

# Wildlife in agricultural landscapes: Patterns and processes\*

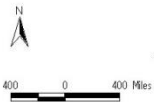
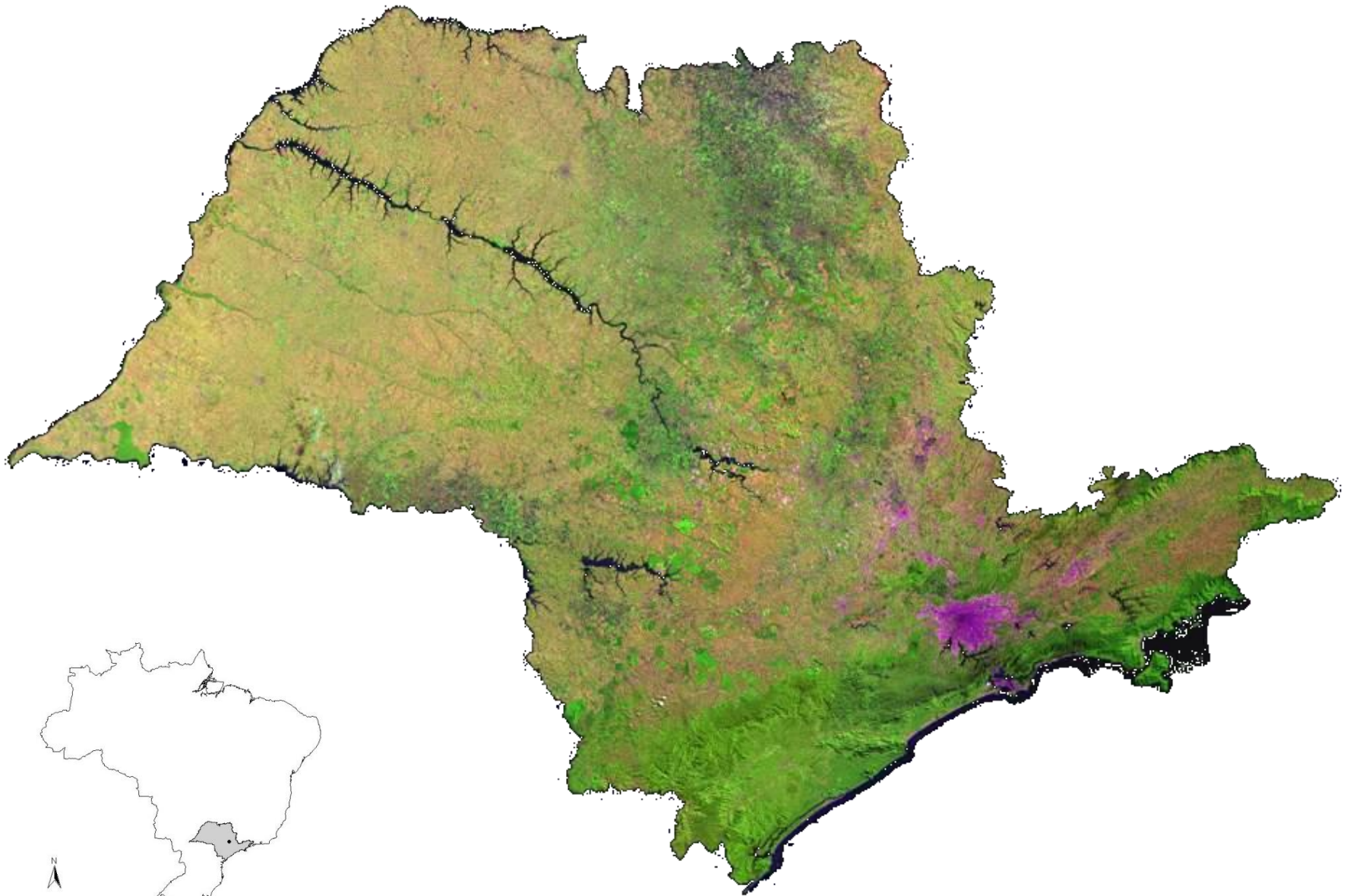
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Forest: past, present and future* USC

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# Rationale

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- Conflict: Biological **production** vs Biological **conservation**;
- A relevant part of biodiversity leaves on agricultural landscapes;
- The wild ancestor of domesticated crops and livestock are among the most endangered taxonomic groups on Earth;
- The *value* of the wild is global and millennial, whereas its cost is local and annual;
- Conflict → Interdependence: Conceptual, technological and societal constraints.

