

ISTA ANNUAL MEETING

VERONA 29 MAY 2023

Ex-situ in-situ Biodiversity Conservation

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CONTRIBUTION INDEX

- **Carabinieri Corps, Carabinieri Biodiversity Department and 130 State Nature Reserves**
- **CNBF - National Center for the Conservation of Forest Biodiversity**
- **CNBF of Peri**
 - ✓ **Collecting fruits**
 - ✓ **Seed production**
 - ✓ **Seed testing**
 - ✓ **Ex-situ conservation**
 - ✓ **In-situ conservation**

Carabinieri Corps, Carabinieri Biodiversity Department and 130 State Nature Reserves

- The Carabinieri Biodiversity Department coordinates the activities of the **28 Biodiversity Offices** present in almost all of Italy and **3 National Biodiversity Center**. Biodiversity Offices manage **130 State Nature Reserves** and other **19 State Nature Areas**

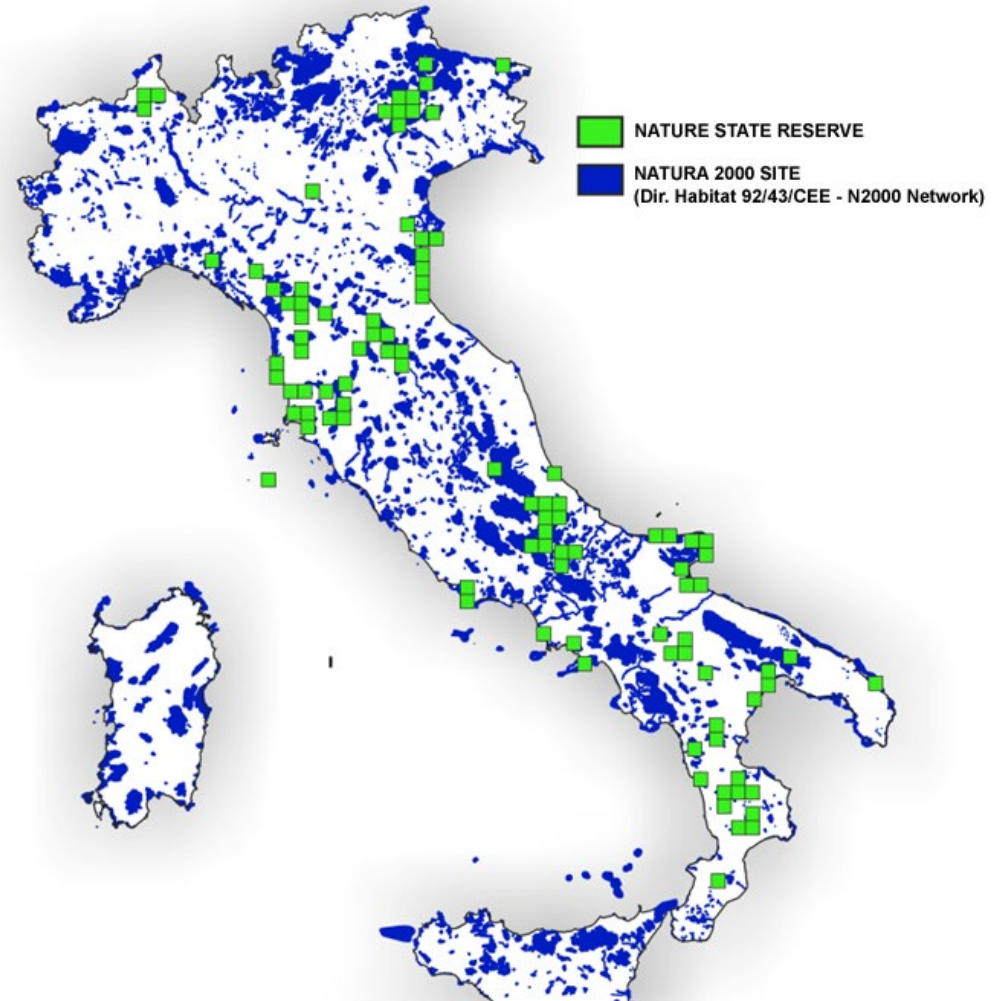


Carabinieri Corps, Carabinieri Biodiversity Department and 130 State Nature Reserves

- **130 STATE NATURE RESERVES** and
- **19 other STATE NATURE AREAS**

**Managed by Biodiversity
Offices**

TOT. 130.000 hectare



Carabinieri Corps, Carabinieri Biodiversity Department and 130 State Nature Reserves



Carabinieri Corps, Carabinieri Biodiversity Department and 130 State Nature Reserves

Monitoring activities



CNBF - National Center for the Conservation of Forest Biodiversity

Pieve S. Stefano – (Tuscany)



Study, production and conservation of forest reproductive materials



Peri – (Veneto)



Bosco Fontana – (Lombardy)



Study and conservation of forest ecosystem biodiversity, monitoring of protected insects, role of deadwood in the forest ecosystem

CNBF - National Center for the Conservation of Forest Biodiversity of Peri

The CNBF in Peri, like the same in Pieve S. Stefano, is a center of excellence on the study, production and conservation of forest reproductive material (seeds and seedlings) in order to give support to reforestation activities in Italy.

