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The main directions of socio-economic development of New Uzbekistan: problems and solutions

MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATION OF THE REPUBLIC OF UZBEKISTAN

JIZZAKH BRANCH OF THE NATIONAL UNIVERSITY OF UZBEKISTAN NAMED AFTER MIRZO ULUGBEK

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The main directions of socio-economic development of New Uzbekistan: problems and solutions collection of materials of the international scientific and practical conference on the topic

(December 6, 2024)

(Part 1)

Jizzakh-2024

Department of Economics and tourism of Jizzakh branch of the National University of Uzbekistan named after Mirzo Ulugbek
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The main directions of socio-economic development of New Uzbekistan: problems and solutions collection of materials of the international scientific and practical conference on the topic – Jizzahk: Department of economics and tourism of Jizzakh branch of the national university of Uzbekistan named after Mirzo Ulugbek, December 6, 2024, 450 pp.

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In the collection of materials of the conference, the role and role of Science, Education and production in the era of globalization, the pressing problems of the issues of interaction of these processes, feedback on their solutions were presented by mature specialists of the field.

In addition, research on the scientific and practical topic, carried out in the economics, Exact Sciences, Natural Sciences and socio-humanities during the globalization period, information is presented in the scientific and practical fields, which includes the latest innovative technologies in the fields of production.

It can be argued that this collection is one of the specific intersections of current thoughts and innovative ideas of the world of science. This scientific and practical conference was actively attended by professors and scientific researchers engaged in scientific research in Uzbekistan and foreign countries. In increasing the position of the scientific and practical conference, the professors and teachers of domestic and foreign higher educational institutions made a significant contribution.

Professors and teachers of foreign higher educational institutions who actively participated in the work of the conference made a worthy contribution to the high level of interaction with scientists of our country. The processes of international cooperation with foreign countries and exchange with them in the field of Science in the era of globalization have a positive effect on the development of Higher Education, the fields of Science and production. The materials of this conference are special in that they include a wide range of research, from theoretical developments to practical solutions, demonstrating the diversity of approaches and directions in this area.

In conclusion, it should be noted that this scientific and practical conference will be a very useful collection for everyone who is interested in modern research in the fields of further development of Higher Education, Science, Education and production in the era of globalization. The authors are responsible for the content and quality of the articles and abstracts included in the collection.

CYPRINUS CARPIO LINNAEUS, 1758 BALIG‘INING LERNAEA CYPRINACEA L, 1758 EKTOPARAZITI BILAN ZARARLANISHI



v.b dotsent PhD Soatov Baxrom Baxtiyorovich, Oripova E’zoza Ravshan qizi, Xo‘jabekova Feruza Ilxom qizi
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Hozirgi kunga kelib O‘zbekiston Respublikasi suv havzalarida baliq yetishtirish va rivojlantirishga katta ahamiyat berilmoqda. Tabiiy va sun’iy suv havzalari ixtioparazitofaunasini o‘rganish, baliq zahiralarini ko‘paytirish va ilmiy asosini ishlab chiqish bugungi kunning dolzarb muammolaridan biri hisoblanadi.

O‘zbekistonning hayvonot dunyosi o‘ziga xos, boy va turli tumanligi bilan ajralib turadi. Respublika suv faunasini asosini baliqlar egallab, ularning 80 dan ortiq turlari suv havzalarida qayd qilingan. Qayd qilingan baliq turlarining ba’zilari noyob turlar bo‘lib hisoblanadi: Orol mo‘ylabdori, kurakburunlar, parrak, cho‘rtan-marka va boshqalar [1,6].

Jizzax viloyat baliqchilik xo‘jaliklarida tarqalgan sazan (karp) (*Cyprinus carpio* L, 1758*)* eng asosiy tovar baliq turi sifatida yetishtiriladi. Mazkur baliq turlari mahsuldorligi tufayli oziq-ovqat uchun keng foydalaniladi.

