

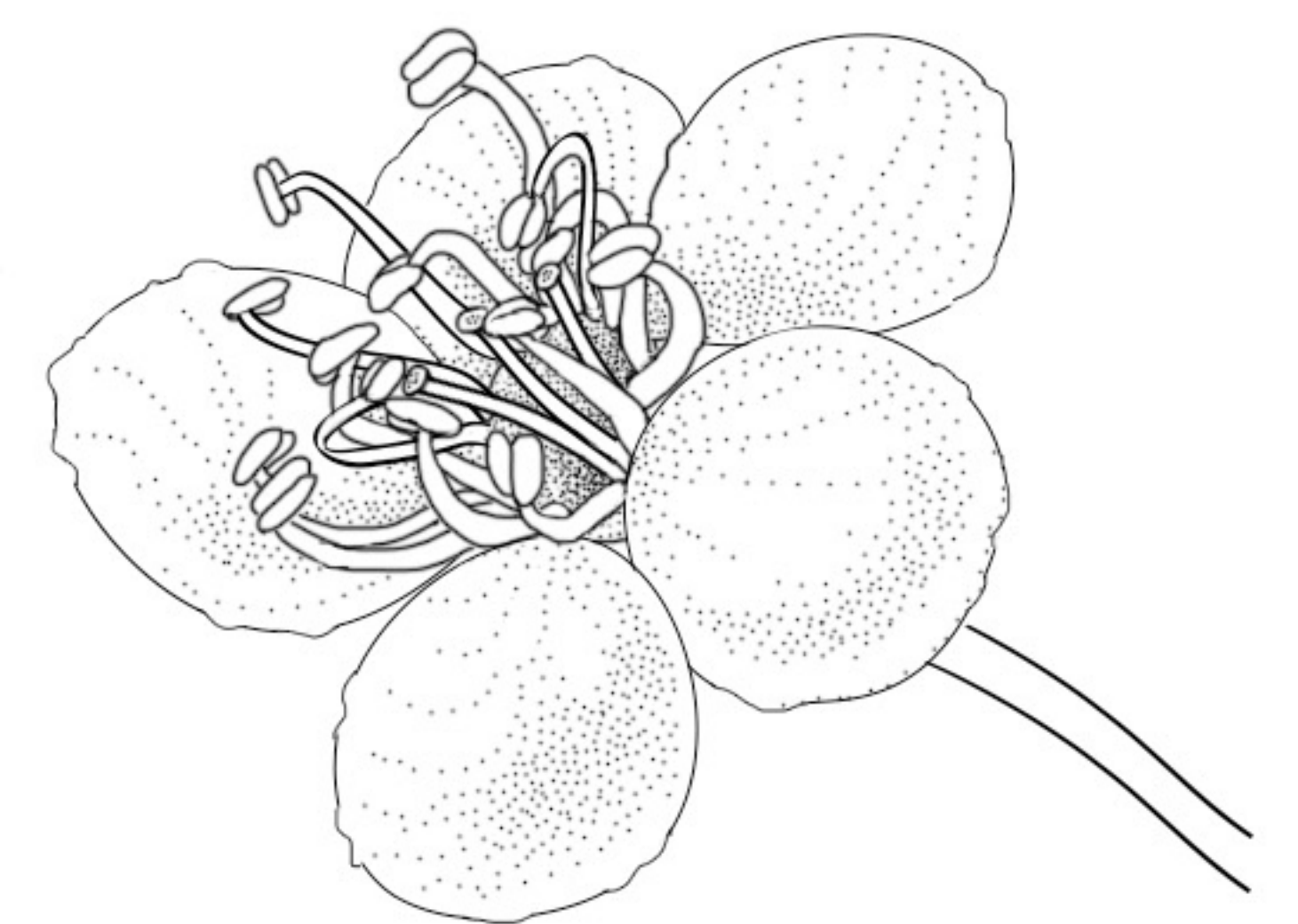
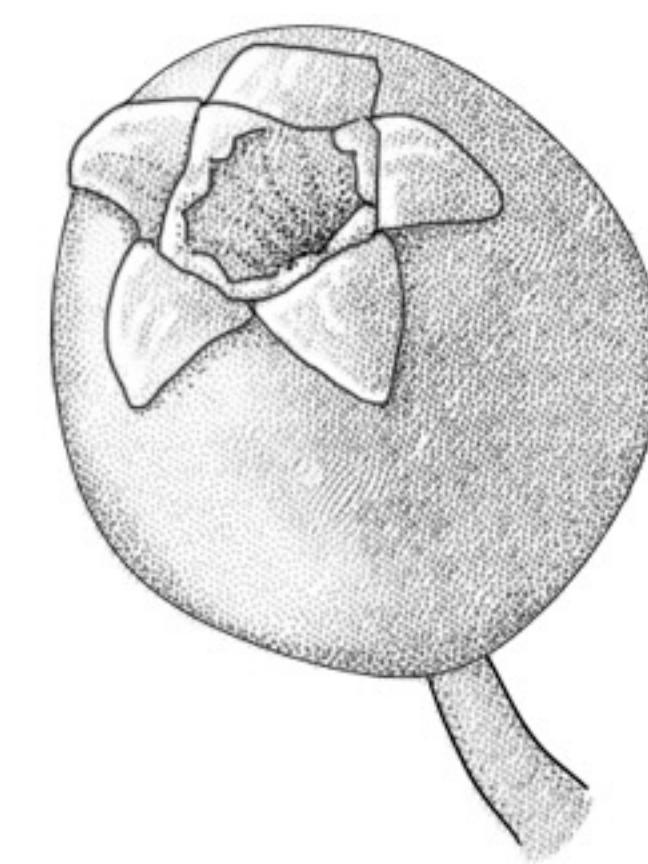
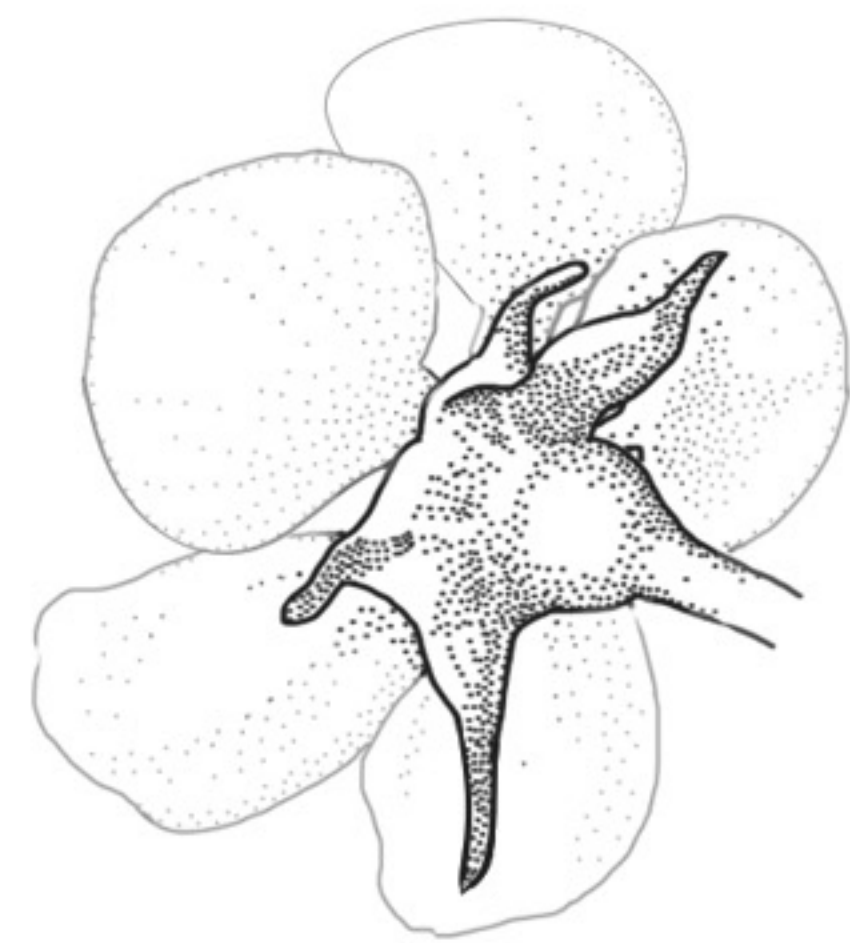
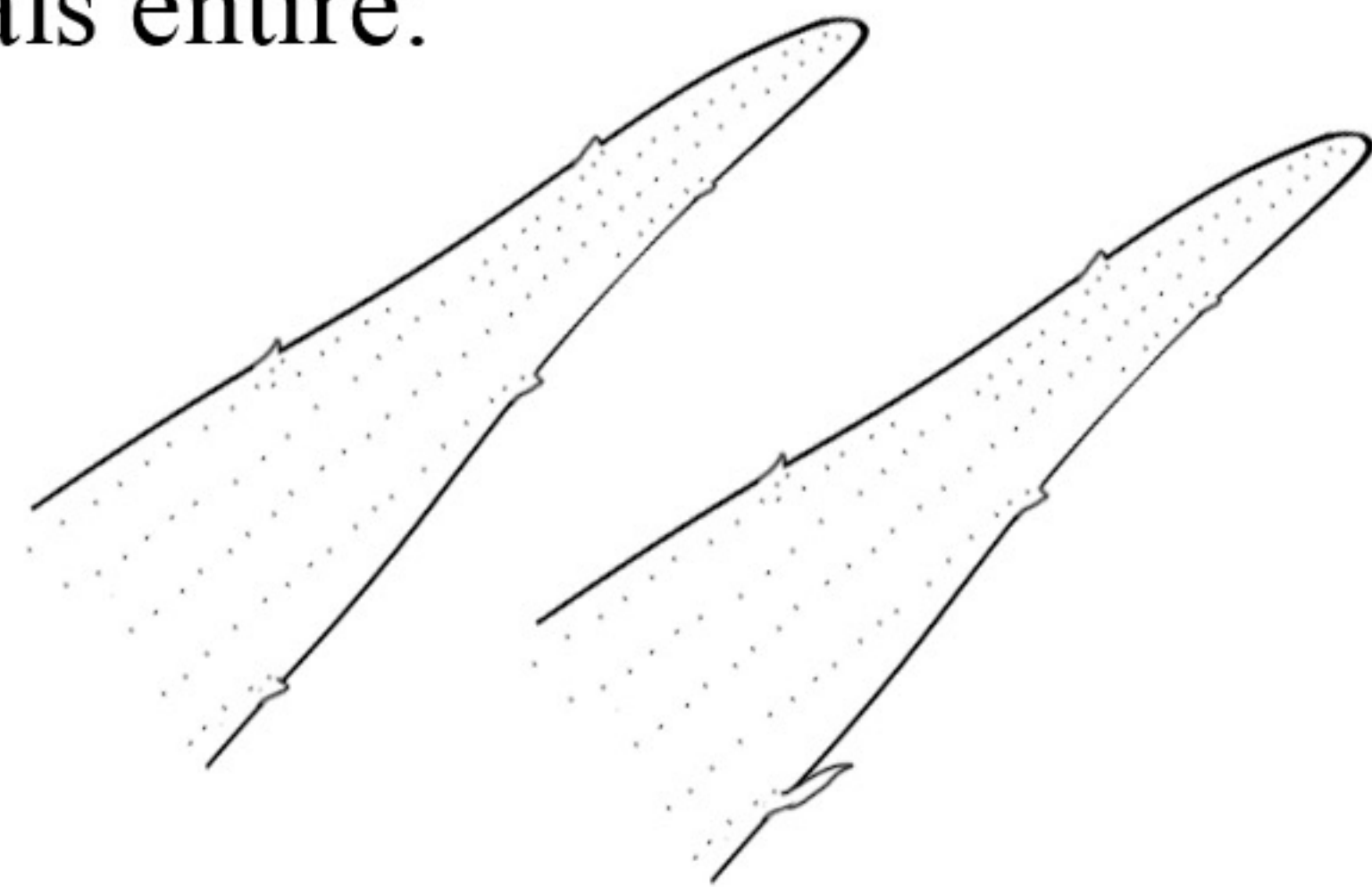
Illustrated Hawthorns of the Chicago Region

The hawthorn species illustrated here are based upon the concepts articulated by Wilhelm & Rericha in their *Flora of the Chicago Region, a Floristic and Ecological Synthesis*, published in 2017 by the Indiana Academy of Science. The principal organizational features are the leaf shape, their degree of pubescence, and the nature of the sepal margins. A few species can be identified by their leaves alone, but most require the presence of sepals, which are easily seen on flowering specimens and usually remnant at the fruit summits. Other key features rewarding study are the calyx, collar length, pyrene shape, anther color, stamen number, thorns and so on. As with most plants, the leaf blade shapes can vary among the hawthorns. Those paradigms presented here attempt to represent the prevailing expression of the species.

