

*Podocarpium podocarpum* (A. Braun) Herendeen (Fabaceae)

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**Leaf description**

- **morphology:**  
leaves are paripinnate; in the fossil record, isolated leaflets are much more common than fragments of compound leaves; the description, therefore, refers to leaflets; leaflets chartaceous, delicate; **organisation:** leaves pinnately compound, leaflets are simple; **petiole:** sessile or very shortly petiolate only; **shape:** oblong to slender ovate, about 1–3 cm long; **leaf base:** often somewhat asymmetrical, base angle acute to obtuse, base shape straight to convex; **leaf apex:** apex angle acute, apex shape convex, often shortly acuminate; **margin:** untoothed; **1°-vein framework:** pinnate; **2°-vein framework:** secondaries dense, weakly brochidodromous, looping near the margin; on one side the lowermost secondary often ascending paralleling the margin, intersecondaries regularly present between secondaries; **3°-vein framework:** reticulate.
  - **cuticle:**  
not specified
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**Paleocology**

- **habitat:** gallery forests along streams and at lake margins
  - **vegetation type:** warm-temperate deciduous to mixed-mesophytic and subhumid sclerophyllous forests
  - **life form:** tree
  - **foliage persistence:** deciduous leaves
  - **flower ecology (pollination):** ?
  - **fruit ecology (dispersal):** animal-dispersed (zoochorous) and self-dispersed (autochorous)
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**Stratigraphy / Distribution**

- **stratigraphy:** Oligocene to Pliocene
  - **distribution:** Eurasia; very common in late Early to Late Miocene floras in Europe, for example Öhningen, Randecker Maar, Steinheim, Erdöbenye.
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**Miscellaneous**

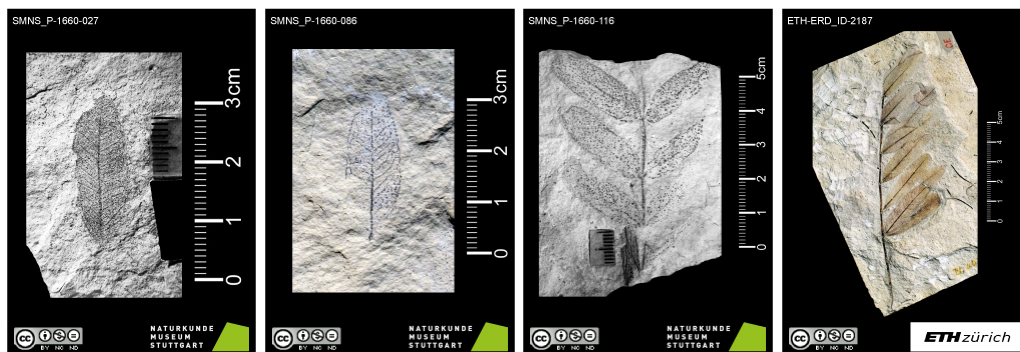
- **synonyms:** *Podogonium knorrii* HEER, *Podogonium lyellianum* HEER, *Podogonium oeningense* (KOENIG) KIRCHHEIMER;
  - **modern relationship:** Fabaceae, probably an extinct genus;
  - **remarks:** At some localities, e.g. Öhningen, Schrotzburg, Randecker Maar, Steinheim, leaflets of *P. podocarpum* are very abundant and found associated with one-seeded pods or even flower remains (Randecker Maar) (Zetter et al. 2001). Definitely, the different plant organs derive from the same plant species. The presence of fragmented compound leaves with leaflets still adherent to the main axis of the leaf indicate short transport (if at all). Probably these trees were growing in the close vicinity of lakes and streams. While the assignment to the Fabaceae is consensus, that to a modern genus is not. The genus *Gleditsia* was discussed but currently the view dominates that these fossil remains represent rather an extinct genus than a living one (Herendeen 1992 a, b).
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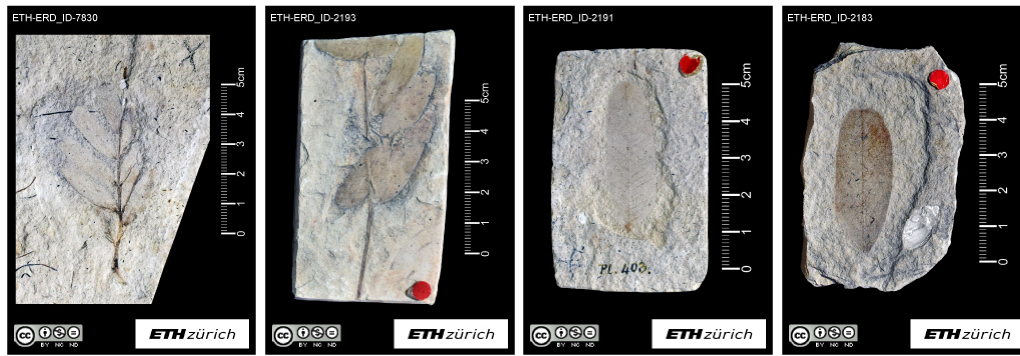
## 24 macroscopic leaf traits are stored in *Digiphyll*

#	trait code	trait: charcters state
1	A-1.2	petiole: present
2	A-1.2.1	petiole, present: short
3	A-2.2	leaf organisation: compound
4	A-2.2.2	leaf organisation, compound: pinnately
5	A-3.3	leaf shape: ovate
6	A-3.4	leaf shape: oblong
7	A-4.1	leaf base angle: acute
8	A-4.2	leaf base angle: obtuse
9	A-5.1	leaf base shape: without basal extension
10	A-5.1.1	leaf base shape, without basal extension: cuneate (straight)
11	A-5.1.2	leaf base shape, without basal extension: rounded
12	A-5.1.6	leaf base shape, without basal extension: decurrent
13	A-6.2	leaf apex angle: obtuse
14	A-7.3	leaf apex shape: rounded
15	A-7.4	leaf apex shape: emarginate
16	A-8.1	leaf margin: untoothed
17	B-1.1	primary vein framework: pinnate
18	B-2.2	secondary vein framework: 2° veins do not reach margin
19	B-2.2.1	secondary vein framework, 2° veins do not reach margin: eucamptodromous
20	B-2.3	secondary vein framework: 2° veins form loops and do not reach margin
21	B-2.3.1	secondary vein framework, 2° veins form loops and do not reach margin: brochidodromous
22	B-3.2	intramarginal vein: absent
23	B-4.1	intersecondaries: present
24	B-5.2	tertiary vein framework: reticulate

For a detailed description of the leaf traits see menu *Manuals*.

## Fossil images





## References

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- **Zetter et al. (2001):** ?

Version: 2019-04-30