

Betulaceae - birch family

Betula papyrifera

paper birch



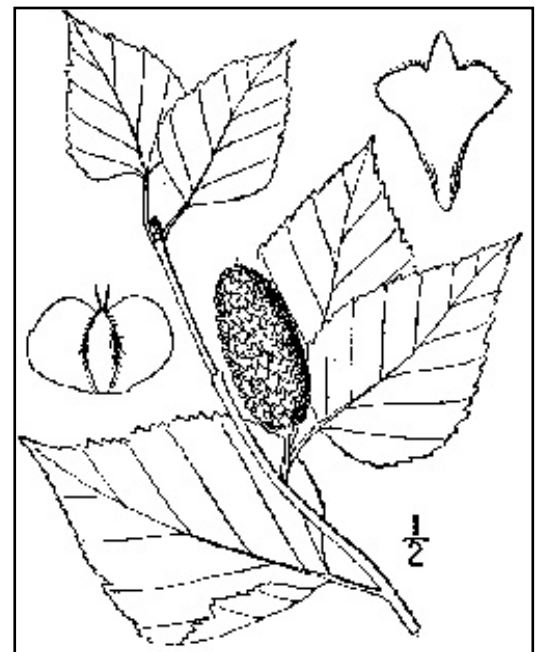
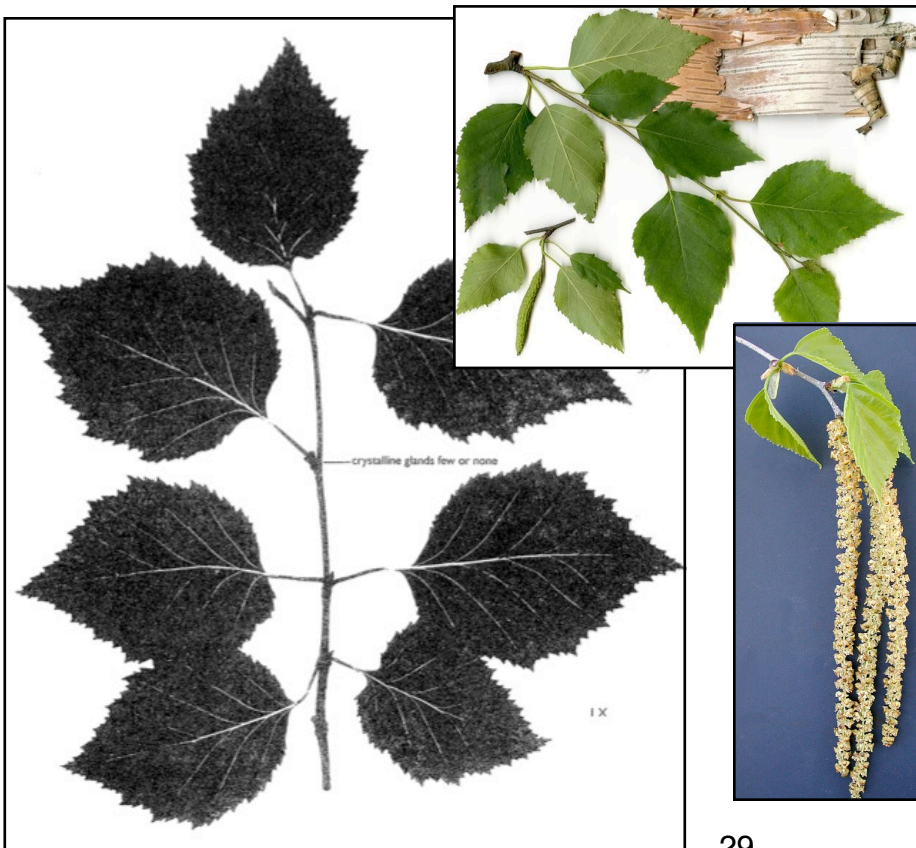
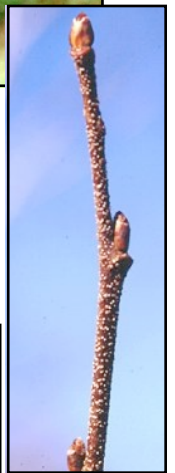
Sight ID characteristics

