

Ministry of Education and Science of Ukraine
State Higher Educational Institution
“Kherson State Agricultural University”

WATER BIORESOURCES AND AQUACULTURE

Водные биоресурсы и аквакультура

Водні біоресурси та аквакультура

Scientific journal

1/2017

Kherson / 2017

Recommended for printing and distribution via Internet
by the Academic Council of State Higher Educational Institution “Kherson State
Agricultural University”, minutes № 2 on 26.10.2017.

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Official website of the journal: – www.wra-journal.ksauniv.ks.ua

Scientific journal “Water bioresources and aquaculture” is registered by the Ministry
of Justice of Ukraine (Certificate of state registration of the print media
Series KB № 22727-12627P on 24.03.2017)

SANITARY AQUACULTURE AS AN ELEMENT OF RATIONAL EXPLOITATION OF SMALL RESERVOIRS.

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The article considers the possibilities of sanitary aquaculture application to small water reservoirs intended for drinking and technical water supply, irrigation recreation and fish farming which occupy 14.8% of the Ukrainian water reserves. The introduction of balanced pasture aquaculture which provides for the purposeful formation of artificial ichthyocenoses by valuable fish species will ensure biological melioration of these reservoirs, bioregulation of production processes, reduction of eutrophication level, improved water quality characteristics, high quality and cheap fish products.

Key words: small reservoirs, hydroecosystem, eutrophication, bioameliorative, bioregulation, fish-bioameliorators, sanitary aquaculture.

BIOLOGICAL CHARACTERISTICS OF NATIVE COMMERCIAL FISH FAUNA OF THE KLEKOTINSKE RESERVOIR

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Analysis of structural parameters of the native fish fauna of the Klekotinske reservoir as a water object used for fish ranching purposes. Collection and processing of samples were performed according to standard methods accepted for reservoirs. Native commercial fish fauna of the Klekotinske reservoir consists of 10 fish species, where the dominating species by number and weight in catches were Prussian carp (72.3% and 68.4%, respectively), roach (10.1% and 4.2%), and pike (4.1% and 13.2%).

A conclusion can be made that measures on the directed creation of fish fauna, which were carried during 2005-2015 showed sufficient efficiency (by ensuring 74-87% of the commercial catch). It was showed that rational fish ranching in the regime of Special Commodity Fish Farm allows ensuring the stability of structural-functional parameters of native fish fauna that creates favorable (in environmental aspect) prerequisites for the increased role of inland water bodies in the production of marketable fish.

Key words: Klekotinske reservoir, Special Commodity Fish Farm, fish fauna, age structure, commercial stock.

**TRANSFORMATION OF THE ECOTONE ICHTHYOCENOSIS
UNDER UNSTABLE HYDROECOLOGICAL INDICES
(BY THE EXAMPLE OF MILK LIMAN)**

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The issue of changes in ichthyocenosis under dynamics of hydroecological regime is presented by the example of Molochnyi Liman that refers to ecotone bodies of water. The situation existing for the liman ecosystem confirms that the majority of natural and anthropogenic factors provide a significant effect on the hydroecological processes and structure of ichthyocenosis. The most influential among them are salinity, runoff, water exchange between the ecotone and sea, and hydrometeorological conditions. This paper considers transformations in the ichthyocenosis of Molochnyi Liman under various types of the liman-sea connection. A clear dependence of the fish species richness on salinity level is shown. For these indices, a negative correlation was found at the level of 0.94.

Key words: Molochnyi Liman, ecotone, factors of influence, ichthyocenosis, species composition, numbers.

STRUCTURAL PARAMETERS OF CRAYFISH COMMERCIAL STOCK IN THE KAKHOVKA RESERVOIR

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The majority of the narrow-clawed crayfish population in the Kakhovka reservoir during the study period was represented by specimens of 95-115 mm in length, the mean length in catches varied from 102.0 to 106.7 mm, weight – from 45.7 to 47.8 g. The analysis of specific weight accumulation indicates that crayfish biomass culmination was due to length classes of 110-120 mm. Mean individual fecundity in modal length groups of females was 239.5-357.4 eggs. The majority of population fecundity was specimens of 110-119 mm in length that confirmed the necessity for the limitation of commercial fishing pressure on medium age groups. For this, the minimum legal size for crayfish should be increased to 11 cm.