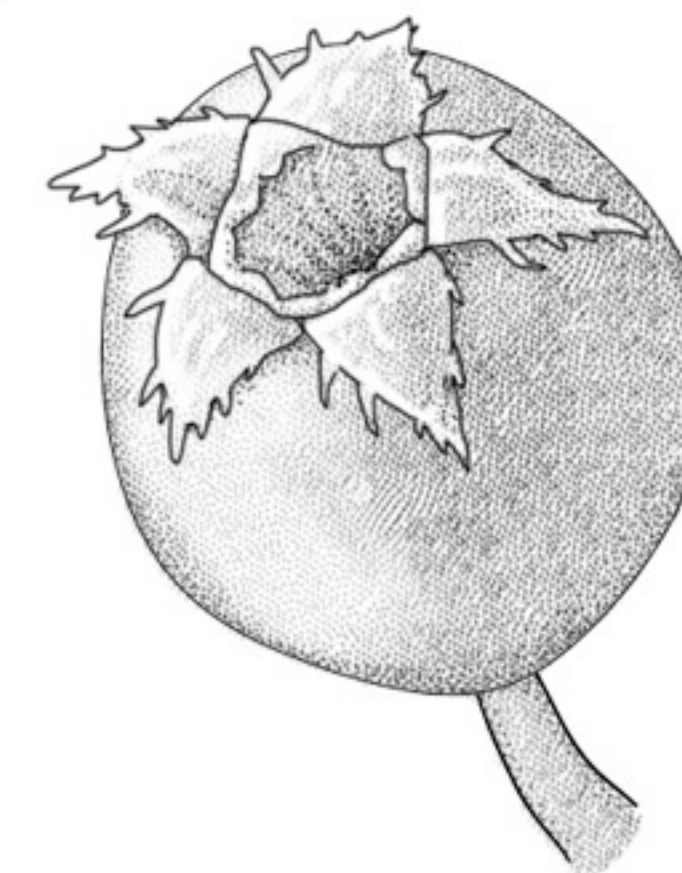
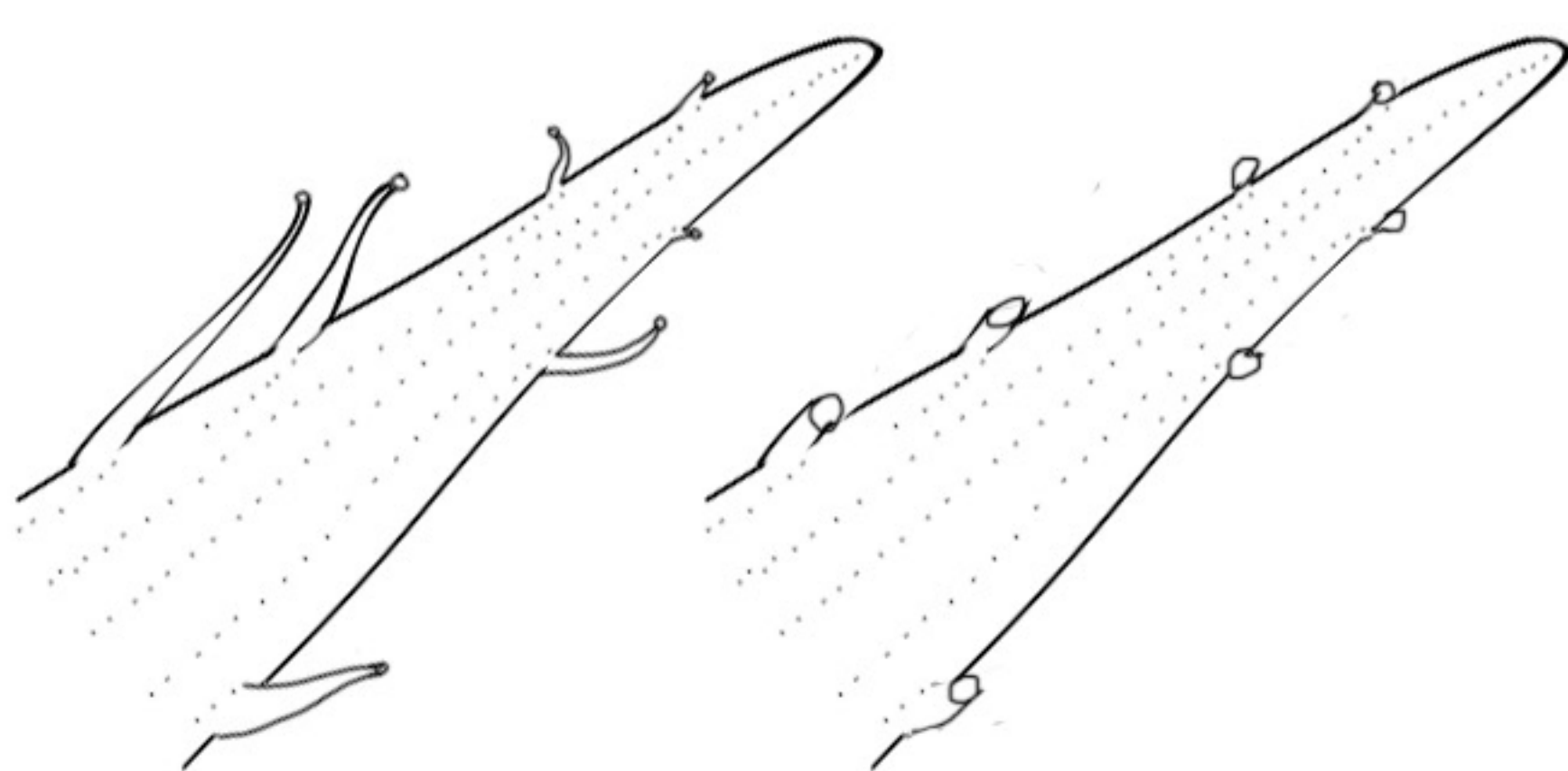
How to use this guide:

This illustrated guide is meant to be used with a leaf in hand. Review the descriptions and compare your specimen to the features described in bold faced type. Note relative width of leaf blade, look for glands on the petioles and hairs on upper or lower surfaces - look carefully with a hand lens. See page 6 for a glossary of botanical terms used.

Sepals entire:



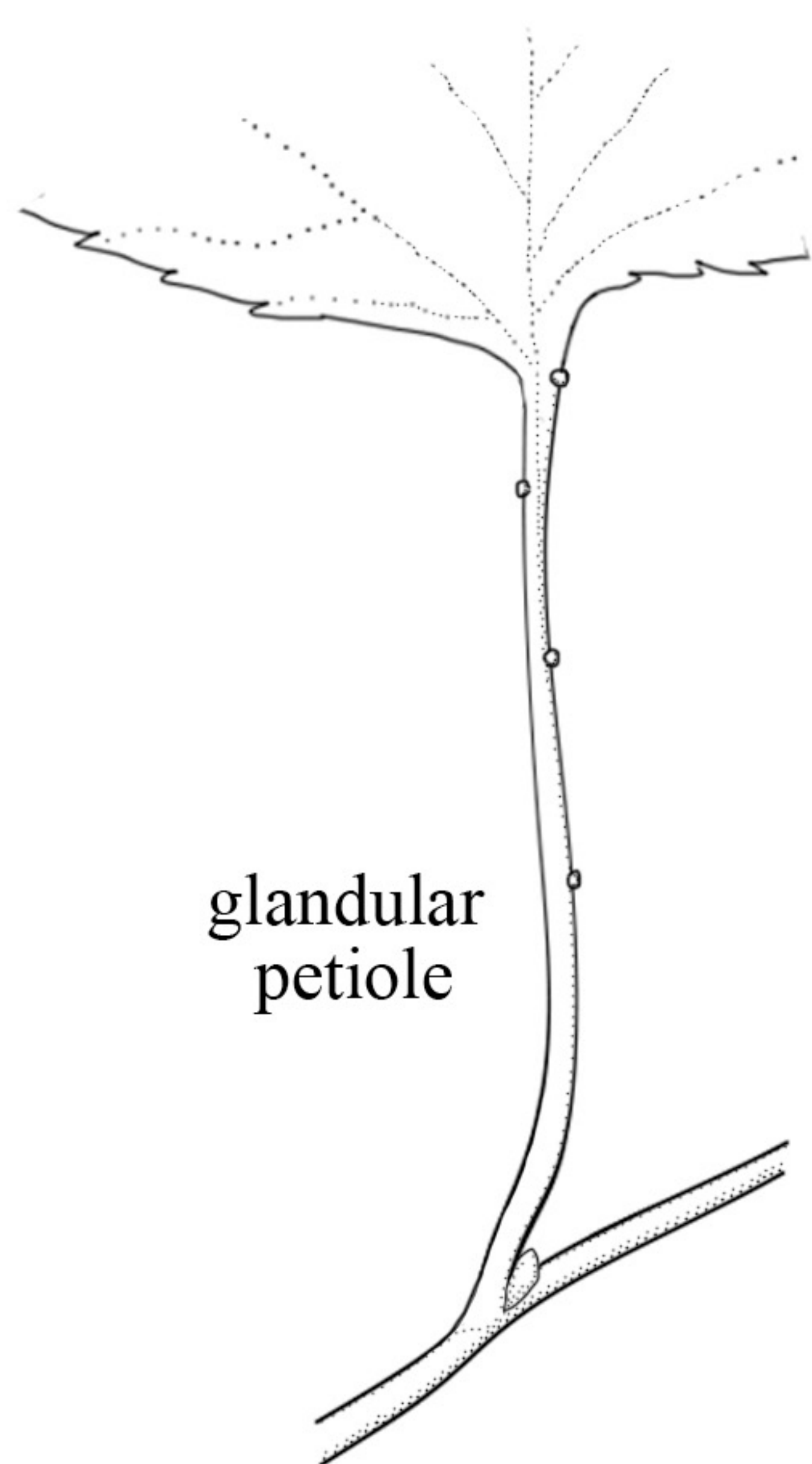
Sepals lacerate/glandular:



sepals underside

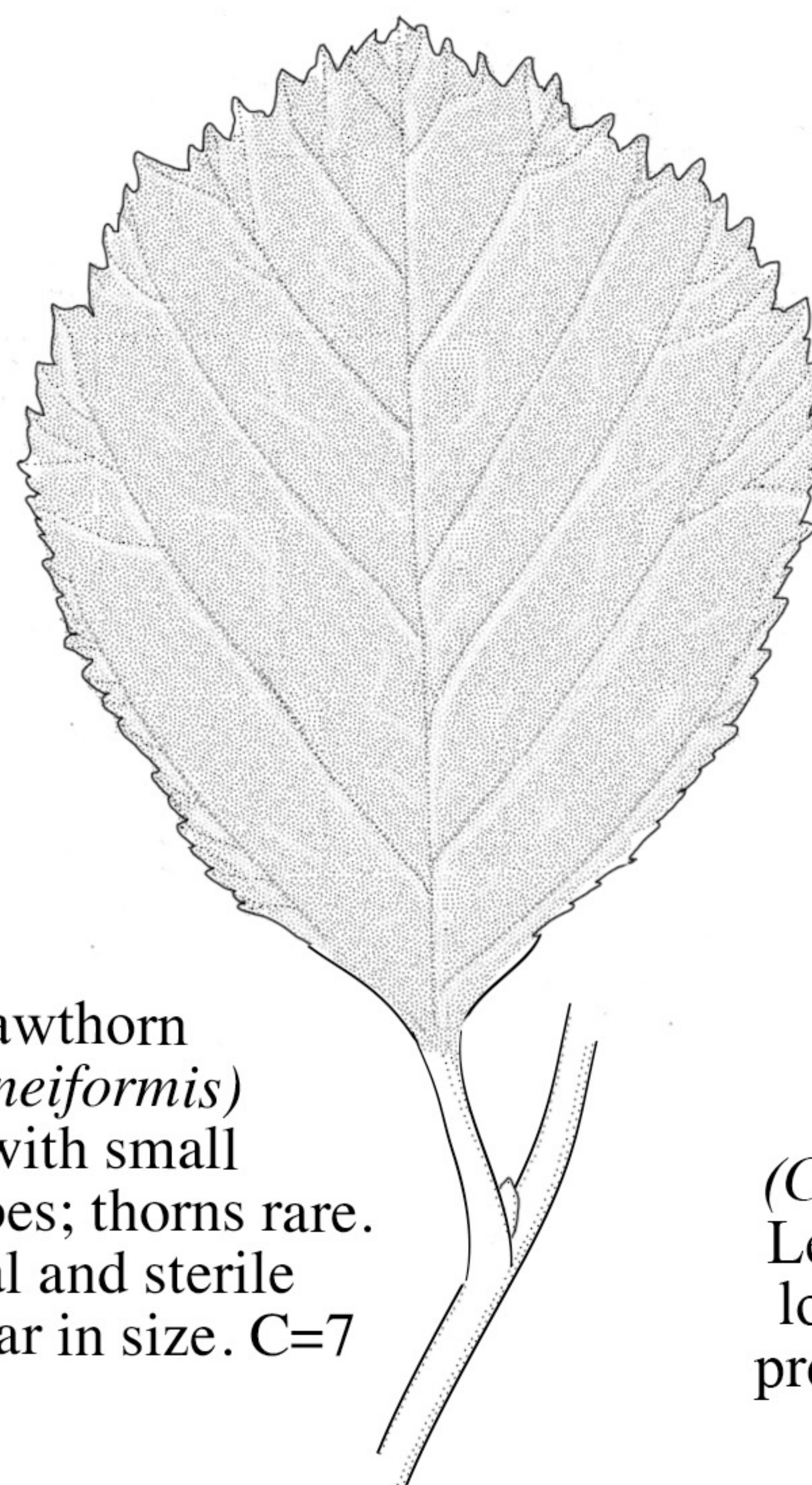
fruit

flower frontal

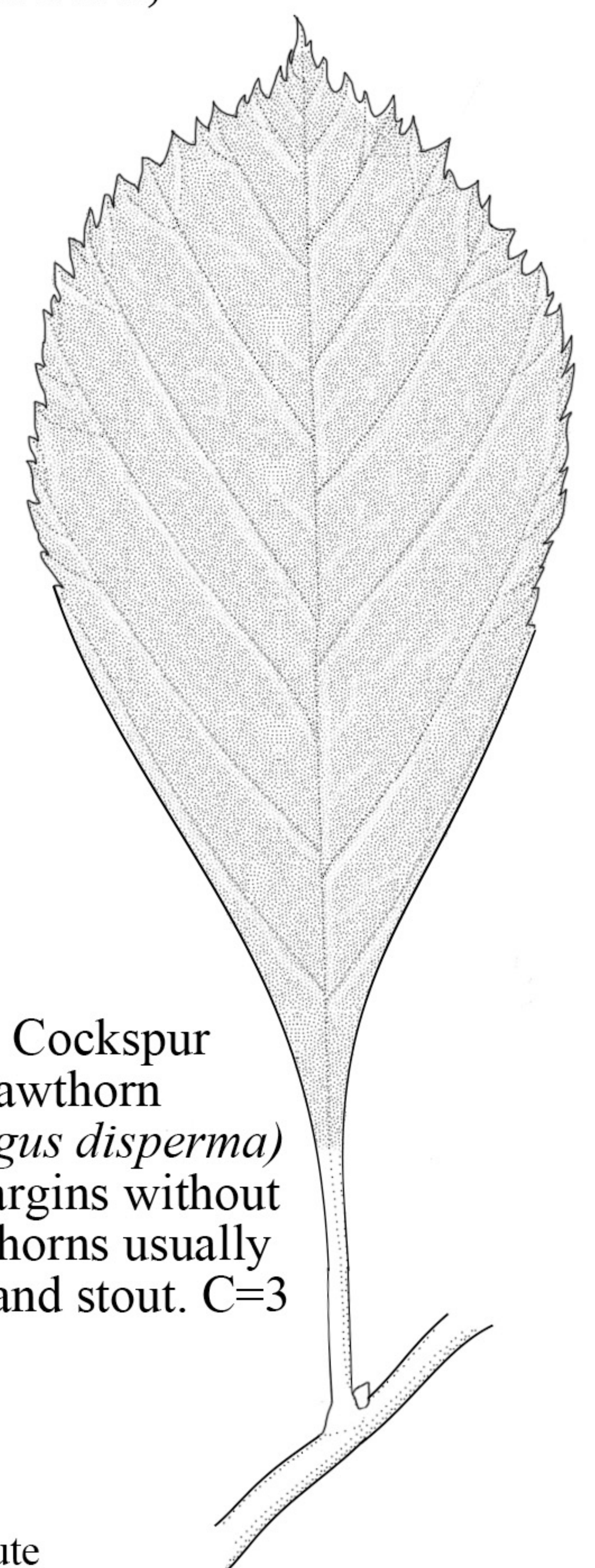


glandular petiole

Leaves glabrous, all broadest above the middle, with tapered bases; sepals entire:



Wedge-leaf Hawthorn
(*Crataegus cuneiformis*)
Leaf margins with small but distinct lobes; thorns rare. Leaves of floral and sterile branches similar in size. C=7



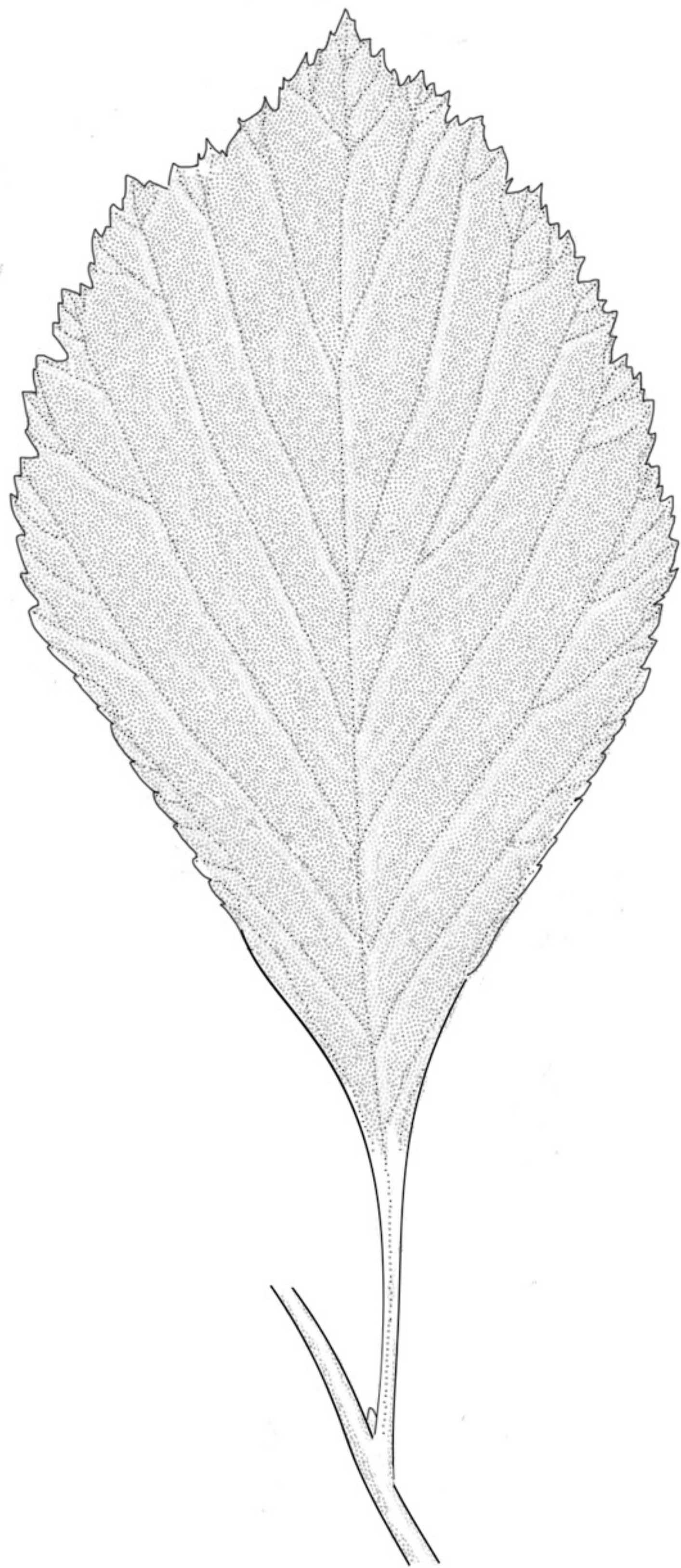
Dull Cockspur Hawthorn
(*Crataegus disperma*)
Leaf margins without lobes; thorns usually present and stout. C=3

Note:
The leaves for each species are illustrated approximately life-size for the non-flowering branchlets.

Illustrated Hawthorns of the Chicago Region

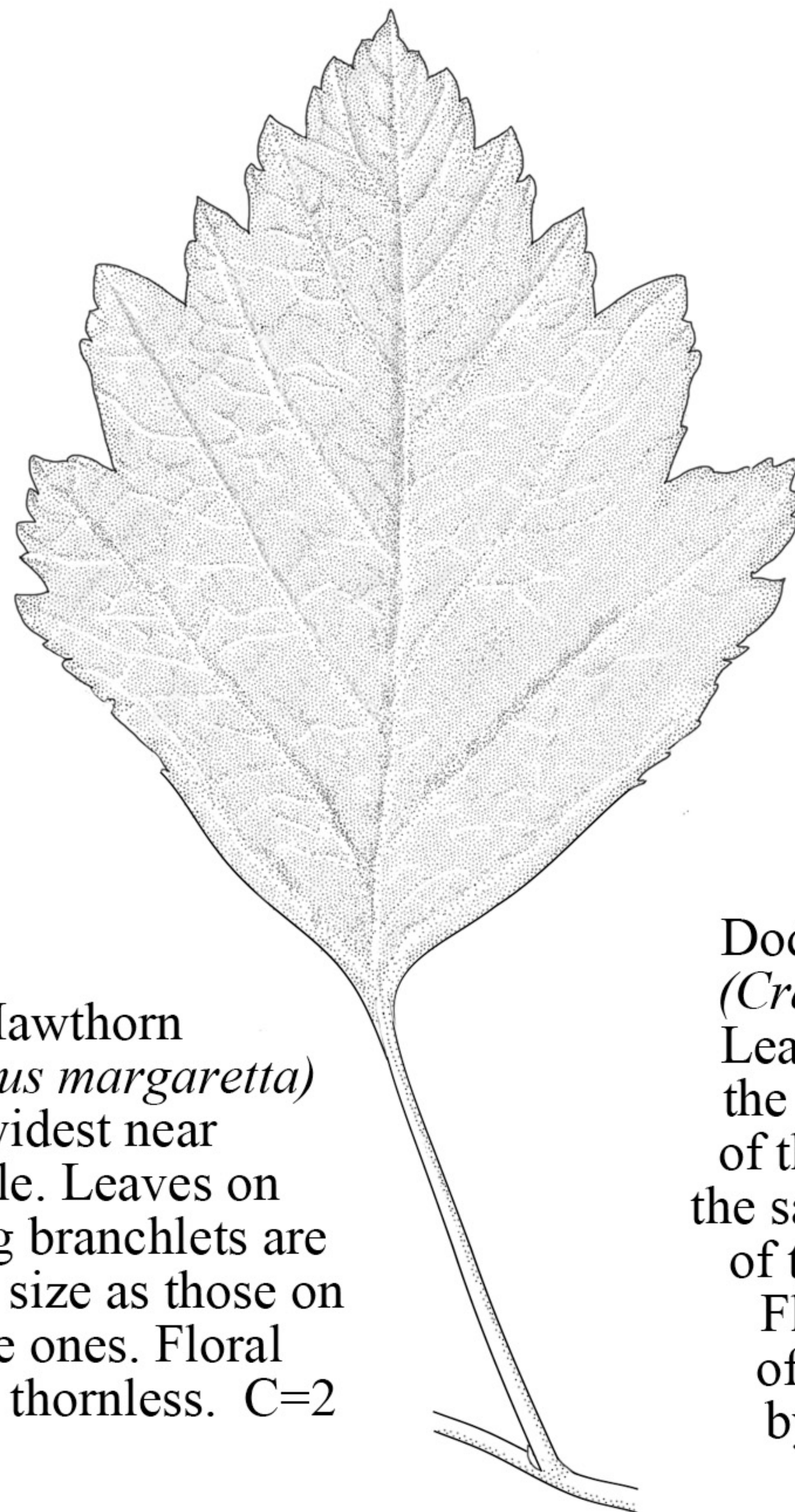
Leaves glabrous or pubescent; tapered at base; sepals entire or nearly so

Leaves pubescent:

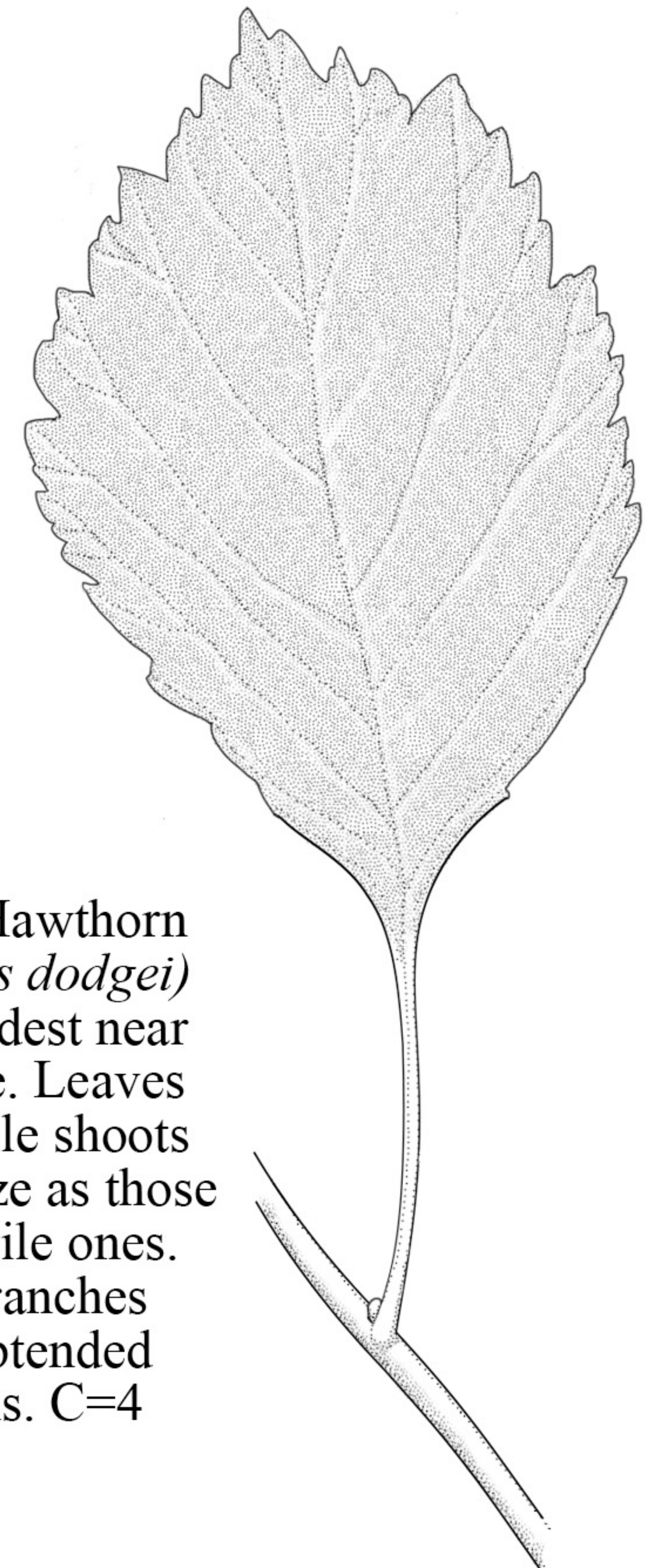


Dotted Hawthorn
(*Crataegus punctata*)
Adaxial surface of leaves
pubescent. Branchlets
glabrous. C=4

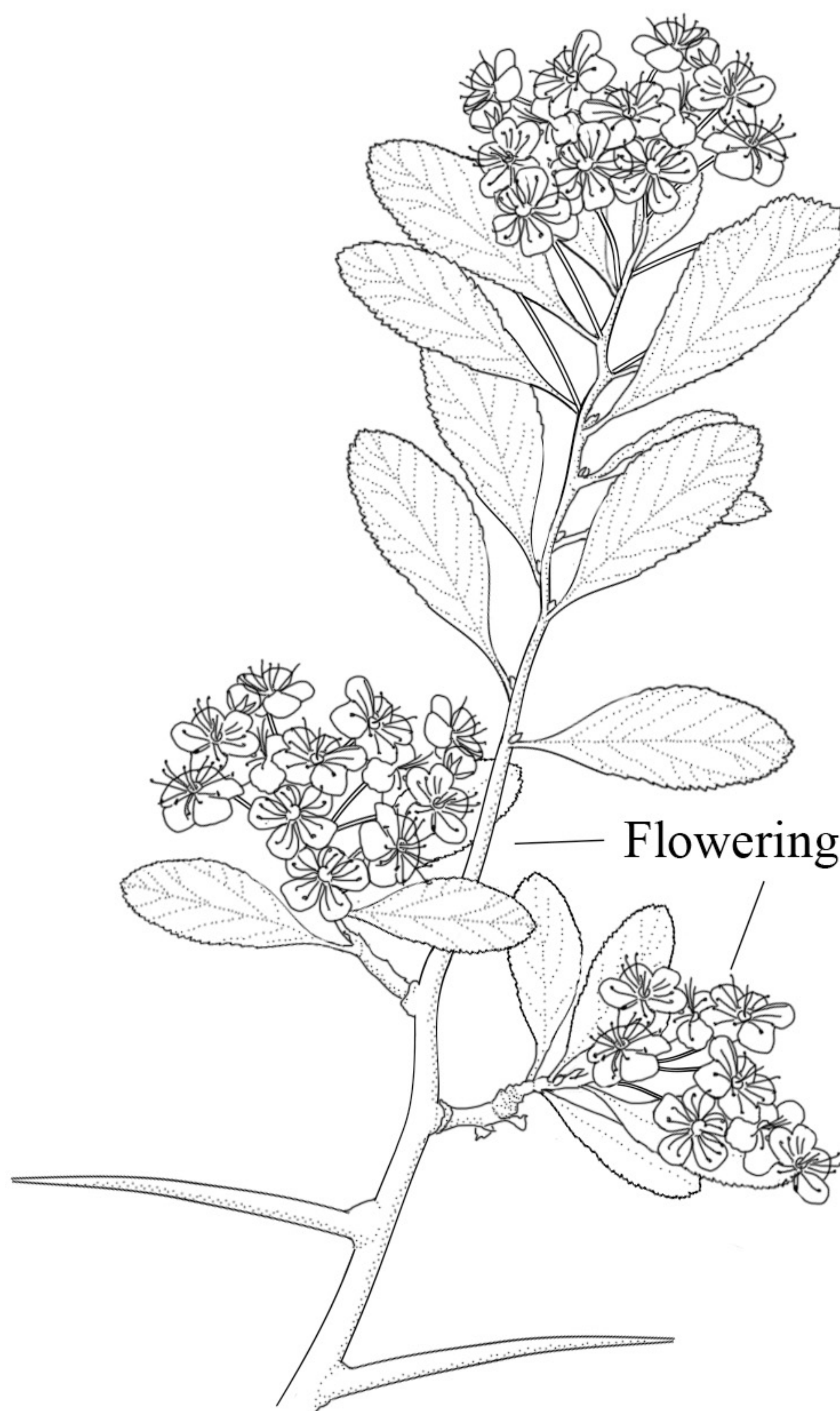
Leaves glabrous:



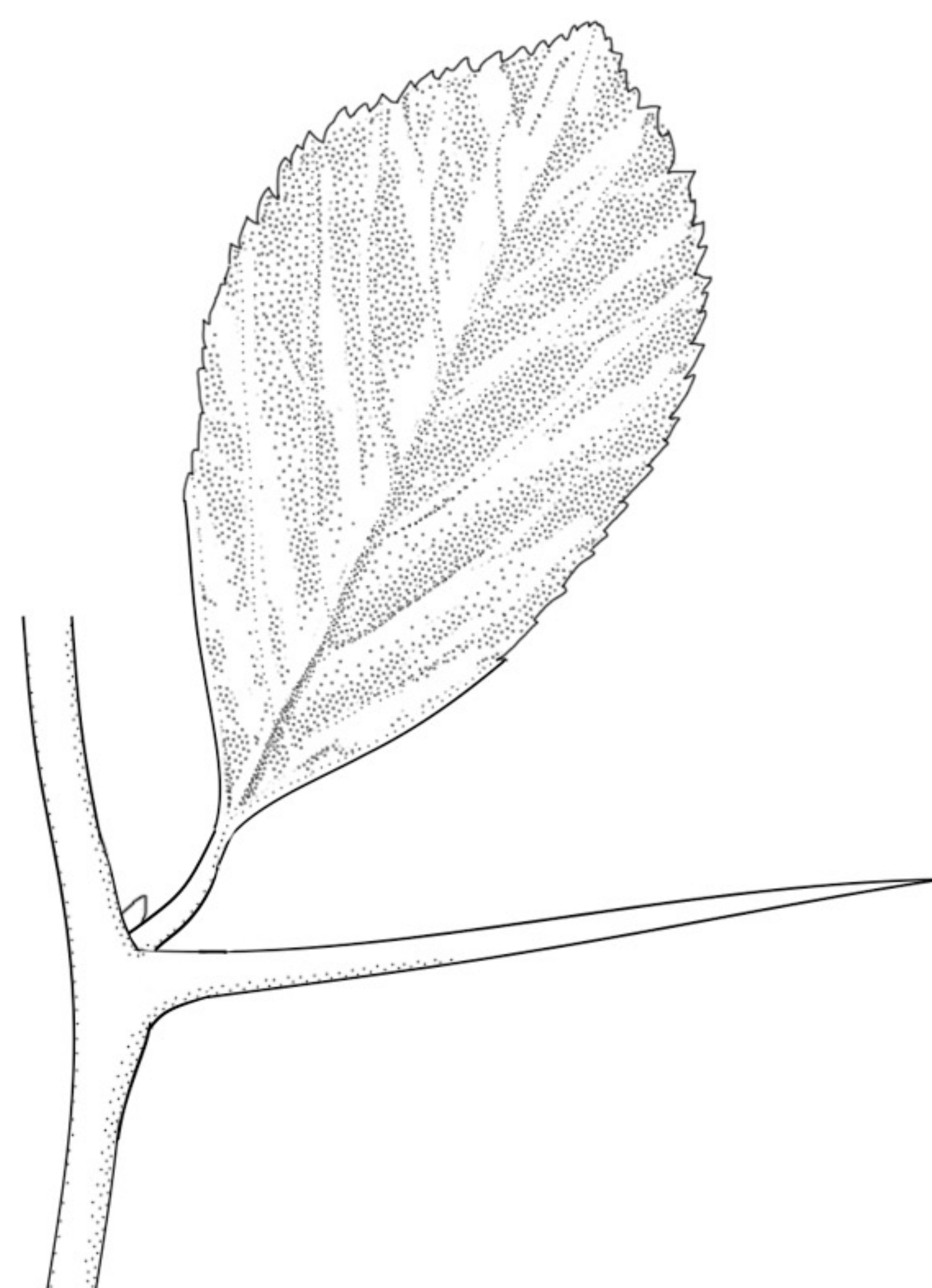
Ashe's Hawthorn
(*Crataegus margaretta*)
Leaves widest near
the middle. Leaves on
flowering branchlets are
the same size as those on
the sterile ones. Floral
branches thornless. C=2



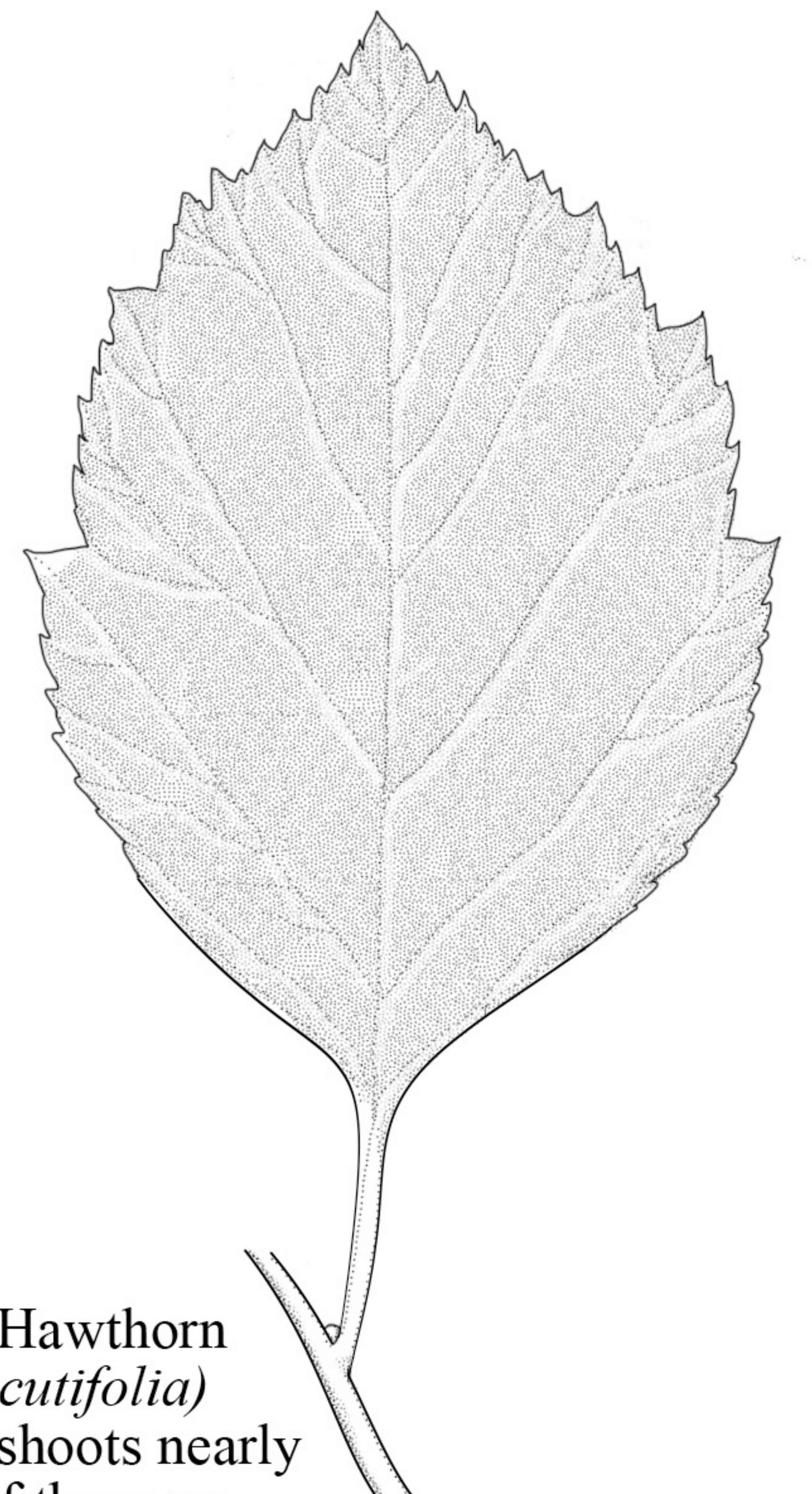
Dodge's Hawthorn
(*Crataegus dodgei*)
Leaves widest near
the middle. Leaves
of the fertile shoots
the same size as those
of the sterile ones.
Floral branches
often subtended
by thorns. C=4



Shining Cockspur Hawthorn
(*Crataegus crus-galli*)
Adaxial leaf surfaces glossy;
short-petiolate; thorns abundant.
C=3

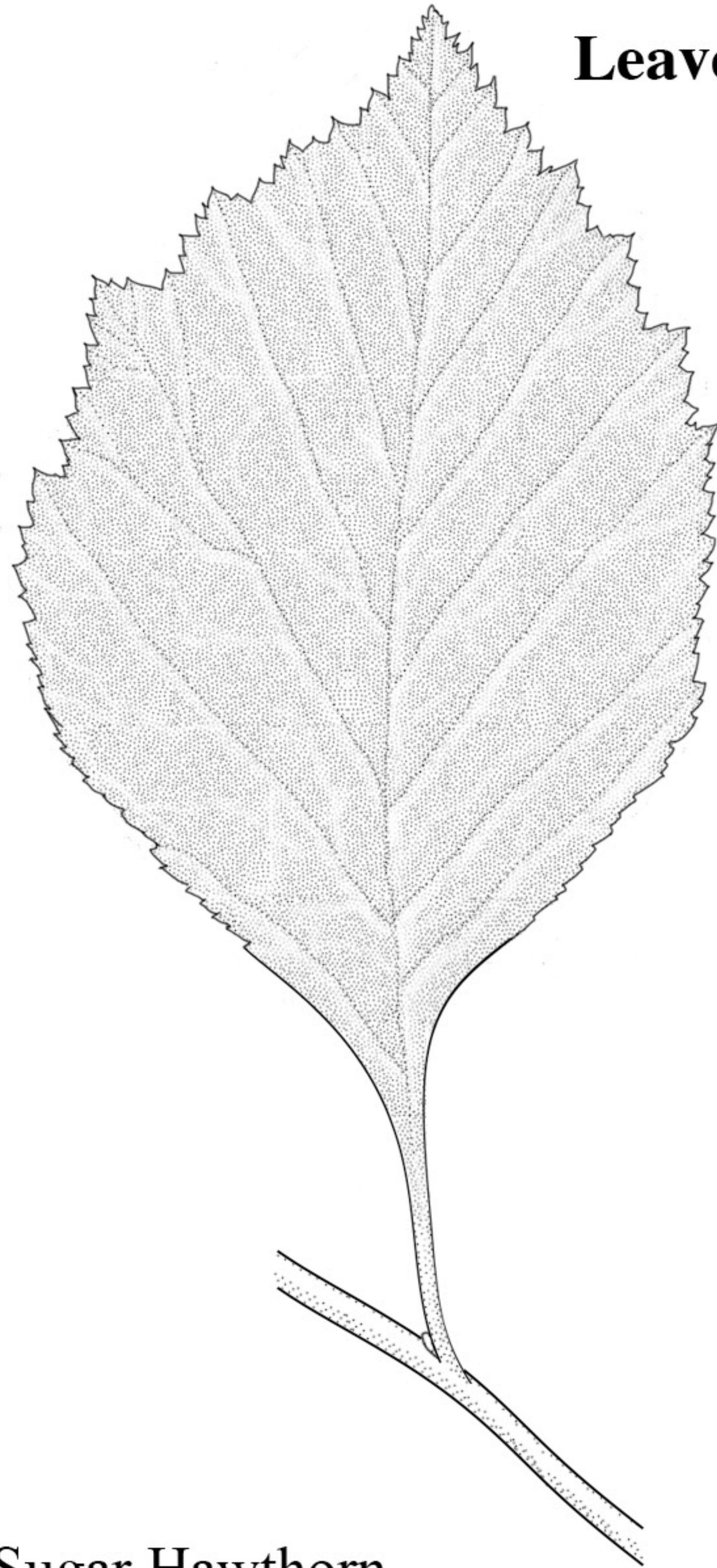


Sharp-leaved Hawthorn
(*Crataegus acutifolia*)
Leaves of fertile shoots nearly
half the size of those on
sterile shoots. C=8

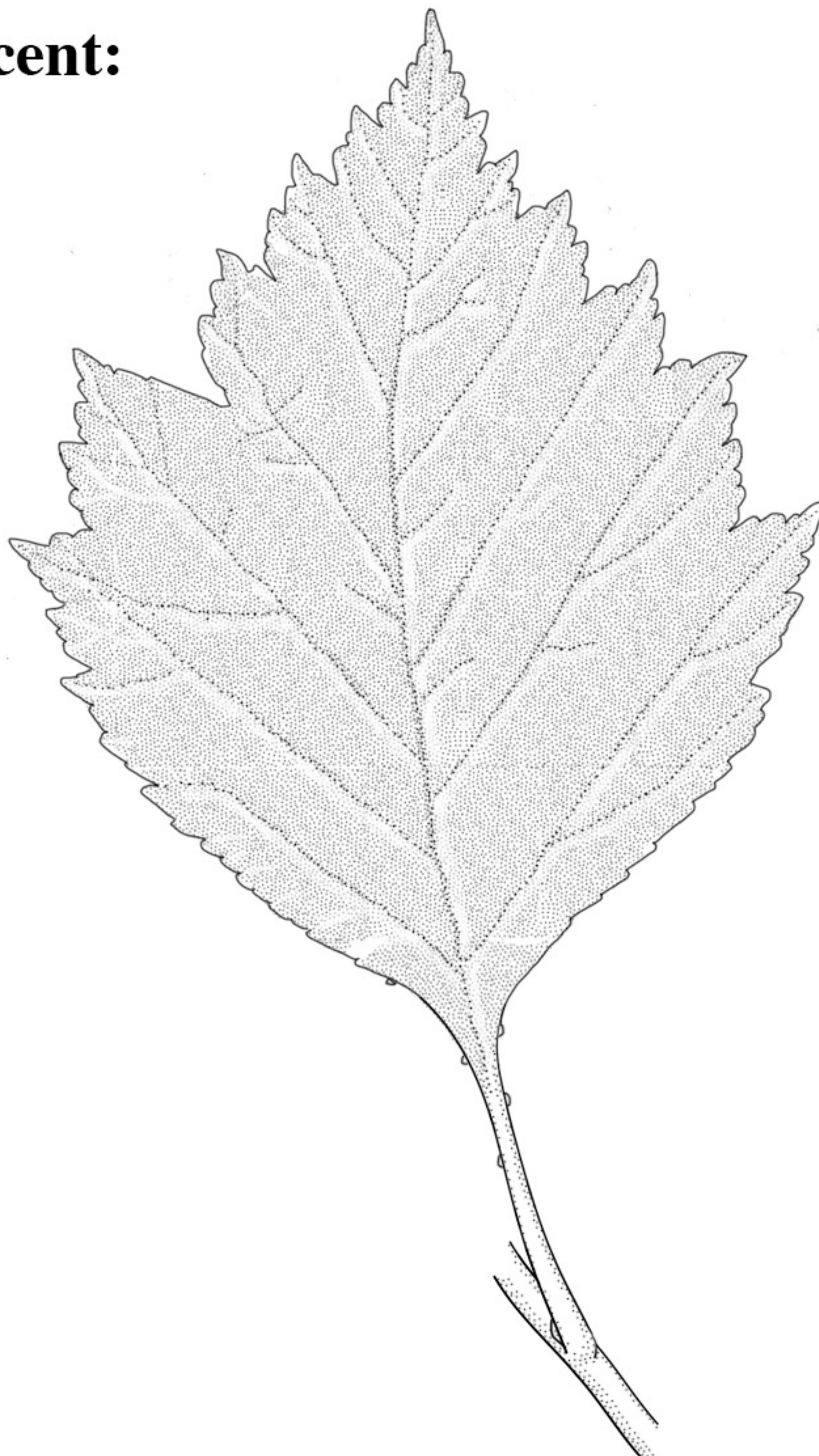


Leaves glabrous or pubescent; tapered at the base, sepals glandular

Leaves pubescent:

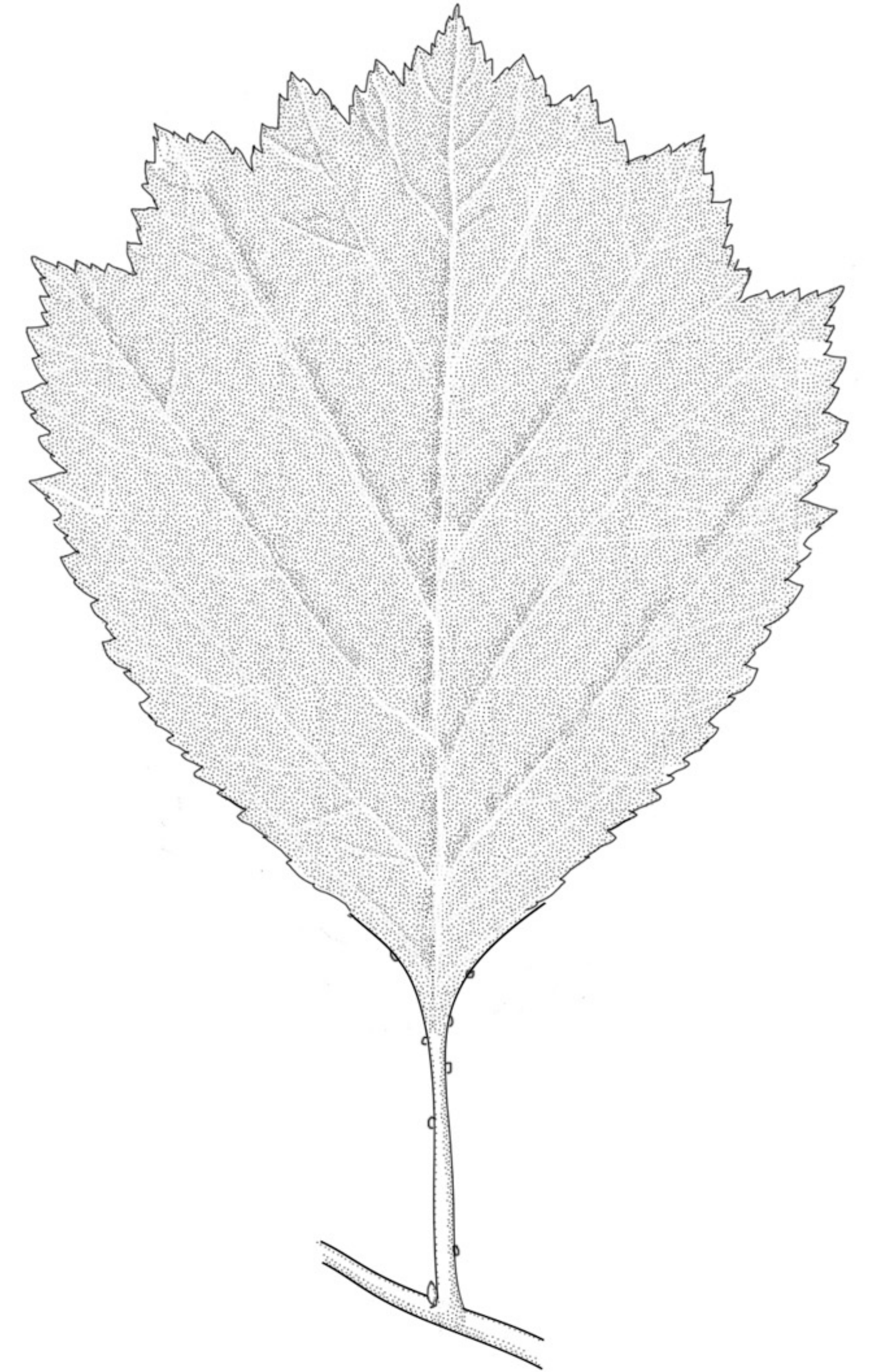


Sugar Hawthorn
(*Crataegus calpodendron*)
First year branchlets pubescent.
Branches mostly thornless or with
a single, straight black thorn, C=8



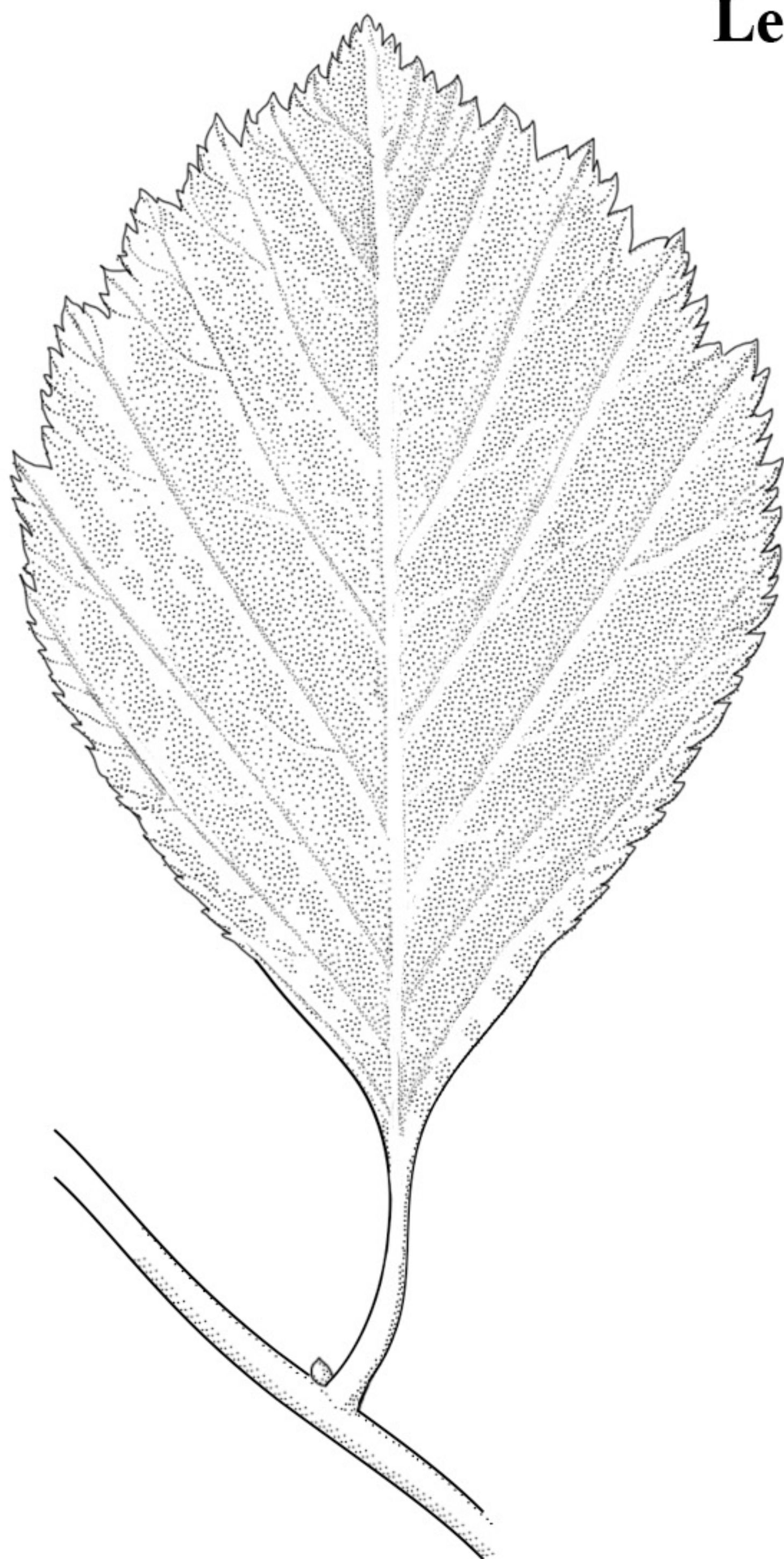
Faxon's Hawthorn
(*Crataegus faxonii*)
Leaves pubescent on
both sides. Petioles
glandular; first year
branchlets glabrate. C=5

Leaves glabrous:

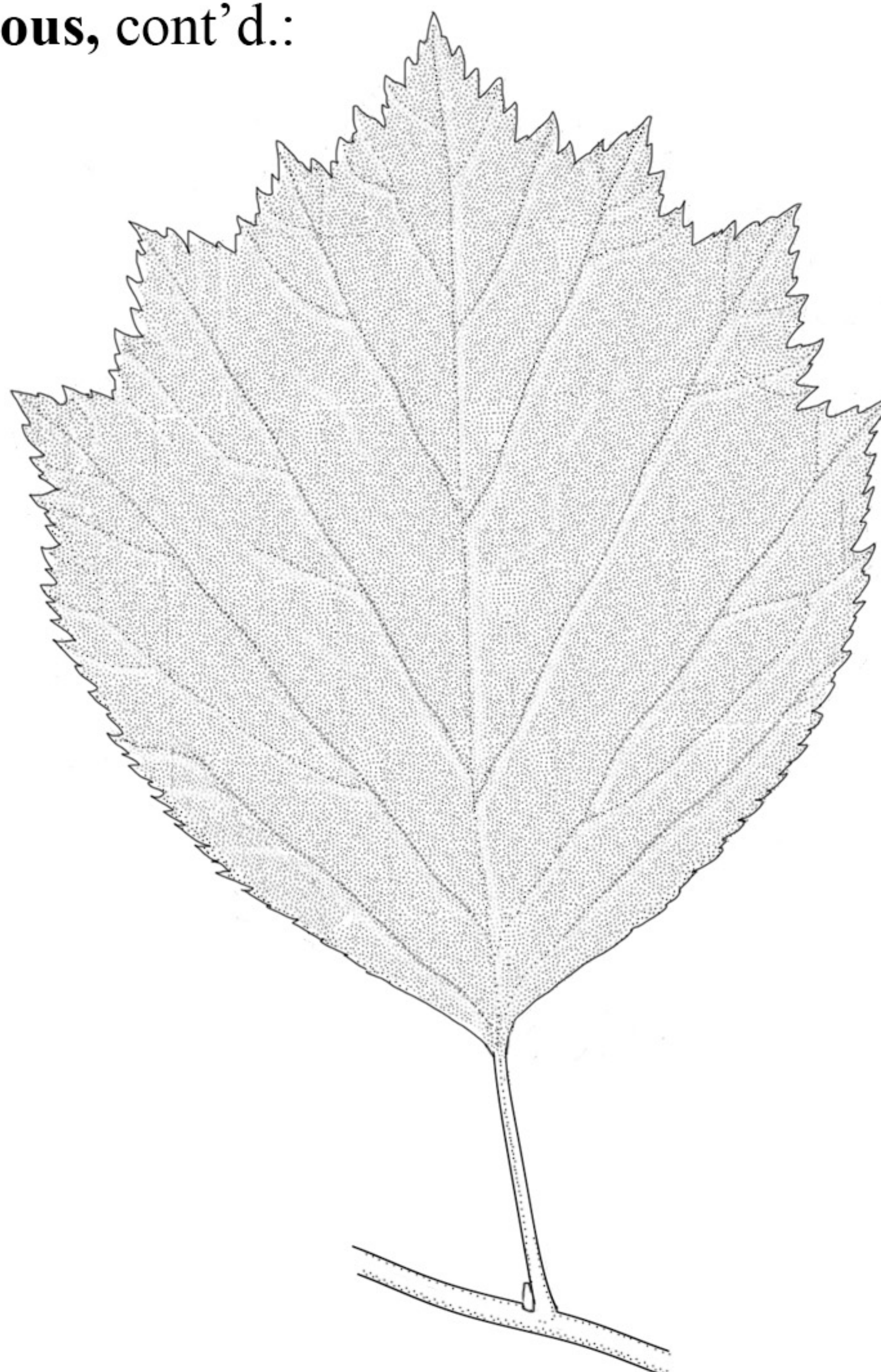


Fireberry Hawthorn
(*Crataegus chrysocarpa*)
Leaves glabrous on both sides.
Petioles glandular; first year
branchlets glabrate. C=4

