Journal of Multidisciplinary Engineering Science and Technology (JMEST)
ISSN: 2458-9403
Vol. 6 Issue 11, November - 2019

Pedobiont Infuser Fauna Of Goygol National Park

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***Abstract*—it is creation of the State Reserve in Goygol was made possible in 1925. Goygol State Reserve is the first reserve created in Azerbaijan (6739 ha). The lake is located on the northern slope of Kapaz mountain between 1100-3065m. Goygol State Nature Reserve is named after the lake. Goygol is surrounded by green forests and the background of green forests, reflected in the transparent water of the lake, gives the lake a truly mysterious blue color, which led to the name of the lake Goygol. The Goygol Nature Reserve has been abolished and restored many times. The reserve has been operating independently for more than 40 years and we can safely say that the activity of the reserve is permanent and deserves to be studied and protected as a unique pearl of the nature of the independent Republic of Azerbaijan.**

Keywords—infusor, pedobiont, fauna, spices, adoral.

MATERIALS AND METHODS

During 2018, 30 soil samples were collected and worked from the stationary collection points located in the Goygol National Park and exposed to various levels of human activity. In addition, 20 samples have been collected from yard, forest and forest areas near residential areas to assess the impact of human activities on soil fauna, such as pedobionous infuser units. Samples from the top surface of the soil were collected in clean, small plastic containers. A 3 cm diameter 30 cm long tube was inserted into the soil to sample the deeper layers. The monolithic layers cut off by the tube were been investigated.

Urotricha turanica Alekperov, 1997.

This genus was first discovered on Lake Issyk-Kul (Kyrgyzstan, Urekty) (Alekperov, 1997).We provide a description of the U. turanica species found by us in the lands of Goygol National Park.The size of live infusers is 40-60x 20-25 microns, the cells are 50-20mkm. Their bodies are oval shape. The apical mouth contains 12 nematodes and is surrounded by 5 adesmokinetes. The Dorzal brush consists of 3 - 7 kinetosomes in 3 short series. It consists of 30-35 double kinetosomes that begin at the front of the somatic ciliate, and do not reach the back of the body.

7 caudal lashes (15 microns) are located next to the vacuole collected, and the endoplasmic color is highly vacuolated. Macronucleus with big nucleons in long form (15mkm) and micronucleus in ellipse form (5 mkm). The morphology of the species described above is close to the U. Baltica, but differs in small body sizes and the number of peri-buccal rows.

Urotricha macrostoma Foissner, 1983.

This species was first discovered and described by Foissner (Foisser, 1983), at 2,200 meters above sea level in the fresh waters of the Austrian Alps. Below is a description of this species found in the lands of Goygol National Park.

The size of living cells is 50-60 microns. The length of the fixed cells is up to 50 microns. Body shape is oval. The large mouth is located apical. Near the mouth, there is a typical tigmotactyl apparatus of the genus, this apparatus consists of three short curved pair of kinetosomes series. Somatic silicates are represented by 22-25 diniket sequences, of which only a few are based on a tigmotactyl apparatus. The mouth is surrounded by 5-6 adesmokinets. The back end of the body, like all members of this genus, is devoid of kinetic satellites and is covered with a variety of arcosome aryngos. The caudal part consists of only 2 kinets. Endoplasm is transparent, yellow. The nuclear apparatus is represented in a spherical form, with a macronucleus and a micronucleus.

It was first discovered by us in the lands of Goygol National Park.

Group *Blepharismidae* Jank. In Small et Lynn, 1985 *Blepharisma steini* Kahl, 1932.

Mesosaprob is a characteristic type of fresh water encountered in conditions. As we know, it was not recorded in the soil biotopes before. Below we provide a description of individuals of this species registered in the lands of Goygol National Park.

The size of live infusers is 150-180 microns, and the size of the fixed cells - not more than 125 microns. The body is elongated, the front part is slightly narrower. Adoral area of membranes consists of 55-60 elements. The vibrating membrane is located to the left of the adoral area. Somatic ciliation consists of 40-45 sequences, of which 15 are from the left of the adoral area, 5 lines are located below the peristome, and 20-22 rows are located on the right of the vibrating membrane.

