Monitoring the effects of the conservation efforts on impacted habitat through the control of feral ungulates on three islands of the Tuscan Archipelago: Montecristo, Giglio and Capraia Islands

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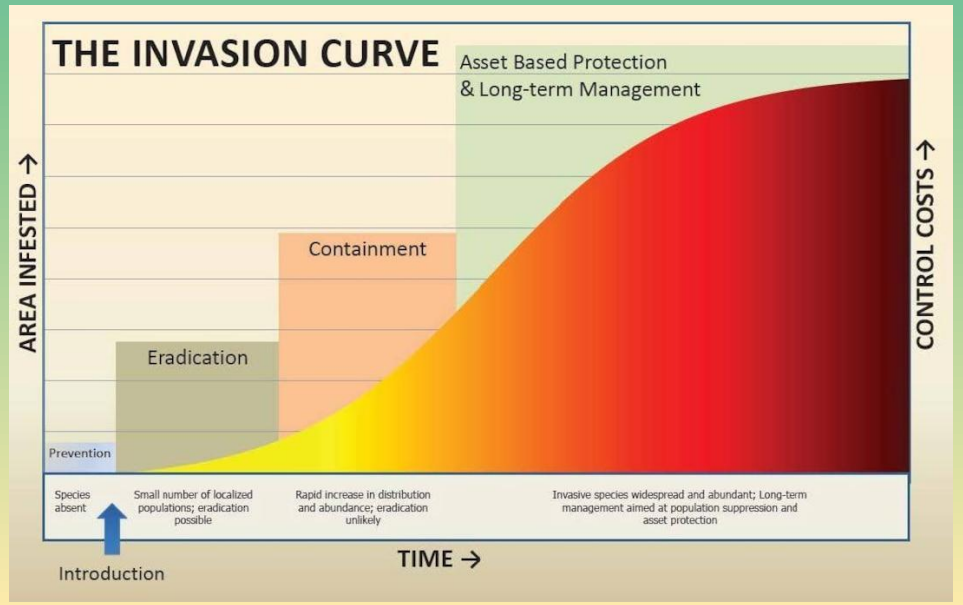
Biological Invasions

Wild or feral ungulates can conspicuously modify the environment they live in.

Mainly caused by:

- Trampling
- Grazing



Mouflon (*Ovis aries*) on Giglio Island

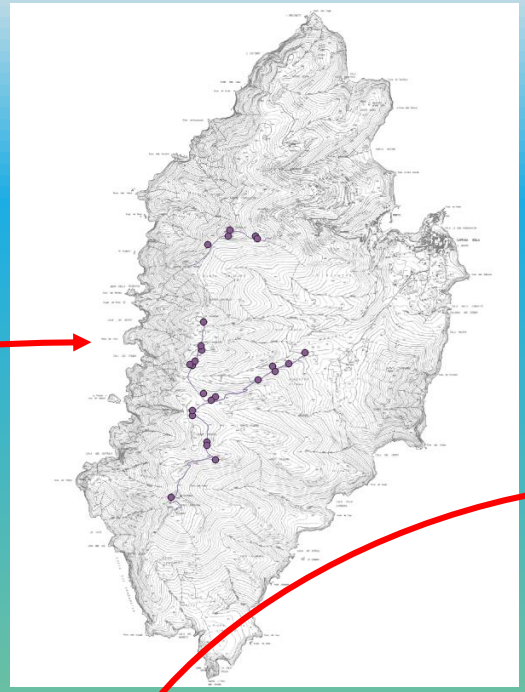
Goat (*Capra hircus*) on Montecristo Island

