

## Motivation and Results

Document and analyze biodiversity.

Peculiar leaf venation and occurrence of diverse sex distribution make the evolution of the family of general botanical interest.

- Result 1 Taxonomy (4 genera, 46 species), data on distribution and ecology
- Result 2 Phylogeny, character evolution and historical biogeography
- Result 3 Peculiar leaf venation a singular development in angiosperms

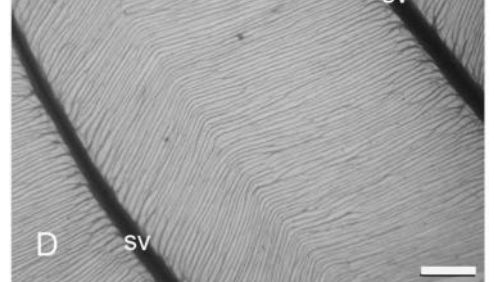
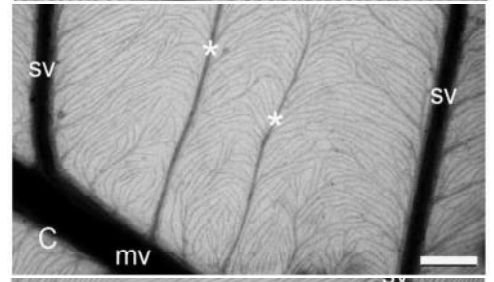
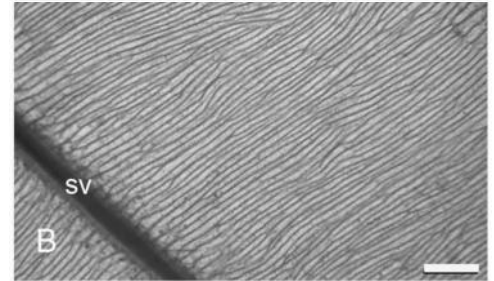
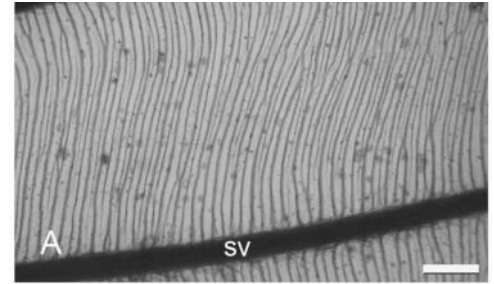
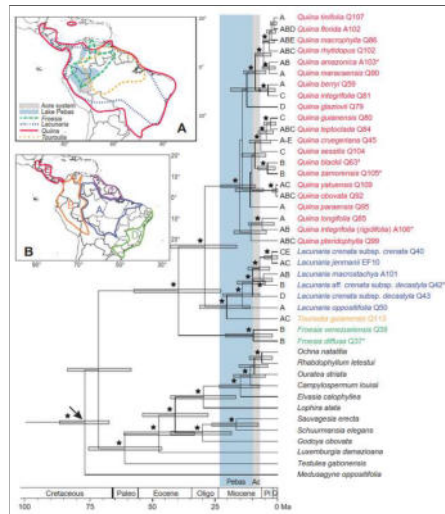


## Contribution to SGN Program Portfolio

The monograph contributes to all key questions of RA 1.1., also relates to RAs 1.2, 1.3, 2.2 and Infrastructure. Monographs are essentially based on scientific collections and are a major tool to develop collections, to communicate their data and to „put them in value“.

Monographs are a key task of scientific collections.

The revision of Quiinaceae is one example of these fundamental scientific products of Senckenberg, of which a recent variety from plant, fungus and animal kingdoms is presented in front of the poster.



1 Fruits of Quiinaceae. A: *Quiina amazonica*, B: *Lacunaria crenata* and C: *Froesia diffusa*.

2 Dated phylogeny of Quiinaceae and analysis of biogeographic history. Box A: distribution of the genera and the area of the Lake Pebas wetlands in the Miocene. Box B: areas used for ancestral area reconstruction (Schneider & Zizka 2017).

3 Leaf venation in Quiinaceae. A: *Froesia*, B: *Lacunaria*, C: *Quiina*, D: *Touroulia*. Note extremely dense, parallel tertiary veins in A,B and D – unique in angiosperms.

## Outlook

Monographs of taxonomic groups are the base of biodiversity research and conservation. The demand for such studies integrating a multitude of methods is ever increasing. However, necessary intimate knowledge of the group, study of often thousands of specimens and application of various methods make them especially laborious and time consuming while publication in high impact journals is usually not possible.

Monographs remain a core mission of biological research collections.

### Acknowledgements

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### References

- Schneider, J.V. & Zizka, G. (2016). Quiinaceae.- Flora Neotropica Monograph 115: 1-162.  
 Schneider, J.V. & Zizka, G. (2017). Phylogeny, taxonomy and biogeography of Neotropical Quiinoideae.- Taxon 66(4): 855-867.