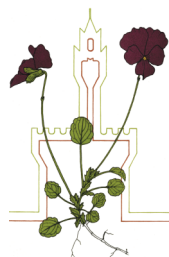




ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
DIPARTIMENTO DI SCIENZE BIOLOGICHE,
GEOLOGICHE E AMBIENTALI

International Meeting on Plant Reproduction

Dept. BiGeA, Alma Mater Studiorum-Università di Bologna, 15-16 September 2014



FIRST CIRCULAR

We are pleased to invite you to attend the International Meeting on Plant Reproduction, to be held on 15-16 September 2014 at the Department of Biological, Geological and Environmental Sciences of Bologna University (Italy). The conference will encompass different aspects of plant reproduction, including flower biology, sexual and asexual reproduction, pollination ecology, fertilization and seed formation, genetics and genomics. The meeting will bring together international scientists and will provide a forum for sharing ideas, presentation of research findings, and discussion of issues relevant to plant reproduction.

This event is organized by BiGeA, Department of Biological, Geological and Environmental Sciences, University of Bologna (<http://www.bigea.unibo.it/>), in collaboration with DAFNAE, Department of Agronomy Food Natural resources Animals and Environment, University of Padova (<http://www.dafnae.unipd.it/>), and Department of Life Sciences, University of Siena (<http://www.dsv.unisi.it/>).

Conference topics:

Reproductive barriers in plants: male-sterility and self-incompatibility

Along with male-sterility, self-incompatibility is one of the most effective reproductive barriers operating in angiosperms. Male-sterility refers to either absence of pollen grains or presence of non-functional ones: it prevents self-pollination and allows cross-pollination, finding applied utility for breeding hybrid varieties. It is known that male-sterility can be caused either by mitochondrial genes with coupled nuclear genes or by nuclear genes alone. Models of male sterility and fertility restoration have been discussed also in terms of evolutionary significance of reproductive systems. Self-incompatibility is adopted by many flowering

plants to prevent inbreeding, thus maintaining diversity within species, being considered one of the most important causes for the spread and success of angiosperms on the earth. The self-incompatibility response is genetically controlled by one or more multi-allelic loci in both sporophytic and gametophytic systems, and relies on a series of cellular interactions between pollen and pistil. Although self-incompatibility functions ultimately to prevent self-fertilization, flowering plants have evolved several unique mechanisms for rejecting the self-incompatible pollen, some still unexplored at the molecular level.

Reproductive modes in plants: sexuality vs. apomixis

Seed is one of the key factors for the perpetuation of angiosperm species. Therefore, a comprehension of the mechanisms underlying seed formation in crop and model plants is crucial for the quantitative and qualitative progress of agricultural production. In angiosperms, two pathways of reproduction through seed exist: sexual or amphimictic, and asexual or apomictic; the former is largely exploited by seed companies for breeding new varieties, whereas the latter is receiving continuously increasing attention from both scientific and industrial sectors in basic research projects. If apomixis is engineered into sexual crops in a controlled manner, its impact on agriculture will be broad and profound. In fact, apomixis will allow clonal seed production and thus enable efficient and consistent yields of high- quality seeds, fruits, and vegetables at lower costs. The development of apomixis technology is expected to have a revolutionary impact on agricultural and food production by reducing cost and breeding time, and avoiding the complications that are typical of sexual reproduction (e.g., incompatibility barriers) and vegetative propagation (e.g., viral transfer).

Nectar: plant interface for interactions with biotic environment

Angiosperm floral and extra-floral nectar is undoubtedly recognized as a valuable energetic food resource for a large variety of animals. According to recent studies, nectar mediates interactions that are much more complex than previously thought establishing a network of relationships between plants, animals and microorganisms too. The complex dynamics of these interactions and their consequences for plant reproduction are almost unknown.

Plant mating and animal pollination: a complex natural system

Pollination is a key mutualism between plants and animals: the plant gains reproductive success and the pollinator obtains -usually- some kind of reward. The functioning of ecosystems strictly depends on these complex interactions, that are also essential for agro-ecosystems and humans. Plant mating systems and biotic pollen transfer have been the focus of attention for natural scientists during the last centuries: they are still actively debated by biologists, naturalists and ecologists, providing insights into evolution and adaptation processes, in a changing natural world subject to an increasing biodiversity loss.

Tentative schedule

<p>September 15th, 2014</p> <p>Aula F – Via Belmeloro 8:30 -9:30 Opening 9:30-13:00 1st Symposium “Reproductive barriers in plants: male-sterility and self-incompatibility”</p> <p>Dip. BiGeA, Via Selmi 3 13:00-14:30 Lunch Break and Poster Session</p> <p>Aula F – Via Belmeloro 14:30-17:00 2nd Symposium “Reproductive modes in plants: sexuality vs. apomixis “ 17:30 Guided tour of the Botanic Garden 20:30 DINNER (reservation required)</p>	<p>September 16th, 2014</p> <p>Aula F – Via Belmeloro 8:30 -9:30 Opening 9:30-13:00 3rd Symposium “Nectar: plant interface for interactions with biotic environment”</p> <p>Dip. BiGeA, Via Selmi 3 13:00-14:30 Lunch Break and Poster Session</p> <p>Aula F – Via Belmeloro 14:30-17:00 4th Symposium “Plant mating and animal pollination: a complex natural system”</p>
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Organizing Committee:

Davide Pettener, Committee President, Director of Dept. BiGeA, University of Bologna

Marta Galloni, Committee Vice-president Dept. BiGeA, University of Bologna

Gianni Barcaccia, Dept. DAFNAE, University of Padova

Laura Bortolotti, CRA - Unità di Ricerca di Apicoltura e Bachicoltura

Alessandro Chiarucci, Dept. of Life Sciences, University of Siena

Giovanni Cristofolini, Herbarium and Botanic Garden, University of Bologna

Stefano Del Duca, Dept. BiGeA, University of Bologna

Carlo Ferrari, Dept. BiGeA, University of Bologna

Giulio Galla, Dept. DAFNAE, University of Padova

Massimo Nepi, Dept. of Life Sciences, University of Siena

Giovanna Puppi, Dept. BiGeA, University of Bologna

General Information – Abstract submission

Abstracts must be submitted online. The online system will guide the authors through the submission process. Emailed or faxed contributions will not be accepted.

Templates for abstracts will be available soon in the meeting webpage.

The authors will be asked to indicate the preferred type of presentation. The scientific committee will assign the contributes to poster or oral presentation, taking into account the preference of authors and the balance of the program.

Conference web-page: <http://www.pp-icon.eu/zmeeting>

Deadlines:

Abstract submission: 06/07/2014

Acceptance notification to authors: 14/07/2014

Early registration active until: 01/07/2014

Registration fees:

	Early Registration (Before July 1st) for 2 days participation	Early Registration (Before July 1st) for 1 day participation	Late Registration (After July 1st) for 2 days participation	Late Registration (After July 1st) for 1 day participation
Permanent	€ 250,00 (vat included)	€ 180,00 (vat included)	€ 300,00 (vat included)	€ 220,00 (vat included)
Non-permanent	€ 180,00 (vat included)	€ 130,00 (vat included)	€ 220,00 (vat included)	€ 160,00 (vat included)

Registration includes:

- Attendance to conference presentations, poster sessions
- Book of Abstracts
- Coffee breaks within session, Lunch breaks