It manages the entire forest nursery supply chain, from collecting fruits to the production and supply of seeds and seedlings. Produces seed of native tree and shrub forest species.

Activities:

- Forest nursery activities
- Management of several new forests (tot 45 hectares)
- Molecular biology laboratory
- Seed quality testing Laboratory

CNBF - National Center for the Conservation of Forest Biodiversity of Peri

Collecting fruits



treeclimbing
technique

collecting by aerial
work platform



collecting by
ground



CNBF - National Center for the Conservation of Forest Biodiversity of Peri

Collecting fruits

Bags or wooden floor where fruits are temporarily collected and keep separated



CNBF - National Center for the Conservation of Forest Biodiversity of Peri

- Fruits processing
- Seeds extraction and selection



CNBF - National Center for the Conservation of Forest Biodiversity of Peri

Seed sampling



CNBF - National Center for the Conservation of Forest Biodiversity of Peri

Seed quality testing Laboratory - ISTA Lab ITML06 -

Physical analysis

- Purity
- Humidity content
- Weight of 1000 seeds

Chemical analysis

- Vitality (tetrazolium test)

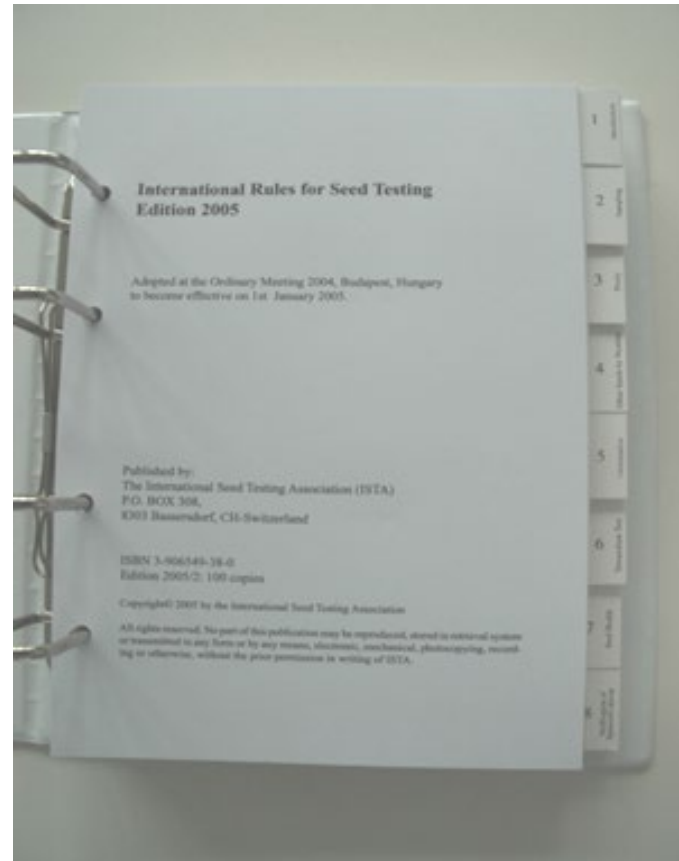
Physiological analysis

- Germinability



CNBF - National Center for the Conservation of Forest Biodiversity of Peri

Seed quality testing Laboratory - ISTA Lab ITML06 -

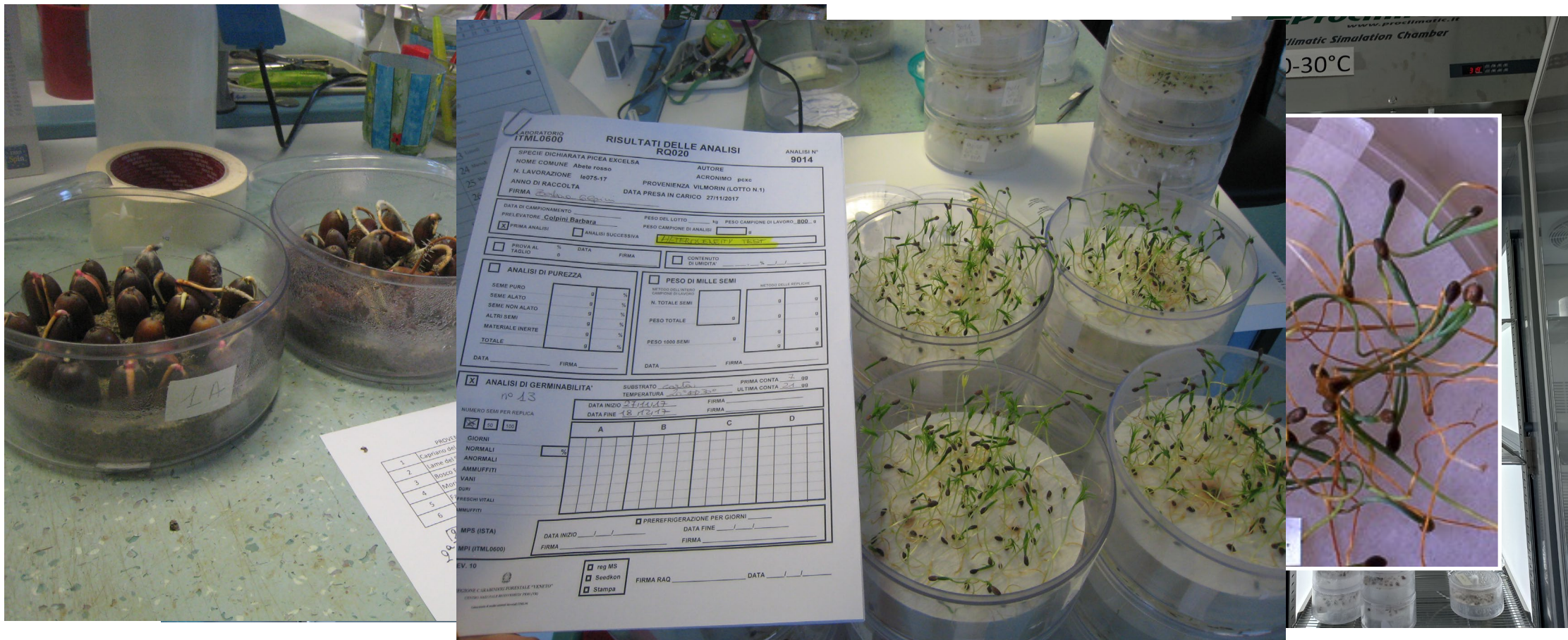