Vegetative Features:

- **Leaf:** alternate, 2-4" long, ovate, obtuse base, acute to acuminate apex, doubly serrate margin.
- **Twig:** dull red-brown, numerous lenticels, lacking wintergreen smell when cut; terminal bud absent.
- **Bark:** brown and smooth (young trees), but turning cinnamon to creamy white with papery, peeling (exfoliating) outer layers at maturity. Older trees become black and furrowed at the base.

Reproductive Features:

- Monoecious, male and female flowers borne in catkins. Fruits are laterally winged nutlets borne in pendant cone-like structures that are 1 1/2-2" long with a persistent axis and 3-lobed bracts that are deciduous at maturity.



NOTES AND SKETCHES

Betulaceae - birch family

Betula occidentalis

water birch



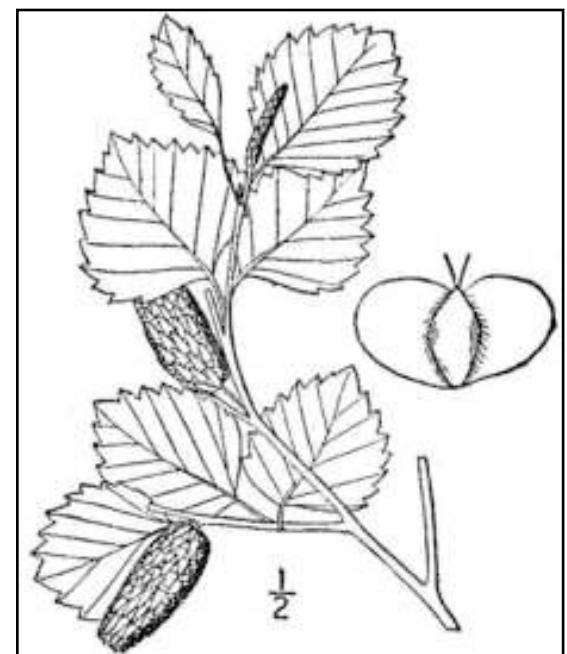
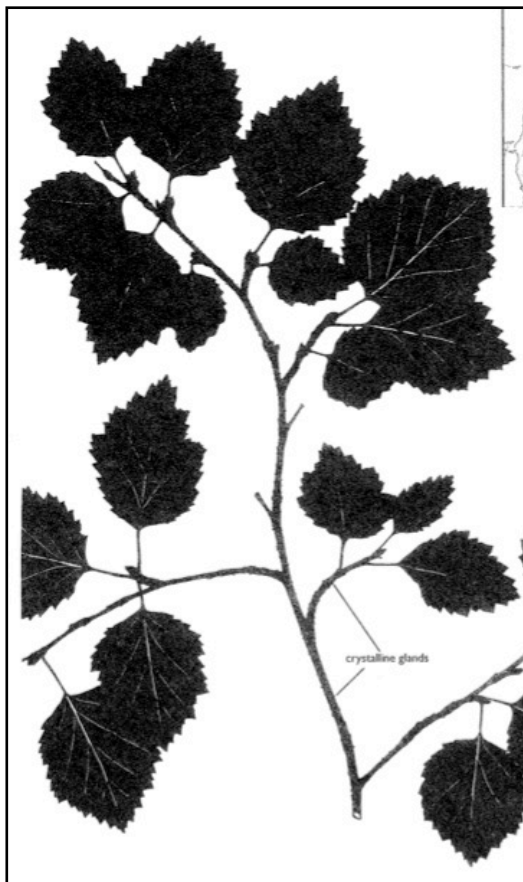
Sight ID characteristics

Vegetative Features:

- **Leaf:** alternate, 1-2" long, ovate with a variably toothed, doubly serrate margin.
- **Twig:** green and sticky when young, becoming reddish brown and resin-dotted (yellow, crystalline).
- **Bark:** smooth, shiny and reddish brown in color. Not exfoliating. Often has a several-trunked form.

