

# LIFE EREMITA

**LIFE14 NAT/IT/000209**



*Coordinated actions to preserve residual and isolated populations  
of forest and freshwater insects in Emilia-Romagna*



## ADMINISTRATIVE INFORMATION

**Starting date: 01/01/2016    Expected end date: 31/12/2020 (5 years)**

**Coordinating beneficiary: Emilia-Romagna Region**

**Associated Beneficiaries :**

**2 National Parks**

**4 Authorities for the management of Parks and Biodiversity**

**Budget: 2.126.987 EUR**

**EU financial contribution: 59.66%**





# PROJECT AREA

More than 70 Natura 2000 sites involved in the project!



Emilia Occidentale



Emilia Centrale

Regione Emilia-Romagna



Parco nazionale Appennino Tosco-Emiliano



I PARCHI NEL CUORE  
Sito di Gestione per i Parchi e la Biodiversità Emilia Orientale

Emilia Orientale



Romagna



Parco nazionale Foreste Casentinesi  
Monte Falterona e Campigna



# PROJECT OBJECTIVES



The project aims to improve the conservation status, in Emilia–Romagna, Region for the remaining populations of 4 species of insects, 2 saproxylic, priority species :

\**Osmoderma eremita*

\**Rosalia alpina*

2 aquatic species, non priority

*Graphoderus bilineatus*

*Coenagrion mercuriale castellanii*

Implementing action on anthropogenic threats.



# *Osmoderma eremita* \*

**Common name:** Hermit Beetle

**Description:** Saproxylic Coleopteran, active between June and August, with broad body, a length of 2,4 -3,7 cm long, with glossy, dark brown elytra.

**Distinguishing marks:** the male releases a persistent and **pleasant smell/scent of ripe peaches** to attract the females.

**Habitats:** develops in accumulations of wood mould in the base of hollow living broad-leaved trees, in forests from plane to mountain.

**Larvae feed on dead wood generally derived from natural fungal decay.**





# *Rosalia alpina* \*

**Common name:** Rosalia Longicorn

**Description:** Longicorn Saproxylic Coleopteran, active between June and August, a length of 1,5-3,8 cm long. Steely blue-grey coloration and large, dominating black spots, with velvety surface.

**Distinguishing marks:** easily distinguishable for the elegance of the colors and their patterns. Both males and females have extremely long antennae colored in alternating bands of black and blue.

**Habitats:** mountains, in beech trees forests with **living decaying trees**, where there is a reasonable amount of sunlight exposure.



# HABITAT – old trees



- ***Osmoderma eremita*** : lives in large old trees, with rich woody holes with decaying matter and rotting wood. There are numerous colonized plants, including *Quercus* sp., *Castanea sativa*, *Tilia* sp., *Salix* sp., *Fagus sylvatica*, *Morus* sp., As well as rosacee wild and cultivated, *Pyrus* sp. and *Malus* sp.
- ***Rosalia alpina*** : It is linked to the presence of mature and senescent trees, but still alive, with a large amount of wood in various stages of decay, are located in sunny areas.



# *Graphoderus bilineatus*

**Common name:** Dytiscid Beetle

**Description:** predator water Coleopteran, active during the whole year, a length of 1,4-1,6 cm. The body is oval; on the middle of the pronotum there is a broad yellow transverse band between two black bands, and there is a uniform marbled yellow/ black coloration on the elytra.

**Distinguishing marks:** the sides of the elytra are lined with a band that gives an even broader look to the insect, appearing as a streamline.

**Habitats:** in the Apennines, generally in big ponds or lakes with clear and deep waters, rich on riparian vegetation and also bogs.





# *Coenagrion mercuriale castellanii*

**Common name:** Southern Damselfly

**Description:** small damselfly, active between April and August, a length of 2, -3,1 cm and a wingspan of 2,5-4,0 cm. Thin body of a bright blue colour with black patterns.

**Distinguishing marks:** The specific part of the scientific name, *mercuriale*, is because of the distinctive markings on the second segment of the abdomen.

**Habitats:** lower Apennines, into small water streams exposed to sunlight with rich water and riparian vegetation, like creeks with moderate flow with perennial water flow and springs.





# HABITAT - lentic and lotic waters



- ***Graphoderus bilineatus*** :  
open environments, where he lives in large ponds or small perennial lakes of various types. He lives even in forest areas, sometimes in peat with clear and clean water.
- ***Coenagrion mercuriale*** :  
it benefits from abundant riparian vegetation, clear waters and natural polyfite grasslands surrounding the spawning site for a neighborhood of at least 50 m.

