

## Notes on Magnolia and Other Woody Plants

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*Magnolia pyramidata* Pursh. In 1929 two well developed trees of this species were noticed near Midway, Gadsden County, Florida, about 30 miles southeast of River Junction, previously regarded as the southeastern point of distribution. Later the same site was visited in company with Dr. H. Kurz of Tallahassee. Although *Magnolia fraseri* has been credited both to Louisiana and to Mississippi, it seems doubtful whether it actually occurs in either state. The pale lower surface of the leaves regarded as peculiar to *M. fraseri* sometimes certainly occurs also on *M. pyramidata*. Positive identification without the characteristic fruit is uncertain, but it seems probable that all of the specimens which have been collected in Mississippi and Louisiana and referred to *M. fraseri* should be considered as *M. pyramidata*.

✓ *Magnolia foetida* forma *margaretta* f. nov. A number of cultivated varieties have been credited to this species. None of these, however, seems to exist in a natural state. In the stream-head region of western Florida and extending southeast into middle peninsular Florida and westward into the adjacent part of Alabama there is found what seems to be a well marked form which might almost be regarded as a variety of this species. It is the most common form which occurs in the "stream-head" region but in its distribution beyond this region it becomes less common. The common form of *M. foetida* on both the Atlantic and Gulf Coast has oblong strongly revolute leaves. The proposed new form is characterized by having leaves elliptic or somewhat obovate, obtuse or rounded at the ends, complanate, flowers vase-shaped, the sepals retuse. Type from Juniper Head Creek, Okaloosa County, Florida, W.W.A., May, 1928, and June, 1929.

✓ *Magnolia foetida* forma *parvifolia* f. nov. Throughout its distribution occasional trees of this species occur with fairly small leaves. In southern Louisiana a very common form has small oblong ovate leaves 15 to 20 cm. long, prevailingly complanate. In the middle part of this state and to the east of Pearl River this form is uncommon.

✓ *Magnolia acuminata* var. *alabamensis* var. nov. Specimens of a *Magnolia* were collected in 1926 in Choctaw and Tuscaloosa counties, Alabama, which were referred to *M. cordata* Michx. It was noted in the reference to these collections that many of these Alabama trees reached a height of 25 m. thus greatly exceeding in height *M. cordata* as it grows in northeastern Georgia where it seldom exceeds 10 m. Since 1926 this same form has been collected at a number of other localities in Alabama and many



trees with pubescent twigs examined growing in Greene and Pickens counties in the same state. These counties lie between Choctaw and Tuscaloosa counties, the counties within which this form was first noticed.

It is believed after an examination of additional material that this form has been wrongly referred to *Magnolia cordata* Michx. Not only does *M. cordata* differ from it in habit, but in shape and pubescence of foliage as well. It approaches *M. cordata* in the often soft pubescence of the lower surface of the leaves and in its pubescent twigs but the flowers in place of being canary yellow as are those of *M. cordata* are green or rarely yellowish green. The proposed variety may be characterized as follows: Flowers large, 7.5 to 9 cm. long, green or yellowish green; leaves especially on vigorous shoots sometimes broadly ovate or broadly obovate and cordate, subcordate, rounded or obtuse at base, soft pubescent and sometimes barely pale beneath; twigs of the season pubescent at least when young and often remaining so until the spring of the second season, becoming dark red brown the first winter. These trees, 18 to 25 m. high are not uncommon in hollows growing with the oaks, hickories and tulip poplar in Alabama in the region between Tuscaloosa and Choctaw counties.

The relationship of *Magnolia acuminata* and its varieties is shown by the following key.

