



Mediterranean Network FORUM/22

Barcelona
29 Nov. – 1 Dec.
2022



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Network**

FORUM/22

Forest Genetics Research in the Mediterranean Basin: Bibliometric Analysis, Knowledge Gaps, and Perspectives

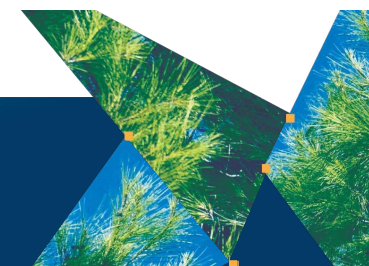
Bruno Fady, INRAE URFM, Avignon, France



EFIMed webinar: conservation and management of
biodiversity and forest genetic resources – November 17, 2022

Forest Genetics Research in the Mediterranean Basin: Bibliometric Analysis, Knowledge Gaps, and Perspectives

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An opinion article based on a survey and a bibliometric analysis (1991–2020) using Scopus and custom-made queries

=> Knowledge acquired and perspectives for 2030



What is the Mediterranean?



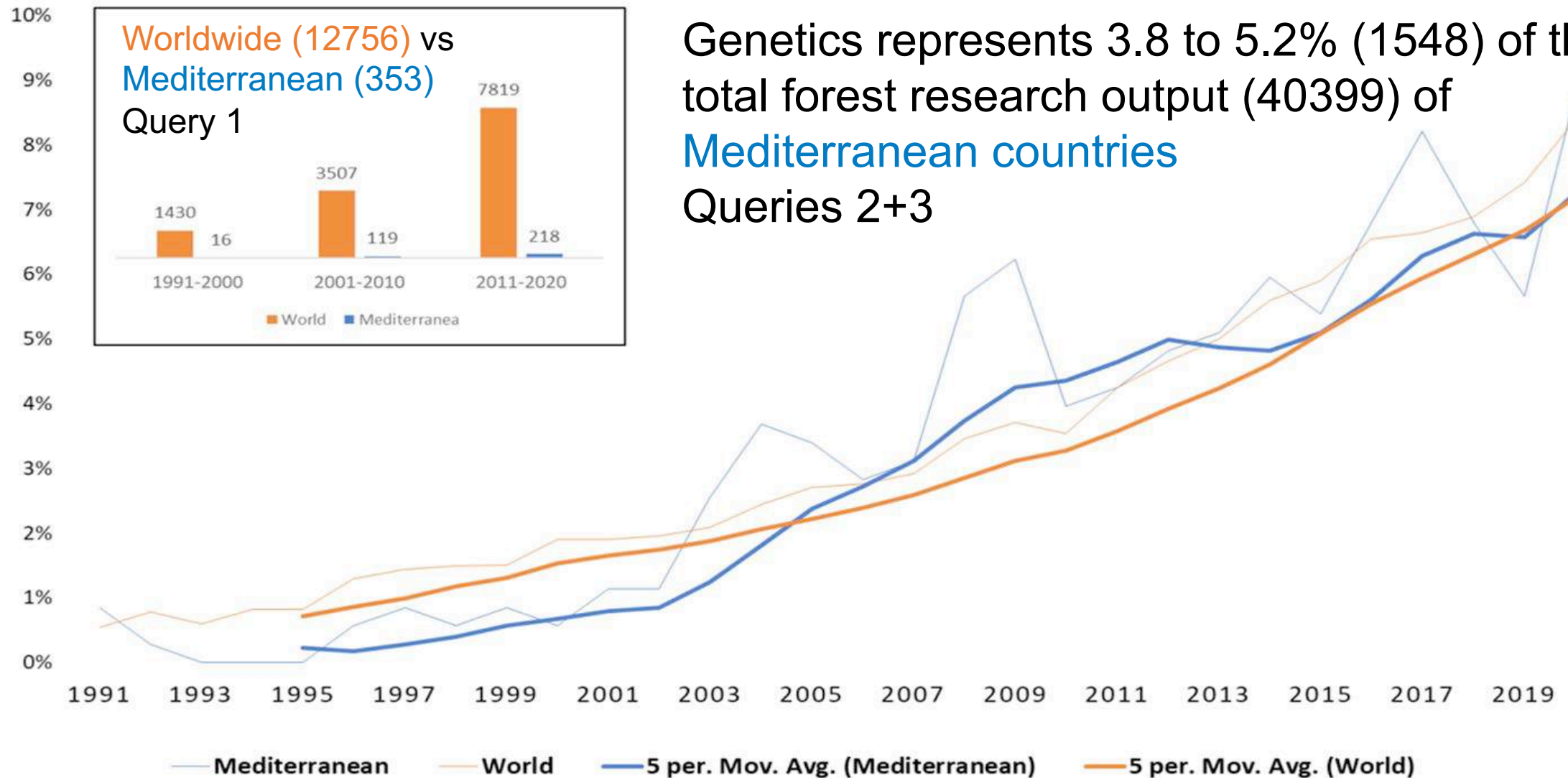
Questionnaire answered by co-authors (country level)