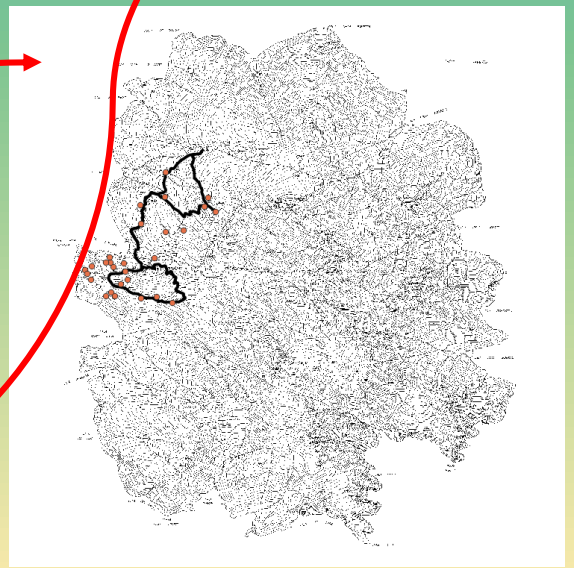
Significant impacts are visible on grassland and shrub areas, caused by the modification of the dynamics of renewal of natural populations due to the removal of young seedlings and shoots

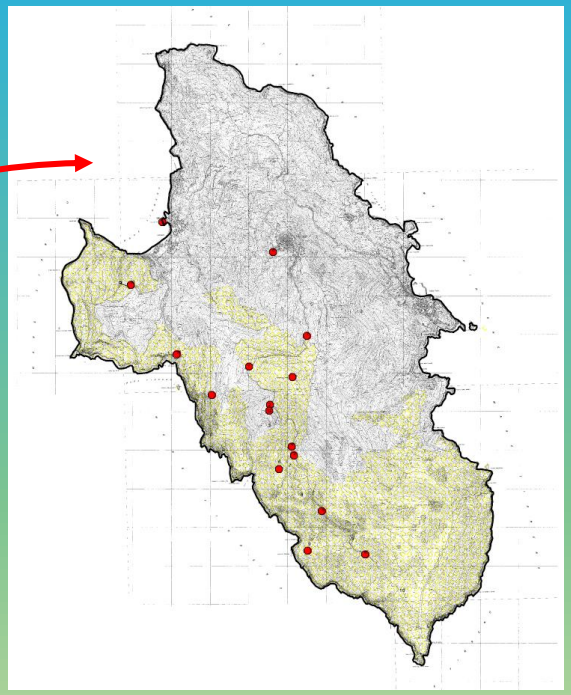
The Tuscan Archipelago

Mediterranean islands are fragile environments. The characteristics of size, shape and degree of isolation make many of these islands ecologically and culturally unique.

However, these same characteristics also make islands vulnerable ecosystems.

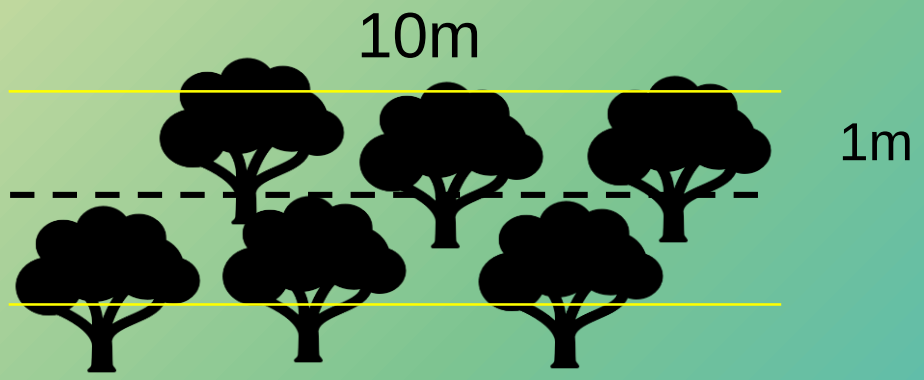






Methods

- Measure the effect of the three populations of ungulates by the same method on the three islands;
- Randomly selected transects.



