

Nutritional value and immunogenic potential of ancient wheat species

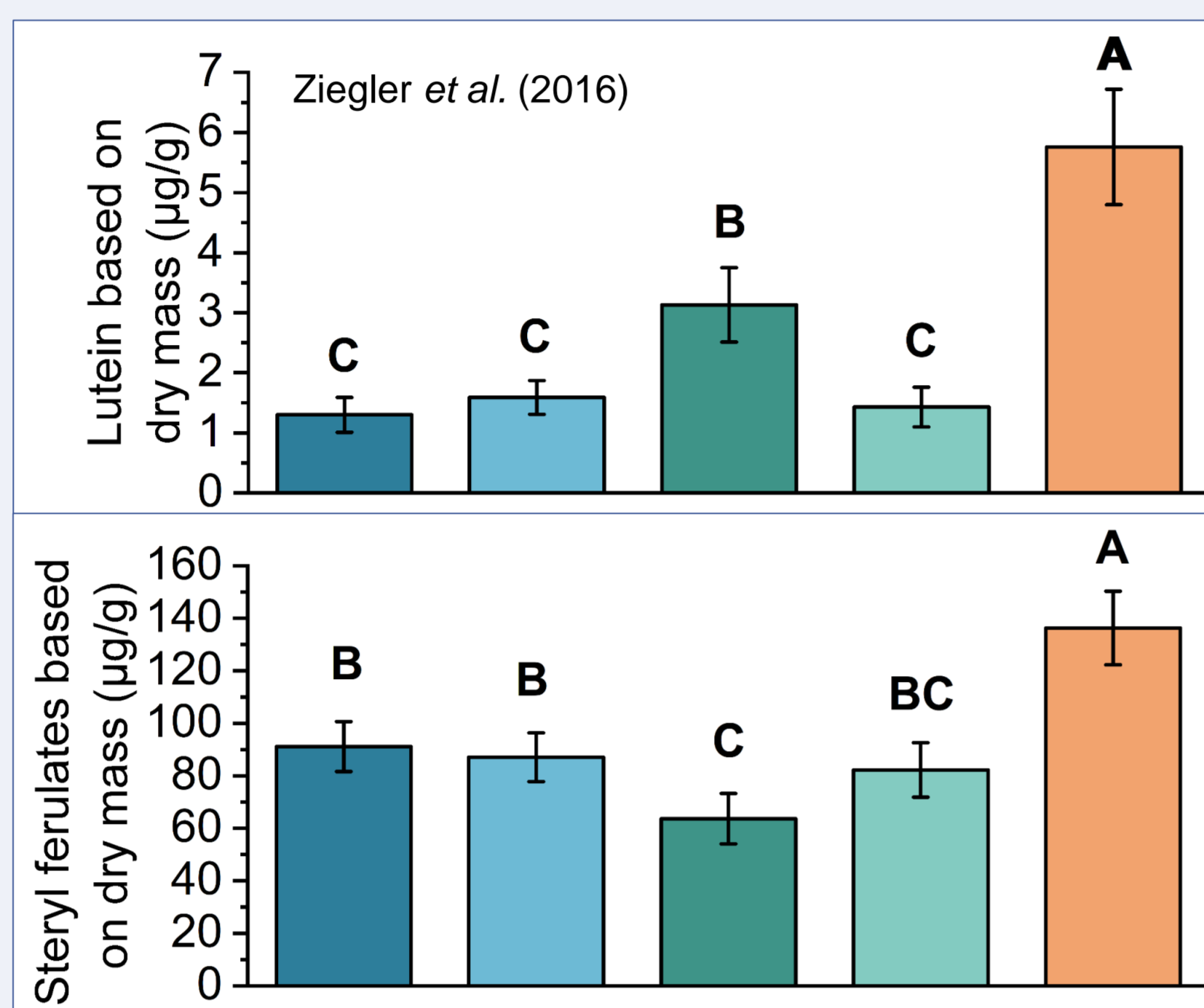
Sabrina Geisslitz

Katharina A. Scherf



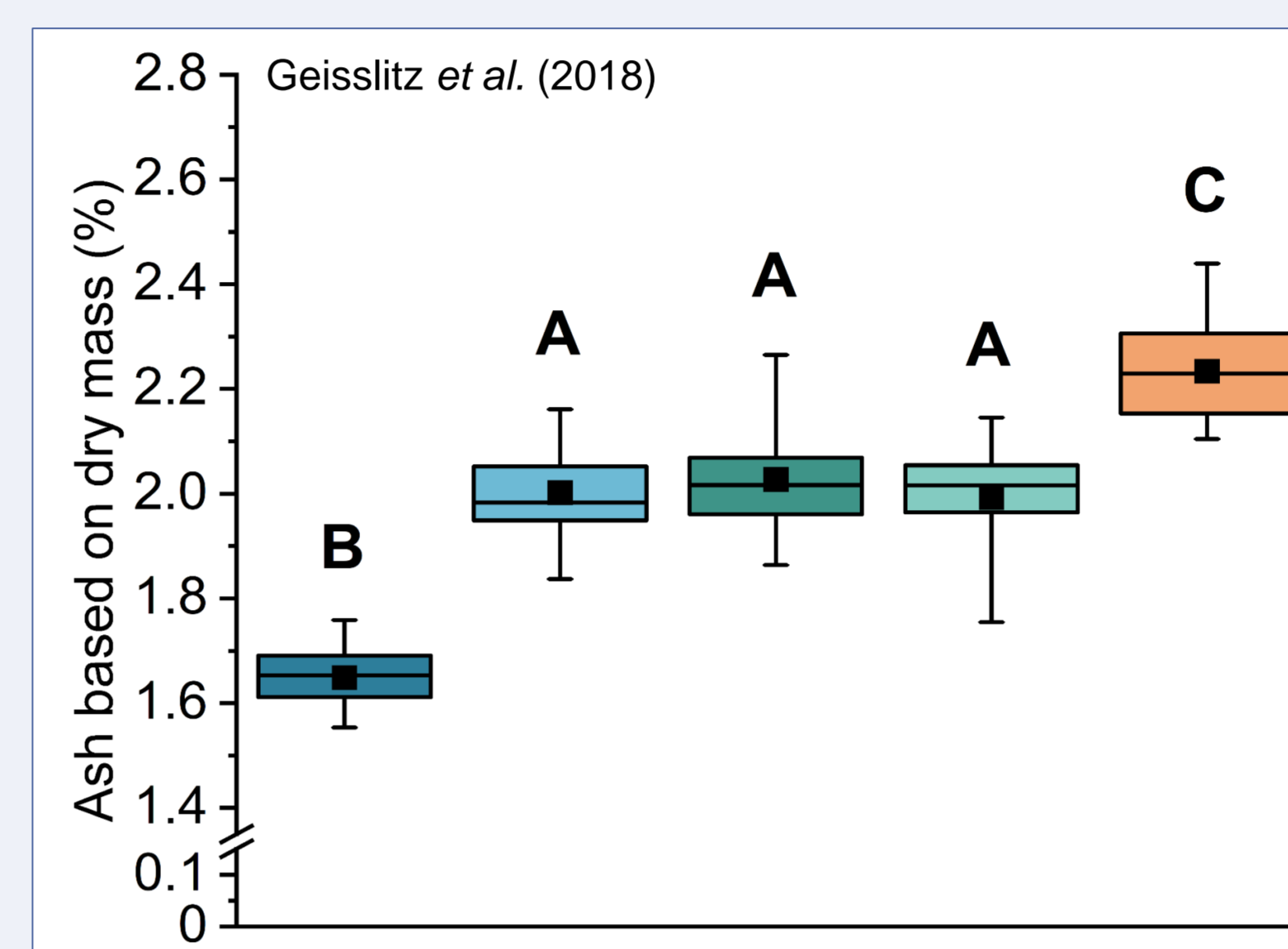
Bioactive compounds

- ✓ ...act as e.g. antioxidants or provitamins.
- ✓ ...have positive effects on human health.
- The high content of lutein leads to a yellow colour.