Ushbu tadqiqot ishining asosiy maqsadi: *Cyprinus carpio* Linnaeus, 1758 balig‘ining *Lernaea cyprinacea* L, 1758 ektoparaziti bilan zararlanish ko‘rsatkichlarini aniqlash, bioekologik hususiyatlarini tahlil hisoblanadi.

Material va tekshirish usullari. Tadqiqot ishlari 2023-2024 yillarda Jizzax viloyati suv omboridan tutilgan, turli yoshdagi sazan (karp) baliqlarining 30 nusxasi gelmintologik va ixtioparazitologik tadqiqot usullaridan foydalangan holda tekshirildi. [2,9].

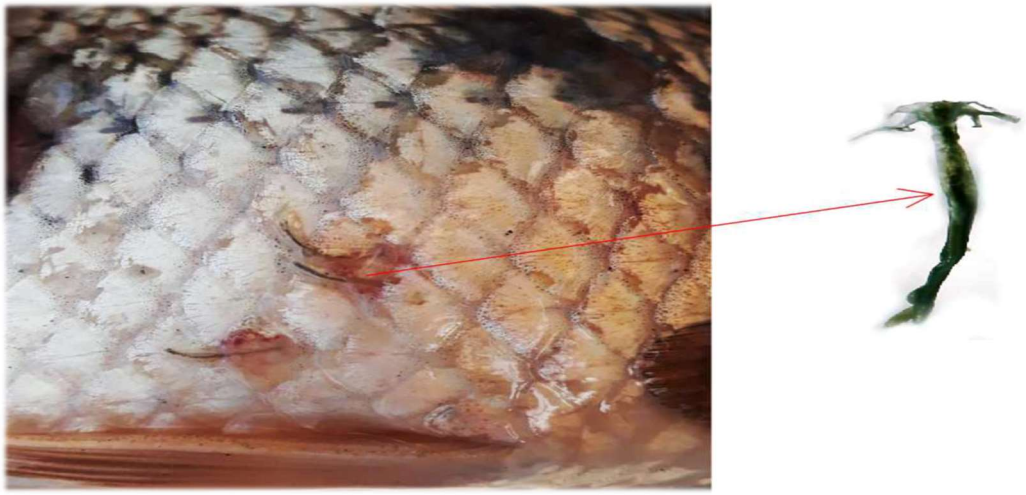
Tekshirishlarda yig‘ilgan *L. cyprinacea* ektoparaziti namunalari laboratoriya sharoitida 70% li spirtda fiksatsiya qilindi va turi aniqlandi. [3].

Olingan natijalar. Jizzax viloyati suv omboridan tutilgan sazan baliqlarida *L. cyprinacea* ektoparaziti baliqlarning tashqi tangachalarida parazitlik qilishi kuzatildi. Sazan baliqlarning 30 nusxasidan 12 nusxasi (40.0 %) *L. cyprinacea* ektoparaziti bilan zararlanganligi aniqlandi. Invaziya intensivligi 1-12 nusxani tashkil etdi. Bunday kasallanish baxor va yoz mavsumida ko‘proq sazan baliqlarni zararlashi kuzatildi.

Lerneoz kasalligini bu chuchuk suvdagi baliqlarning invazion kasalligi bo‘lib, Lernidae oilasiga mansub *Lernaea cyprinacea* - eshkak oyoqli qisqichbaqalar *(Copepoda)*нинг (tovonbaliq, sazan, buffalo, sharq oqchasi) baliqlarning tanasida parazitlik qilishi tufayli kuzatiladi. Oq amur va oq do‘ngpeshona baliqlarda *Lernaea ctenopharyngodonis* parazitlik qiladi.

Bu kasallik bilan yirtqich baliqlar deyarli zararlanmaydi. [4,10].

