SCO-Young Scientist Profile

First Name: Elena

Last Name: Anufriieva

Designation & affiliation:
Senior Researcher (Head of the state assignment project), Department of animal physiology and biochemistry, A.O. Kovalevsky Institute of Biology of the Southern Seas, Russian Academy of Sciences, 2 Nakhimov ave., Sevastopol, Russia

Phone Number: +79780669535

E-mail: lena.anufriieva@gmail.com

Details of research work carried out in S&T

General directions:

1. Integrated study of ecosystems in saline lakes, lagoons, and ponds including their biodiversity and environment, ecology/biology of abundant species, trophic webs, and the long-term ecosystem changes under climate variability and human pressure, and interrelation of biological and geochemical processes.
2. The studies for the creation of a scientific base of multispecies aquaculture development in saline waters including biology of species, which are promising for cultivation, etc.

Studied lakes and lagoons in Crimea (Russia) and other countries with colleagues from Poland, Spain, Egypt, and China.

Head of the Projects:

1. State assignment project of A.O. Kovalevsky Institute of Biology of the Southern Seas: “Study of the structure and dynamics of ecosystems of saline lakes and lagoons in the face of climate variability and anthropogenic load to develop the scientific basis of their rational use” (2019-2021).
2. The project of Russian Science Foundation “Development of biological and geochemical bases of aquaculture development in saline lakes and lagoons of the Crimea” (2018-2020).
3. The project of Russian Foundation for Basic Research “Study of diversity and a role of animals (Ostracoda and Nematoda) in food webs and element cycles (Ca, Sr, Mg, Mn, Fe) in extreme ecosystems of the Crimean hypersaline waters” (2018-2019).

Associated SCO-YSC Theme: environmental protection and rational use of natural resources

Statement of Innovation

Humanity face two main challenges currently - lack of food and freshwater scarcity. Now aquaculture is developed mostly in freshwaters thus aggravating the drinking water crisis. To reduce freshwater use in aqua- and agriculture, we must develop sustainable multi-species aquaculture in saline waters of a wide range of salinity thereby replacing the development of freshwater aquaculture in the first place. We must create a scientific base, strategy, and technologies to develop aquaculture in saline waters.

Major awards/ Achievements

2017. Medal and prize of the Russian Academy of Sciences for the young scientists (Russia).

2017. William D. Williams Award for Young Scientists of International Society for Salt Lake Research (USA).

2015. The Otto Kinne Foundation Fellowship for promising young environmental scientists, 1st rank (Germany).

Possible collaboration with SCO countries

My team would be glad to initiate the SCO joint project "Study, conservation and sustainable multipurpose use of saline lakes and lagoons for global, regional, and local sustainable development".

The national teams' leaders in such a project may be young scientists. Of cause, more experienced colleagues must be very valuable partners.

The results of such a project must be not only new for science but also promote to development of an integrated strategy and technologies for sustainable use of saline water bodies for transit to sustainable development on different scales including the development of a scientific base of multispecies aquaculture in saline waters.

Key words: aquaculture, nature conservation, saline lakes, lagoons, sustainable development