positive correlation with height at the withers (r = **0.32) and metacarpus circumference (r = ** 0.32). In horses of the Trakenen breed, the correlation with the height at the withers (r = ** 0.28) and the circumference of the metacarpus (r = * 0.21) is significant. A slight effect of the metacarpal girth (r = 0.001) and the bone index (0.04) were found in horses of the Hanover breed. It should be noted that a decrease in the mass index in horses of all three breeds will lead to an improvement in athletic qualities.

3. There were no significant positive relationships between type assessment in all horse breeds.

Suggestions

1. When scoring horses of a sports direction, depending on their intended use in various disciplines of equestrian sports, pay special attention to signs that are positively related to indicators of sports performance, namely:

• In horses of the Russian riding breed, the height at the withers, chest, and metacarpus affect motor qualities. The overall athletic performance is positively affected by the height at the withers and the circumference of the metacarpus.

• In horses of the Trakenen breed, the motor qualities are affected by the height at the withers, metacarpal girth and massiveness index. The overall athletic performance is positively affected by the height at the withers and the circumference of the metacarpus.

• In horses of the Hanover breed, the motor index is affected by the mass index.

References

1. Волкова, Е. Типа русская верховая? // Конный мир. – 2015. - №3. – С. 17-19.

2. Мелентьев, Е. Неизменный облик русского шедевра // Золотой мустанг. – 2014. – №6 (142). – С. 20 – 22.

3. Результаты Всероссийских испытаний племенного молодняка лошадей верховых пород спортивного направления в 2012 г./Н.В. Дорофеева, А.В. Дорофеева, Г.Н. Гусева, И.С. Шахова, А.И. Кузнецова, Д.О. Савельева. – Дивово: ВНИИ коневодства Россельхозакадемии, 2012. – 73 с.

4. Сикорская, И.И. Работоспособность лошадей спортивного направления в зависимости от показателей экстерьера и биомеханики движений: Автореф. дис. кан. с-х наук: 06.02.10/И.И. Сикорская. – Москва, 2011. – 11 с.

УДК 811.11:574.5(470.311-25)

SEASONAL DYNAMICS OF THE FUNCTIONAL QUALITY OF DIFFERENT VERTICAL LEVELS OF SMALL WATER ECOSYSTEMS IN MOSCOW

Rita Ramadan, *1st year postgraduate student, Faculty of Soil Science, Agricultural Chemistry and Ecology, RSAU – MTAA, ritaramadan1991@gmail.com*
English supervisor: Gotovceva I.P., *PhD, assoc. professor, RSAU – MTAA.*

Abstract*: Local ecosystems of Moscow ponds with communities of various plants and animals and associated abiotic conditions are a complex vertically*

differentiated system. The ecological state of many small ponds is unfavorable. Anthropogenic influences lead to their pollution, which leads not only to the death and reduction of biological diversity of aquatic organisms, but also adversely affects the health of the population. When organic and mineral substances get into the ponds, the phosphorus and nitrogen contained in them serve as food for algae, which grow, close each other's light, and there is a process of mass death and decay, i.e. The process of eutrophication of water bodies is developing. Recently, work is underway to clean and restore the ponds. However, at the same time, the natural mode of their life is often violated, many important functions are lost, picturesque and recreational value is lost.

Keywords: Phytoplankton ,Zooplankton, Macrozoobentho.

The purpose of the work is: to conduct comprehensive environmental studies of the seasonal dynamics of the functional quality of different vertical levels of small water ecosystems in Moscow will be done through:

1. Survey of the waters of a number of typical small ponds in the northern part of Moscow, with a comprehensive description and assessment of the representativeness of monitoring points.
2. A systematic analysis of the hydrological indicators of the investigated ponds and the quality of the local local urban ecosystems surrounding them.
3. Monitoring the seasonal dynamics of organoleptic, chemical and physico-chemical indicators of water quality at three vertical levels of the studied reservoirs.
4. Monitoring the species composition of phytoplankton, zooplankton and macrozoobenthos along the vertical layers of the studied reservoirs.
5. Environmental assessment of water quality of the studied reservoirs according to its hydrobiological indicators.
6. A comparative geographical analysis of the seasonal and interseasonal dynamics of the functional and ecological water quality of the three vertical ecosystem levels of the studied ponds.
7. Functional and environmental assessment of CO2 flows on the surface of the studied reservoirs.

