

## Il progetto LIFE LETSGO GIGLIO e la tutela della biodiversità Francesca Giannini, Francesca Puppo, Francesco De Pietro



### Conferenza finale

## Isola del Giglio 23,24 Ottobre 2024

















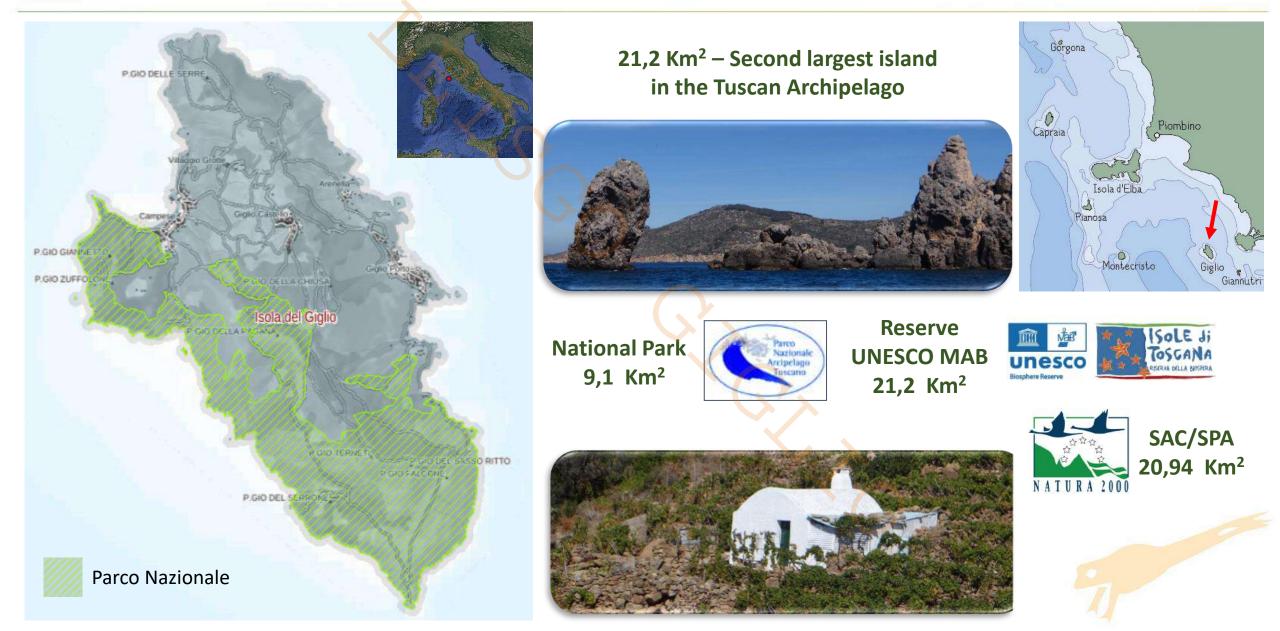
# **Giglio island**





















256,6									
	Q <sub>x</sub>								
	52,97 37,58 26,36	31	45	0					
		11,31	10,45	8,16	0,45	0,13	0,13	0,04	

COVER - HA

 ✓ FLORA: over 500 species
 ✓ 70 species of conservation concern 8 endemic species





















 ✓ 28 species of invertebrates of conservation interest: 3 gastropod molluscs and 25 insects (17 beetles, 3 dragonflies, 4 butterflies and 1 grasshopper).

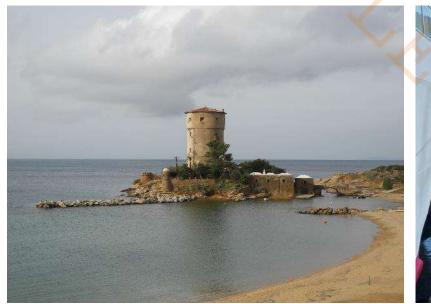
### ✓ 1 amphibian

- ✓ 3 reptiles of conservation interest
- ✓ 58 birds of conservation interest:
   25 included in Annex I of Habitat Directive
  - 7 bat species listed in Habitat Directive



## Human context







✓ Resident population - 1322 (Istat 2023)

✓ Tourism
 Hospitality: 18 facilities
 Arrivals 19631
 Touristic presence 66069
 (Data 2023, from Tuscany Region)





80% of resident workers are employed in the tertiary sector (trade or services) manufacturing and agricultural activities employ about 10% of the workforce, roughly the same percentage as the construction sector.



## www.lifegogiglio.eu







### **Species and habitat targets**

















### Improving Nature, Species and Biodiversity

✓ Protection of habitats

6220\* - Pseudo-steppe with grasses and annuals of the Thero-Brachypodietea (10.5 ha)

3170\* - Mediterranean temporary ponds (approximately 0.13 ha) 8220 - Siliceous rocky slopes with chasmophytic vegetation (8.16 ha)

#### **Coastal habitats**

1240 -Vegetated sea cliffs of the Mediterranean coasts with endemic Limonium spp., 1430 - Halo-nitrophilous scrubs, 5320 -Low formations of Euphorbia close to cliffs (2,5 ha)

9340 - Quercus ilex and Quercus rotundifolia forests (256 ha)

#### Protection of Species

The population of *Discoglossus sardus* is expected to increase.