# WHY TARGETING INSECTS



Flag species

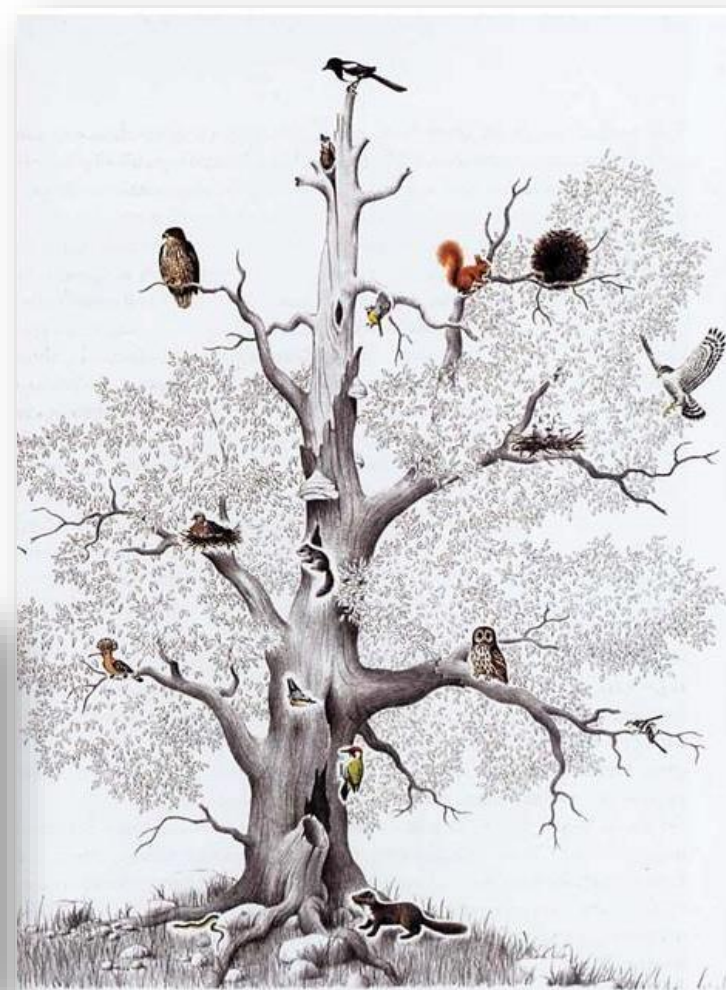
Vital population are related to suitable habitat, that are woods with a good proportion of decaying matter.

Wetlands and small ponds and creek with good quality of water.



# THREATS

1. habitat reduction or alteration of the target species (habitat trees, inland water)
2. excessive isolation of populations
3. local extinction of the remaining populations



# SPECIFIC OBJECTIVES OF THE ACTIONS

Increase the availability of habitats for the remaining populations, with the ex-novo creation of adequate habitats, and the improvement of their connectivity.

Ex-situ reproduction and repopulation of the 4 species, with the aim to increase existing population and populate new habitats

Increase the knowledge of presence/absence, distribution and abundancy of the remaining populations of the target species in the project area

# SPECIFIC OBJECTIVES OF THE ACTIONS

Elaborate a management plan and specific measures for conservation

Encourage appropriate and compatible behaviour with the needs of protection by stakeholder

Spread and develop solutions for the active involvement of farmers, operators and users of forest areas within the RN2000 sites and of stakeholders in general



# ACTIONS FOR THE VOLUNTEERS

## IMPLEMENTATION OF THE ACTION A,5 FOR TRAINING OF VOLUNTEERS AND COLLABORATORS

The volunteers can, **with the staff project**, help to support:

- Study and monitoring activities
- Operative interventions of active conservation
- Captive breeding activities
- Dissemination and sensibilization activities (EREMITA tour Action E7)

# MONITORING - ACTIONS

- ACTION A.2 - Ex ante Monitoring
- ACTION A.3 - Individuation / inventory habitat trees
- ACTION A.4 – Individuation of adequate lakes, ponds, Streams for *Graphoderus bilineatus* e *Coenagrion mercuriale castellanii*



# PRELIMINARY RESULTS



Beneficiary	Osmoderma (HABITAT TREES)	Rosalia (HABITAT TREES)	Graphoderus (WETLANDS)	Coenagrion (SMALL BASIN)
PNFC	44	88	4	1
MAR	78	16	8	7
MEOR	204	13	52	40
MEC	40	133	18	3
PNATE	46	79	11	0
MEOC	484	0	0	3
<b>FOUND</b>	<b>896</b>	<b>329</b>	<b>93</b>	<b>54</b>
<b>EXPECTED</b>	Min. 800	Min. 800/900	5/8	5/10



# BREEDING EXPECTED

- 3 ex situ for *Osmoderma* e *Graphoderus*: PNFC (Santa Sofia - FC), MAR (Russi - RA) and PNATE (Ligonchio - RE)
- in situ of *Osmoderma* with installation of wood boxes
- Moving expected for *Coenagrion*
- Insert in nature of *Osmoderma* e *Graphoderus* from breedings



Thank you for the attention!  
Hvala za pozornost!

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website <http://ambiente.regione.emilia-romagna.it/life-eremita>  
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