

# Wilderness in Slovakia

A photograph of a dense, misty forest in Slovakia. The scene is dominated by tall, dark evergreen trees, likely spruce or fir, which are partially obscured by a thick layer of white mist or low-hanging clouds. The mist is most prominent in the lower and middle sections of the image, creating a sense of depth and mystery. The background shows more forested hills, with the mist gradually clearing as it rises. The overall atmosphere is serene and wild.

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Foto: Arolla film, Karol Kaliský



**Primary forests in  
Europe**



## Country strategy on natural processes protection

- There is no specific national strategy or legal instrument on natural processes protection in Slovakia.
- Protection of the natural processes **is not defined** explicitly in nature protection law.
- Protection of natural processes is defined as the aim of protection in small-scale PAs – **nature reserves** designated in the past or/mainly recently

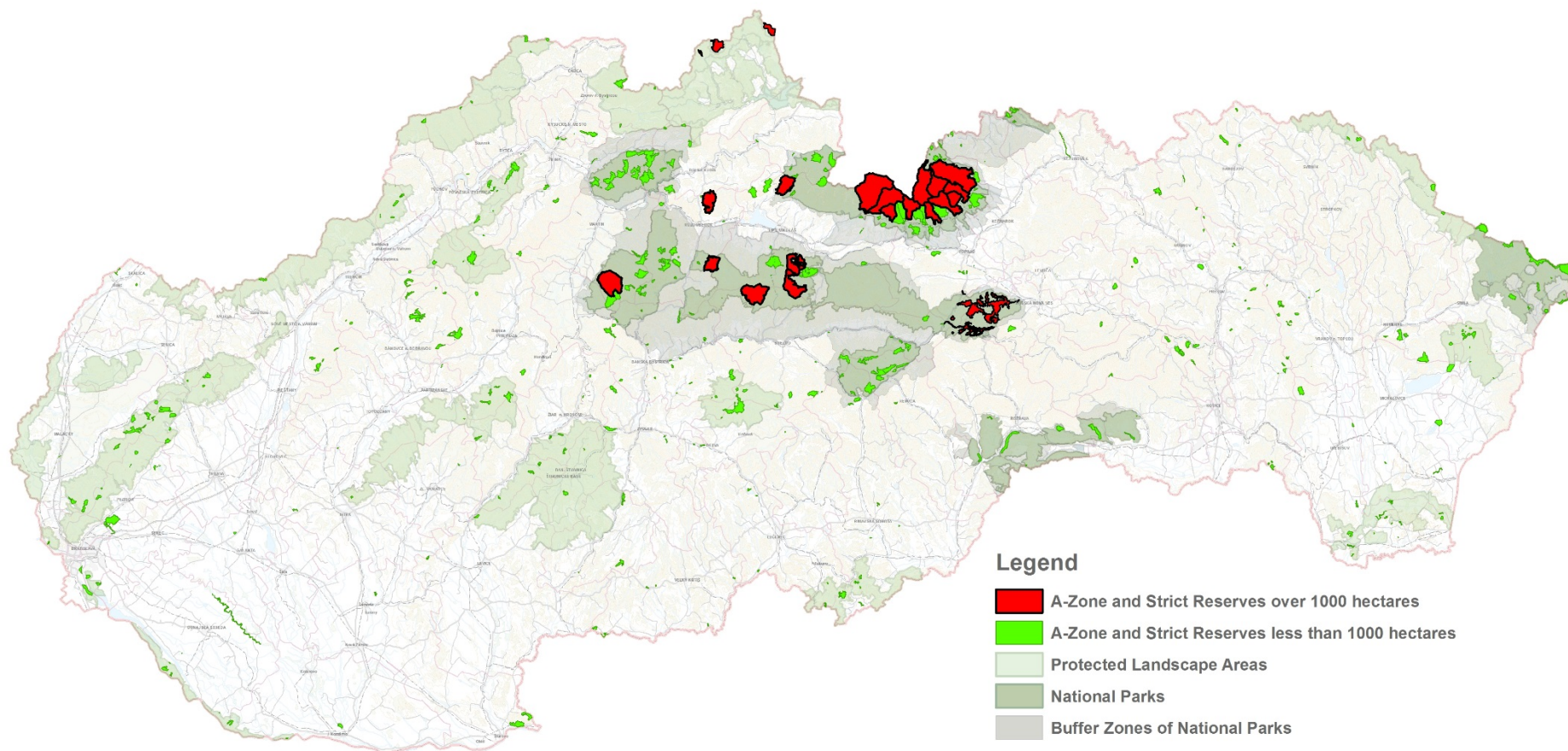
# Country strategy on natural processes protection

- **The National Biodiversity Strategy 2020** includes measures on
  - maintenance and increase of the area of virgin and natural forests,
  - preventing fragmentation and support of forest regeneration,
  - protection of forest habitats and species etc.
- Implementation of the Protocol on Sustainable Forest Management to the Carpathian Convention, which includes protection of natural, especially virgin forests in the Carpathians, is also included.

