

Abandonment and intensification: how changes in grassland management affect pollinator communities. Lessons from LIFE PollinAction.

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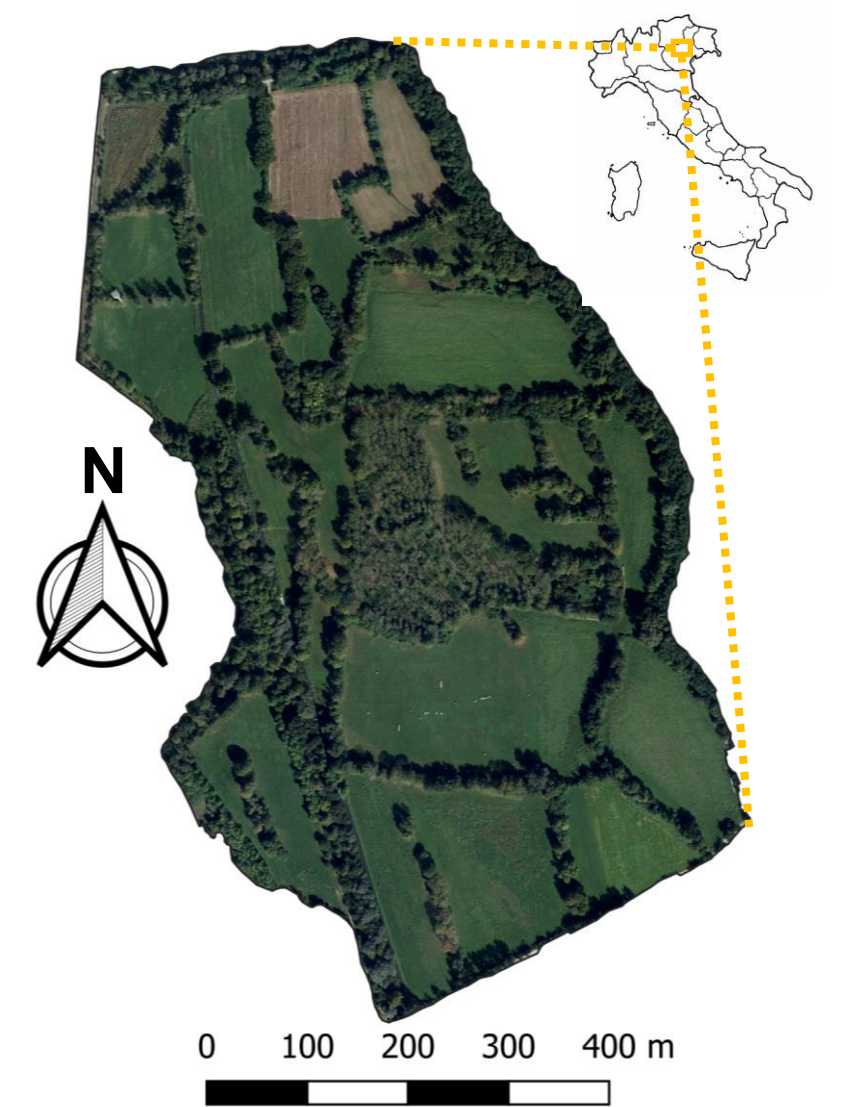


Introduction

- **Extensive grassland ecosystems** are a **biodiversity hotspot** for plant and pollinator communities;
- In Europe, agricultural intensification has led to a **decline in extensive grassland extent and quality**;
- Understanding **how changes in grassland management affect plant and pollinator communities** is increasingly important for grassland conservation and the provision of pollination service.

