LIFE EREMITA

LIFE14 NAT/IT/000209

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

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Emilia-Romagna Region

"Study trip to Italy of the Hungarian Life "Nature" Team" 18th – 19th – 20th – 23rd of Aprile, 2018.

LIFE EREMITA

LIFE14 NAT/IT/000209

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

Commencing: 01/01/2016

Expected closing date: 31/12/2020 (5 years after)

Coordinating beneficiary: the Emilia-Romagna Region

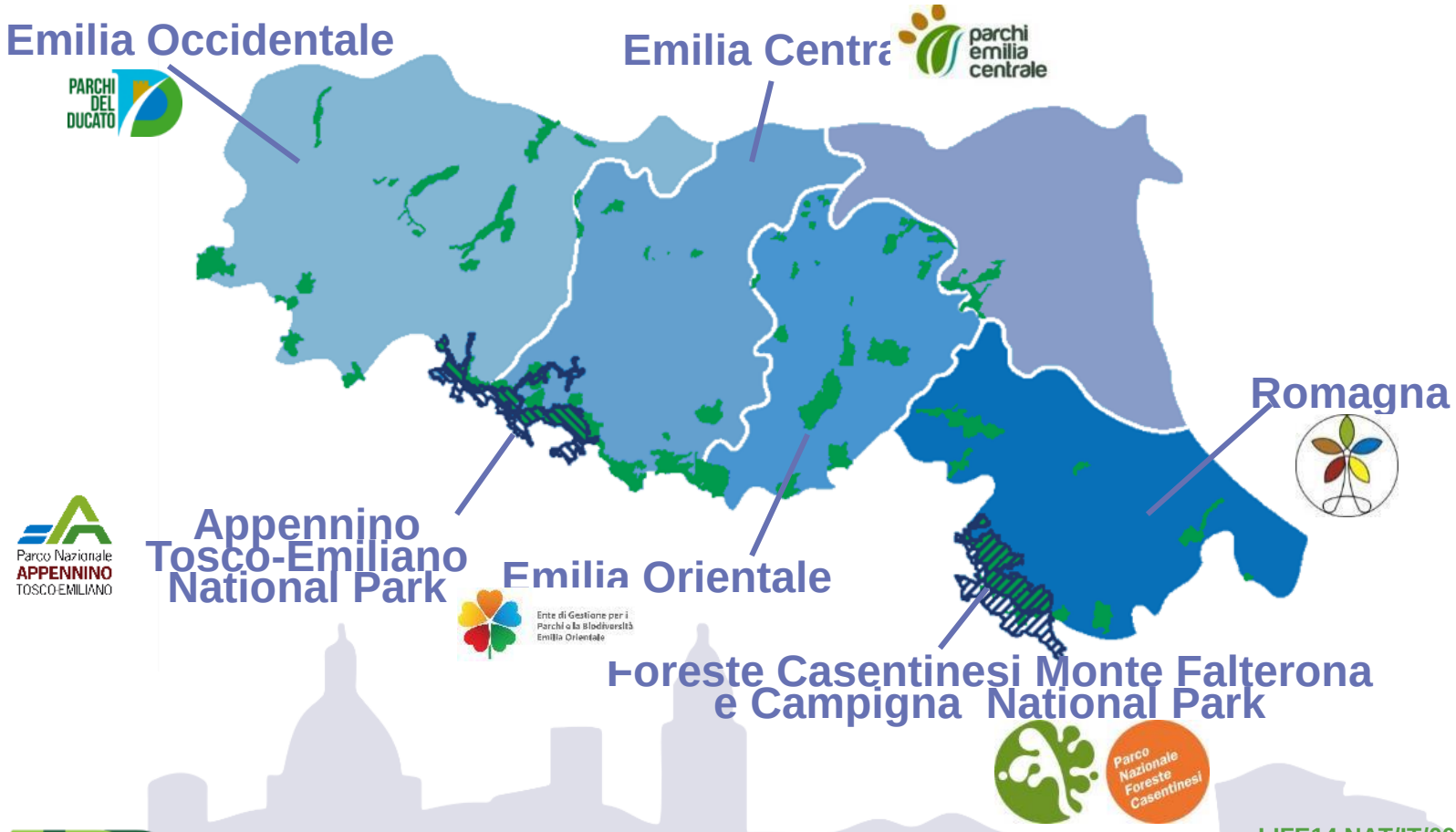
Associated Beneficiaries:

- 2 National Parks
- 4 Authorities for the management of Parks and Biodiversity

Budget: 2.126.987 EUR, EU funding: 59.66%

PROJECT AREA:
Natural Parks and Natura 2000 sites

More than 50 Natura 2000 sites in the project!



PROJECT OBJECTIVES

The aim of the project is to improve the conservation status of the remaining populations of 4 species of insects in the Emilia–Romagna Region :

2 saproxylic, priority species:

* ***Osmoderma eremita***

* ***Rosalia alpina***

2 aquatic species, non priority:

Graphoderus bilineatus

Coenagrion mercuriale castellanii

Osmoderma eremita *

Common name: Hermit Beetle

Description: saproxylic beetle (feeds on decaying wood) 2.4-3.7 cm long, large glossy black-bronze body; active between June and August.

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

Habitats: cavities of any species of old broadleaved trees rich in wood mould, in forests, gardens and rows of trees, ranging from the flatlands to the mountains. Larvae feed on dead wood affected by fungal decay.

Rosalia alpina *

Common name: Rosalia Longicorn

Description: Longicorn saproxylic beetle, active between June and August, 1.5-3.8 cm long. Coloration: velvety steely blue-grey with variable black spots.

Distinguishing marks: elegant colours and distinctive patterns. Both male and female specimens have extremely long antennae with alternating black and blue bands.

Habitat: mountains, beech forests with decaying trees and in sunlit areas**.**

Graphoderus bilineatus

Common name: Dytiscid Water Beetle

Description: predator aquatic beetle, active all year round, 1.4-1.6 cm long; broad oval flat body; a broad yellow band between two black bands covers the *pronotum*, the coloration of *elytrae* is marbled yellow and black.

Distinguishing marks: the sides of the *elytrae* are lined with a band making the insect appear even broader.

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

Coenagrion mercuriale castellanii

Common name: Italian Southern Damselfly

Description: 2.7-3.1 cm long with a wingspan of 2.5-4.0 cm. Thin bright blue body with black markings, flight period April to August.

Distinguishing marks: a black mark on the second proximal segment of the abdomen similar to the helmet of Mercury, god of Greek and Roman mythology, hence the name mercuriale.