## Protection of natural processes

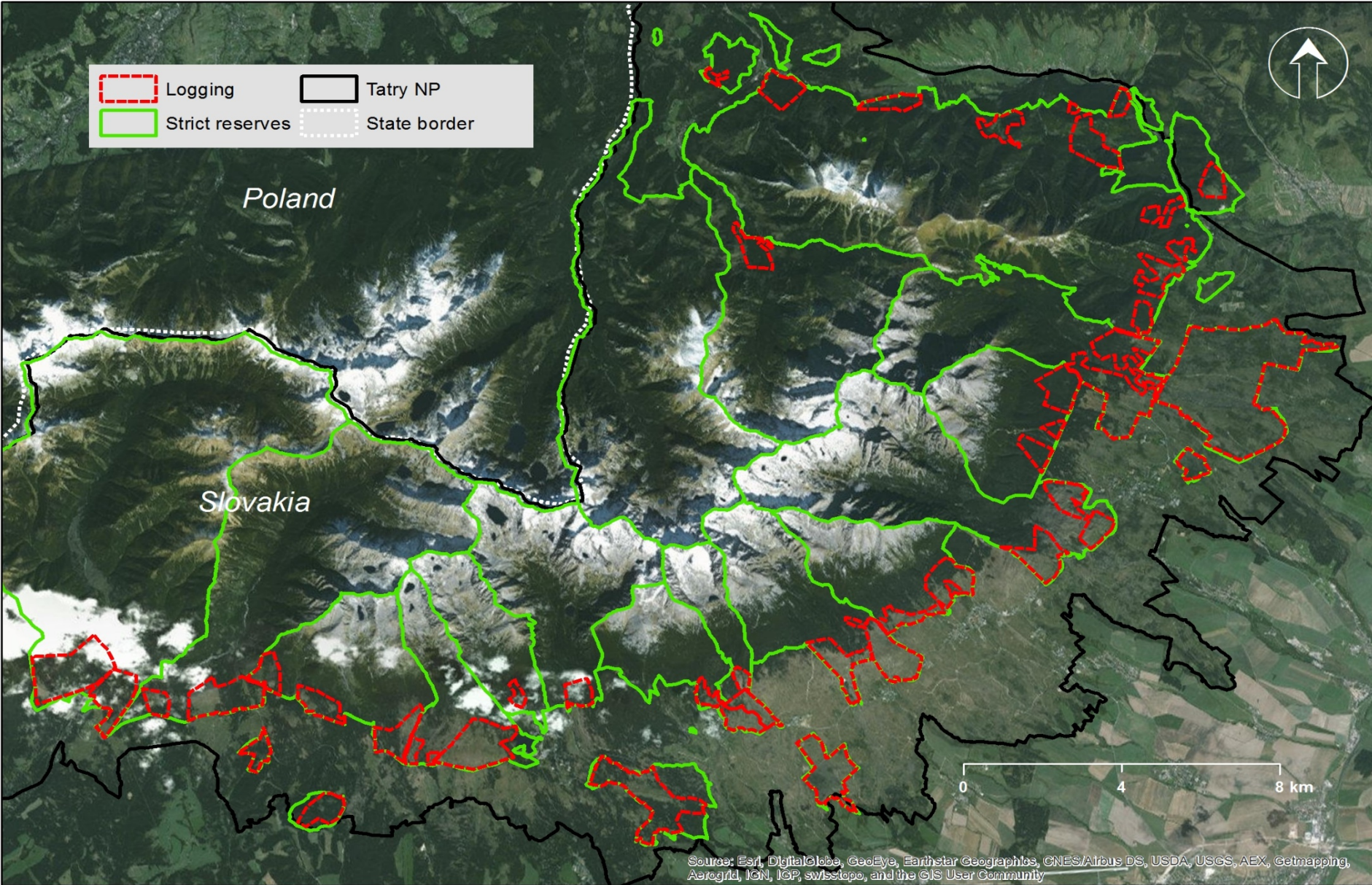
- implemented only in **strictly protected reserves** (highest level of protection in Slovakia according to the Nature Conservation Act) and even there **only to a limited extent and not explicitly.**
- Responsibility lies with the Ministry of Environment of the Slovak Republic
- The protection of strict reserves is initiated usually by the national nature conservation agency, the State Nature Conservancy, and NGOs

# Protected areas in the highest (5th) level of protection in Slovakia



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Tematické spracovanie Mgr. Zuzana Šántová © Štátna ochrana prírody SR, Banská Bystrica, 2017





We identified 41 km<sup>2</sup> that were salvaged logged within the strict reserves over a 10-year period, and only 3.5 % of the naturally disturbed forest remains unsalvaged in Tatra National park

## Protection of natural processes

- area is extremely fragmented, not representative in terms of both biogeography and ecology and covers effectively only few percent (93 613 ha the country. – 1.91 %) of
- it includes large areas above the upper timber line (usually high peaks of mountains where is no interest for management) and many **old-growth forests (35 %) and natural habitats are still under threat of logging.**

**Salvage logging of old-growth  
forest in National park Low  
Tatra Mts. – Velky Bok  
([www.pralesy.sk](http://www.pralesy.sk))**



## Protection of natural processes

- Improved protection of the sites and the system of nature conservation in Slovakia will be more developed in the **new nature conservation strategy**, which is under preparation.

## **Relation between natural processes protection and PAs categorisation of the IUCN**

- This relation in Slovakia is quite weak, not explicit, so far not very systematic and lacks operationalization.
- Procedure for assigning IUCN Protected Area Management Categories in Slovak PAs has started only recently. Out of 9 national parks only Tatra NP is close to fulfil the criteria of IUCN category II.



# **Role of NGO sector, municipality, regional/local authorities**

- Some environmental NGOs seem to be quite important stakeholders and some independent scientists from universities and Slovak Academy of Sciences also promote an informed decision-making with regard to natural processes protection.
- The activities of some scientists and NGOs were the main drivers of strict protection of natural processes in strict reserves in case of large-scale natural disturbances and are still the main initiators in promotion of designation of new PAs for protection of natural processes.
- Without activity of this sector, in most of the strict reserves salvage logging would be conducted on large spatial scales.

## **Role of NGO sector, municipality, regional/local authorities**

- However, regional, local and even national authorities show considerable inertia to these efforts and largely continue to prefer short-term economic benefits and pursue (post)communist sectoral stereotypes.



# National approach

Impact	No elimination	Case by case approach	Regular elimination
Wildfire		X	
Bark beetle	(X)	X	
Invasive alien species		X	
Game management		X	

Proposed instances of case by case approach are motivated particularly by vast natural and human-induced variability of sites and their ecosystem and landscape settings, their complex disturbance histories as well as initial/tentative stage in implementation of natural processes protection in Slovakia.

Most of wilderness areas are in private hands or managed by state forestry with strong interest in game management.

