

## integrative CONyza NEtwork for Contemporary Trait evolution

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### WHAT IS iCONNECT?

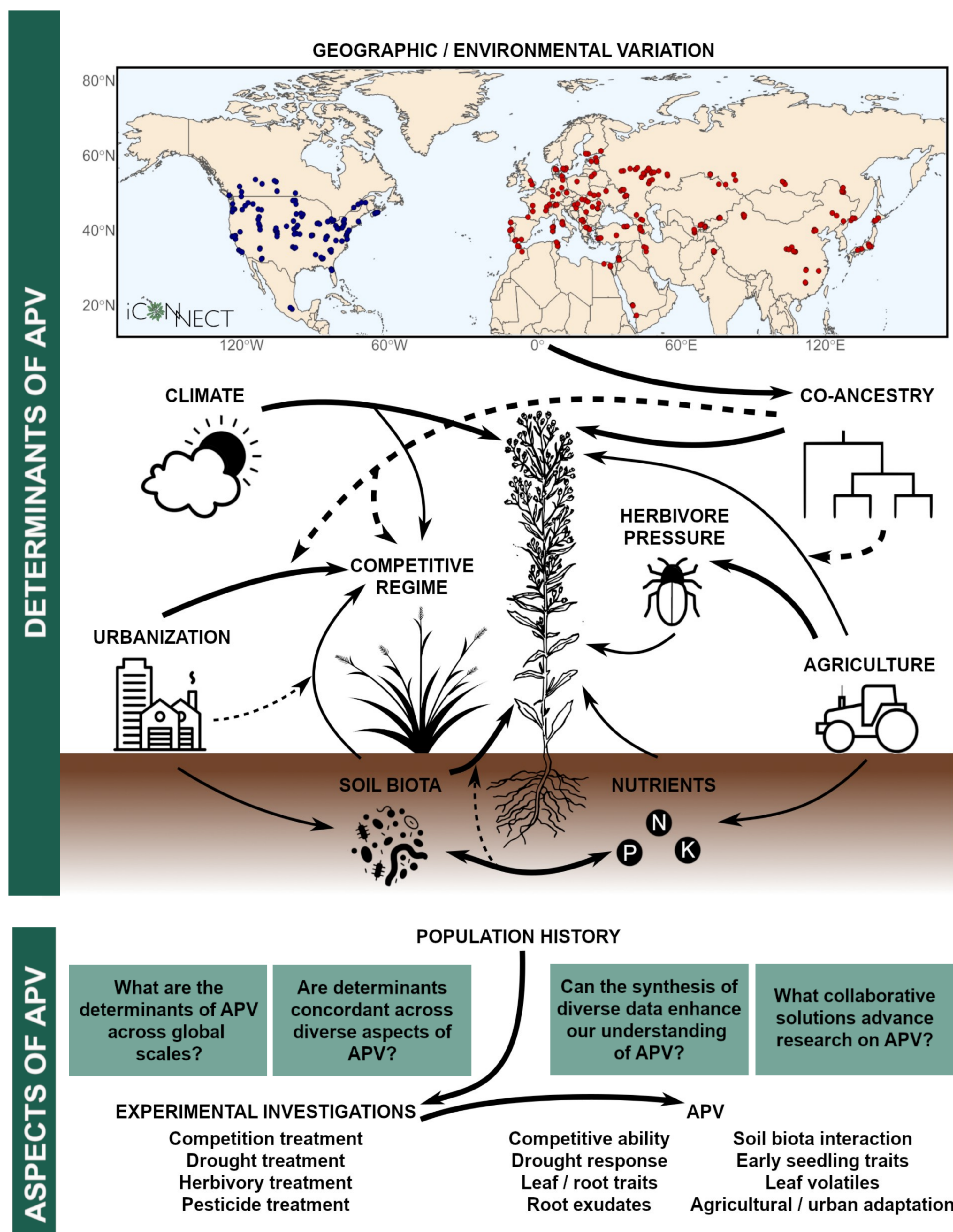
• iCONNECT is a collaboration of researchers who sample *Conyza canadensis*, a North American native species that has invaded numerous countries across Eurasia. The interdisciplinary network explore among-population variation (APV) in their own research using the sampled populations.

• iCONNECT investigates determinants (i.e., source population history) and aspects of APV (i.e., APV of various traits in response to specific experimental treatments).