Minerals

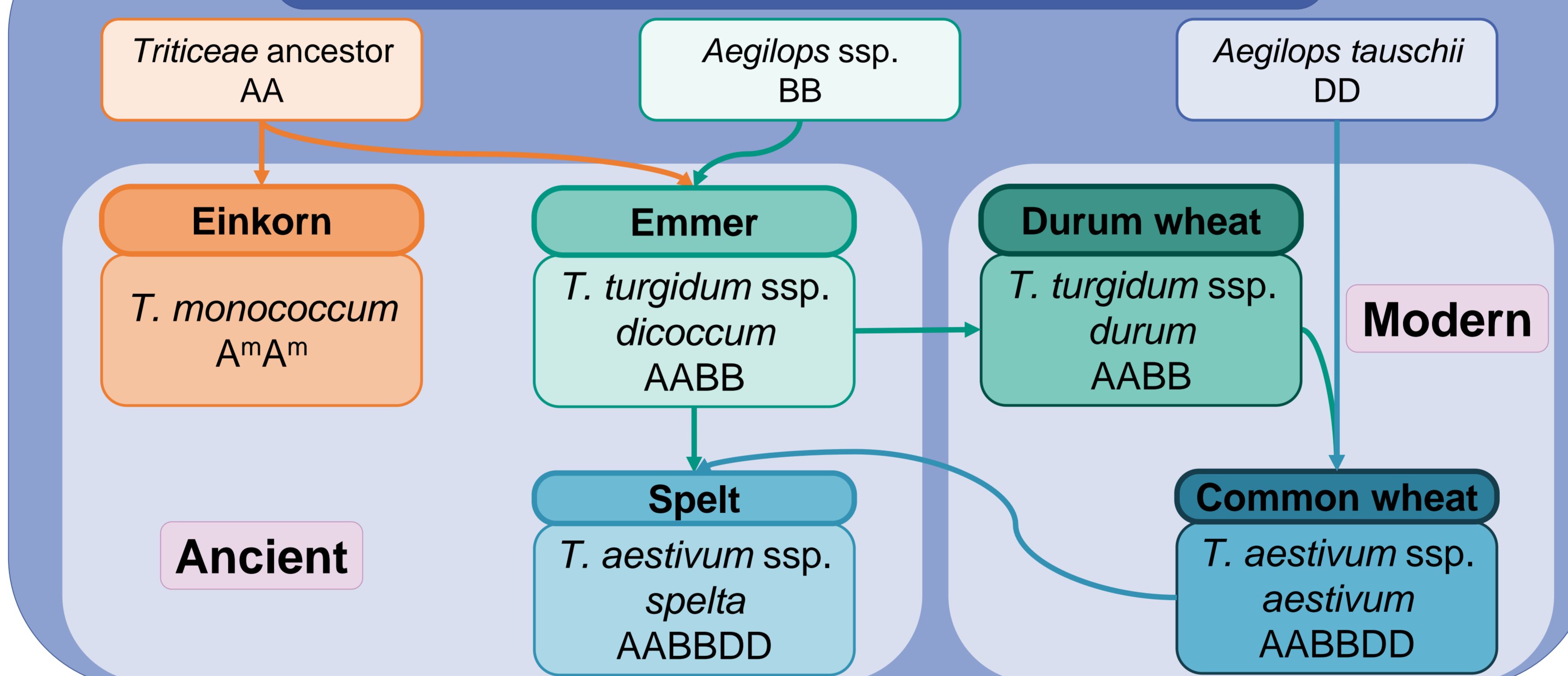
- ✓ ...are important for e.g. bones.
- ✓ Wholegrain flour was analysed.
- Einkorn has very small kernels, common wheat has large kernels.



