

# An Eye for Eyebrights



A project to investigate the evolution of British *Euphrasia*

**Alex Twyford**



# *Euphrasia* are an exceptionally interesting group for genetic analysis

- Diversity in mating system
- Recent divergence
- Occurrence of polyploidy
- Frequent hybridization
- Hybrid speciation



*Euphrasia* are an exceptionally complex group for genetic analysis

- Recent divergence
- Occurrence of polyploidy
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# An Eye for Eyebrights



**A project to help understand which *Euphrasia* species are discrete genetic units, and reveal which species should be recognised by botanical recorders and conservationists.**

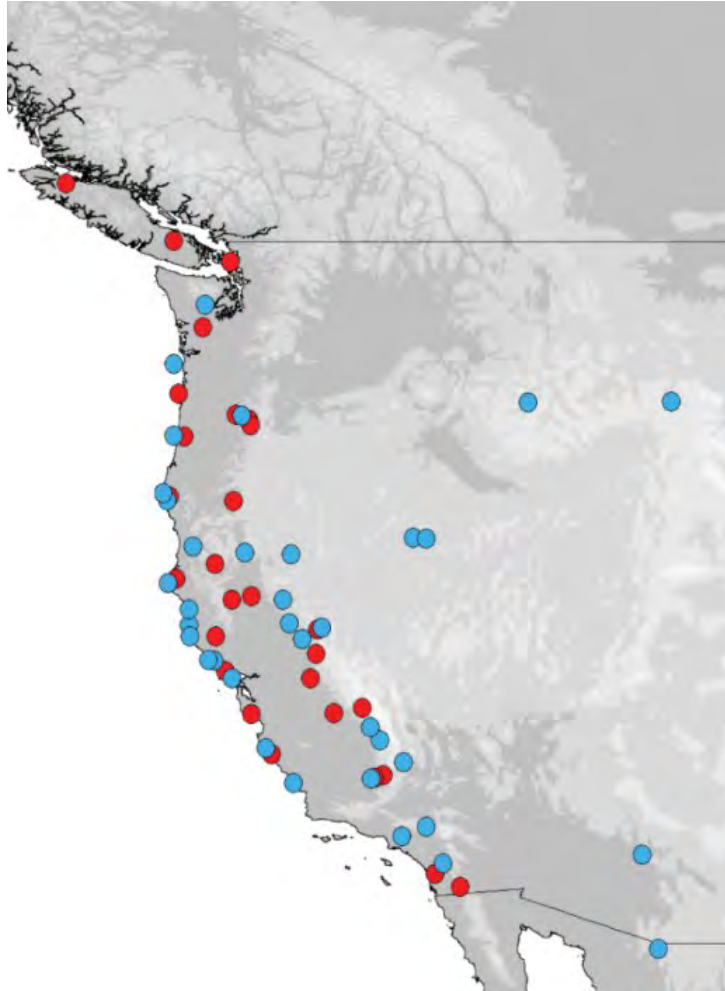
# A case study in *Mimulus*: new genomic approaches



