

# Management of meadows and pastures in the Šumava National Park

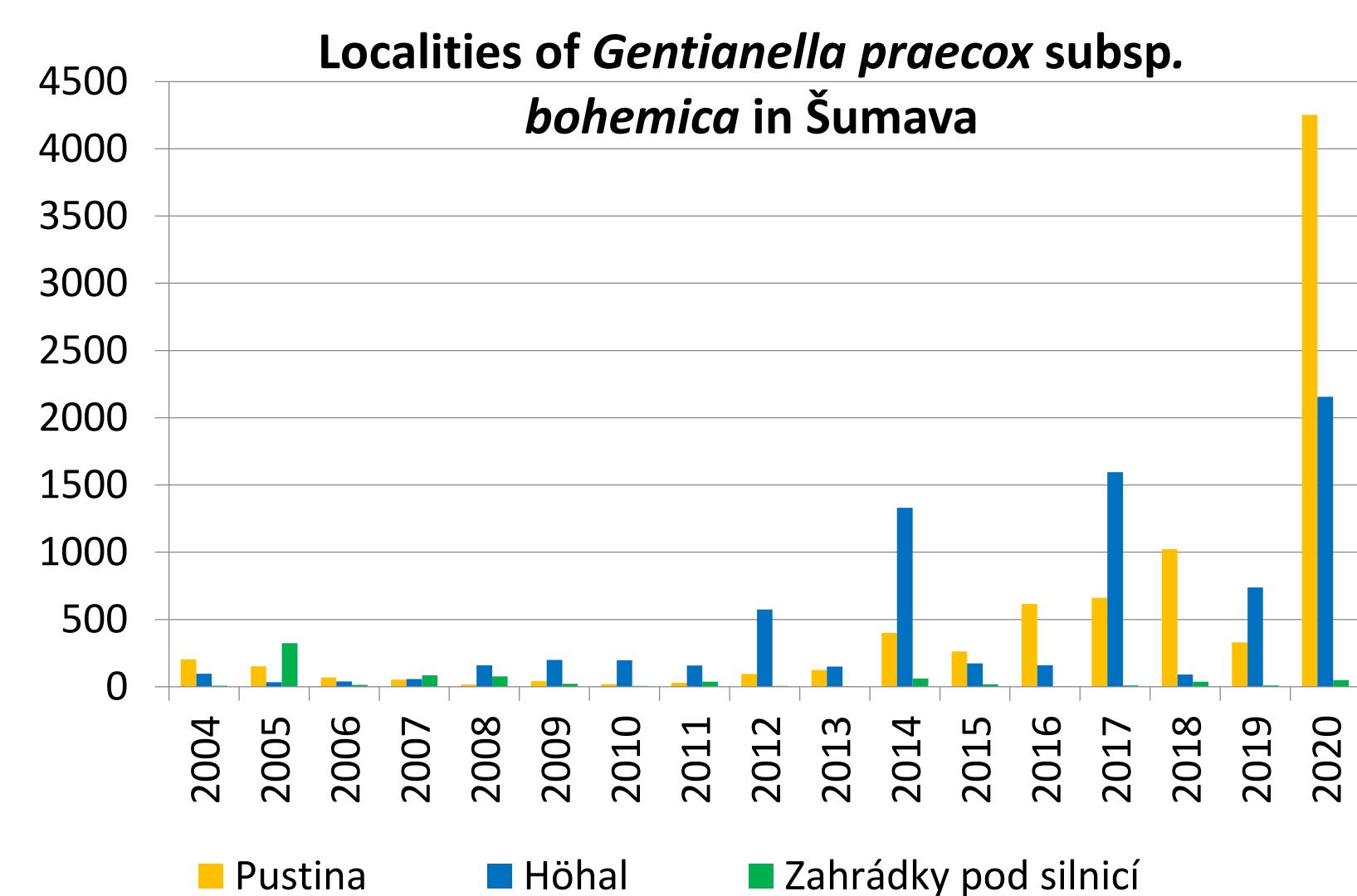
Romana Roučková<sup>1</sup>, Kateřina Máchalová Zemanová<sup>1</sup>, Eva Nováková<sup>1</sup>, Daniela Steinbachová<sup>1</sup>, Veronika Kolářová<sup>1</sup>, Miroslav Černý<sup>1</sup>

<sup>1</sup> Správa Národního parku Šumava, 1. máje 260, CZ- 385 01 Vimperk, Česká republika

Šumava meadows and pastures are a valuable result of traditional human management in the mountain landscape. Their value lies in their biodiversity, as there are species of the original primary non-forested areas and light forest species, as well as species that came to Šumava together with humans from other areas. The traditional management ended after the World War II, when German population was forced to leave their homes, and the closure of a large part of Šumava with the Iron Curtain. Since the 1990s, farming has been returning to places that have been abandoned. Special attention is paid to areas and species that require specific management, such as turf disturbing or tearing off. Many areas are overgrown with trees and shrubs, which close up valuable meadows and pastures. In such places it is necessary to consider whether it is appropriate to keep or cut the trees down and restore part of the meadow or pasture not only for plant species, but also for various species of insects or birds.

## *Gentianella praecox subsp. bohemica*

- Endemic to the Bohemian Massif, a species extremely competitively weak
- in the last century hundreds of localities, nowadays in the about 70 left in CZ
- three localities are located within the territory of NPŠ
- Prefers nutrient-poor pastures where turf has been disturbed by animal hooves while grazing
- Germinates only in small opened gaps within the pasture
- Eutrophication and the end of traditional farming caused a change in the species composition of meadows decline of populations
- NP administration, in cooperation with the land owners, maintains a viable population of this critically endangered species with appropriate and well timed management.



## *Hamatocaulis vernicosus*

- Moss species of peat bogs and peat meadows
- Population declines due to changes in landscape management
- By digging Sphagnum mosses for bedding, in the past there were regularly created small gaps which were used by competitively weak species



## *Sedum villosum*

- A light-loving species of mineral springs
- Critically endangered in Central Europe
- Only 4 localities in CZ, two of them in NP Šumava
- Locality Knížecí Pláně showed rapid decline caused by lack of management.
- Since treatments which started in 2017 there has been multiple increase.