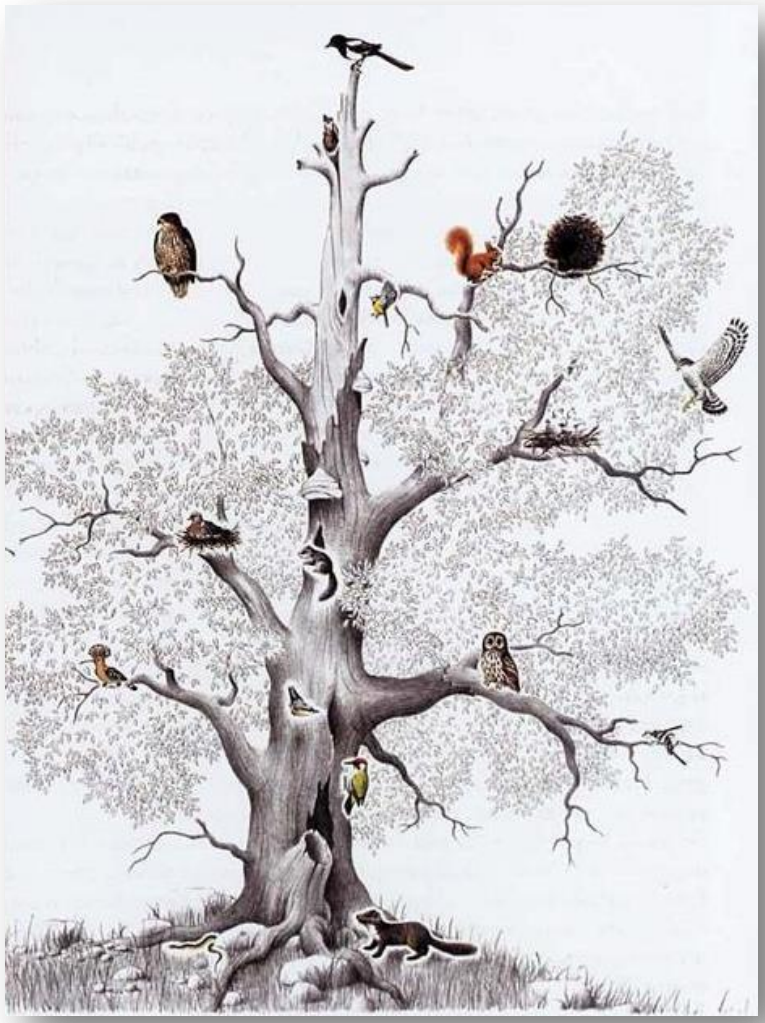
Habitats: lower Apennines, small sunlit water streams rich in riparian vegetation, such as seeps and streams with perennial moderate water flow.

THREATS

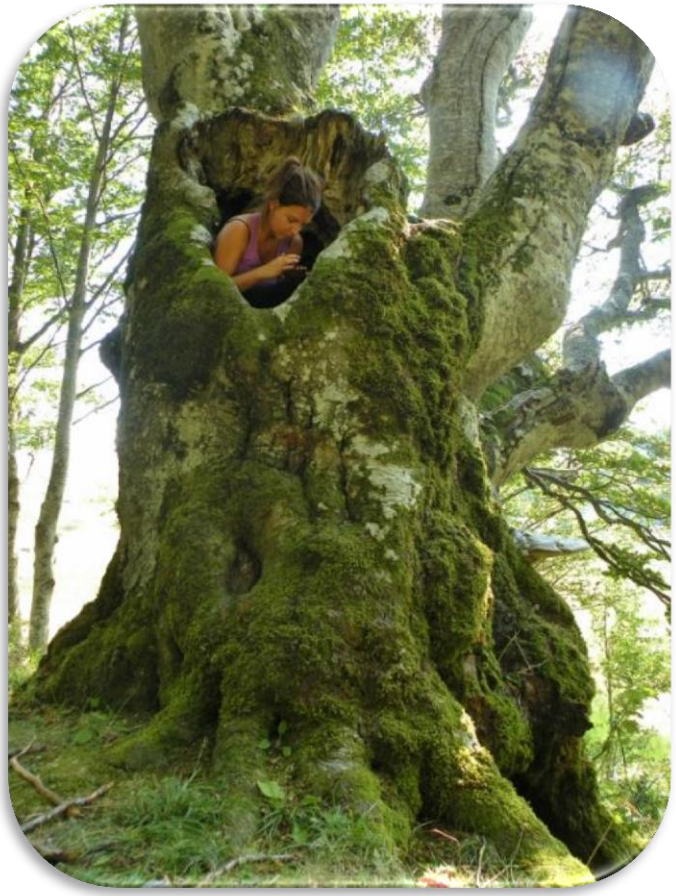
1. reduction or alteration of the target species habitats (old trees, inland water)

2. extreme isolation of the remaining populations of the four insects

3. local extinction of the remaining populations



HABITAT – old trees



- *Osmoderma eremita :* **big old broadleaved trees, cavities rich in rotting wood. Species include: Quercus sp., Castanea sativa, Tilia sp., Salix sp., Fagus sylvatica, Morus sp., as well as wild and cultivated rosacee eg. Pyrus sp. and Malus sp.**

- *Rosalia alpina :* **sunlit areas with an abundance of mature and decaying beech trees at various stages of deterioration.**

HABITAT - lentic and lotic waters

- *Graphoderus bilineatus* :
  Large ponds or small perennial lakes of various types. Including clean and clear water forest peats.

- *Coenagrion mercuriale* :
  spawning sites require abundant riparian vegetation: clear water streams surrounded by at least 50 metres of natural grasslands.

SPECIFIC OBJECTIVES OF THE PROJECT

- Gather more data on the presence/absence, distribution and size of the residual populations of the target species;
- Expand the habitats of the residual populations, create new adequate habitats, and improve the ecological networks;
- Ex-situ reproduction of *Osmoderma eremita* and *Graphoderus bilineatus;*
- Increase existing populations and populate new habitats;

SPECIFIC OBJECTIVES OF THE PROJECT

- Develop a management plan and specific measures for conservation;
- Develop and disclose solutions aimed at actively involving farmers, operators and users of forest areas in all the RN2000 sites;
- Act on the threat factors that have caused these 4 species to become residual; factors resulting from human intervention, such as the destruction or alteration of their habitats resulting in the isolation of the few residual populations;
- Improve the conservation status of the target insects by raising awareness of the stakeholders on the importance of these species to our ecosystems.

MONITORING

- The study of different habitats and different monitoring methods are required for each of the four target species of insects
- Each species required a monitoring protocol to measure the trunks and their cavities, to check inside the cavities, to count the dragonfly and beetle target specimens, to mark them, using tools such as entomological screening for aquatic insects, traps for insects, live traps for saproxylic insects

VOLUNTEERING

The project trains about 30 volunteers to help the staff to :

-Monitor species and their habitats

- Create new habitats

- Work in captive breeding sites

- Create awareness among the public (EREMITA tour Action E7)

CONSERVATION

- 3 *ex situ* breeding sites for *Osmoderma* and *Graphoderus*: PNFC (Santa Sofia - FC), MAR (Russi - RA) and PNATE (Ligonchio - RE);
- Numerous sites of in situ breeding for *Osmoderma* with installation of wood boxes;
- Transfer of *Coenagrion* to other suitable habitats;
- Release *Osmoderma* e *Graphoderus* specimens into the wild.

PRELIMINARY RESULTS

Beneficiary	S.I.C. investigated	S.I.C. still to be investigated
PNFC	5	0
MAR	7*	2
MEOR	11	1
MEC	10	0
PNATE	7	0
MEOC	6	5
TOTAL	46	8

* One site included in the Delta Po Park

PRELIMINARY RESULTS

Beneficiary	Osmoderma (NEW SITES)	Rosalia (NEW SITES)	Graphoderus (SITES)	Coenagrion (NEW SITES)
PNFC	2	5 + 1 confirmed	0	0
MAR	2 + 2 confirmed	0	0	1 + 1 confirmed
MEOR	0	0	0	0
MEC	2*	0	1 confirmed	0
PNATE	0	1 + 1 confirmed	0	0
MEOC	1	0	0	0
TOTAL	9	8	1	2

* One site at 1500 m a.s.l.

