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CREATING A RESOURCE MAP OF *LEDUM PALUSTRE* (ERICACEAE) BASED ON GIS TECHNOLOGY

© *D. G. Grummo*,[*] *O. V. Sozinov*[1,, ***]**

[*] Kuprevich Institute of experimental botany of

Belarus National Academy of Sciences, Minsk, Republic of Belarus

[**] Komarov Botanical Institute of the Russian Akademy of Science, St. Petersburg, Russia

[***] Yanka Kupala State University of Grodno, Republic of Belarus

[1]E-mail: ledum@list.ru

SUMMARY

An original method for mapping of yields and plant resources of swamps was developed on the basis of satellite image interpretation. The method consists of 8 stages and includes the processing of satellite images, creating of GIS layer according to key habitats, compilation of a raster map according to the values of normalized vegetation index, the interpretation of field data on productivity of key species, creating a catalog of reference (key) areas, classification of sites by the visual and automatic decoding of images, creating a map legend and the resulting formation of a digital map on the yield and phytomass.

The resource maps for *Ledum palustre* L. (aboveground phytomass) within Disna geobotanical area of Belarus were compiled. Five resource groups of wetland habitats were distinguished by the level of *L. palustre* productivity. Aboveground phytomass of *L. palustre* ranged from 8 (oligotrophic ridge-hollow complexes) to 175 g/m^2 of air-dry weight (bog moss pine communities in drained oligotrophic bogs) depending on the type of habitat.

The developed and tested algorithm for estimating of yields and stocks based on information technologies could be recommended as a methodical basis for identifying of distribution and productivity patterns of key species (edificators, dominant, stenotopic and economically useful plants), as well as important resource habitats in geobotany, biocenology and economy botany.

Key words: GIS, aboveground phytomass, *Ledum palustre*, maps, vegetation index, NDVI, reserves of vegetable raw materials.