



Coastal fishing of Pacific halibut (*Hippoglossus stenolepis*) and its prospects of development in the Asian part of the areal.



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Introduction

In the far East of Russia, from the beginning of 90-s of the last century, there were repeated attempts of the organization of specialized coastal fishing for pacific cod, atka mackerel and Pacific halibut. In each of the regions the definite methods of coastal fishing of characteristic and most accessible species of hydrobionts often any one species were developed. For example, it's longline and net fishing of atka mackerel in Avacha Gulf of the coast of Kamchatka or longline fishing of Pacific halibut in the Karaginsky Gulf (Western part of the Bering sea) and Pritauysky region (Eastern part of the Okhotsk sea).

The target fishing of black halibut in the northeastern part of the Sea of Okhotsk and the northwestern part of the Bering Sea provides 10 thous.t, moreover there are permanent attempts of local target longline fishing of Pacific halibut in different parts of this big region. In the other words, the annual catch of four halibut species in the seas of Far East now varies in the ranges 11,0-17,0 thousand tons, where the part of Pacific halibut is about 24,2% (3,62 thousand tons) averaged (fig. 2)

The main part of the catch of Pacific halibut in the waters of these seas is provided by the Western Bering Sea (the Western Bering Sea zone and the Karagin subzone), where commercial fishery of this species operates, whereas in all the other commercial districts of the Exclusive Economic Zone of Russia it is a bycatch (fig.3).

In a mode of coastal fisheries, depending on area, it is catching from 0,1 to 60 % Pacific halibut (fig.4). The most part is bycatch, at a fishing of other species. On a specialized coastal fishing a Pacific halibut from small vessels and sports fishery some percent are obtained.