- **Main research breakthroughs** in forest tree genetic diversity in your own country in the past 10 years?
- **Links of breakthroughs with four strategic research priorities of MFRA 2010-2020?**
- **Improvements in forest tree gene conservation and sustainable use?**
- **Emerging research perspectives** in forest tree genetic diversity, conservation and sustainable?
- **Main research avenues** for the 10 coming years to support the conservation and sustainable use of forest genetic resources?
- **Role of the Mediterranean forest research community** in research efforts on forest genetics?

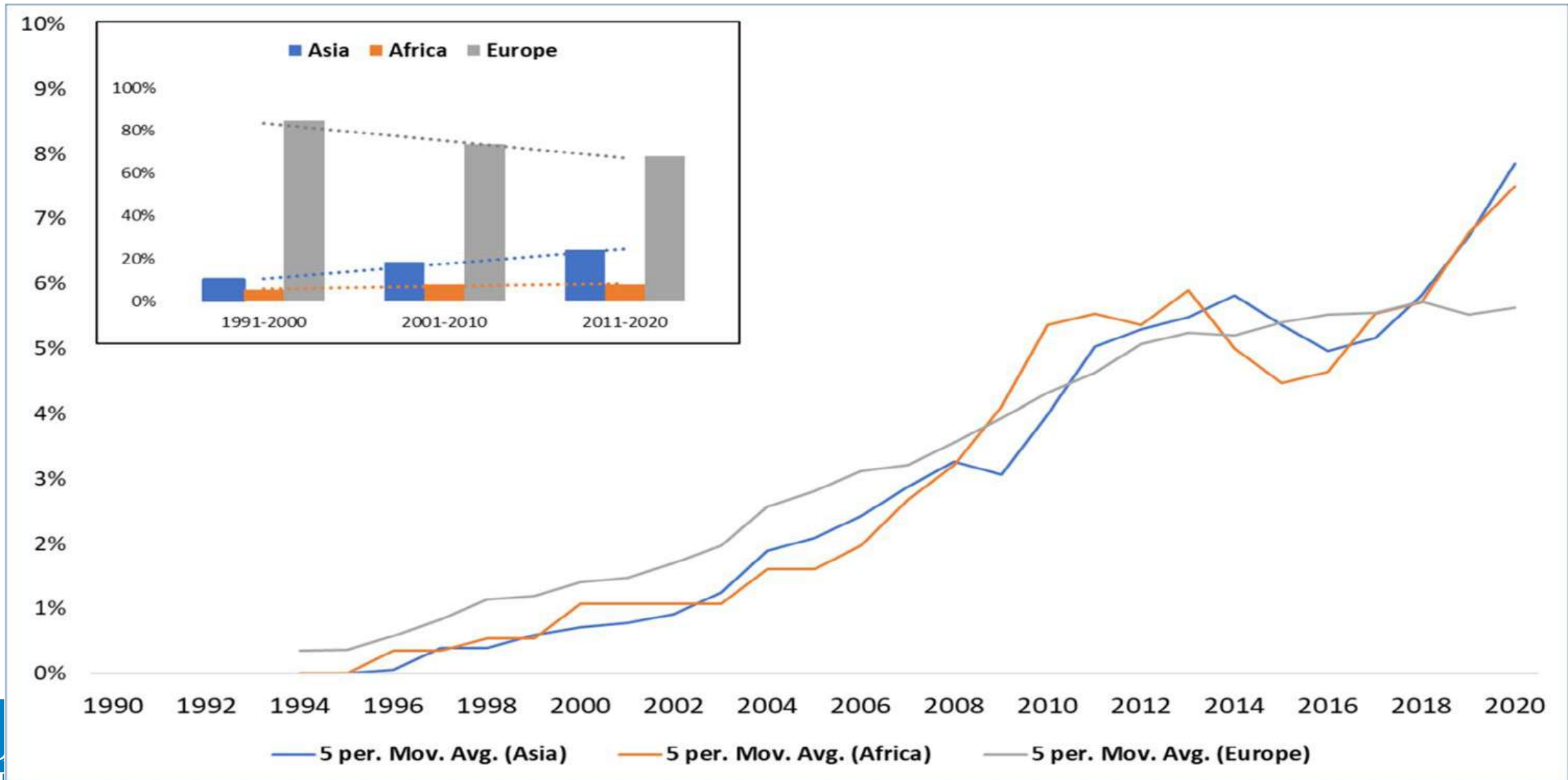


Mediterranean forest genetics research: a modest but increasingly important field of research

Genetics represents 3.8 to 5.2% (1548) of the total forest research output (40399) of **Mediterranean countries** Queries 2+3

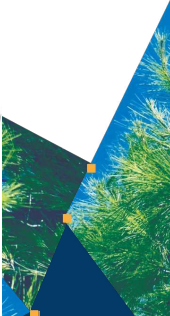
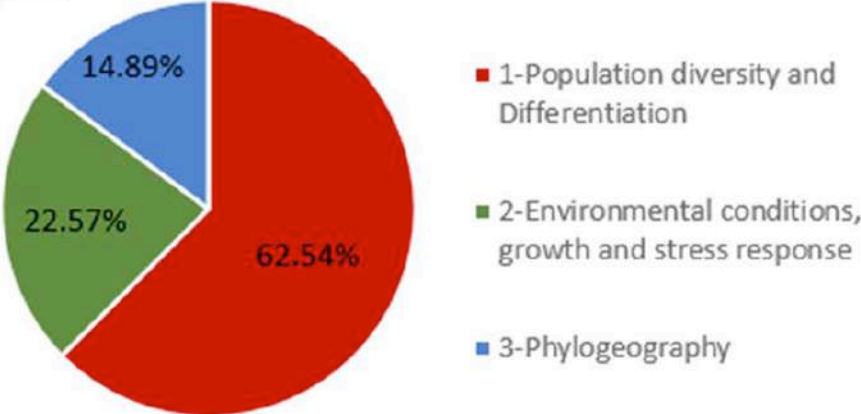
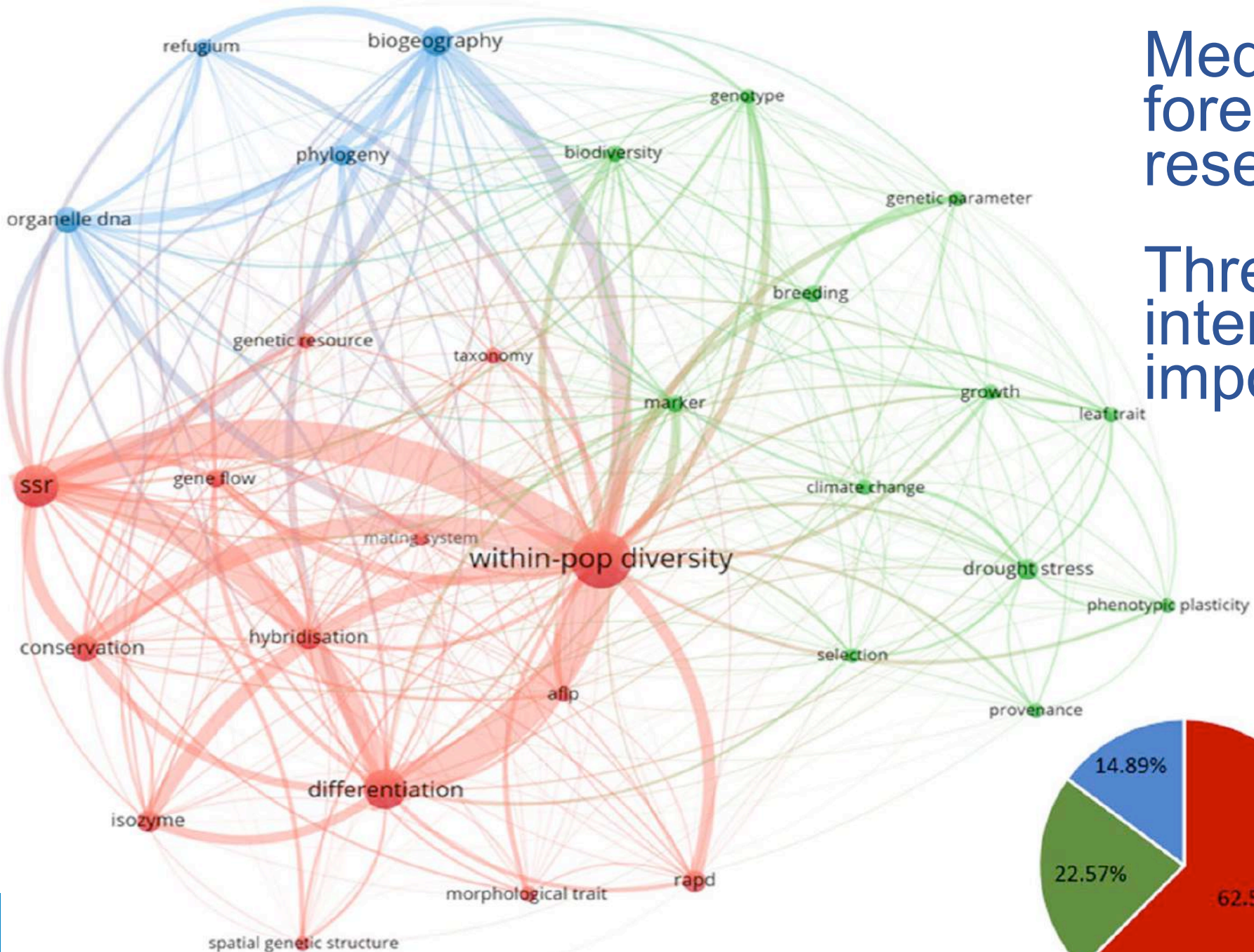