DATA	19/5/23	CAMPAGNA	MUFLONI 2023 GIUGNO		
Transetto	1 a m	Coord X	654265	Mark	MUF 06 NEW
VEGETAZIONE	Lecceta	Coord Y	4691423	GPS	
Operatore	LL, ES, VV				

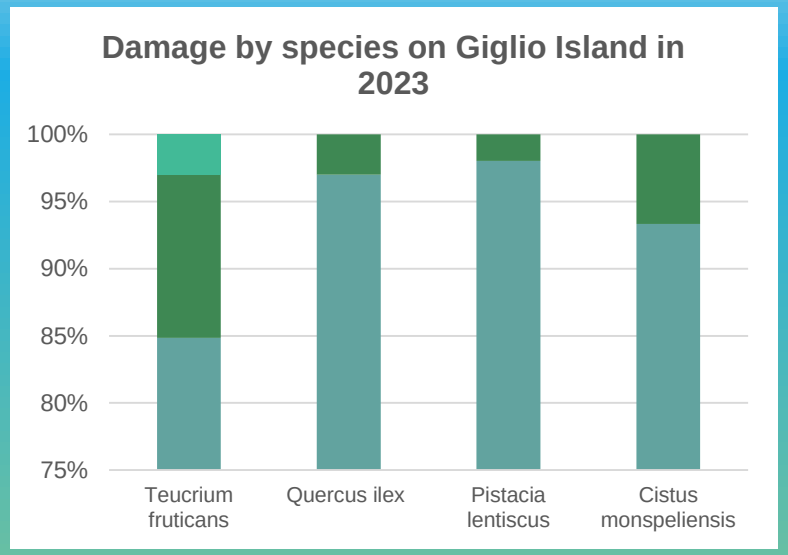
Copertura Strato Arboreo	90%
Copertura Strato Arbustivo	10%
Copertura Strato erbaceo	40%

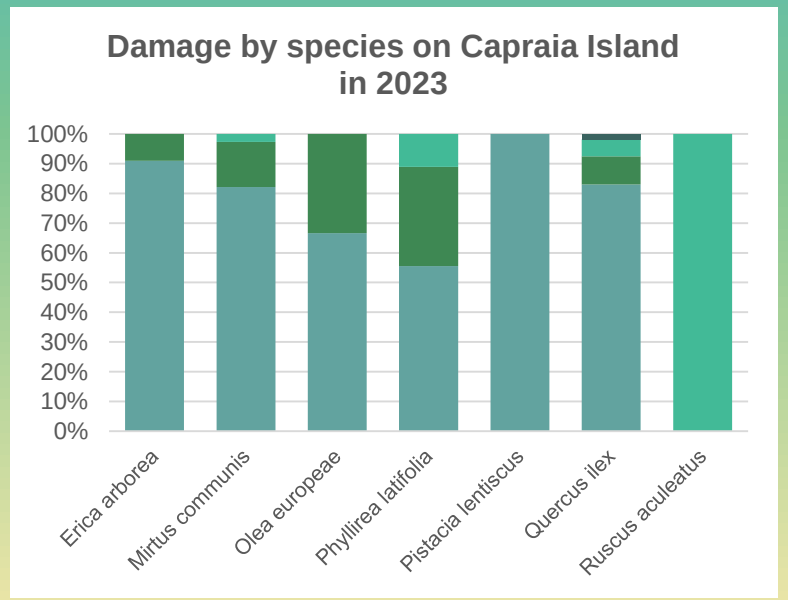
DANNO STRATO ERBACEO	
Numero PELLET GROUPS	

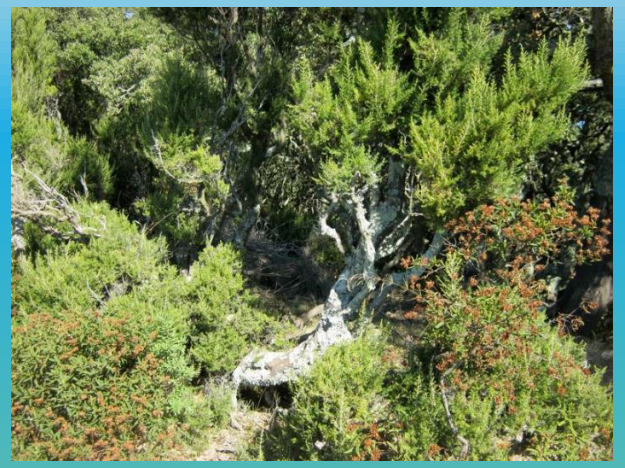
Specie legnose*	0	1	2	3
Leccio	RRR X			
Lentisco	X X PPP			
Pillirea	XX			
Teucrium		X		
Ginepro	X			