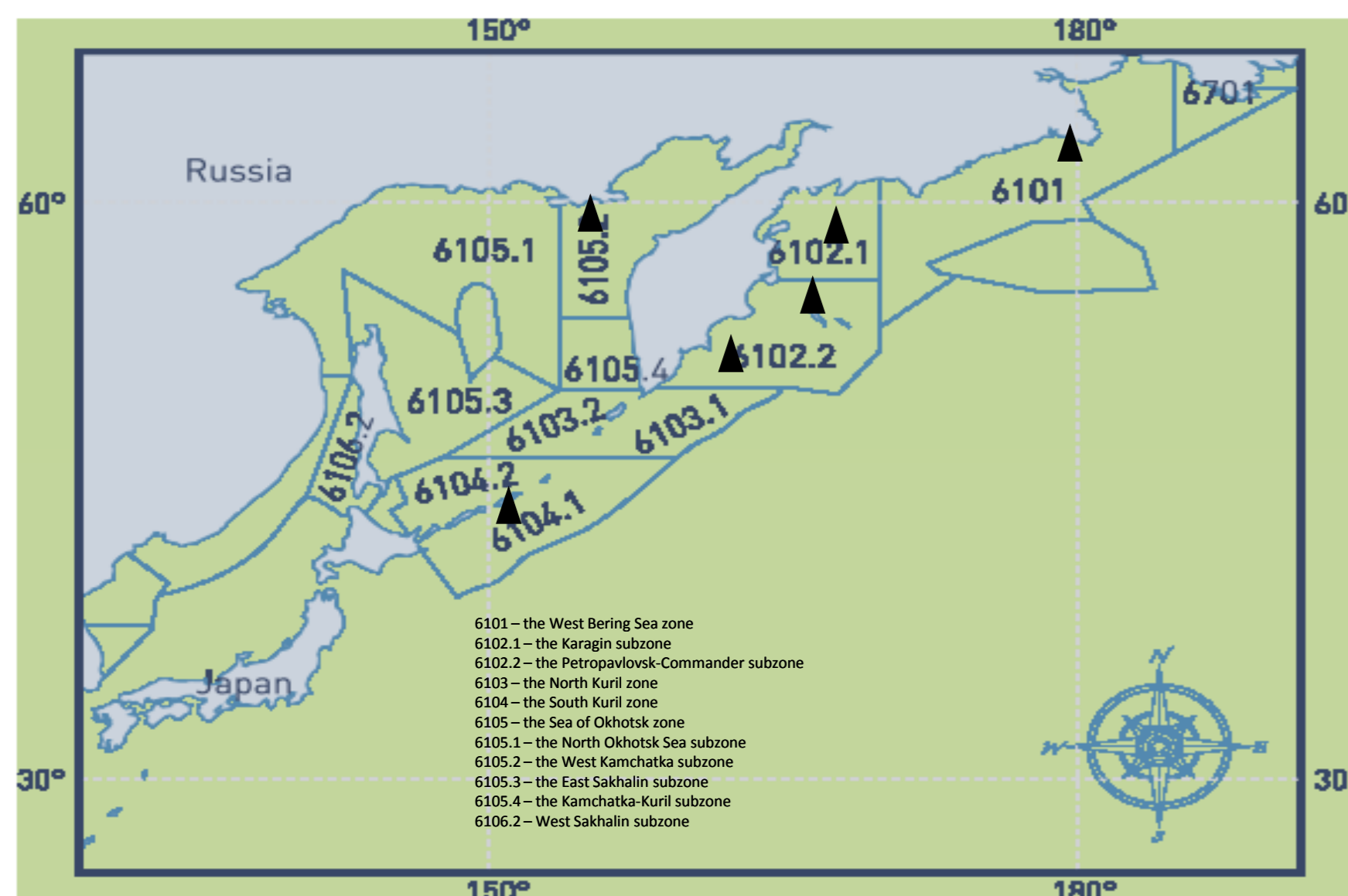


Fig.1 Schematic fishery zoning in Russian Far East (▲ places coastal fisheries Pacific halibut)

