PULSUS Aquaculture and Fisheries Management



Immune-resistant carp cross "Surskiy malokostny"

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Abstract:

The industrial fish farming is followed by lower immune status of cultured specimens in connection with high stocking density, handling and other technological factors. Specific immune-modulating substances or selection for higher immune status could be used for solving of this problem. The most dangerous multifactorial infection in commercial carp farms is red spot disease (RSD) caused by Pseudomonas, Aeromonas, and Spring Viremia of Carp Virus Rhabdovirus carpio. The authors had obtained a new commercial mirror hybrid carp "Surskiy Malokostny" (with lower number of bones) characterized by high rates of weight growth, survival and immune resistance. The application for selection achievement for this cross had No. 77897. The high immune resistance of new hybrid is connected with characteristics of one of parent lines, Angeline mirror carp exposed to longterm selection after outbreak of RSD more than 60 years ago. The leucogram of new hybrid was characterized by high levels of myeloid segmental cells suggested full development of inborn cell immunity. The lower level of lysosomal cation protein in neutrophils of new hybrid before winter comparing with control full-scaled carp of commercial line is the feature of high immune resistance.

Biography:

Galina Iozepovna Pronina defended her thesis at the age of 28 at the Moscow veterinary Academy named after K.



I. Skryabin, Russia and received her doctorate at the Department of physiology, ethology and biochemistry of animals at the Moscow agricultural Academy named after K. A. Timiryazev, Russia. She is the head of the laboratory of All-Russian research Institute of irrigation fish breeding. She has published more than 190 articles in well-known journals.

Recent Publications:

- 1. Techniques for in vivo extraction of gonads of male European catfish (Silurus glanis) for the artificial reproduction
- 2. Immune-resistant carp cross "Surskiy malokostny"

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