***Acer haselbachense* Walther 1972 (Sapindaceae)**

Leaf description

- **morphology:**
  organisation: simple; **petiole:** leaves long-petiolated, up to 110 mm long; **shape:** palmately lobed with 3–5 lobes; **leaf base:** base angle obtuse to more rarely slightly reflex, shape rounded to more rarely cordate; lobes narrow, elongated, the central one often longer and somewhat wider than the lateral ones and basally often a bit narrowed, lateral lobes often curved outwards; angle between lobes rounded or sometimes acute, about 30–60°; **leaf apex:** apex angle acute, shape attenuate; **apex of individual lobes:** angle narrow acute, shape attenuate to somewhat acuminate; **margin:** dentate, teeth coarse, irregularly spaced and sized, both tooth apex and sinus acute; **1°-vein framework:** palmate; **2°-vein framework:** craspedodromous to semicraspedodromous; **3°-vein framework:** almost perpendicular to the secondaries, percurrent ?, higher vein orders polygonal reticulate.
- **cuticle:**
  cuticle of both leaf sides delicate, hypostomatic; **adaxial cuticle:** anticlines straight to slightly rounded or rarely even wavey, slender, forming polygonal cell outlines about 20-50 µm across; surface occasionally with fine striation; **abaxial cuticle:** epidermal cells smaller than on the adaxial side, up to 30 µm across, polygonal, cell surface strongly dome-shaped (papillate); stomata anomocytic, small 10–24 µm long and 8–20 µm wide, largely overlapped by the dome-shaped neighbouring cells, often only the front cavity or porus visible except for stomata close to the leaf margin, where cells are less strongly dome-shaped.

Palecology

- **habitat:** riparian forests
- **vegetation type:** mixed mesophytic forests
- **life form:** tree
- **foliage persistence:** deciduous leaves
- **flower ecology (pollination):** anemo- or zoophilous
- **fruit ecology (dispersal):** wind-dispersed (anemochorous)

Stratigraphy / Distribution

- **stratigraphy:** Lower Oligocene to Upper Oligocene
- **distribution:** Eastern parts of Germany (Thüringen, Saxony, Sachsen-Anhalt)

Miscellaneous

- **synonyms:** –
- **modern relationship:** Section Spicata PAX.
- **remarks:** Records of *A. haselbachense* are restricted to fossil plant assemblages from the southern margin of the former North Sea. Leaf shapes of *A. haselbachense* and *A. palaeosaccharinum* are overlapping and the relationship of both species is yet not resolved. Contrary to *A. haselbachense*, in *A. palaeosaccharinum* the epidermal cells of the abaxial cuticle are not dome-shaped (papillose).

Furthermore it is assumed that both species preferred different habitats: *A. haselbachense* – riparian forests, *A. palaeosaccharinum* - mesophytic forests.

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32 macroscopic leaf traits are stored in *Digiphyll*

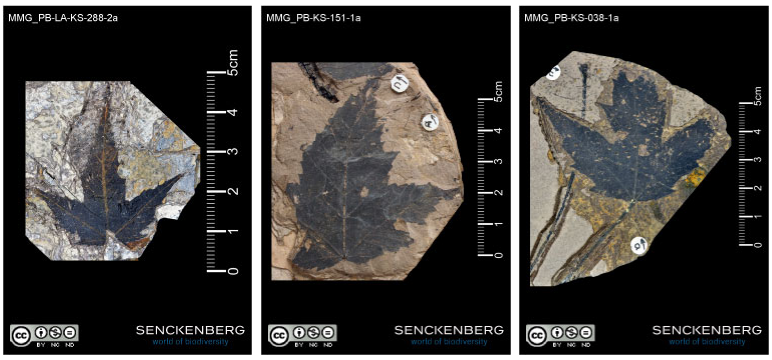
#	trait code	trait: charcters state
1	A-1.2	petiole: present
2	A-1.2.2	petiole, present: long
3	A-2.1	leaf organisation: simple
4	A-3.6	leaf shape: lobed
5	A-3.6.2	leaf shape, lobed: palmately lobed
6	A-4.2	leaf base angle: obtuse
7	A-4.3	leaf base angle: reflex
8	A-5-1	leaf base shape: without basal extension
9	A-5.1.2	leaf base shape, without basal extension: rounded
10	A-5.2	leaf base shape: with basal extension
11	A-5.2.1	leaf base shape, with basal extension: cordate
12	A-6.1	leaf apex angle: acute
13	A-7.1	leaf apex shape: attenuate (straight)
14	A-7.2	leaf apex shape: acuminate
15	A-8.2	leaf margin: toothed
16	A-8.2.1	leaf margin, toothed: crenate
17	A-8.2.2	leaf margin, toothed: dentate
18	A-9.1.2	leaf teeth, order number of teeth: double (second order) or higher orders
19	A-9.2.2	leaf teeth, tooth density: not dense
20	A-9.3.2	leaf teeth, tooth size: big
21	A-9.4.1	leaf teeth, tooth apex shape: acute
22	A-9.5.2	leaf teeth, tooth sinus shape: rounded
23	B-1.2	primary vein framework: palmate
24	B-1.2.1	primary vein framework, palmate: actinodromous
25	B-1.2.1.1	primary vein framework, palmate, actinodromous: basal actinodromous
26	B-2.1	secondary vein framework: 2° veins reach margin
27	B-2.1.1	secondary vein framework, 2° veins reach margin: craspedodromous
28	B-3.2	intramarginal vein: absent
29	B-4.2	intersecondaries: absent
30	B-5.1	tertiary vein framework: percurrent
31	B-5.1.1	tertiary vein framework, percurrent: opposite
32	B-5.1.2	tertiary vein framework, percurrent: alternate

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

? microscopic leaf traits are stored in *Digiphyll*

comming soon

Fossil images



References

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- **Walther H. (1972):** Studien über tertiäre Acer Mitteleuropas. – *Abhandlungen des Staatlichen Museums für Mineralogie und Geologie zu Dresden*, 19: 1-309.
- **Walther H. (1999):** Die Tertiärflora von Kleinsaubernitz bei Bautzen. – *Palaeontographica*, Abteilung B, 249: 63-174.

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