Chemical diversity in conifer pollen

Exploring interspecific variation and evolutionary relationships

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Research question

How does pollen chemical composition vary among 11 conifer species, and to what extent are similarities in their chemical profiles associated with evolutionary relationships?



Figure 1: Microscopic picture of pine pollen.

Methods

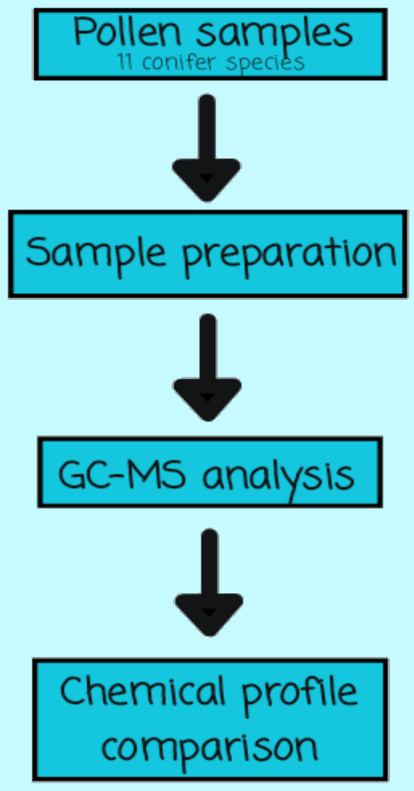




Figure 2: Gas chromatography-mass spectrometry (GC-MS) instrument used for chemical analysis of pollen samples.

Preliminary Findings

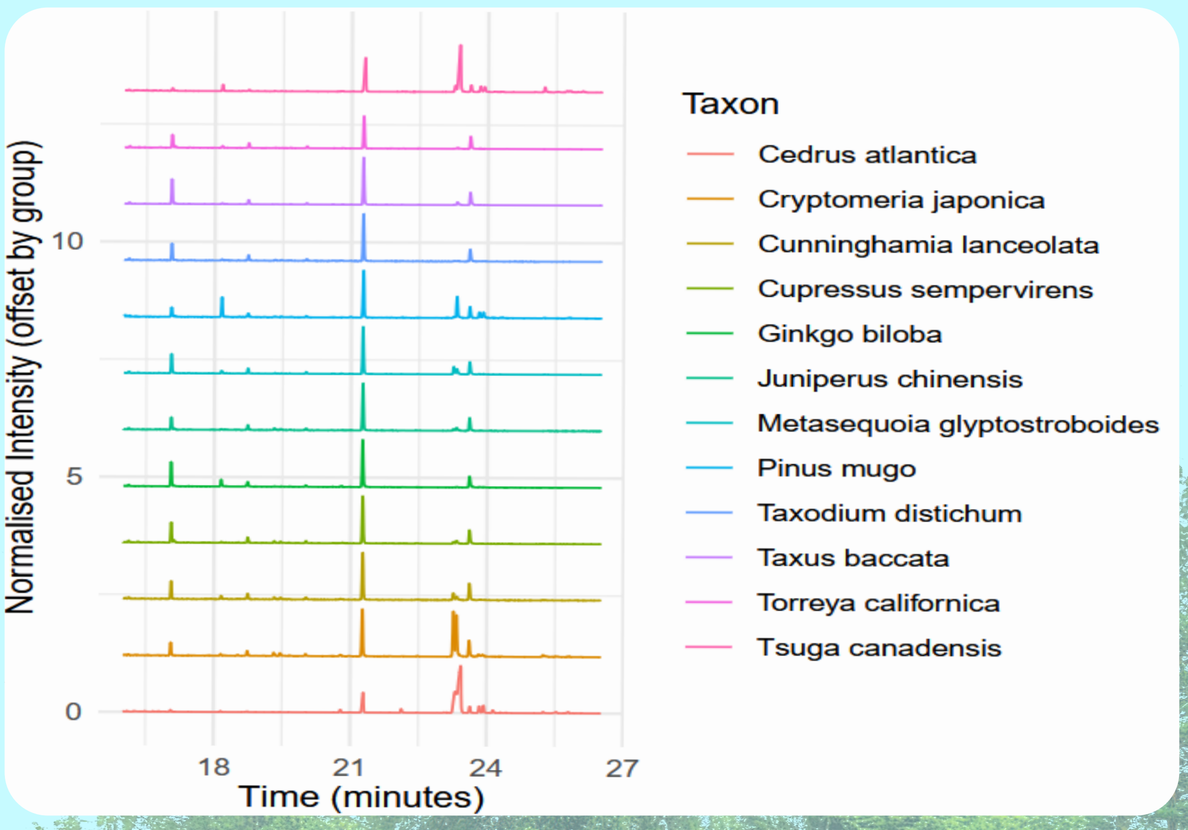


Figure 3: Normalised GC-MS chromatograms of pollen samples from 11 conifer species, alongside a Pinus mugo calibration sample. Traces are vertically offset for visual comparison.

Key observations

- **A prominent peak is shared across the chromatograms.**
- **Additional peaks around 23-24 minutes vary between species.**
- **Smaller peaks indicate further variation in chemical profiles.**

Contrbutors:
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