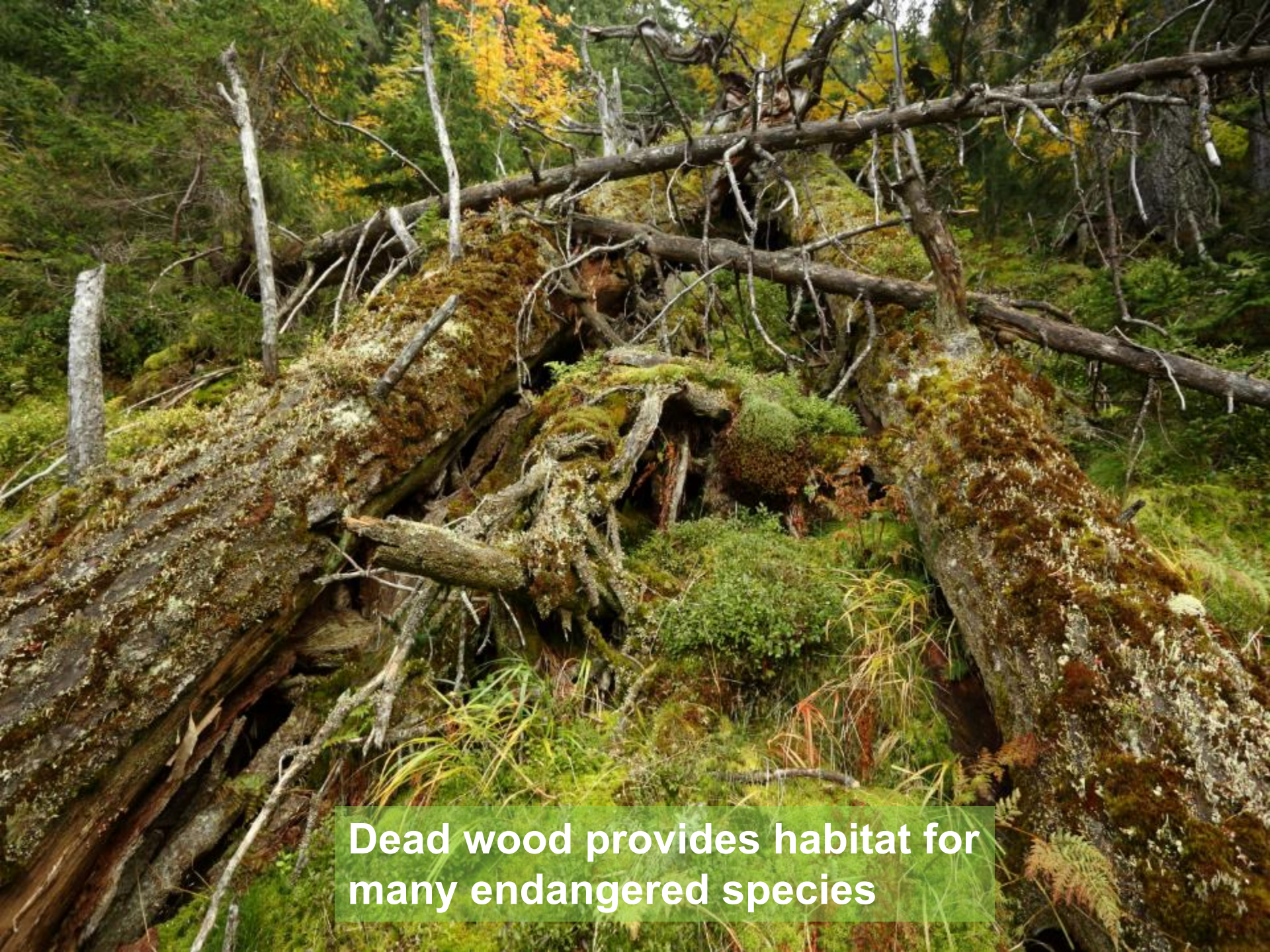
## Lessons learnt so far, recommendations

- Extensive high severity disturbances have affected central European forests recently, and have spurred a discussion among managers and policy makers as to the causes and consequences of these disturbances.

## Lessons learnt so far, recommendations

- In most of the protected areas (e.g. national parks) large scale salvage logging have substantially diminished thousands of hectares of old forests and fragmented habitats of endangered species (eg. Capercaillie) regardless of the status of forest protection (Mikoláš et al. 2016, Landscape ecology).