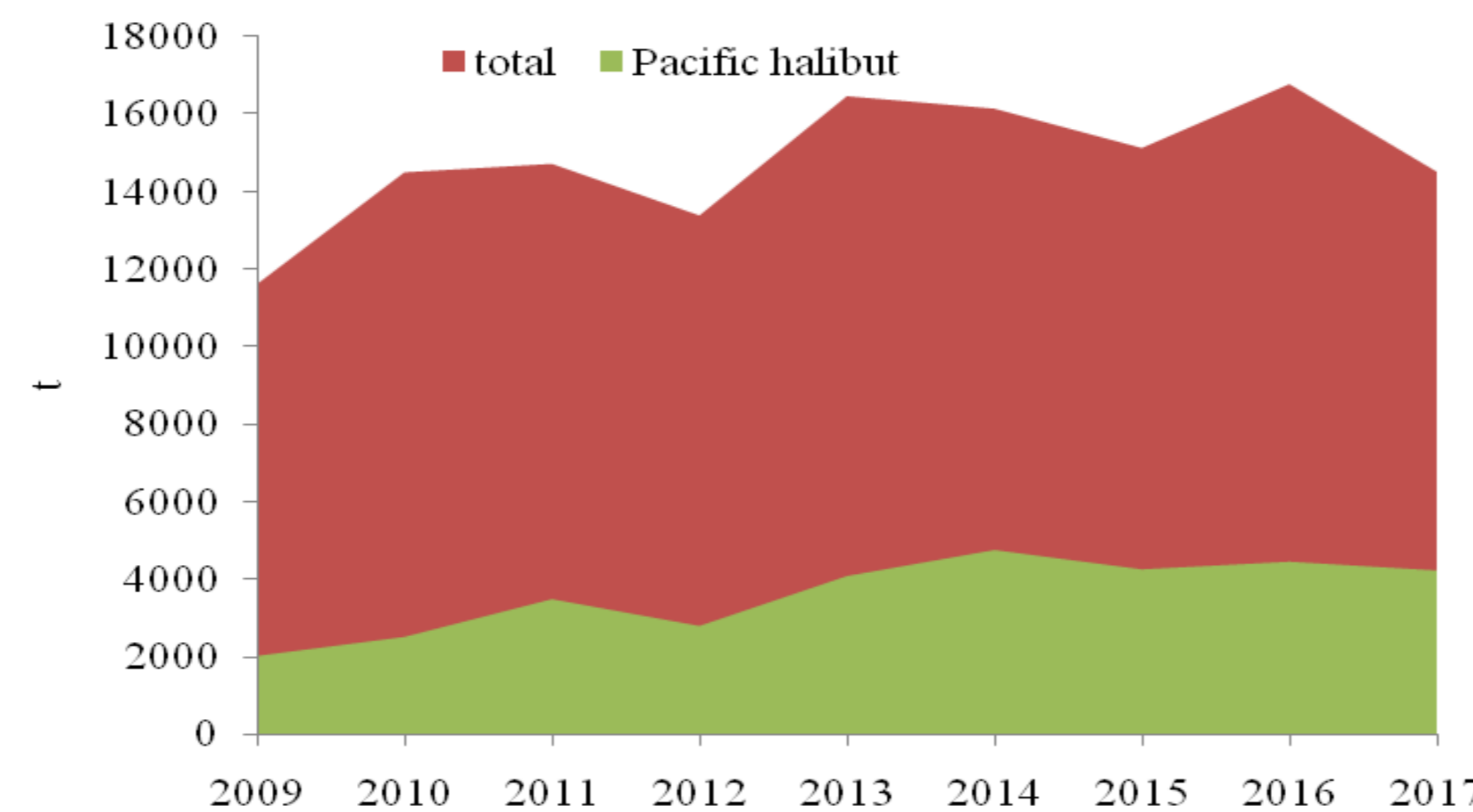


Fig.2. The summarized catch (t) of halibuts in the Asian part of the species and part of Pacific halibut (2009-2017)