Annual

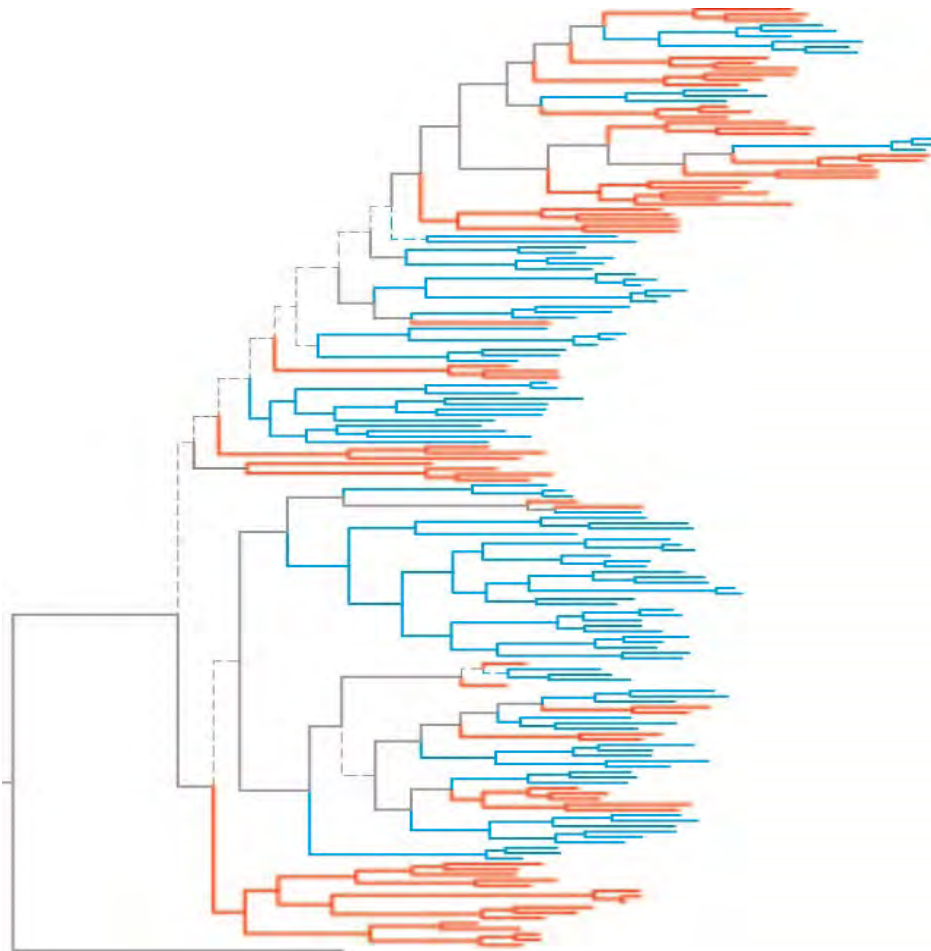


Perennial





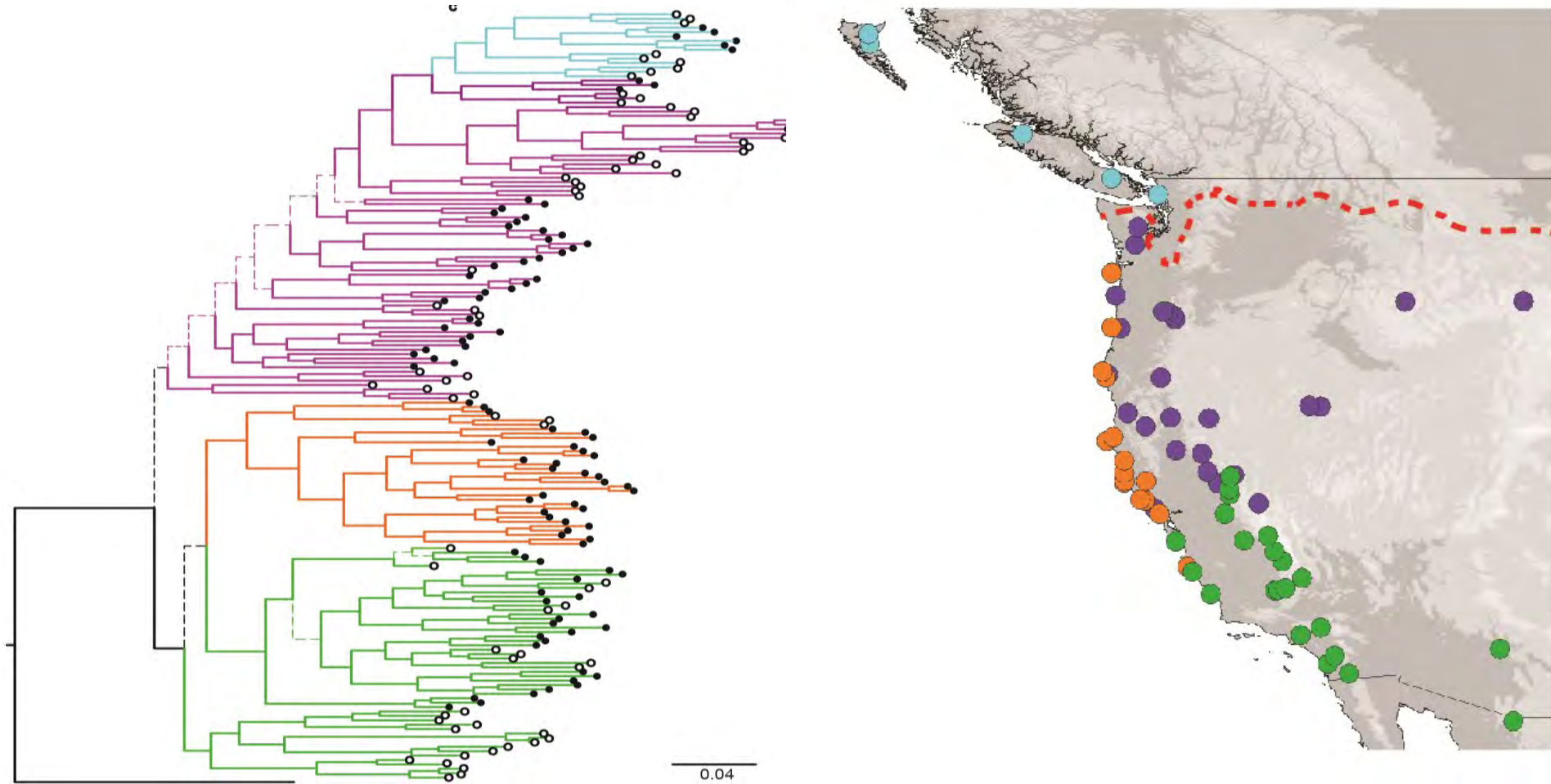
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Annual Perennial