Reproductive Features:

- Monoecious, male and female flowers borne in catkins. Fruits are laterally winged nutlets borne in cone-like structures 1-1 1/4" long with a persistent axis and 3-lobed bracts that are deciduous at maturity.



NOTES AND SKETCHES

Betulaceae - birch family

Betula pendula

European white birch

COMMON
ORNAMENTAL
many cultivars

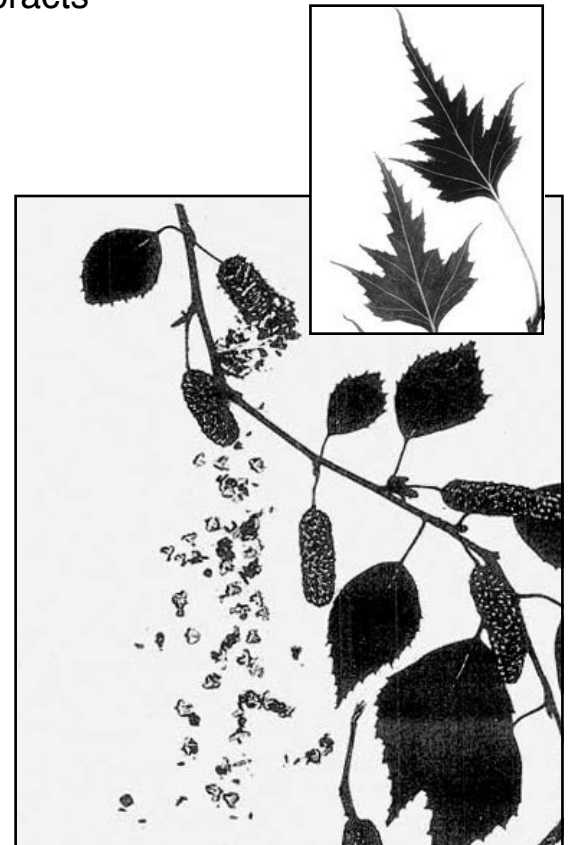
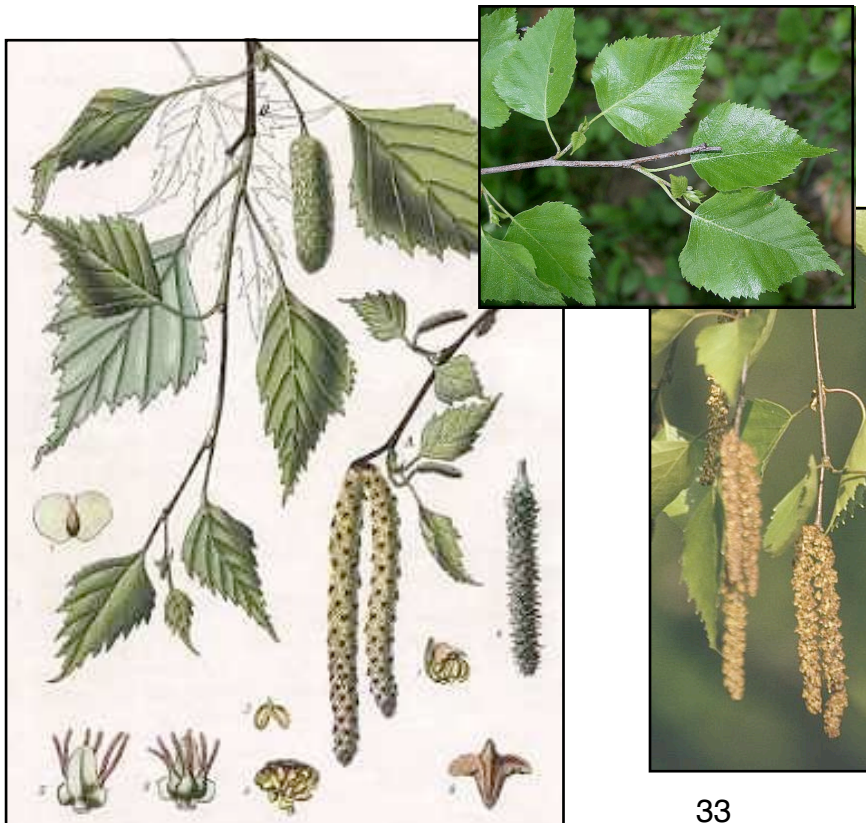
Sight ID characteristics

