



LE STUDIUM
Loire Valley
Institute for Advanced Studies

Dra. Susana N. Marcucci Poltri, IABIMO (UEDD INTA-CONICET) Buenos Aires, Argentina

Moderator : Pauline Garnier-Gere (UMR BIOGECO, INRAE, Bordeaux)

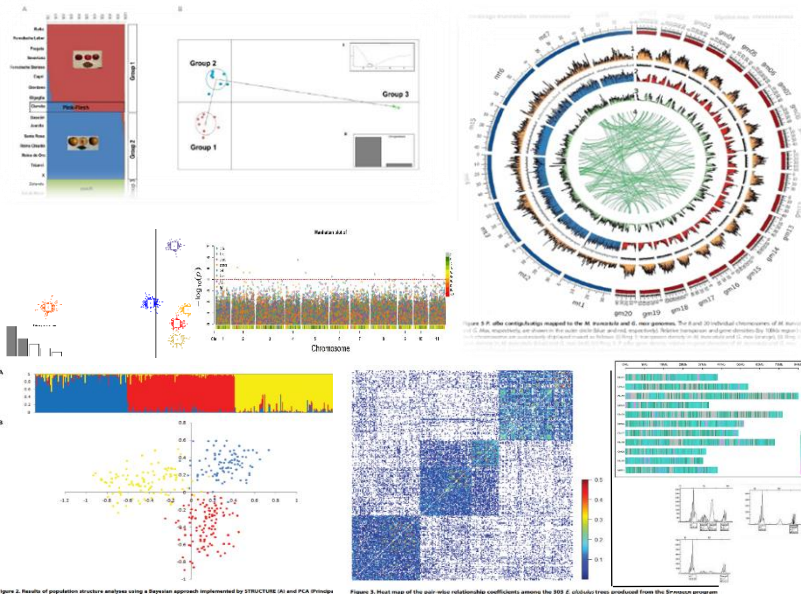
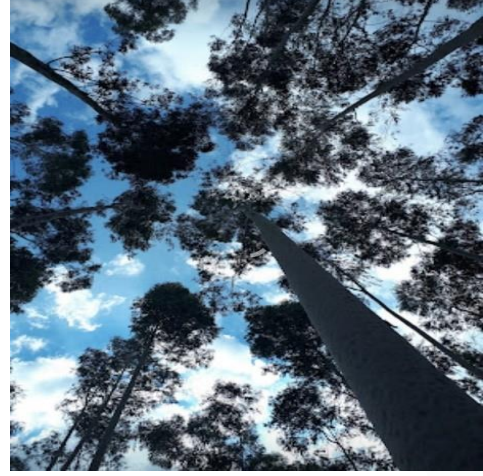
November 19 | 15H

CET/Paris time
On line

LIA FORESTIA
web seminars round
2021

#7

GENOMIC TOOLS FOR GENETIC DIVERSITY MANAGEMENT, TRACEABILITY AND BREEDING PROGRAMS OF EUCALYPTS AND OTHER TREE SPECIES



Our group works on the development and application of different genomic tools to support INTA's forest and fruit breeding programs distributed throughout Argentina. For eucalypts, we have developed microsatellite markers located in candidate genes related to wood, plant growth and development traits. Recently, we have optimized a protocol for SNP (Single Nucleotide Polymorphism) discovery using ddRADseq strategy which has also been applied in other tree species (plum, peach). Based on leaves transcriptomic experiments, we have collaborated on the generation of novel genomic resources for native tree species of different genus such as *Nothofagus*, *Prosopis* and *Cedrela*.

These genomic tools as well as others publicly available have allowed us to evaluate the genetic diversity of different eucalypts breeding populations (*E. grandis*, *E. dunnii*, *E. camaldulensis*, *E. globulus*) and clonal seed orchards of pine species (*P. taeda*, *P. caribaea*). For clonally propagated fruit trees (such as plum and pecan) we applied these approaches to characterize and look for traceability of plant materials.

We are currently evaluating genomic selection (GS) and association mapping strategies focused on breeding programs of different eucalypts species, in a continuous collaboration with researchers from national and international institutions.

Examples of developed tools and genomic applications will be discussed.

FREE WEBINAR, REGISTRATION REQUIRED

Organized by the MiDi network and Le Studium in the framework of the LIA FORESTIA
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