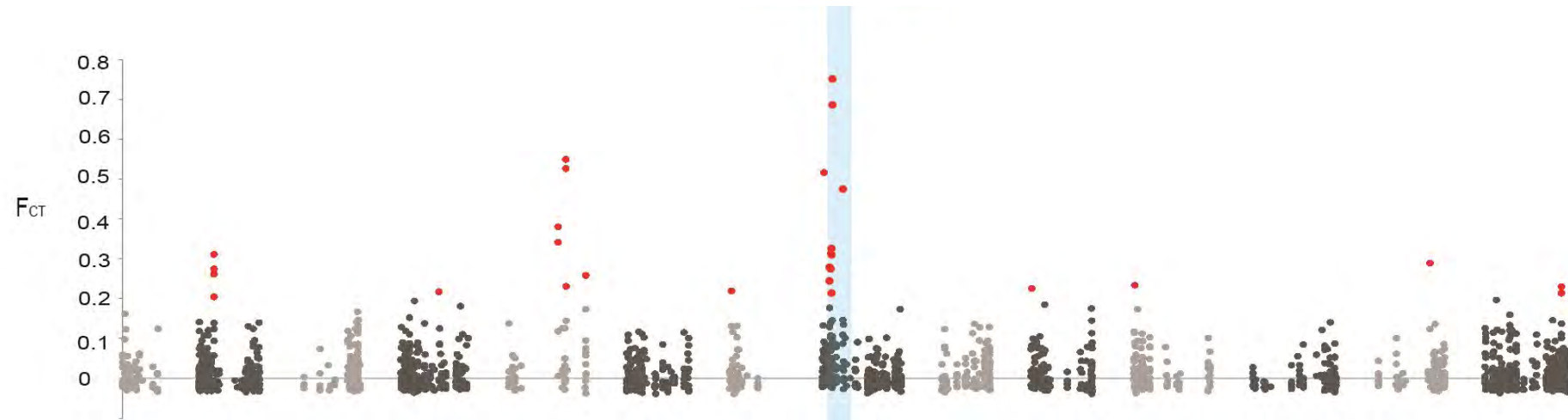
Twyford & Friedman, In Review for Evolution