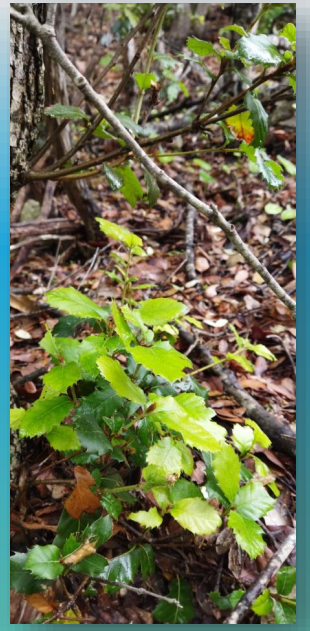
Preferences on consumption in 2023

Mouflons

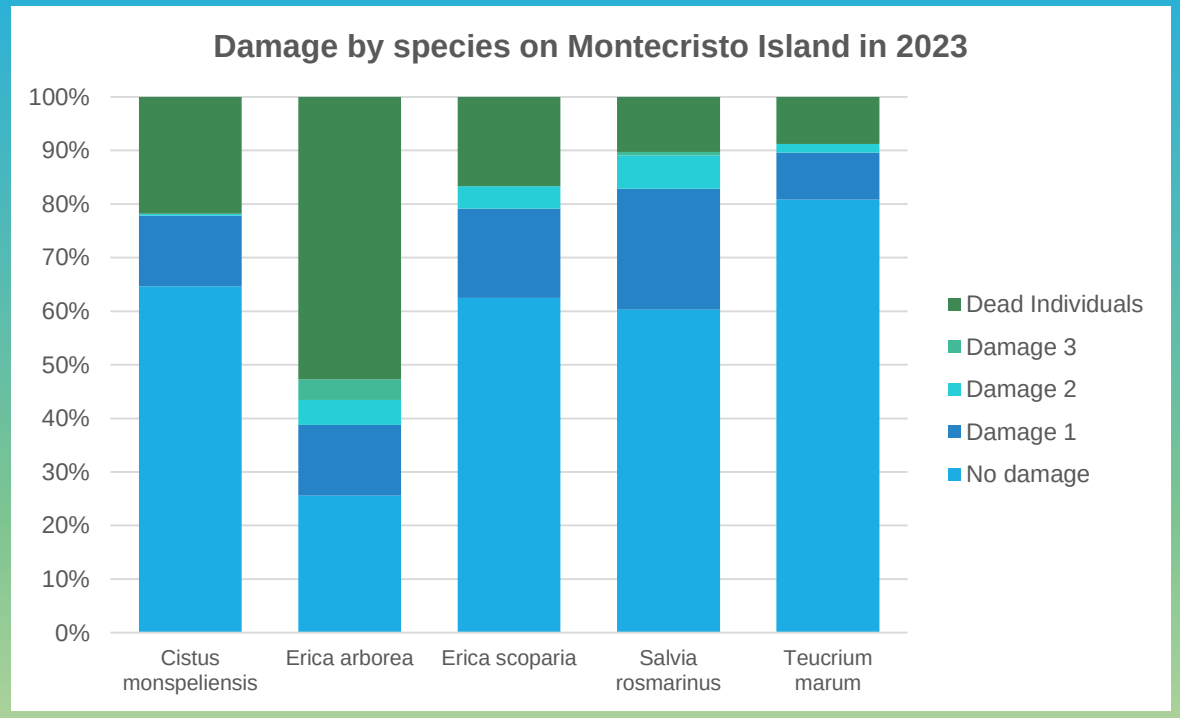




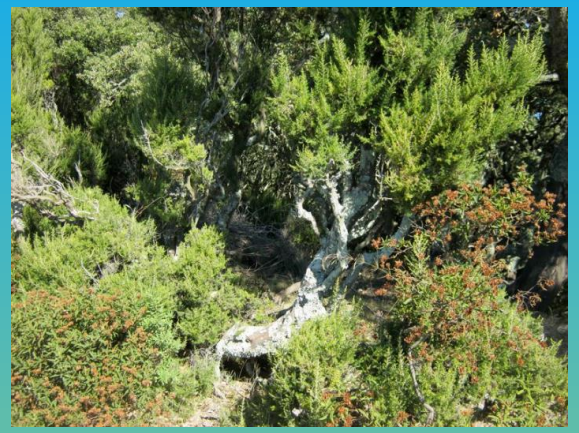




Preferences on consumption in 2023

