

#### **Conference Abstract**

# Overview of the population state of Savin Juniper (Juniperus sabina) in the Rila Mt.

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### **Abstract**

Juniperus sabina L. is a rare plant species protected by the Biological Diversity Law in Bulgaria. It is included in the Red List of Bulgarian Vascular plants (Petrova and Vladimirov 2009) and the Red Data Book of Republic of Bulgaria under the "Critically Endangered" category (Peev et al. 2015).

The shrub communities with the participation of the Savin juniper are considered as priority habitats in the Alpine and Boreal heaths on the territory of the European community. They are included in the national lists of protected habitats in the Bulgarian Biodiversity Law and in the Habitats Directive (92/43/EEC). In the Rila Mt. to date there is only one known habitat of the shrub communities of *J. sabina*, in the area between Beli Iskar Village and along Cherni Iskar River, at 1000–1200 m elevation.

**Aim:** The aim of this study was to assess the population state of *J. sabina*, to evaluate the presence of serious threats contributing to long-term habitat degradation, and to design actions for the protection and long-term restoration of the shrub communities of Savin juniper.

**Material and methods:** The route and stationary methods were used for selected objects. The monitoring and assessment of the population status has been carried out in accordance with the approved methodologies of the National Biodiversity Monitoring System of the Executive Environment Agency (EEA 2019).

**Results:** According to the classic syntaxonomic classification, the *J. sabina* communities in the Rila Mt. belong to the class *Vaccinium-Piceetea excelsae*. They represent very rare, relict communities including several interesting plants and high fungal diversity and a number of rare, and sensitive species recorded by this study. In the Rila Mt. communities with Savin juniper are very small and of limited distribution. The potential of the species to spread to other localities or to conquer new territories is extremely low. One of the most threatening factors is overgrazing. In addition, traces of illegal camping and pollution with construction and municipal waste were found.

**Conclusion:** The results of this study could provide support for better management and the conservation of biodiversity in the Rila Mt.

## **Keywords**

Juniperus sabina, monitoring, Bulgarian flora

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