**Dead wood provides habitat for many endangered species**

**Salvage logging –  
National park Muránska planina**

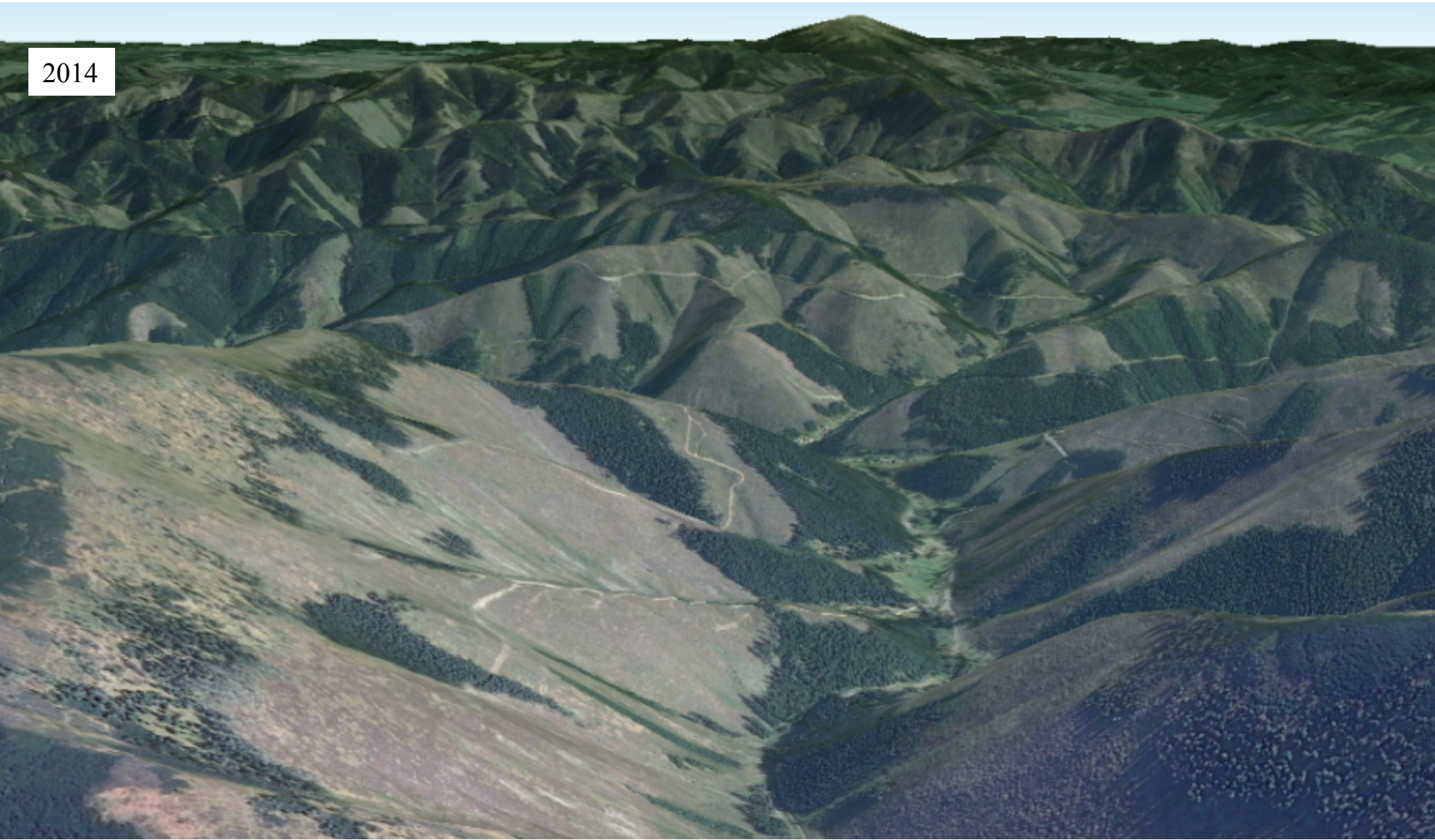


2007



**National park Low Tatra Mts**

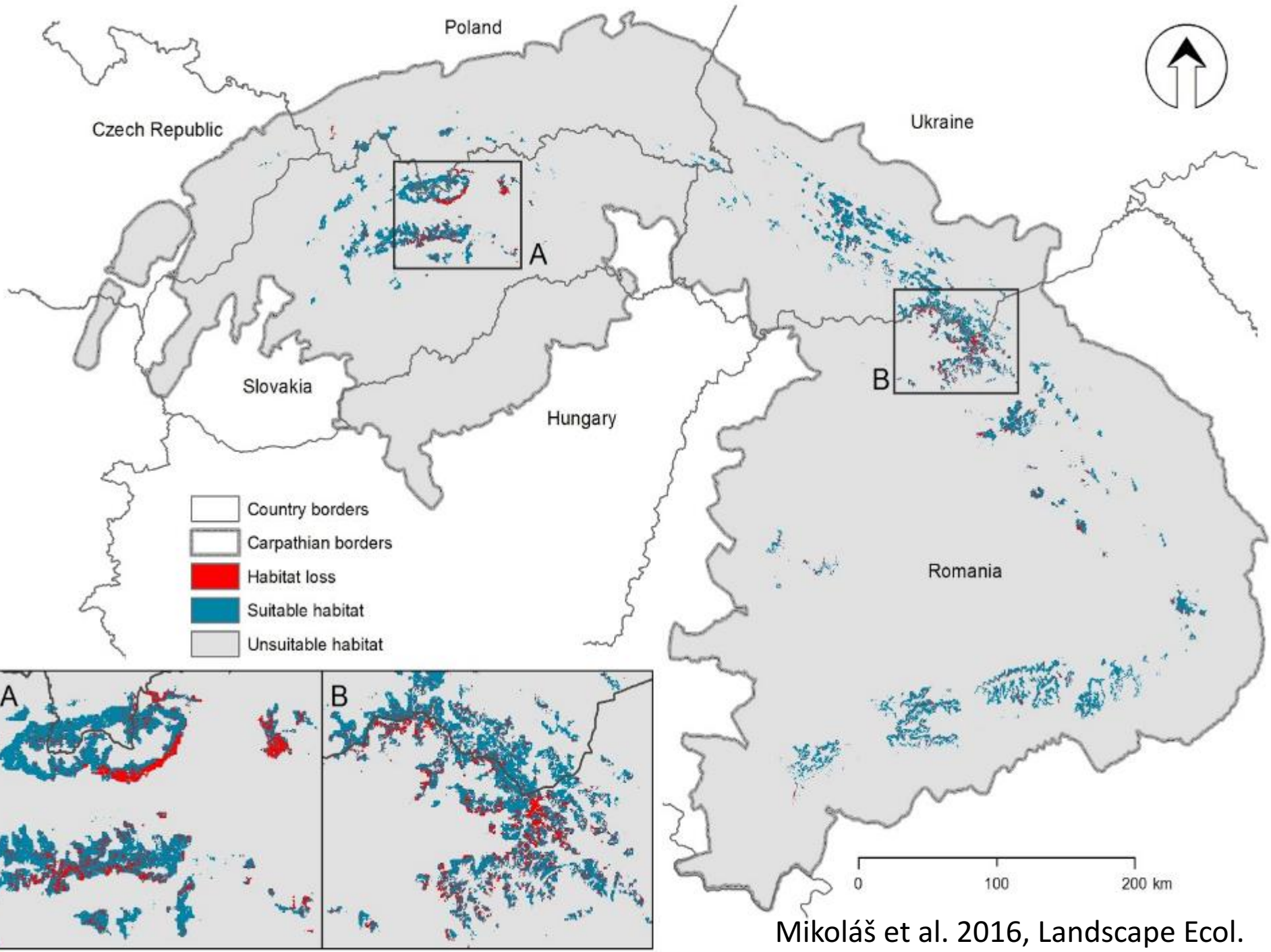
2014