Mediterranean forest genetics research: an increased share of publications from Asia and Africa over time



Mediterranean forest genetics research:

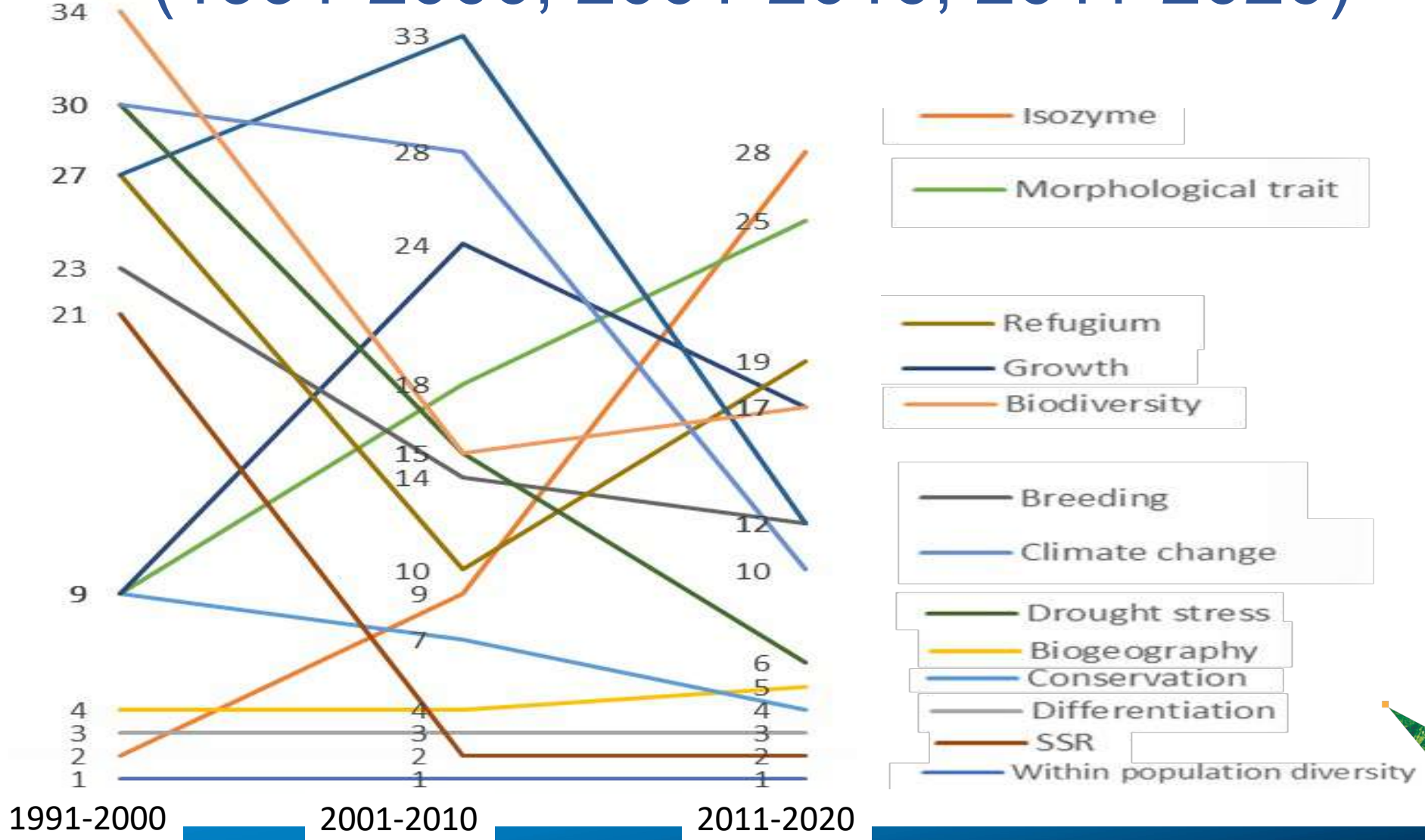
Three major fields of interest of unequal importance



