

Strictly protected areas in Lithuania – a case of Punia forest



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Punia forest (Punios šilas) – one of the most valuable strictly protected forest reserve in Lithuania

- After enlargement – the biggest forest area (2702 ha) under strict protection;
- Aspects resulting exceptional value for biodiversity conservation:
 - Geographic location – boarder zone of Boreal and Continental biogeographic regions (temperate bioclimatic zone);
 - Big soil diversity;
 - Big relief diversity;
- Home for more than 100 protected species, area inhabited by all tree species occurring in Lithuania;
- EU protected habitats: 9010, 9020, 9050, 9070, 9080, 9160, 9180, 91D0, 91E0, 6270, 6430, 6450, 6530, 7140, 7160
- EU protected species: *Triturus cristatus*, *Bombina bombina*, *Oxyporus mannerheimi*, *Osmoderma eremita/barnabita*, *Boros schneideri*, *Cucujus cinnaberinus*, *Barbastella barbastellus*, not to mention birds...



EU protected habitats mapped in Punia forest (2019)



Triturus cristatus



Bombina bombina,
📷 I. Maciulevičienė



Oxyporus mannerheimi
📷 D. Baužys



Osmoderma eremita
/barnabita 📷 R.



Boros schneideri
📷 R. Ferenc



Cucujus cinnaberinus
📷 R. Ferenc



Barbastella barbastellus
📷 N. Vėlavičienė

Campaign to enlarge strictly protected area



- Until 2022 Punia protection status: strictly protected reserve (457 ha) and botanical-zoological reserve (2246 ha) with more flexible protection regime where logging was more frequent;
- In 2018 the process to enlarge strictly protected area was initiated but stopped in 2019;
- In 2019 Baltic environmental forum initiated the campaign against initiative to stop enlargement of strictly protected area;
- The campaign included massive media, politicians and public attention, 15000 signatures petition;

Campaign to enlarge strictly protected area

- BEF opens the court case against initiative stop enlargement of strict nature reserve followed by number of events and debates;
- 2020 BEF wins the court case and enlargement of strictly protected reserve happens in 2022 ;
- Spill over effects: campaign contributed to the inclusion of forest conservation focus in the election agenda of the political parties, stimulated to initiate national forest agreement process, contributed to the high public engagement on forest conservation;



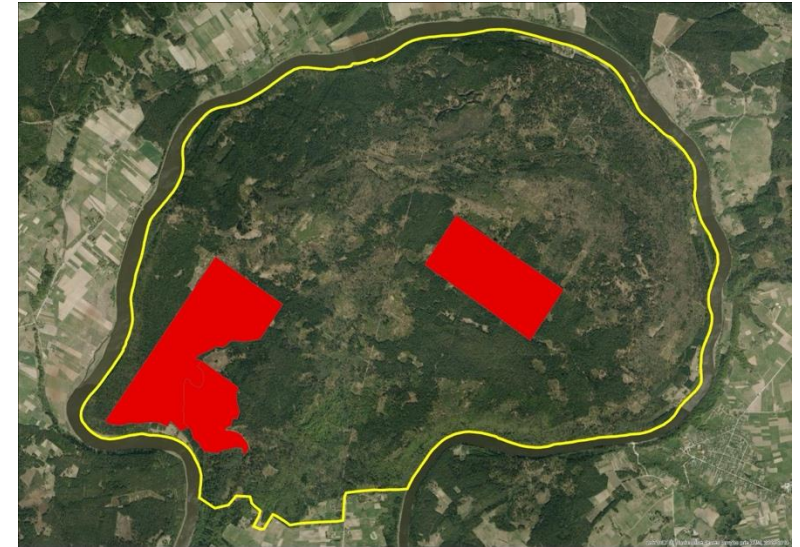
Debate

- All parties agreed that Punia forest is of exceptional value and must be protected;
- The debate opinion split was focused: can its value remain with strictly protected status? Should the forest be managed by forestry or left untouched? What means forest (un) management in Punia forest case?
- European spruce bark beetle – hero of the debate. Is it a pest, which need to be managed or element of nature dynamics to “fix errors of traditional forestry”?