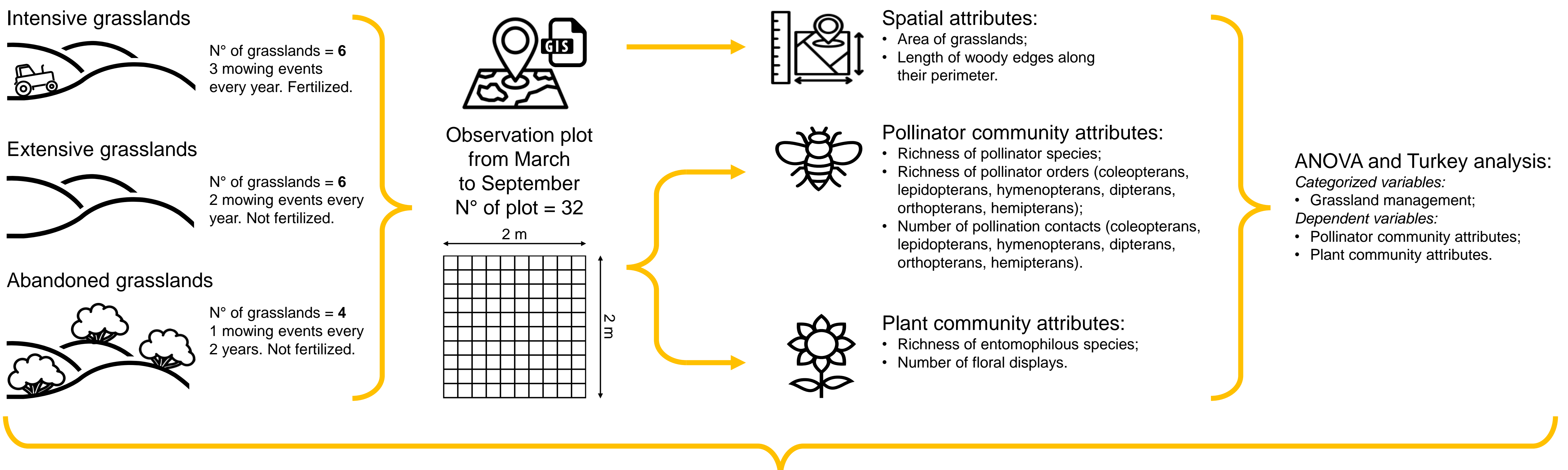
Study site

- Natura 2000 site: «Basse del Brenta», Cartigliano (VI), Italy;
- Characterized by “**bocage**” of perennial grasslands divided by hedges.