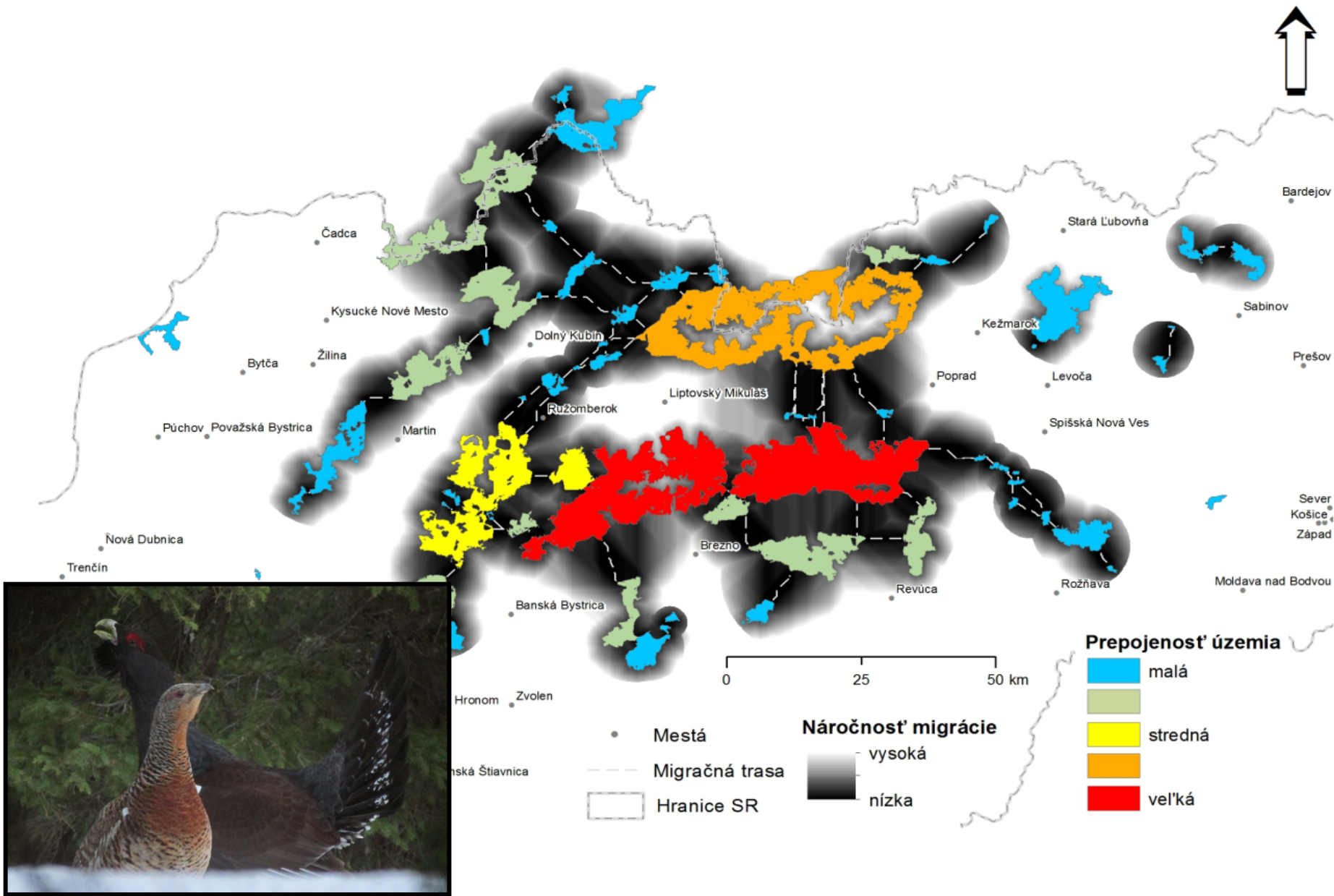


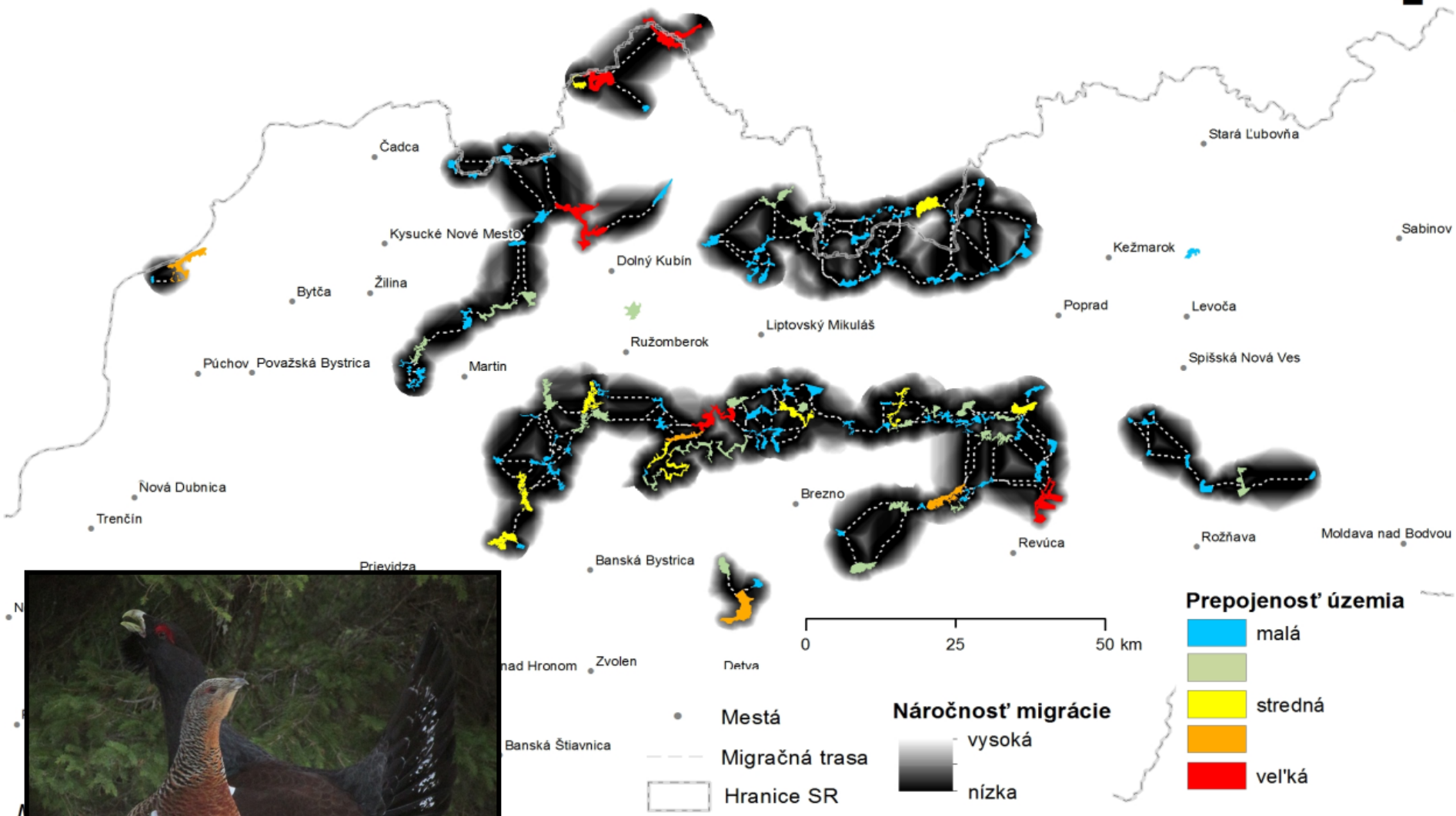
**National park Low Tatra Mts**

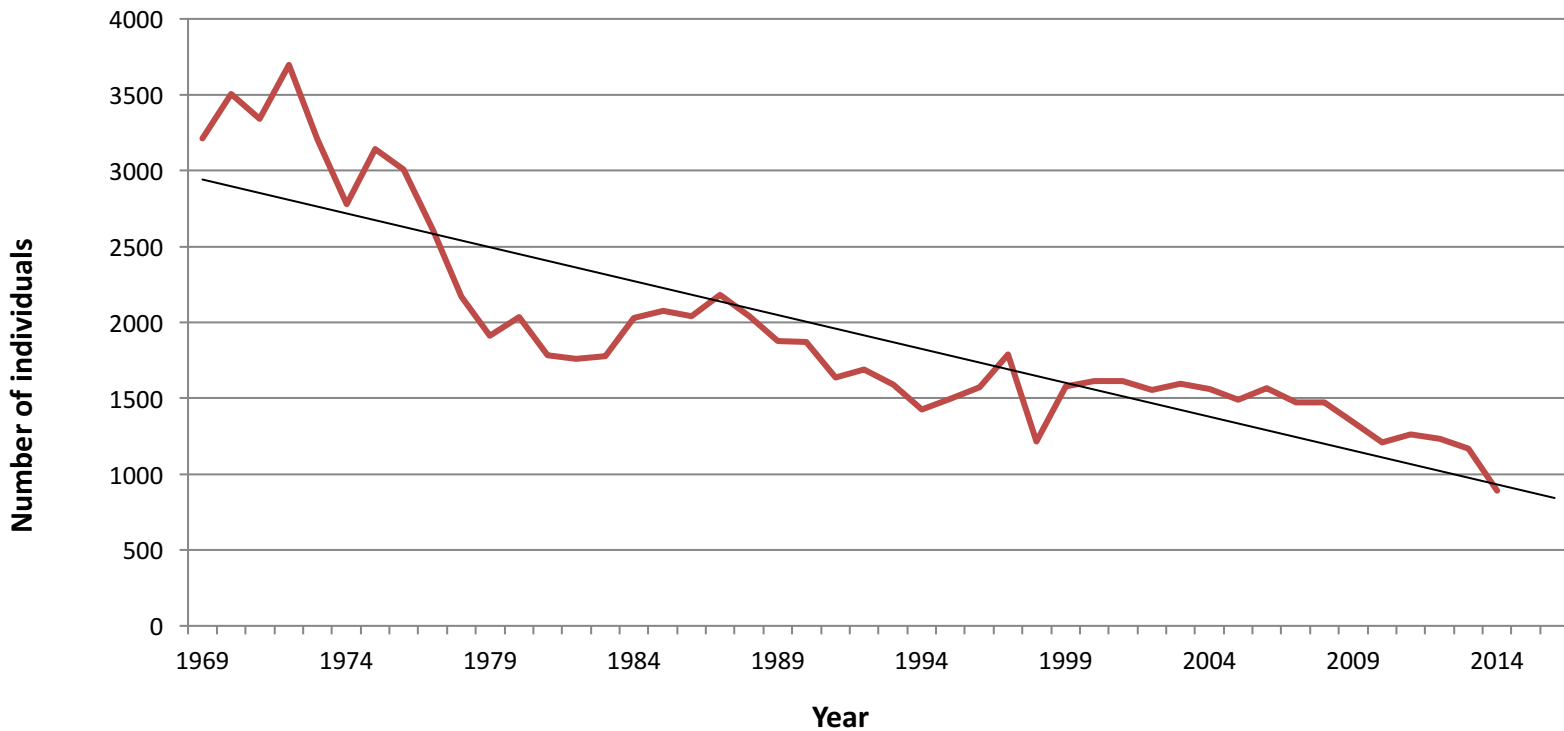












- Slovenská populácia hlucháňa hôrneho od roku 1972 poklesla o 76%
- V roku 1972 - 3697 jedincov hlucháňa
- V roku 2015 - max 900 jedincov hlucháňa
- Hlavný dôvod = likvidácia prirodzených lesov

## **Lessons learnt so far, recommendations**

- **Conservation actions to halt the rapid biodiversity declines are urgently needed.**