Wood Mould Boxes and Wood Mould produced for partners

Beneficiary	Number of WMB produced	Mould produced (liters)
PNFC	35	960*
MAR	27	830*
MEOR	23	450
MEC	25	480
PNATE	27	830*
MEOC	13	290
TOTAL	150	3840

* Including mould to start ex situ breeding

Wood Mould Boxes produced for partners

The different work stages

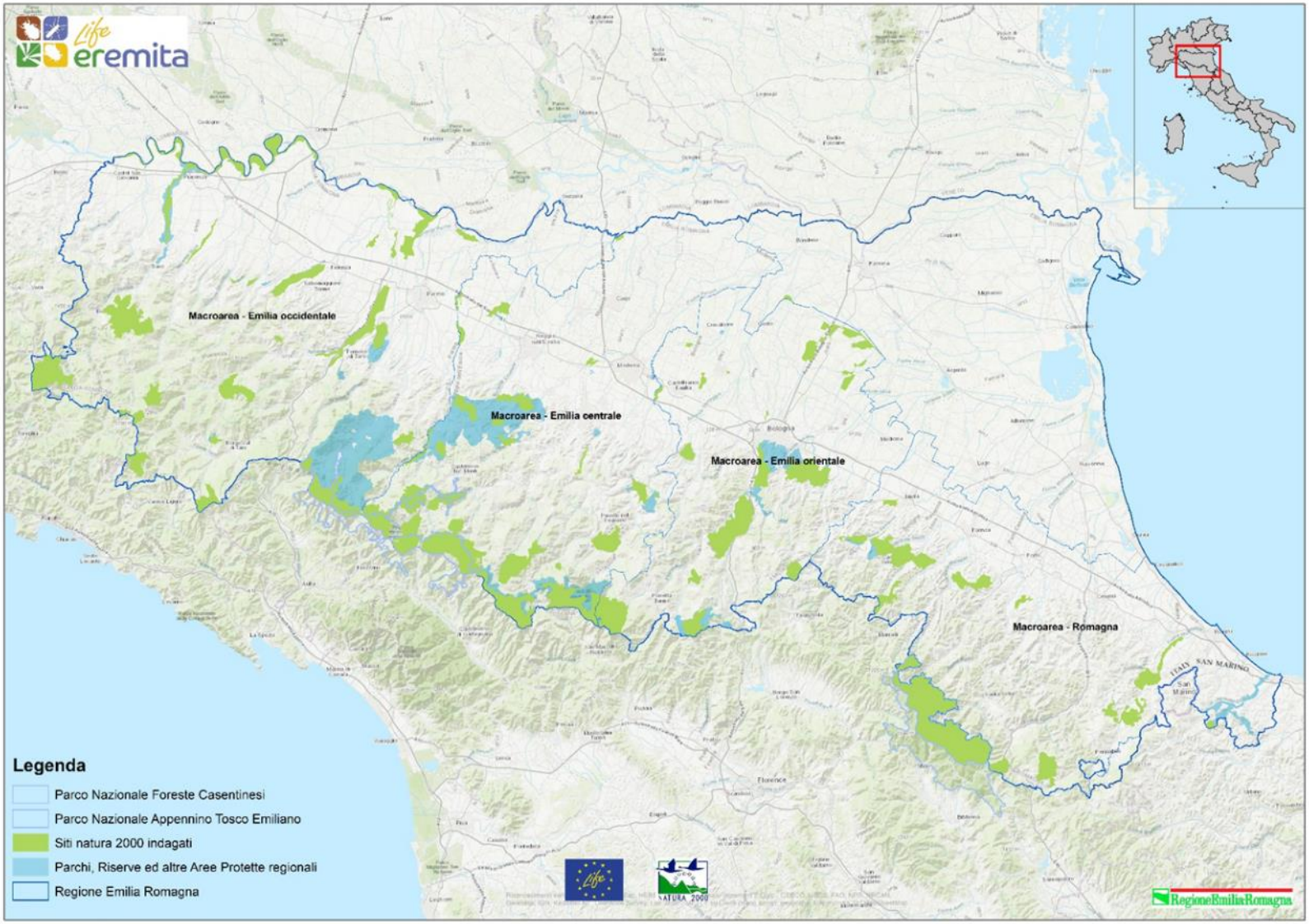
Mould produced by partners

The different work stages

Mould produced by partners

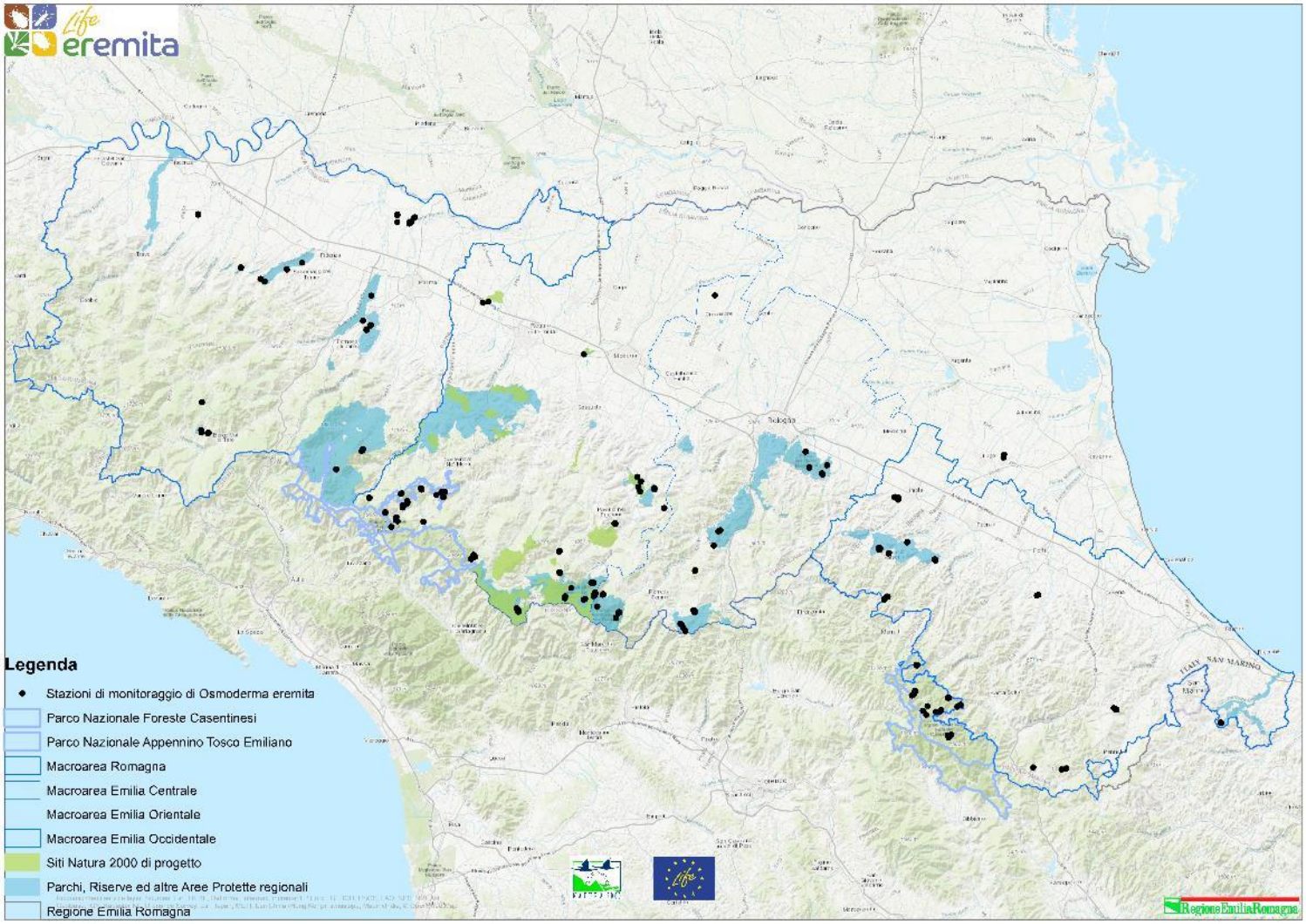
The different work stages

Results from Action A2



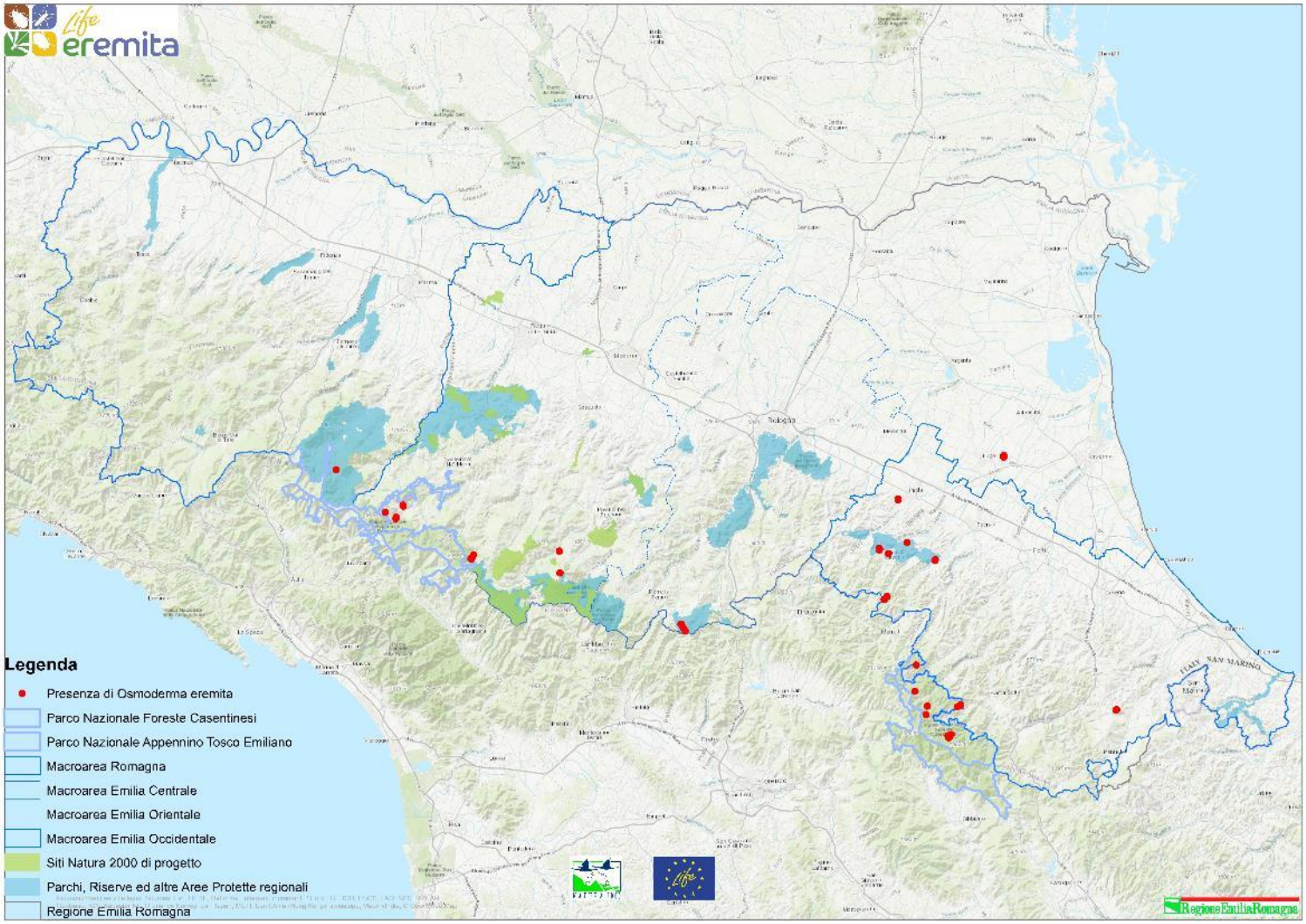
Results from Action A2

Osmoderma eremita - monitoring station



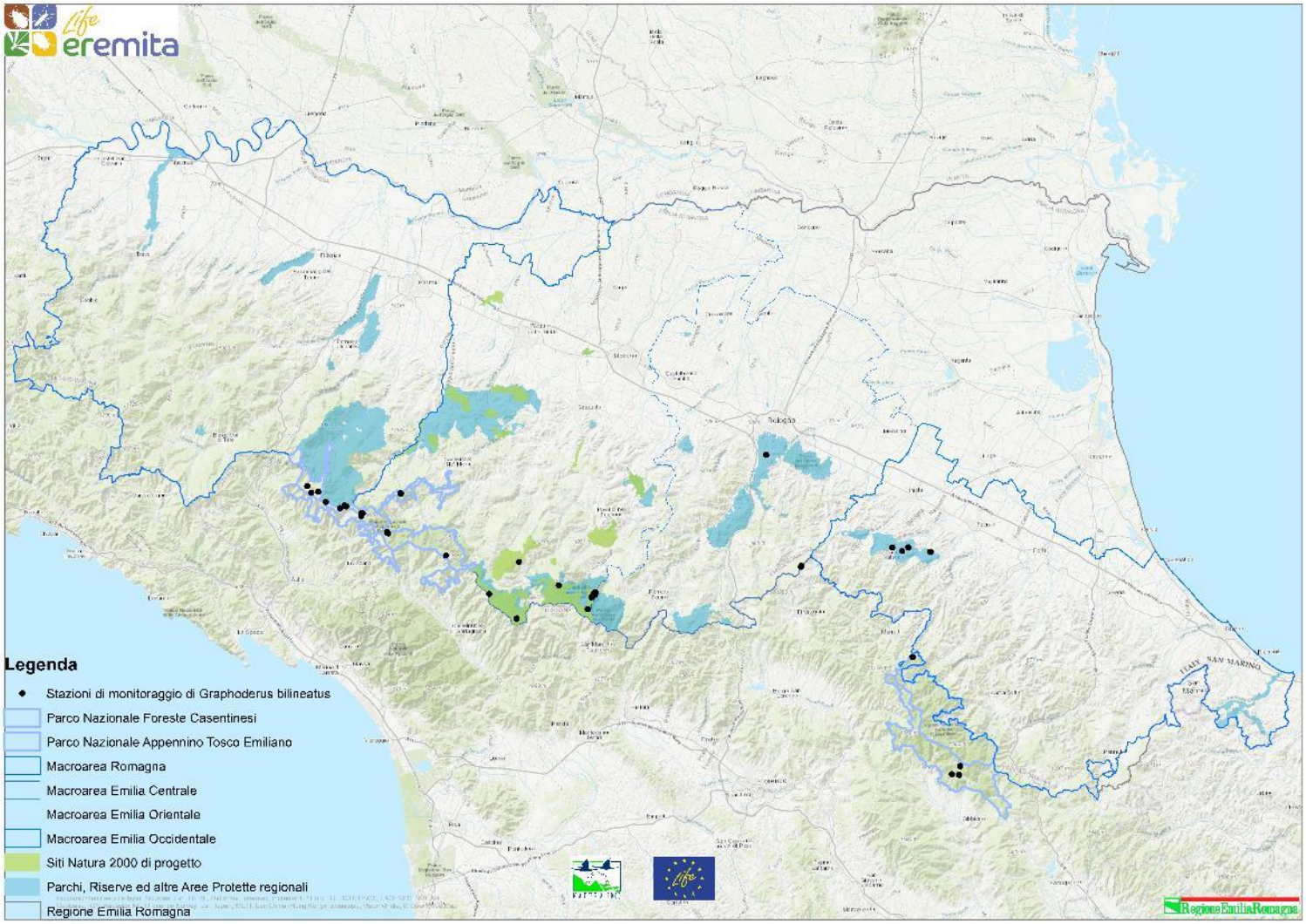
Results from Action A2

Osmoderma eremita – verified presence



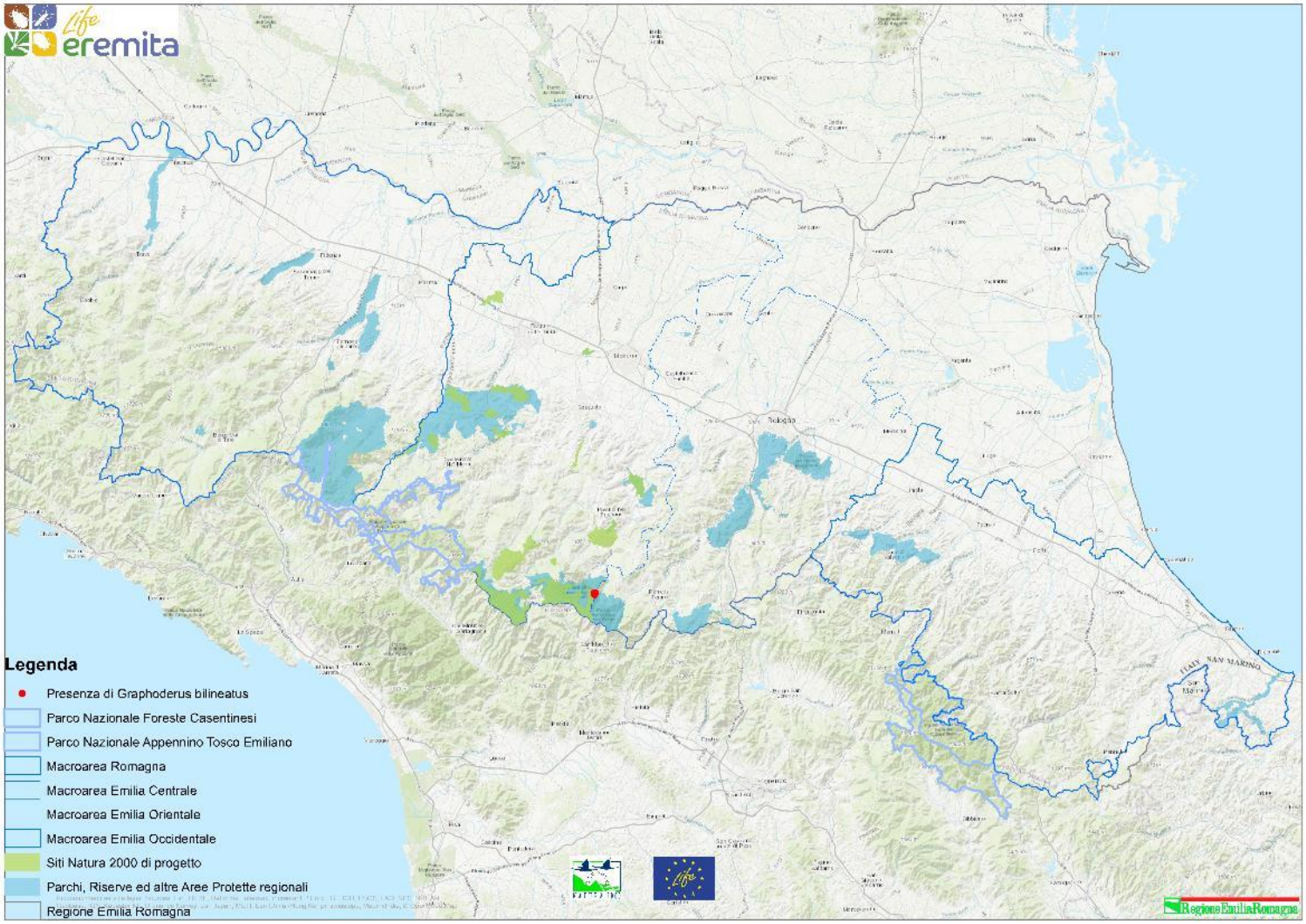
Results from Action A2

Graphoderus bilineatus - monitoring station



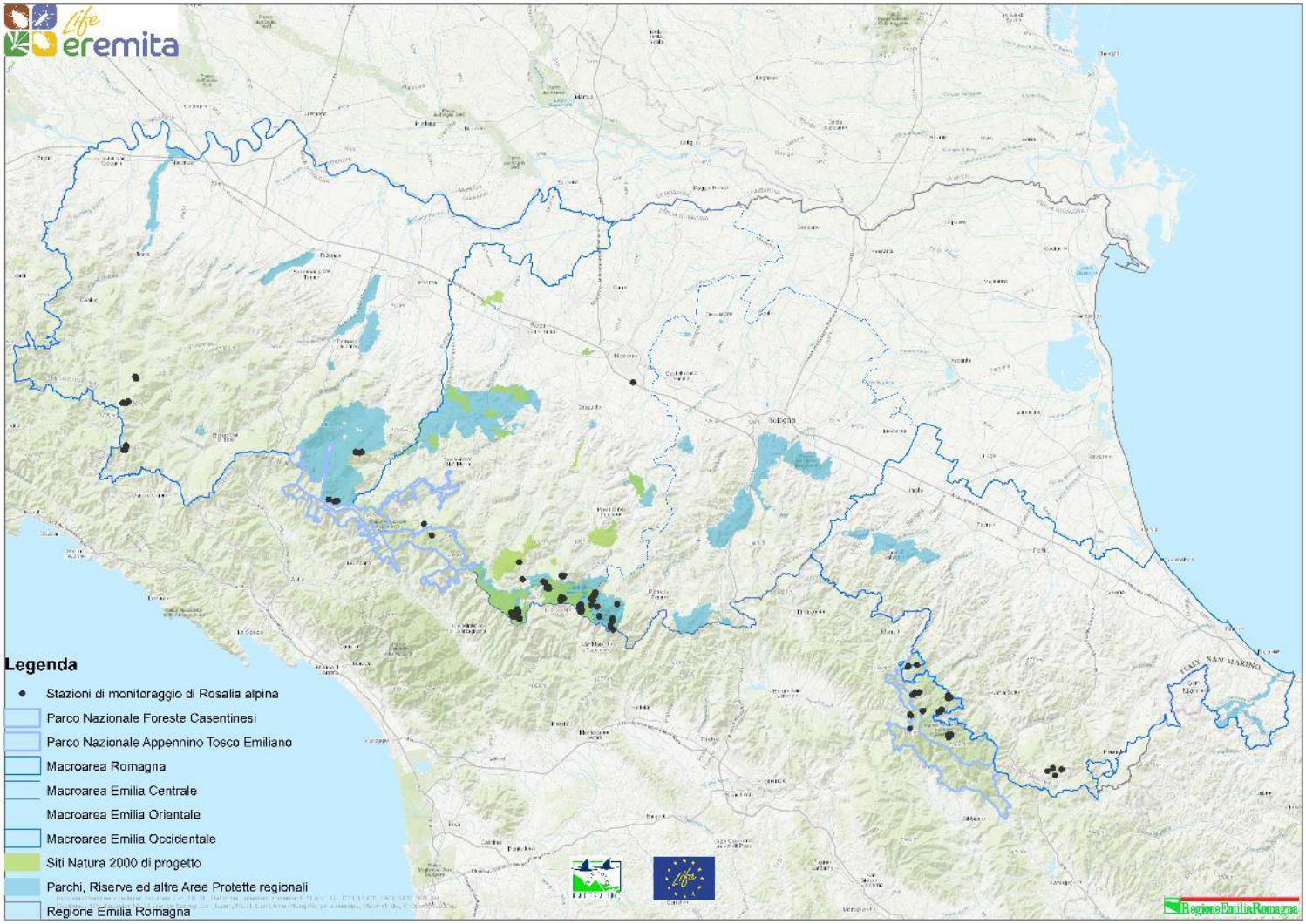
Results from Action A2

Graphoderus bilineatus – verified presence



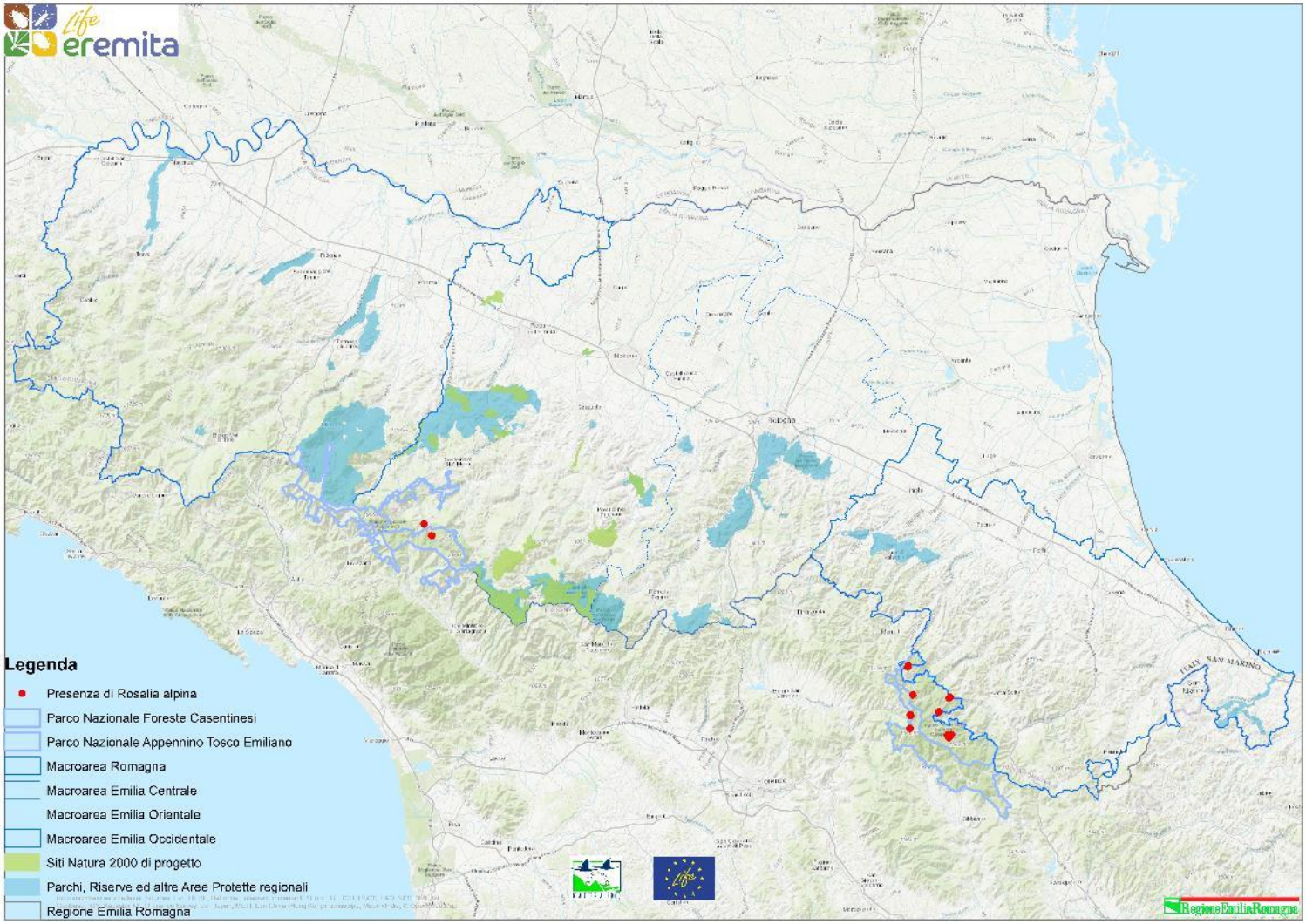
Results from Action A2

Rosalia alpina - monitoring station



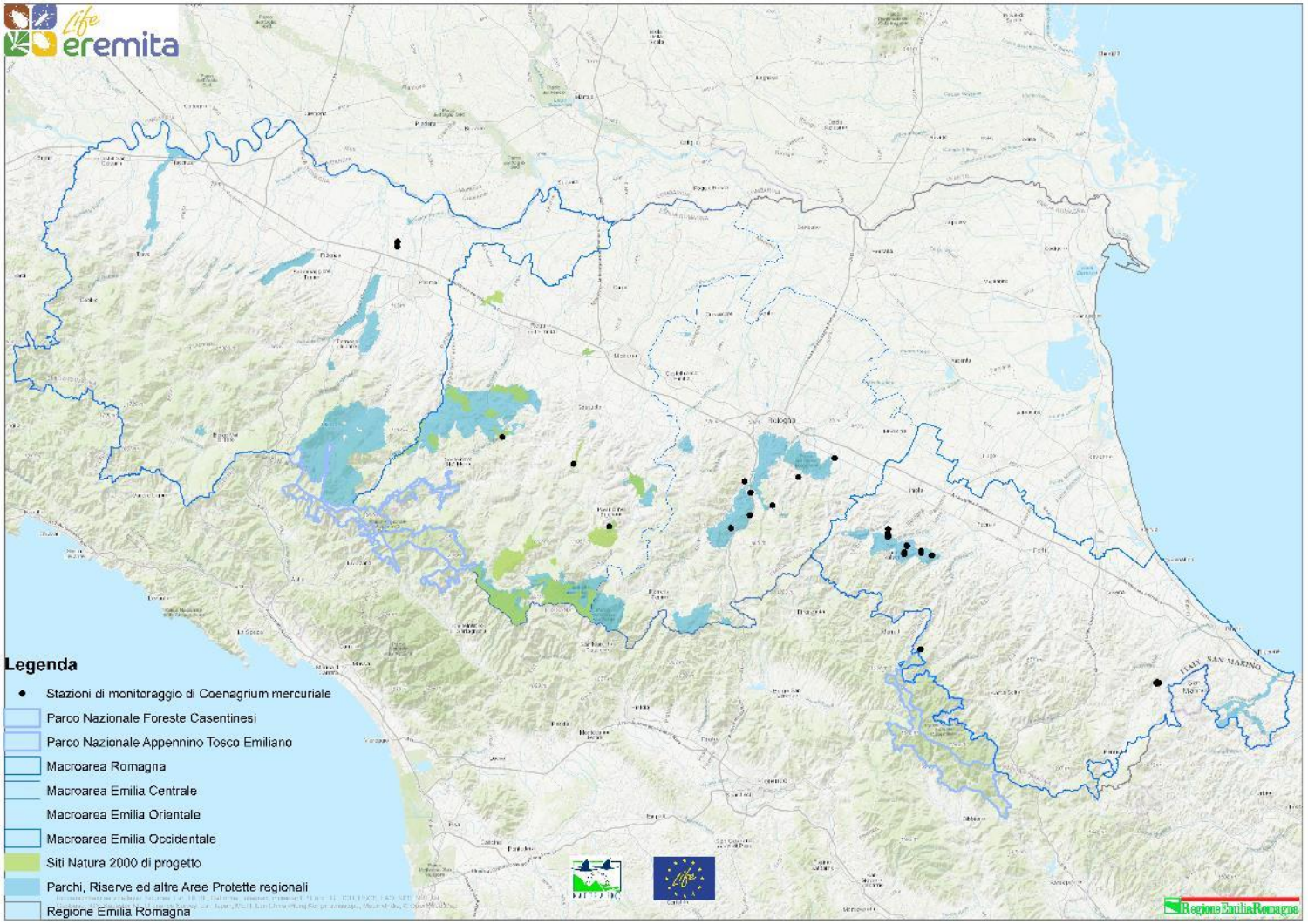
Results from Action A2

Rosalia alpina – verified presence



Results from Action A2

Coengarium mercuriale - monitoring station



Results from Action A2

Coenagrium mercuriale – verified presence

Results from Action A2 – Total specimens of *O. eremita*

Macroarea	SCI	Transect ID	Time	Monitoring typology	Total specimens (N)