Rank change of some keywords over time (1991-2000, 2001-2010, 2011-2020)

Least frequent

Most frequent



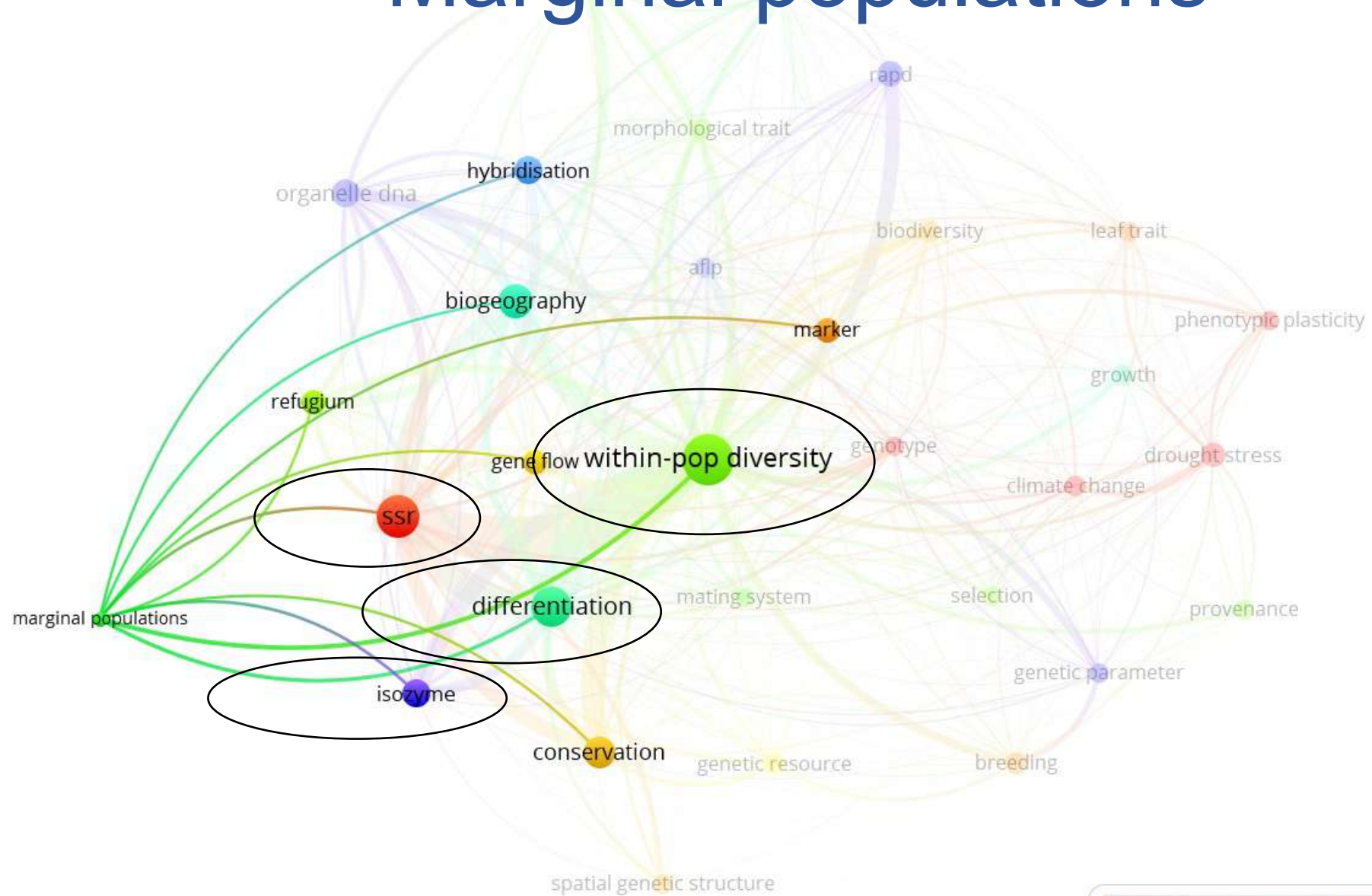