Analyses are carried out in accordance with ISTA international standards

CNBF - National Center for the Conservation of Forest Biodiversity of Peri

Seed quality testing Laboratory - ISTA Lab ITML06 -

Germinability test



CNBF - National Center for the Conservation of Forest Biodiversity of Peri

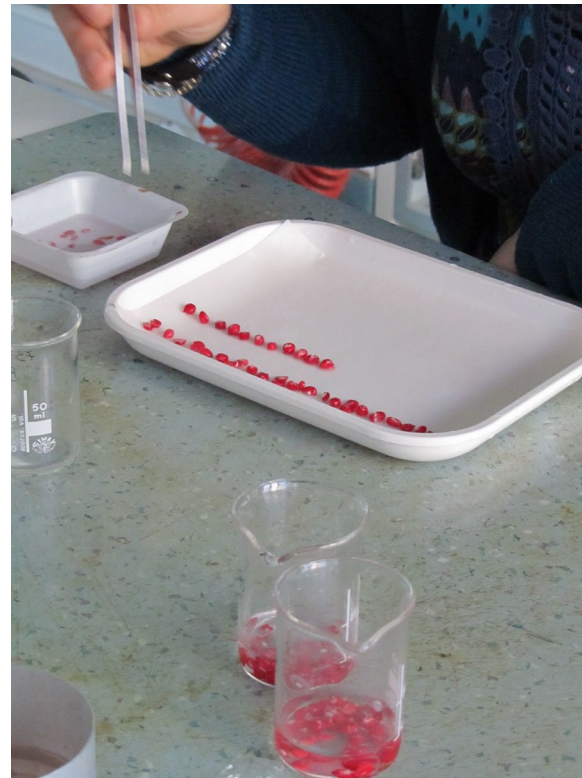
Seed quality testing Laboratory

- ISTA Lab ITML06 -

Are you hard to germinate?



**Vitality test
(tetrazolium test)**



CNBF - National Center for the Conservation of Forest Biodiversity of Peri

Ex-situ conservation Seed bank

CNBF seed Bank: here we store seeds to conserve genetic diversity. Our seed bank doesn't work to preserve seeds for long term because we don't manage threatened or endangered species



CNBF - National Center for the Conservation of Forest Biodiversity of Peri

Ex-situ conservation Forest nursery

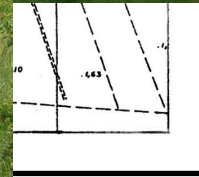


CNBF - National Center for the Conservation of Forest Biodiversity of Peri

In-situ conservation

The CNBF plans and implements new small reforestations using native and local species

Re
Fe



CNBF - National Center for the Conservation of Forest Biodiversity of Peri

In-situ conservation

The CNBF plans and implements reintroductions of endangered species in relict sites



Cistus albidus L.

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Thanks for your attention!