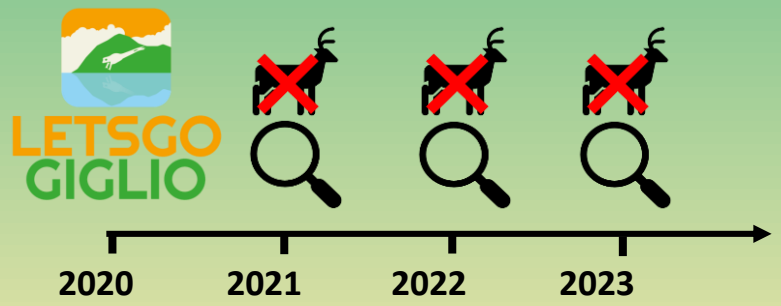


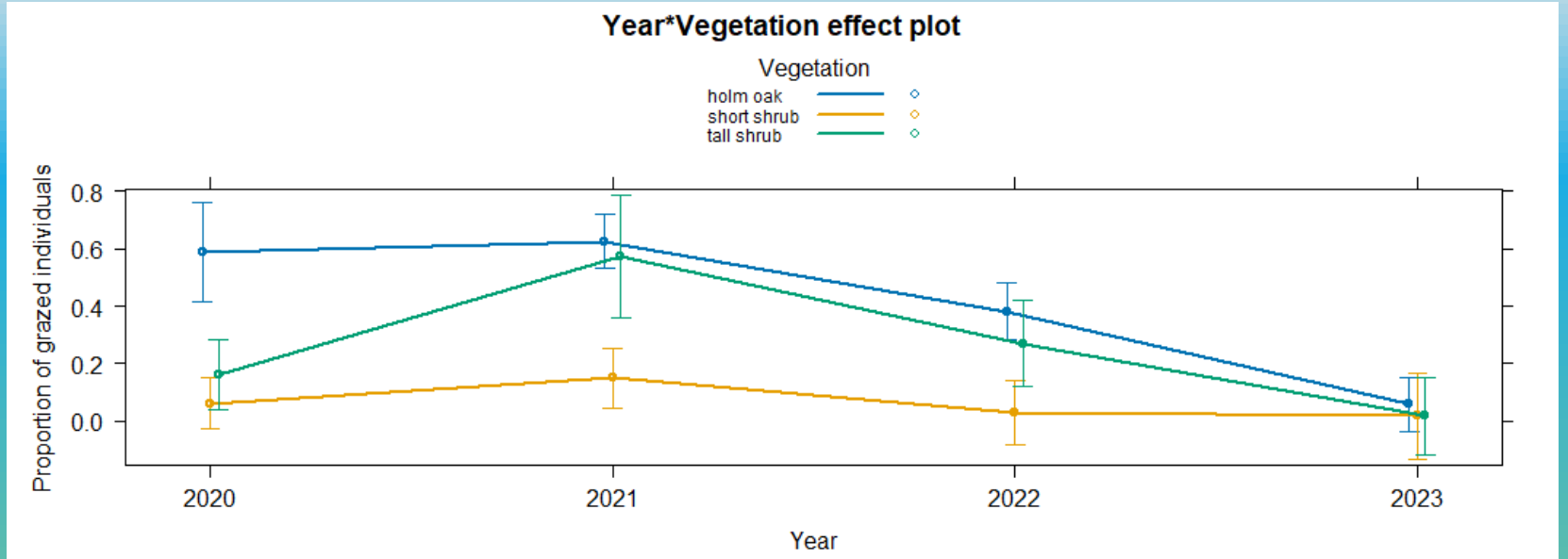
Wild goats

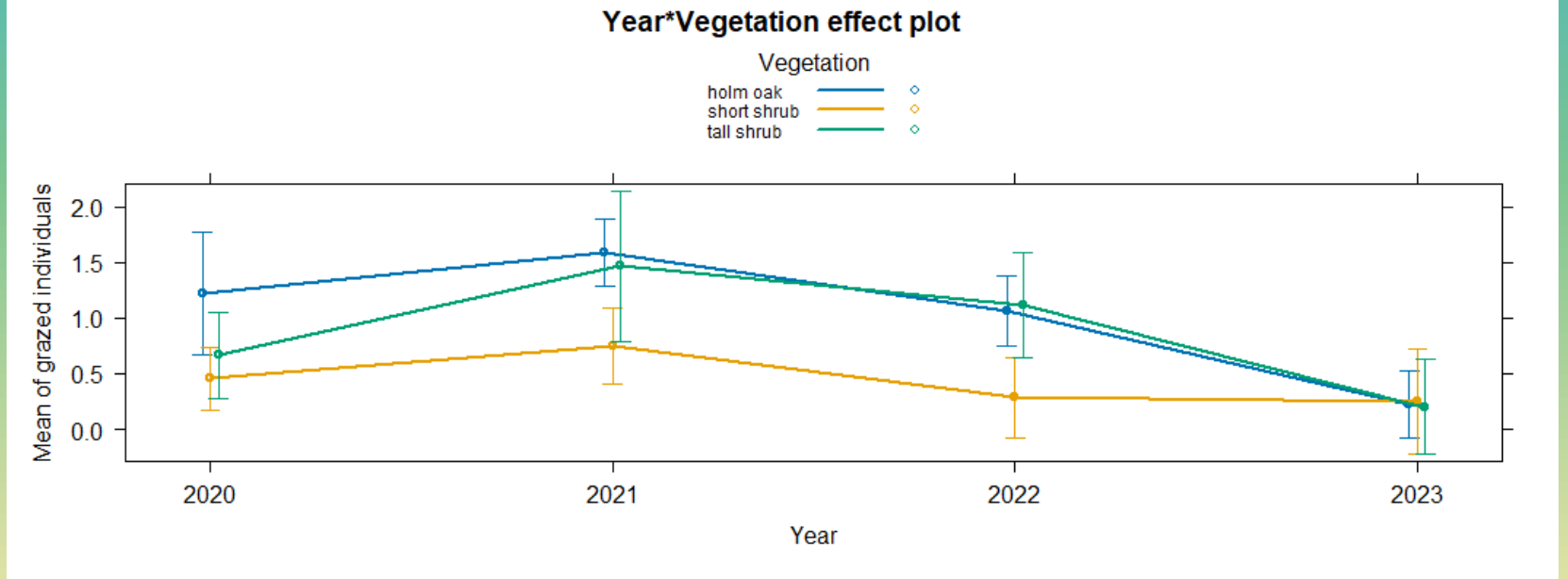


Giglio Island

- LET'S GO GIGLIO started in 2020;
- Progressive removal of mouflons from the island started in 2021;
- Lower levels of damage were found in areas of low scrub;
- Greater load of grazing in correspondence to where most of the mouflon population was initially released.