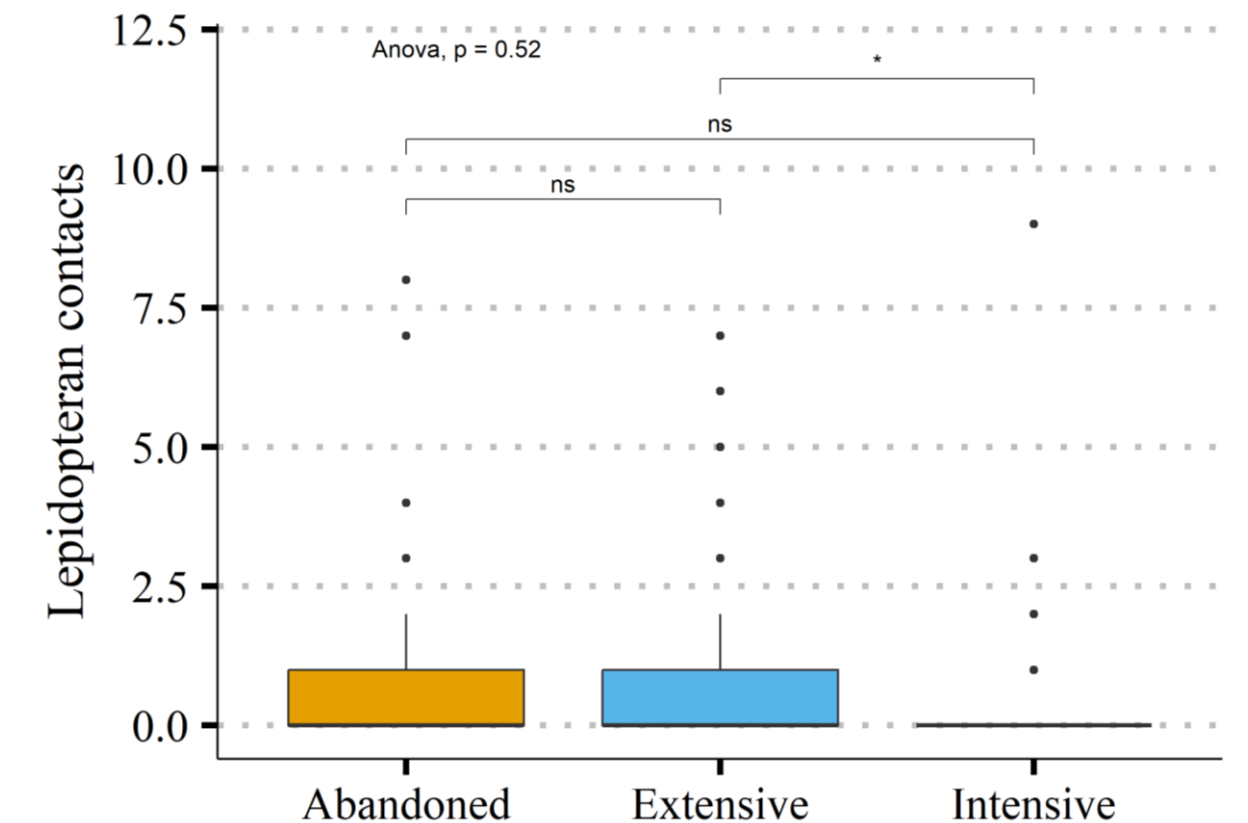
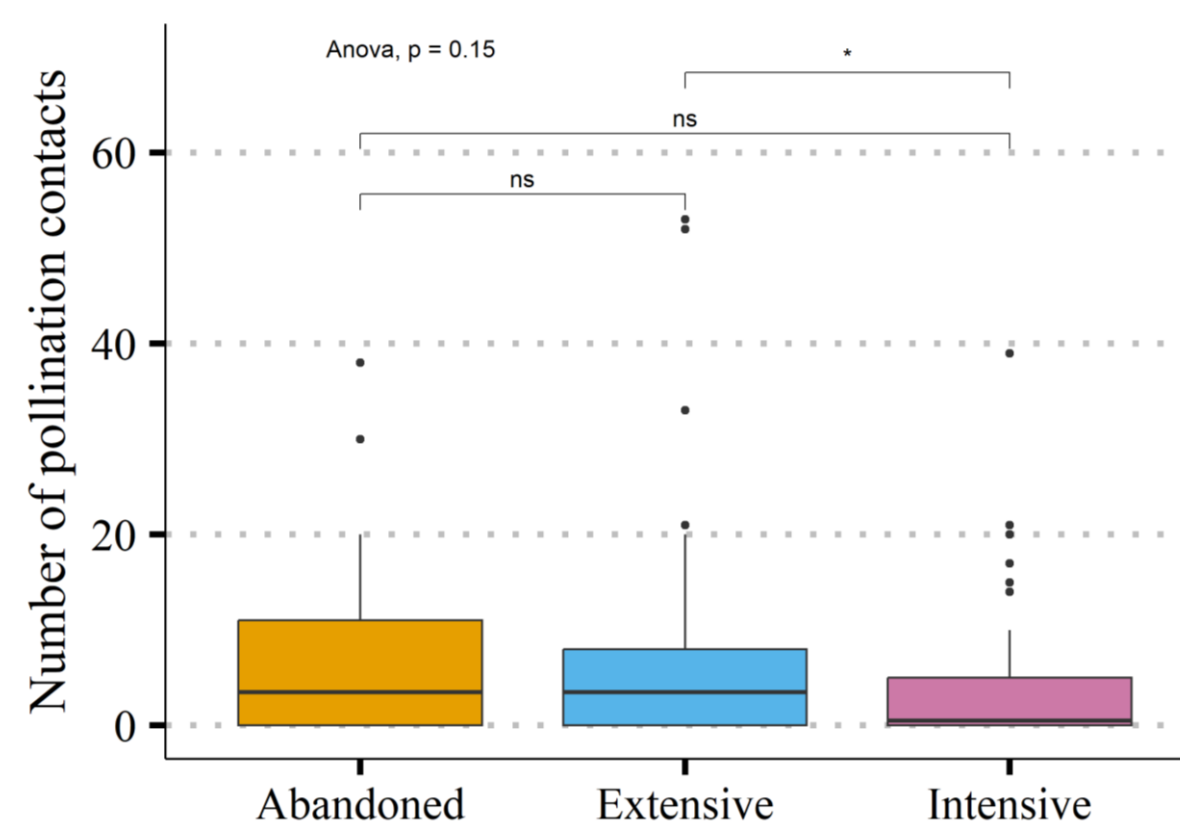