PNFC	IT4080003	IT4080003_PNFC_Os_L2	08/07/16	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	24/07/16	VES	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	31/07/16	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L3	28/07/16	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	28/06/17	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	11/07/17	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	15/07/17	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	21/07/17	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	26/07/17	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	02/08/17	BCWT	2
PNFC	IT4080003	IT4080003_PNFC_Os_L2	04/08/17	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L7	03/07/17	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L7	11/07/17	BCWT	1
PNFC	IT4080003	IT4080003_PNFC_Os_L7	03/07/17	WMS	3
PNFC	IT4080002	IT4080003_PNFC_Os_L5	26/07/17	VES	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	05/07/17	VES	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	26/07/17	VES	1
PNFC	IT4080003	IT4080003_PNFC_Os_L2	29/07/17	VES	1
	IT4080003	-	24/10/17	WMS	1
	IT4080003	-	24/10/17	WMS	1
PNATE	IT4030002	IT4030002_PNATE_Os_L1	22-28/06/17	BCWT	2
PNATE	IT4030005	IT4030005_PNATE_Os_L2	10-20/06/17; 01-12-18 /07/17	BCWT	6
PNATE	IT4030005	IT4030005_PNATE_Os_L3	18/07/17	BCWT	3
PNATE	IT4030005	IT4030005_PNATE_Os_L4	18-22/07/17	BCWT	2
PNATE	IT4030003	IT4030003_PNATE_Os_L5	17-21- 23/07/17	BCWT	6
PNATE	IT4030001	IT4030001_PNATE_Os_L6	21/07/17	BCWT	1
	IT4080003	-	24/10/17	WMS	1
MAR	IT4070011	IT4070011_MAR_Os_L7	24/06/16	WMS	2
MAR	IT4070011	IT4070011_MAR_Os_L7	26/06/17	WMS	1
MAR	IT4050004	IT4050004_MAR_Os_L12	13/09/17	WMS	3
MAR	IT4070024	IT4070024_MAR_Os_L13	04/06/17	WMS	2