The problem of combining methods for conservation of biological and genetic diversity

- Enlargement of Punia forest strict nature reserve left some “holes” - genetic reserves (GCU) for *Picea abies* and *Pinus silvestris* covering 11% of Punia forest;
- Dynamic management of GCU involves quite drastic management measures, which is not compatible with biodiversity conservation goals;
- The CGU are part of EUFORGEN network. The debate is basically GCU vs. Natura 2000;
- The EUFGIS database states that at these CGU “minimum intervention allowed”, “close to nature forestry” – reality does not correspond to that.
- During revision and setting SMART conservation objectives for Punia forest Natura 2000 area, mapped area of EU habitats within genetic reserves was extracted from quantitative targets of conservation objectives;



Genetic reserves at Punia forest



Mapped EU protected habitats found in the genetic reserves (mostly in unfavourable condition due to active forestry practice)



Management of Genetic reserves in Punia forest

Current developments in conservation process

Scientific study revealed how biological and genetic diversity conservation could be organized to support both targets and reach compromise and even synergies
Based on the study recommendation – Lithuanian Government initiated planning process to ensure Punia forest conservation integrity by ensuring strict protection on whole forest

FOREST BIODIVERSITY MONITORING PROGRAMME IN PUNIA FOREST

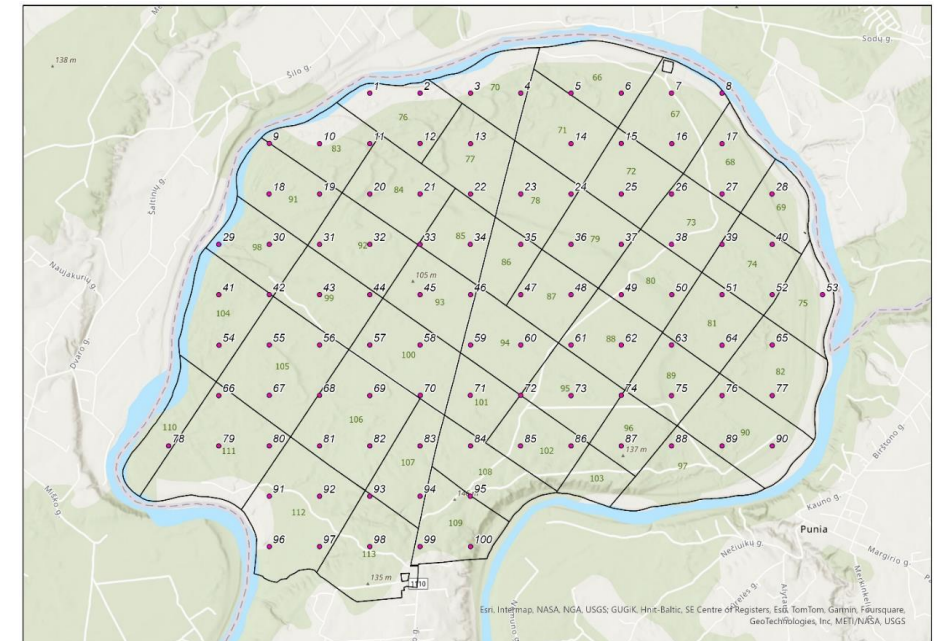
Initiated by the project “Optimizing the management of Natura 2000 network in Lithuania” (LIFE IP PAF-NATURALIT), No. LIFE16 IPE/LT/016 financed by the EU LIFE Programme and the Republic of Lithuania

Stand parameters and other:

- All tree layers species composition and density;
- Dendrometrical tree characteristics;
- Undergrowth composition and density;
- Soil layer thickness;
- Coarse dead-wood amount, type and decay stage;
- Tree microhabitats;
- etc...

Organism groups:

- Birds;
- Vascular plants;
- Mosses;
- Epigeic fruticose lichens;
- Fungi;
- Beetles;



100 monitoring sampling plots in Punia forest







