

**ECOLOGO-COENOTICAL AND RESOURCE CHARACTERISTICS OF *COMARUM PALUSTRE*  
(ROSACEAE) IN SPOROVSKOYE FLOODPLAIN MIRE (BELARUS)**

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REFERENCES

1. Budantsev A. L. 2005. Fundamental directions of plant researches and their development. — Rastitelnye resursy. 41(1): 3–26. (In Russian)
2. Borisova N. A. 1961. Metodicheskie ukazaniya po uchetu zapasov i sostavleniyu kart rasprostraneniya lekarstvennykh rasteniy. [Guidelines for inventory and mapping of medicinal plants habitats]. Leningrad. P. 5–39. (In Russian)
3. Krylova I. L. 1975. On the possibility of using projective cover to determine the yield of medicinal plants In: Resursy yagodnykh i lekarstvennykh rasteniy i metody ikh izucheniya. Petrozavodsk. P. 107–112. (In Russian)
4. Metodika opredeleniya zapasov lekarstvennykh rasteniy 1986. [Methods of determining the inventory of medicinal plants]. Moscow. 52 p. (In Russian)
5. Buzuk G. N. 2014. Application of growth functions and asymptotic functions in determining the projective coverage and yield of medicinal plants. — Vestnik farmatsii. 1: 59–67. (In Russian)
6. Grummo D. G., Sozinov O. V. 2015. Creating a resource map of *Ledum palustre* (Ericaceae) based on GIS technology. — Rastitelnye resursy. 51(4): 579–598. (In Russian)
7. Sozinov O. V. 2015. Information technology in the botanical resources: results and prospects. — Rastitelnye resursy. 51(3): 449–462. (In Russian)
8. Budantsev A. L., Kharitonova N. P. 1999. Resursovedeniye lekarstvennykh rasteniy [Resource studies of medicinal plants]. St. Petersburg. 87 p. (In Russian)
9. Gosudarstvennaya Farmakopeya Respubliki Belarus. 2008. T. 2: Kontrol kachestva vspomogatelnykh veshchestv i lekarstvennogo rastitelnogo syriya [State Pharmacopoeia of the Republic of Belarus. Vol. 2: Quality control of excipients and medicinal plants]. Molodechno. 472 p. (In Russian)
10. Yorshik O. A., Buzuk G. N. 2008. Rhizomes with roots of marsh cinquefoil as a new source of proanthocyanidins. — Vestneyk farmatsii. 2(40): 28–30. (In Russian)
11. Rastitelnye resursy Rossii: dikorastushchie tsvetkovye rasteniya, ikh komponentnyi sostav i biologicheskaya aktivnost. 2009. T. 2: Semeystva Actinidiaceae–Malvaceae, Euphorbiaceae–

- Haloragaceae. [Plant Resources of Russia: Wild flowering plants, their component composition and biological activity. Vol. 2. Family Actinidiaceae–Malvaceae, Euphorbiaceae–Haloragaceae]. Ed. by A. L. Budantsev. St. Petersburg; Moscow. 513 p. (In Russian)
12. Ferubko E. V. 2009. Issledovanie farmakognosticheskikh svoystv sabelnika bolotnogo ekstrakta sukhogo [Research of pharmacognostic properties of marsh cinquefoil dry extract]: Avtoref. dis. ... kand. med. nauk. Ulan-Ude. 24 p. (In Russian)
  13. Bogdanovskaya-Gienef I. D. 1946. O proiskhozhdenii flory borealnykh bolot Evrazii [On the origin of the flora of the boreal wetlands of Eurasia]. In: Materialy po istorii flory i rastitelnosti SSSR. Vyp. II. Moscow; Leningrad. P. 425–468.
  14. Opredelitel vysshikh rasteniy Belarusi 1999. [Key to the higher plants of Belarus]. Ed. by V. I. Parfenova. Minsk. 471 p. (In Russian)
  15. Yurkevich I. D. 1968. Tipy i assotsiatsii chernoolkhovykh lesov (po issledovaniyam v BSSR) [Types and associations of black alder forests (studies in the Byelorussian SSR)]. Minsk. 376 p. (In Russian)
  16. Vishnitskaya O. N., Savinykh N. P. 2008. Shoots formation and inflorescences structure of *Comarum palustre* (Rosaceae). — Rastitelnye resursy. 44(1): 3–12. (In Russian)
  17. Fedorov N. I., Zhigunova S. N., Mihaylenko O. I. 2013. Metodologicheskie osnovy optimizatsii resursnogo ispolzovaniya lekarstvennoy flory Yuzhnogo Urala [Methodological bases of optimization of the Southern Urals medicinal flora resource utilization]. Moscow. 212 p. (In Russian)
  18. Lukyanov O. L. 2004. Marsh cinquefoil (*Comarum palustre* L.) of the European part of Russia (distribution, resources, rational use, prospects of further study): Avtoref. dis. ... kand. biol. nauk. Moscow. 24 p. (In Russian)
  19. Dyachkova T. Yu. 1991. Resource characteristics of bean trefoil (*Menyanthes trifoliata* L.) and marsh cinquefoil (*Comarum palustre* L.) coenopopulations on the main types of bogs in Karelia: Avtoref. dis ... kand. biol. nauk. Petrozavodsk. 18 p. (In Russian)
  20. Yorshik O. A., Buzuk G. N., Sozinov O. V. 2009. Morphometry of *Comarum palustre*: interconnection size, shape and chemical composition of the leaves. — Vestneyk farmatsii. 1(43): 13–33. (In Russian)
  21. Budantsev A. L. 2007. On some terms concerning biological productivity. — Rastitelnye resursy. 43(4): 119–124. (In Russian)
  22. Sozinov O. V., Buzuk G. N. 2014. Optimization of Geobotanical Method of Points in Terms of Scaling the Accounting Plot. — Nauchnye vedomosti Belgorodskogo gosudarstvennogo universiteta. Seriya: Estestvennye nauki. 28,17(188): 64–69. (In Russian)
  23. Ipatov V. S., Mirin D. M. 2008. Opisanie fitotsenoza [Description of phytocenosis]. St. Petersburg. 71 p. (In Russian)