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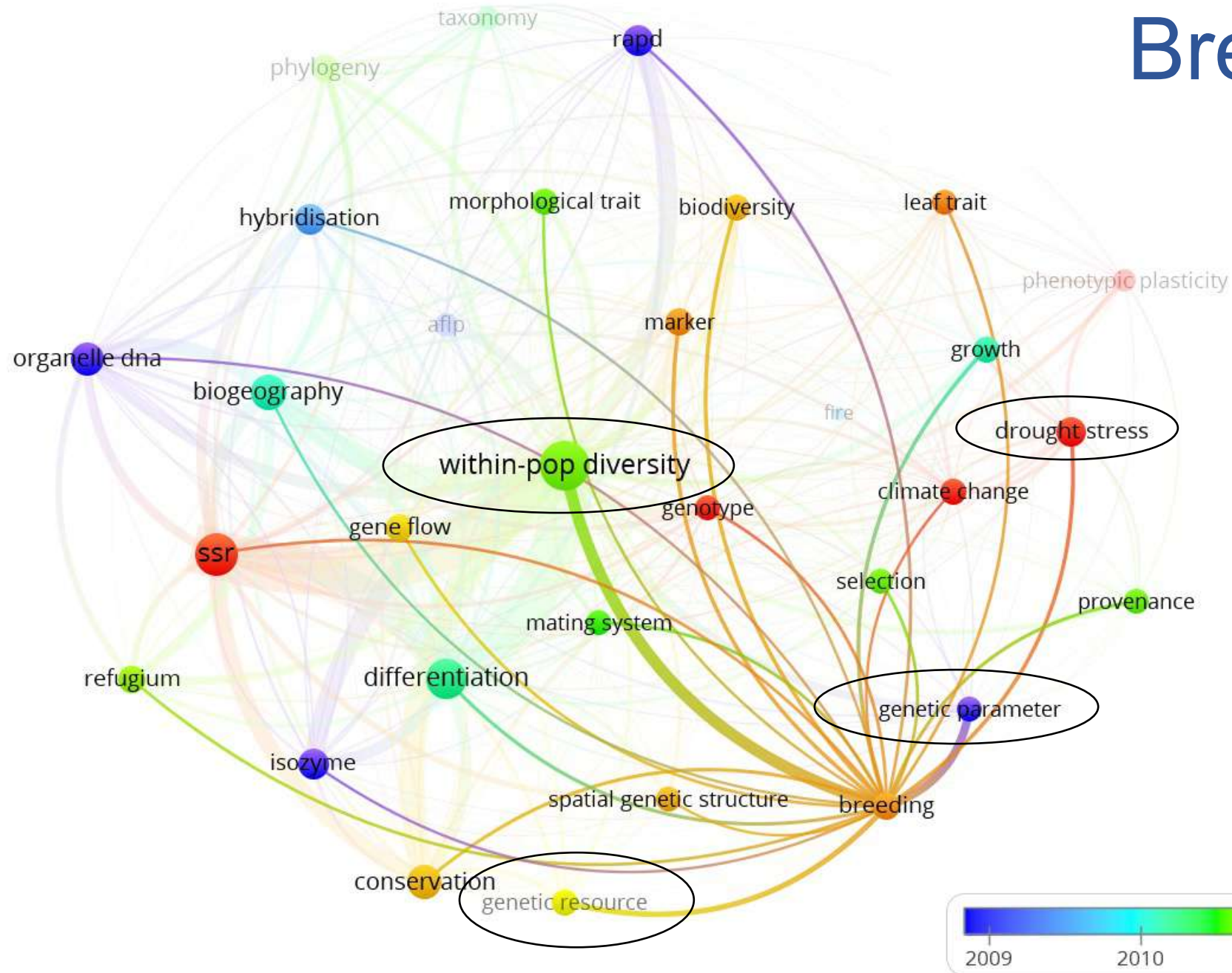