The endoplasm is transparent, glossy yellow, or pink. A large (15 mkm) assembled-opened vacoul is located at the caudal end. The 3 micronucleus oval macronucleus (17mkm) is located in the equatorial part of the body. The B.steini individuals studied by us are closer to Foissner's impregnated specimens (209), but differ in large body sizes.

Oxytricha formoza Alekperov, 1984.

The species was found and described in the Uzunobinsk reservoir and has not been recorded in the Goygol National Park so far.

The size of live infusers is 70-80 microns, and 50-60 microns in the fixed cells. The body is strongly crushed in the dorzoventral direction. Adoral area consists of 30-35 membranes. There are 8 ventral, 6 transventral and 2 rows of marginal cirrus on the abdominal side of the body. There are 20-22 margins in the left margin and 17-18 in the right. On the dorzal side there are 2 hairs consist of 15-18 hairs rows. Endoplasm is transparent, without additives. Nuclear apparatus consists of 2 oval macronucleus with 2 micronucleus. Morphologically O.similis Engelman, 1862, is closer. It is characterized by the small size of the body, the number of ventral rows less than 3, and their different location.

Australocirrus zechmeisterae Foissner, Berger, Xu, Zechmeister-Boltestern,
2005

This giant species of soil infusions has recently been found and described in the forest lands of Central Europe [218]. From us, it was acquired only in the lands of Goygol National Park. The following is a brief description of the study of the drugs.

The size of the infusers is 17-200 microns. The structure of the body is elliptical, with the ends tilted in the same way. The body is compressed in the dorzoventral direction.

In the upper 3 of the ventral side of the body, there is an adoral area of membranes that consists of 35-50 elements and pass along the anterial tip to the dorsal side. It has three frontal, 8 - frontoventral and one buccal cirrus. The number of transventral cirrus are 6, the caudals are 3. In the right marginal row are 20-25 cirrus, and the left are 25-28 cirrus. In the Dorzal section there are 6 hairs. Endoplasm is transparent, glossy brown colour. The accumulated-opened vacuole is located in the center of the cell. Macronucleus with 3 micronucleus consists of 4 fragments. For the first time, it is described for the Caucasian and Azerbaijani fauna.

*Sterkiella quadrinucleata (*Alekperov et Musaev, 1988)

In our study of soil infusions in the mineralized soils of Absheron, a new species of Sterkiella species was found in the rhizosphere of pomegranate trees, and we describe below the individuals found in the Goygol National Park.

Live infusers are 310-38 microns. Cells fixed up to 350 microns in size are oval-shaped and strongly compressed in the dorsoventral direction. Adoral area of membranes consists of 55-60 elements. The ventral portion of the foreground contains 3 large frontal, 4 posterial and one buccal cirrus. In the center of the ventral section is a single postural cirrus, slightly below there are two ventral cirrus.

The number of transventral cirrus are 6, they are under the angle. There are 42 margins on the right margin and 30 on the left. There are not caudal cirrus. On the Dorzal side there are 4 rows of cirrus, three of which are complete and one is short. The entire surface of the body is covered with a very small aromatic reticulum.

The endoplasm is transparent, often with green algae, as well as numerous nutritional vacuoles that store infusions of the genus Colpoda and Vorticella. Nuclear apparatus consists of 4 macronucleus with two micronucleus.

CONCLUSION

1. 20 freelance infusers have been discovered in the forested areas of the forest, 2 of which are the first recorded for Goygol National Park.
2. Comparative analysis revealed that the species diversity in soil infusion units at stationary harvesting sites with minimal impact on anthropogenic impacts is higher than the stationary where human activity is high.
3. Volatility of quantitative and qualitative indicators of Pedobiont infusion units, found that their species diversity is higher in the spring and fall seasons.

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