Vegetative Features:

- **Leaf:** alternate, commonly 1-2 3/4" long, ovate to deltoid, doubly serrate to divided or lobed - size, shape and structure are variable in different cultivars (a cultivar with divided leaves is very common).
- **Twig:** Tends to have droopy branches – weeping.
- **Bark:** creamy white on mature trees, papery outer layer characteristic of paper birch, but not exfoliating to same degree, becomes dark and fissured on older trees (lower trunk)

Reproductive Features:

- Monoecious, male and female flowers borne in catkins. Fruits are laterally winged nutlets borne in cone-like structures that are 3/4-1 1/4" long with a persistent axis and 3-lobed bracts that are deciduous at maturity.



NOTES AND SKETCHES

Betulaceae - birch family

Alnus rubra

red alder



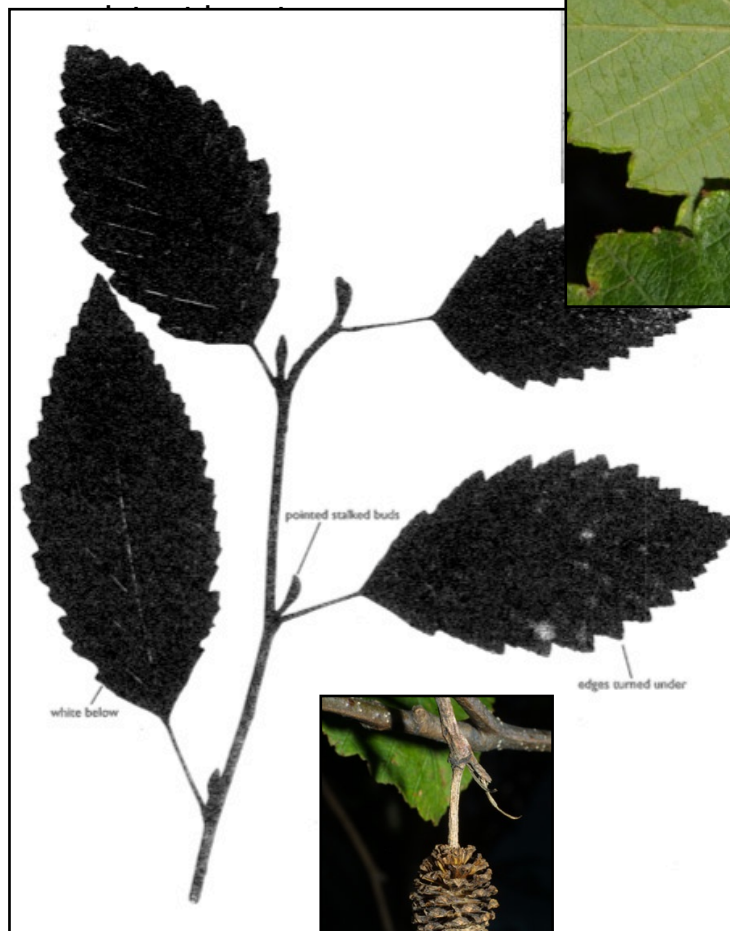
Sight ID characteristics

Vegetative Features:

- **Leaf:** alternate, 3-6" long, ovate to elliptical, rounded to obtuse base, acute apex, doubly serrate margins, strongly revolute.
- **Twig:** Young twigs distinctly triangular in cross-section, olive to reddish brown, prominent lenticels, buds stalked.
- **Bark:** grayish and smooth on younger trees but becomes furrowed on older trees.

