Null treatment effects on photosynthesis and photosynthetic capacity

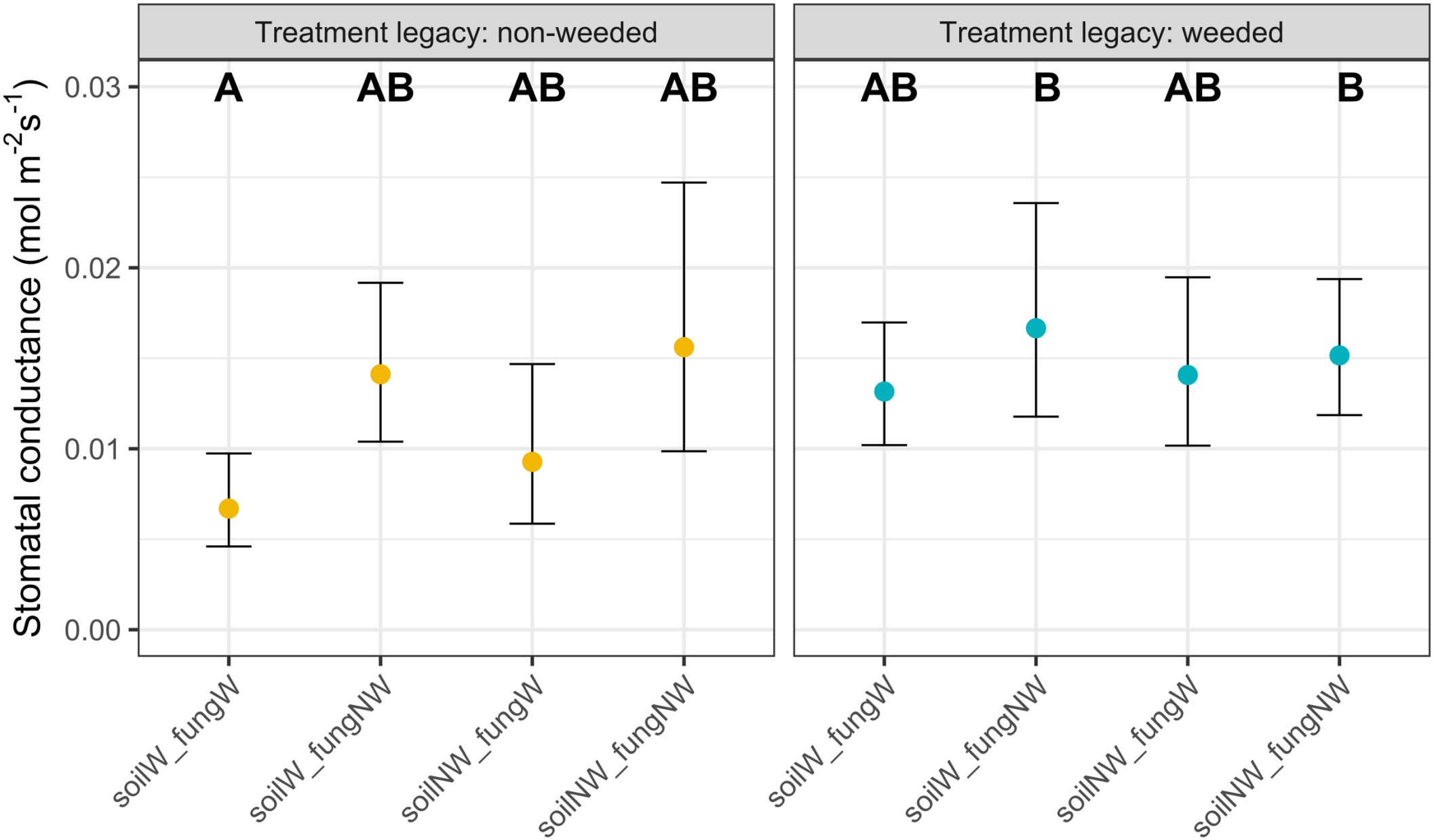
- A_{net}
- V_{cmax25}
- J_{max25}

- Same response as previous two years in the field!
- Fluxes are comparable to late season measurements from last year

Stomatal conductance

- Stomatal conductance is reduced in plants that had a legacy of growing with garlic mustard (NW plants < W plants, p=0.011)

- Stomatal conductance is reduced in plants growing with weeded AMF community (W fungal source < NW fungal source, p=0.005)

