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About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

1. Non-branched

82, 86, 88, 95, 99, 101, 135, 269, 270, 276, 277, 282, 291

2. 1 Branch, or none, branching only at apex

73, 263

3. 1 Branch or none, branch near the middle

78, 97, 105, 106, 267, 295

2. 1 Branch, near the apex

75, 83, 91, 136, 255, 256, 264, ~~267~~ *primary*

4. 1 Branch, near middle, or below middle

77, 87, 100, 103, 104, 108, 110, 118, 278, 280, 290 *divided*

5. 2 Branch, the lowest part the longest

74, 81, 85, ⁹⁸102, 109, 260, 257, 261, 279, 284

6. 2 Branch, the 1st branch the longest, or nearly so *shortest*

76, 92, 96, 115, 275

7. 3 Branch, the longest part the longest

90, ²⁶⁶285, 292

8. 3 Branch, all branches ± equal in length

79, 265, 287, 109, 93

9. 4 Branch

80, 89, 258, 268, 107

Missplaced
in this
group -
should it
be with
other
leaves?

divided

I Plants with dark colour (reddish, yellowish or brown) stems, ^{roots dark brown}
^{rough surface}

Plants unbranched, or with at best one unbranched stem
if branched, ~~branching~~ ^{Point of} where the middle of stem

B Stems unbranched, or with no more than one ^{Point of} branching
a - Leaf lobes linear, or slightly pinnatifid, L/W ratio
of central lobe 6.7 or greater - 1

99, 276

Key to *Gossamer* *Cenosa* (11)

(indus-white)
I. Plants with light colored stems, ^{light pinkish} smooth surfaced roots

A. Plants with unbranched stems, or if branched, branching only near the top of the plant.

1. Lobes of leaves narrow, linear in outline, with slight undulations or indentations on margins.

~~a. Stipules prominent~~

a. Leaf lobes long + slender, length/width ratio 8.5 or greater # 130, 300, 303

aa. Leaf lobes shorter, length/width ratio 6.5 or smaller

b. Buds + young foliage green, petioles green, Pith of stems distinctly chambered, Roots slender fusiform, sub-epid. of root light tan # 132

bb. Bud + young foliage blue-green, petioles green with sl. red pigment, Pith of stems solid, Roots clavate to pyriform, sub-epid. of rt. pinkish - # 111

1. Lobes of leaves broad, obovate to elliptic, the margins smooth

c. Petioles of leaves red, or with reddish pigments distributed along them.

d. Stipules scarcely developed, or if present, only deciduous.

Base of root pink,

e. Cortex of root, white — # 117

el. " " " light yellow,

Back light tan — # 286

ld. Stipules well developed, persistent for some distance down stem

f. Stems all erect, unbranched, usually with leaf like length/width ratio 4.01 or less - Roots clavate -

g. Subepid of root white — # 129

gg. " " " pink or tan — # 287, 294

ff. Stems usually not at all greater & from erect, occasionally branched, either at base or near apex; leaf like length/width ratio 4.6 or greater, roots usually with constrictions, bead-like.

h. Int. stem color white, the leaf scars pronounced, subepid. of root light pink — # 120

supposed to be the same plants

h-h. Int. stem color light yellow green, leaf scars on mature stem relatively small, inconspicuous, subepid. of root light tan — # 297

cc. Petioles uniformly green

i. Buds & young fol. bluish green, roots ± pyriform — # 291, # 301

ii. Buds & young fol. green, roots clavate — # 113

A.A. Plants with ^{numbers of} varying branches, if with only 1 set, these at the middle of the plant or lower.

1. Lobes of leaves narrow, linear in outline, with slight undulations or indentations on the margin

N.B. these may key out to be different, # 112, 114, 131, 289 but not at this moment

11. Lobes of leaves oblanceolate, obovate to elliptic, the margins mostly smooth

a. Petioles red, or with reddish pigment predominant

b. Bud + young fol. green, plants of about generally less than 3 meters tall
lobes of young leaves ± elliptic

116, 121, 122, 293

b.b. Bud + young fol. red-blue, the blue-green
Plants generally 3 meters tall or taller
lobes of young leaves oblanceolate to obovate

c. ~~stem~~ Mature stems with greatly enlarged leaf + stipule scars

119, 125, 296

c.c. Mature stems with relatively inconspicuous leaf + stipule scars

B3, 302

- NB. ^{#1} - a. Petioles uniformly green or light yellow-green
 following d. Mature stems a distinct translucent
 represents a "natural greenish-silver white; internal stem
 grouping" color white to green-white
- e. Petioles light yellow-green
 ⇒ 128, 299
- ell. Petioles green ⇒ 298, 123
- dd. Mature stems silver-opaque; internal
 color of stems light yellow to cream-
- f. Petioles 20 cm long or less; longest
 lobe 15 cm long or less
 # 126, 127, 271
- less pubescence on
 under surf. of lf
- ff. Petioles 24 cm long or longer
 longest lobe of leaf 18 cm long or
 longer
- more pubescent
 on under surface of lf.
- g. Lobes overlapping, broadly
 oblanceolate # 134
- gg. Lobes wide spread, not overlapping,
 narrowly oblanceolate
 # 124

^{to RB-6RY-7}
Bisium

(Lobes generally 8-9
(mutata bases))

Plants unbranched, or with ~~only~~ only
a few branches

Lobes of leaves linear, or with ~~the~~
undulations of the margins

276, 99, 110, 84, 261, 273.

Lobes of leaves spatulate, margins
entire

Stems ~~unbranched~~ branched only at apex

Buds + young foliage green

Petioles green

Root pith white

135, 263, 136, 269,

Root pith cream to yellow

73, 282

Petioles w/ at least some red pigment

82, 95, 270

Buds + young foliage reddish-blue

88

Stems branched about $\frac{3}{4}$ of way up

85, 88

Plants branched at base, middle, or above,
though generally with no more than 2 or 3
levels of branching

Stems generally yellowish in color

76, 78, 81

Stems light brown to brown-

Buds + petioles green

^{young foliage}
Buds green, Petioles red or at least
with some reddish pigment
Stipules well developed, persistent

267

Stipules poorly developed or early deciduous

92, 97, 103, 280, 284.

Buds + young foliage reddish-lilac

96, 275