#### Key to Varieties of *Magnolia acuminata*

Sun leaves pubescent and pale beneath; no leaves on vigorous sheets of a broadly ovate or broadly obovate type; flowers less than 7 cm. long; twigs glabrous

Flowers yellow

var. *aurea*<sup>1</sup>

Flowers green or yellowish green

*M. acuminata* typica

Sun leaves pubescent beneath; leaves on vigorous shoots often of a broadly ovate or broadly obovate type; flowers green, 7 cm. or more long, petals broad

Twigs pubescent; leaves soft pubescent beneath; flowers about 7.5 cm. long

var. *alabamensis*

Twigs glabrous; leaves pubescent beneath; flowers 8 to 10 cm. long

var. *ludoviciana*<sup>2</sup>

Sun leaves glabrate and green beneath; twigs glabrous; flowers less than 6.5 cm. long, green or purplish, petals narrow

var. *ozarkensis*<sup>3</sup>

The variety *alabamensis* Ashe is at one extreme in respect to copiousness of pubescence. The variety *ozarkensis* Ashe, essen-

<sup>1</sup> *Magnolia acuminata aurea* comb. nov. *Tulipastrum acuminatum aureum* Ashe, Bull. Charleston Mus. 13: 28. 1917.

<sup>2</sup> Sargent in Bot Gaz. 67: 232. 1919.

<sup>3</sup> Ashe in Jour. Elisha Mitchell Soc. 41: 269. 1926.



tially glabrous, is at the other extreme. The varieties *aurea* and *ludoviciana* and *M. acuminata* typica are intermediate. The varieties *ludoviciana* and *alabamensis* have the largest flowers.

✓ ***Magnolia australis* sp. nov.** No forms intermediate in pubescence on the peduncles seem to connect the broad leaved northern tree, *Magnolia virginiana* L., with its glabrous peduncles, and the southern tree with relatively narrower leaves and tomentose peduncles. The tree with the glabrous peduncles occurs as far south as Kingsland, Telfair County, Georgia (W.W.A., May 19, 1928), within a few miles of the Florida state line. The two forms overlap in their distribution throughout South Carolina and eastern Georgia and do not seem to intergrade.

The type of the proposed species is from Natchitoches Parish, Louisiana. It has silky tomentose-peduncles, canescent twigs, large flowers, the petals 8 to 9 cm. long and relatively long leaves.

The common form in western and southern Florida which has prevailingly lanceolate leaves and small flowers, petals often less than 6 cm. long is ***Magnolia australis* var. *parva* comb. nov.** (*Magnolia virginiana* var. *parva* Ashe, Bull. Tor. Bot. Club. 55: 464. 1928.) It is possible that *M. glauca* B. *pumila* Nutt (in Am. J. Sci. 5: 295. 1822) belongs here. It is described as "leaves elliptic, acute; a dwarf variety not exceeding 3 feet, growing in east Florida, where collected by A. Ware."

✓ ***Tilia caroliniana* var. *lata*<sup>4</sup> comb. nov.** *Tilia caroliniana* in its typical form is unknown between western Florida and eastern Louisiana. The tree described as *Tilia lata* constitutes an isolated colony in the mountains of Alabama between the eastern and western ranges of this species. It is clearly allied to *T. caroliniana* and it seems preferable to regard it as a variety of that species.

***Tilia leucocarpa* var. *cocksii* comb. nov.**<sup>5</sup> The chief character presented by Dr. Sargent for the separation of *T. cocksii* from *T. leucocarpa* Ashe (*T. nuda* Sarg.) is the pubescent summer shoots of the former species. It is now known, however, that *T. leucocarpa* also develops pubescent summer shoots. The only other evident difference between these trees seems to be that the leaves of *T. leucocarpa* are sharply serrate and those of *T. cocksii* are finely and distantly denticulate.

✓ ***Quercus Mississipiensis* sp. nov.** A slender tree 22 to 25 m. high, with a diameter of 4 to 7 dm., a gradually tapering trunk and short, spreading branches, forming an oval or oblong crown. Twigs dull tan, slender, about 2 mm. thick or on vigorous shoots

<sup>4</sup> *Tilia lata* Ashe, Bull. Torr. Bot. Club. 53: 30. 1926.