Objects of study: Water, Phytoplankton, Zooplankton, Macrozoobenthos.

Phytoplankton: are the autotrophic (self-feeding) components of the plankton community and a key part of oceans, seas, and freshwater basin ecosystems. The name comes from the Greek words φυτόν (phyton), meaning "plant", and πλαγκτός (planktos), meaning "wanderer" or "drifter".Most phytoplankton are too small to be individually seen with the unaided eye. However, when present in high enough numbers, some varieties may be noticeable as colored patches on the water surface due to the presence of chlorophyll within their cells and accessory pigments (such as phycobiliproteins or xanthophylls) in some species. About 1% of the global biomass is due to phytoplankton.

Zooplankton: are heterotrophic (sometimes detritivorous) plankton (cf. phytoplankton). Plankton are organisms drifting in oceans, seas, and bodies of fresh water. The word zooplankton is derived from the Greek zoon (ζῴον), meaning

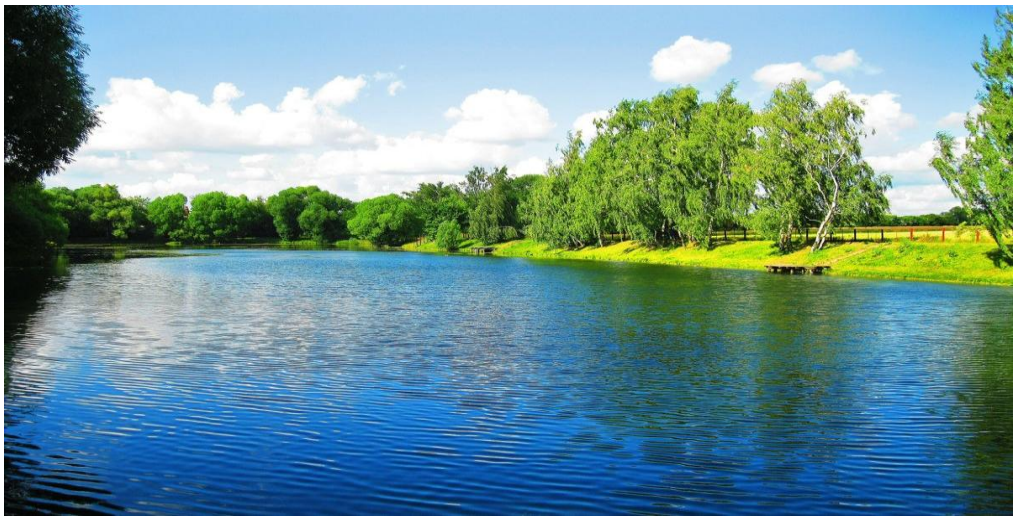
"animal", and planktos (πλαγκτός), meaning "wanderer" or "drifter".Individual zooplankton are usually microscopic, but some (such as jellyfish) are larger and visible to the naked eye.

Macrozoobenthos: is practically defined as the invertebrate community living in or on the sediment or hard substrates and retained on a 1 mm2 mesh sieve. Macrozoobenthos species in the Wadden Sea food web can be categorized as herbivores, detritivores and carnivores (Asmus & Asmus, 1985). Tracing carbon flows has shown that the macrozoobenthos compartment largely depends on phytoplankton (harvested by suspension feeders) and benthic microalgae (microphytobenthos, fed upon by deposit feeders) and is therefore mainly herbivorous (Van Oevelen et al., 2006). Because only few other metazoan species harvest benthic and pelagic primary production, macrozoobenthic species are the most important secondary producers of the Wadden Sea ecosystem constituting an important food source for large numbers of birds and fish in the area (Dankers et al., 1983; Reise et al., 2010).

Research planned to be carried out in the ponds: Big Garden Pond, Farm ponds (Lower pond - Middle pond), Golovinsky Ponds (Big Pond - Maliy Pond)

Big Garden Pond 55 ° 83'09 'N, 37 ° 53'98' E

Farm pond 55 ° 50′02 ″ s W. 37 ° 33′34 ″ c. D.