### OUR MOTIVATION

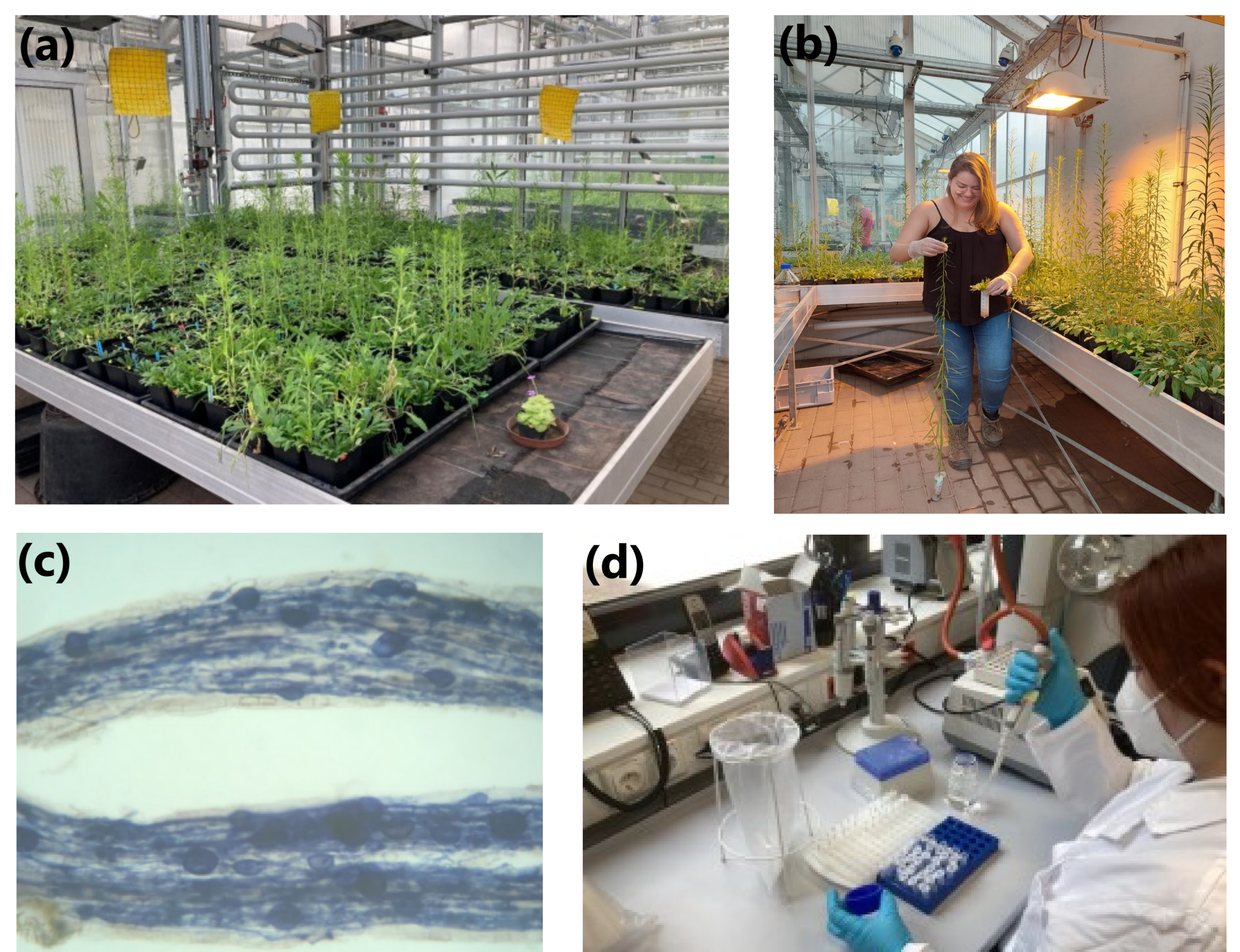
- Research on APV usually focuses on few traits studied in one or only few experimental contexts, but determinants and aspects of APV may vary depending on investigated traits and environmental contexts.
- iCONNECT investigates how different factors affect APV in diverse experiments, such as competition, plant-soil feedback, drought, herbivory, and glyphosate treatments, conducted across various life stages and experimental settings.
- By synthesizing these diverse datasets, we pioneer the exploration of complex biotic and abiotic interactions shaping APV in a globally distributed species, providing vital insights into its eco-evolutionary dynamics.
- All involved populations are re-sequenced at 30x coverage which allows investigating the genomic basis underpinning APV.



**Graphical abstract on research on among-population variation (APV) in iCONNECT** illustrating an example how various determinants of APV directly and indirectly shape different aspects of APV. Determinants of APV are factors in the source population history determining traits measured in a common garden. Aspects of APV are various traits that respond to specific experimental treatments.

### JOIN US

We welcome your collaborations. If you want to lead your own iCONNECT add-on, please don't hesitate to reach out!



**A greenhouse study in the iCONNECT framework.** This experiment included a competition × drought treatment (a). It investigated how population history determines APV in phenotypic competitive ability (b), root-fungi interactions (c) and root exudate profiles (d).