<sup>5</sup> *Tilia Cocksii* Sarg., Bot. Gaz. 66: 437. 1918.



up to 4 mm. thick, stellate pubescent, often becoming glabrate or glabrous. Leaves above sparingly stellate pubescent, dark green and lucid; beneath, dull green, or pale and more or less densely close-stellate pubescent; dimorphous: those on young trees and *the lower leaves* on old trees relatively thin, broadly obovate, 6 by 8 cm. to 10 by 13 cm., broadly cuneate or gradually contracted to the narrow rounded base, with 1 to 3 pairs of short spreading lobes, if more than one pair one pair usually dilated or notched at the apex, the others less prominent and rarely dilated, the prominent lateral veins as a rule deliquescent before reaching the margin; the *upper leaves* thick, 11 to 18 cm. long, 4 to 8 cm. wide, with 1 to 3 pairs—often only 1 pair—of short usually rounded ascending lobes mostly above the middle of the blade, and an equal number of pairs of prominent veins which extend to the often retuse tips of the lobes, and other less prominent lateral veins which deliquesce before reaching the thickened white margin; midrib prominent, often arcuate; petiole 1.1 to 2.2 cm. long, sparingly stellate pubescent. Aments short, 2-2.5 cm. long, pubescent. Fruit in clusters of 2 to 4 on rather stout, closely gray-canescant peduncles 2 to 14 mm. long: cup 11 to 14 mm. wide, 8 to 12 mm. long, turbinate or somewhat contracted at the base, covered with many rows of ovate, gray-canescant, tightly appressed scales with truncate tips and slightly tubercled bases; within, pale gray satiny canescant, with a small pale yellow hylum mark: nut ovate or oblong, 13 to 17 mm. long, 10 to 13 mm. thick, about one-third enclosed in the cup, strongly beaked, pale gray-canescant above the middle, dark brown when fresh, becoming tan upon drying, germinating soon after falling in October and early November. Buds ovate, obtuse or acutish, 2.5 to 4 mm. long, with 20 to 25 bright red-brown obtuse pubescent scales.

Chico County, Arkansas, southward in the Mississippi River valley to St. Landry Parish, La. Specimens examined, all W.W.A.

#### *Arkansas:*

Chico Co., north of Lake Village; Apr. and Nov., 1930. East of Portland; Apr. and Nov., 1930.

#### *Louisiana:*

Richland Parish; Nov. 27, 1930 (type).

Alluvial lands of Ouachita River, Ouachita Parish, Nov. 28, 1930.

Near Palmetto, St. Landry Parish, Nov. 29, 1930.

Near Ritto, Ouachita Parish, La., Nov. 28, 1930.

Near Oak Ridge, Morehouse Parish, Nov. 27, 1930.

West of Forest, West Carroll Parish, Nov. 27, 1930.

Near Columbia, Caldwell Parish, Nov. 28, 1930.

This is one of the common oaks on the intermediate or better



drained classes of alluvial lands of the lower Mississippi River Valley proper, occurring in association with *Quercus Nuttallii*, *Q. obtusa*, *Q. rubra leucophylla*, *Q. nigra* and *Ulmus crassifolia*. It is a timber tree of importance, its lumber not being separated in marketing from that of upland white oak. This species must not be confused with *Q. similis* Ashe, likewise a tree of the lower Mississippi River Valley, but which grows on the edges of salt flats, on the alluvials of small streams and on the margins of prairies and the distribution of which extends from eastern Texas to Mississippi. *Q. Mississippiensis* may be the same as *Q. stellata attenuata* Sargent (Bot. Gaz. 65: 437. 1918. Not *Q. attenuata* Skan in Jour. Linn. Soc. 26: 506. 1899), reported from alluvial lands of White River, Arkansas Co., Ark.

***Malachodendron pentagynum grandiflorum*** comb. nov. *Malachodendron pentagynum* Small, Flora S.E.U.S., Ed. I, 793. 1903. *Stewartia pentagyna grandiflora* Bean (Trees and Shrubs Hardy in the British Isles 2:555. 1914). This showy variety seems to be confined to Rabun and the adjoining counties of north-eastern Georgia.

✓ ***Hicoria ovalis mollis*** comb. nov. *Carya ovalis mollis* Ashe, Rhod. 25: 180. 1923. This pubescent variety originally described from Ohio has been recently found in middle North Carolina.

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Ashe, W. W. 1931. "Notes on Magnolia and Other Woody Plants." *Torrey* 31(2), 37–41.

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