

land surface, they store in their peat twice as much carbon as the entire global forest biomass and responsible for overproportionate 6% of global anthropogenic greenhouse gases emissions.

Belarus is one of the more important peatland countries in the world. With a total peatland area of 22,352 km² Belarus ranks 15th among all countries of the world, with respect to peatland proportion (% of the country) it ranks 20th and with respect to actual carbon stock 21st. Much higher is the score of Belarus with respect to peatland emissions; with 41 Mt CO₂ year⁻¹ Belarus is the 8th most important country in the world. In terms of total emissions per unit land area, Belarus occupies the third place third after Indonesia and Estonia with 1.99 t ha⁻¹.

In the anoxic part of the peat soil CH₄ is formed by a group of microorganisms called methanogens, which phylogenetically belong to *Archaea*. If the peat becomes oxygen-rich in deep as a result of drainage, methane oxidation dominance makes peatlands in trace run-off atmospheric methane.

Conventionally, the production of N₂O is linked to the microbial soil processes of nitrification and denitrification. Formation of N₂O is due to the fact that becomes available inorganic nitrogen such as ammonium or nitrate through mineralization peat, fertilizer application or through nitrogen sequestration. With a nitrogen debt undisturbed peat will be N₂O run-off because microorganisms are able to use N₂O as a substrate for the formation of N₂ during denitrification.

Greenhouse gases streams are measuring by the method of chambers.

In general, there are three main modifications chamber method:

- method of open dynamic cameras;
- method of static closed chambers;
- method of dynamic closed chambers.

The chamber is set on up the study area with open lower base. Greenhouse gases streams from soil are measured by the rate of variation concentration of these gases within the chamber.

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PARAZITOFUNA OF HELMINTHS OF UNGULATE INHABITANTS OF GKPU "MINSK ZOO"

Hoofed animals in zoos live in the conditions that strongly differ from natural. One of the serious reasons that negatively influence on the number of hoofed animals in zoos is the group of the diseases caused by parasites. Parazitofauna reduces reproductive ability at small valuable animals that causes essential economic losses. Sick animals become a source of infection for healthy animals. Identification of parasites and monitoring them in the conditions of zoos has relevance for implementation of rational methods for prophylaxis and total healing.

On the basis of "Minsk Zoo" researches on a condition of a prevalence of hoofed inhabitants helminthic invasions. At inspection of 71 individuals of representatives of groups one-hoofed and artiodactyl 5 genres of helminths are registered: Trichocephalus, Strongylata, Fasciola, Nematodirus, Capillaria.

Helminths of the genus Strongylata have the most wide range of owners and are noted at 13 types of representatives of noted inhabitants of "Minsk Zoo". It is established that the helminth of the genus Strongylata is the most widespread. The maximal contamination is revealed by helminths of this genus at a vintorogy goat. Average degree of an invasion on one individual makes 92,3 parasites.

The genus Trichocephalus is found in 3 types of representatives of ungulate inhabitants of a zoo - a boar, an elk and a bactrian camel. The maximal contamination is revealed at a bactrian camel. Average degree of an invasion on one individual makes 33,6 parasites.

Helminths of the genus Fasciola and Nematodirus are registered only at two types: David's deer and bactrian camel respectively. The average invasion at David's deer on one individual makes 0,33, and at a bactrian camel is up to 2,33.

The least variety of helminths is noted among the Osheynikov's baker who has helminths only of one genus - Capillaria. Average degree of an invasion on one individual is up to 1,67 parasites.

The richest helminthofauna is revealed at bactrian camel, only 4 of 5 genres of the helminths revealed as a result of a research. At this representative of hoofed animals the following genres of helminths are revealed: Trichocephalus, Strongylata, Nematodirus, Capillaria. Trichocephalus which average degree of an invasion on one individual up to 33,6 parasites was the dominating genus of helminths.

Studying of a parazitofauna of helminths of hoofed animals in a zoo gives the chance of preventive actions against distribution of helminthic invasions among inhabitants of a zoo and to monitor the health of inhabitants in a zoo.

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INTEGRATED INFORMATION SYSTEM FOR ANALYSIS OF POTENTIAL OF RENEWABLE ENERGY SOURCES

In the Republic of Belarus (RB) the efficient use of renewable (alternative or non-conventional) energy sources (RES) is largely dependent on the correct assessment of the resource potential of the region, the availability of appropriate technology and equipment, the required infrastructure and the regulatory framework. Considering the spatial and temporal distribution of renewable resources and its' relationship in many cases from natural and weather conditions, an effective solution to this multicriteria problem is possible only with the use of information technology and automation.