



Conference Abstract

Spatial and temporal estimation of habitat suitability of the *Spermophilus citellus* (Rodentia: Sciuridae) in the area of Sredna Gora Mountain (Central Bulgaria)

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Received: 11 Sep 2019 | Published: 11 Sep 2019

Citation: Zidarova S, Popov V (2019) Spatial and temporal estimation of habitat suitability of the *Spermophilus citellus*(Rodentia: Sciuridae) in the area of Sredna Gora Mountain (Central Bulgaria). ARPHA Conference Abstracts 2: e46485. <https://doi.org/10.3897/aca.2.e46485>

Abstract

The spatial and temporal aspects of the habitat suitability of the European Souslik (*Spermophilus citellus* L.) in an area in Sredna Gora Mountain (Bulgaria) was investigated. Data from Landsat satellite imagery were used for modelling changes in the habitat suitability of the species from 1985 till 2018. Linear Regression Analysis showed that spectral bands represent not only the spatial heterogeneity of the landcover, but also the temporal changes of two climatic parameters – monthly temperature and rainfall amount. The obtained results show that the habitat suitability of the European Souslik increased during the studied period. The methodology used here based on statistical modeling is applicable to long-term monitoring and evaluation of the role of land cover change as a result of the human activity and the climate change on the habitat suitability of the European Souslik.

Keywords

habitat suitability, temporal changes, European Souslik, *Spermophilus citellus*

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Presented at

Vth International Congress on Biodiversity: „Taxonomy, Speciation and Euro-Mediterranean Biodiversity“

Acknowledgements

The investigation was supported by the National Science Program “Environmental Protection and Reduction of Risk of Adverse Events and Natural Disasters,” approved by the Resolution of the Council of Ministers № 577/17.08.2018 and supported by the Ministry of Education and Science (MES) of Bulgaria (Agreement № ДО-230/06-12-2018).

Funding program

National Science Program