MAR	IT4070024	IT4070024_MAR_Os_L13	04/06/17	BCWT	5
MAR	IT_fuori_SIC Abbazzia Valsenio	ITfuoriSIC_MAR_Os_L14	26/05/17	WMS	5
MAR	IT4070016	IT4070016_MAR_Os_L16	22/08/17	WMS	1
MAR	IT4090003	IT4090003_MAR_Os_L20	20/06/17	BCWT	2
MAR	IT4070011	IT4070011_MAR_Os_L22	19/06/17	WMS	3
MAR	IT4070011	IT4070011_MAR_Os_L22	26/06/17	WMS	1
MAR	IT4070011	IT4070011_MAR_Os_L23	10/07/17	BCWT	1
MAR	IT4070016	IT4070016_MAR_Os_L25	13/09/17	WMS	1
MEOR	IT4050020	IT4050020_MEOR_Os_L2	12/07/17	VES	
MEOR	IT4050020	IT4050020_MEOR_Os_L2	17/07/17	BCWT, VES	
MEC	Fuori Sic	FuoriSIC_MEC_Os_L009		BCWT	1
MEC	Fuori Sic	FuoriSIC_MEC_Os_L007	05/08/17	BCWT	1
MEOC	IT4020021		13/07/16	VES	3
MEOC	IT4020021	MEOC_Taro_Osmo04		VES	4
MEOC	IT4020021	Chiesuole	09/06/17	VES	1

Results from Action A2 – Total specimens of *R. alpina*

Macroarea	SCI	Transect ID	Habitat tree ID	Time	Monitoring typology	Total speciments (N)
PNFC	IT4080003	IT4080003_PNFC_Ros_L1	IT4080003_PNFC_Ros_P56	15/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L1	IT4080003_PNFC_Ros_P57	21/07/2017	VES, CMR	2
PNFC	IT4080003	IT4080003_PNFC_Ros_L1	IT4080003_PNFC_Ros_P9	29/07/2017	VES, CMR	2
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P153	11/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P137	22/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P147	22/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P148	22/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P149	22/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P150	22/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P169	22/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P171	22/07/2016	VES, CMR	4
