

SUMMARY

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

By the example of Western Siberia the actual scientific-methodological aspects of regional historical-geographical researches are considered — in particular, its informational supply. The methods of negotiation of territorial mismatch between the basic information media — the landscape subdivisions of different rank and the subjects of Russian Federation — are proposed. The landscape mesoregion (province and subprovince) is assumed as the main operational territorial unit. According to the author's developed system of landscape zoning the calculations of population's settlement and dynamics, economical assimilation, and natural-resources potential of Western Siberia have been carried out. As a subsequent stage of study the development of historical-geographical periodization of a region and identification of history of its territorial differentiation with the shaping of historical-geographical regions of second order is proposed.

© **A. N. Ivanov, P. D. Orlova.** Coastals geosystems of Bering Island (Komandorski archipelago).

By the example of Bering Island in the Komandorski archipelago the various aspects of structural and functional organization of the coastal geosystems are analyzed. It is shown that the length of the coastal geosystems can vary from a few tens of meters up to 200 meters or more. Grassland plant communities of coastal geosystems consist of a limited number of species, characterized by high values of aboveground herbaceous biomass and ash content. Under these phytocenoses the sod subarctic coastal soils are formed, among which the four varieties are distinguished: the typical, the layered, the underdeveloped and the zoogenic. The three-stage classification of coastal geosystems of Bering Island is proposed.

© **S. Yu. Samoilova, A. A. Shevchenko, R. T. Sheremetov.** Current trends in small Central Altai glaciers based on experimental data.

The dynamics of small Central Altai glaciers over the last 40—50 years is shown on the basis of experimental materials. During the study period, the glaciers have lost a little less than 50 % of their volume. A link between the intensity of

mass loss per year and the average summer temperature in the glacial area of the Altai is established.

© **D. V. Chernykh, D. V. Zolotov, G. Yu. Yamskikh, A. V. Grenaderova.** New data on Holocene evolution of landscapes in the basin of Lake Teletskoye.

In the valley of R. Malye Chily, which flows into Lake Teletskoye, the glacial, glacial-lacustrine and lacustrine-boggy deposits were discovered. The botanical analysis of peat and four cases of radiocarbon dating were made for the two constructed profiles. It was found that the closer to the present time, the more clearly evident is the disappearance of mostly plain higher vascular plant species from the peat. The valley complex is characterized by atypical landscapes: a number of high-mountain species are present at altitudes of 1100—1300 m. Mire landscapes (from fens to raised bogs), unique to the Russian Altai, are formed. The attempt to correlate the obtained results with the accepted chronology of Holocene events in the Russian Altai was undertaken.

© **A. V. Babkin, N. I. Semeykin.** Long-term variations and long-range forecast of the runoff of the Neva River.

The time series of annual values of the Neva River runoff for 1859—2005 was analyzed by the methods of «Periodities». The time interval of 2006—2010 was used for the estimation of the results of training runoff forecasts for these years.

The sinusoids with the periods of 29, 11, 8, 13, 149, 5 and 21 years were revealed in the time series of the Neva River runoff. Their values of relative correlation with the time series are larger than 15 %.

When the revealed sinusoids were successively summed in order of reduction of their relative correlation with the time series, the relative correlation of their sums and time series was continuously increasing. The relative correlation of sum of all of these sinusoids and the runoff time series has exceeded 70 %.

The training forecasts computed by each of these sinusoids, except the 8-year harmonic, are better than the mean value prediction. The results of forecast by the sinusoid with the period of 8-years are almost the same quality as ones made by the mean value.

When these sinusoids had been successively summed the results of training forecasts became better. The forecasts computed by the sum of all sinusoids proved true for all years. Sum of their squared errors is more than ten times smaller than that of mean value forecast.

© **M. F. Andreychik, L. D.-N. Mongush.** Analysis of change of the continentality index values on the background of climate warming in Khemchinskaya depression, the Republic of Tuva.

The absence of synchronous directivity of anomalies of annual and month average air temperature trends against the index of continentality determines the expediency of introduction of a new parameter to the climatic system — the Climate change index (CCI). Its advantage is stable direction, which appears the reliable

criteria in forecasting of subsequent climate warming. CCI does not duplicate the coefficient of continentality index, but is a crucially new feature of climate.

© **A. V. Krylov.** The new data about boreal molluscs of the pliocene—eopleistocene of the western part of the Russian Arctic.

In the western and central parts of Russian Arctic were found twenty species of boreal marine molluscs and crustaceans. These species may be used for palaeogeographic reconstructions, biostratigraphic and palaeogeographic scales. One new mollusc species *Astarte zarhidze* sp. nov. were described in this article.

© **O. N. Trapeznikova.** Geoecological conception of agrolandscape.

The paper deals with the environmental concept of an agricultural landscape designed by the author in the course of investigation of spatial patterns and historical development of agricultural landscapes within the forest zone of European Russia. The suggested concept is compared with the classical concept of agricultural landscape formed in traditional landscape science.