

Leaf description

- **morphology:**

organisation: simple; **petiole:** present, up to 10 mm long; **shape:** lamina slender ovate to slender elliptic, up to 120 mm long, length/width ratio 2.5–3.5; **leaf base:** base angle wide acute to obtuse, base shape almost straight, convex to rounded; **leaf apex:** apex angle (narrow) acute, apex shape straight; **margin:** simple toothed, teeth narrow, acute, one above each secondary vein, rarely one in between; **1°-vein framework:** pinnate, mid vein straight, tapering along its length, course somewhat sinuate in the apical part of the lamina; **2°-vein framework:** mainly 12–16 secondaries on each side of the mid vein, running straight towards the margin, somewhat bent upwards near the margin, mainly craspedodromous; **3°-vein framework:** tertiaries forked percurrent, further venation polygonal, areoles with a simple unforked veinlet.

- **cuticle:**

delicate, hypostomatic; **adaxial cuticle:** anticlines straight, bent to undulate, cell outlines polygonal; **abaxial cuticle:** anticlines straight, rounded to undulate; stomatal complexes loosely grouped, (incompletely) cyclocytic to anomocytic, subsidiary cells narrow, straight-walled, somewhat stronger cutinised; stomata almost rounded, front cavity short, elliptic, cuticular ledges moderately cutinised; uniserial glandular trichomes scattered, if at all, mostly incompletely preserved, bases simple round to oval; close to the leaf margin and over veins strongly cutinised bases of simple trichomes.

Paleocology

- **habitat:** mesophytic forests
 - **vegetation type:** mixed mesophytic forests
 - **life form:** tree
 - **foliage persistence:** deciduous leaves
 - **flower ecology (pollination):** wind-pollinated (anemophilous)
 - **fruit ecology (dispersal):** animal-dispersed (zoochorous)
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Stratigraphy / Distribution

- **stratigraphy:** Upper Oligocene to Early Miocene
 - **distribution:** Europe, e.g. Saxony, North Bohemia, Upper Austria.
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Miscellaneous

- **synonyms:** –
 - **modern relationship:** *Fagus*
 - **remarks:** Distinctive features of this beech are the rather slender and long leaves with a relatively high number of secondaries, the teeth which are not S-like curved along with very small stomata. Long-petiolate cupules of *F. deucalionis* UNGER have been found associated with the leaves and pollen of *F. bockwitzensis* WALTHER & ZETTER probably also derive from the same tree species.
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26 macroscopic leaf traits are stored in *Digiphyll*

#	trait code	trait: charcters state
1	A-1.2	petiole: present
2	A-1.2.2	petiole, present: long
3	A-2.1	leaf organisation: simple
4	A-3.1	leaf shape: elliptic
5	A-3.3	leaf shape: ovate
6	A-4.1	leaf base angle: acute
7	A-4.2	leaf base angle: obtuse
8	A-5.1	leaf base shape: without basal extension
9	A-5.1.1	leaf base shape, without basal extension: cuneate (straight)
10	A-5.1.2	leaf base shape, without basal extension: rounded
11	A-5.1.4	leaf base shape, without basal extension: concavo-convex
12	A-6.1	leaf apex angle: acute
13	A-7.1	leaf apex shape: attenuate (straight)
14	A-8.2	leaf margin: toothed
15	A-8.2.1	leaf margin, toothed: crenate
16	A-9.1.1	leaf teeth, order number of teeth: simple order (first order)
17	A-9.2.2	leaf teeth, tooth density: not dense
18	A-9.3.2	leaf teeth, tooth size: big
19	A-9.4.2	leaf teeth, tooth apex shape: rounded
20	A-9.5.2	leaf teeth, tooth sinus shape: rounded
21	B-1.1	primary vein framework: pinnate
22	B-2.1	secondary vein framework: 2° veins reach margin
23	B-2.1.1	secondary vein framework, 2° veins reach margin: craspedodromous
24	B-3.2	intramarginal vein: absent
25	B-4.2	intersecondaries: absent
26	B-5.1	tertiary vein framework: percurrent

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

? microscopic leaf traits are stored in *Digiphyll*

comming soon

Fossil images

images not yet available!

References

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 - **Walther H. (1999):** Die Tertiärflora von Kleinsaubernitz bei Bautzen. – *Palaeontographica*, Abteilung B, 249: 63-174.
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Version: 2019-10-21