



## THE DIVERSITY OF FISH SPECIES IN THE REPUBLIC OF KARAKALPAKSTAN

<sup>1</sup>Genjebaev Miyras

<sup>2</sup>Berdanov Dastanbek

<sup>1,2</sup>Intern teachers of Karakalpak State University

<https://www.doi.org/10.5281/zenodo.8058673>

### ARTICLE INFO

Received: 12<sup>th</sup> June 2023

Accepted: 19<sup>th</sup> June 2023

Online: 20<sup>th</sup> June 2023

### KEY WORDS

*Habitat, fish, species, the Republic of Karakalpakstan, fishing, Amu darya.*

### ABSTRACT

*The diversity of fish species in Karakalpakstan refers to the variety of different types of fish that can be found in the region. This includes different species, such as northern pike and silver carp, as well as variations within each species. The presence of a diverse range of fish species is important for ecological balance, scientific research, and economic benefits for local communities. As a result, the article deals with the diversity of fish species in Karakalpakstan.*

The Republic of Karakalpakstan, located in the northwestern region of Uzbekistan, is home to a diverse range of fish species. The region is characterized by its arid climate and vast desert landscapes, but it is also home to several rivers, lakes, and wetlands that support a variety of aquatic life [3, 5].

One of the most important water bodies in Karakalpakstan is the Amu Darya River, which flows through the region and provides water for irrigation and fishing. The river is home to several important fish species, including the common carp, silver carp, and grass carp. These species are highly valued for their meat and are an important source of food for local communities [5].

In addition to the Amu Darya River, there are several other rivers and lakes in Karakalpakstan that support a diverse range of fish species. The Aral Sea, which was once one of the largest lakes in the world, is now greatly reduced in size due to overuse of its water resources. Despite this, the Aral Sea still supports several important fish species, including the Aral trout and the Aral barbel.

Other important fish species found in Karakalpakstan include the catfish, pike, perch, and roach. These species are found in various rivers and lakes throughout the region and are often targeted by local fishermen [1].

Commonly found fish species in Karakalpakstan include the followings:

1. Amudarya shovelnose sturgeon (*Pseudoscaphirhynchus kaufmanni*) - found in the Amu Darya River and its tributaries in Karakalpakstan.
2. Caspian kutum (*Rutilus kutum*) - found in the Aral Sea and its surrounding rivers in Karakalpakstan.



3. Common carp (*Cyprinus carpio*) - found in various water bodies throughout Karakalpakstan, including rivers, lakes, and ponds.
4. European perch (*Perca fluviatilis*) - found in rivers and lakes throughout Karakalpakstan.
5. Northern pike (*Esox lucius*) - found in rivers and lakes throughout Karakalpakstan.
6. Roach (*Rutilus rutilus*) - found in rivers and lakes throughout Karakalpakstan.
7. Silver carp (*Hypophthalmichthys molitrix*) - introduced for aquaculture purposes and can be found in various water bodies throughout Karakalpakstan.
8. Turkestan barbel (*Barbus capito*) - found in the Amu Darya River and its tributaries in Karakalpakstan.
9. Turkestan catfish (*Silurus turkestanicus*) - found in the Amu Darya River and its tributaries in Karakalpakstan.
10. Zander (*Sander lucioperca*) - found in the Aral Sea and its surrounding rivers in Karakalpakstan [6].

Factors affecting to the diversity of fish species in the Republic of Karakalpakstan [2]:

1. Climate: The arid climate of Karakalpakstan limits the amount of water available for aquatic ecosystems, which can impact the diversity of fish species.
2. Water quality: Pollution from agricultural runoff and industrial activities can negatively impact the water quality in rivers and lakes, which can affect the health and diversity of fish populations.
3. Habitat loss: Human activities such as dam construction and irrigation can alter the natural flow of rivers and disrupt the habitats of fish species, leading to declines in their populations.
4. Overfishing: Overfishing can deplete fish populations and reduce the diversity of species in a given area, which can have negative impacts on local communities that rely on fishing for food and income.
5. Invasive species: The introduction of non-native species can disrupt the balance of ecosystems and displace native fish species, leading to a reduction in diversity.

The diversity of fish species in the Republic of Karakalpakstan is important for several reasons. Firstly, it provides a source of food and income for local communities who rely on fishing as a livelihood. Different species of fish have different market values, which can help to diversify the economy and improve the standard of living for local people.

Secondly, the diversity of fish species is important for maintaining the ecological balance of the region. Each species has a unique role to play in the food chain, and their presence or absence can have a significant impact on the ecosystem as a whole. For example, predatory fish like northern pike help to control the population of smaller fish, while herbivorous fish like silver carp help to control aquatic vegetation.

Thirdly, the diversity of fish species is important for scientific research and conservation efforts. By studying the behavior and biology of different species, scientists can gain a better understanding of the natural world and develop strategies for protecting vulnerable populations.

There are several reasons of diversity of fish species in the Republic of Karakalpakstan. They are as follows [4]:

1. Geographic location: Karakalpakstan is located in Central Asia and is surrounded by the Aral Sea and Amu Darya River, which provide a unique habitat for various fish species.



2. Climate: The region has a desert climate with hot summers and cold winters, which creates diverse aquatic environments that support a range of fish species.
3. Water resources: The Amu Darya River and its tributaries, as well as the Aral Sea, provide abundant water resources that support different types of fish.
4. Habitat diversity: Karakalpakstan has a variety of aquatic habitats, including rivers, lakes, wetlands, and estuaries, which provide different conditions for fish to thrive.
5. Human activities: Fishing is an important economic activity in the region, and the introduction of new fish species for aquaculture purposes has also contributed to the diversity of fish species.
6. Migration: Some fish species migrate from other regions to Karakalpakstan for breeding or feeding, adding to the diversity of fish species in the region.

Overall, the diversity of fish species in Karakalpakstan is a result of various ecological, geographical, and human factors that have created unique conditions for different types of fish to thrive.

**Conclusion.** Overall, the diversity of fish species in Karakalpakstan is an important resource for local communities and plays an important role in the region's economy and food security. However, like many other regions around the world, Karakalpakstan is facing challenges related to overfishing, habitat loss, and pollution, which threaten the long-term sustainability of its aquatic ecosystems.

## References:

1. Ahmedov. X.Y, Turgunova U, Saidov Z. Baliq chavoqlarini yetishtirish. ChF «KARRLO». - Toshkent, 2006
2. Qurbonov R.B., Ahmedov NY. Fermer xo'jaliklarida baliq yetishtirish minihovuzlarni barpo etish bo'yicha tavsiyalar. — Toshkent. 2008.
3. Камилов Б.Г. Руководство по разведению рыб в садках в бассейне Аральского моря. — Ташкент, 2008. 5—48-стр.
4. Каримов Б.К. Разведение фореле в бассейне Аральского моря. — Ташкент, 2008. 5—71-стр.
5. Мирабдуллаев И.М., Джуманиязова Н.И. Новые данные о зоопланктоне Аральского моря. В кн. Сборник статей по проблемам рыбного хозяйства Узбекистана. — Ташкент, 2006
6. Ниязов Д.С. Сборник статей по проблемам рыбного хозяйства Узбекистана (1-изд.). — Ташкент, 2006