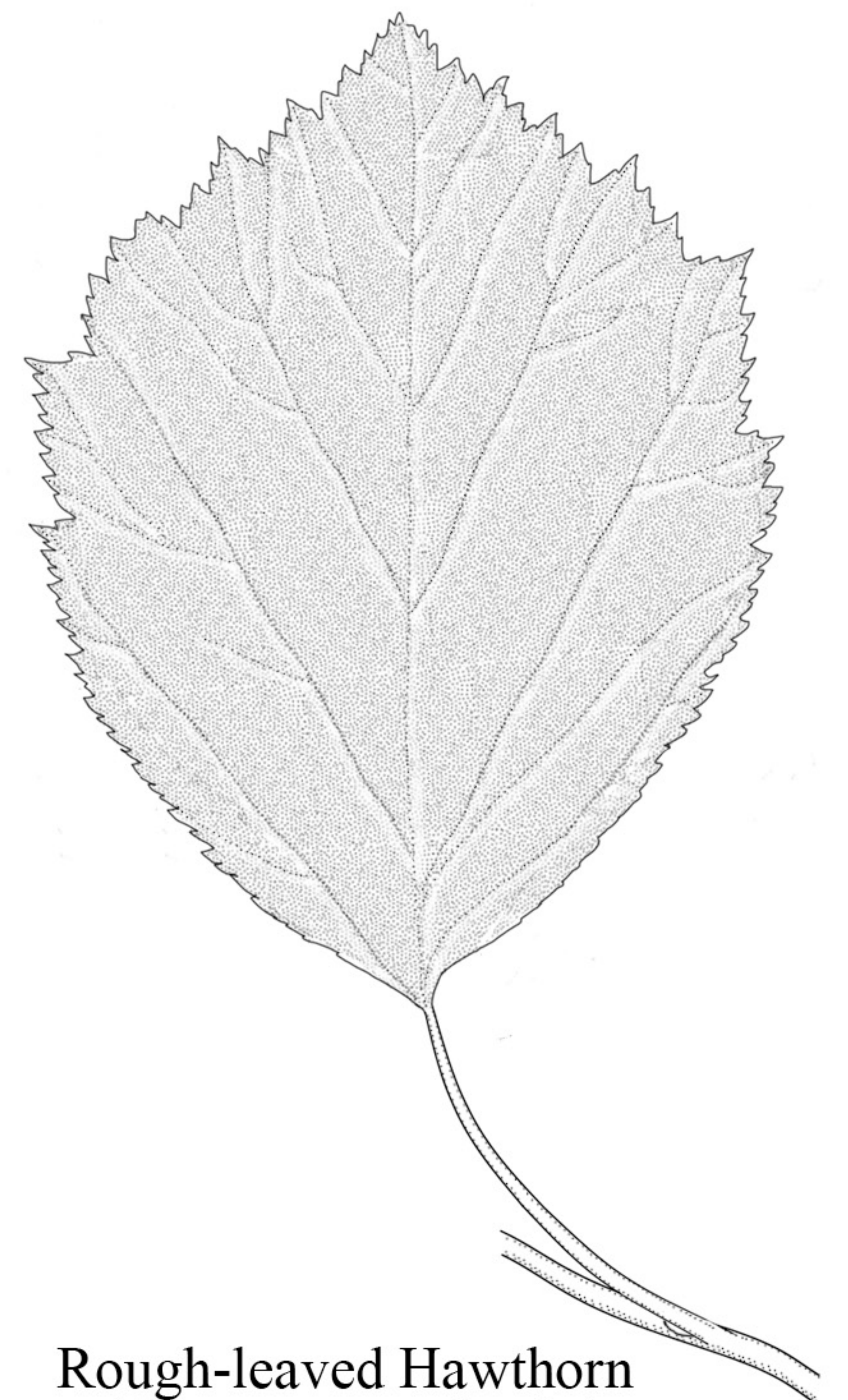
Leaves glabrous, cont'd.:



Fleshy Hawthorn (*Crataegus succulenta*)
Veins on adaxial surface noticeably impressed.
Extremely variable. C=4



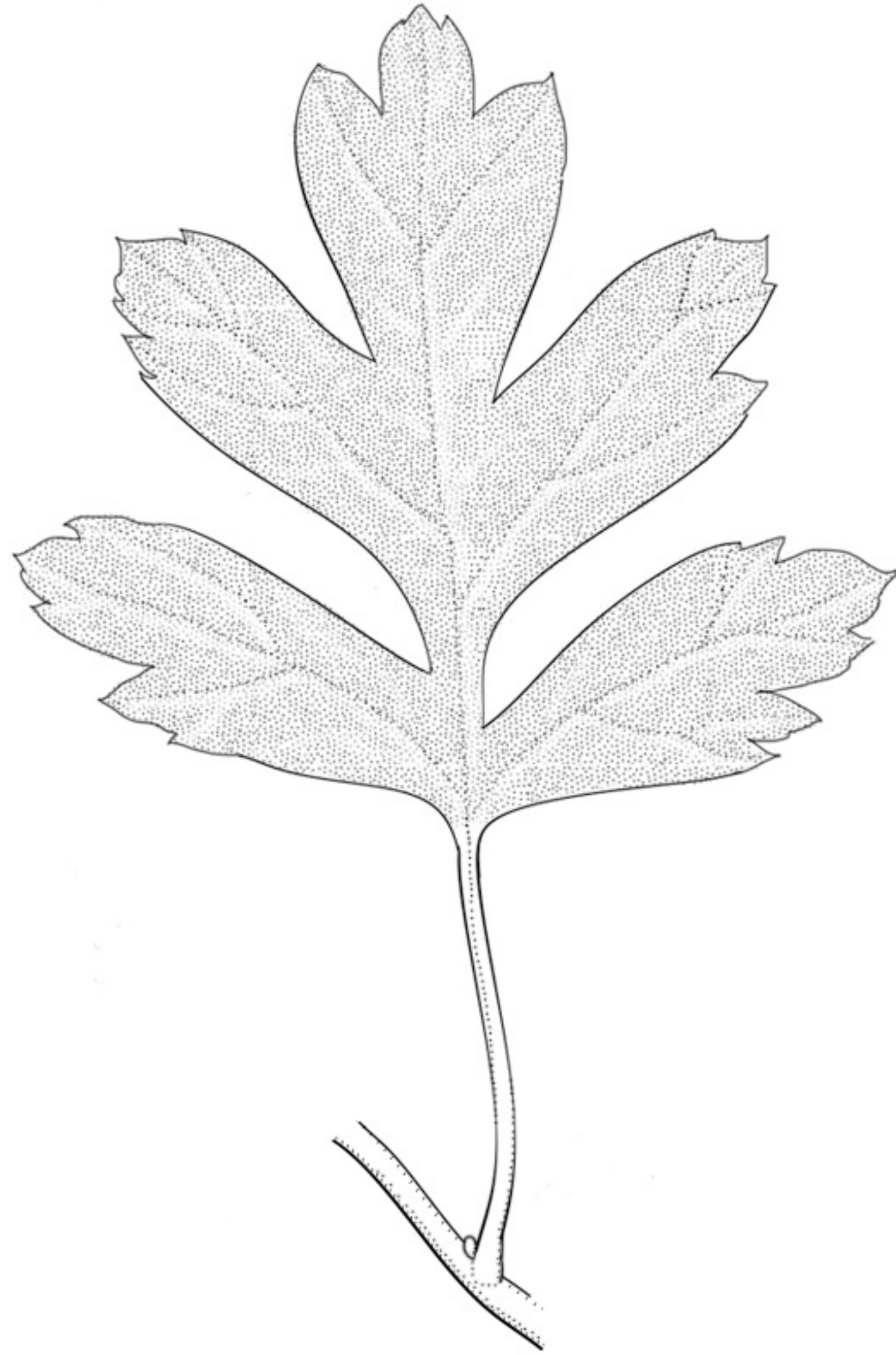
Fuller's Hawthorn
(*Crataegus fulleriana*)
Leaves to 1.2 times as
long as wide. Veins on adaxial
surface flush with the blade. C =5



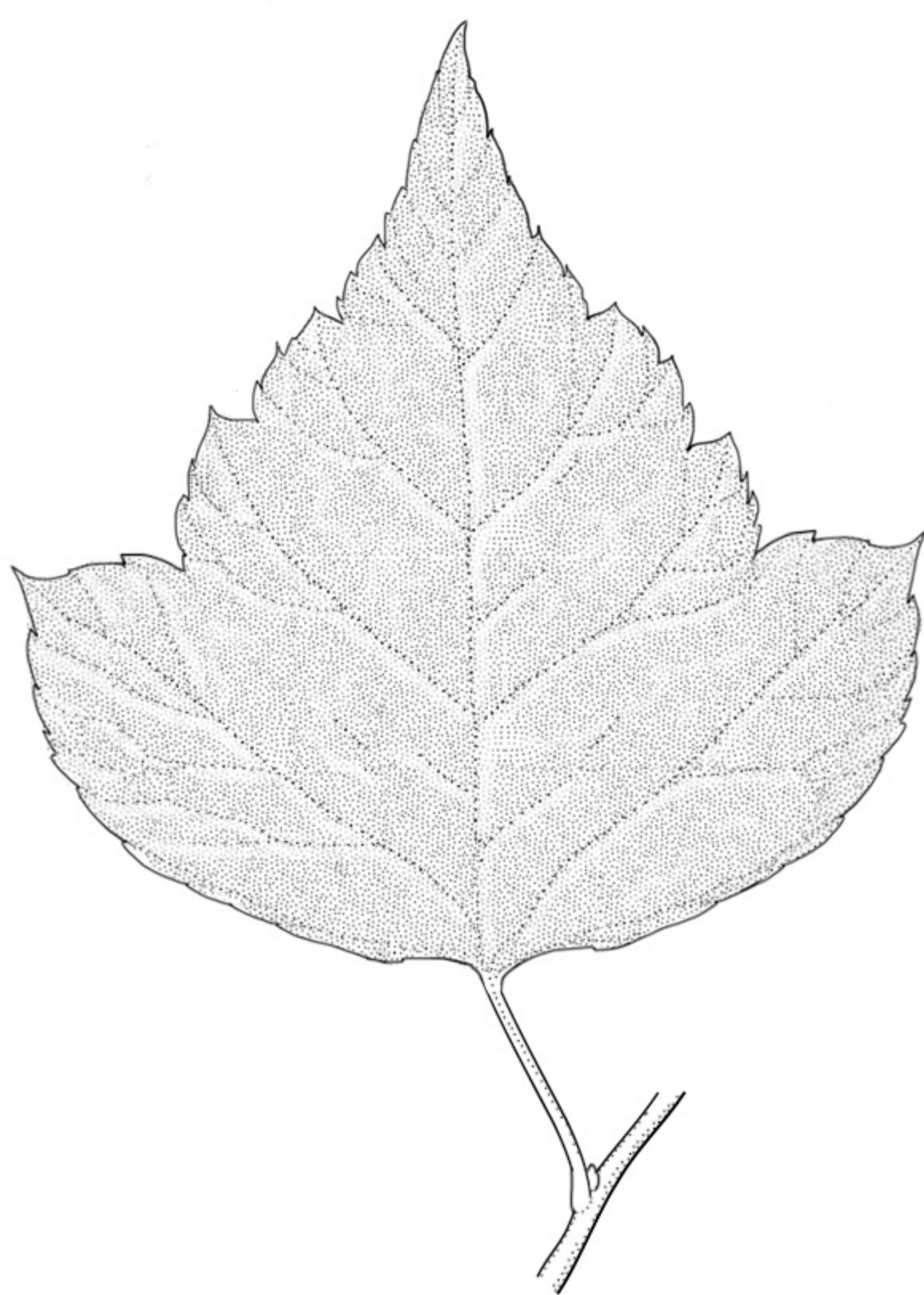
Rough-leaved Hawthorn
(*Crataegus scabrida*)
Leaves more than 1.2 times as
long as wide. Veins on adaxial
surface flush with the blade. C=5

Leaves glabrous on both sides;
broadest at or below the middle

Leaves three-lobed or deeply incised;
not native to our region

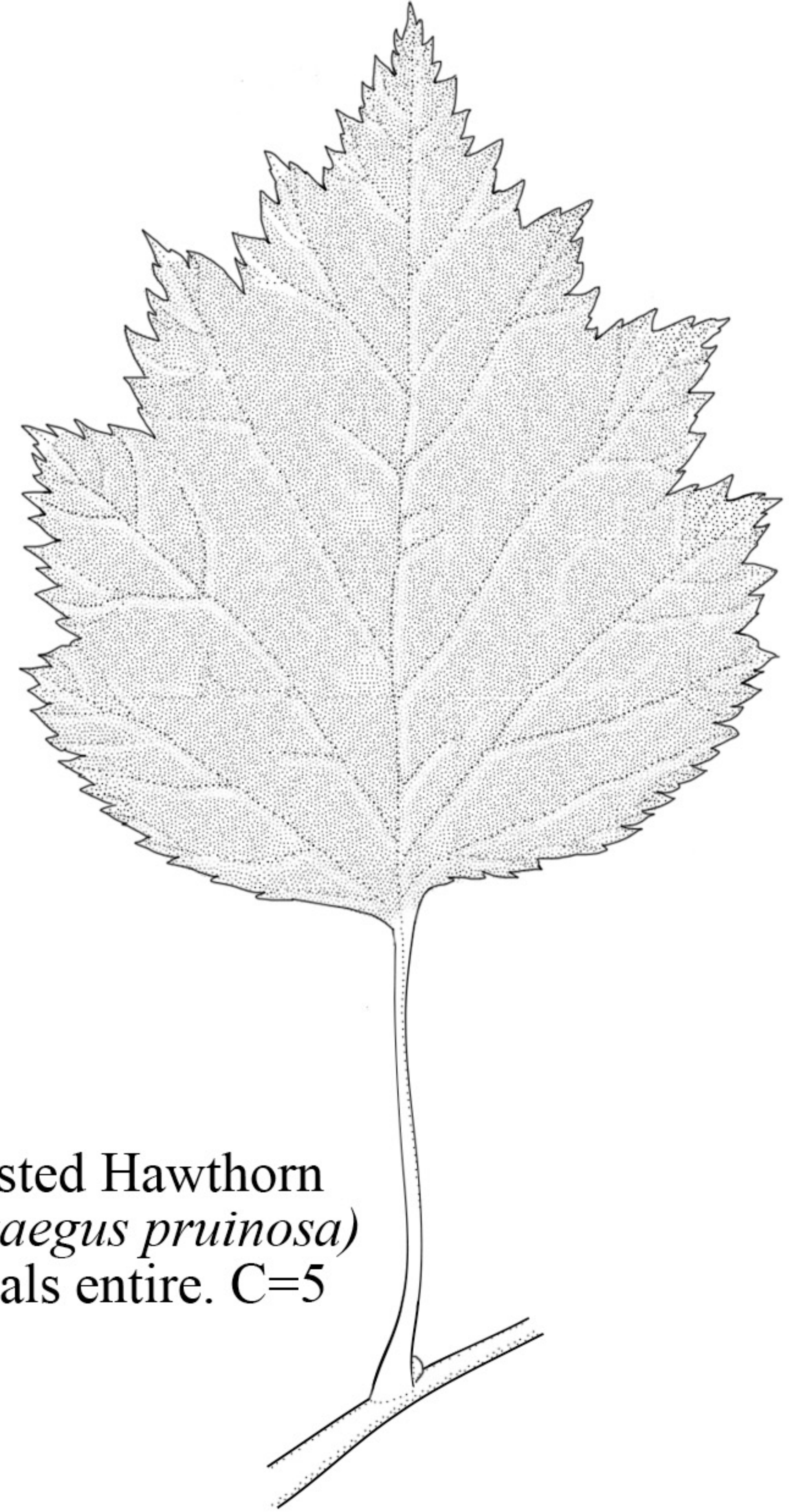


Single-seeded Hawthorn
(*Crataegus monogyna*)
Leaf blades deeply lobed;
margins entire or with a few
coarse teeth. Sepals entire.
Occasional in old fields.