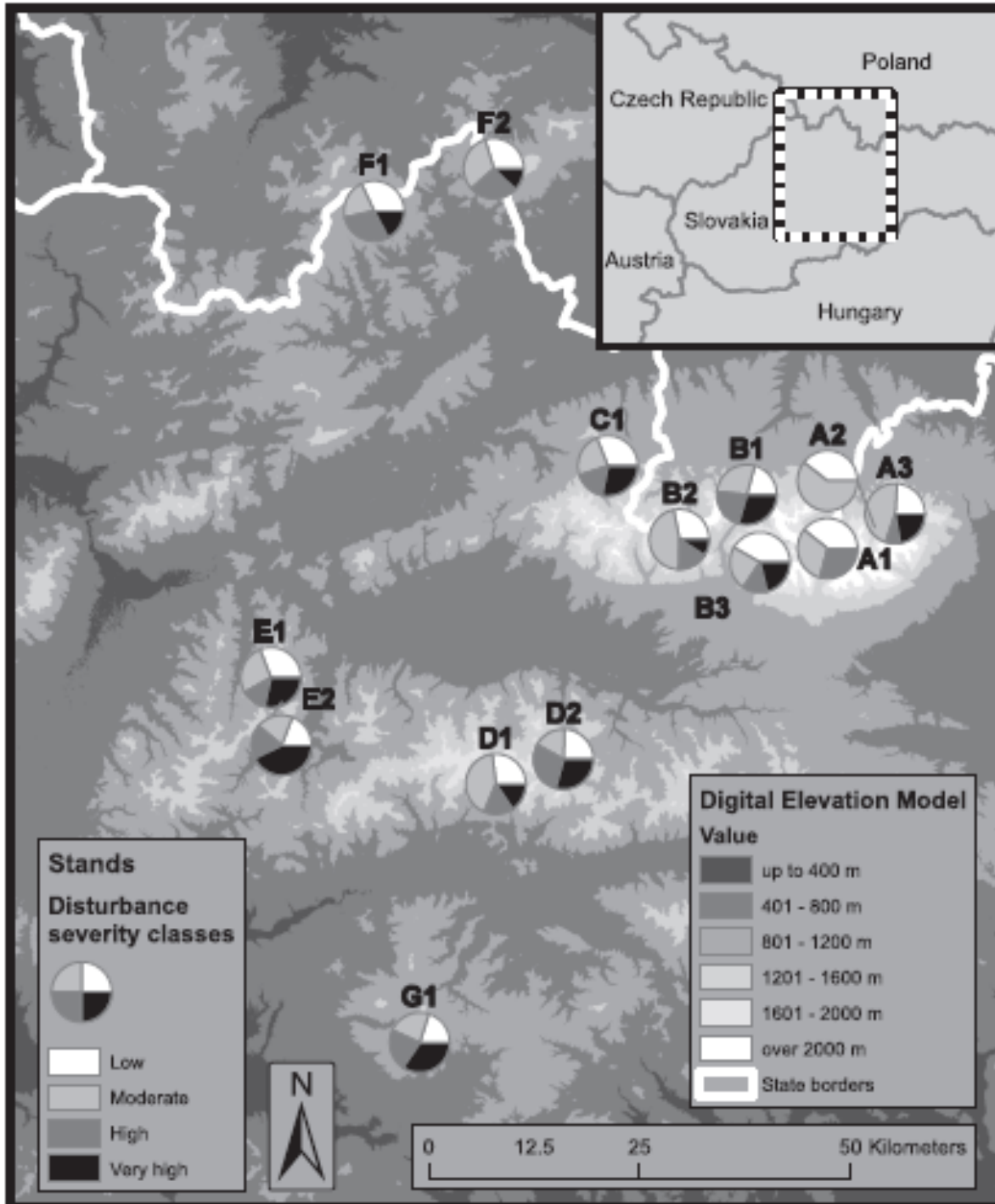
## Lessons learnt so far, recommendations

- We recommend adopting policies to protect natural forests, limiting large-scale clear-cutting and salvage logging, and restricting road building to reduce forest fragmentation

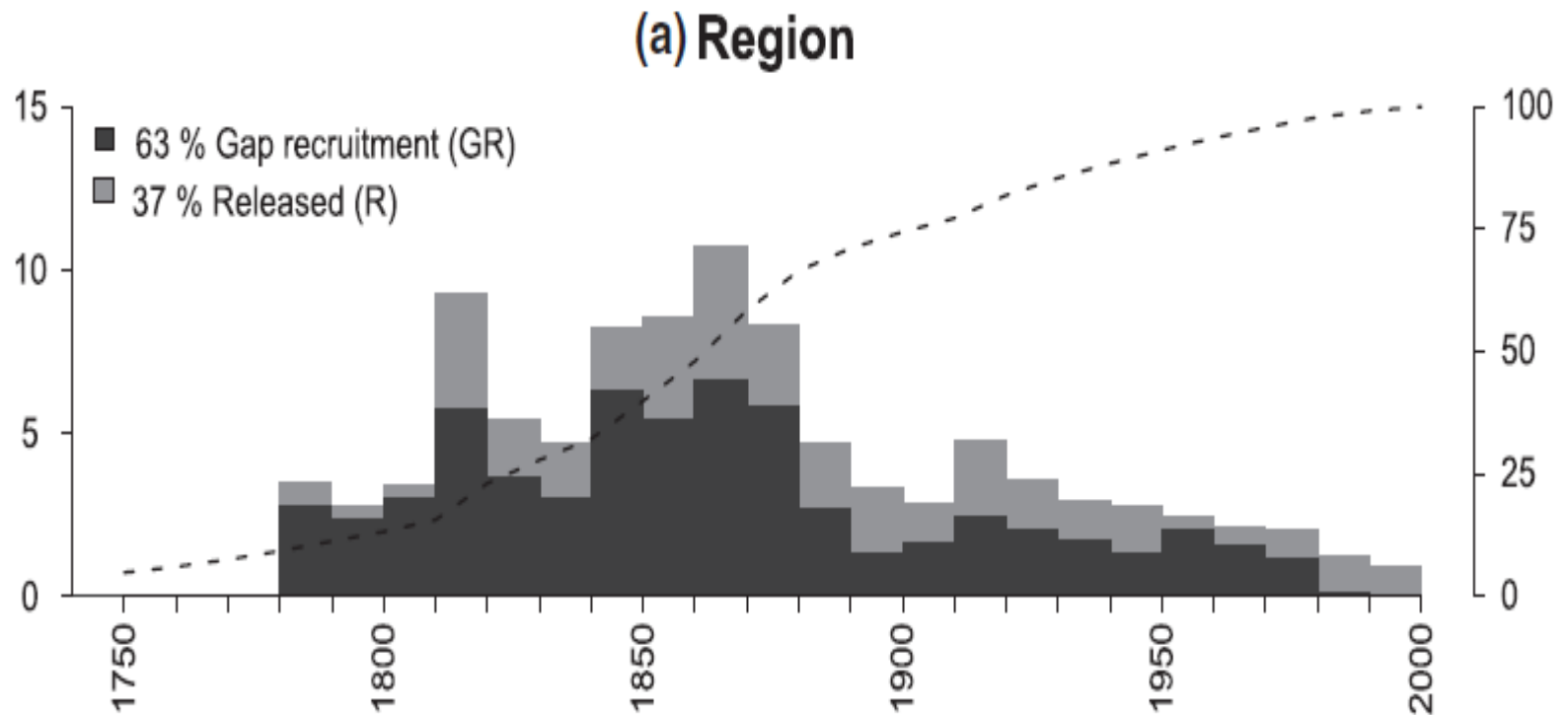
## Lessons learnt so far, recommendations