Reproductive Features:

- Monoecious, male and female flowers borne in catkins. Fruits are laterally winged nutlets borne in 1/2-1 1/4" long cone-like structures with woody,



NOTES AND SKETCHES

Betulaceae - birch family

Alnus rhombifolia

white alder



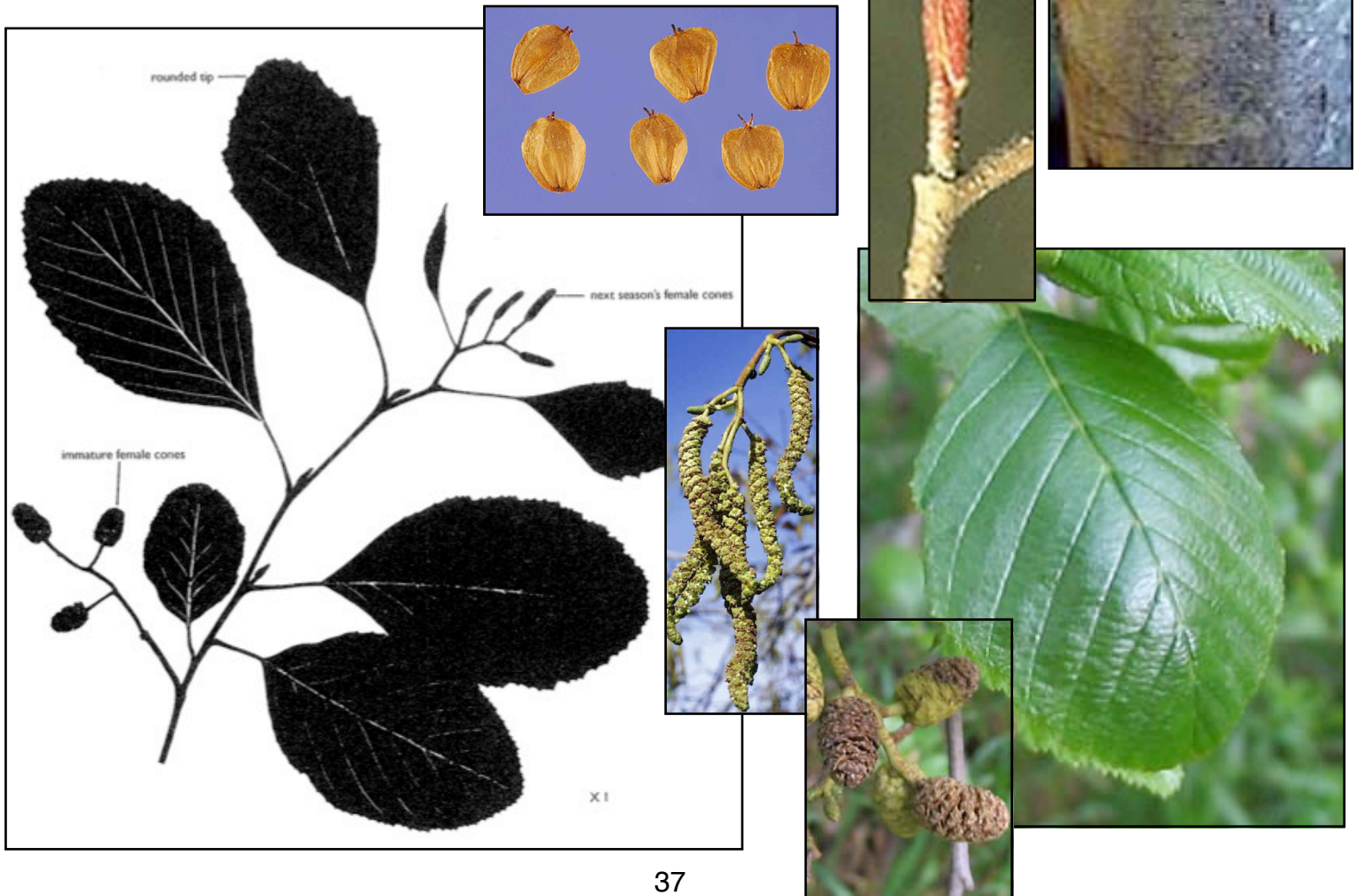
Sight ID characteristics

Vegetative Features:

- **Leaf:** alternate, 2-3 1/2" long and rhombic (diamond-shaped) to elliptical, occasionally ovate, doubly serrate margin that is not revolute.
- **Twig:** Slender, green turning to red-orange, stalked buds
- **Bark:** smooth and gray on young trees, becoming divided into irregular plates on older trees.