Golovinsky pond 55 ° 50′30 ″ s W. 37 ° 30′47 ″ c. D

Research Methods:

1. Methods of environmental studies of chemical and physico-chemical water quality.
2. Methods of environmental studies of the hydrobiological composition of water.
3. Methods of environmental studies of the flow rate of CO2 by the chamber method.
4. Methods of bioindication of the ecological quality of water bodies.
5. Methods of environmental studies of the saprobity of water bodies.
6. Methods of environmental research with the assessment of the biological diversity of water bodies according to the values of special indices.

References

1. Savvichev, A. S., Babenko, V. V., Lunina, O. N., Letarova, M. A., Boldyreva, D. I., Veslopolova, E. F., ... & Kostryukova, E. S. Sharp water column stratification with an extremely dense microbial population in a small meromictic lake, Trekhtzvetnoe. // Environmental microbiology. – 2018. – No. 20(10). – 3784-3797.
2. Silvano, A., Rintoul, S. R., Peña‐Molino, B., & Williams, G. D. Distribution of water masses and meltwater on the continental shelf near the Totten and Moscow University ice shelves. // Journal of Geophysical Research: Oceans. – 2017. – No. 122(3). – 2050-2068.
3. Roumak, V. S., Levenkova, E. S., Umnova, N. V., Popov, V. S., Turbabina, K. A., & Shelepchikov, A. A. The content of dioxins and furans in soils, bottom sediments of water bodies, and tissues of small mammals near the landfill site with municipal solid wastes (Moscow, Russia). // Environmental Science and Pollution Research. – 2018. – No. 25(29). – 29379-29386.
4. Golovatskaya, E. A., & Nikonova, L. G. The influence of the bog water level on the transformation of sphagnum mosses in peat soils of oligotrophic bogs. // Eurasian Soil Science. – 2017. – No. 50(5). – 580-588.

5. Shirokova, V. A., Khutorova, A. O., Gurov, A. F., Shirokov, R. S., & Yurova, Y. D. Environmental monitoringof small rivers of the moscow region (On the example of the river osetr). // International Multidisciplinary Scientific GeoConference: SGEM: Surveying Geology & mining Ecology Management. – 2018. – No. 18. – 355-362.

УДК 811.11:633.11“321”.003.12

COMPREHENSIVE ASSESSMENT OF ECONOMICALLY USEFUL SIGNS OF SPRING WHEAT IN THE CONDITIONS OF THE CENTRAL REGION OF THE RUSSIAN FEDERATION

Sara Saqer - 1st year postgraduate student, Faculty of Agronomy and biotechnology, *RSAU – MTAA*, Lvvictoria740@gmail.com
***Language supervisor**: **Fomina T.N.**, associate professor, the department of Foreign Languages and the Russian language, RSAU – MTAA, tfomina67@mail.ru*

***Abstract**: One of the main criteria for implementation in the production of cereal crops is the factor of environmental and economic efficiency. To successfully create varieties combining high productivity with resistance to biotic and abiotic factors, it is necessary to study the genetic sources of valuable biological, technological properties, and economic characteristics, natural and climatic conditions, and their interaction in specific environmental conditions.*
***Keywords:** Determining, Phenological, Indexes.*

The purpose of the study Identification of genetic sources of valuable biological, technological properties and economic characteristics of soft spring wheat in the conditions of the Central region of the Russian Federation will be done through:

1. Field assessment of the wheat collection, including:
- Phenological observations;
- Lodging resistance;
- Resistance to major diseases on natural infectious backgrounds.

2. Analysis of grain yield and its structure.
3. Determining Potential Productivity.
4. Assessment of drought tolerance of wheat by laboratory methods.
5. Assessment of the resistance of wheat to salinity by laboratory methods.
6. Assessment of the physical and baking qualities of wheat grain 1000 grain weight Glassy Protein and Gluten Laboratory baking only for the best samples.
7. Assessment of adaptability using indexes.
8. Comparison of different methods for evaluating the collection of economic useful signs (traditional and index method).
9. Isolation of genetic sources of economic traits of wheat.

Methods: