



# WORKSHOP

31 March - 2 April 2014

## *Invasive alien species, a major threat to insular ecosystems: comparing management options and experiences*

Portoferraio (LI), Italy, Salita Napoleone, Centro Culturale De Laugier

### Aims of the workshop

Invasions by alien species, introduced by man (intentionally or not) outside their own natural ranges, are considered to be the second most important cause of biodiversity loss at a global scale.

The scientific literature has covered this issue for a couple of decades at least. Nevertheless, a discussion at the level of Italian and European environmental policies started quite recently. The Proposal for a Regulation of the European Parliament and of the Council on the prevention and management of the introduction and spread of invasive alien species dates back to only a few months ago. This includes several important elements, such as the setting up of an early warning and rapid response system; the definition of legal obligations banning the import, keeping, sale, purchase and exchange of IAS; the obligation for the rapid eradication of newly establishing IAS and other topics. The process to adopt a specific legal framework to facilitate management operations, indispensable for containing and reducing the negative effects of biological invasions, thus seems to have begun.

Several institutions and protected areas, however, are already fighting the spread of alien species. In particu-

lar, the Tuscan Archipelago National Park has attempted to contrast alien plant and animals on islands for several years, with practical actions addressed to the eradication of black rats on Giannutri or Montecristo, mouflons on Giglio, *Carpobrotus* and *Ailanthus* on Capraia and Pianosa, or to control populations, as it is being done on Elba for wild boars and mouflons. Guidelines have recently been produced by the Park as a local tool to fight biological invasions on fragile island ecosystems; enforcing them represents the challenge we presently face.

Unfortunately, dealing with the elimination or control of animal/plant species in protected areas is often a source of difficulties and problems. These range from cultural or emotional ones affecting the public, to the lack or inadequacy of regulation, leaving extensive grey areas. At the governance level these issues have perhaps been recently considered and accepted; at the general public level, however, they seem to be still enshrouded in darkness. Sharing experiences in alien species will hopefully help solve the problem, give credibility to local activities and help spread the know-how necessary for effective management.

## The Life Project "Montecristo 2010"

The project started from the need to trigger a process of naturalization of the two islands of Pianosa and Montecristo, both c. 1000 hectares large, belonging to a National Park, 2000 Nature Network, Biosphere Reserve of UNESCO. These had been differently altered by man during centuries of occupation, especially Pianosa, which still hosts the remains of a village and many buildings of a former state prison. Furthermore man has introduced intentionally or accidentally on both islands many non-native species. Some of these - the black rat (*Rattus rattus*), the Ailanthus (*Ailanthus altissima*), and the Hottentot Fig (*Carpobrotus* spp) - are at present recognized by the international scientific community to negatively affect native species and habitat. For instance, this is the case of the Yelkouan shearwater (*Puffinus yelkouan*); this seabird nests in Montecristo with a colony of about 400-700 breeding pairs, which represents a considerable fraction of the Italian (10-20 %) and world (approximately 3-10 %) population. The black rat is a serious threat for the shearwater, negatively interfering with its reproductive success.

The project Montecristo 2010 has the following aims: eradicating several exotic plant species, Ailanthus from Montecristo, Ailanthus, *Carpobrotus* and other species from Pianosa; and removing the black rat from Montecris-

to. Furthermore, efforts are underway in Pianosa to limit the expansion of the Aleppo pine (*Pinus halepensis*), a Mediterranean species, that competes with Phoenician juniper (*Juniperus turbinata*).

Activities, financed with about 1.6 million euros, started in 2010 and are expected to conclude in June 2014. The partnership is formed by the State Forestry Corps, Local Biodiversity Office of Follonica (CFS-UTB Follonica) as project beneficiary, the Tuscan Archipelago National Park (PNAT), the National Institute for Environmental Protection and Research (ISPRA) and the private company NEMO srl of Firenze. The Tuscany Regional Government and the Province of Livorno are co-financiers.

Most actions have concluded: black rat eradication was carried out in winter 2012 and results are currently being monitored; while plant removing operations are partly concluded on the two islands, while monitoring efforts are ongoing.

### [www.montecristo2010.it](http://www.montecristo2010.it)

CSF	<a href="http://www.corpoforestale.it">www.corpoforestale.it</a>
PNAT	<a href="http://www.islepark.it">www.islepark.it</a>
NEMO srl	<a href="http://www.nemoambiente.com">www.nemoambiente.com</a>
ISPRA	<a href="http://www.isprambiente.it">www.isprambiente.it</a>

## The project team

*The project team includes specialized staff belonging to the different partner organizations and by botanists from the Biology Department of Florence University, hired for monitoring vegetational aspects. The team, as a whole, has previous experience in eradications within the Tuscan Archipelago and in other islands.*

- **Stefano Vagniluca (CFS-UTB Follonica)** is responsible for the general project management.
- **Franca Zanichelli, Francesca Giannini (PNAT)** deal with the communication, the management of alien species in Pianosa and the rat eradication operation in Montecristo.

- **Paolo Sposimo (Nemo srl)** directly monitored the rat eradication.
- **Nicola Baccetti, Elisabetta Raganella and Camilla Gotti (ISPRA)** monitored the vertebrate fauna.
- **Bruno Foggi (University of Florence)** co-ordinated monitoring of the vegetation.
- **Giovanni Quilghini (CFS-UTB Pratovecchio), Michele Giunti (Nemo srl) and Claudia Pontenani (DREAM scarl)**, supervised Ailanthus removal operations.

## The Workshop

The workshop will take place on Elba island, the largest of the Tuscan Archipelago, where the administrative offices dealing with Pianosa and Montecristo are located. It will be arranged into four sessions.

**The morning of 31 March** will be devoted to educational issues, the park staff will meet the local high schools to discuss alien species. In the afternoon of 31 March the scientific workshop will start, with a first session on policies and governance. Administrative and technical staff from different public institutions will have the chance to be informed about the general issue of alien species and relevant European, national and local regulations.

**On 1 April** a session will be devoted to instances of particularly problematic alien species (e.g. rats, carnivores, ungulates, plants...) presented by experts from different countries. A presentation of the project "Montecristo 2010" will follow, with a description of the eradication methods and outcomes. At the end of the presentations of 1 April a technical session will present several concrete experiences from a wide range of insular locations.

**Finally, on 2 April** an excursion to Montecristo island will allow participants to visit the project area. The official languages of the workshop will be Italian and English, with simultaneous translation facilities.

### In addition to the project team, other conference participants include:

- Giampiero Sammuri (*Parco Nazionale Arcipelago Toscano, PNAT*)
- Angelo Salsi (*Commissione Europea, Bruxelles*)
- Nazario Palmieri (*Dirigente Superiore del Corpo Forestale dello Stato*)
- Alessandro Bottacci (*Capo dell'Ufficio per la Biodiversità del Corpo Forestale dello Stato*)
- Paolo Matina (*Regione Toscana*)
- Fabrice Bernard (*Conservatoire du Littoral, Francia*)
- Augusto Navone (*Area marina Protetta di Tavolara, Punta Coda Cavallo*)
- Piero Genovesi (*Istituto Superiore per la Protezione e la Ricerca Ambientale, ISPRA*)
- Karl Campbell (*Island Conservation, California - USA*)
- Fulvio Fraticelli (*BIOPARCO di Roma*)
- Félix Manuel Medina Hijazo (*Servicio de Medio Ambiente, Isole Canarie - Spagna*)
- Gregg Howald (*Island Conservation, Canada*)
- Giuseppe Brundu (*Università di Sassari*)
- Marco Masseti (*Università di Firenze*)
- Joan Mayol (*Servizio di Conservazione delle specie, Governo delle Baleari - Spagna*)
- Luis González (*Università di Vigo, Spagna*)
- Pierre Yésou (*Office National de la Chasse e de la Faune Sauvage - Francia*)
- Marco Panella (*Corpo Forestale dello Stato, Ministero delle Politiche Agricole, Alimentari e Forestali*)
- Giovanni Quilghini (*UTB di Pratovecchio, Corpo Forestale dello Stato*)
- Andrea Monaco (*Agenzia per i Parchi, Regione Lazio*)
- Dario Capizzi (*Agenzia per i Parchi, Regione Lazio*)
- Sandro Bertolino (*Università di Torino*)
- Bruno Massa (*Università di Palermo*)

## WORKSHOP TIMETABLE

**Monday, March 31, 2014**

10:00 a.m.-12:00 p.m. The Park meets with high school students on the topic of non-native species

**02:00 p.m. Opening of the Conference**

Simultaneous interpretation ITA/ENG and ENG/ITA

**02:00 p.m.- 03:00 p.m. Registrations and Greetings**

*Welcome addresses by:* Roberto Peria (Sindaco del Comune di Portoferraio), Nazario Palmieri (Dirigente Superiore del Corpo Forestale dello Stato), Ruggero Barbetti (Presidente della Comunità del Parco Nazionale Arcipelago Toscano), Umberto Mazzantini (Responsabile Nazionale Isole minori di Legambiente)

### Session I – Non-native invasive species and governance

*Chair:* **Giampiero Sammuri (Parco Nazionale Arcipelago Toscano, Portoferraio)** – Introduction to the workshop

03:20 p.m.- 03:40 p.m. **Alessandro Bottacci (Capo dell'Ufficio per la Biodiversità del Corpo Forestale dello Stato, Roma)** – Management of the National State Reserves: LIFE projects and control of alien species

03:40 p.m.- 04:00 p.m. **Paolo Matina (Regione Toscana, Firenze)** - Environment programs of Tuscany Region and actions on alien species control

**04:00 p.m.- 04:30 p.m. Coffee break**

04:30 p.m.- 04:50 p.m. **Angelo Salsi (Commissione Europea, Bruxelles, Belgio)** – IAS: the new proposal of an EU regulation and priority actions within the LIFE program

04:50 p.m.- 05:10 p.m. **Fabrice Bernard (Conservatoire du Littoral, Aix en Provence, Francia)** – Conservatoire du Littoral and PIM Initiative vs insular invasion, what is the position!

05:10 p.m.- 05:30 p.m. **Augusto Navone (AMP Tavolara Punta Coda Cavallo, Olbia)** – Monitoring and contrasting alien species diffusion: the case of Tavolara Punta Coda Cavallo MPA

05:30 p.m.- 05:50 p.m. **Joan Mayol (Direccio' General de Medi Natural - Servei de proteccio' d'e-species, Palma, Spagna)** – The control of invasive wildlife in the Balearic islands: experiences and priorities

Project implemented with funding from the European Commission

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## TUESDAY, April 1, 2014

09:00 a.m.

### **OPENING SESSION II – Non-native Invasive species and “Montecristo 2010” Life Project**

*Chair:*

**Franca Zanichelli (Parco Nazionale Arcipelago Toscano)**

09:00 a.m.- 09:20 a.m. **Gregg Howald (Island Conservation, Vancouver, Canada)** - Reversing the extinction crisis through eradication of introduced rats and mice from islands: globally shared opportunities and challenges

09:20 a.m.- 09:40 a.m. **Félix Manuel Medina Hijazo (Servicio de Medio Ambiente, Cabildo Insular de La Palma, Santa Cruz de La Palma, Spagna)** - The impacts of introduced carnivores on insular systems: the example of feral cats (*Felis catus*)

09:40 a.m.- 10:00 a.m. **Karl Campbell (Island Conservation, Santa Cruz, USA)** - Impacts, eradication and ecosystem responses post-eradication of feral ungulates on islands

10:00 a.m.- 10:20 a.m. **Giuseppe Brundu (Università di Sassari, Dipartimento di Scienze della Natura e del Territorio, Sassari)** - Invasive alien plants in protected areas in Mediterranean islands

10:20 a.m.- 10:40 a.m. **Dario Capizzi (Regione Lazio, Agenzia Regionale Parchi, Roma)** - Fifteen years of rat eradications on Italian islands

#### **10:40 a.m.- 11:15 a.m. Coffee Break**

11:15 a.m.- 11:35 a.m. **Stefano Vagniluca (Corpo Forestale dello Stato, Ufficio Biodiversità di Foltonica)** - Montecristo 2010 Life project: actions carried out by the State Forestry Corps

11:35 a.m.- 11:55 a.m. **Franca Zanichelli (Parco Nazionale Arcipelago Toscano, Portoferraio)** – Montecristo 2010 Life project: actions carried out by the Tuscan Archipelago National Park

11:55 a.m.- 12:15 p.m. **Paolo Sposimo (NEMO srl, Firenze)** - Black rat eradication on Montecristo

12:15 p.m.- 12:35 p.m. **Claudia Pontenani (D.R.E.Am. Italia, Pratovecchio)** - Effectiveness of plant eradication actions on Pianosa Island: resistency and resilience of *Ailanthus*.

12:35 p.m.- 12:55 p.m. **Camilla Gotti (Istituto Superiore per la Protezione e Ricerca ambientale, Ozzano Emilia)** - Montecristo 2010 Life project: monitoring of animal species

#### **01:00 p.m.- 02:00 p.m. Lunch break**

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02:00 p.m. **OPENING SESSION III – Non-native invasive species, concrete cases of management, control and eradication**

*Chair:* **Piero Genovesi (Istituto Superiore per la Protezione e Ricerca ambientale, Roma)** – Introduction to the SESSION III

02:15 p.m.- 02:35 p.m. **Lorenzo Lazzaro (Università di Firenze, Dipartimento di Biologia, Firenze)** - Montecristo 2010 Life project: monitoring of plant species

02:35 p.m.- 02:55 p.m. **Fulvio Fraticelli (BIOPARCO, Roma)** - Montecristo goats diplomatically represented in Rome

02:55 p.m.- 03:15 p.m. **Marco Masseti (Università di Firenze, Dipartimento di Biologia, Firenze)** - The anthropochorous non-volant mammals of the Tuscan Archipelago

03:15 p.m.- 03:35 p.m. **Francesca Giannini (Parco Nazionale Arcipelago Toscano, Portoferraio)** - Management of introduced ungulates in the Tuscan Archipelago National Park

03:35 p.m.- 03:55 p.m. **Luis González (Università di Vigo, Dept. Biología Vegetal e Ciencia do Solo, Vigo, Spagna)** - National Park Islas Atlánticas: invasive plants, control and restoration

03:55 p.m.- 04:15 p.m. **Pierre Yesou (ONCFS, Nantes - Francia)** - The introduced sacred ibis, predator of seabirds and other fragile species

**04:15 p.m.- 05:00 p.m. Coffee break**

05:00 p.m.- 06:30 p.m. **Spotlight discussion and Conclusions**

*Chair:* **Piero Genovesi**

*Speakers:* **Marco Panella (Corpo Forestale dello Stato, Roma), Giovanni Quilghini (Corpo Forestale dello Stato, UTB di Pratovecchio), Andrea Monaco (Regione Lazio, Agenzia Regionale Parchi, Roma), Sandro Bertolino (Università di Torino, DISAFA Entomologia e Zoologia, Torino), Bruno Massa (Università di Palermo, Dipartimento di Scienze agrarie e forestali, Palermo)**

**Wednesday, April 2, 2014**

**Montecristo Island excursion**

09:00 a.m. Departure from Porto Azzurro by boat  
11:00 a.m.- 03:00 p.m. Visit of Montecristo Island (with light lunch on board)  
05:00 p.m. Arrival at Porto Azzurro  
06:30 p.m. Arrival at Piombino

*The tour may be cancelled in case of bad weather.*

*The excursion is reserved for speakers at the workshop; conference participants will be able to join only if registered by 25.3.2014 and subjecting to place availability.*

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