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P177	22/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P97	24/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P153	24/07/2016	VES, CMR	3
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P174	24/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P175	24/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P176	24/07/2016	VES, CMR	5
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P159	27/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P162	31/07/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P147	30/06/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P103	05/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P104	05/07/2017	VES, CMR	5
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P156	05/07/2017	VES, CMR	2
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P163	05/07/2017	VES, CMR	3
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P164	05/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P104	11/07/2017	VES, CMR	3
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P156	11/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P163	11/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P137	12/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P147	15/07/2017	VES, CMR	2
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P149	15/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P157	15/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L2	IT4080003_PNFC_Ros_P156	18/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L3	IT4080003_PNFC_Ros_P128	28/07/2016	VES, CMR	5
PNFC	IT4080003	IT4080003_PNFC_Ros_L3	IT4080003_PNFC_Ros_P128	20/08/2016	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L3	IT4080003_PNFC_Ros_P128	04/07/2017	VES, CMR	5
PNFC	IT4080003	IT4080003_PNFC_Ros_L3	IT4080003_PNFC_Ros_P128	12/07/2017	VES, CMR	3
PNFC	IT4080003	IT4080003_PNFC_Ros_L3	IT4080003_PNFC_Ros_P128	21/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L3	IT4080003_PNFC_Ros_P128	24/07/2017	VES, CMR	1
PNFC	IT4080002	IT4080003_PNFC_Ros_L5	IT4080003_PNFC_Ros_P183	31/08/2017	VES, CMR	
PNFC	IT4080002	IT4080003_PNFC_Ros_L5	IT4080003_PNFC_Ros_P184	31/08/2017	VES, CMR	
PNFC	IT4080003	IT4080003_PNFC_Ros_L6	IT4080003_PNFC_Ros_P109	27/06/2017	VES, CMR	2
PNFC	IT4080003	IT4080003_PNFC_Ros_L6	IT4080003_PNFC_Ros_P110	27/06/2017	VES, CMR	2
PNFC	IT4080003	IT4080003_PNFC_Ros_L6	IT4080003_PNFC_Ros_P116	27/06/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L6	IT4080003_PNFC_Ros_P107	03/07/2017	VES, CMR	9
PNFC	IT4080003	IT4080003_PNFC_Ros_L6	IT4080003_PNFC_Ros_P114	03/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L6	IT4080003_PNFC_Ros_P108	22/07/2017	VES, CMR	1
PNFC	IT4080003	IT4080003_PNFC_Ros_L8	IT4080003_PNFC_Ros_P180	29/07/2016	VES, CMR	1

Results from Action A2 – Total specimens of *G. bilineatus*

Macroarea	SCI	Basin name	Time	Monitoring typology	Total speciments (N)
MEC	IT4040001	Lago Pratignano	28/09/16	Bottle trap, net	1
MEC	IT4040001	Lago Pratignano	29/09/16	Bottle trap, net	1
MEC	IT4040001	Lago Pratignano	07/10/16	Bottle trap, net	1
MEC	IT4040001	Lago Pratignano	12/10/16	Net	1
MEC	IT4040001	Lago Pratignano	05/09/17	Net	1