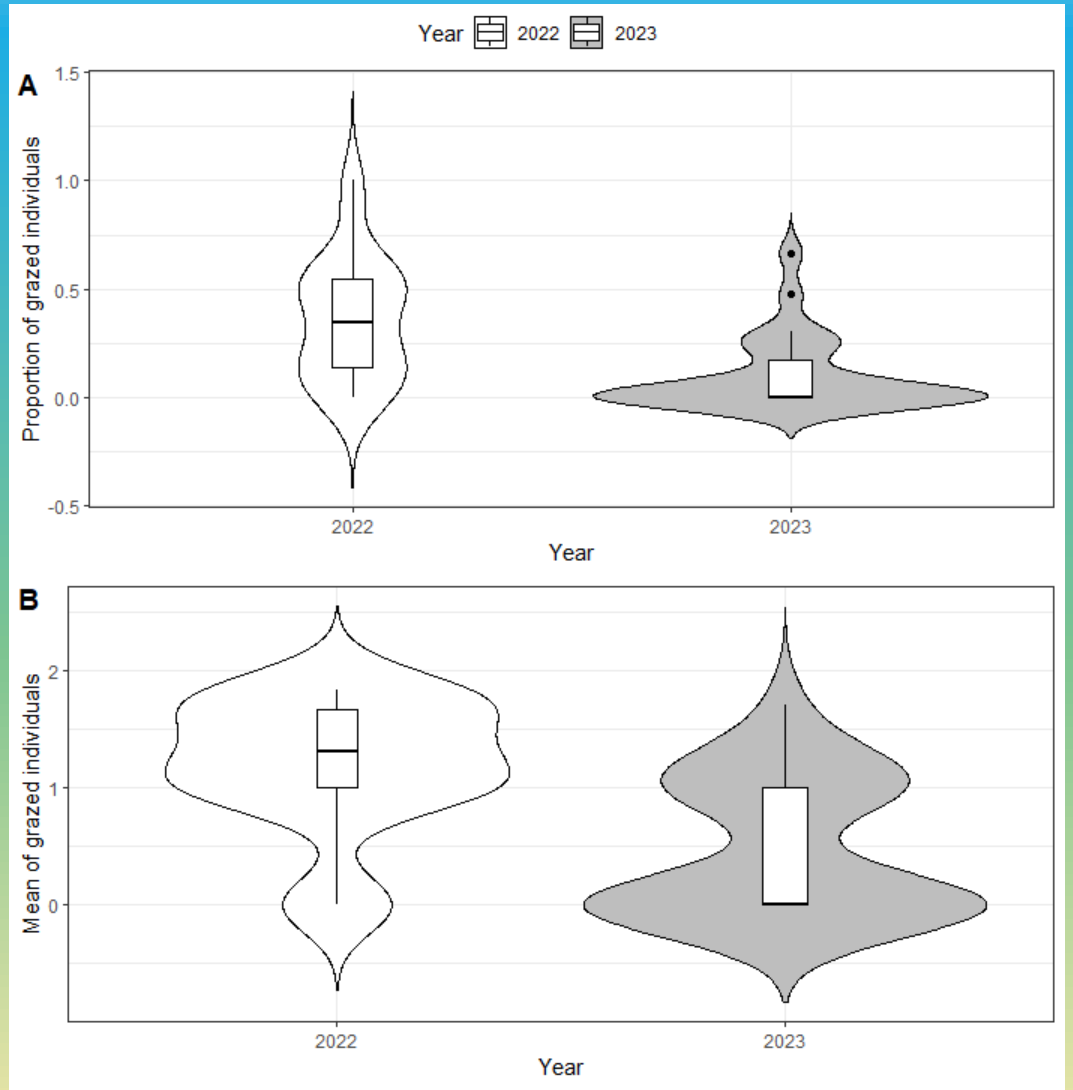






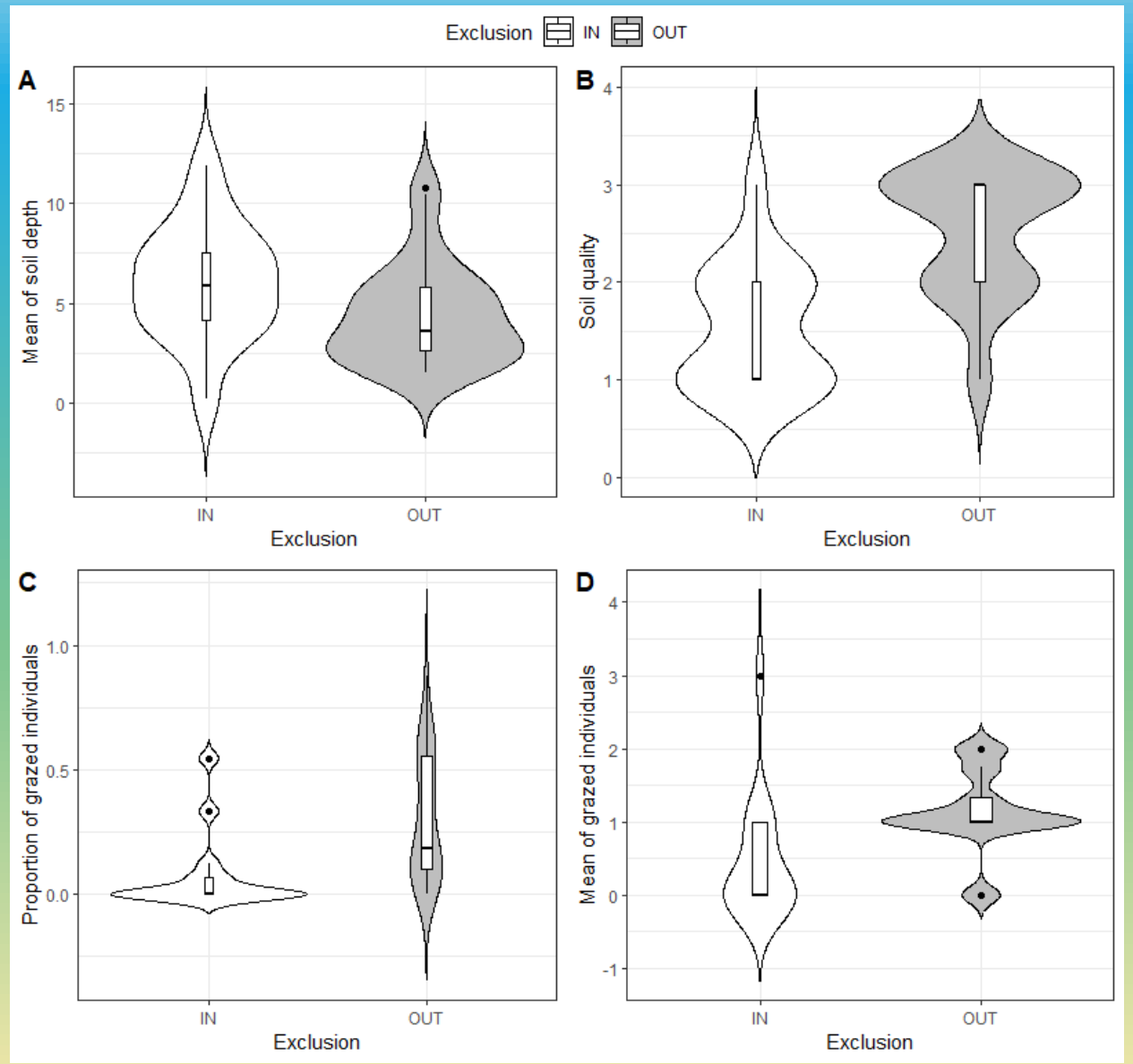
Capraia Island

- Less data, monitoring started recently;
- Recording of baseline data to implement future conservation strategies;
- Modification of the dynamics of renewal of natural populations due to the removal of young seedlings and shoots.



Montecristo Island

- Quality of soil analysis;
- Quantification of damages on vegetation;
- Almost no herbaceous cover was found outside the exclusion zone.



life montecristo 2010
Eradicazione di componenti florofaunistiche aliene invasive e tutela di habitat nell'Arcipelago Toscano

Conclusions

Giglio Island

- Significant reduction of damages on Giglio Island;
- Factual feedback on current conservational operations;

FUTURE PLANS:

- Completion of the conservation strategies started and follow-up monitoring of the results.

Capraia Island

- Results highlight a potential impact on the renovation of the most evolved woody communities;

FUTURE PLANS:

- Collecting the baseline to prepare and plan future conservation strategies.

Montecristo Island

- Quality of soil decreases outside the exclusion zone, showing the effect of trampling of goats;
- Differences in vegetation between in and out of the exclusion zone

FUTURE PLANS:

- Floristic analysis to identify the changes in vegetation between in and out of the exclusion zone.

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