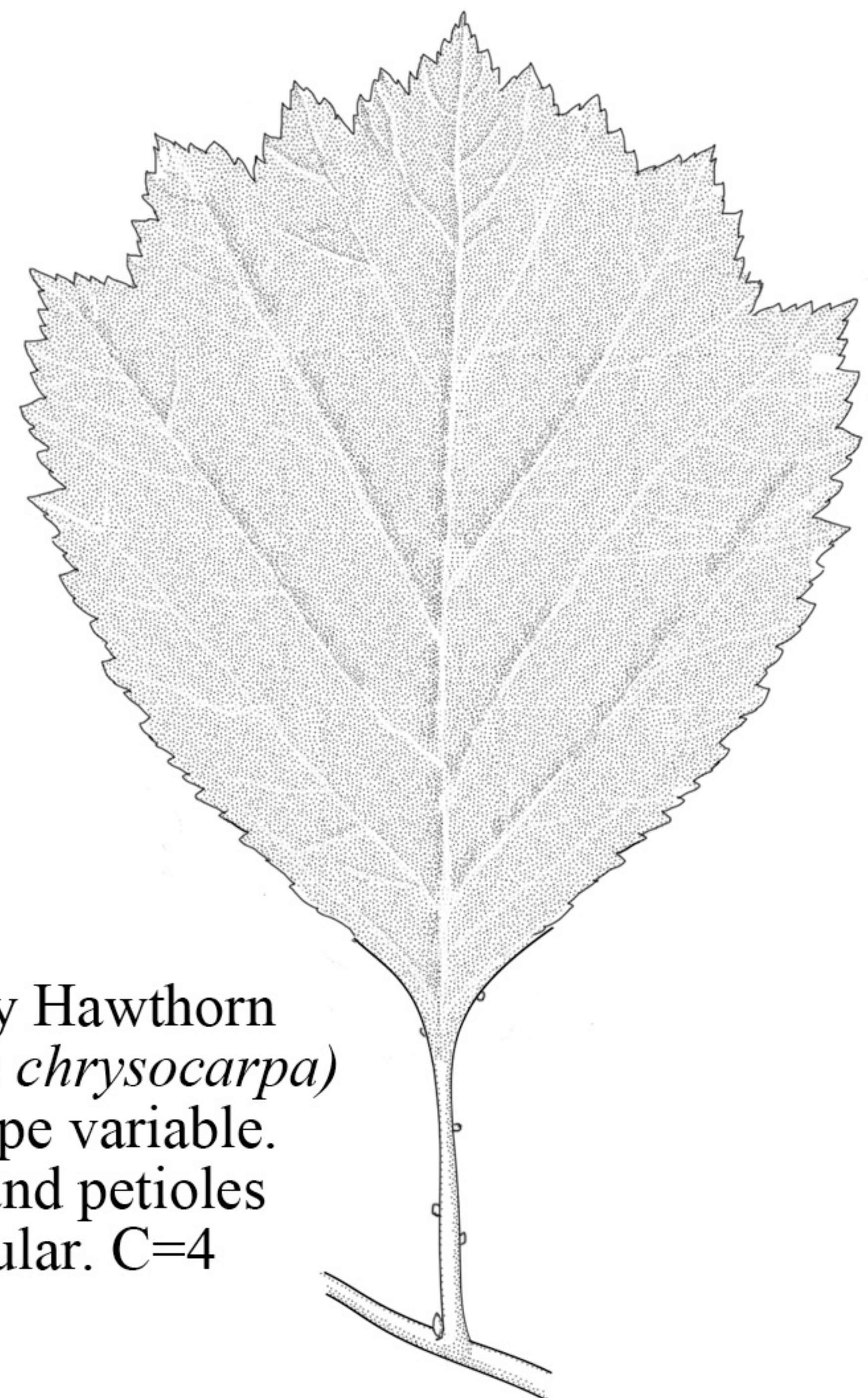


Washington Hawthorn
(*Crataegus phenopyrum*)
Leaf blades three-lobed.
Commonly cultivated, has
escaped to degraded woodlands
and shrubby old fields.

Several-toothed but neither three-lobed
nor incised; native to our region



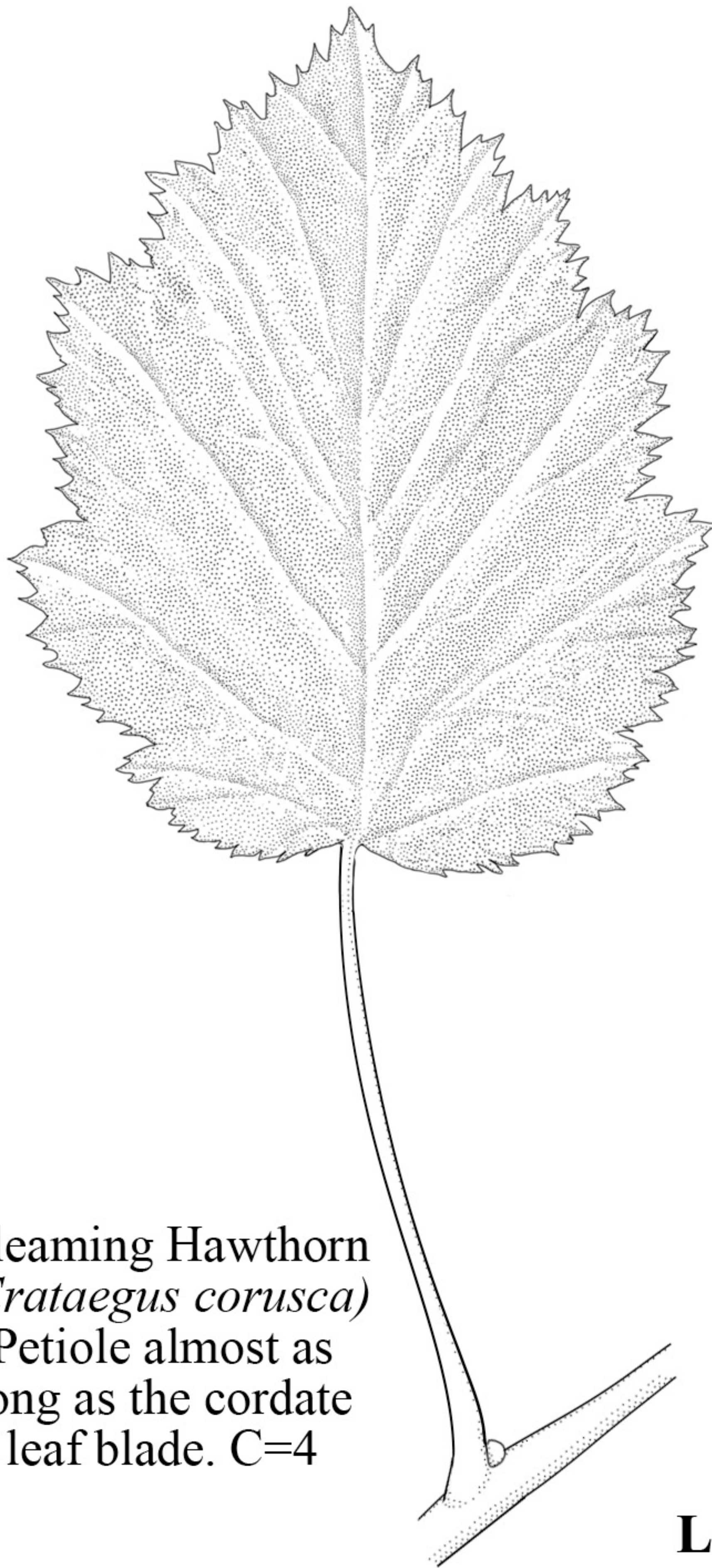
Frosted Hawthorn
(*Crataegus pruinosa*)
Sepals entire. C=5



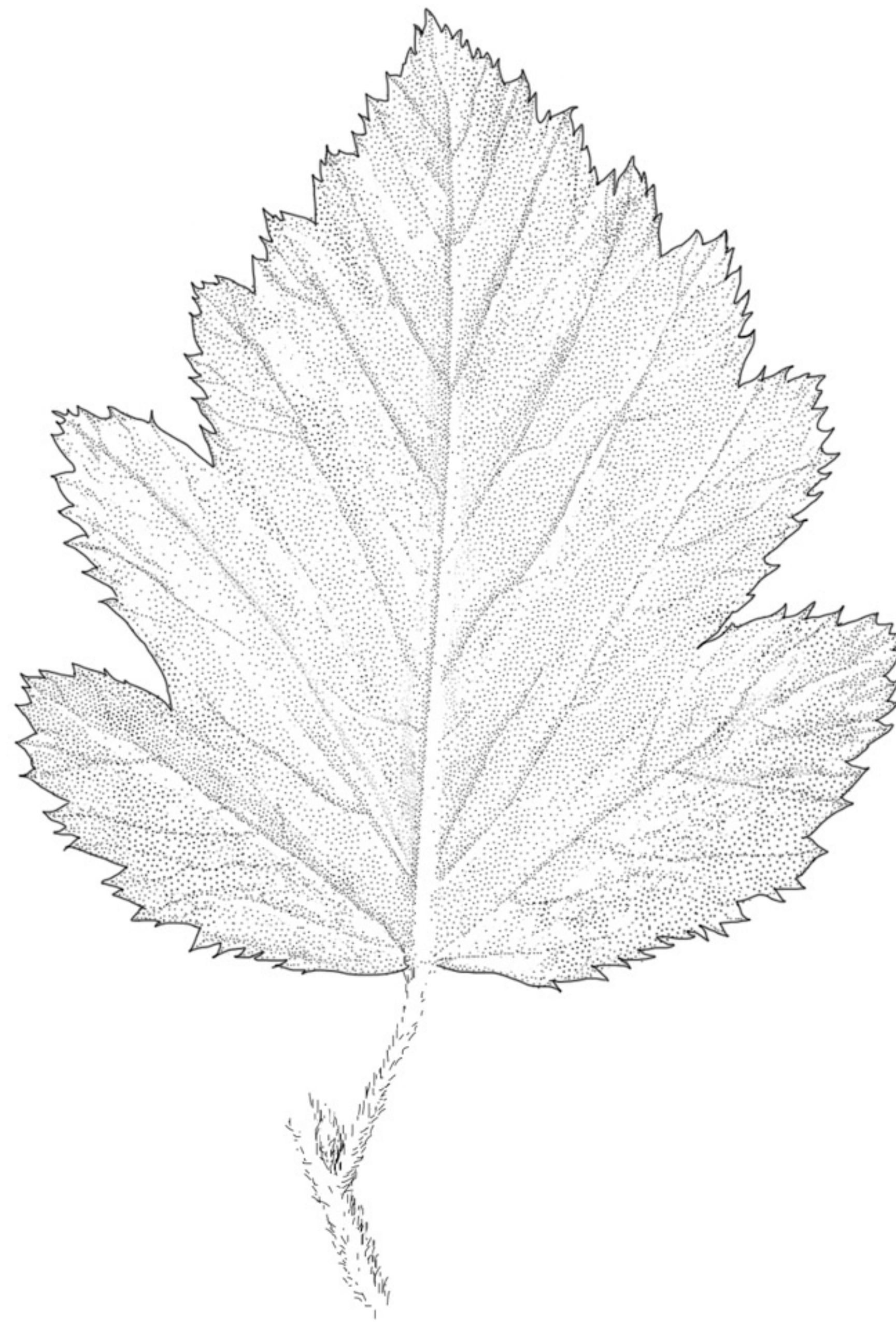
Fireberry Hawthorn
(*Crataegus chrysoarpa*)
Leaf shape variable.
Sepals and petioles
glandular. C=4

Leaves broadest at or below the middle, rounded to truncate at base.
Pubescent on one or both sides

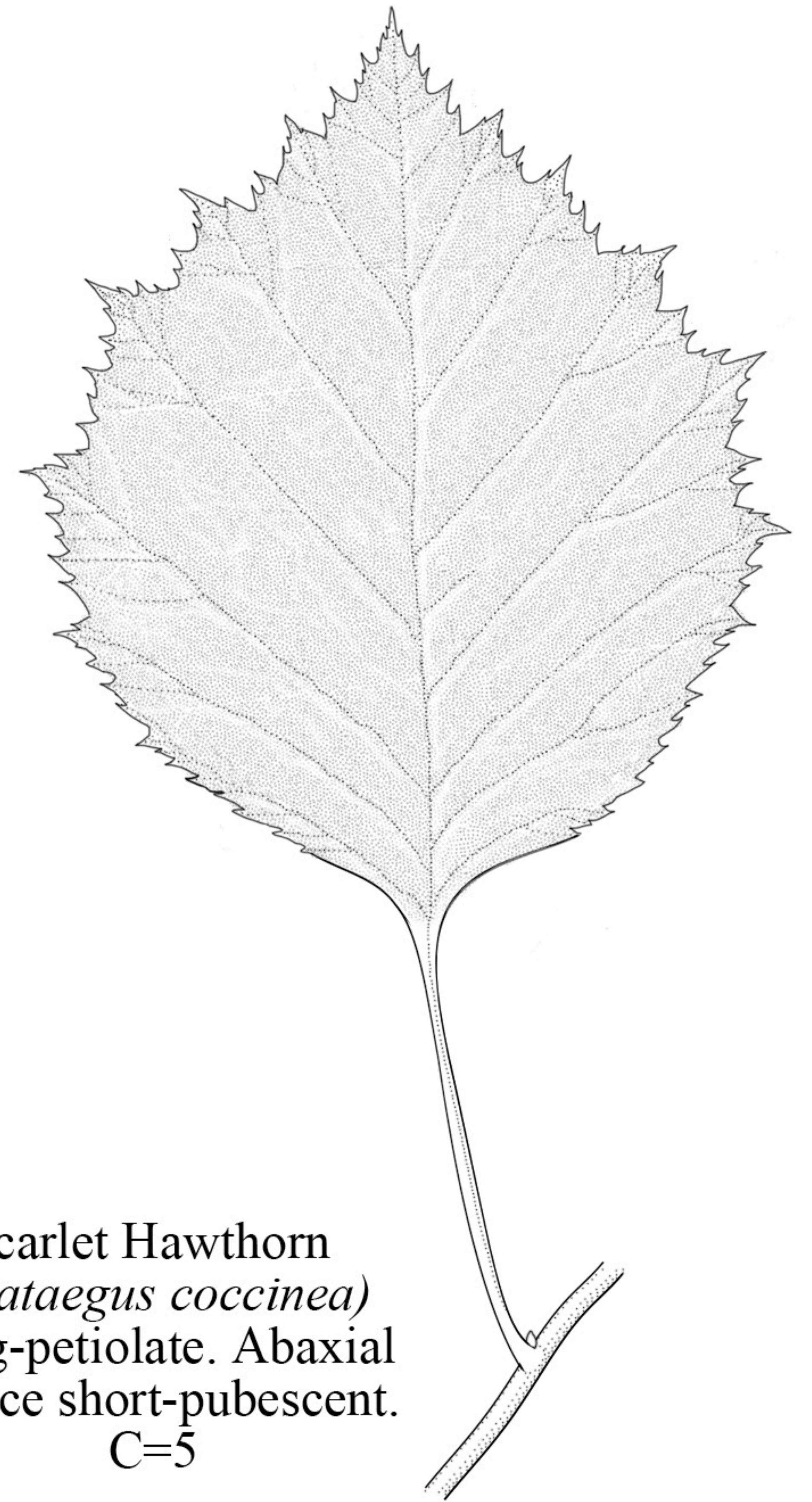
Leaves pubescent both sides:



Gleaming Hawthorn
(*Crataegus corusca*)
Petiole almost as long as the cordate leaf blade. C=4

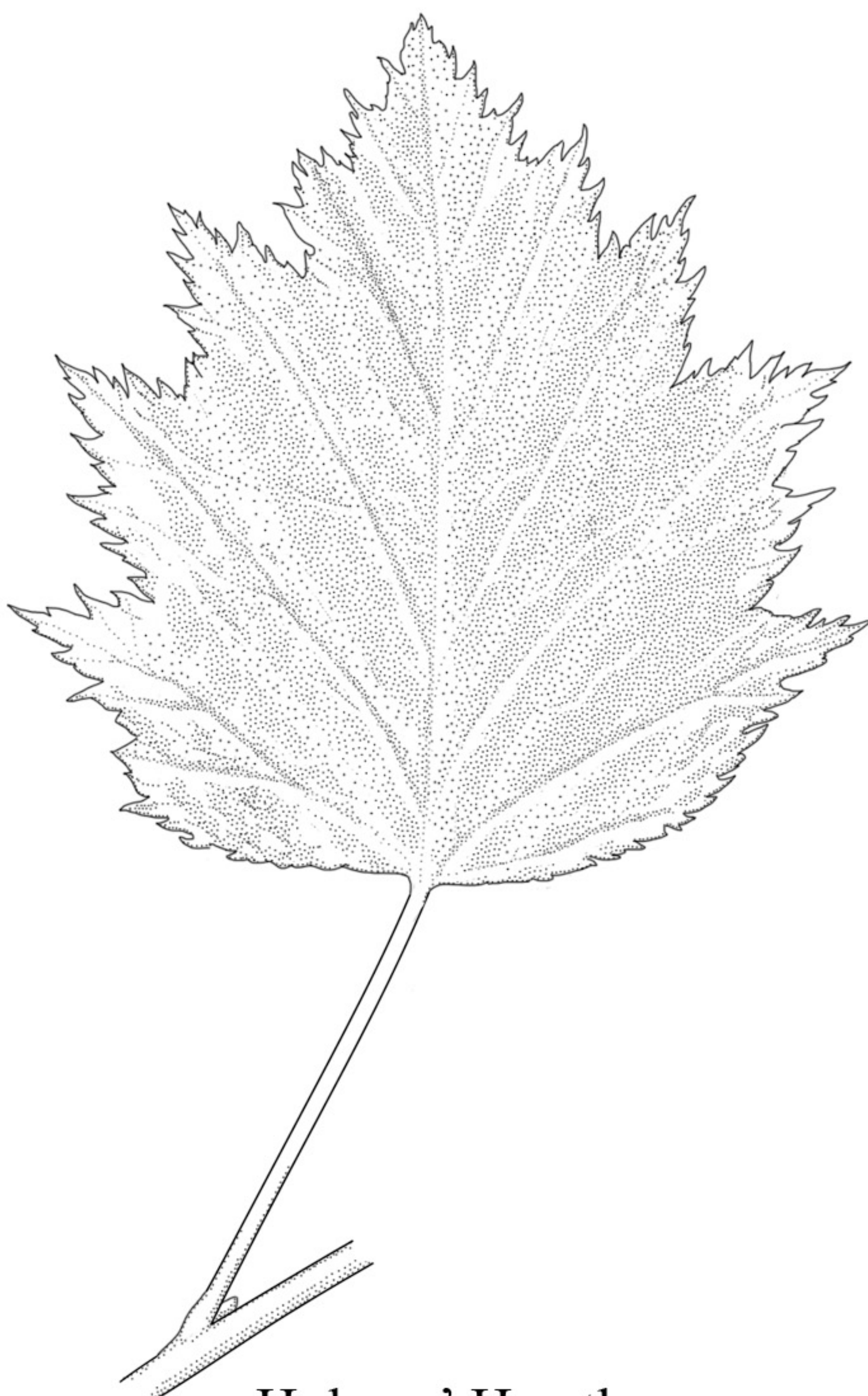


Downy Hawthorn
(*Crataegus mollis*)
Short-petiolate. Abaxial surface tomentose. C=2

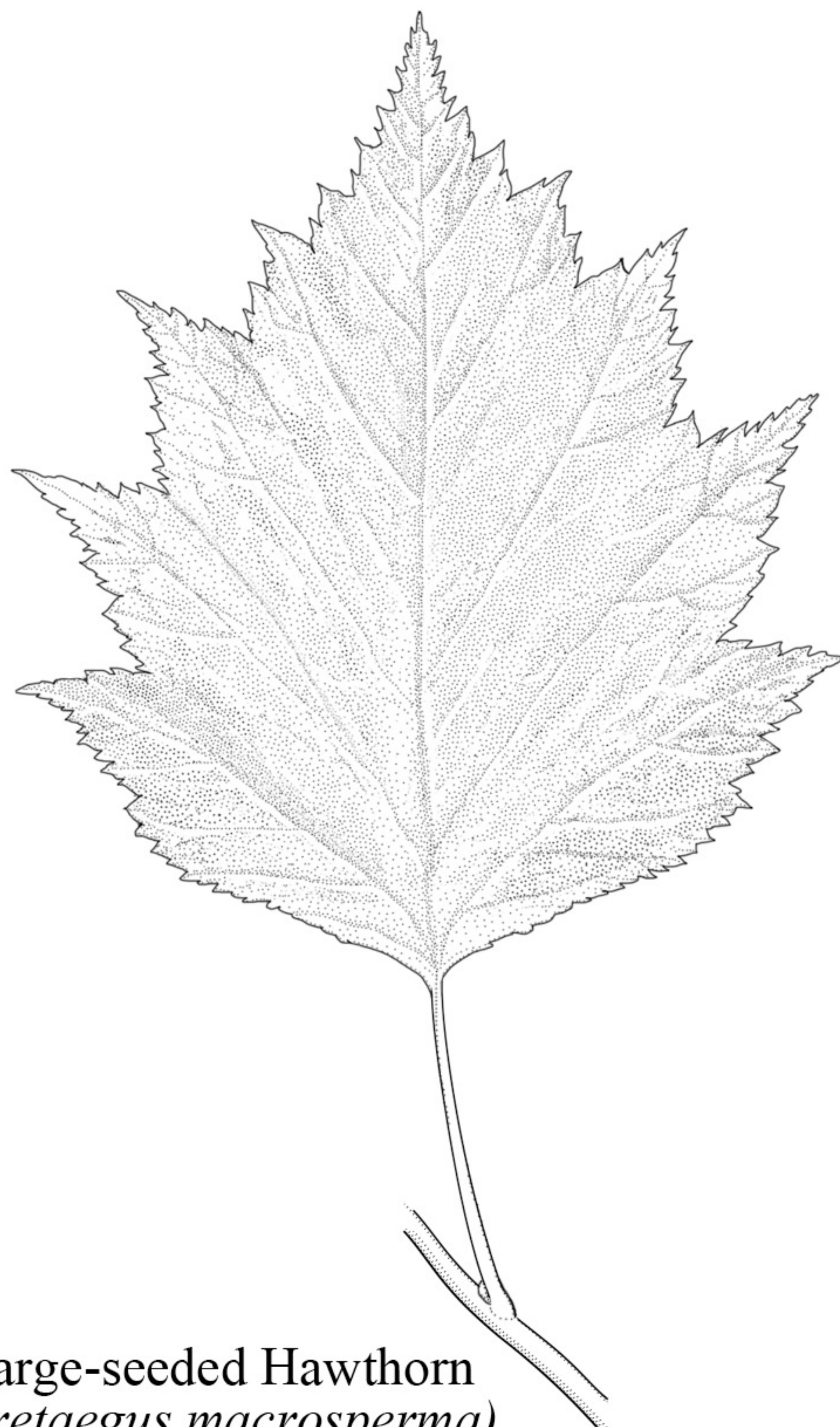


Scarlet Hawthorn
(*Crataegus coccinea*)
Long-petiolate. Abaxial surface short-pubescent. C=5

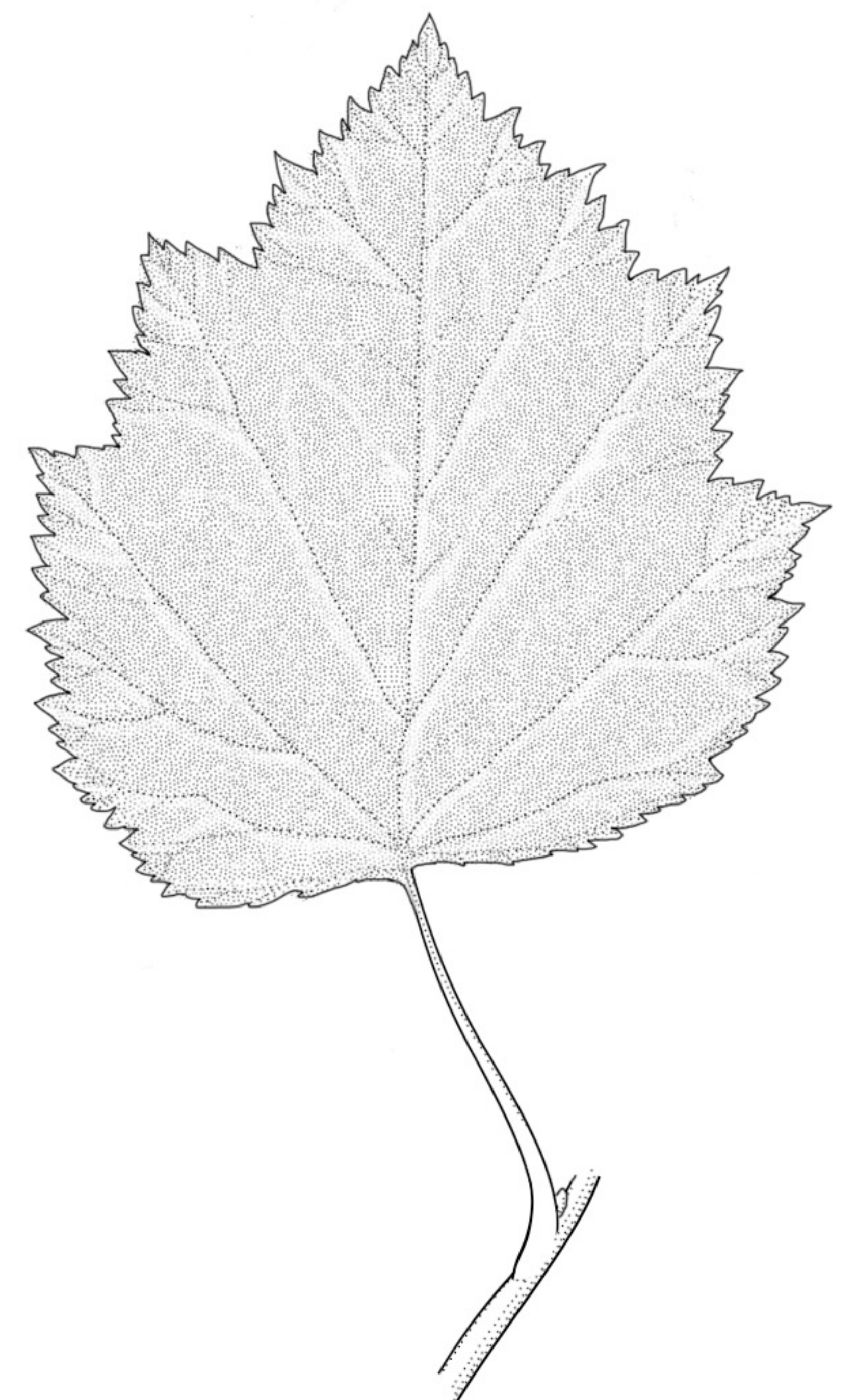
Leaves glabrous abaxially, strigulose adaxially:



Holmes' Hawthorn
(*Crataegus holmesiana*)
Sepals glandular. C=5



Large-seeded Hawthorn
(*Crataegus macrosperma*)
Sepals entire; flowers to 1.7 cm across; fruits to 1 cm. Notice the subtle spreading of the principal lobes. C=5



Greenish Hawthorn
(*Crataegus virella*)
Sepals entire; flowers more than 1.7 cm across. Fruits more than 1 cm. in diameter. C=5

Illustrated Hawthorns of the Chicago Region

Kathleen Marie Garness and Gerould S. Wilhelm

Glossary of Botanical Terms:

abaxial – Said of a surface that faces away from the *axis* of the structure to which it is attached.

adaxial – Said of a surface that faces toward the *axis* of the structure to which it is attached.

axis – The central part of a longitudinal support, commonly of a stem or inflorescence, on which organs or parts are arranged.

blade – The expanded portion of a leaf.

branchlet – A division of a *branch*, smaller than the main branch.

calyx – The outer, lowermost series of perianth parts; the *sepals* taken collectively (pl. calyces).

cordate – Heart-shaped

entire – With margins that are smooth or nearly so along the entire leaf; not incised or serrate, for example.

expressed – Elevated above a surface; compare with *impressed*.

fertile – Capable of producing flowers and fruit.

flower – The reproductive organ of a plant that bears stamens and/or *pistils*.

glabrate – Nearly without hairs.

glabrous – Hairless.

gland – A *sessile* or stalked structure that can secrete a fluid.

glandular – bearing glands

impressed – Not flush with a surface, sunken in; compare with *expressed*.

incised – Deeply cut or divided.

inflorescence – The discrete flowering array or portion of a plant; a *flower* cluster.

lobed, lobate – Possessing *lobes* or with a lobed margin.

lobe – Any segment or division, particularly if blunt, but more developed than a *tooth*.

long-petiolate – Having a very long *petiole*.

petiole – The *stalk* of a *leaf*.

pistil – The female organ that comprises the ovary, style (when present), and stigma.

pubescent – Hairy.

sepal – A *segment* of the *calyx*.

stamen – *Pollen*-producing unit of the male portion of the flower, composed of an anther and filament.

sterile – Without flowers; incapable of reproducing *sexually*; referring to stems of a plant that will not produce flowers.

strigulose – Finely pubescent

thorn – A reduced, sharply pointed branch or modified leaf, or remnant of such that originates below the epidermis cells.

tomentose – Densely *pubescent* with matted hairs.

Note: see the illustrated glossary of botanical terms for more information:

<http://conservationresearchinstitute.org/forms/CRI-FLORA-Glossary.pdf>