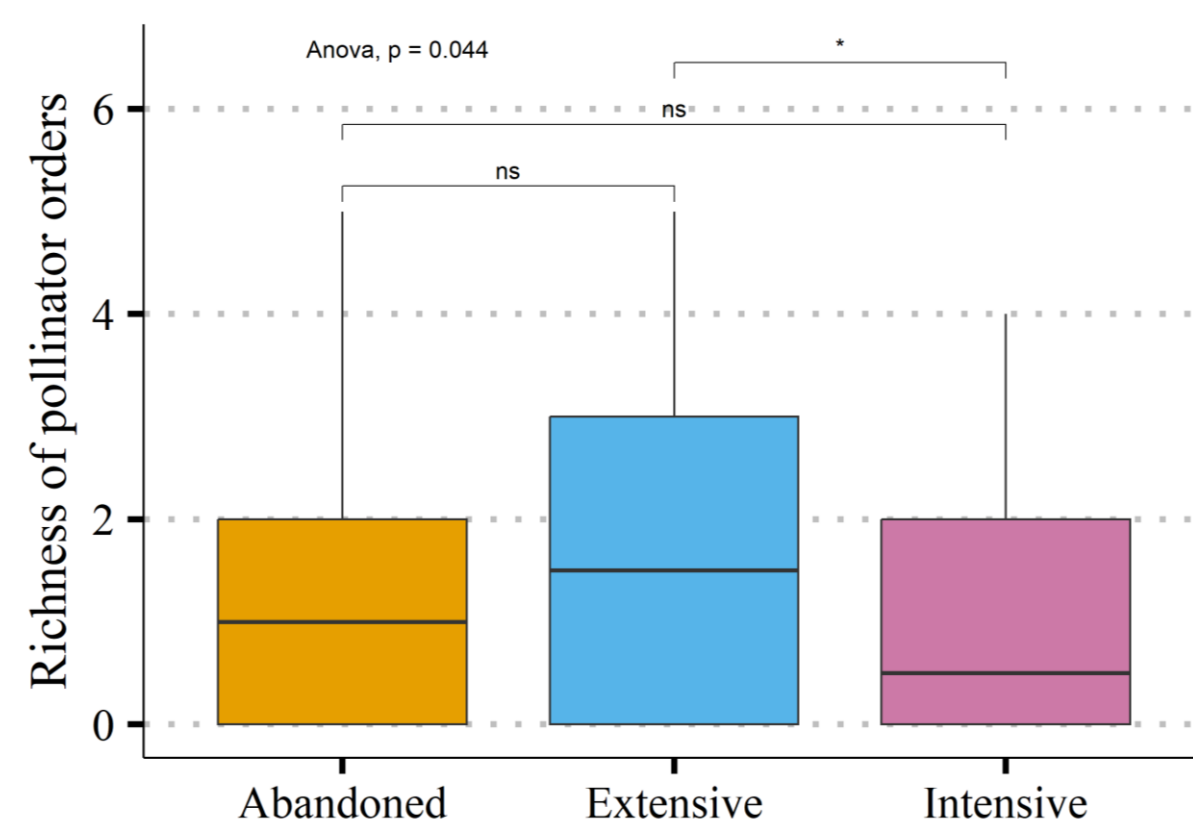
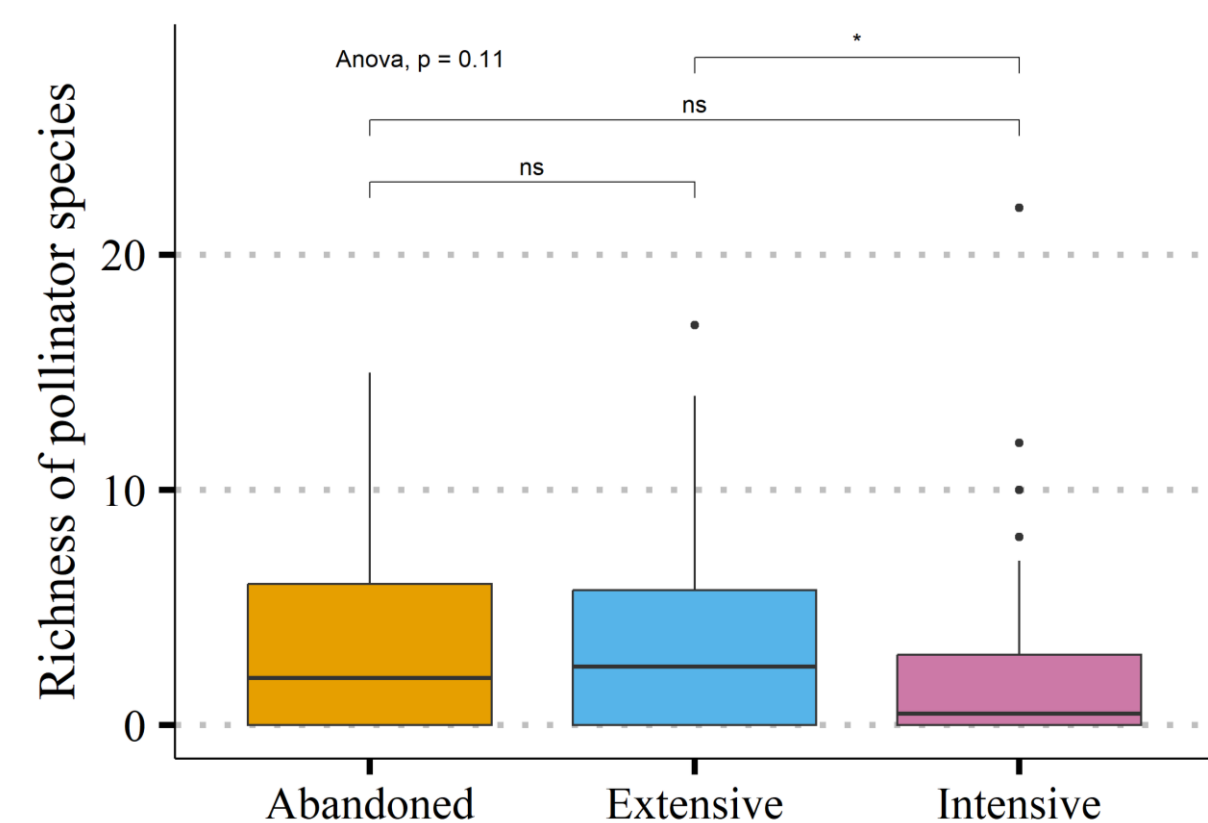
Does grassland management affect plant and pollinator communities?

