The dynamics of the biomass of the bottom fish major families in the eastern part of the Sea of Okhotsk in 1960-2017

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The biomass was estimated on the data of trawl surveys with using the GIS «CartMaster».


The shelf of West Kamchatka in the eastern part of the Sea of Okhotsk.
The average annual value of the biomass of dominant families of bottom fish on West Kamchatka in 1960-2017 - 674,7 thous t.
The major species of Cottidae dominating on West Kamchatka

- Myxocephaulus polyacanthocephalus
- Melletes papilio
- Myxocephaulus jaok
- Gymnacanthus detrisus
The dynamics of the biomass of the major species of Cottidae on the West Kamchatka in 1960-2017, (thous t)

The average annual value of the total biomass of Pleuronectidae representatives— 211.7 thous t
The major species of Pleuronectidae dominating on West Kamchatka

- Pleuronectes quadrituberculatus
- Myzopsetta proboscidea
- Limanda sakhalinensis
- Lepidopsetta polyxystra
- Limanda aspera
- Hippoglossoides elassodon
The dynamics of the biomass of the major species of Pleuronectidae on West Kamchatka in 1960-2017, (thous t)

The average annual value of the total biomass of Pleuronectidae representatives - 406,6 thous t
The dynamics of the biomass of Pacific cod and saffron cod on West Kamchatka in 1960-2017, (thous t)

The total biomass of Pacific cod in recent three years (2015-2017) was averaged 58,3 thousand tons, whence saffron cod reached 185 thousand tons.

The average annual value of the biomass of Gadidae—152,2 thous t
On the data of trawl surveys the contribution and the biomass density of **Pacific cod** for 2008-2017 was 3,8% and 908,2 kg/km² averaged, and of **Saffron cod** — respectively 11,2% and 1843,2 kg/km².
The deviations of the ice condition of the Sea of Okhotsk and the biomass of bottom fish on the shelf of West Kamchatka on the data of trawl surveys for 1960–2017 from the average annual value.

In parallel with the decrease in the ice cover of the Sea of Okhotsk (January-March), there was a tendency to an increase in the biomass of flounders, sculpins and saffron cod. The biomass of Pacific cod otherwise increased in the periods of dominant cool processes developing or in the years with temperate hydrological regime.
Results of bottom trawl surveys carried for 1960–2017, confirm, that in the bottom fish communities on the West Kamchatkan shelf three families dominate – Gadidae, Pleuronectidae and Cottidae.

For now the biomass of the bottom fish species on the shelf of West Kamchatka demonstrates trend to growth and approximately reaches the level of which is as 2 times as higher the biomass observed for the 1960–1980s.

Taking into account not high intensity of commercial use of the resource of the bottom fish species (Pacific cod in particular) it can be concluded that the stock fluctuations are still in the corridor of natural dynamics.
Thank you for your attention!