24. Grummo D. G., Ilyuchik M. A., Rusetskiy S. G. 2015. Methodological approaches to the construction of large-scale maps of wetlands vegetation using remote sensing data and modern information technologies. In: Rastitelnost bolot: sovremennyye problemy klassifikatsii, kartografirovaniya, ispolzovaniya i okhrany. Minsk. P. 24–31. (In Russian)
25. Pedrotti F. 2004. Cartografia geobotanica. Bologna. 236 p.
26. Vasilevich V. I. 1969. The requirements necessary to obtain reliable data in studies on biological productivity. — Botanicheskiy zhurnal. 54(1): 111–117. (In Russian)
27. Lam N. S. 1983. Spatial interpolation methods: a review. — Amer. Cartograph. 10(2): 129–149.
28. Burgess T. M., Webster R. 1980. Optimal interpolation and isarithmic mapping of soil properties. II. Block kriging. — Europ. J. Soil Sci. 31(2): 333–341.
29. Demyanov V. V., Saveleva E. A. 2010. Geostatistika: teoriya i praktika [Geostatistics: Theory and Practice]. Moscow. 327 p. (In Russian)
30. JUICE [Electronic resource]. 1998. <http://www.sci.muni.cz/botany/juice/index.htm>.
31. Tichy L., Holt J. 2006. JUICE program for management, analysis and classification of ecological data. Brno. 76 p.
32. Ellenberg H. 1988. Vegetation ecology of Central Europe. Cambridge. 731 p.
33. Yorshik O. A., Buzuk G. N. 2007. Quantitative determination of proanthocyanidins in the marsh cinquefoil *Comarum palustre*. — Vestnik farmatsii. 4: 10–17. (In Russian)
34. Buzuk G. N. 2014. Ways to minimize errors in the determination of the area of thickets of medicinal plants. — Vestnik farmatsii. 3(65): 31–38. (In Russian)
35. Shapurko V. N. 2014. Resources and environmental quality of medicinal plants (on the example the Bryansk region): Diss. ... kand. biol. nauk. Bryansk. 304 p. (In Russian)
36. Sharashova V. S., Zemlyanukhin Yu. M. 1970. Correlations of the main indicators of the abundance of species in the community. — Izvestiya Akademii nauk Kirgizskoy SSR. 5: 62–66. (In Russian)
37. Fedorov N. I., Zhigunova S. N., Mikhaylenko O. I., Samoylova L. Yu. 2010. Methods of assessing the productivity of medicinal species in plant communities described in units of ecological-floristic classification of Braun-Blanquet. — Izvestiya Samarskogo nauchnogo tsentra Rossiyskoy akademii nauk. 12,1(3): 846–849. (In Russian)
38. Paludiculture – productive use of wet peatlands. Climate protection – biodiversity – regional economic benefits with contributions by 73 authors. 2016. Eds. by W. Wichtmann, C. Schröder, H. Joosten. Stuttgart. 288 p.