Reproductive Features:

- Monoecious, male and female flowers borne in catkins. Fruits are laterally winged nutlets borne in 3/8-3/4" long cone-like structures with woody, persistent bracts.



NOTES AND SKETCHES

Betulaceae - birch family

Alnus incana ssp. *tenuifolia*

thinleaf alder



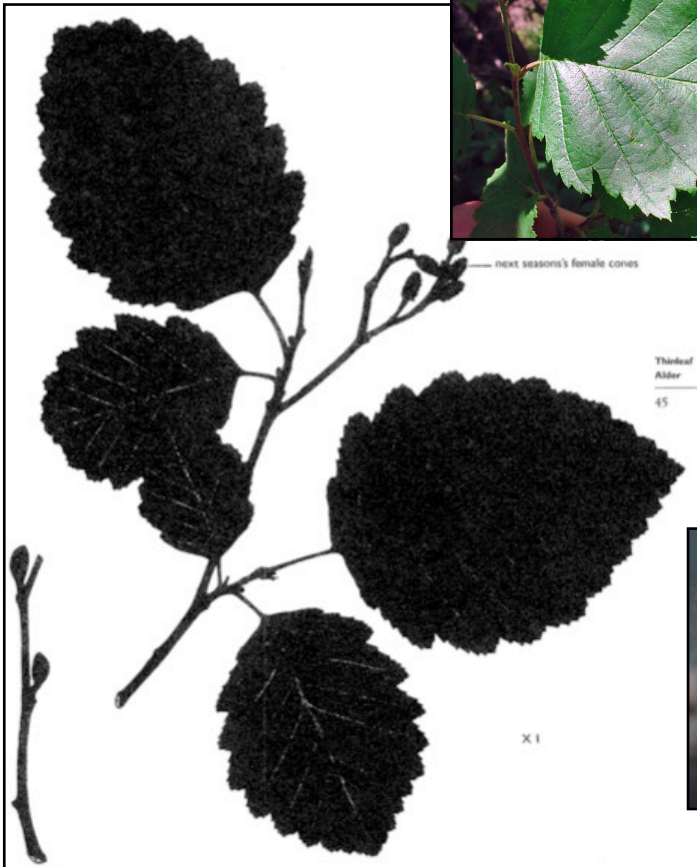
Sight ID characteristics

Vegetative Features:

- **Leaf:** alternate, 2-4" long, ovate, doubly serrate, dark green above, paler with slight pubescence below, obviously thin
- **Twig:** gray-brown to reddish brown, velvety, lighter lenticels, buds stalked.
- **Bark:** smooth, gray-green to reddish brown, numerous conspicuous horizontal lenticels, becoming scaly on old trees

Reproductive Features:

- Monoecious, male and female flowers borne in catkins. Fruits are laterally winged nutlets borne in 1/2" long cone-like structures with woody, persistent bracts - noticeably thin.