Results from Action A2 – Total specimens of *C. mercuriale*

Part 1

Macroarea	SCI	Basin name	Time	Monitoring typology	Total speciments (N)
MAR	IT4070011	Rio Gambellaro	30/06/2016	VES	14
MAR	IT4070011	Rio Zolfatare	25/05/2016	VES	1
MAR	IT4070011	Rio Gambellaro	24/06/2016	VES	1
MAR	IT4070011	Rio Gambellaro	24/06/2016	VES	8
MAR	IT4090002	Rio 1 di Pietracuta	12/04/2016	VES	28
MAR	IT4090002	Rio 2 di Pietracuta	12/04/2016	VES	3
MAR	IT4090002	Rio 3 di Pietracuta	12/04/2016	VES	2
MAR	IT4090002	Rio 1 di Pietracuta	19/04/2016	CMR	67
MAR	IT4090002	Rio 2 di Pietracuta	19/04/2016	VES	12
MAR	IT4090002	Rio 3 di Pietracuta	19/04/2016	VES	7
MAR	IT4090002	Rio 1 di Pietracuta	28/04/2016	CMR	76
MAR	IT4090002	Rio 2 di Pietracuta	28/04/2016	VES	14
MAR	IT4090002	Rio 3 di Pietracuta	28/04/2016	VES	11
MAR	IT4090002	Rio 1 di Pietracuta	06/05/2016	CMR	154
MAR	IT4090002	Rio 2 di Pietracuta	06/05/2016	VES	24
MAR	IT4090002	Rio 3 di Pietracuta	06/05/2016	VES	17
MAR	IT4090002	Rio 1 di Pietracuta	12/05/2016	CMR	258
MAR	IT4090002	Rio 2 di Pietracuta	12/05/2016	VES	35
MAR	IT4090002	Rio 3 di Pietracuta	12/05/2016	VES	30
MAR	IT4090002	Rio 1 di Pietracuta	27/05/2016	CMR	64
MAR	IT4090002	Rio 1 di Pietracuta	27/05/2016	CMR	74
MAR	IT4090002	Rio 1 di Pietracuta	27/05/2016	VES	41
MAR	IT4090002	Rio 2 di Pietracuta	27/05/2016	VES	32
MAR	IT4090002	Rio 3 di Pietracuta	27/05/2016	VES	32
MAR	IT4090002	Rio 2 di Pietracuta	27/05/2016	VES	43
MAR	IT4090002	Rio 1 di Pietracuta	03/06/2016	CMR	240
MAR	IT4090002	Rio 2 di Pietracuta	03/06/2016	VES	34
MAR	IT4090002	Rio 3 di Pietracuta	03/06/2016	VES	17
MAR	IT4090002	Rio 1 di Pietracuta	15/06/2016	CMR	155
MAR	IT4090002	Rio 2 di Pietracuta	15/06/2016	VES	49
MAR	IT4090002	Rio 3 di Pietracuta	15/06/2016	VES	12
MAR	IT4090002	Rio 1 di Pietracuta	25/06/2016	CMR	174
MAR	IT4090002	Rio 1 di Pietracuta	25/06/2016	VES	10
MAR	IT4090002	Rio 1 di Pietracuta	25/06/2016	VES	38
MAR	IT4090002	Rio 2 di Pietracuta	25/06/2016	VES	7

Results from Action A2 – Total individuals of *C. mercuriale*
Part 2

Macroarea	SCI	Basin name	Date	Monitoring typology	Total speciments (N)
MAR	IT4090002	Rio 3 di Pietracuta	25/06/2016	VES	1
MAR	IT4090002	Rio 2 di Pietracuta	25/06/2016	VES	8
MAR	IT4090002	Rio 1 di Pietracuta	06/07/2016	CMR	95
MAR	IT4090002	Rio 2 di Pietracuta	06/07/2016	VES	11
MAR	IT4090002	Rio 3 di Pietracuta	06/07/2016	VES	5
MAR	IT4090002	Rio 1 di Pietracuta	17/07/2016	VES	8
MAR	IT4090002	Rio 1 di Pietracuta	06/04/2017	VES	1
MAR	IT4090002	Rio 2 di Pietracuta	06/04/2017	VES	2
MAR	IT4090002	Rio 1 di Pietracuta	13/04/2017	VES	90
MAR	IT4090002	Rio 2 di Pietracuta	13/04/2017	VES	25
MAR	IT4090002	Rio 2 di Pietracuta	13/04/2017	VES	8
MAR	IT4090002	Rio 1 di Pietracuta	19/04/2017	VES	43
MAR	IT4090002	Rio 1 di Pietracuta	30/04/2017	VES	53
MAR	IT4090002	Rio 1 di Pietracuta	05/05/2017	VES	216
MAR	IT4090002	Rio 2 di Pietracuta	05/05/2017	VES	101
MAR	IT4090002	Rio 2 di Pietracuta	05/05/2017	VES	56
MAR	IT4070011	Rio Gambellaro	07/05/2017	VES	1
MAR	IT4090002	Rio 1 di Pietracuta	11/05/2017	VES	186
MAR	IT4090002	Rio 2 di Pietracuta	11/05/2017	VES	13
MAR	IT4090002	Rio 2 di Pietracuta	11/05/2017	VES	54
MAR	IT4070011	Rio Gambellaro	11/05/2017	VES	7
MAR	IT4070011	Rio Gambellaro	17/05/2017	VES	14
MAR	IT4090002	Rio 1 di Pietracuta	18/05/2017	VES	128
MAR	IT4090002	Rio 2 di Pietracuta	18/05/2017	VES	58
MAR	IT4090002	Rio 2 di Pietracuta	18/05/2017	VES	17
MAR	IT4090002	Rio 1 di Pietracuta	25/05/2017	VES	71
MAR	IT4090002	Rio 2 di Pietracuta	25/05/2017	VES	52
MAR	IT4090002	Rio 2 di Pietracuta	25/05/2017	VES	14
MAR	IT4070011	Rio Gambellaro	31/05/2017	VES	23
MAR	IT4070011	Rio Stella	31/05/2017	VES	1
MAR	IT4090002	Rio 1 di Pietracuta	01/06/2017	VES	104
MAR	IT4090002	Rio 2 di Pietracuta	01/06/2017	VES	39
MAR	IT4090002	Rio 2 di Pietracuta	01/06/2017	VES	29
MAR	IT4070011	Rio Stella	05/06/2017	VES	3
MAR	IT4090002	Rio 1 di Pietracuta	12/06/2017	VES	71

Results from Action A2 – Total specimens of *C. mercuriale*
Part 3

Macroarea	SCI	Basin name	Time	Monitoring typology	Total speciments (N)
MAR	IT4090002	Rio 2 di Pietracuta	12/06/2017	VES	36
MAR	IT4090002	Rio 2 di Pietracuta	12/06/2017	VES	28
MAR	IT4070011	Rio Gambellaro	19/06/2017	VES	7
MAR	IT4090002	Rio 1 di Pietracuta	20/06/2017	VES	65
MAR	IT4090002	Rio 2 di Pietracuta	20/06/2017	VES	7
MAR	IT4090002	Rio 2 di Pietracuta	20/06/2017	VES	9
MAR	IT4090002	Rio 1 di Pietracuta	01/07/2017	VES	13
MAR	IT4090002	Rio 2 di Pietracuta	01/07/2017	VES	4
MAR	IT4090002	Rio 2 di Pietracuta	01/07/2017	VES	1
MAR	IT4090002	Rio 1 di Pietracuta	06/07/2017	VES	8
MAR	IT4090002	Rio 2 di Pietracuta	06/07/2017	VES	5
MAR	IT4090002	Rio 1 di Pietracuta	15/07/2017	VES	11
MAR	IT4090002	Rio 2 di Pietracuta	15/07/2017	VES	5
MAR	IT4090002	Rio 2 di Pietracuta	15/07/2017	VES	4
MAR	IT4090002	Rio 1 di Pietracuta	21/07/2017	VES	5
MAR	IT4090002	Rio 2 di Pietracuta	21/07/2017	VES	2
MAR	IT4090002	Rio 2 di Pietracuta	21/07/2017	VES	2
MAR	IT4090002	Rio 1 di Pietracuta	26/07/2017	VES	3

Thank you for your attention!

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