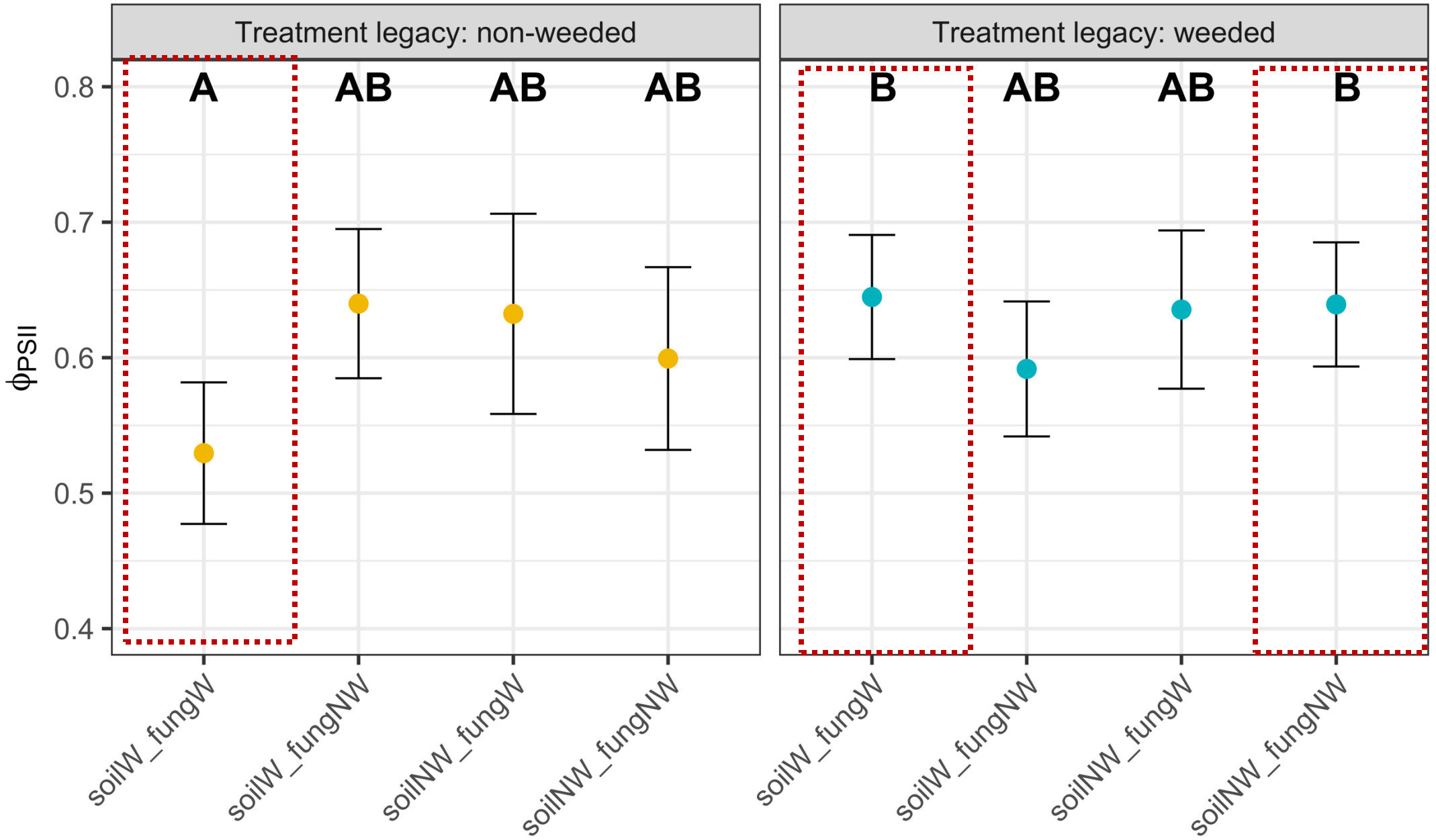


** same response for iWUE (given null A_{net} response to treatment combinations

ϕ_{PSII}

- ϕ_{PSII} is marginally reduced in plants that had a legacy of growing with garlic mustard (NW plants < W plants, p=0.098)

- 3-way interaction: Non-weeded plants grown in weeded soil and with the weeded AM fungal community had lower ϕ_{PSII} than:
  - Weeded plants grown in non-weeded soil and with the non-weeded AM fungal community
  - Weeded plants grown in weeded soil and with the weeded AM fungal community

