

Phenofit calibration report

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This document provides detailed information about a specific calibration run, including CMA-ES algorithm performance and model outputs.

1. Insights on the calibration process

Input data:

- Species : *A. alba*
- 2001 calibration points (50/50 presence/absence)

Parameter tuning and calibration performance:

- $\lambda = 20$, $\mu = 10$, $\sigma = 2$
- 20 parallel objective function evaluations
- 60 CPUs, 90Go of memory
- Runtime = 13.84 hours
- AUC on calibration points = 0.834
- AUC on all presence/absence points = 0.815

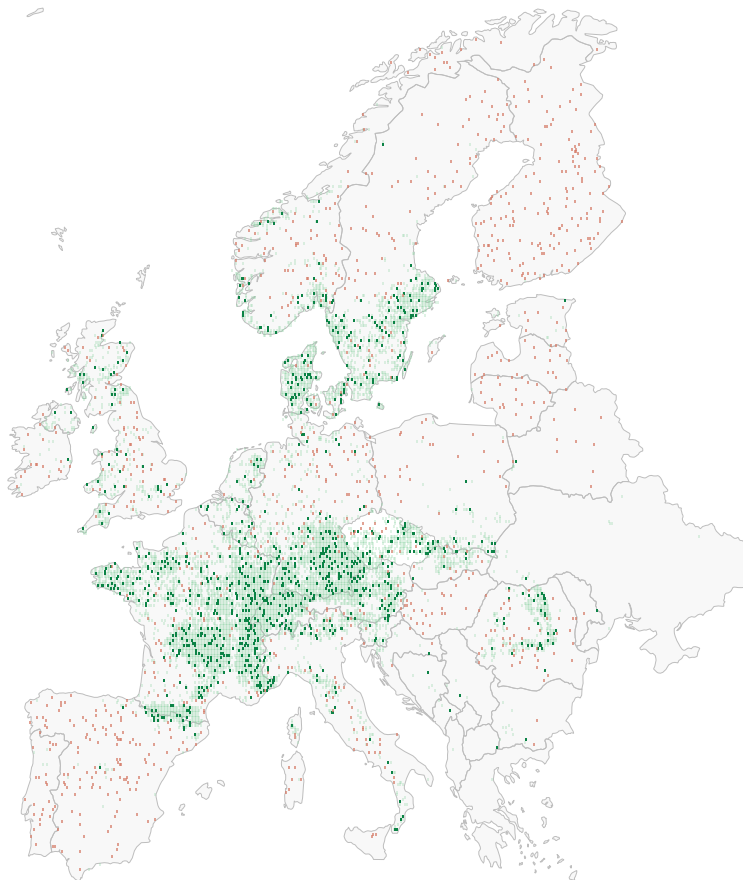


Figure 1: Calibration points: presence in red and absence in orange. Light green is species distribution area.

2. Simulation at European scale

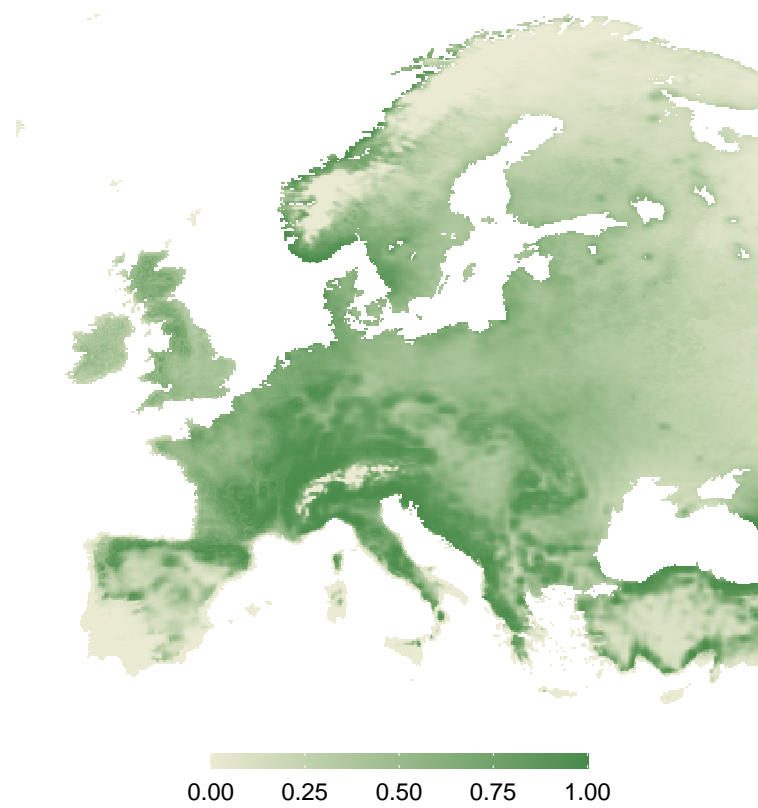


Figure 2: *Fitness map with calibrated parameter set*

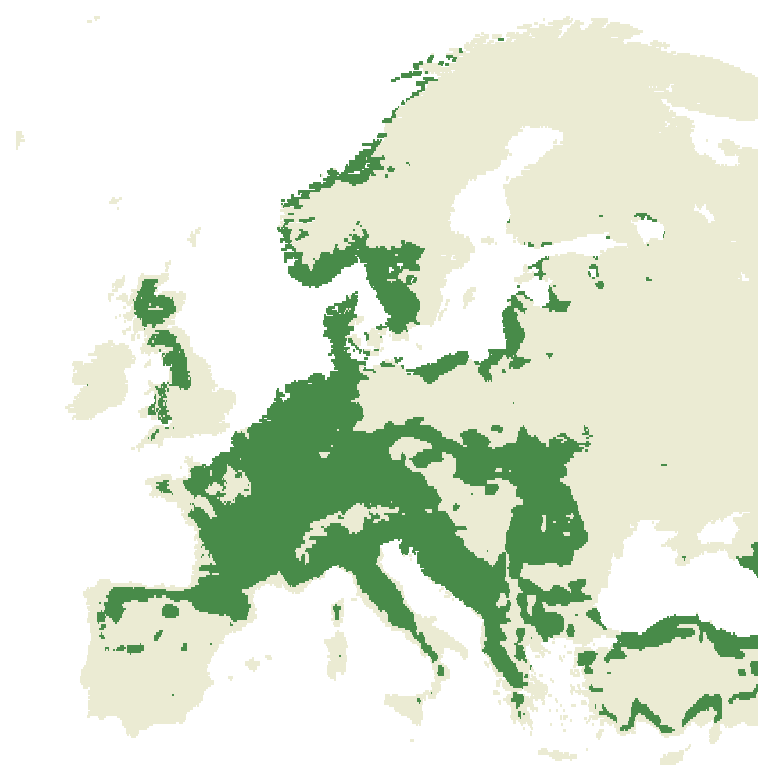


Figure 3: *Species presence map with calibrated parameter set. AUC threshold maximizing Youden index = 0.557.*