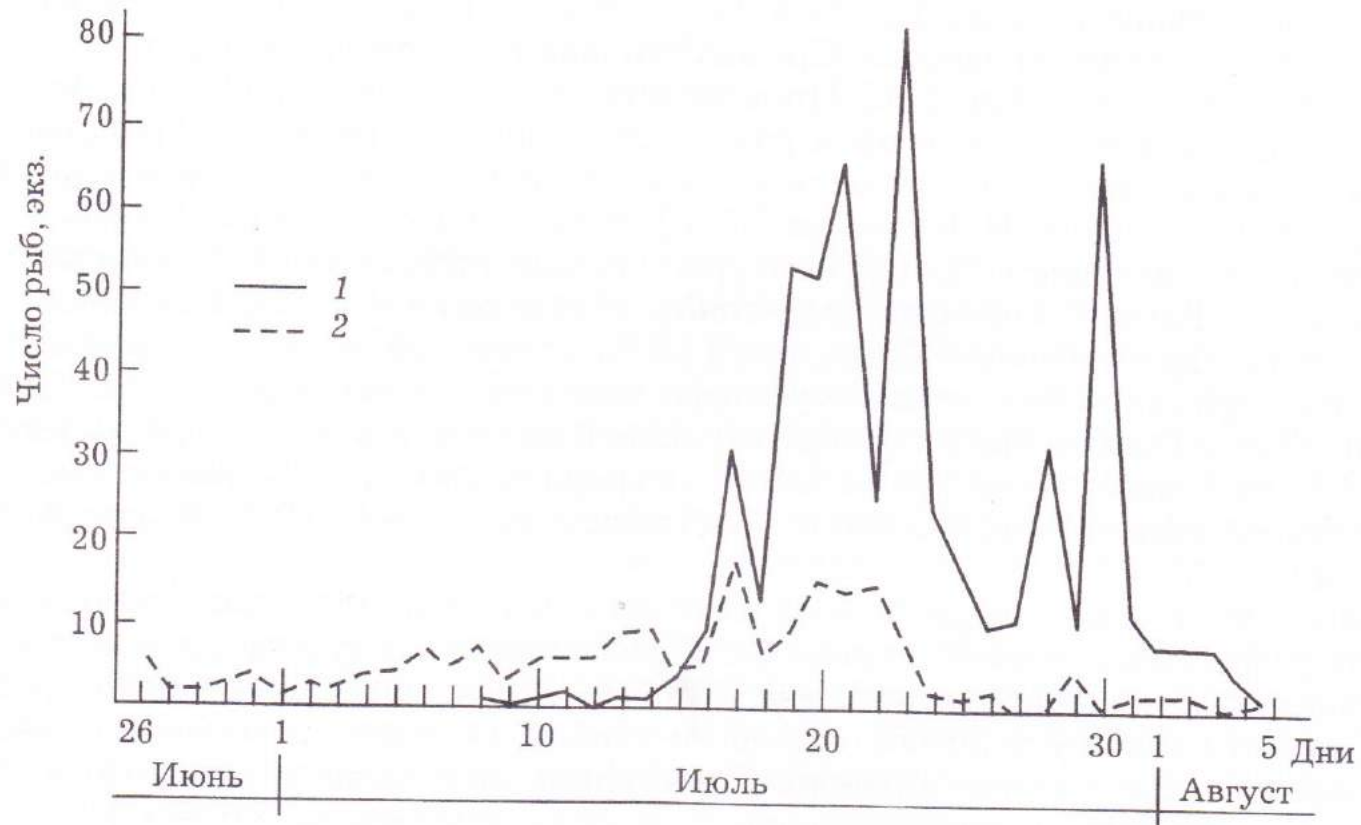
Sea of Okhotsk

Okhota R., Kuhtui R., Inya R.
Commercial fishing up to **200 MT**

Abundance in Sakhalin Is. :
in the Tym R. – 10-40 thous. ind,
In the Poronai R. – 1-4 thous. ind.

No commercial fishing

Coho and masou juveniles seaward migration in the Bogataya R. Gritsenko, 2002



What is difference?

Their ecology during freshwater life:

Masou is king of typhoon water regime

Coho is king of quiet waters

WHERE ARE THE BIGGEST GAPS FOR MASOU?

AMUR RIVER:

**NO SURVEYS FROM 1928;
NO PUBLICATIONS FROM 1975;
NO AGE COMPOSITION FOR ADULTS;
NO AGE COMPOSITION FOR JUVENILES;
NO GENETIC SAMPLES;
NO SPAWNING RANGE MAPPING;
NO RETURN RATE**

Thank you for attention