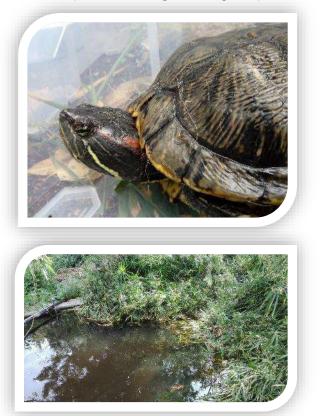
Provide habitats for resting and feeding of migratory birds, for nesting birds (such as *Sylvia undata, Lanius collurio, Caprimulgus europaeus*) as well as the best habitat for *European Euleptes*.



### **RESTORING ECOSYSTEMS**



#### Eradication of red-eared slider (*Trachemys scripta*)



# Construction of artificial ponds to support reproduction of *D. sardus*



# Restoration of artificial pine forests through selective thinning and acorn sowing





 ✓ Direct benefit for the protection of the Thyrrenian painted frog (*Discoglossus sardus*)  Improving the quality and natural character of forests



## **REDUCING THREATS**











Eradication and management of two alien animals

- Mouflon (Ovis aries)
- Wild rabbit (Oryctolagus cuniculus)



Local removal of *Carpobrotus* spp., an invasive alien species, from some coastal areas







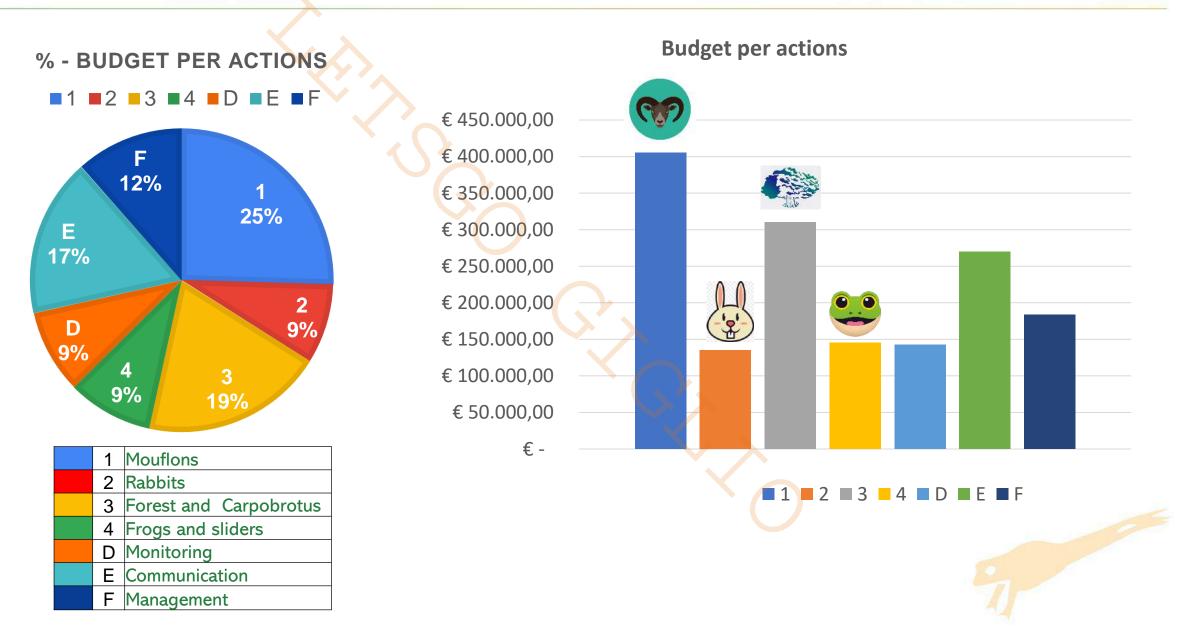
- ✓ Direct benefit for the protection of forest and open habitats
- ✓ Mitigate the impacts on vineyards

 ✓ Improving conservation status of coastal habitats



### PLANNED BUDGET













**To date, no mouflons have been reported** 

- □ Final monitoring session is ongoing
- □ Increasing know-how regarding the use of capture techniques and sterilization of ungulates in the field

- ✓ More than 3 years of activity
  - ✓ 130 individuals were removed from the island
- ✓ 54 were relocated to wildlife centers
- Removal techniques: trapping by elastic snares and vertical nests, culling

**Over 1260 man/days of field work** 

 The change in the eradication strategy led to a significant increase in costs, rising from the planned 376,000 euros to 576,000 euros



