

A Close Up of Morphology of *Sorbus* Pollen Grains

Nirmala Dhakal, Anne Elisabeth Bjune and Heidi Lie Andersen



What is our study about?

Sorbus is a genus of the Rosaceae. We have analysed pollen grains morphology of 13 species of Norwegian *Sorbus*, *Aria* and their hybrids (*Hedlundia*).

What we did?

We examined pollen slides by light microscope under 63x magnification and measured 100 pollen grains from each species. Length of polar axis(P), equatorial axis(E) and ratio(P\E) were examined. We followed the procedure of Boyd and Dickson(1986) to identify and measure pollen.

What we got?

➤ All the species have variety in size of pollen grains. Hence, ratio (P/E) varies accordingly.

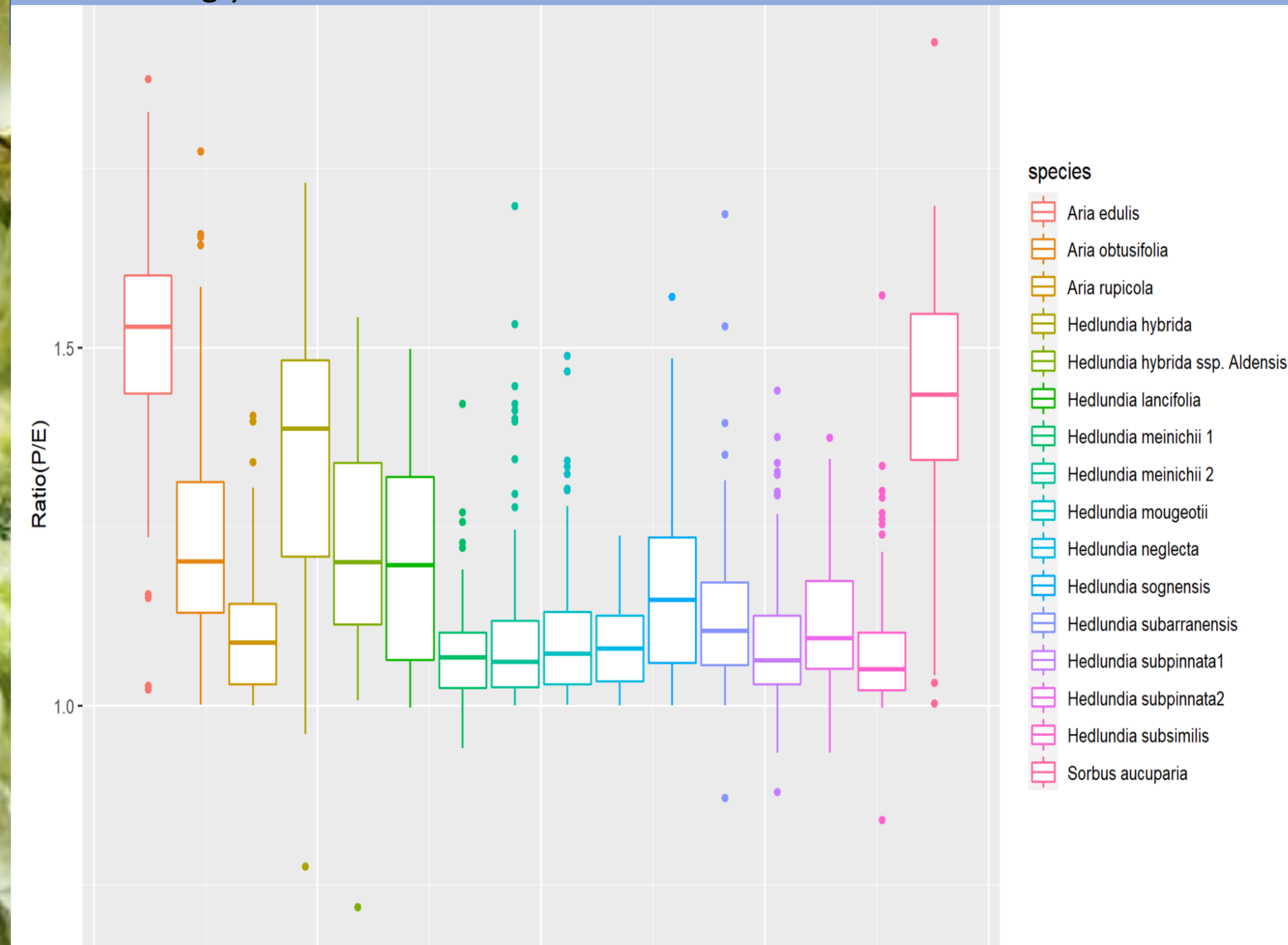


Fig 2: Boxplot showing ratio(P/E) of pollen grains of all the sample species

Why is this project important?

Pollen morphology is significant tool in solving the taxonomic problems. Not many research has been done on morphology of pollen of the *Sorbus* and its associates. We assume that this research results would be representative for the future studies.



Fig 3: pollen grains under microscope with and without measurement

At last:

Though some species have similarity in size of pollen grains, most of them are distinguishable from each other. The next step will be to compare pollen with leaf and flower morphology in addition to chromosome numbers.

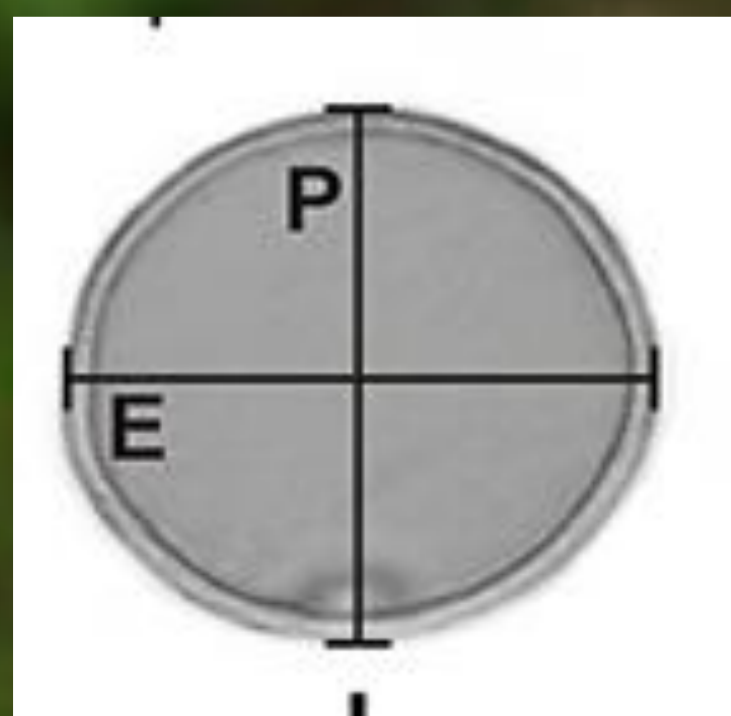


Fig 1:

shows how pollen grains were measured. Longest axis was considered as P and shortest as E.

Reference:Boyd W.E., Dickson J.H. (1986): The pollen morphology of four *Sorbus* species, with special reference to two Scottish endemic species, *S. arranensis* Hedl. and *S. pseudofennica* E. F. Warb. *Pollen Spores* 29: 59-71.



UNIVERSITY OF BERGEN



SCAN ME

299_1