

LIFE EREMITA Final Conference

Risultati conseguiti e prospettive future

10.06.2022

DAMSLab
Bologna



Speaker: Marian Mirea

Title: Conservation of saproxylic beetles in the Carpathians
LIFE19 NAT/RO/000023 - LIFE ROsalia



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LIFE 14 NAT/IT/000209 EREMITA





Conservation of saproxylic beetles in the Carpathians

LIFE19 NAT/RO/000023 - LIFE ROsalia

Implementation area

ROSCI0208 Putna Vrancea (38060 ha, Romanian Eastern Carpathians)

Coordinating beneficiary

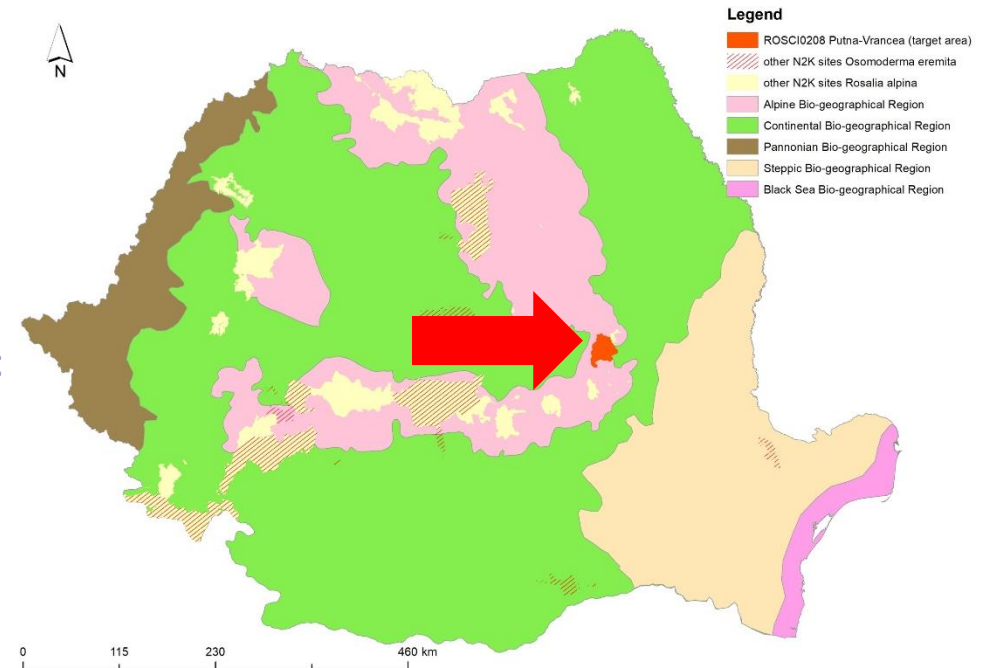
- Vrancea Environmental Protection Agency (APM VN)

Associated beneficiaries

- University of Bucharest, Center for Environmental Research and Impact Studies (UNIBUC)
- Putna-Vrancea Natural Park Administration (PVNP)
- Association for Biodiversity Conservation (ACDB)

Total amount: 2,943,428 Euro

DURATION: Start: 01/09/2020 - End: 31/05/2025



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Conservation issues

- Past forestry practices such as selective logging resulting in forest high grading, and removal of ancient or decaying trees reduced the heterogeneity of forest structure and composition. These practices lead to forest habitats with few veteran trees and a small amount of dead wood, which saproxylic species rely on for completing their complex life cycles.
- Moreover, saproxylic species are considered pest species by traditional forestry techniques, reducing the value of timber. Romanian forestry formal and informal practices actively seek to reduce the deadwood quantity in order to lower the presence of saproxylic species and sometimes use sanitation logging for isolating stands with a high diversity of saproxylic beetles or even applying insecticides.

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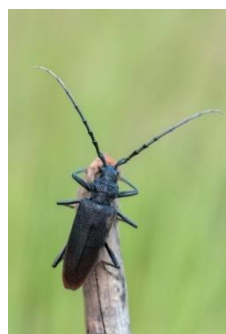


Project aim

Halting and reversing the loss of priority and non-priority saproxylic beetles' populations in the Carpathians and transferring and replicating suitable actions in other Romanian Natura 2000 sites.

The project targets five saproxylic beetles' species, protected by EU Habitats Directive (*Rosalia alpina**, *Osmoderma eremita**, *Cerambyx cerdo*, *Morimus funereus* and *Lucanus cervus*).

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Project objectives

- increase the connectivity between patches of old-growth forests from Romanian Carpathians by creating stepping-stone habitats in Putna-Vrancea Natura 2000 site, suitable for five priority and non-priority saproxylic beetles;
- increase the understanding of the role and ecosystem services provided by the saproxylic beetles' communities and associated habitats for biodiversity and forest resilience and boosting the involvement of stakeholders and the local communities in the conservation of these species in Romania;
- updating the knowledge regarding concrete conservation of priority and non-priority protected saproxylic beetles among stakeholders from the project area and Romania by actively transferring the knowledge and replicating the techniques demonstrated during the project;
- to create and legally bind a national action plan for saproxylic beetles (*Rosalia alpina**, *Osmoderma eremita**, *Cerambyx cerdo*, *Morimus funereus* and *Lucanus cervus*) as a method to unlock the use of concrete conservation of saproxylic species at the national level in the medium and long term.

