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SUMMARY

© M. I. Amosov. Lakes and vegetation of Central Asia in the period of mximum of the last glaciation.

The article is about nature development in Central Asia, which is bounded from the east to the west from the Caspian Sea to Greater Khingan Range, and from the north to the south — from Altai, Sayan and Khentii Mountains to Tobet, Pamir and Kopet Dag. Data comparison is provided about lakes and vegetation during the Last Glacial Maximum (LGM).

Data compilation on 18 depressions, where lakes exist now or where they existed during LGM, shows that most of them had higher lake-level than at present time.

It is a paradox that vegetation at that time was more xerophytic than now. Palynological data show that for Tibet, Pamir and Tyan-Shan. Furthermore this conclusion is confirmed by information about more intensive loess accumulation during LGM.

The observed discrepancy between vegetation conditions and like-levels during LGM can be explained by lake-levels dependence on river runoff from mountains, where melting of snow and glaciers takes place. During LGM precipitation could decrease, but the accumulation of snow in the mountains increased due to lower temperatures.

© D. A. Gannushkin, A. P. Gorbunov, I. V. Volkov. On protalus ramparts and protalus steps of the Altai Mountains.

Periglacial landforms, such as protalus ramparts are still poorly investigated. There are several viewpoints about their genesis. Probably convergence takes place, in different cases it leads to formation of similar landforms.

We have studied protalus ramparts and protalus steps in the area in the intersection of East Altai and Tannu-Ola system with Mongun-Taiga mountain massif and Tsagen-Shibetu ridge. Different forms and stages of development of such forms have been distinguished: protalus ramparts and protalus steps or protalus terraces. Data about their area, metrical characteristics and the altitude and aspect features of their location have been obtained.

© V. M. Anokhin, V. A. Shcherbakov, G. N. Sokolov, Z. V. Anokhina. The experience of studying the dynamics of the coastal zone of Peter the Great Bay (Sea of Japan) on the position of coastal fortification objects.

In this paper we present the results of studying the dynamics of the coast of the Peter the Great Bay by comparing modem distances from the coastline to coastal fortification objects — bunkers and ARPK — with distances at the time of construction in 1941.

It is found that this distance mainly reduced over time by 2—15 meters or more.

Conclusions:

Coastline in the Peter the Great Bay experiences preemptive destruction.

Rate of destruction for the shore composed of crystal rocks may amount to 1—5 m, for the sediment shore — up to 15—20 meters in 100 years.

Destruction of the coast with such a high rate is a threat to infrastructure and requires regular monitoring.

© I. S. Sergeev, I. V. Egorov. GIS-based analysis in marine geomorphological studies (by the example of the White Sea).

The article «GIS-based analysis in marine geomorphological studies (by the example of the White Sea)» considers the use of geographic information systems and related software applications that are a powerful tool for the solution of geomorphological problems. By the example of processing the data of the bottom topography of the White Sea is shown a way to select sub-horizontal surfaces of mostly accumulation-erosion origin. On the basis of the comparison of received information and geomorphological characteristics of these surfaces, at least five undersea terraces and two surfaces are found that are located in the deepest parts of the shelf of the White sea — of a tectonic origin. It is shown by the example of the sea shelf that the properties of the second derivative of the function of bottom surface and its intensity, allow to allocate plots of stretching or compression of the earth's crust beneath the seabed.

© V. N. Shavrin. On the position of sub-centers in settlement systems of municipal districts (case study of Tver oblast).

The article is devoted to special places in settlement systems of municipal districts — sub-centers. The major features of this group of settlements are marked. The formal criteria of sub-centers' determination are offered. There are 77 sub-centers found in Tver oblast. The differences in the density of centers (municipal ones and sub-centers) in the municipal districts are shown. The genetic types of sub-centers in Tver oblast are examined.

© A. A. Tkachenko, A. A. Fomkina. Agglomerated settlement: identifying and registering.

The article considers approaches to identifying urban agglomerations. It argues that Russian scientists substitute the concepts: they always consider only large met-

ropolitan areas instead of urban agglomerations. As a result the actual number of the agglomerations appears to be much smaller. The existing methods are too complicated, strict and low-tech. The article suggests using the approach of the U. S. statistics based on the allocation of the so-called «standard metropolitan statistical areas». Using this method, «metropolitan» municipal districts were allocated in the regions of Central Russia. The article shows the number of such districts, their share in area and population. Because of the large size of many municipal districts the authors suggest to supplement «metropolitan» method by the index of center accessibility.

© O. A. Balabeikina. Traditional Christian denominations of Finland: territorial aspect.

The article is devoted to the confessional space of Finland. It covers the history of territorial formation, the peculiarities of church-administrative division, and the placement of religious infrastructure of major Christian denominations in Finland. The article contains the analysis of statistical data from the archive of the Finnish Orthodox Church by dioceses and parishes.

© V. G. Smirnov. Nikolai Jurgens, the navigator and polar explorer.

This article for the first time publishes the biographical information about the naval officer N.D. Jurgens, chief of Ust-Lena polar station, which operated in 1882—1884 during the first International Polar Year.