

Wood and tree-ring studies of forest adaptation to climate change; implications for wood production

Session B2d/B2f

Chair: Dr Alejandro Martinez Meier, MC Paulina Puchi, Dr Philippe Rozenberg, MC Margarita Escobar Sandoval

Chairs of the session

- Alejandro Martinez Meier, INTA Bariloche, Argentina
- Paulina Puchi, PhD Student, Chile, University of Padova Italy
- Margarita Escobar Sandoval, PhD Student, Mexico, INRA Orléans France
- Philippe Rozenberg, INRA Orléans, France

Why this session ?

- Climate change -> new stresses

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- Declines, mortality, diebacks...

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- **Adaptation** potential?

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- Declines, mortality, diebacks...
- Adaptation potential?
- Adaptation: natural mechanisms of adjustment to new environmental conditions
 - Individual response = phenotypic plasticity
 - Population response = evolutionary adaptation

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- Declines, mortality, diebacks...
- Which **traits** to study adaptation? **Adaptive** traits = traits related to **fitness**

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- Climate change -> new stresses
- Declines, mortality, diebacks...
- Which traits? Adaptive traits = traits related to fitness
- Fitness = survival + potential of reproduction

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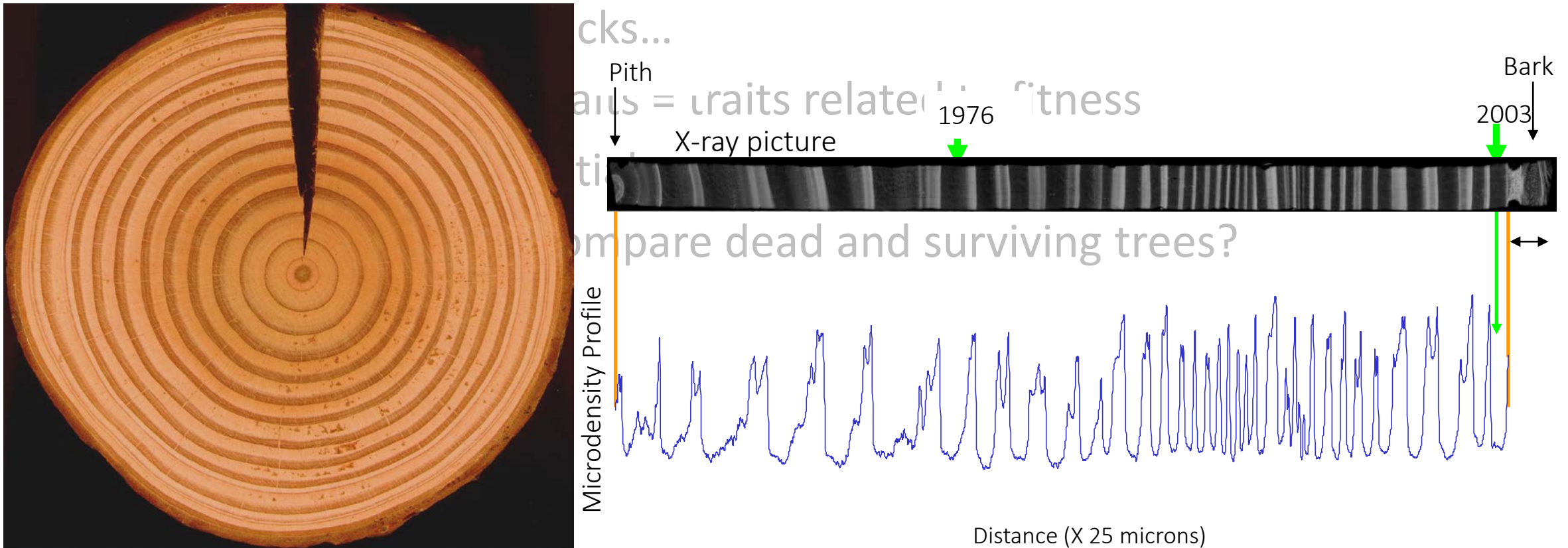
- Climate change -> new stresses
- Declines, **mortality, diebacks**...
- Which traits? Adaptive traits = traits related to fitness
- Fitness = **survival** + potential of reproduction

Why this session ?

- Climate change -> new stresses
- Declines, mortality, diebacks...
- Which traits? Adaptive traits = traits related to fitness
- Fitness = survival + potential of reproduction
- How to retrospectively compare dead and surviving trees?