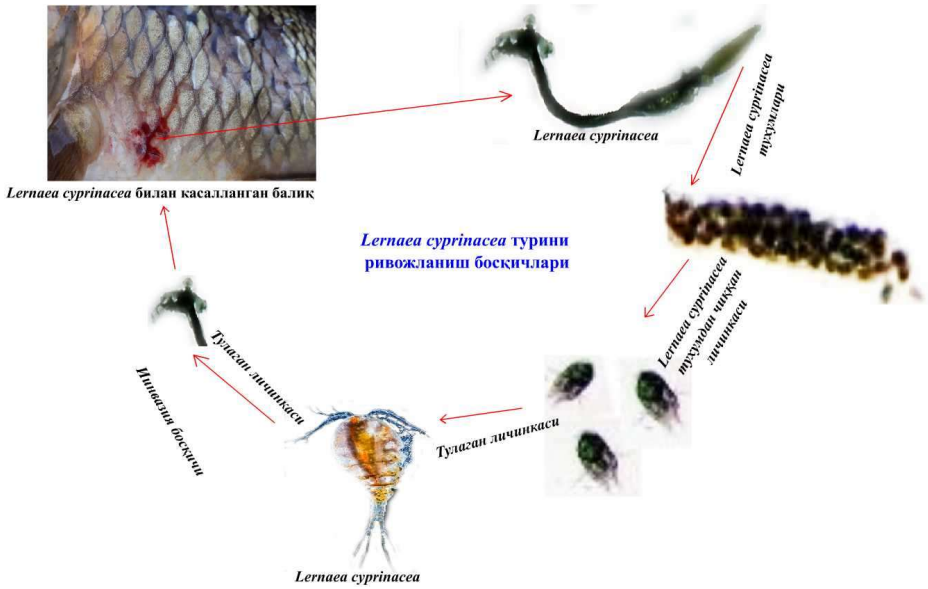
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1-rasm. Jizzax viloyati Sh. Rashidov tumani Jizzax suv ombori havzasidan olingan *Lernaea cyprinacea* bilan zararlangan baliqlar
(B. Soatov, 2023)

Rivojlanishi. Jinsiy voyaga yetgan urg‘ochi qisqichbaqalarning tanasi uzunchoq bo‘lib, 10-16 mm gacha, silindrsimon shaklda, tanasi bo‘g‘imlarga bo‘linmagan, orqa qismi biroz kengaygan. Bosh tomonida 4 ta o‘simtasi bo‘lib, 2 tasi shoxlangan va 2 tasi shoxlanmagan, ular yordamida lerneylar baliq tanasiga kiradi. Hamda, bir juft tuxumdoni uzunchoq shaklda bo‘lib, unda 300 tadan 700 tagacha tuxumlari bor.

Jinsiy voyaga yetgan urg‘ochi qisqichbaqalarning tuxum xaltasida yoz oylarida uch juft oyoqli yosh kopepodalar (naupliya) rivojlanib suvga tushadi. Suvda ular 3 bosqichdan iborat nauplial va 5 bosqichli kopepodit, har bosqichida tullash bilan yakunlanadigan bosqichlarini o‘tadi. 5 bosqichida jinslarning differensiyasi bo‘lib, urg‘ochi va erkak qisqichbaqalar shakllanadi, otalanish jarayoni tugab bo‘lgach, erkaklari nobud bo‘ladi, urg‘ochilari esa baliqlar tanasiga, terisiga tushib olib teri ostida harakat qiladi va jinsiy voyaga yetadi. Lerneyalar juda ham naslli bo‘lib, yoz davomida qisqichbaqalar naslining bir necha marotaba almashuvi kuzatiladi. 2-rasm.



2-rasm. *Lernaea cyprinacea* turini rivojlanish bosqichlari

Rivojlanishining tezligi suv rejimiga bog‘liq, kuzgi generatsiyasi baliq tanasida qishlaydi. Lerneyalarning ko‘payishi faqat chuchuk suvda kuzatiladi [5].

