

*Comptonia difformis* (Sternb.) Berry 1906 (Myricaceae)

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**Leaf description**

- **morphology:** leaves membranaceous; **organisation:** simple; **petiole:** present; **shape:** oblong to linear, tapering towards leaf base and apex, pinnately dissected (lobed); shape of pinnae mainly triangular, ovate or rhomb-shaped, very variable in size, pinnae attached with their full width to the midvein, tightly spaced, basal side of pinnae convex, apical side straight, gently concave or convex, apex angle of pinnae mainly acute, apex shape convex to rounded; **leaf base:** base angle obtuse; **margin:** margin of pinnae entire or sometimes with a single tooth, margin sometimes slightly curled; **1°-vein framework:** primary veins pinnate; **2°-vein framework:** every pinnae usually with 2–4 main veins (secondaries), arising at an angle of almost 90°, occasionally branched, intersecondaries present; **3°-vein framework:** tertiaries finely reticulate but rarely visible.
  - **cuticle:** not specified
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**paleocology**

- **habitat:** Similar requirements as for *C. asplenifolia* today are proposed sometimes. As these demands are those of a modern relict, it remains disputable to which degree they may apply to the fossil record.
  - **vegetation type:** ?
  - **growth habit:** shrub
  - **leaf abscission:** deciduous leaves?
  - **pollination:** probably wind-pollinated (anemophilous)
  - **dispersal:** animal-dispersed (zoochorous)?; the fruit of modern *Comptonia* is a small nut.
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**stratigraphy / occurrence**

- **stratigraphy:** Eocene to Early Miocene
  - **chorology:** Central Europe; usually its findings are not abundant.
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**miscellaneous**

- **common synonyms:** *Comptonia acutiloba* BRONGNIART
  - **modern relationship:** The genus *Comptonia* is a monotypic relict today. *C. asplenifolia* (L.) AITON thrives on dry, sandy and nutrient-poor soils in the Atlantic part of N-America.
  - **remarks:** First this leaf type was assigned to the fern genus *Asplenium* by Sternberg (1821). Later such leaves were erroneously assigned to the south-hemispherical family Proteaceae, e.g. *Dryandra* for the flora of Häring (Ettingshausen 1853). Though low, the true number of fossil species of *Comptonia* leaves in the European Palaeogene and Neogene is still unresolved. For example, it is discussed whether *Comptonia schrankii* (STERNBERG) BERRY which occurs mainly in the Palaeogene is synonymous with *C. difformis*. Cuticles are rarely preserved and have been described only in cases of exceptional preservation (Christensen 1975 from the early Miocene Søby Flora in Denmark). In case the pinnae are not distinctly developed, the differentiation from *Myrica* may be problematic.
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## 20 macroscopic leaf traits are stored in *Digiphyll*

#	trait code	trait: charcters state
1	A-1.2	petiole: present
2	A-2.1	leaf organisation: simple
3	A-3.5	leaf shape: linear
4	A-3.6	leaf shape: lobed
5	A-3.6.1	leaf shape, lobed: pinnately lobed
6	A-4.2	leaf base angle: obtuse
7	A-5-1	leaf base shape: without basal extension
8	A-5.1.3	leaf base shape, without basal extension: truncate
9	A-6.1	leaf apex angle: acute
10	A-7.1	leaf apex shape: attenuate (straight)
11	A-7.2	leaf apex shape: acuminate
12	A-8.1	leaf margin: untoothed
13	B-1.1	primary vein framework: pinnate
14	B-2.1	secondary vein framework: 2° veins reach margin
15	B-2.1.1	secondary vein framework, 2° veins reach margin: craspedodromous
16	B-2.1.2	secondary vein framework, 2° veins reach margin: semicraspedodromous
17	B-3.2	intramarginal vein: absent
18	B-4.1	intersecondaries: present
19	B-5.1	tertiary vein framework: percurrent
20	B-5.1.1	tertiary vein framework, percurrent: opposite

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

## Fossil images



## References

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