



USE OF NATURAL FOOD ATTRACTANTS IN THE DIET OF COHO SALMON (*ONCORHYNCHUS KISUTCH*)

N.F. Okrestina ninaokrestina.3@gmail.com

M.L.Zharkov

O.M. Isaeva olisa24@bk.ru

Kamchatka State Technical University, Petropavlovsk-Kamchatsky, 683003;

The purpose and objectives of the research

- Increase the efficiency of using artificial feed with the help of natural food attractants in coho salmon aquaculture.
- Search for effective attractive gustatory stimuli among marine aquatic organisms and algae;
- Improve the feeding method of juvenile coho salmon using additives that improve the quality of feed in the diet;
- Give a comparative assessment of the use of compound feeds with the addition of extracts of aquatic organisms and compound feed "Dalkorm" for growing juvenile coho salmon in aquaculture.



The research object
(*ONCORHYNCHUS KISUTCH*)

Materials and methods of the research



Individual tanks (6l)



General tank (133l)



All experiments were situated in KamchatSTU laboratory. There was prepared a system of fish tanks, consisted of 18 individual 6 l. plastic tanks and one 133 l. general tank.

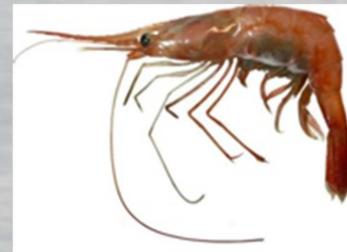
The experiments were carried out using the behavioral technique of fish test reactions to feed pellets soaked in extracts of marine aquatic organisms with concentrations of 300 g / l, 500 g / l, 1000 g / l;

A Petri dish, a balance, a measuring pipette, settled water, and test jars were used; First, the aquatic organisms were weighed, then kneaded in a mortar and gradually mixed with settled water until homogeneous.

The resulting extract was stored in a refrigerator for no more than 1 day;

Dry granulated food was soaked in an aqueous extract of the attractant for 1 hour, before feeding the fish.

The following aquatic organisms were used to study taste preferences:



Saccharina bongardiana



Pandalus eous

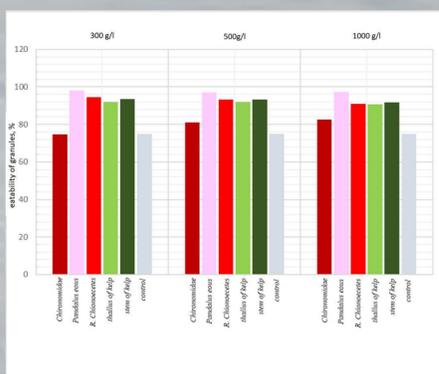


Chionoecetes



Chironomidae

Results of the research



- Consumption of pellets with water extract of *Pandalus eous* shrimp - more than 97%;
- Consumption of granules with aqueous extract of snow crab *R. Chionoecetes* - more than 90%;
- Consumption of granules with water extracts of kelp (stem and thallus) - more than 90%;
- Consumption of granules with extract from bloodworm larvae (*Chironomidae*) - 74.8-82.6% (indifferent stimulus).

Conclusion

As a result of the experiments, there was found that the used extracts of aquatic organisms have a highly attractive taste for coho salmon, except for granules with bloodworm extract (an indifferent stimulus). The most effective palatable stimuli were shrimp extract pellets with every concentrations used, which significantly increased pellet consumption up to 98%. The food pellets aged in the water extract of bloodworms had an indifferent taste, i.e. their consumption did not differ significantly from the consumption of dry feed pellets.

The results showed that natural food items (marine aquatic organisms) can be used as attractants, that enhance the consumption and olfactory attractiveness of artificial granulated food.