Key words: Kakhovka reservoir, narrow-clawed crayfish (*Astacus leptodactylus* L.), size structure, population fecundity, commercial harvest.

DEPENDENCE OF ICHTHYOMASSES OF BELARUS LAKES FROM SOME BIOLIMNOLOGICAL FACTORS

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On the example of Belarus lakes attempt to establish a list depending ichthyomasses away biolimnological factors. The greatest approximation coefficients installed in pairs with an average depth of water of lakes and transparency as well as with the biomass phyto- and zooplankton. The equation of linear regression that describes this relationship.

Key words: lake, fish productivity, ichthyomass, biolimnological factors, dependence, model.

**BY-CATCH DURING REDFISH FISHERY IN OPEN WATERS
OF NORTHERN PART OF THE ATLANTIC OCEAN
AND THE POSSIBILITY OF ITS MINIMIZATION**

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One of the main fishing objects in the North Atlantic – the beaked redfish (*Sebastes mentella* Travin). However, the by-catch is still present, and in the Norwegian Sea sometimes is enough big. During redfish fishery, 26 species and subspecies of fish from 21 families were identified in the catch. An increase of the speed of hauling the trawl leads to decreasing quantity of by-catch. By-catch is recommended for the production of fish meal.

Key words: beaked redfish, by-catch, by-catch species, Irminger Sea, Labrador Sea, Norwegian Sea, minimization of by-catch.

MARINE FISHING OF UKRAINE IN THE XXI CENTURY: STATUS AND PROSPECTS

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The article describes the current state of marine fisheries in Ukraine.

In the Azov Sea in recent years, there has been an increase in the total catch of fish (2014 - 19.6 thousand tons, 2015 - 29.8 thousand tons, 2016 - 35.6 thousand tons) due to the high reserves of the Azov bulls And the preservation of significant stocks of massive pelagic fish (tulks, anchovies). In the Black Sea, the total catch of fish by Ukraine decreased by 13 times compared to the period before 2013 and for 2014-2016. On the average has made 2,87 thousand tons a year. The Antarctic marine areas (CCAMLR zone of responsibility) remain the main and most promising zone for ocean fisheries in Ukraine, where Ukrainian fishing companies produce krill and toothfish.

The objectively large resource potential for the development of national marine fisheries is preserved, which can be facilitated by the reform and targeted support of the state.

Key words: fishing, aquatic biological resources, reserves, catches, the Sea of Azov, the Black Sea, the World Ocean.

INFECTIOUS PANCREATIC NECROSIS IN SALMON (REVIEW)

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Presented in the article data obtained on the basis of existing publications summarizing domestic and foreign authors. In particular, describes the biological properties of the virus infectious pancreatic necrosis and its pathogenesis, virus distribution in different countries and possible sources falling into water bodies, ways of migration. A brief description of the virus. The basic biological properties of the virus infectious pancreatic The data on the spread of the virus among fish that are grown in terms of aquaculture and fish from natural reservoirs. Prospects and theoretical basis for further research to prevent getting the virus in the specialized sector of Ukraine.

Key words: virus, rainbow trout, salmon fish, pathogenesis.

TENDENCIES OF DEVELOPMENT OF FISHERY IN ANTIQUE CITY-STATES OF NORTHERN BLACK SEA COAST

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Some Tendencies of development of fishery in antique city-states of Northern Black Sea Coast are considered in the publication. Special attention is paid to data on export of fish and some fish products. Data from works of Ancient Greek authors on Black Sea fish provided.

Key words: antique city-states, fisheries, переработка рыбы, экспорт рыбной продукции.