More bioactive compounds in einkorn

Lower ATI content in einkorn

Ancient and modern wheat species

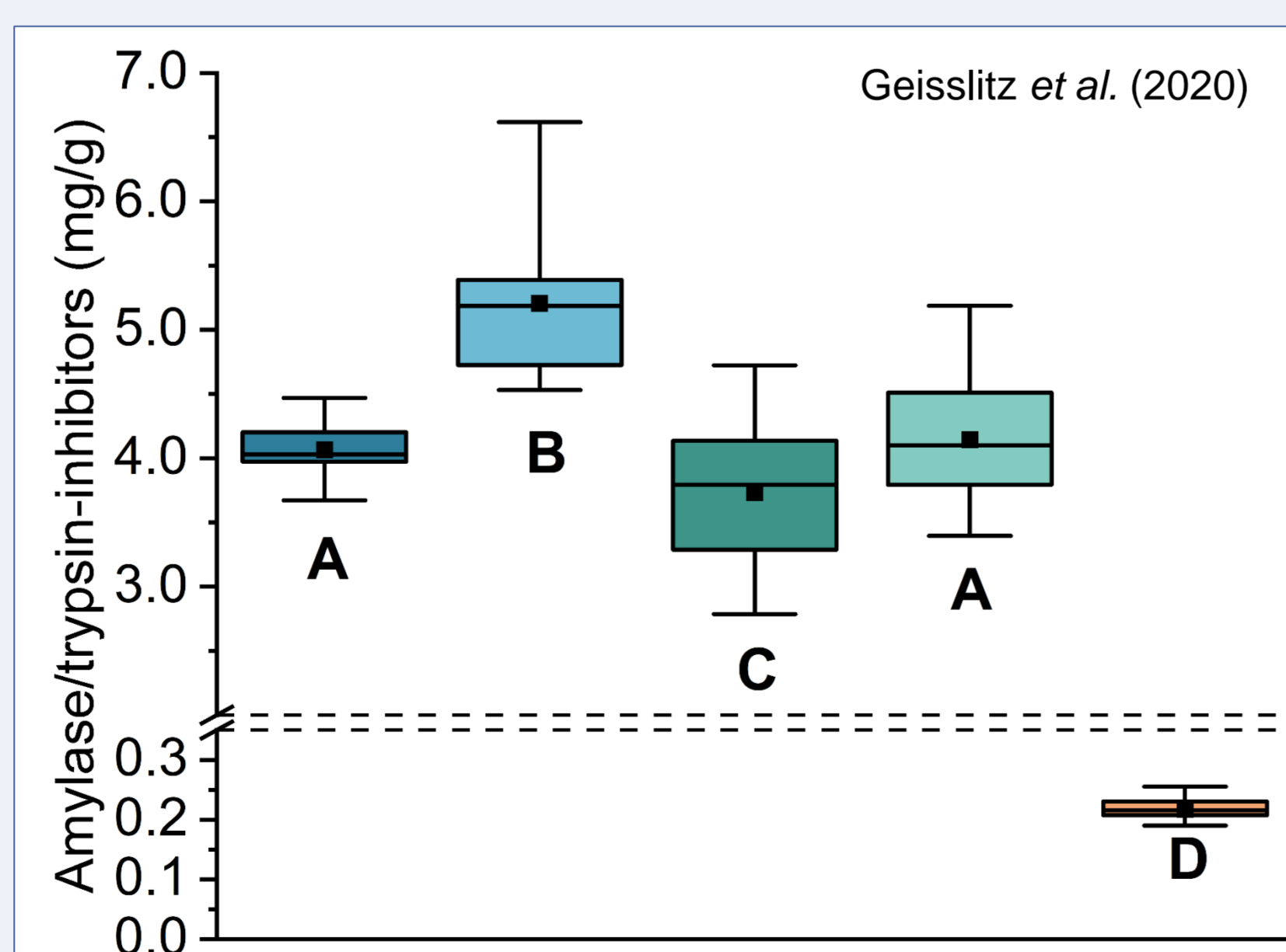


More minerals in einkorn

Higher gluten content in einkorn

Wheat sensitivity

- ✓ ... is triggered by amylase/trypsin-inhibitors (ATI).
- ✓ ...has a prevalence of up to 6%.
- Evolution of common wheat did not lead to an increase of ATI.



Celiac disease

- ✓ ...is triggered by gluten.
- ✓ The 33-mer is one of the most immunodominant gluten peptides.
- 33-mer is only present in common wheat and spelt.

