Вып. 3 2014

SUMMARY

© **A. G. Isachenko.** Western Siberia as an object of historical-geographical study and description. Article II.

The article provides a brief historical and geographical characteristics of Western Siberia in following stages: 1) from the beginning of Russian colonization to the end of the XVII century, 2) XVIII century, 3) 1800—1880, 4) 1880—1917, 5) 1917—1990. The last stage is divided by the bounds: 1929 (beginning of the first Five-Year Plan), 1945 and 1965. Emphasis is made on factors of the internal territorial differentiation and formation history of the regions of second order — historical and geographical meso-regions. The landscaped meso-regions (province and Subprovince) are taken as the basis of territorial divisions and operational territorial units being the invariant integral components of historical and geographical regions. By grouping the landscapes of meso-regions, similar in nature of region-forming conditions and factors, the 10 historical and geographical regions with their brief characteristics were allocated throughout the history of region formation.

© **T. V. Sapelko, D. D. Kuznetsov, N. Yu. Kornieenkova, V. P. Denisenkov, A. V. Ludikova.** Palaeolimnology of inland lakes of Putsaari Island (Lake Ladoga).

Inland lakes of Putsaari Island, located in the northern part of Lake Ladoga, are unique objects for palaeolimnological investigations. According to our research, the history of these lakes is closely related to the stages of Ladoga Lake (the largest lake in Europe) development. Also the Island lakes have the features associated with the territory isolation, which eliminates some of the factors influencing the development of the ecosystem of these lakes. For identifying these features we launched the investigations of four lakes sediments of the Putsaari Island. We got the preliminary results on the analysis of lake sediments and the generalization of all data.

© **V. A. Rozhkov, Yu. P. Klevantsov, E. N. Litina, S. Kaitala, E. A. Zakharchuk.** Methods and results of statistical analysis of Baltic Sea monitoring data obtained by Alg@line system.

The report presents data analyses of multicomponent complex hydrological and hydrochemical characteristics of the Baltic Sea, measured by Alg@line system ins-

talled in passenger and merchant ferries, which have quasiregular schedule (Helsinki—Lubeck—Helsinki). The specificity of this information is its discreteness (20 sec), cruises repeatability (100—145 in year), route fixity (duration and length), and extended set of indicators (more than 6). Thus, there is necessity to «adjust» well developed mathematical apparatus of Multivariate statistics for analysis of this specific information. The report shows only one example of monitoring data analysis and identifies ways to further results generalization in catalogue or in route script form.

© **S. E. Navrotskaya, Zh. I. Stont.** Regional features of the variability of hydrometeorological conditions of the South-Eastern Baltic coast (Kaliningrad region).

The assessment of the regional climate changes of hydro-meteorological parameters in the Kaliningrad region was provided for the period 1975—2010. The analysis is based on annual observations of water and air temperatures, atmospheric pressure, wind speed, precipitations and water levels in the Gulf of Kaliningrad. The changes in general parameters are characterized by positive dynamics. The separate intervals (10—15 years) of intensive or slow growth of both meteorological and hydrological elements were allocated. The co-ordination of the temporal variability of hydro-meteorological parameters was marked.

© **N. G. Moskalenko, T. Jorgenson, M. Z. Kanevsky, D. Nossov, Yu. L. Shur.** The comparative analysis of vegetation and permafrost in arctic tundras of Yamal and Alaska.

Studying of a vegetation cover and permafrost was carried out by authors in arctic tundras of Yamal in 1978 and 2008 and Alaska in 1993 and 2012. The carried out researches have allowed to reveal the increase in biodiversity as a result of appearance of new species of forbs and lichens, height and a coverage of a surface by dwarf shrubs in connection with rise in air temperature. On Yamal the increase in active layer thickness is marked. On Alaska it has not been fixed, but the permafrost temperature for 20 years has increased on 2.7 °C. The coefficient of a floristic similarity of tundras of Yamal and Alaska is low (16 %), but in zonal tundras plants of the same genus (sedges and willows) dominate.

© **O. A. Klimanova.** Country analysis in the context of geoecological problems.

The possibility of using the country analysis as a tool for general scientific analysis of geo-ecological problems is considered. The system of territorial differentiation and hierarchy adopted in geography is analyzed from the perspective of solution of geoecological problems, the need for meso-level and its territorial systems as special objects of scientific research within the country studies is justified.

Methodical approaches to carrying out a soft multi-criteria geo-ecological zoning based on a combination of local patterns of natural and ethnocultural zoning are proposed, the possibility of combining them with country borders is considered. The developed methodological approaches are being tested on the example of Africa, where 44 geo-ecological regions are outlined, grouped into 10 macro-regions.