- recent dendrochronological studies
- (Janda et al. 2016, Forest ecology and management)





Recent dendrochronological studies showed, that high severity natural disturbances (eg. barkbeetle, windthrow) are part of the natural disturbance regime of the primary forests in the Carpathians (Janda et al. 2016, Forest Ecology and Management)



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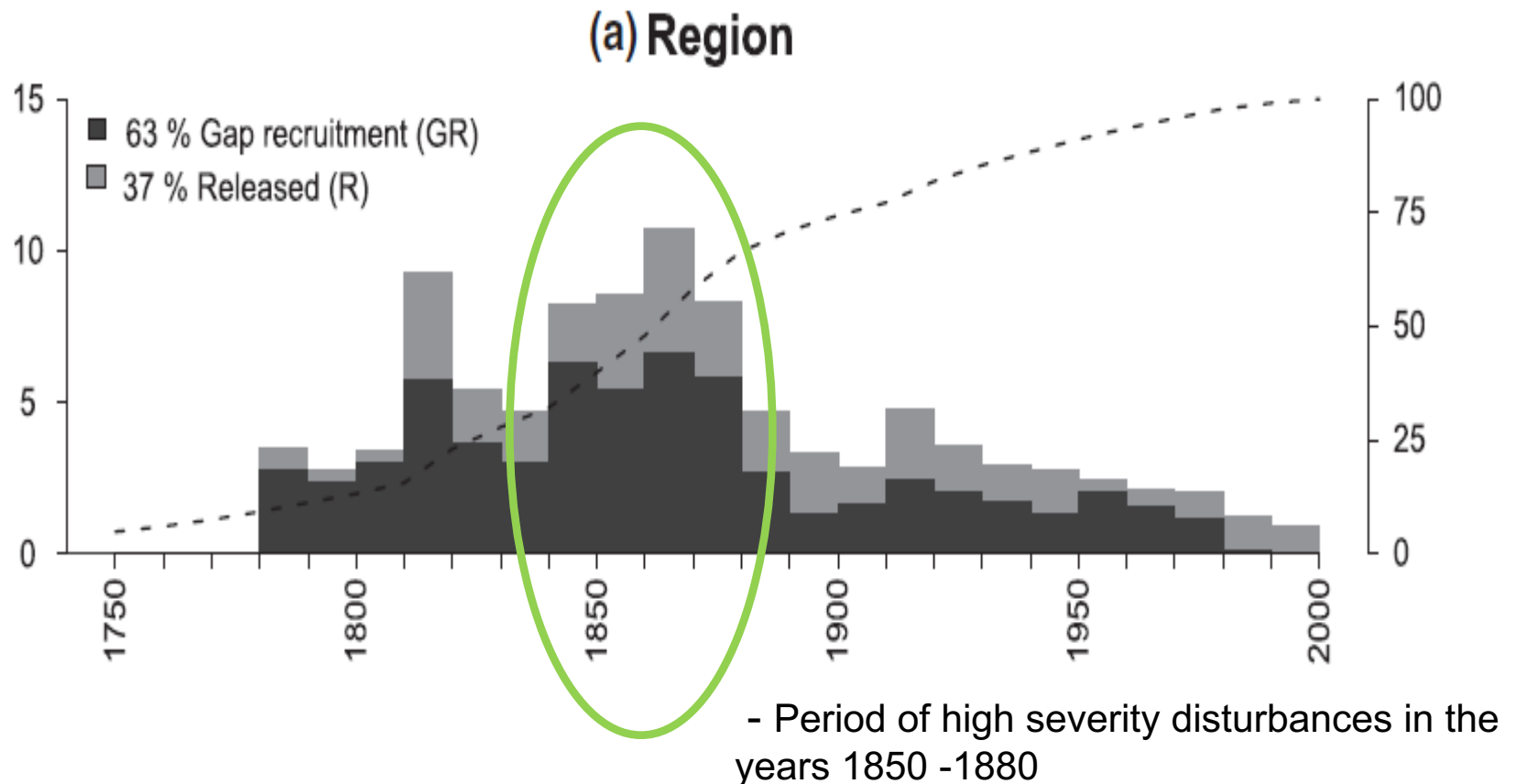




Foto: Arolla film



**Natural disturbances are part of the natural dynamics of the primary forests in the Carpathians**

## Lessons learnt so far, recommendations

- large-scale natural disturbance events shaped the forests also in the history and the recent barkbeetle outbreaks and windthrows are within the range of natural variability.
- Based on these important facts we suggest that management should recognize disturbances as natural part of the ecosystem dynamics in the mountain forests.
- Ecosystems are able to recover naturally

## Lessons learnt so far, recommendations

- Current legislation and strategic documents (eg. Carpathian Convention protocol, The National Biodiversity Strategy 2020) do not define conservation of natural processes in detail and do not have any real sanctions

# **Lessons learnt so far, recommendations**

- Define the targets for the conservation of European Wilderness**
- Implement legislative tools/Infringement cases for conservation of European Wilderness**





**Thank you for your attention**