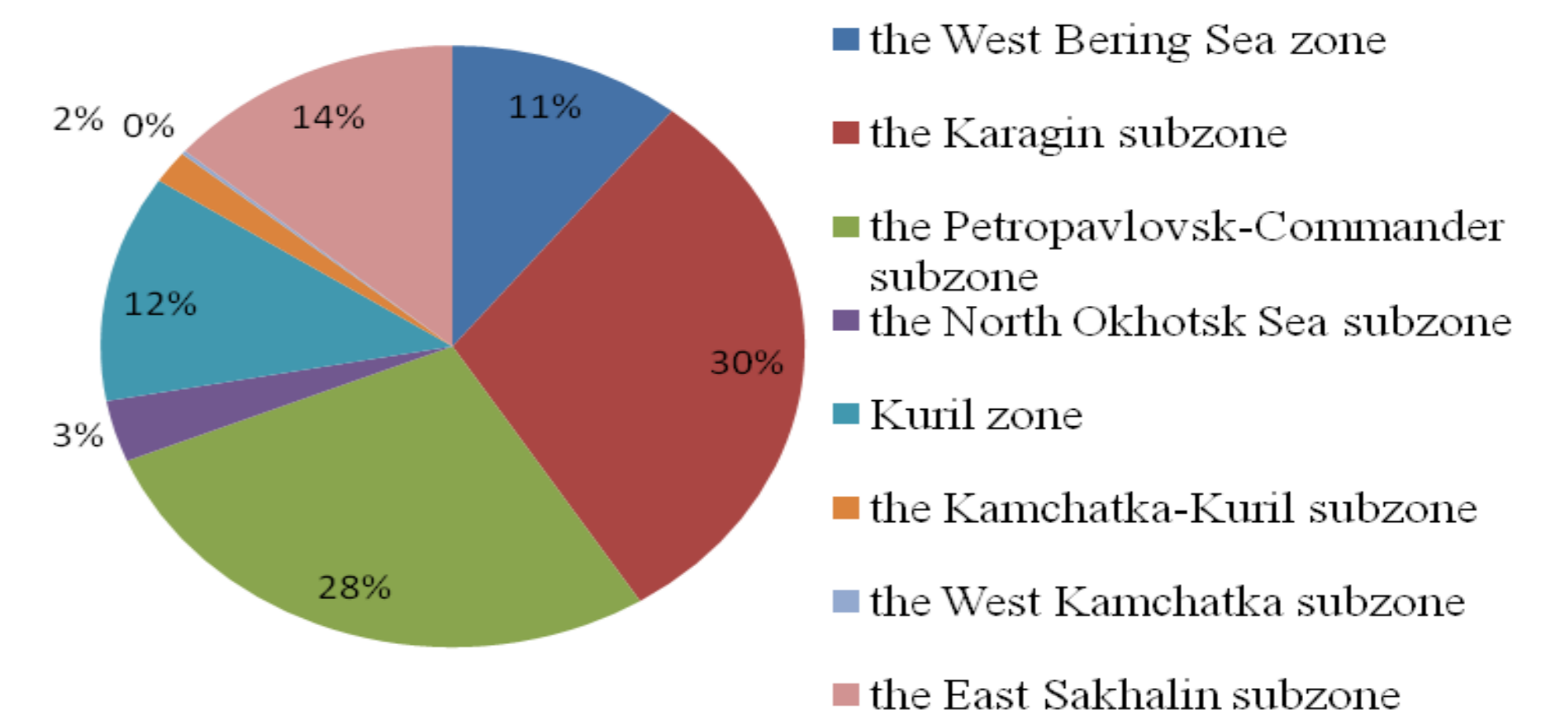


Fig.4 The part (%) of the coastal fishing in the total catch of Pacific halibut by fishery subzones.

Materials & Methods

The work is based on the data collected on the vessels which are fishing by various fishing gear in different periods from 1999 to 2017 and on the analysis of fishing statistics. The data obtained in the course of research cruises were used also.

Discussion

Halibuts in the Far Eastern seas are obtained as a bycatch in the course of fishing cod, flounders, walleye pollock and some other fish species, and the annual catch is about 3-6 thous. tons.

