

SOME STUDY RESULT OF KARYOLOGY OF *LARIX CZEKANOWSKII*. SZAFER

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This article presents the findings of a karyological investigation conducted on *Czekanowski's* larch, a species that exhibits extensive growth in the Uvur-Baigal forest vegetation zone of Mongolia, namely in the Eastern Khentii cape and the Erenii nuruu cape. The *Czekanowski's* larch, a naturally occurring hybrid of the Siberian larch and Dahurian larch, possesses distinct traits as a result of variations in its habitat and population genetics. The chromosomes of *Czekanowski's* larch were examined, and the findings were included, elucidating the quantity, morphology, dimensions, and bracing characteristics of the chromosomes. The *Czekanowski's* larch was used to determine the number of haploid chromosomes ($n=12$) and the number of diploid chromosomes ($n=24$). The length of the chromosomes (I-XII) was found to be between 22.9 and 9.5 μm .

Keywords: *Czekanowski's* larch, chromosome, karyology, notch, haploid

CHANGES IN SUBURBAN SUMMER COTTAGE FOREST VEGETATION COVER

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During recreational activities in forests, human and livestock trampling compacts the soil surface, leading to changes and deterioration of the forest cover. Forests in the suburban summer cottage zone of Ulaanbaatar city experience additional pressure from livestock trampling alongside human activities. Various indicators are used to assess changes in forest biogeocenosis due to recreational use, with particular focus on the condition of understory vegetation, an essential component of biogeocenosis. Our study aimed to identify changes in understory vegetation cover influenced by recreational use in suburban forests near the summer cottage green zone of Ulaanbaatar city.

To achieve this goal, research sample plots were established in forest areas north of Ulaanbaatar near cottage sites, experiencing similar growth conditions but differing in recreational load. In each sample plot, understory vegetation was recorded in 10 small plots measuring 2x2 m. Similarity coefficients for species composition were calculated using the Sorensen formula, while the

similarity coefficient of the cenosis was determined using the method of least percentage sum.

Two sample areas with different recreational loads were established in the Jigjid valley forest, with a control area in the Oin Bulag valley forest. These forests are mountain taiga coniferous forests growing at an altitude of 1520-1600 m above sea level, with a northeast-facing slope of 8°-11°. The main forest-forming tree is Siberian larch (*Larix sibirica* Ledeb.), accompanied by secondary mixed growth of Siberian pine (*Pinus sibirica* Du Tour.), Scots pine (*Pinus sylvestris* L.), and birch (*Betula platyphylla* Sukacz.). Undergrowth includes *Spiraea media* F. Schmidt, *Rosa acicularis* Lindl., and *Juniperus sibirica* Burgsd.

Results show that with increasing recreational load, the total projected cover of grass and moss decreases, and the occurrence of exclusively forest plants decreases. Forest cenosis decreased from 24% in areas with low recreational load to 18% in areas with high recreational load. However, forest meadow and steppe cenosis species increased from 47% and 26% to 52% and 27%, respectively, with increasing recreational load. Comparative analysis of grass cover biomass revealed a decrease in areas with high recreational loads compared to low-load areas. Additionally, biomass ratios by biosystematic group indicate a decrease in understory shrubs, sedges, and Poaceae grasses, with an increase in ruderal plant communities due to steppe and meadow species' proliferation in the forest community.

Keywords: forest vegetation cover, forests in Ulaanbaatar

III. PLANT RESOURCE AND CONSERVATION, ETHNOBOTANY

THE 4TH EDITION OF RED DATA BOOK OF THE REPUBLIC OF BURYATIA AND POTENTIAL RUSSIA-MONGOLIA EFFORTS IN VASCULAR PLANTS CONSERVATION

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The biodiversity conservation is a problem of a global significance and international collaboration is strongly required for undertaking efforts in this issue. Along this, actions for the biodiversity conservation should be applied on the different levels, including local, regional, and international. One of the most well known "instruments" among those actions is creating the lists of biological species under protection. Those lists represent the official baseline for Red Data Books of countries and regions. In Russia a practice to publish the Federal Red Data Book (RDB) has been formed. In addition, the RDBs at the lower level, namely RDBs of administrative regions are also preparing. Such practice has been supported at the federal and regional legislation during the last 15–20 years. Also,

this practice is regulated by Buryatia the special Resolu devoted to the regional RD The length of state border km of that belong to the b consists of more than 30 Russia. Longer but compa and the Republic of Tyva o times in the following years 2005 (Animals); 2013 (a s "Plants and Fungi"). In the plants and fungi have been species, 6 algae species, vascular plant species (incl among them.

Up to date, about 2300 spec have been registered. Con considered as a subject for

9 species were listed in the

1. *Botrychium lanceol*
2. *Gagea hiensis* Pas
3. *Cypripedium macra*
4. *Cypripedium calce*
5. *Calypso bulbosa* (L
6. *Nymphaea tetragon*
7. *Saposhnikovia diva*
8. *Pinguicula vulgaris*
9. *Saussurea dorogo*

Smirn. [*Saussurea* i

As a result, joint inter targeted to those 9 vascula should be noted that the t unquestionable.

The only species taxonomy needs in clarification. Accor endemic of the western Hov

By this reason, p mentioned in the RDB of M species, namely *S. krasno dorogostaiskii*, however, is d Catalogue of Life (2024) and not correct. The reason is th of *S. involucrata* (Kar. & Kir. (2004, 2007) as distributed i at the south-west of the cour species are "hidden": *S. dor* be considered as confirmed According to the S.V. Smirno