NOTES AND SKETCHES

Betulaceae - birch family

Corylus cornuta

beaked hazel



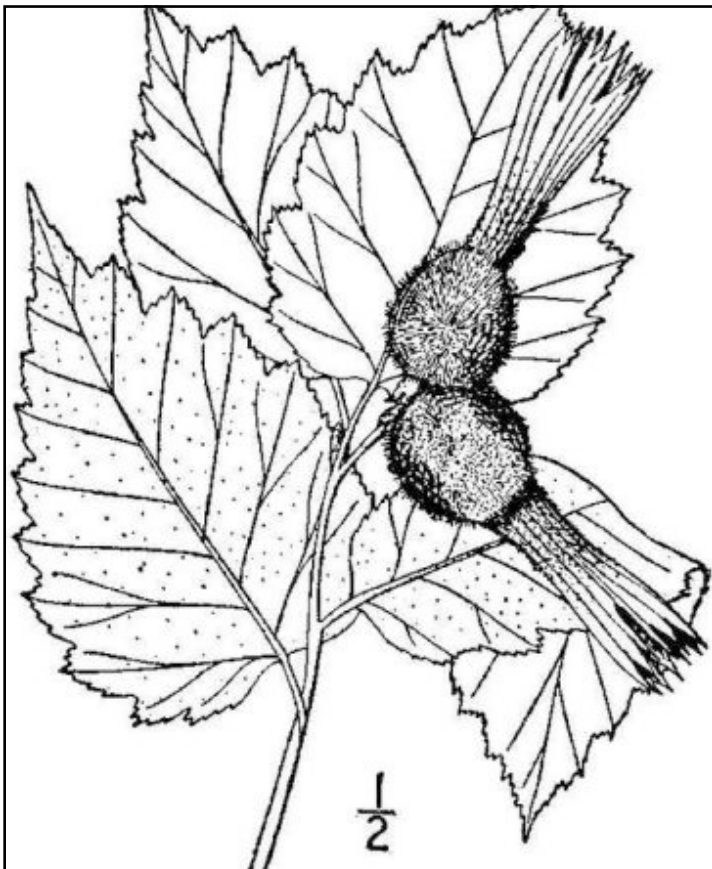
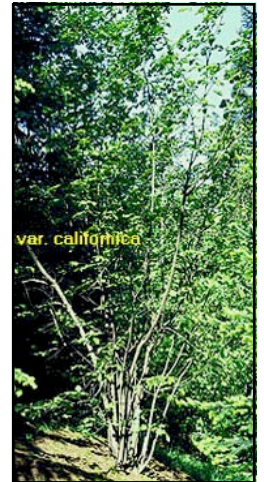
Sight ID characteristics

Vegetative Features:

- **Leaf:** alternate, 2-4" long, broadly elliptical to ovate, doubly serrate, pubescent on both surfaces and the petiole.
- **Twig:** slender, zigzag, light brown; buds small two-toned, light grayish brown with scales near base being darker brown.
- **Bark:** smooth, gray bark; usually has many trunked

Reproductive Features:

- Monoecious; male flowers borne in catkins and female flowers inconspicuous (not in catkins) - red threadlike stigmas and styles protruding from gray-brown buds.
- Fruit is a nut with the bract enclosing it and forming a tube at the apex like a birds beak. Arranged in pairs.



NOTES AND SKETCHES

Betulaceae - birch family

Carpinus caroliniana

American hornbeam



Sight ID characteristics

Vegetative Features:

- **Leaf:** alternate, 1-5" long, elliptical-ovate, doubly serrate with side veins that do not branch.
- **Twig:** slender, brown to gray; buds are brown, angled, with a tan edge to each scale.
- **Bark:** smooth, gray, is said to have a muscular appearance; trunk often fluted. Frequently called "musclewood" or "ironwood".

Reproductive Features:

- Monoecious; male and female flowers borne in catkins. Fruit is a nut subtended by a conspicuous leafy 3-lobed bract suspended from a central axis.



NOTES AND SKETCHES

Betulaceae - birch family

Ostrya virginiana

eastern hophornbeam



Sight ID characteristics

Vegetative Features:

- **Leaf:** alternate, 1-5" long, elliptical-ovate, doubly serrate with branching side veins.
- **Twig:** slender, reddish brown, smooth, may be slightly pubescent
- **Bark:** brown, distinctive shredded appearance broken into small flaky scales.

Reproductive Features:

- Monoecious, male and female flowers borne in catkins.
- Fruit is a nut enclosed in oval papery bracts borne in hop-like clusters.



NOTES AND SKETCHES