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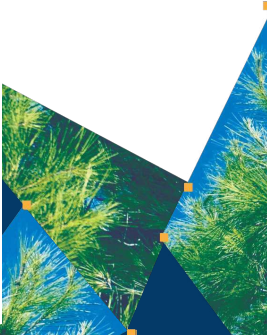
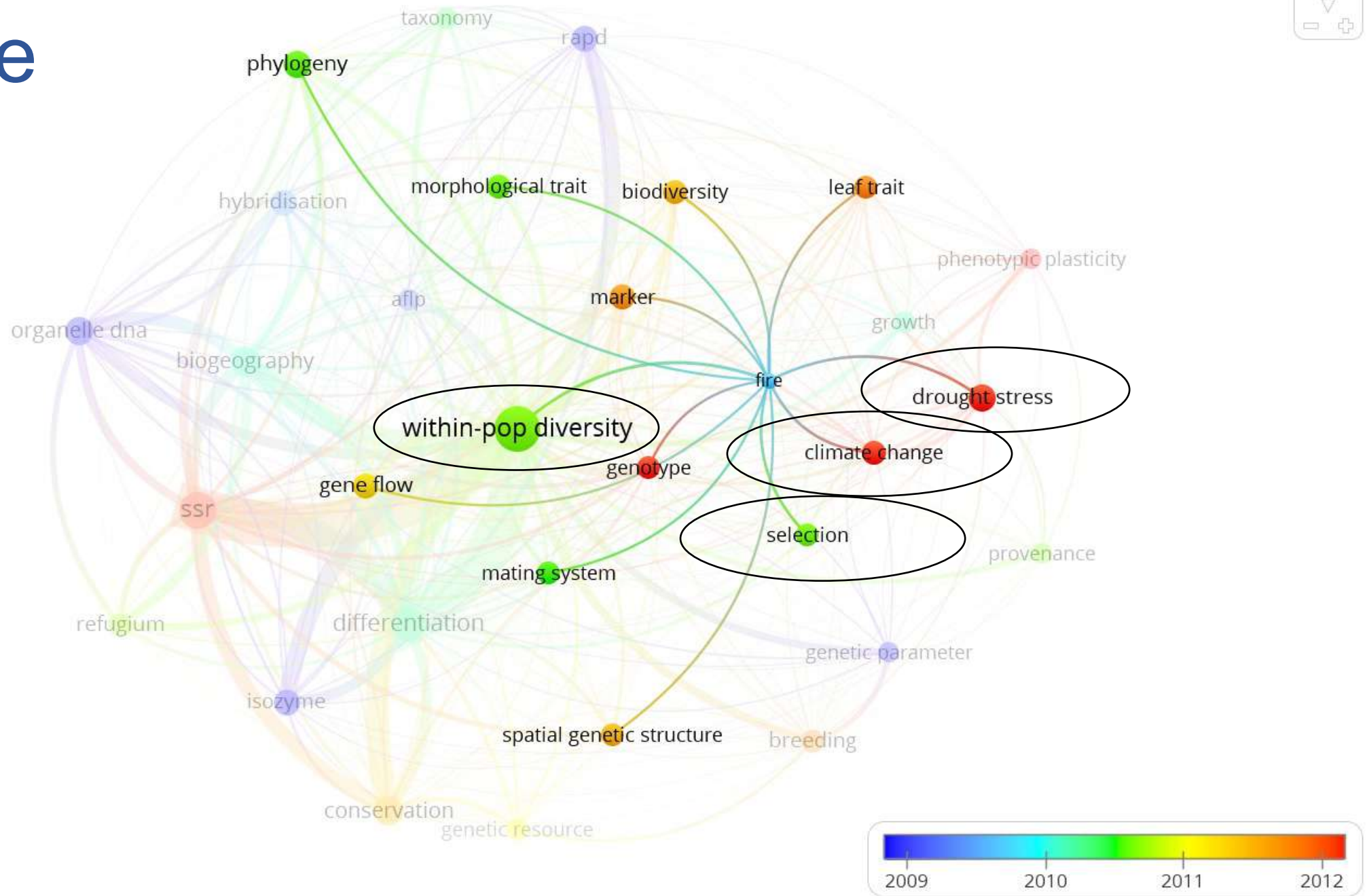
Marginal populations