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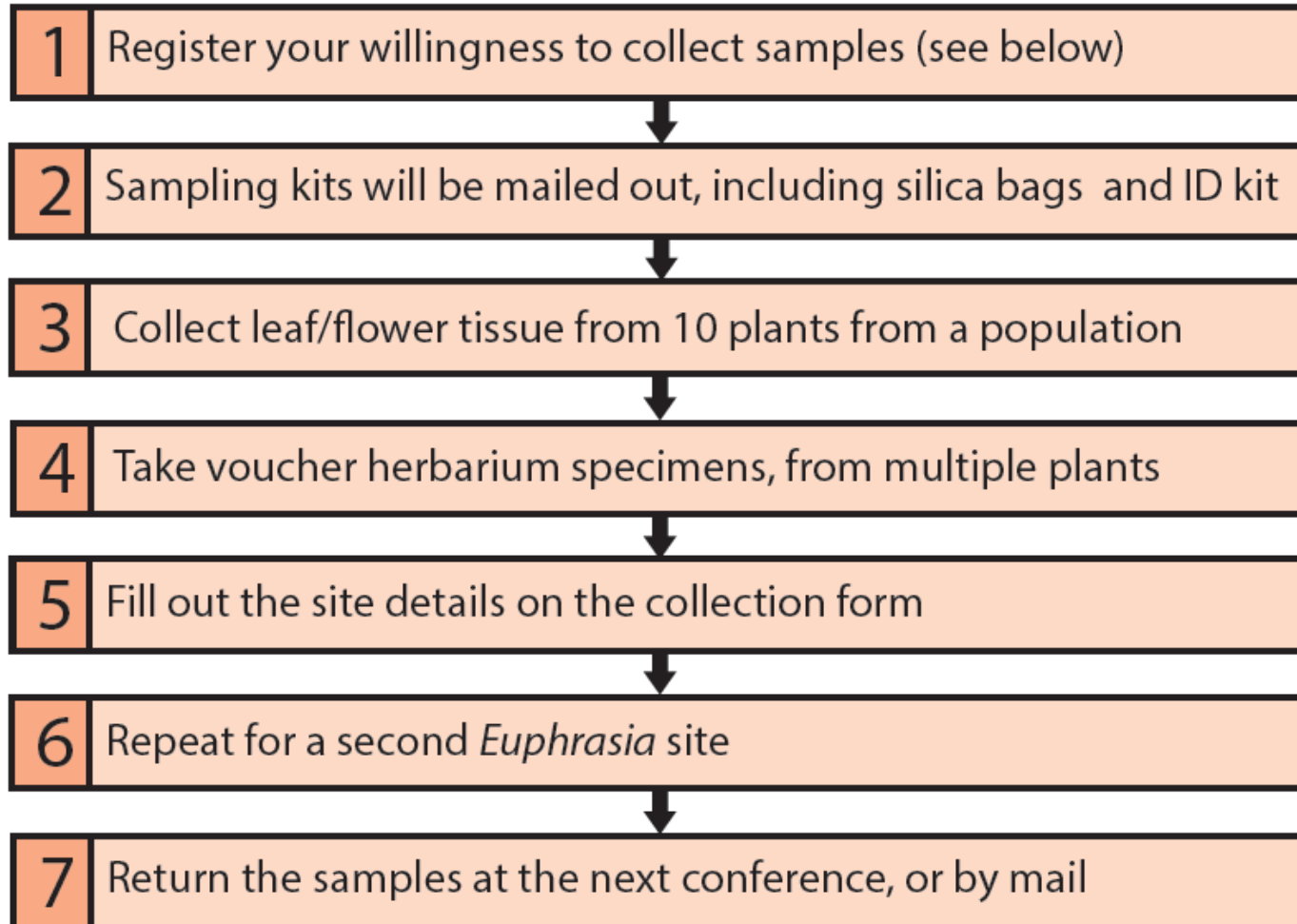
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# I need your help!



# Why should you help?

- Help improve our understanding of the genetics of *Euphrasia*.
- Help contribute to an improved taxonomy of *Euphrasia*.
- Have your specimens verified by Chris Metherell.
- See the results as they happen, on a dedicated website (<http://Euphrasia.ed.ac.uk>).

# Please register your interest

- Add your name to the register on the *Euphrasia* display table

OR

- Email me to get more information: [Alex.Twyford@ed.ac.uk](mailto:Alex.Twyford@ed.ac.uk)
- See <http://Twyford.bio.ed.ac.uk>

- A big thanks to Chris Metherell
- Thanks in advance for your help