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Concrete conservation actions

Planned conservation actions cover different methods for improving the habitats for the 5 target species: speeding-up decaying habitats, increase the amount of deadwood, improve the availability of light, participatory monitoring and demonstrative use of semiochemicals for relocating saproxylic species. We will work in 22 intervention areas (12 sqkm), which will result in improving at least 380 sqkm and spillover in other Natura 2000 sites.

The planned actions are:

Creating standing deadwood to promote decaying habitats: Creation of 600 veteran-like trees by veteranisation of young trees and of 300 sun-exposed snags by modifying existing snags;

Provisions of deadwood for saproxylic beetles: Creating and installing 170 custom-made wood mould boxes and of 500 wood piles as microhabitats ready to be colonized;

Shrubs removal for improving saproxylic beetles habitats mostly around veteran-like trees,

Participatory monitoring and demonstrative use of semiochemicals as a conservation method by developing of a participatory monitoring app designed for forest owners and managers and a demonstrative use of pheromones as non-lethal a sanitation method.

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Expected impacts

- next generation of veteran trees in areas lacking suitable habitats by altering 600 trees from 22 intervention areas in ROSCI0208 Putna-Vrancea.
- 300 sun exposed snags to act as reproduction habitat for Rosalia longicorn and other saproxylic beetles
- artificial and natural dead-wood habitats to attract saproxylic insects and facilitate reproduction and dispersal by creating 170 custom made wood mould boxes and 500 wood piles.
- clearing of overgrowth near the newly provided dead-wood for improving habitats.
- developing participatory monitoring of insects by involving forest owners and managers
- introducing the use of semiochemicals (pheromones) as an environmentally-friendly forest sanitation method
- legally binding a national action plan for saproxylic insects

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Monitoring actions

To evaluate the effectiveness of concrete conservation activities and their social impact and correct the actions if necessary, we planned a comprehensive set of monitoring actions:

- Monitoring of saproxylic insects within intervention areas; Monitoring of saproxylic insects and forest structure within the entire site (as a benchmark);
- Monitoring of ecosystem services and of social / economic impact;
- Monitoring of awareness activities;
- Monitoring key project indicators.



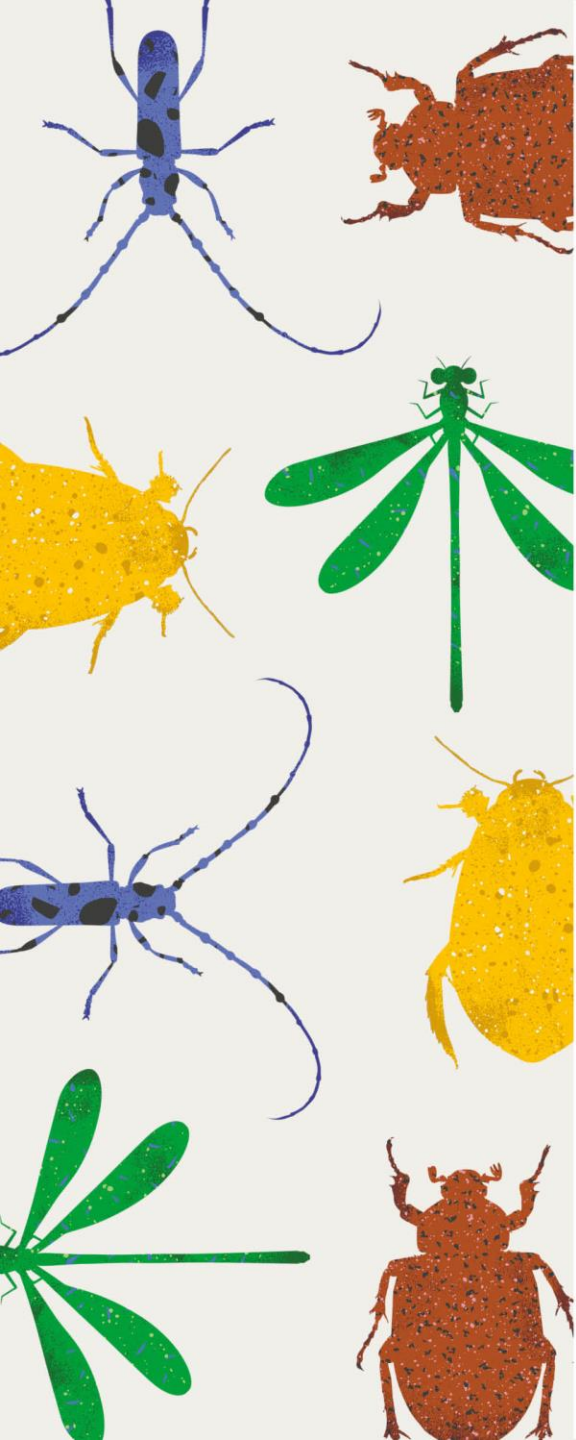
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Continuation and replication

- Replication plan and training of replicators in at least 10 other Natura 2000 sites from Romania;
- A powerful legal tool for continuation of demonstrated activities in other Natura 2000 sites in Romania – national action plan for saproxylic beetles.
- Maintenance of veteran-like trees, snags, wood piles and wood mould boxes according to the prescriptions included in AFTER-LIFE plan;
- Continuation of monitoring both for evaluating the progress of conservation status but also to obtain and publish more scientific data on concrete conservation of saproxilic beetles;
- Continuation of awareness activities locally and nationally according to the prescriptions included in AFTER-LIFE plan.

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Thank you!

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