



# UNIVERSITÀ DI PISA

## PLANT CONSERVATION

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**GIANNI BEDINI**

Academic year	2017/18
Course	CONSERVAZIONE ED EVOLUZIONE
Code	382EE
Credits	6

Modules	Area	Type	Hours	Teacher(s)
PLANT CONSERVATION	BIO/02	LEZIONI	56	GIANNI BEDINI

### Obiettivi di apprendimento

#### *Conoscenze*

theoretical and practical bases for monitoring plant diversity; current theory and practice of plant diversity conservation; advantages and disadvantages of protected areas, seed banks and botanic gardens as conservation tools; international and local organisations involved in in situ and ex situ plant conservation; main international and national agreements and legislation about plant conservation.

#### *Modalità di verifica delle conoscenze*

Final oral exam

#### *Capacità*

students will learn how to monitor plant diversity, what are the best practices in plant conservation, what programmes on what species can be carried out in protected areas, botanic gardens and seed banks, what institutions should be involved in conservation projects, and what are the legal obligations for plant conservation.

#### *Modalità di verifica delle capacità*

Final oral exam

#### *Comportamenti*

Become aware that plant conservation provides an interface between academic teaching and conservation-oriented institutions like protected areas and botanic gardens.

#### *Modalità di verifica dei comportamenti*

Final oral exam

### Prerequisiti (conoscenze iniziali)

Working knowledge of general and systematic botany, with emphasis on adaptations, floral traits and characters of main families of the Italian vascular flora

### Programma (contenuti dell'insegnamento)

Definitions of plant diversity. Patterns of plant diversity distribution. Monitoring plant diversity for conservation. Why conserve plant diversity: economic uses, ecosystem services, legal obligations. Threats to biodiversity.

Theory of plant conservation. In situ conservation of species and habitats. Legal obligations for in situ conservation. Priority lists for habitats and conservation: Habitat Directive. A classification



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of threatened species: the red lists. Main organisations for in situ conservation. Conservation in a fragmented context: inspiration from the island biogeography theory. Ex situ conservation of species. Legal obligations for ex situ conservation. Main organisation for ex situ conservation. Closing the gap between ex situ and in situ: habitat restoration, introduction, reintroduction, reinforcement. Conservation psychology. Practical lessons will include visit to Botanic Gardens; visit to protected areas and evaluation of threats to biodiversity. Practical experience in habitat conservation in protected areas. Seed bank activities for ex situ conservation and reintroduction projects

### Bibliografia e materiale didattico

1. Sodhi N.S., Ehrlich P.R., 2010. Conservation Biology for all. Oxford University Press (available online at <http://ukcatalogue.oup.com/product/9780199554249.do>)
2. Primack R.B., Carotenuto L., 2003. Conservazione della natura. Zanichelli, Bologna.
3. Hambler C., Canney S.C., 2013. Conservation (2nd edition). Cambridge University Press, New York.
4. Zuccarini P., Aguilera A., Bedini G., 2015. Spatial and temporal variation of community composition and species cover following dune restoration in the Devesa de Albufera (Valencia, Spain). Plant Biosystems, in press, doi: 10.1080/11263504.2015.1012134

Other material will be available from the class' E-learning page

### Indicazioni per non frequentanti

Teaching material will be available on the E-learning page.

### Modalità d'esame

Final oral exam

### Pagina web del corso

<https://polo3.elearning.unipi.it/course/view.php?id=2967>

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