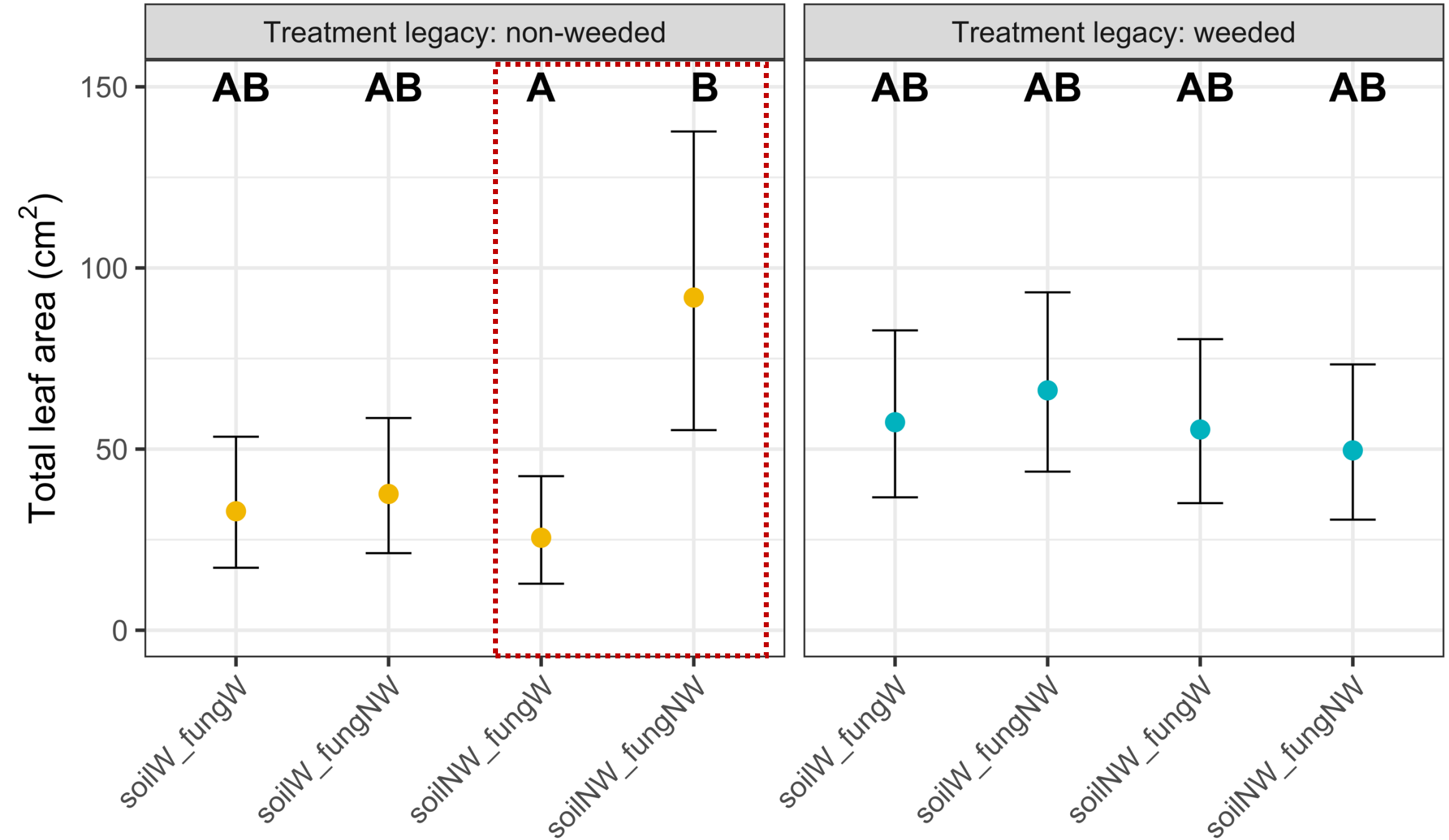

Treatment legacy: non-weeded
Treatment legacy: weeded
A
AB
AB
AB
B
AB
AB
B
ϕPSII
0.8
0.7
0.6
0.5
0.4
soilW_fungW
soilW_fungNW
soilNW_fungW
soilNW_fungNW
soilW_fungW
soilW_fungNW
soilNW_fungW
soilNW_fungNW

Total leaf area

- Total leaf area (proxy for plant size) is reduced in plants that had a legacy of growing with garlic mustard (NW plants < W plants, p=0.030)

- Total leaf area is marginally greater in plants grown with the AM fungal community from non-weeded plots (W fungal source < NW fungal source, p=0.08)

- Three-way interaction: there is only one pairwise difference across treatment combinations:
  - Non-weeded plants grown in non-weeded soil but weeded fungal source have reduced total leaf area compared to non-weeded plants grown in non-weeded soil and non-weeded fungal source


Treatment legacy: non-weeded
Treatment legacy: weeded
Total leaf area (cm2)
150
100
50
0
AB
AB
A
B
AB
AB
AB
AB
soilW_fungW
soilW_fungNW
soilNW_fungW
soilNW_fungNW
soilW_fungW
soilW_fungNW
soilNW_fungW
soilNW_fungNW