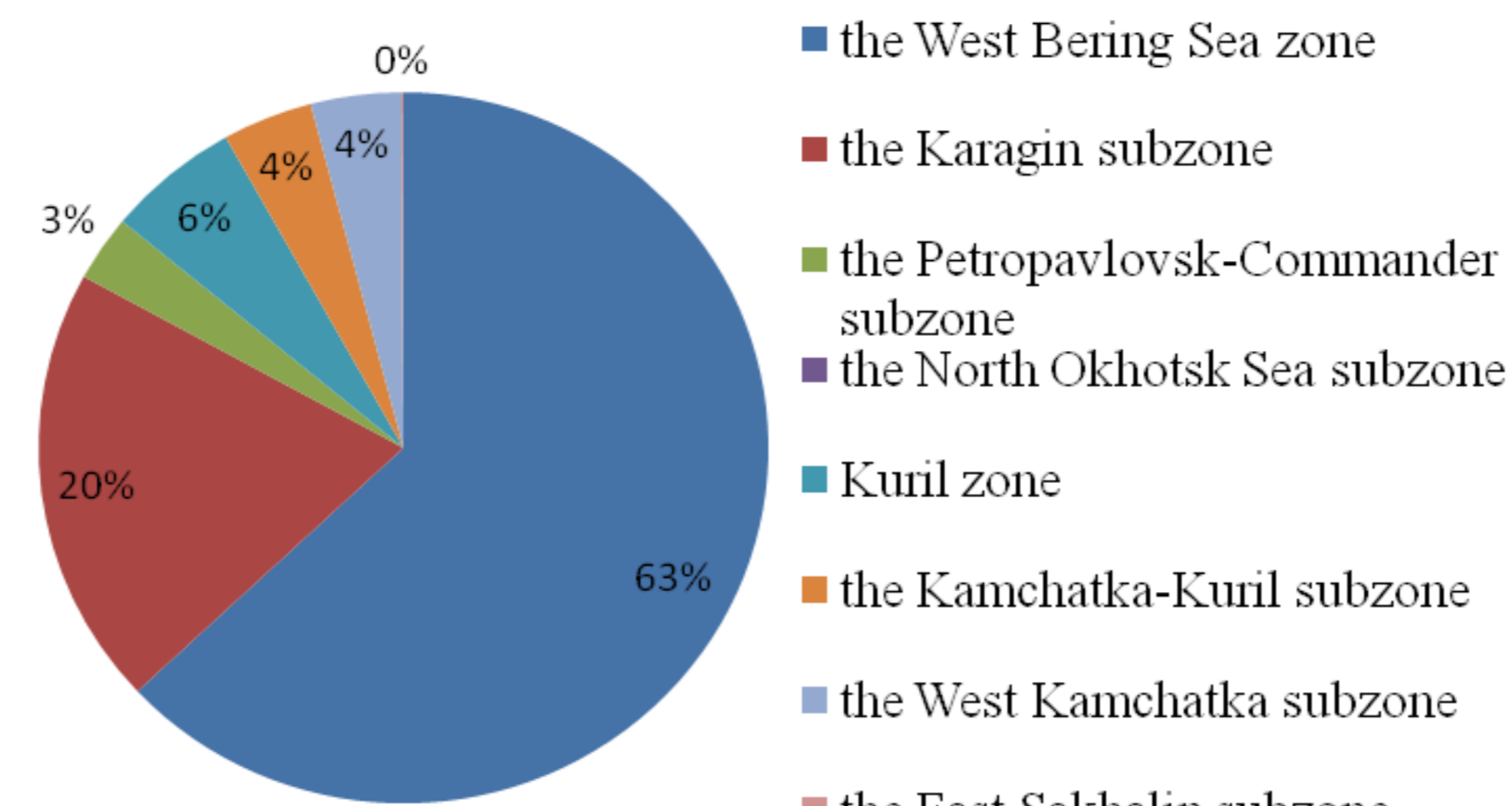


Fig. 3. The catch (%) of Pacific halibut in the commercial fishery districts.

The plan of the organization and development of the coastal fishery of Pacific halibut is similar currently in all districts. There are used the data collected or the regime of exploration first. The next stage for two-three years implies having the maximal catches engaging all size groups, and on finishing this period the catch quickly decreases. Fishing in the next phase is episodic or gets stopped and changed for another target species. It is too far now from having a rational use of halibuts operation either in the coastal zone of Kamchatka or in the other regions, but important steps in this direction are made. Majority of fishing companies and vessels now indicate halibut species they have caught, what allows to figure out fleet and districts of commercial and coastal fishing of Pacific halibut and to provide retrospective analysis of fishing of this species.

The behavior of a big part of adult stock of Pacific halibut to have feeding in shallow waters during warm period of year makes this species available and attractive, and the only profitable halibut species for coastal fishing as far as the prices for Asian arrowtooth halibut are low.

Conclusion

In spite of the high performance in some local areas and in a certain season (summer and autumn), specialized coastal fishing of Pacific halibut has not acquired the character of stable fishing. Such fishing of the coast of Kamchatka and in the other nearby regions is implemented episodically, and the main part of Pacific halibut in the coastal waters of Kamchatka is caught now, as before (since the 20s of the last century), in the form of bycatch of the fishery of walleye pollock, pacific cod, flatfish from small and medium vessels. It is necessary to develop and support coastal longline fishing of Pacific halibut from small vessels. To popularise recreational (sports) fishery of Pacific halibut.