Breeding



Fire



There is a growing awareness worldwide of
the importance of genetic diversity for:

resilience and adaptation
of forest trees, forests and other habitats

in a context of risk management



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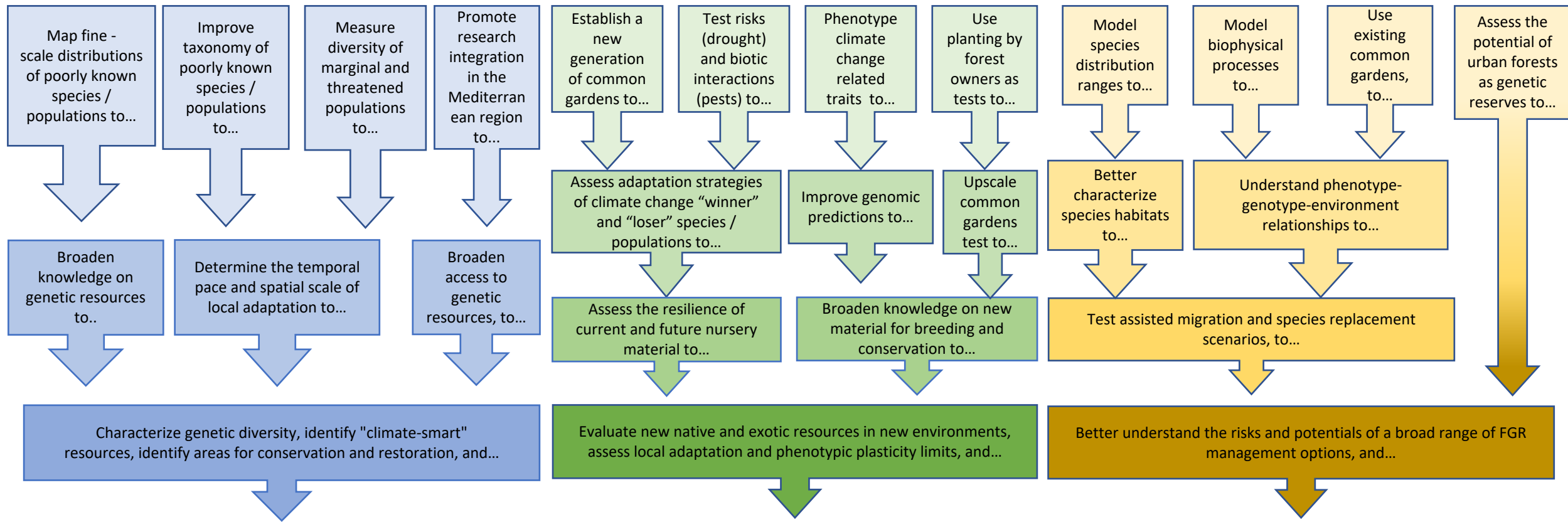


Pathways to provide solutions to manage climate-induced risks and human pressure on Mediterranean forests - the contribution of genetics

Explore – Experiment - Model

- Pathway 1: Continue exploring, describing and characterizing genetic diversity of poorly known species and populations
- Pathway 2: Test and experiment new resources in new environments jointly across country borders
- Pathway 3: Model, simulate and build scenarios to inform management and policy for mitigating and adapting to climate change”





Use standardized **metadata** to improve data quality, make **data open access**, share results, experience and knowledge to...

Provide solutions to manage climate-induced risks and human pressure on Mediterranean forests