Materials & Methods

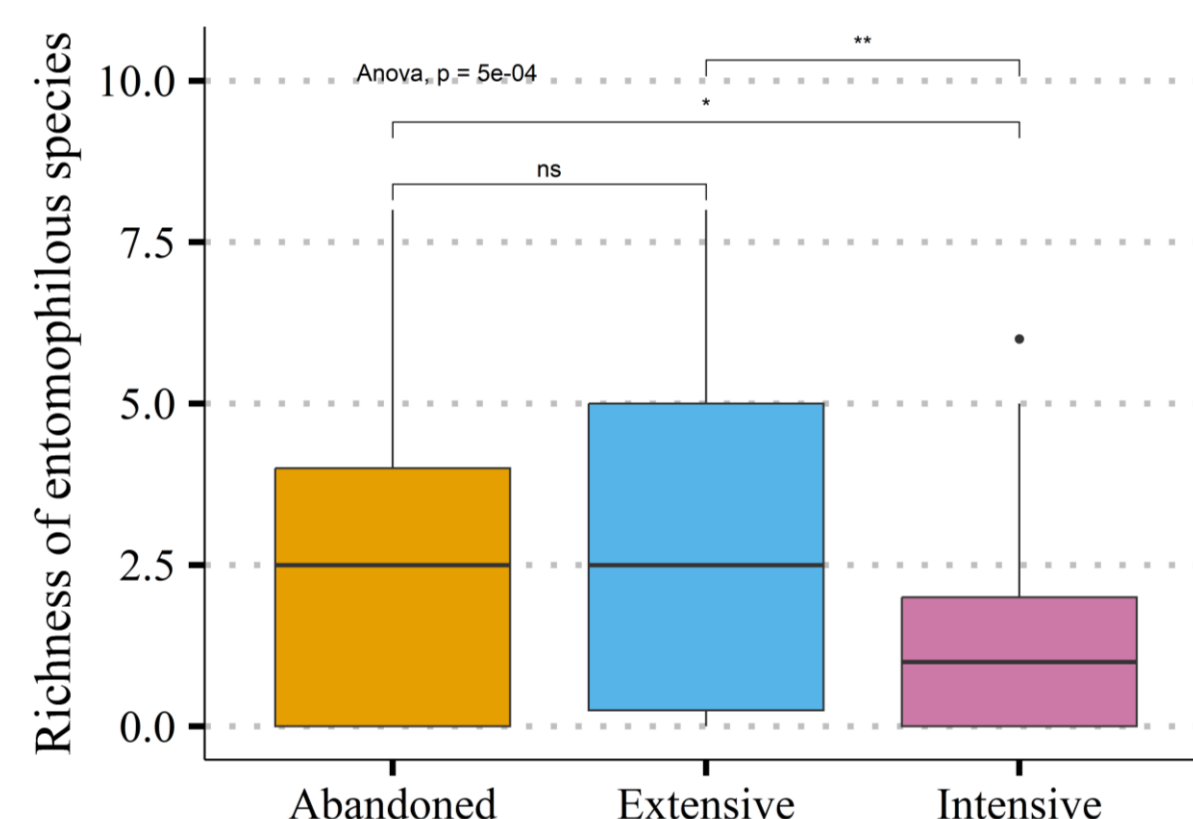
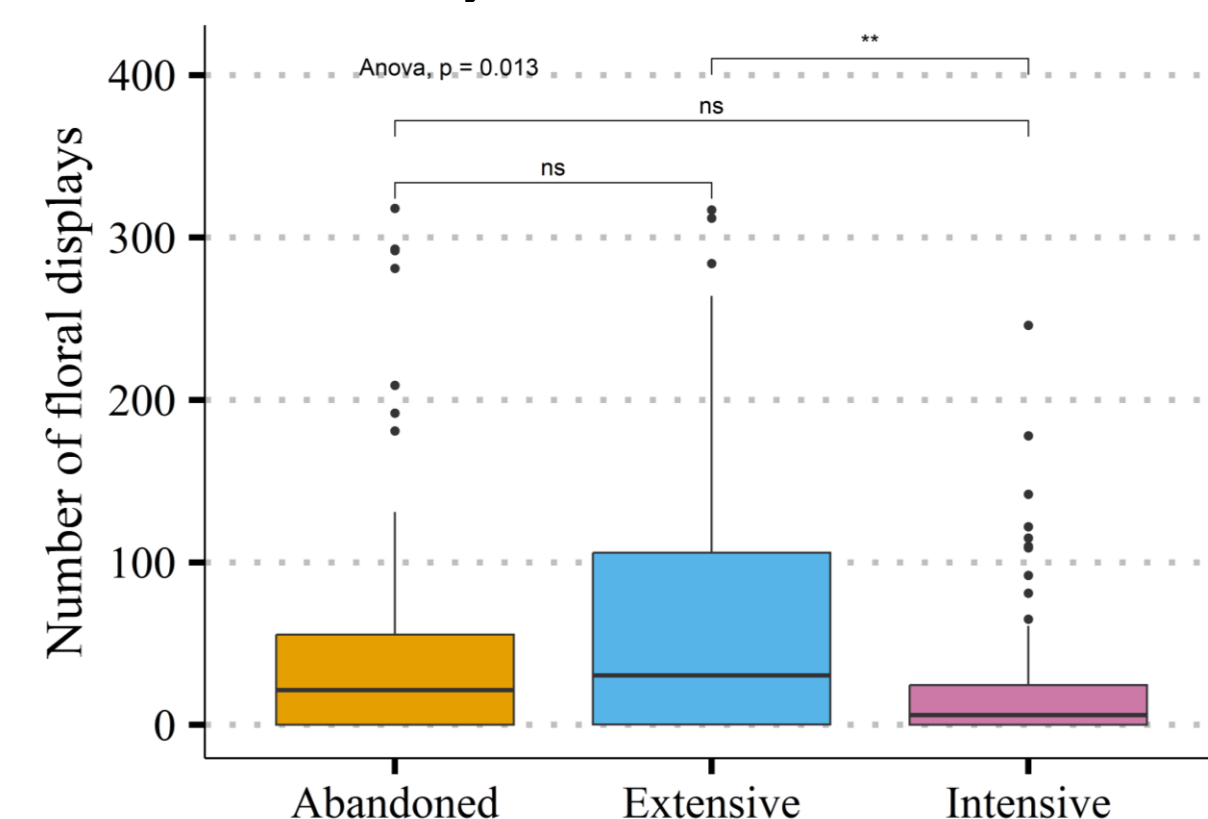


Results

Pollinator community



Plant community



- 1) **No significant differences were found between extensive and abandoned grasslands** for pollinator and plant community attributes (richness of pollinator species, richness of pollinator orders and number of pollination contacts for any pollinator order);
- 2) **Intensively managed grassland had significantly lower values** for the number of floral displays and the richness of entomophilous species **than extensively managed grassland**. In addition, **intensively managed grasslands had significantly lower values** for richness of pollinator species, richness of pollinator orders, number of pollination contacts and lepidopteran contacts **compared to extensive management**.

Extensive and abandoned grasslands have higher number of plant species and flower displays, and a higher number of orders and a greater species richness of pollinators.