### LOCAL ERADICATION OF HOTTENTOG FIG

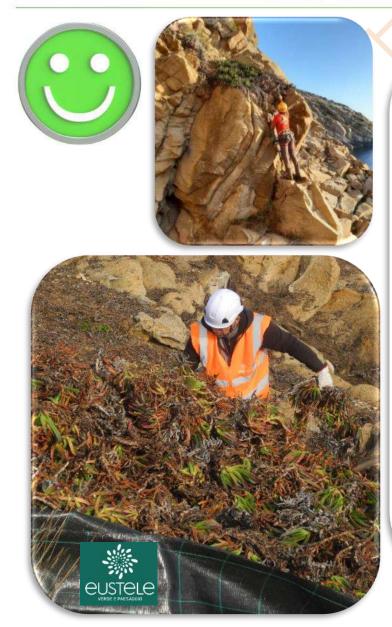


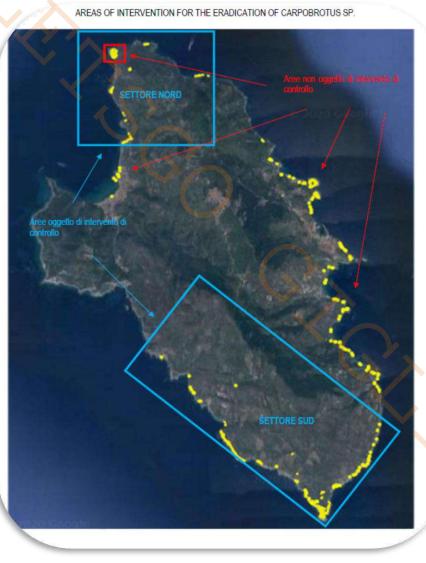












- ✓ Period: 3 years of activity
- Carpobrotus was removed from a surface area of 3.1 - hectare area, including steep cliffs
- Manual removal and mulching sheet coverage
- 7 control interventions on regrowth

   due to the high number of
   seedlings that sprouted under
   favourable climatic conditions

Increasing know-how regarding the execution of work on cliffs

IMPORTANT

Carrying out monitoring over the next few years



## **REMOVAL OF RED-EARED SLIDER**







NEMO





Translocation to authorized wildlife recovery centres

- 2 Trachemys scripta from an artificial pond of Hermitage Hotel
- 1 more specimens reported by a citizen in Giglio Campese

No other reports, including the stream near Hotel Hermitage

IMPORTANT



## **ARTIFICIAL PONDS**







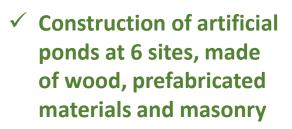


NEMO









Perna Elio & C Srl

IMPORTANT

- Increasing the availability of suitable sites for the species
- □ Promoting good practices among the island's farmers, encouraging them to restore existing ponds or create new ones



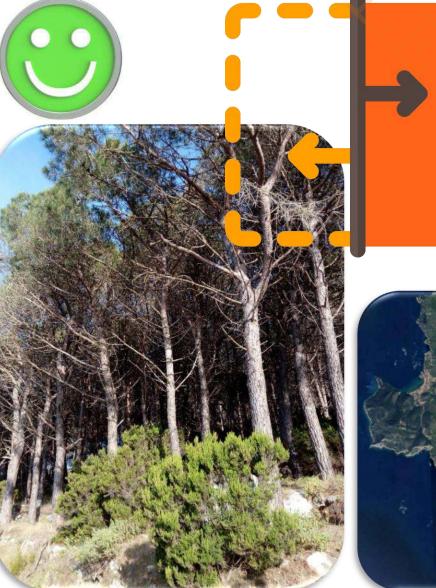
### PINE FOREST TINNING















- 4.7 hectares of artificial pine forests Selective thinning
- Sowing of holm oak acorns collected on the island  $\checkmark$
- Restoring the forest to a more natural state and allowing Mediterranean scrub species to establish, recreating the ecological conditions for the growth of holm oak.
- Increasing the stability of the remaining pine population



**IPORTAN** 



## **Reducing Wild Rabbit**











- ✓ 4 certified operators to carry out the capture, farmers with properties on the island
- Only one actually set up the traps.
   NEMO personnel, who provided tutoring for three consecutive seasons.
- An overall trapping effort of 405 days\*trap (dt) from June to December 2022 – only 6 rabbits. Estimated trapping efficiency was 0.015 rabbit/dt.
- An intensive trapping campaign carried out during autumn 2023 showed extremely low capture rates for the species, with only 2 animals caught, at least during this time of year (capture efficiency: 0.001 Rabbit/daysTrap).

✓ 7 different types of traps were tested



## Monitoring



Percentage cover



2020

2023

2022

2020





2023

2022

2021

2020

NEMO







FLORA HABITAT FAUNA: Thyrrenian painted frog, Mouflon, Wild rabbit, Lepidoptera



### COMUNICATION AND RAISING AWARENESS







NEMO



- Public events: more than 400 people participated
- ✓ Educational Activities
   Various activities were conducted
   with more than 100 children
- Seminar activities were organized with students from the University of Turin and Florence
- ✓ Training updates for park guides
- 2 bioblitz events were organized to remove Carpobrotus – More than 80 students from Tuscan Universities participated



### Perception related to the project







