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LEGACY OF PREHISTORIC CIVILISATIONS STRENGTHENS THE SYSTEM OF PROTECTED AREAS: A GLOBAL SYNTHESIS OF CONSERVATION ROLE OF STEPPIC BURIAL MOUNDS

Balázs Deák[1,2], Ádám Bede[1], Zoltán Rádai[1], Csaba Tóth[3], József Dózsai[4], Iwona Dembicz[5], I. Ivan Moysienko[6], Barbara Sudnik Wójcikovska[5], Iva Apostolova[7], Georgi Nehrizov[8], Fedor Lisetskii[9], S. Anna Burinchik[9], A. Zhanna Buryak[9], Szabolcs Kis[10], Sándor Borza[1,10], Laura Godó[1], Róbert Gallé[2], Péter Batáry[2], Tatyana M. Bragina[11], Ilya Smelansky[12], Ábel Molnár[13], Miklós Bán[10], Ferenc Báthori[1], Zoltán Árgay[14], János Dani[15] & Orsolya Valkó[1]

[1]*Lendület Seed Ecology Research Group, Centre for Ecological Research, Institute of Ecology and Botany, Vácrátót, Hungary*
[2]*'Lendület' Landscape and Conservation Ecology, Centre for Ecological Research, Institute of Ecology and Botany, Vácrátót, Hungary*
[3] *Debreceni Deák Ferenc Talent Development High School Vocational College, Debrecen, Hungary*
[4]*"Riparia" Association of Environmentalists, Subotica, Serbia*
[5]*Department of Ecology and Environmental Conservation, Institute of Environmental Biology, Faculty of Biology, University of Warsaw, Warsaw, Poland*
[6]*Department of Botany, Kherson State University, Kherson, Ukraine*
[7]*Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, Sofia, Bulgaria*
[8]*National Archaeological Institute with Museum, Bulgarian Academy of Sciences, Sofia, Bulgaria*
[9]*Belgorod State National Research University, Russia*
[10]*University of Debrecen, Debrecen, Hungary*
[11]*Kostanay State Pedagogical University Named After Omirzaq Sultangazin, Kostanay, Kazakhstan*
[12]*NGO Siberian Environmental Center, Novosibirsk, Russia*
[13]*Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary*
[14]*Ministry of Agriculture, Budapest, Hungary*
[15]*Déri Museum, Debrecen, Hungary*

E-mail: *debalazs@gmail.com*

Due to the large-scale land transformation actions, the Eurasian steppe holding a considerable proportion of the Earth's temperate grasslands is among the most endangered biomes. In transformed agricultural landscapes, steppe grasslands could often remain in small fragments that play an essential role in conservation. In our study, using a continental-scale dataset containing 1072 data records on the localities, land cover and presence of cultural, historical and sacred objects on kurgans situated in eight countries in continental Eurasia, we evaluated the conservation potential of prehistoric burial mounds (kurgans), the most widespread historical monuments of the steppes. By using Bayesian logistic generalized regressions and proportional odds logistic regressions, we aimed to reveal the potential of kurgans in preserving grasslands considering landscapes with different levels of land use transformation. We also compared the conservation potential of kurgans situated inside and outside protected areas (PAs) and assessed whether the presence of cultural, historical or spiritual values support the maintenance of grasslands on the kurgans. We revealed that kurgans had high importance in maintaining grassland vegetation even in non-protected transformed landscapes outside PAs; thus, they could act as additional pillars for conservation. Kurgans covered by grasslands might have a landscape-dependent conservation role. They have the potential to act as habitat islands in highly transformed landscapes, stepping stones in moderately transformed landscapes and biodiversity hotspots in intact landscapes. We found that besides their steep slopes hindering ploughing, the existence of cultural, historical or religious values could almost double the chance for grassland occurrence on kurgans due to the related extensive land use and the respect of local communities. By using kurgans as a model system, our results highlight that an integrative social-ecological approach in conservation could enhance the synergistic positive effects of conservational, landscape and cultural values.