Wood, tree-rings, dendroecological studies

- Climate change -> new stresses



Acknowledgements

- International Associated Laboratory INRA France-INTA Argentina **FORESTIA**
- « **MIDI** » regional network, region Val de Loire, France
- « **CLIMAT Amsud** » French-South America cooperation program
- INRA bureau of international relationships
- IUFRO and congress organizers

First day, Monday 30/09 15:30 – 17:30

- One poster lightning presentation-Part 1 (Part 2 in B2f Tomorrow morning) (5 mn):
 1. Moussa Massaoudou, National institute for Agricultural Research, Niger
- Seven oral presentations-Part 1 (Part 2 in B2f Tomorrow morning) (10 mn + 5 mn questions):
 1. María Elena Fernández (CONICET, INTA, Argentina)
 2. Paulina Puchi (University of Padova, Italy)
 3. Gilles Chaix (CIRAD, France)
 4. Roger Chambi Legoas (University of Sao Paulo, Brazil)
 5. D. Ricardo Ortega Rodriguez (University of Sao Paulo, Brazil)
 6. Gregório Ceccantini (University of Sao Paulo, Brazil)
 7. Gao Wen-Qiang (Chinese Academy of Forestry, China)

Time-Table

| | 15:30 – 15:45 | Introduction + Poster 1 Moussa Massaoudou |
|---|---------------|---|
| 1 | 15:45 – 16:00 | María Elena Fernández |
| 2 | 16:00 – 16:15 | Paulina Puchi |
| 3 | 16:15 – 16:30 | Gilles Chaix |
| 4 | 16:30 – 16:45 | Roger Chambi Legoas |
| 5 | 16:45 – 17:00 | D. Ricardo Ortega Rodríguez |
| 6 | 17:00 – 17:15 | Gregório Ceccantini |
| 7 | 17:15 – 17:30 | Gao Wen-Qiang |

Second day, Tuesday 01/10 8:30 - 10:30

- Two poster lightning presentation Part 2 (5 mn)
(2 is moved to the end of the session)
3. Ilara Budzinski
- Seven Oral Presentations Part 2 (10 mn + 5 mn questions)
8. Anne-Sophie Sergent CONICET, INTA, Argentina
9. Ionel Popa, National Institute for Research and Development in Forestry, Romania
10. Vanina Chifarelli, Universidad Nacional de Santiago del Estero, Argentina
11. Deepa Bisht, Forest Research Institute, India
12. Jorge Garate, Universidad Nacional Amazónica de Madre de Dios, Peru
13. Claudia Franca Barros, Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Brazil
14. Gregório Ceccantini, University of São Paulo, Brazil

2nd poster lightning presentation: Mirjana Stevanov

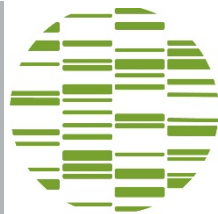
Time-Table

| | 8:30 – 8:35 | Introduction |
|----|---------------|-----------------------|
| P3 | 8:35 – 8:40 | Ilara Budzinski |
| 8 | 8:40 – 8:55 | Anne-Sophie Sergent |
| 9 | 8:55 – 9:10 | Ional Popa |
| 10 | 9:10 – 9:25 | Vanina Chifarelli |
| 11 | 9:25 – 9:40 | Deepa Bisht |
| 12 | 9:40 – 9:55 | Jorge Garate |
| 13 | 9:55 – 10:10 | Claudia Franca Barros |
| 14 | 10:10 – 10:25 | Gregorio Ceccantini |
| P2 | 10:25 – 10-30 | Mirjana Stevanov |

LIA* Argentina France FORESTIA

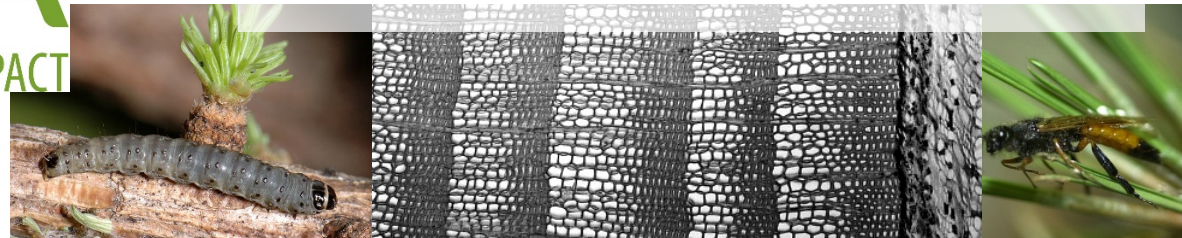


- Co-direction A. Martinez-Meier and P. Rozenberg
- Agreement signed, 3 May 2018, Buenos-Aires, Argentine
- Adaption of natural and planted forest to biotic and abiotic environmental variation in the global change context
- International Conference *Adapting forest ecosystems and wood products to biotic and abiotic stress*, 12-15 March 2019, Bariloche, Argentine
- Marie-Curie RISE European Project TOPWOOD *Wood phenotyping tools: properties, functions and quality*



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SCIENCE & IMPACT

* *International Associated Laboratory*



The MiDi network

Habitats & Diversity

A thematic research network in Centre-Val de Loire Region

*For observation and sustainable Management
of natural Resources and Biodiversity.*

- Created in 2014, supported and financed by the Centre-Val de Loire Region
- All regional research organizations involved in the knowledge and management of natural resources
- Addresses interdisciplinary socio-environmental themes
- Communication and scientific promotion

The CLIMAT Amsud Collaboration Program

- An initiative of the French Ministry of Foreign Affairs and of its counterparts in Argentina, Bolivia, Colombia, Chile, Paraguay, Peru and Uruguay
- Objective: *develop international multilateral collaboration on climate change and adaptation to climate change*
- Based on staff exchange and organization of workshops and seminars
- First call December 2019