# Wildlife in agricultural landscapes in São Paulo, SE Brazil

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- Medium to large mammals: 27 spp. (~ 70%)
- Small mammals: 17 spp. (~ 50%)
- Birds: 202 spp. (~ 60%)
- Reptiles: 18 spp.
- Amphibians: 31 spp.
- Fish: 55 spp.

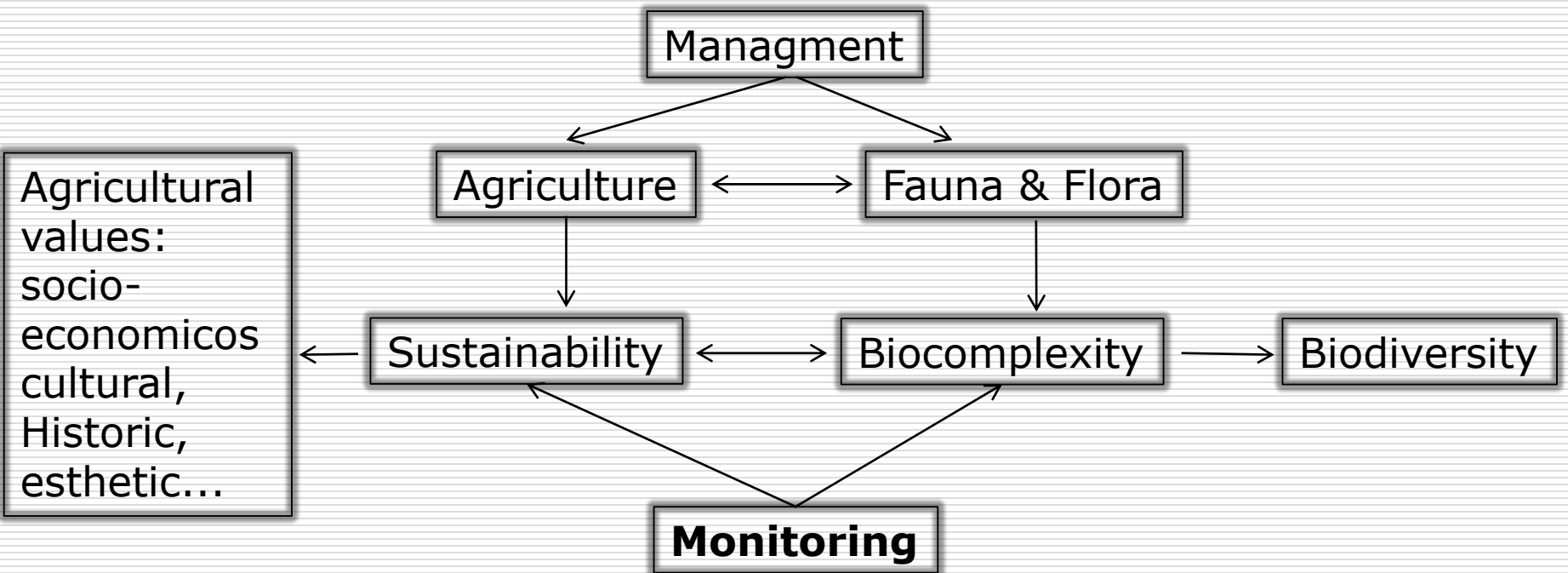
# Wildlife management: What really matters?

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- **Biological conservation:** Endangered spp. (a few thousands)
- **Sustainable use :** Economic spp. (a few hundreds)
- **Control:** Damaging spp. (a few dozens)
- **Monitoring:** All the others (a few millions...)

# Biodiversity governance in multifunctional agrivultural landscapes

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# Methodology

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Sub-project	Level	Goals
1. Trophic ecology	Conceptual	Complexity of the trophic process
2. Landscape ecology	Conceptual	Biomass vs Biodiversity
3. Ecotoxicology	Conceptual	Heavy metals vs trophic structure
4. Historical ecology	Conceptual	Land use history Culture vs hunting
5. Molecular ecology	Innovation	DNA → Biocomplexity
6. Bioacustics	Innovation	Soundscape → Biodiversity
7. Applied evolutionary ecology	Governance	Science → Governance

# Acknowledgements

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