

# Save the Mouflons of Giglio Island



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## Conserving Our History & Protecting Nature

In opposition to the project conceived by the Tuscan Archipelago National Park Authority, entitled "*LetsGo Giglio*", we have created "*Save Giglio*", in order put an end to the Park Authority's project that is already causing damage to our beautiful island.

The logo of our initiative represents a view of Giglio in which an adult mouflon stands in its grandeur on top of a promontory. It represents the past of Giglio, its history and its beauty. Next to it there is a mouflon lamb, representing the uncertain future, with its fragility and defenselessness given the threat posed by the project of the Park Authority. In the background of the logo the Faraglione rises from the sea, symbol of the promontory where the mouflons were brought in the 1950's to create a wildlife reserve and save this species from extinction.

"*Save Giglio*" is an initiative that aims to help these incredible creatures. We have little time to save this beautiful part of the nature of Giglio.



## Tyrrhenian Mouflon, *Ovis gmelini musimon*

The Tyrrhenian Mouflon, *Ovis gmelini musimon*, is the ancient ancestor of all domestic sheep that have accompanied the Mediterranean civilization, giving us wool, milk and sustenance for millennia. The mouflon has been present on the Mediterranean islands for about 10,000 years. On the Mediterranean island of Giglio, the mouflons present today are the residual population of a conservation project carried out in the 1950s which successfully helped save the species from extinction at a time when it was in serious danger.

Today, the mouflon is protected and honored on other Mediterranean islands: in Cyprus, the mouflon is protected and considered the national animal. The mouflon often appears in its artwork, stamps and coins. In Corsica, hunting mouflons has been prohibited since 1953. In more recent times, a law was passed to protect Sardinia's mouflons from hunting and they are now highly protected on the large islands close to us.

The ancients called the mouflon "*Capra aegoceras*". The name "*Isola del Giglio*" comes from the latinization of the term of the ancient Greek "*Aighilion*" into "*Aegilium*": Island of the Goats.





Prof. Alessandro Ghigi  
(1875 - 1970)



Prof. Augusto Toschi  
(1906 - 1973)

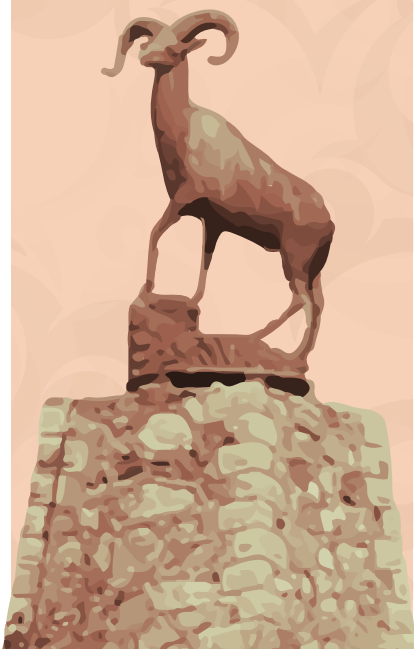


Prof. Renzo Videsott  
(1904 - 1974)

## The Mouflons of Giglio & the Conservation Project of the 1950's

For Giglio Island, the mouflon has great naturalistic, historical and scenic value. While the Park Authority erroneously claims that mouflons have been introduced for hunting purposes in recent times, the truth is that our mouflons are the residual population of a conservation project of the 1950s which successfully contributed to saving the species from extinction. This nucleus was in fact established in 1955 by Professor Ugo Baldacci, thanks to the interest of some of the most important Italian zoologists of the time, Alessandro Ghigi, Augusto Toschi and Renzo Videsott and represents a success in the history of Italian Nature conservation. From this reserve, the mouflons were brought to Reserves and Parks in Sardinia and all over Italy in order to repopulate these areas.

It should also be noted that the mouflon of Giglio, since it was introduced on this island, has remained genetically uncontaminated since there are no flocks of sheep here, which instead abound in Sardinia, Corsica and Cyprus, where there are the largest number of individuals of mouflon in the Mediterranean.



*Monument in the historic Franco Reserve with a bronze statue of a mouflon*

# Giglio Mouflons: Scientific Study Reveals Ancestral DNA, Elsewhere Lost

An independent scientific study conducted on the genetics of Giglio Island Mouflons entitled "*Islands as Time Capsules for Genetic Conservation: The Case of the Giglio Island Mouflon*" was recently published in the scientific journal *Diversity*.

The results of the work reveal that the mouflons found on Giglio are most likely a relict population elsewhere extinct. The scientists conclude that Giglio's mouflons have a high conservation priority and should not be eradicated, but rather safeguarded as a unique element of Biodiversity.

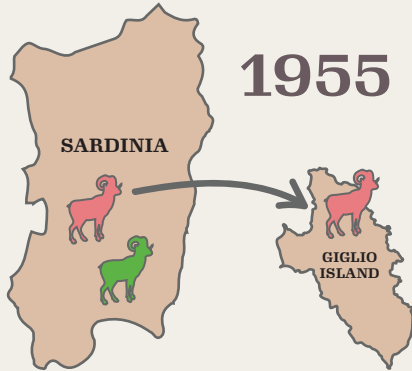
Today, Giglio Island's mouflon population has been mislabeled by the Tuscan Archipelago National Park Authority as an "invasive alien" species in its "*LIFE LetsGo Giglio*" project, and the remaining individuals will be translocated and surgically sterilized or culled, leading to their disappearance. The Park Authority has not provided independent local studies to examine the important issue of genetics or to support its claim that mouflons pose a threat to biodiversity in the specific context of Giglio Island. The Park Authority's devised and implemented eradication plan will cause irreversible loss from a biodiversity perspective. To date, very few mouflons remain on Giglio, the exact number of which has not yet been surveyed. Since the Board of Directors of the Tuscan Archipelago National Park Authority decided in 2007 to eradicate mouflon from the island, about one hundred mouflons have been killed on Giglio, with an average of about 8 shootings per year. With the implementation of the *LIFE LetsGo Giglio Project*, about 40 mouflons have been captured and relocated, and some have been killed. Although there is no official estimate of the size of the Giglio mouflon population over time, (predating the "*LIFE LetsGo Giglio*" project), anecdotal evidence suggests a number ranging from a minimum of 25 to a maximum of 100 individuals.

Scientists call for immediate cessation of capture and relocation efforts, killing and surgical sterilization imposed by the Park Authority. The results of the genetic study identified Giglio Island's mouflon population as a high priority for conservation, and the limited number of individuals remaining has endangered this priceless and unique gene pool.

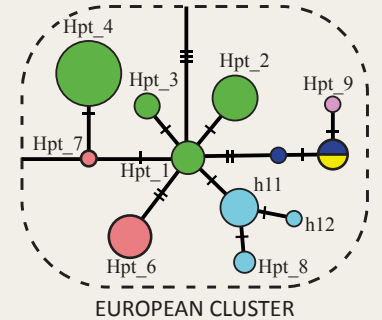
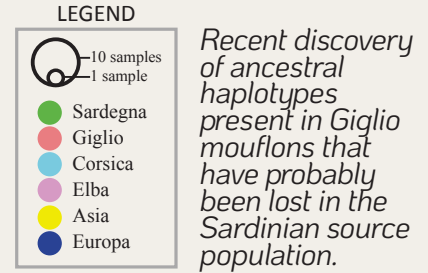
# THE MOUFLON OF GIGLIO

## *a Gem of Biodiversity*

Conservation Project: in 1955 some Sardinian mouflons were moved to Giglio



Some of the ancestral DNA of the Sardinian Mouflon survives on Giglio but not in Sardinia



### Mouflons are Protected in Sardinia

By the 1950s, the Sardinian mouflon population had dwindled to only a few hundred individuals. To protect the species, its hunting became forbidden and severely punished by law.



### Limited Number of Mouflons on Giglio

A small nucleus of mouflon was established on Giglio in 1955 to safeguard and conserve the species. The historical population of 25-100 mouflons is now drastically reduced as a result of recent eradication attempts.



### Scientific Study Reveals Ancestral DNA, Most Likely Lost Elsewhere in the World

The surprising results of the scientific study reveal that Giglio mouflons most likely constitute a relict population elsewhere extinct. Scientists conclude that Giglio mouflons have a high conservation priority and should not be eradicated, but rather safeguarded as a unique element of Biodiversity.



### Giglio's Mouflons Are in Danger

Actions conducted by the Ente Parco from 2009 to the present have resulted in a total loss of about 140 specimens, of which about 100 were shot and 40 relocated, destined to be surgically sterilized. These actions did not make use of genetic analysis. The Ente Parco will certainly want to make use of this data and reevaluate the actions in place.



### Urgent Need for Conservation

Quick and timely action is needed to protect the few remaining Giglio mouflons that harbor ancestral genetic variants most likely lost in the Sardinian source population.

# Cost & Plan of the “Letsgo Giglio” Project

The project called "*Life - LetsGo Giglio*" is co-financed by the European Commission with about 1.6 million euros. It was conceived and implemented by the Tuscan Archipelago National Park Authority with the consent of the current Mayor and provides for the following actions:

- (1) the eradication of mouflons - also with the use of "*Judas radio-collared*" animals and snares; (over 378 thousand euros are allocated for the mouflon eradication).
- (2) the capture of some rabbits - with traps;
- (3) the eradication/control of the Ice Plant - with manual methods and with the use of black, plastic tarps to cause its desiccation; (Disturbance of endemic species and marine bird habitat has been documented with video evidence. Tarps shredded in the wind dispersing long plastic strips on land and in sea).
- (4) the thinning of one of the pine forests with the replanting of native species;
- (5) the creation of four small artificial reservoirs for the Sardinian *Discoglossus* and the removal of the turtle *Trachemys scripta* (a total of two turtles were removed during this action).

The ongoing "*LetsGo Giglio*" project is based on EU Regulation 1143/2014, which promotes interventions aimed at controlling alien and invasive species in order to conserve biodiversity and minimize potential financial losses where species interfere with local economies, such as agriculture.

Contrary to the E.P.N.A.T. plan which relies heavily on the culling of the mouflon, the EU regulation specifically suggests that in the event that a species is indeed alien (non-native) and invasive (though it must be emphasized that this is not the case on Giglio) and must be eradicated from a given habitat, non-lethal measures should be taken and containment rather than eradication would always be preferred.



# The Petition

## INTRODUCTION

We ask that the Project "Life LETSGO GIGLIO Less alien species in the Tuscan Archipelago: new actions to protect Giglio island habitats", conceived by the Tuscan Archipelago National Park, which foresees the eradication and killing of all mouflons on Giglio Island, be stopped immediately. The Park Authority, having defined the mouflon as an "invasive alien species" has begun the process of extermination of all mouflons. They also plant use snares. The massacre of the mouflon is not acceptable.

## HISTORY OF MOUFLONS ON GIGLIO

For the Island of Giglio the mouflon has great naturalistic, historical and scenic value. The mouflon was introduced to Giglio Island, in the Franco Reserve, around the year 1955, more than 40 generations (of mouflons) ago, thanks to an exceptional Project created and carried out by Professors Alessandro Ghigi (father of numerous Italian National Parks), Augusto Toschi, Renzo Videsott and Professor Ugo Baldacci who saved the mouflon from extinction and allowed the repopulation of Reserves and Parks throughout Italy, where this wonderful mammal still lives today. It should also be noted that the mouflon of Giglio since it was introduced on this island has remained genetically pure since here there are no flocks of sheep which instead abound in Sardinia, Corsica and Cyprus, where there are the largest number of individuals of mouflon in the Mediterranean.

## TO BE HONORED, NOT EXTERMINATED

The importance of the project to save the mouflon from extinction which was carried out on Giglio, is symbolized by the statue of a mouflon placed on the top of the Franco estate, where the mouflon reserve was created. A monument, placed at the top of the most wooded promontory of Giglio, to pass down in the centuries to come that in that place one of the most archaic and



beautiful creatures was rescued and made safe. The mouflon is in all respects part of the history of Giglio, a story to be kept and told with renewed pride, not to be erased as the Tuscan Archipelago National Park Authority wants to do with the support of the current Mayor of Giglio. The little damage done in 66 years to the crops, among other things in vineyards mostly without any fence and the damage that the Park Authority includes in relation to the holm oak forests, are of so little relevance that they can not in any way justify the irreversible measure that they want to implement, ie eradication through their extermination.

## STOP THE MASSACRE & FIND ANOTHER SOLUTION

We therefore ask that this project be stopped immediately and that another solution be found to allow the survival of the mouflon on Giglio, especially since currently only 25-40 mouflons are estimated to be still present on Giglio Island, proving that a balance has been created which maintains a low number of animals, so low that the eradication proposed by the Park Authority is absolutely unacceptable. Alternatively, if the competent bodies deem it necessary to remove the mouflons from the Island of Giglio, they could be relocated without causing them any damage or suffering and transported to another reserve, but absolutely not exterminated as it is foreseen by the macabre project conceived by the Tuscan Archipelago National Park Authority.

# Great Opposition to the Park's "Letsgo Giglio" Project

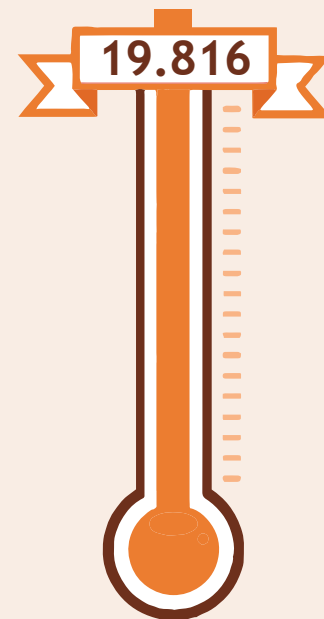
After publishing an initial article in the local newspaper "Giglio News" to raise awareness and inform our community about the project, we obtained the support of the vast majority of local farmers who signed a letter expressing their unwavering feelings about wanting to keep mouflons on the island and not wanting to see a single mouflon killed. The owners of small vegetable gardens, orchards and vineyards have come together to declare that their crops are not damaged by the mouflon, contrary to the claims of the Park Authority and those connected to the local government. A recent petition has collected to date, almost 20 thousand signatures against the killing of mouflon.

The project "*Letsgo Giglio*" has since then entered the center of controversy among citizens, councilors and farmers of the island together with associations, independent scientists, experts, directors of national parks and journalists. Numerous articles have been published on the subject and in strong opposition to the project.



Over 100 Articles Published

## Signatures on the Petition





## The Population Density of Mouflons on Giglio is Very Low

An important fact that has not been taken into account by the Park Authority is the population density of the mouflon, as it is a significant factor. Experts say that the question of the invasiveness of a species is logically linked to the location and the density of the population. The density of mouflons on Giglio is about 1-2 mouflons per 100 hectares, and is far from being a danger to biodiversity (which can occur with densities of more than 28-30 mouflons per 100 hectares, in a Mediterranean island context). Recent studies conducted by the Department of Biology of Florence on the mouflon population on the Island of Elba have shown that they are not invasive, i.e. they do not significantly damage the local holm oak groves since. Out of respect and an innate sense of tendency to reach a balance with the environment in which they live, they tend to graze in a diffused and not localized manner, thus annulling any possible harmful effect and instead providing benefit in the case of wildfire.

Biotic Density (BD) Number of Mouflons per 100 Ha	
28-30 (maximum)	
8-10 (average)	
3-7 (minimum)	
1-2 (Giglio)	

The mouflon population on Giglio Island has been present for over 65 years. Their population has remained contained over the years, so much so that the sighting of a mouflon is considered very rare. Many islanders who have lived their entire lives here have never seen one. Being a species native to the nearby Mediterranean islands, there is a possibility that due to the similarity in habitat, the population has naturalized in this environment and integrated into the biological community.



# Actual Expenses for Agricultural Damage on Giglio Compared to Eradication Expenses

Over a chronological period of 14 years, from 2007 to the present, the costs for mouflon damage amount to 1,200 euros. The damages have been requested by a single farmer for a land without fencing.

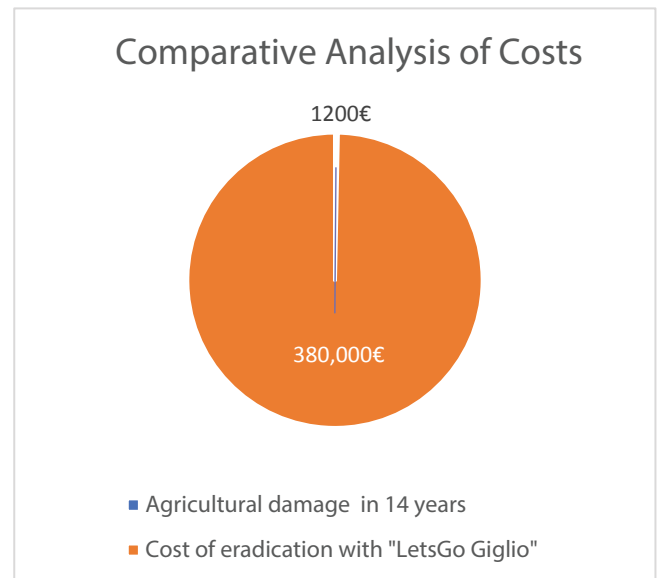
Despite the damages, the same farmer signed a letter stating that he would like to see the mouflons protected and maintained on Giglio. In addition, he appeared in an episode of "Tales about Mouflons" to further express his opinion against the extermination and eradication of mouflons.

In the project "LetsGo Giglio," the cost of eradicating 25-40 mouflons amounts to approximately 380,000 euros.

## Summary:

**Ave. annual agricultural damage: 85 €**

**Cost of eradication: 380,000 €**





# We are Small Farmers & Would like to Keep the Mouflons Here on Giglio

## A Balance between Agriculture and Nature

As small farmers owning vineyards, orchards, arable land and vegetable gardens on the territory of Giglio, even in the south-western area of the island, frequented by mouflons, we would like to point out that mouflons do not represent a danger for local agriculture as, to avoid the possibility of any grazing, it is sufficient to install a fence. We would also like to point out that seeing a mouflon here on Giglio is a very rare event, so much so that many residents have never seen one or have seen one very few times in their lives. Mouflons rarely comes near where humans are present.

## A Simple Fence for Coexisting with Mouflons

The fenced vineyards, located in the south-west part of Giglio, have never received any damage from mouflons, a sign that a simple fence, of a height of about 150-170 cm, offers an adequate protection to safeguard them. The fence here in Giglio, is however indispensable to limit damage from rabbits, therefore, it might as well be half a meter higher and thus avoid the possible entry of mouflons into the crops.

## The Only Historic Damage Caused by Mouflons

The only relevant damage occurred in the past, dates back to the eighties when they damaged a vineyard without any fence at "Corvo". Since then there have been no further significant damages.

## Defend and Protect the Mouflons of Giglio

In addition, we would like to say that the Mouflon of Giglio is now part of the nature of this island and its landscape, representing its most archaic soul. It is an incredibly expressive and beautiful creature that arouses admiration and respect, even in children. It must be defended and protected in every way. There are those among us who would like the Franco Reserve to be restored by the owners, those who would like an even more extensive reserve, a sort of small municipal park, those who would like them free on the territory, but we all agree on two points:

- we don't want a single mouflon to be killed;
- we don't want the mouflons to be taken away from Giglio.

In faith,

read, signed and undersigned

Novalba Danei *Novalba Danei*  
Biagio Stagno (di Bugia) *Biagio Stagno*  
Luciano Stagno *Luciano Stagno*  
Sara Stagno *Sara Stagno*  
Andrea Arienti (di Togo) *Andrea Arienti*  
Giovanni Battista Pini (Titta di Palletto) *Giovanni Battista Pini*  
Maurizio Vittozzi *Maurizio Vittozzi*  
Giacomo Biondi *Giacomo Biondi*  
Rita Ghelardini *Rita Ghelardini*  
Mario Bancalà *Mario Bancalà*  
Alice Dal Gobbo *Alice Dal Gobbo*  
Emilio Bancalà *Emilio Bancalà*  
Emanuela Bancalà *Emanuela Bancalà*  
Teresa Bancalà' *Teresa Bancalà'*  
Federigo Pardini (Ghigo) *Federigo Pardini*  
Amy Bond *Amy Bond*

Barbara Arienti *Barbara Arienti*  
Michele Guastafierro *Michele Guastafierro*  
Modesti Giuseppe *Modesti Giuseppe*  
Dell'Amico Argentina *Dell'Amico Argentina*  
Modesti Daniele *Modesti Daniele*  
Baffigi Giuseppe *Baffigi Giuseppe*  
Ilaria Becchino *Ilaria Becchino*  
Andrea Biscaro *Andrea Biscaro*  
Stefano Rum *Stefano Rum*  
Patrizia Zottola *Patrizia Zottola*  
Giovanni Centurioni *Giovanni Centurioni*  
Cesare Scarfo' *Cesare Scarfo'*  
Mario Arienti *Mario Arienti*  
Alessio Guarnieri *Alessio Guarnieri*  
Silvia Facheris *Silvia Facheris*  
Filippo Di Gristina *Filippo Di Gristina*

Antonio Pappacena *Antonio Pappacena*  
Romina Bancalà *Romina Bancalà*  
Pia Schneider *Pia Schneider*  
Libero Schiaffino *Libero Schiaffino*  
Rene' Gioia *Rene' Gioia*  
Cavero Giulio *Cavero Giulio*  
Mazzoni Massimiliano *Mazzoni Massimiliano*  
Silvestri Franca *Silvestri Franca*  
Ottaviani Barbara *Ottaviani Barbara*  
Mariuz Maria *Mariuz Maria*  
Brizzi Domenico *Brizzi Domenico*  
Annamaria Barosi *Annamaria Barosi*  
Andrea Rum *Andrea Rum*  
Francesca Mattera *Francesca Mattera*  
Severin Bancalà' *Severin Bancalà'*



## Legislation

The "LetsGo Giglio" project is based on the following regulation. However, within the regulation, two important aspects are established when considering taking action against a particular species.

REGULATION (EU) No. 1143/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 October 2014 - laying down rules to prevent and manage the introduction and spread of invasive alien species:

*(1) The appearance of alien species, whether animals, plants, fungi or microorganisms, in new locations is not always a cause for concern.*

*(25) Non-lethal methods should be considered, and all actions taken should minimize the impact on non-target species.*

# Selective Use of Database Resources to Justify the "Invasive" Label

It should be reiterated that the Tuscan Archipelago National Park Authority has not conducted any studies on Giglio Island to determine if the mouflon is invasive. Instead, it has presented generic information taken from an online database to define the mouflon as invasive. Interestingly, the Park Authority used the IUCN database to validate their project, while the EU tends to prefer the larger international "CABI" database.

The "CABI" datasheet regarding the mouflon states: "*...no negative effects on the native environment have been found in many countries*" (therefore it is not to be considered invasive). The conclusions in this fact sheet are based on 140 references.

In contrast, the IUCN fact sheet declares the mouflon to be an "invasive" species based on only 2 island studies, one in the Hawaiian Islands, and one in the Channel Islands. In Hawaii, the reference is to mouflon, while in the Channel Islands it is generally referred to large herbivores. It should be noted that the President of the Park Authority, Giampiero Sammuri, is also the Vice-President of the Italian Committee of the IUCN.



# There are no Studies Specific to Giglio, Only Generalizations Based on Studies of Exotic Islands

There have been no preliminary studies conducted by independent institutes and experts to prove that the mouflon is "invasive" on Giglio Island. During an interview by the newspaper 'La Repubblica', Giampiero Sammuri, president of the Tuscan Archipelago National Park Authority and Federparchi, explained, *"It is universally known that ungulates on the islands are harmful to biodiversity, so we did not throw away money on a specific study on the damage done by mouflons on Giglio Island."* The journalist from La Repubblica then suggested that the mouflons are not accused of having created specific damage to Giglio Island to which Sammuri replied: *"Better to eradicate them and leave space for*

*species with greater right to inhabit the place, green light to the return of plants and insects that were there before."* (La Repubblica, March 25, 2021). The Tuscan Archipelago National Park Authority claims that the mouflon is an "alien" and "invasive" species, harmful to the holm oak and local crops on Giglio Island, stating that it is "invasive" based on the damage the mouflon would inflict on plant species endemic to the Hawaiian Islands. The Hawaiian Islands are tropical and have a completely different flora than Giglio. Giglio Island is a Mediterranean island that has a similar habitat to Sardinia and Corsica where the mouflon is protected.







## A Vulnerable Species Killed Because Declared "Alien and Invasive"

The Park has performed actions in other, similar projects that have had deleterious effects on vulnerable species. One example is the European hare on Pianosa Island and the 2017 Life+ Resto con Life project. A year before starting the project to eradicate "invasive alien" species on the island, Park President Giampiero Sammuri declared:

"The European hare is a real danger to the ecosystem of Pianosa and must be replaced. The European hare is an alien species, introduced voluntarily in recent years, but which is now proving to be harmful. The presence of alien species is the second cause of destruction of biodiversity in the world. The Park will work hard to find the hundred or so specimens of "alien" hare and subsequently replace them with our own cousins: It is a three-year project that responds to a precise indication of the European Community (Regulation 1143/2014) which obliges us to commit ourselves to the eradication of alien species, especially on the islands. The project is funded by the EU and regulated by Ispra."

While the president of the PNAT Authority claims that the hare is harmful to the island of Pianosa, his statement is not supported by

any scientific evidence. The project included a multi-species eradication effort that initially included the trapping and culling of the hares. As the project progressed, it was noted that the hares exhibited unusual markings. After several specimens were subjected to genetic analysis, it was discovered that the brown hare population on Pianosa represented the last pristine population of *Lepus europaeus meridiei*, a subspecies thought to be extinct. Once it was discovered that this was a very rare and vulnerable species, the Park Authority ceased its efforts to eradicate the hares. Before the error was discovered, many specimens were lost. Additional stress was placed on the vulnerable population through the attempted eradication of pheasants and partridges through the use of hunting dogs.

**Instead of admitting that they made a very serious mistake that could have led to the complete extinction of a rare species, the Park Authority claimed that, thanks to their LIFE project, a species believed to be extinct was discovered.**



## 14 Tons of Poisoned Baits Dispersed on Montecristo: the *Capra aegagrus* Vanished

The goat population of Montecristo was constituted, before the implementation of the project "Life - Montecristo 2010" by about one third of individuals belonging to the phenotypes of *Capra aegagrus*, the Aegagus of the Near East, and other types of goats introduced in recent times (domestic goats of the ancient Corsican race). The wild goat, *Capra aegagrus*, gave its name to the Egadi Islands, the Aegean Sea and the Island of Giglio (Aeghilion). These goats of Montecristo were the only population of wild goats existing in Italy since the Neolithic period. As we learn from an article published in the journal *Mammalia* in 2015, Prof. Marco Masseti, an expert on island faunas, documents how the population of wild goat, *Capra aegagrus* (Erxleben 1777), present on Montecristo Island since the Neolithic, has been "drastically reduced, if not almost completely eliminated following the implementation of the EEC LIFE+ Montecristo 2010 Project". After the dispersion of poisoned pellets during this project "Life", in fact, the ancient population of *Capra aegagrus* has virtually disappeared from the island. After this "ecological disaster" the Park Authority organized a large and lavish event, placing five of the surviving goats still present on Montecristo in the BioPark of Rome. None of those specimens had the phenotype of the ancient *Capra aegagrus*,

the Near Eastern egret, of which the last specimens of Montecristo have probably all fallen victim to the "brodifacoum" poison. This fact is confirmed by the genetic analysis of the goats present in Montecristo after the widespread poisoning conducted by the Park Authority and collaborators. In this study, carried out in the year 2014, the genome of the goats still present on the island was compared - derived from the 43 goats secured in a fenced area during the poisoning - and the Montecristo goats, of the egagro phenotype, which several years earlier - fortunately - had been secured in some small fenced pastures on mainland Italy, between Tuscany and Liguria, by some enthusiastic private breeders. These genetic analyses have revealed that the *Capra aegagrus* specimens present ex situ, possess 27 alleles that are no longer found in the genotypes of the island population, confirming that the original wild goats have been lost from Montecristo.

**Subsequently, the specimens of *Capra aegagrus* were removed from the Museum of Montecristo and curiously replaced with specimens of domestic goats of the ancient Corsican breed.** 18



## Franco Perco

Former Director of Monti Sibillini National Park & Ungulate Expert

Dr. Franco Perco has a degree in law and in natural sciences. Thanks to his preparation and to the activities carried out, he has acquired a considerable experience in the management of protected areas, in particular with regard to the relationships with local populations. He has worked in the field of environmental conservation, wildlife management (including hunting management) and Ungulate biology, as a freelance in the field of wildlife planning.

He has been involved at project and executive level in wildlife management in general and has drawn up projects of reintroduction and alternative zootechnics with Ungulates, of Wildlife Parks, of museum exhibition and of general and specific wildlife management (especially of Ungulates).

In addition to other technical, scientific and popular publications, he is author and/or co-author of eleven monographs, in particular on Ungulates, Roe Deer (three), Deer and Mouflon and on the fruition of Nature, also and above all for educational purposes and as an opportunity to improve the sensitivity towards Nature and Fauna.

## Statement:

"The Mouflon is a visible, well-proportioned and very shrewd species that, in addition to this, possesses and highlights conspicuous and complex behaviors. In this sense, it can be defined as a "highly educating" species, as its observation can lead to an improvement of the sensitivity towards Nature and Fauna. I believe that this is an important opportunity for a National Park and not only, not to be wasted but instead to be enhanced with real schools of ethology outdoors.

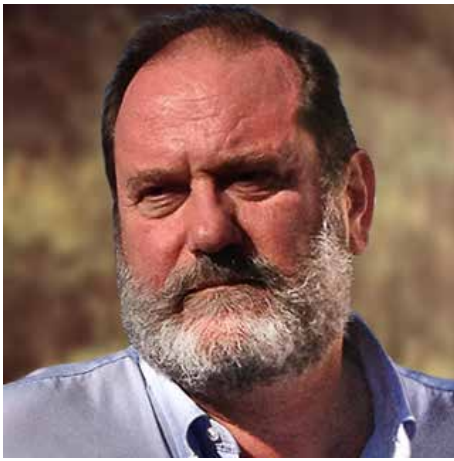
Besides, if we wanted to follow the thesis of "purity" at all costs, we could also talk about the necessity of eradicating the Montecristo goat, from the island of the same name, an acclimatized and wild species which is the result of several introductions of domestic goats, with their multicolored coats, still partly visible today.

I am happy to support the idea of conserving a small nucleus of mouflons on the island of Giglio. Even though it is an allochthonous species, this species possesses remarkable abilities to form a high standard of environmental sensitivity. It is observable and conspicuous, with complex behaviors. Certainly, it is an animal to be managed and contained. But these are not impossible tasks. Eradication or removal will produce losses to the wildlife quality of the island. It would be a shame if that comes to fruition."

*Dr. Franco Perco*

Former Director of Monti Sibillini National Park





## Prof. Marco Masseti

**Zoologist, Paleo-Ecologist & Insular Fauna Expert**

Former professor and researcher at the Department of Biology of the University of Florence, Marco Masseti is specialized in the study of the relationships that have developed between humans and animals during human civilization, anthropocene zoological species and fauna of anthropogenic environments. A preponderant aspect of his studies is addressed to mammals and their population of insular environments. For this reason he has carried out research and participated in several scientific missions in Italy and abroad: from the Galapagos Islands to East Africa and Indonesia.

His research has focused in particular on the Near East and the Mediterranean, especially the islands. He has been professor at the Department of Biology of the Universities of Palermo and Messina and, until the end of 2019, member of the Scientific Council of the Muséum National d'Histoire Naturelle in Paris. He is a member of the International Union for Conservation of Nature (I.U.C.N.) Deer Specialist Group, and of the Group of Experts on Invasive Alien Species of the Council of Europe, as well as of the I.U.C.N. Global Mammal Assessment Southwest Asia and I.U.C.N. Mediterranean Mammals Red List committees. He is fellow of the Linnean Society of London and associate editor of the journals *Anthropozoologica* of the

Museum of Natural History of Paris and Proceedings of the Italian Natural Sciences and the Museum of Natural History of Milan. He has to his credit about 240 publications in international scientific journals, as well as numerous popular contributions. Among his books: *Uomini e (non solo) rati* (2002, Firenze University Press, Florence; 2nd edition 2008); *Island of deer* (2002, Environment Organization of the city of Rhodes, Greece); *Fauna toscana* (2003, ARSIA-Regione Toscana, Florence); *Atlas of terrestrial mammals of the Ionian and Aegean islands* (2012, De Gruyter, Berlin); *The farm of Lorenzo the Magnificent* (2015, Municipalities of Poggio a Caiano and Prato), and *Zoology of Arab and Norman Sicily* (2016, Danaus Editions, Palermo). Among the various research conducted in the Tuscan archipelago, he has particularly studied the marten, *Martes martes* L., 1758, of the island of Elba and the Montecristo wild goat, *Capra aegagrus Erxleben*, 1777.

## Statement:

"Any intervention of environmental requalification of Mediterranean islands is very difficult, if not impossible in many cases, since the original biological elements have been permanently lost for many millennia.

Any action of recovery and/or philological restoration of these natural environments must take this into account, considering above all that many of the organisms that have been introduced in past ages interact with the elements of the island biocoenosis, in some cases even for millennia, and have now become an integral part of it."

*Prof. Marco Masseti*

**Zoologist & Paleo-Ecologist, Expert of Insular Faunas**





## Prof. Franco Tassi

International Park Center

Born in Rome, he studied here and graduated in Law, working subsequently with various Public Administrations in Italy and abroad, winning several competitions for the Inspectorate of Finance, the General Secretariat of the Presidency of the Republic and the Magistracy. Naturalist by vocation, he specializes in ecology, carrying out research and publishing numerous works, books and popular scientific studies. Franco Tassi, Head of the National Parks Committee that won the epic "10% challenge" to protect at least one tenth of the "Bel Paese", and Director of the Centro Studi Ecologici Appenninici, has worked for 33 years "on the Front of Nature" as Director Superintendent of the oldest, most important and famous Protected Area in Italy, the Abruzzo National Park.

Due to his wide and interdisciplinary expertise, he has worked in Brussels as an expert at the European Representation, in the US he realized the Alliance with Yellowstone National Park, he has been part of Scientific Commissions of IUCN (World Union for Nature), and in 2014 he was invited by the Council of Europe as a rapporteur to the European Landscape Convention. As a freelance journalist, he continues to publish popular science articles in Italian and foreign periodicals.

## Statement:

"The Park Center has received and spreads, to the media and to the public attention, some disturbing reports received from local Environmental Groups about what is happening for a long time in various Small Italian Islands, and in particular in the Tuscan Archipelago National Park, using huge European LIFE funds for the eradication of rats, with the disastrous effect of causing the poisoning of the terrestrial and marine Fauna, the destruction of Biodiversity and the disappearance of the characteristic wild Goat of Montecristo. At the same time, the extermination of Mouflons with firearms is about to begin on the Island of Giglio, in spite of the vibrant protests of the local community, which is absolutely opposed to these massacres. It seems ascertained that a large group of specially trained hunters is now waiting for the green light to shoot in the heart of the National Park. On the contrary, on many Mediterranean Islands, Mouflons and wild goats are now part of the ecosystem and are protected, also as essential elements of that precious "Living Landscape" which is protected by the European Landscape Convention of the Council of Europe, presented in Florence on October 20th, 2000, and then ratified by Italy.

It seems therefore evident that it is necessary to intervene promptly to stop the senseless and cruel killings of mouflons: if in some islands the Ungulates were really too numerous, it would certainly not be difficult to capture them, and transfer them elsewhere."

*Prof. Franco Tassi*

International Park Center



## Dr. Alessio Zanon

**Veterinary Physician & Expert in Zotechnical Biodiversity**

Veterinarian, PhD in Animal Production and Veterinary Biotechnology, Alessio Zanon works predominantly in the field of animal husbandry: he manages cattle, horses, pigs, sheep, goats, wild native ungulates and poultry in the provinces of Parma, Reggio Emilia, Modena, Ferrara, Como and Milan.

He is passionate about rare, autochthonous and endangered breeds, quickly becoming a valuable reference point at national level. He is a breed expert, consultant and advisor to numerous associations, bodies and organizations for the conservation and protection of native breeds; author of prestigious publications; he takes care of the zotechnical sector for Equa, helping breeders in the choice, selection and management of production animals.

The consolidated experience and a wide network of connections between breeders allow him to access a rich database of subjects, unique in Italy for quantity and variety.

## Statement:

"Prof. Alessandro Ghigi, father of naturalistic conservationism and of the institution of National Parks in Italy, identified in the Island of Giglio the ideal environment for the recovery of the rare and threatened species of the European Mouflon (*Ovis aries musimon*; *Ovis musimon Pallas*, 1762). Moreover, this species is still included among the vulnerable ones.

A serious problem, concerning this species, is the constant threat of genetic contamination by domestic sheep, usually present in many areas where it is widespread. The Island of Giglio still represents a reservoir of genetic diversity too important to be sacrificed in the face of alleged damage not sufficiently supported and studied".

*Dr. Alessio Zanon*

**Veterinary Physician & Expert in Zotechnical Biodiversity**

# Racconti sui Mufloni

episodio 1

il folklore dietro i mufloni dell'Isola del Giglio



## The Mouflon is Part of the Culture, Tradition & Folklore of Giglio

People of all ages, whether islanders or amateurs of Giglio, tell stories of their rare and unique encounters with these incredible animals, often describing them as mythological creatures. Rarely sighted, when a close encounter with a mouflon occurs, the experience is one to be told with emotion, in the company of friends, around the table with the family or in the cellar after a second glass of Ansonico. Year after year, the story becomes more colorful each time it is told. We have collected 15 stories, gathered in 4 episodes.



# We are Winemakers & We Would Like to Save Mouflons

We are a couple of farmers who work the land year round here on Giglio Island. The mouflons have very rarely come to visit our crops in the less accessible areas of the island, but they have never caused serious damage. However, we will make mimetic fences (which are also indispensable in order to keep the rabbits away) and in this way we will be able to live calmly and peacefully with these beautiful creatures. The Park Authority cannot justify its idea of eradicating the mouflon from the island by referring to damage to crops and holm oak groves. Such damages are really very limited and easily preventable.

The mouflon is part of the Nature of Giglio and is an incredibly beautiful creature that arouses admiration and respect. It must be defended and protected in every way.

Cesare Scarfo' & Amy Bond





# Proposal for a Protected Nature Reserve

The muflons of Giglio Island are part of the island's history, folklore and scenery and are loved and admired by locals and tourists alike. They represent essential elements of the "Living Landscape", protected by the Landscape Convention of the Council of Europe.

It has been proposed to establish a protected nature reserve for the muflons that have been present on our island for over 65 years. The project could be started immediately with little expense and developed through various phases, proceeding in stages. Some possibilities that could be considered are described as follows.



# A Balance Between Agriculture & Nature

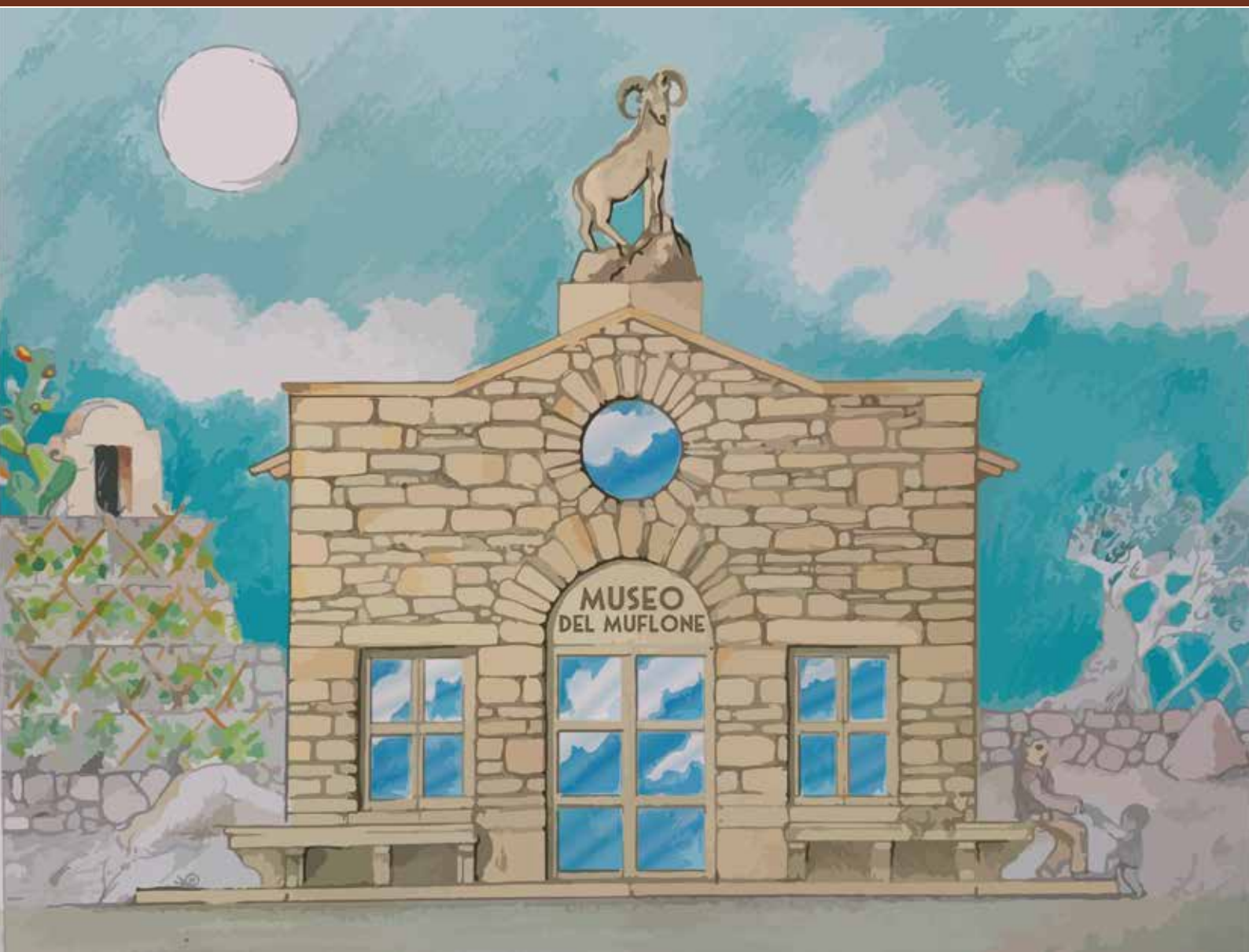
Given the low frequency of mouflon entry into vineyards and the even lower amount of damage associated with it, preventative measures could easily be taken to ensure that farmers can peacefully coexist with mouflons on the island without any issue.

It has been documented that a simple fence is sufficient to protect vineyards from potential mouflon entry. In fact, vineyards equipped with a fence, located in the south-west part of Giglio, have never received any damage from mouflons, a sign that a simple fence, of a height of about 100-120 cm, offers an adequate protection to safeguard them. On Giglio, fences are indispensable to limit damage from rabbits, therefore, making the fence slightly higher would thus avoid the possible entry of mouflons into the crops.

The mouflons present inside the protected natural reserve of Giglio Island could be periodically surveyed and experts could establish an optimal density, according to the surface and the characteristics of the place and the population present. The mouflons in supernumerary could be transferred to other reserves, if and when necessary.







## Creation of a Mouflon Museum

A small Museum would create an attraction for tourists in all seasons, promoting ecotourism and offering guests the opportunity to learn about this incredible species along with its interesting and unique history. The construction of this Museum would be an important opportunity, as it would be the first Museum on Giglio Island. The Museum would have several sections including one dedicated to how the mouflon has contributed to the culture and tradition of Italy and the entire Mediterranean, being it the ancestor of domestic sheep.

A modest ticket price could be proposed and all proceeds would go to the maintenance of the museum and to cover other costs. A small store with books, souvenirs, T-shirts and small gifts would provide additional income. The cost of building and equipping the Museum, of about 50-60 square meters, including supply, transportation, installation, connection to the water and electricity network and construction of the sanitary sewage treatment system, would amount to about 150,000€.



## Cultural Events Surrounding the Museum:

- Annual photo contest to award the most beautiful pictures taken with the mouflons of Giglio as the subject;
- Festival of the mouflon to be held from July to October with artisans, local musicians, storytellers and cheese products.

## Possible Modalities of Income:

- Core funding
- Grants
- Gift shop
- Tourist groups
- School visits
- Online retail
- Private donations
- Entrance fees

Estimated Number of Visitors: 10,000€

Estimated Average Annual Income: 20,000€

## Charitable Donation of Design Services, Engineering and Architecture

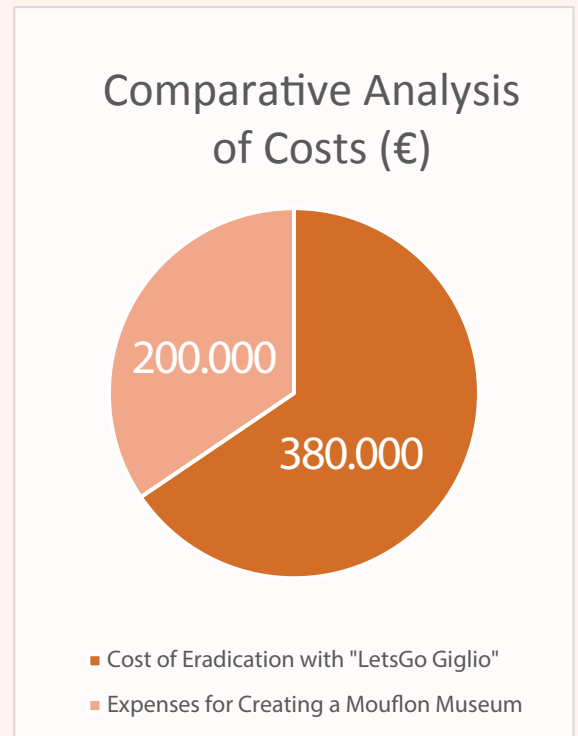
The experts of Save Giglio have offered, free of charge, to design the blueprints of the Muflone Museum. Cesare Scarfo', architect and engineer, has offered to draw up free of charge, together with the aforementioned experts, the project of the paths and of the Museum and to gratuitously carry out the direction of the works. Amy Bond, graphic designer, has offered to donate her graphic design services for the creation of descriptive panels, displays and didactic material inside the Museum.



## Estimated Museum Expenses

Museum equipped with water, electricity and purification, of about 50-60 square meters - about 150.000€ which, including the VAT and the sums for contingencies, would correspond to about 185.000 - 200.000€ in total.

The total cost of the project would amount to about half of the cost of eradicating the mouflons from Giglio (about € 380,000), provided for in the "Letsgo Giglio" project. Just to give an idea, the cost of creating a dedicated museum would amount to the same cost as the eradication of 14 mouflons, according to the budget of "Letsgo Giglio". In addition, through the construction of a dedicated museum, it would be possible to create an additional attraction for the island, even in the off season, and produce sufficient annual income to maintain it, creating a new sustainable resource.



## Cultural & Social Benefit for Giglio Island

The Mouflon Museum would become a place of education and recreation through research and exhibition, with the ability to generate a beneficial social, cultural and intellectual change in the population and visitors. This Museum would also be a meeting place in which to admire the mouflons and at the same time tell the story of the conservation project locally carried out in the 1950's, through which the mouflon was saved from the danger of extinction in Sardinia and Corsica. Such a success was achieved here on Giglio and here this story must be safeguarded and told. The creation of a Museum would make this cultural heritage present and accessible to all. Together with the elders of the community, recounting the stories, sharing the folklore and truly unique qualities of the mouflon will allow people to appreciate this incredible creature, an icon of the Mediterranean, and also to preserve the extraordinary story of Nature conservation on Giglio Island.

# Resources

## Genetic Study on the Mouflons of Giglio

Barbato M, Masseti M, Pirastru M, Columbano N, Scali M, Vignani R, Mereu P. Islands as Time Capsules for Genetic Diversity Conservation: The Case of the Giglio Island Mouflon. *Diversity*. 2022; 14(8):609. <https://doi.org/10.3390/d14080609>

## Database Information

### CABI - COMPENDIUM OF INVASIVE SPECIES

The database used by EU. Description of mouflon. "...no adverse effects on the native environment have been found in many countries "(therefore not to be considered invasive). This datasheet uses 140 resources.<https://www.cabi.org/isc/datasheet/71353>

### IUCN DATABASE - INVASIVE SPECIES SPECIALIST GROUP

The database used by the LetsGo Giglio project. This website identifies mouflon as an "invasive" species based on studies on the Channel Islands and Hawaii, where herbivores have harmed endangered plant species there. Note: Mouflons have never been present in the Channel Islands and data collection is for large herbivores. This datasheet uses only 14 resources. Sammuri is vice president of the IUCN.

<http://www.iucngisd.org/gisd/speciesname/Ovis+aries>

LIST OF ALIEN AND INVASIVE SPECIES CONCERNING THE EUROPEAN UNION "The Regulatory Core (EU) 1143/2014 is the list of allochthonous and invasive species concerning the European Union (the E.U. list)" Mouflon is not on the list.

[https://ec.europa.eu/environment/nature/invasivealien/list/index\\_en.htm](https://ec.europa.eu/environment/nature/invasivealien/list/index_en.htm)

### EASIN - EUROPEAN UNION ALIEN SPECIES INFORMATION NETWORK

This is the E.U. list that contains 14,000 allochthonous species. Type "Ovis aries" in the search field ("Search Name"). <https://easin.jrc.ec.europa.eu/spexplorer/search/>

## Legislation

REGULATION (EU) NO 1143/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 22 OCTOBER 2014 - making provisions to prevent and manage the introduction and spread of invasive alien species (1) The appearance of alien species, whether animal, plant, fungal, or microorganism, in new locations is not always a cause for concern. (25) Non-lethal methods should be considered and all actions taken should minimize the impact on non-target species.

<https://savegiglio.org/pdf/regolamento-eu-n-1143-2014.pdf>

## Park Authority Sites

RESTO CON LIFE - <https://www.restoconlife.eu/en/>

LIFE - LETSGO GIGLIO - <https://www.lifegogiglio.eu/en/>

LIFE - LETSGO GIGLIO - PUBLIC NOTICE OF TRAINING COURSE OF THE TUSCAN ARCHIPELAGO NATIONAL PARK FOR VOLUNTEERS PARTICIPATING IN THE MASS CULLING OF MOUFLONS AT GIGLIO Despite the funding of about 1.6 million euros for the project "LetsGo Giglio", the park authority will also use volunteers to kill mouflons.

<https://savegiglio.org/pdf/islepark-avviso-volontari-abbattimento-mufloni-giglio.pdf>



## Articles About LIFE Project in Elba Island

Gabbie Vuote - for the mouflons of ISOLA D'ELBA - Maggio 2017

Letter sent to the Ministry of the Environment, the Region of Tuscany, the Prefecture of Livorno, the municipalities of the Island of Elba and various newspapers.

[https://gabbievuote.it/doc/lettere\\_a/2017/26-per\\_i\\_mufloni\\_dell\\_isola\\_d\\_elba.pdf](https://gabbievuote.it/doc/lettere_a/2017/26-per_i_mufloni_dell_isola_d_elba.pdf)

Eradication of mouflons in Elba, Sammuri responds to Volpi of WWF Sammuri: "With that said, it would not be necessary to test the negative impact of an alien species on a case-by-case basis in order to attempt its eradication, especially on an island...As stated at the outset an alien species is introduced voluntarily or involuntarily by humans and is always a mistake."

<https://www.greenreport.it/news/aree-protette-e-biodiversita/eradicazione-dei-mufloni-allelba-sammuri-risponde-volpi-del-wwf/>

Evaluations of ispra on the mouflon control plan - Elba island "In the last few weeks, ISPRA has received numerous notes and alternative proposals from Tuscan animal welfare associations regarding the mouflon control interventions underway on the island of Elba, Tuscan Archipelago National Park. With this note ISPRA therefore intends to provide some clarifications in particular on the technical-scientific criteria adopted by ISPRA for the drawing up of the opinions issued upon request of the Park Authority".

<https://www.isprambiente.gov.it/it/archivio/notizie-e-novita-normative/notizie-ispra/2017/06/valutazioni-dell2019ispra-sul-piano-di-controllo-del-muflone-nel-parco-nazionale-dell2019arcipelago-toscano-2013-isola-d2019elba>

Found the protected oasis that will save from extermination mouflons Elba After several years of work, only 2 mouflons have been accepted by the Centro Recupero Animali Selvatici della Maremma (CRASM). The Park Authority ordered the segregation of females and males. The Center consists of a fenced area of about 2.000 square meters, one fifth of a hectare.

<https://www.toscanachiantiambiente.it/trovata-loasi-protetta-che-salvera-dallo-sterminio-i-mufloni-dellelba/>

## Projects of Muflone Protection

KORA/MALME Metapopulation Approach for Large Mammals in Europe Case Study Alps Risk of loss of genetics

"in the high marginal areas and in the foothills, where the chamois is not present, the idea of introducing the mouflon, to increase Biodiversity... is not to be excluded. [Tosi e Lovari 1997]."

[https://www.kora.ch/malme/MALME-species-compendium/06\\_mouflon/fact\\_sheet\\_mouflon.pdf](https://www.kora.ch/malme/MALME-species-compendium/06_mouflon/fact_sheet_mouflon.pdf)

Excerpt from the Mouflon Conservation Project in 1955 on Giglio

The project for the defense of the mouflon (*ovis musimon*) was agreed upon and developed with the late Prof. A. Ghigi, A. Toschi and R. Videssot. These three great champions of the protection of Nature during their life...

<https://savegiglio.org/risorse.html#articolo-2>

## PROTECTION AND CONSERVATION OF WILD MOUFLON IN EUROPE: THE FIRST EXAMPLE OF "GENETIC MANAGEMENT" USING A PROJECT BASED ON REPRODUCTIVE BIOTECHNOLOGY - MARCH 2002

This project concerns the rescue of an endangered species, the European Mouflon (*Ovis orientalis musimon*), through the application of an integrated set of reproductive biotechnologies. A species classified as vulnerable (i.e., considering a species at high risk of extinction among the wild, in the medium term) is the native population of the European Mouflon, which lives only in the islands of Sardinia and Corsica. In Sardinia, the expansion of sheep farming has reduced the natural habitat of the European Mouflon, causing a strong reduction in the number of animals and their dispersion in a few isolated groups. These phenomena threaten the survival of the European Mouflon, whose probability of extinction is directly related to population variability and inversely related to immigration rate and density.

<https://academic.oup.com/biolreprod/article/66/3/796/2723946>

## CLONING THE WILD MOUFLON, WRITTEN BY TRACY HEATHERINGTON - FEBRUARY 2008

Reference to the importance of genetic resource conservation. Discussion of genetic essentialism and continuous improvement of conservation techniques for biological

endemics.<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwisnOaDyYnvAhUGH0wKHRnEBKAQFjAPegQIIBAD&url=https%3A%2F%2Frai.onlinelibrary.wiley.com%2Fdoi%2Fpdfdirect%2F10.1111%2Fj.1467-8322.2008.00559.x&usg=AOvVaw0L0SPBCGrjGsKIUt1uBZ-e>

## A LIFE PROJECT 2003-2007: CONSERVATION AND DIFFUSION OF CORSICAN MOUFLON POPULATIONS IN CORSICA

The Project aims at the protection and conservation of the entire population of the Corsican Mouflon (*Ovis gemelini musinom* var. *corsicana*). Considering the many attempts and the long time needed to carry out a program to defend wild ungulates from captive mating, this LIFE Project will mainly contribute to launch the program in the next 5 years.

[https://webgate.ec.europa.eu/life/publicWebsite/index.cfm?fuseaction=search.dspPage&n\\_proj\\_id=2500&docType=pdf](https://webgate.ec.europa.eu/life/publicWebsite/index.cfm?fuseaction=search.dspPage&n_proj_id=2500&docType=pdf)

## UPDATE OF THE WILDLIFE VOCATION MAP OF SARDINIA: UNGULATES SECTION. SASSARI, SARDINIA, ITALY: UNIVERSITY OF SASSARI -2012

"The mouflon is a historically autochthonous animal species in Sardinia. The same processing of the data gives an estimated density of mouflon of about 11 heads per 100 hectares.

[http://www.sardegnaambiente.it/documenti/18\\_269\\_20121204134127.pdf](http://www.sardegnaambiente.it/documenti/18_269_20121204134127.pdf)

## THE HARE OF PIANOSA - “LIFE-RESTO CON LIFE” 2017

<https://www.quinewselba.it/portoferraio-le-lepri-di-pianosa-pericolo-per-lecosistema.htm>

[https://www.isprambiente.gov.it/it/amministrazione-trasparente/bandi-di-gara-e-contratti/bandi/ZA127BB275/IrideWeb\\_1598259.pdf](https://www.isprambiente.gov.it/it/amministrazione-trasparente/bandi-di-gara-e-contratti/bandi/ZA127BB275/IrideWeb_1598259.pdf)

Iannucci A., Baccetti N., Giannini F., Gotti C. & Baratti M., 2018 - A genetic analysis of the European hedgehog (*Erinaceus europaeus*): an applicative case study to support its eradication from Pianosa Island (Tuscan Archipelago). *Conservation Genetics*,  
<https://doi.org/10.1007/s10592-018-1078-3>

Baccetti N. & Gotti C., 2016 - Protocollo di cattura e traslocazione del Riccio (*Erinaceus europaeus*) dall'Isola di Pianosa. PROGETTO LIFE13 NAT/IT/000471 “RESTO CON LIFE”: 15 pp.

Baccetti N. & Gotti C., 2016a - Protocollo di cattura e traslocazione del Riccio (*Erinaceus europaeus*) dall'Isola di Pianosa. PROGETTO LIFE13 NAT/IT/000471 “RESTO CON LIFE”/ISPRA: 15 pp.

<http://www.tenews.it/giornale/2018/04/16/a-proposito-di-abbattimento-di-lepri-ernici-e-fagian-74535/> <https://www.associazionepianosa.it/articoli/pianosa.rassegnastampa.523.asp>  
<http://www.elbanotizie.it/articolo.asp?key=13753>

<https://www.restoconlife.eu/2016/04/15/a-pianosa-una-rara-lepre-europea-animale-di-altri-tempi/>

Mengoni C., Trocchi V., Mucci N., Gotti C., Giannini F., Mallia E., Geminiani E., Baccetti N., 2018 - The secret of Pianosa island: an Italian native population of European brown hare (*Lepus europaeus meridiei* Hilzheimer, 1906). *Conservation Genetics*, 19 (6): 1513- 1518.

<https://www.quinewselba.it/campo-nell-elba-a-pianosa-tracce-di-una-razza-di-lepre-estinta.htm>

<https://www.quinewselba.it/portoferraio-le-lepri-di-pianosa-pericolo-per-lecosistema.htm>

<https://www.associazionepianosa.it/articoli/pianosa.rassegnastampa.585.asp>

<http://www.elbanotizie.it/articolo.asp?key=13753>

<https://www.greenreport.it/news/animalisti-no-alleradicazione-delle-lepri-a-pianosa-legambiente-si-alla-biodiversita-e-alla-scienza/>

<http://www.elbanotizie.it/articolo.asp?key=13753>

P. Sposimo, D. Capizzi, T. Cencetti, F. De Pietro, F. Giannini, C. Gotti, F. Puppo, G. Quilghini, E. Raganella Pelliccioni, G. Sammuri, V. Trocchi, S. Vagniluca, F. Zanichelli and N. Baccetti (2019) Rat and lagomorph eradication on two large islands of central Mediterranean: differences in island morphology and consequences on methods, problems and targets, *Pagina*. 234



## THE GOAT OF MONTECRISTO (*CAPRA AEGAGRUS*) - “LIFE- MONTECRISTO 2010”

Barani, Lucio. “Interrogazione A Risposta Scritta 4/14926 Presentata Da Barani Lucio (Popolo della Liberta’) in Data 20120215.” Atto Camera, 1 Aug. 2012,  
<https://savegiglio.org/pdf/montecristo/allegato-2-iter-camera-4-14926.pdf>

Booth, L.H.; Eason, C.T.; Spurr, E.B. 2001: Literature review of the acute toxicity and persistence of brodifacoum to invertebrates. Pp. 1-9 in: Department of Conservation 2001: Literature review of the acute toxicity and persistence of brodifacoum to invertebrates and studies of residue risks to wildlife and people. Science for Conservation 177, vi + 23 p.,  
[https://www.researchgate.net/publication/286744597\\_Literature\\_review\\_of\\_the\\_acute\\_toxicity\\_and\\_persistence\\_of\\_brodifacoum\\_to\\_invertebrates](https://www.researchgate.net/publication/286744597_Literature_review_of_the_acute_toxicity_and_persistence_of_brodifacoum_to_invertebrates).

Buckle A., Jones C., Talavera M., Prescott C. 2020 “Anticoagulant Resistance in Rats and Mice in the UK -Summary Report with new data for 2019-20” Vertebrate Pests Unit, University of Reading, UK. Oct. 2020,  
[https://www.researchgate.net/publication/336871353\\_Anticoagulant\\_Resistance\\_in\\_Rats\\_and\\_Mice\\_in\\_the\\_UK\\_-\\_Summary\\_Report\\_with\\_new\\_data\\_for\\_2019](https://www.researchgate.net/publication/336871353_Anticoagulant_Resistance_in_Rats_and_Mice_in_the_UK_-_Summary_Report_with_new_data_for_2019).

Colkim s.r.l., 2007 “Brocum - Scheda dati di sicurezza (Rev. 6.0 del 30 giugno 2007),  
<https://savegiglio.org/pdf/montecristo/allegato-1-scheda-brodifacoum.pdf>

Dani, 2014. “Sentenza N.39 Del 2014 a Carico Di Stefano Vagniluca, Franca Zanichelli, Paolo Sposimo.” Tribunale Di Livorno, Repubblica Italiana, Jan. 2014, pp. 1-3,  
<https://savegiglio.org/pdf/montecristo/allegato-4-sentenza.pdf>

Dutto, 2018. “Use of anticoagulant rodenticides in outdoor urban areas: considerations and proposals for the protection of public health and non-target species.” January 2018 Annali di Igiene: Medicina Preventiva e di Comunità 30 (1) p.44-50. DOI:10.7416/ai.2018.2194,  
[http://www.seu-roma.it/riviste/annali\\_igiene/open\\_access/articoli/30-01-05-Dutto.pdf](http://www.seu-roma.it/riviste/annali_igiene/open_access/articoli/30-01-05-Dutto.pdf).

Eason CT, Spurr EB, (1995) Review of the toxicity and impacts of brodifacoum on non-target wildlife in New Zealand, New Zealand Journal of Zoology, 22:4, 371-379,  
<https://doi.org/10.1080/03014223.1995.9518055>.

Ferrari, 2020. “Cosa Hanno Visto le Capre di Omero?” Territori - Racconti italiani tra persone e luoghi, Touring Club Italiano, 2020, pp. 215-20.

Fico, Rosario. “Verifica Corretta Applicazione Dell’Ordinanza Ministeriale Del 18 Dicembre 2008 e Ssmm in Relazione al Progetto Life + ‘Montecristo 2010’. Rif. Vs. Nota Del 2/2/2012 Prot. n. 0001985-P-02/02/2012.” Al Ministero Della Salute, Oct. 2012,  
<https://savegiglio.org/pdf/montecristo/allegato-3-parare-scientifico.pdf>

Fisher P.M., 2009. Residual concentration and persistence of Anticoagulant Rodenticides Brodifacoum and Diphacinone in Fauna. A thesis submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy at Lincoln University,  
<https://researcharchive.lincoln.ac.nz/handle/10182/930>.

Howald G., 1997. The risk of non-target species poisoning from Brodifacoum used to eradicate rats from Langara Island, British Columbia, Canada. MS Thesis, Univ. British Columbia, Vancouver, 159 pp.,  
<https://open.library.ubc.ca/media/download/pdf/831/1.0087971/2>

Masetti, M. “Mammals of the Mediterranean Islands: Homogenisation and the Loss of Biodiversity.” *Mammalia*, vol. 73, no. 3, 2009, pp. 169-202,  
doi:10.1515/mamm.2009.029,  
<https://savegiglio.org/pdf/masetti-mammals-mediterranean-islands-biodiversity.pdf>.

Masetti, M. 2015a. The wild goat, *Capra aegagrus* Erxleben, 1777, of the island of Montecristo (Northern Tyrrhenian Sea, Italy): does it still exist? *Mammalia* 80: 125-141,  
<https://savegiglio.org/pdf/masetti-wild-goat-of-montecristo-does-it-still-exist.pdf>.

Siers, Shane, et al. “Brodifacoum Residues in Fish Three Years after an Island-Wide Rat Eradication Attempt in the Tropical Pacific.” *Management of Biological Invasions*, vol. 11, no. 1, 2020, pp. 105-21. Crossref, doi:10.3391/mbi.2020.11.1.08.  
<https://www.reabic.net/journals/mbi/2020/Issue1.aspx>

Sposimo P, Capizzi D, Cencetti T, De Pietro F, Giannini F, Gotti C, Puppo F, Quilghini G, Raganella Pelliccioni E, Sammuri G, Trocchi V, Vagniluca S, Zanichelli F, Baccetti N. 2019. Rat and lagomorph eradication on two large islands of central Mediterranean: differences in island morphology and consequences on methods, problems and targets, P. 234,  
[http://www.issg.org/pdf/publications/2019\\_Island\\_Invasives/Sposimo.pdf](http://www.issg.org/pdf/publications/2019_Island_Invasives/Sposimo.pdf).

Sposimo, Paolo (NEMO Srl), Baccetti, Nicola (ISPRA), Giannini, Francesca (Parco Nazionale Arcipelago Toscano), Capizzi, Dario (ARP Lazio) “Piano per l’eradicazione Del Ratto Nero *Rattus Rattus* Nell’Isola Di Montecristo (Arcipelago Toscano).” Progetto LIFE NAT/IT/000353 - Montecristo 2010: Eradicazione Di Componenti Floro-Faunistiche Aliene Invasive e Tutela Di Specie e Habitat Nell’Arcipelago Toscano, Apr. 2011, pp. 1-36.  
[https://pdc.minambiente.it/sites/default/files/progetti/montecristo\\_2.\\_piano\\_di\\_eradicazione\\_ratto\\_nero.pdf](https://pdc.minambiente.it/sites/default/files/progetti/montecristo_2._piano_di_eradicazione_ratto_nero.pdf)

Sposimo, Paolo, and Tommaso Cenetti. “Valutazione Dell’efficacia Delle Misure Di Riduzione Del Rischio Di Reinvasione Da Parte Dei Ratti Nell’isola Di Montecristo e Loro Revisione - Dicembre 2016.” LIFE13 NAT/IT/000471 RESTO CON LIFE, 2016, pp. 1-10,  
<https://www.restoconlife.eu/wordpress/wp-content/uploads/2015/06/revisione-misure-biosecurity-per-ratto-nero-a-montecristo.pdf>.

Zanichelli, F. Oggetto: approvazione documento “Interventi per l’eradicazione del ratto nero *Rattus rattus* nell’Isola di Montecristo (Arcipelago Toscano)” nell’ambito del progetto LIFE+ Montecristo 2010. Provvedimento del Direttore del 28 dicembre 2011, n. 822.



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