

Aceraceae segregated from Sapindaceae and Hippocastanaceae. Buerki, S., P. Lowry II, N. Alvarez, S. Razafimandimbison, P. Kupfer, M.W. Callmender. 2010. Phylogeny and circumscription of Sapindaceae revisited: Molecular sequence data, morphology and biogeography support recognition of a new family, Xanthoceraceae. *Plant Ecology and Evolution* 143:148-159.

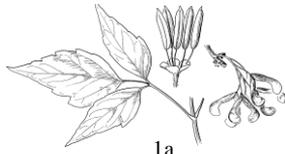
ACERACEAE Maple Family

Infl terminal pan, or pendent racemes, axillary or terminal; fls ♂ or ♂♀ or ♂, ♀ radially symmetric; sepals 4–5, distinct or ± connate; petals (0)4–5(–8), distinct; stamens 4–12, inserted on a lobed disc; ovary superior, 2–3(–17)-celled or -carpellate, styles 1 or 2, stigmas 2; fr schizocarps, dehiscent to single-seeded, winged mericarps (samara); deciduous shrubs or trees with opp, simple, palmately lobed to pinnately or palmately compound lvs. Recent molecular phylogenetic evidence supports a monophyletic Aceraceae segregated from Hippocastanaceae and Sapindaceae (Buerki et al. 2010).

Acer L. Maple

Fls in axillary pans, racemes, or corymbs; petals small, sometimes lacking; stamens (4–)8(–10); lvs mostly palmately lobed, occ ternately or pinnately 3–5-foliolate. (L name for maple). (*Negundo*, *Saccharodendron*).

European intro *Acer campestre* L. (petiole with milky sap; lvs green below and much like those of *A. grandidentatum*) and e N Am intro *A. rubrum* L. (lvs ± white below, lobed < 1/2 distance to midvein; fls appearing before lvs; petals present) are sporadic escapes from cult w Cas.



1a

1a Lvs 3–5-foliolate, terminal lfllet stalked; pls ♂, ♀, petals lacking; trees to 20 m; widespread native in N Am, but in our area escaped from cult; mostly e Cas; box-elder (*A. n.* vars. *interius*, *n.*, and *violaceum*, *N. aceroides*); of slight hort imp

1 **A. negundo** L.

1b Lvs simple and palmately lobed, or occ trifoliolate with sessile lfllets; petals gen present

2a Abaxial lf surfaces ± white or gray

3a Fls appearing before lvs, apert; infl axillary, red, 15–100-flid; lvs 8–13 × 9–15 cm, deeply 5-lobed, lobes coarsely toothed; ♂♀ or ♂, ♀ trees to 30 m; riparian areas; e N Am intro, occ escaping in our area; both sides Cas; silver m.; of hort imp

2 **A. saccharinum** L.

3b Fls appearing with lvs, petals inconspicuous; infl pendulous, stout, greenish, ∞-fld; lvs 8–15 × 9–15 cm, lobed 1/2 distance to midvein, lobes coarsely serrate; trees to 30 m; European orn, occ escaped in our area; mostly w Cas, BC to OR; sycamore m.; of hort imp

3 **A. pseudoplatanus** L.

2b Abaxial lf surfaces green or red-purple

4a Petiole with milky sap; lvs 5-lobed and coarsely few-toothed, lobes < 1/2 distance to midvein; fls appearing with lvs, green; infl corymbose; trees to 20 m; widely planted European intro, invasive in e N Am; escaping our area on both sides Cas; Norway m.; of hort imp

4 **A. platanoides** L.

4b Petioles lacking milky sap

5a Fls 10–50, racemose or pan; fr bristly-hairy; large trees to 30 m; larger lvs > 15 cm wide; AK to CA, mostly w Cas, also in wc ID; big-lf m., common m., OR m.; of little hort value

5 **A. macrophyllum** Pursh

5b Fls mostly < 10, corymbose or umbellate; fr glab or sparsely pilose; pls often shrublike; larger lvs gen < 15 cm wide

6a Lvs 7–9-lobed; stamens borne inside the disc; sepals red; shrubs or small trees 1–8 m; AK to n CA, from e side Cas to coast; vine m.; of great hort value, colors highly in fall

6 **A. circinatum** Pursh

6b Lvs 3–5-lobed; stamens gen outside the disc; sepals green

7a Sinuses of lvs narrowly acute, lobes ovate, sharply and finely bidentate; fls corymbose; petals gen present; shrubs or small trees 1–10 m; of less hort imp than *A. circinatum*; 2 intergrading vars.

7 **A. glabrum** Torr.

a1 Lvs gen lobed < 1/2 distance to midvein, the larger ones 6–11 cm wide; sts reddish; coastal from AK to OR, and e to ID and MT; Douglas' m. (*A. d.*) var. *douglasii* (Hook.) Dippel

a2 Lvs gen lobed > 1/2 distance to midvein, mostly 3–6(–8) cm wide; sts mostly grayish; mts of MT and ID to NV and NM, e to NE; RM m. (*A. subserratum*) var. *glabrum*

7b Sinuses of lvs wide, lobes oblong, coarsely and sparingly sinuate-toothed; fls umbellate; petals lacking; small trees 3–5(–6) m; app our area in e ID, e and s to sc MT, w WY, TX, and AZ; bigtooth m. (*S. g.*)

8 **A. grandidentatum** Nutt.

