



Green University



**O‘ZBEKISTON RESPUBLIKASI OLIY TA‘LIM, FAN VA INNOVATSIYALAR VAZIRLIGI**  
**BUXORO VILOYAT EKOLOGIY, ATROF MUHITNI MUHOFAZA**  
**QILISH VA IQLIM O‘ZGARISHI BOSHQARMASI**  
**BUXORO DAVLAT UNIVERSITETI**  
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**UI GREENMETRIC – XALQARO REYTING AGENTLIGI**

**IQLIM O‘ZGARISHI SHAROITIDA CHO‘L – VOHA**  
**EKOSISTEMASI: MUAMMOLAR VA YECHIMLAR**  
**MAVZUSIDAGI XALQARO SIMPOZIUM**

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**“IQLIM O‘ZGARISHI SHAROITIDA CHO‘L – VOHA EKOSISTEMASI:  
MUAMMOLAR VA YECHIMLAR” MAVZUSIDAGI XALQARO SIMPOZIUMNING**

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Turkmenistan, and Kazakhstan. Mites were extracted from the soil and plants using Berlese-Tullgren funnels, subsequently cleared in a lactic acid solution, and then mounted in Hoyer's medium. Our research has led to the identification of 21 distinct species belonging to fourteen genera and five families. These include:

*Ameroseius corbiculus* (Sowerby, 1806), *Antennoseius* (*Vitzthumia*) *oudemansi* (Thor, 1930), *Cosmolaelaps lutegiensis* (Shcherbak, 1971), *C. markewitschi* (Pirianyuk, 1959), *C. vacua* (Michael, 1891), *C. rectangularis* Sheals, 1962, *Gaeolaelaps nolli* (Karg, 1962), *G. kargi* (Costa, 1968), *G. tuberculatus* Kazemi & Paktinat-Saeij, 2020, *Laelaspis astronomicus* (Koch, 1839), *Pogonolaelaps beaulieui* Nemati & Gwiazdowicz, 2016, *Lasioseius ometes* (Oudemans, 1903), and *Pseudoparasitus missouriensis* (Ewing, 1909), *Cheiroseius curtipes* (Halbert, 1923) and *Cheiroseius wuwenzheni* Ma, 1996, *Neoseiulus zwoelferi* (Dosse, 1957), *N. marginatus* (Wainstein, 1961), *Typhlodromus* (*Anthoseius*) *bagdasarjani* Wainstein & Arutunjan, 1967, *Euseius kirghisikus* (Kolodochka, 1979), *Kuzinellus kuzini* (Wainstein, 1962), *Phytoseius corniger* Wainstein, 1959.

Our study sheds light on the previously understudied diversity of predatory mites within Central Asia. These findings contribute significantly to the broader understanding of predatory mites (Acari: Mesostigmata) taxonomy and highlight the importance of exploring neglected geographic areas to expand our knowledge of biodiversity.

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## **WATER ISSUES AND PROBLEMS IN FISH FARMING OF THE BUKHARA REGION, AS WELL AS MEASURES TO SOLVE THEM.**

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One of the most pressing issues of our time is the rational use of water and soil resources. Scientists around the world claim that the number of people is growing every second, and about a century later, the problem of water and nutrient shortages will also increase.

Till this days, inefficient wasteful use of water and soil has put the inhabitants of the Earth in front of such problems as lack of water, violation of suitability for use. Consequently, the water basins of the Bukhara region, where water is scarce, and the main part is occupied by a desert zone, have a peculiar composition. In this area, as in other cities of the world, industry is developing, as a result of which wastewater rich in harmful substances is removed in large quantities from various enterprises and factories. To make such waters suitable for use in agriculture, several professors grow algae in the laboratory of the Department of Biotechnology and food safety of the Faculty of Agronomy and Biotechnology of Bukhara State University, which are used to purify polluted waters. In addition, with the help of these algae, Professor Bo'riyev and his disciple purify the waters extracted from a number of enterprises in Bukhara and are used in other branches of agriculture.

Bukhara oasis, most of which is located in a desert area, has long faced water problems. Water supply of cultivated areas, in addition to providing the population with clean drinking water, is another problem that has recently been largely solved thanks to the efforts of scientists of our Republic and the Bukhara region. Several decades ago, unplanned and chaotic fishing was caught from the reservoirs of our republic, the reason for which is considered to be the lack of hunting culture among the population. As a result, the number of fish in natural reservoirs has significantly

decreased by now, and there is a need to meet the growing demand of our nation for fish and fish products every day. The fish and fish products that we grow these days should not only be of high quality and rich in macronutrients, but also affordable. To do this, it is necessary to provide fish that are fed in natural and artificial reservoirs with inexpensive, but rich in proteins, fats and carbohydrates.

In the fishing farms operating on the territory of our republic, the cultivation of *Cyprinus carpio Linnaeus*, *Cyprinus carpio*, *Hypophthalmichthys molitrix*, *Hypophthalmichthys nobilis* is mainly in the lead, since in the natural reservoirs of our republic with a peculiar climatic conditions, it is noted that these fish weigh approximately 35 kg, and a length of a meter or more. In the fisheries of the Bukhara oasis, these fish are also the dominant species. *Hypophthalmichthys molitrix* and *Cyprinus carpio* fish feeding on algae are especially intensively bred. Because feeding *Cyprinus carpio* and *Hypophthalmichthys molitrix* is considered economically profitable. First of all, samples were taken from the water in the pond where these fish are grown, and the number of phytoplanktons is counted under a microscope. The quantities of microscopic algae that naturally multiply to ensure feeding of *Hypophthalmichthys molitrix* in this pond are determined. If the number of phytoplanktons developing in natural conditions of water reservoir is small, they are planted and bred in a separate pond of the fishery from microphytes that are propagated in laboratory conditions. Then water containing the required amount of algae is transferred to the pond where *Hypophthalmichthys molitrix* is grown.



Not all types of algae increase the productivity of herbivorous fish. *Oscillatorio Brevis*, *Oscillatorio boryona*, *Spirulina abbreviate Lemm*, *Spirulina senneri*, *Anabaena variabilis kütz*, *Scenedesmus obliquus*, *Scenedesmus acuminatus*, *Chlorella vulgaris*, *Chlorella ellipsoidea*, *Chlamydomonas snowial*, *Chlamydomonas oblanga Anach*, *Paediatrum duplex*, *Synebra pulonella*, *Synebra acus*, *Cyclotella comta*, *Diatoma vulgare* and other species of microscopic algae have been identified in the ponds of the Bukhara oasis.

Among these, algologically pure cells of *Chlorella vulgaris* and *Scenedesmus obliquus*, rich in macronutrients, were isolated and bred in laboratory conditions. In the water bodies which belong to the "Buxoro baliq" LLC, such fish as *Hypophthalmichthys molitrix*, *Cyprinus carpio Linnaeus*, *Cyprinus carpio* and etc. are grown. Water containing high amount of *Chlorella vulgaris* and *Scenedesmus obliquus* was thrown into the pools where *Hypophthalmichthys molitrix* were grown. After a few months, it was noticed that the body weight of the *Hypophthalmichthys molitrix* grown in the pond increased noticeably.

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