Lerneyalar baliq terisini teshib mushak to‘qimasigacha yetib, unga chuqurroq kirib, shu bilan birga butun tananing yuzasiga joylashib oladi. Qisqichbaqa joylashgan to‘qimalarda yallig‘lanish jarayoni kechadi, shish hosil bo‘ladi, giperemiyalashadi va oq tor, ensiz yarachalar hosil bo‘ladi. Zararlangan joylarda patogen bakteriyalar, zamburug‘lar rivojlanadi. To‘qimalarda qonli ekssudatning shimilishi oqibatida teridagi tangachalar biroz ko‘tariladi, shaklsizlanadi va quruqlanadi. Kasal baliqlar oziqa qabul qilmaydi, oriqlanadi, sekin harakatlanadi, suv oqimiga to‘planadi, ayniqsa, zog‘orabaliq va buffalo turdagi baliqlari zararlanadi. Baliqlarning qisqichbaqa bilan zararlanishi juda ham yuqori bo‘lib, har bir baliqqa o‘nlab miqdorda bo‘ladi. Lerneoz bilan zararlangan baliqlar kelgusi yilda kasallik tarqatuvchilari bo‘lib qoladi. Lerneyalarning lichinkali bosqichi kasallikning manbai hisoblanadi. [10].

Kasal baliqlarni formalin eritmasining 1:500 nisbatdagi konsentratsiyasida 45 daqiqa ushlab turish yo‘li bilan ishlovdan o‘tkaziladi. Vannalarda kaliy permanganat eritmasida 15-20 °C haroratda 1:50000 nisbatda 2-3 soat davomida, agar harorat 21-30 °C bo‘lsa, 1:100000 nisbatda 1,5-2 soat davomida ushlab turiladi. Agar harorat 20 °C gacha bo‘lsa, 15 kunda bir marta, 20 °C dan yuqori bo‘lsa, haftasida bir marta xlorofos bilan 0,3- 0,5 g/m3 dozada ishlovdan o‘tkaziladi. Oq amur va buffalolarning lerneyalardan qutulishi uchun karbofos 0,1 mg/l konsentratsiyasida ikki marta ikki hafta oralatib qo‘llaniladi. So‘ndirilmagan ohakni 100-150 kg/ga miqdorda ikki marotaba may va sentabr oylarida kiritish ham yaxshi samara beradi. Bunda suvning pH -8,5-9,0 gacha ko‘tarilib, erkin yuruvchi qisqichbaqalarning nauplial va kopepodit bosqichlarini yo‘qotishga erishiladi. Organik bo‘yoqlar - asosiy binafsharang va aniq yashil bo‘yoqlar 0,1-0,2 g/m3 konsentratsiyada erkin bosqichdagi qisqichbaqalarni o‘ldiradi. Chet elda xlorofos preparatining analogi mazoten va diptereks (0,25 g/m3 miqdorida haftasiga bir marotaba 5 hafta davomida) keng qo‘llanilib kelinmoqda. Xo‘jalikda zararlangan baliqlarni keltirmaslik, lerneyalarning nauplial va kopepodit bosqichlarini kiritmaslikka qaratilgan kompleks umumiy profilaktik tadbirlarni o‘tkazish, hovuzlardagi loyqalarni quritish yo’li bilan, dezinfeksiya ishlarini muntazam ravishda amalga oshirish maqsadga muvofiqdir. Baliqlarni tashishda nazorat o‘rnatmoq lozim. Bosh va suv bilan ta’minlovchi hovuzlarda zararlangan baliqlar bo‘lmasligiga e’tibor berish, yosh va katta yoshdagi baliqlarni alohida o‘stirish, hovuzlarda hammadan ko‘ra ko‘proq moyil baliq turlarining (oq amur va buffalo) sonini chegaralash kerak.[7,8,10].

Tadqiqotlarimiz natijasida Jizzax viloyati Jizzax suv ombori havzasida tarqalgan sazan baliqlarida parazitlik qilishi aniqlandi. Sazan (karp) baliqlarining 30 nusxasidan 12 nusxasi, (40.0 %) *L. cyprinacea* ektoparaziti bilan zararlanganligi aniqlandi. Invaziya intensivligi 1-12 nusxani tashkil etdi. Kasallanish bahor va yoz oylarida eng yuqori bosqichda rivojlanishi kuzatildi.

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