The Distribution of Magnolia In Northwestern Mexico *

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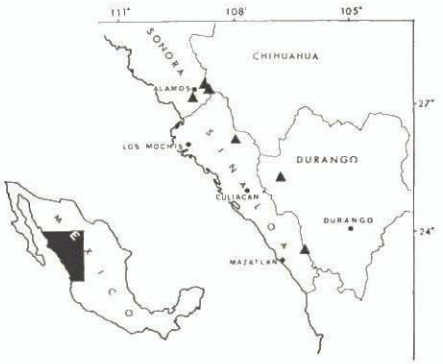
Magnolia schiedeana Schlecht, the only species of Magnoliaceae in northwestern Mexico, is a tall evergreen tree of deep montane barrancas or canyons. In Sonora it is called *magnolia*, perhaps because of the influence of Americans living at Alamos, while in Sinaloa and elsewhere in Mexico it is called *corpus* (see Santamaria, 1959; Martinez, 1937).

GEOGRAPHIC DISTRIBUTION.—This species extends from southern Mexico (Standley, 1922) northward to the Pacific slopes of the Sierra Madre Occidental of Chihuahua, Durango, Sinaloa, and Sonora (Fig. 1). The present records for Chihuahua, Durango, and Sonora are additions to the floras of these states.

In Sonora, Chihuahua, and northern Sinaloa there are relatively few populations of magnolia, all of which are disjunct. The northernmost populations occur on Sierra Saguaribo, in southeastern Sonora and southwestern Chihuahua, where it is native to several isolated canyons. Most of the Sonoran side of the mountain drains into the Rio Mayo system (see Gentry, 1942), and the Chihuahuan side into the Rio Fuerte drainage. The only other locality for magnolia in Sonora is Sierra de Alamos, some 40 miles west of Sierra Saguaribo, where a single mature tree and a number of seedlings and saplings exist on the north side of the mountain near peak elevation. In eastern Sinaloa, Durango and southward the populations become larger and more nearly contiguous.

Many magnolia community species are characteristic of cool upland tropical regions and here reach their northern limits, e.g., *Begonia spp.*, *Clethra lanata*, *Oreopanax salvinii*, *Stanhopea sp.*, and *Tillandsia inflata*. Other such as *Platanus racemosa* var. *racemosa*, are of northern or temperate affinity and reach their approximate southern limits in these canyons. It is interesting to note that *Platanus* and *Magnolia* are reported as occurring together in the Vermejo flora of the late Upper Cretaceous age in Colorado (Lee and Knowlton, 1917; Axelrod, 1950) and in various Tertiary floras of western United States (MacGinitie, 1941; Chaney, 1944).

PHENOLOGY.—At the northern limits of their distribution the trees tend to be tall and slender, while those in the south are commonly broader and more spreading. The tough leaves are dark green on both surfaces, and slightly glaucous. New growth is initiated throughout the year. The large white flowers first appear in March and April, and continue through July, with peak flowering in May. The fruit ripens in March and April of the following year, allowing the seeds to fall before the onset of the summer monsoon. The tepals are petaloid, white, unusually thick and tough, and vary considerably in size from one flower to another. A pair of foliaceous bracts completely enclose the flower bud, and both flower and leaf buds are conspicuously golden-colored due to dense sericeous pubescence. The bright red seeds, generally remaining attached to the woody cone-like fruit when it falls to the ground, are especially relished by the crested guan,



Distribution of Magnolia schiedeana *in northwestern Mexico. Triangles represent localities for populations reported.*

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hooded grosbeek, masked tityra, chachalaca, and the tufted jay (Crossin, 1967).

ECOLOGIC DISTRIBUTION.—In northwestern Mexico magnolia is narrowly restricted to cool and moist canyons with perennial streams and nearly evergreen riparian vegetation, comprised of both tropical and temperate species. During the severe pre-summer drought these verdant canyons, representing the most mesic habitats encountered in the northern Sierra Madre Occidental, contrast sharply with the dry and parched appearance of the surrounding country (see Gentry, 1942 and 1946).

In Chihuahua and Sonora magnolia occurs at elevations of 4000 to 5500 feet, while southward into Sinaloa and Durango its range extends from 5000 to 6500 feet. The lower elevational limits are within riparian oak-woodland (=Oak Forest of Gentry, 1942), with some species of subtropical deciduous forest (=Short-tree Forest of Gentry, 1942) occurring here at their upper elevational limits. Pine-oak elements predominate at most of the higher-elevation magnolia localities, while the highest recorded elevation for magnolia (Rancho Liebre, Sinaloa) coincides with the extreme lower limit of *Abies religiosa*.

Vegetation in the magnolia canyons is characterized by a dominance of trees and shrubs with large and simple leaves, e.g., *Clethra*, *Ficus*, *Magnolia*, *Oreopanax*, *Quercus*, and *Platanus*. Four roughly defined strata may be distinguished; the tallest, approximately 50 to 60 feet tall and occasionally higher, consists almost exclusively of magnolia in the north; the next lower stratum frequently contains *Platanus*, *Clethra*, *Quercus*, and *Magnolia*; beneath this second tree stratum is a well defined understory shrub layer reaching about 15 to 18 feet in height and often dominated by *Oreopanax salvinii* Hemsl. (=*O. peltatum* Linden); the lowest layer is variously present or absent and includes such shape-adapted plants as ferns, *Selaginella*, mesophytic grasses and forbs, and some small shrubs.

REPRESENTATIVE SPECIMENS. I have examined the following specimens, deposited in the herbaria of The University of Arizona (ARIZ) and the Los Angeles County Museum of Natural History (LAM). SONORA: Arroyo de Curohui,

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north side of Sierra Saguaribo, *ca* 4000 feet elevation, Felger 457 (ARIZ) and 709 (LAM). CHIHUAHUA: 7.8 miles by road south of Tecorahui, southeast side of Sierra Saguaribo, *ca* 5000 ± 500 feet elevation, Felger 5557 (LAM). SINALOA: Sierra Monterrey (part of Sierra Surotato), 5000 feet elevation, Gentry 5885 (ARIZ); Rancho Carrizo, vicinity of Mex. Hg. 40 at *ca* 3.3 airline miles west of Palmito, 6200 feet elevation, R. Crossin (LAM); Rancho Liebre, *ca* 1.6 airline miles north-northwest of Palmito, 6400 feet elevation, R. Crossin (LAM). DURANGO: Canelas (*ca* 7 miles south of Topia), 4500 feet elevation, A. Russell (LAM).

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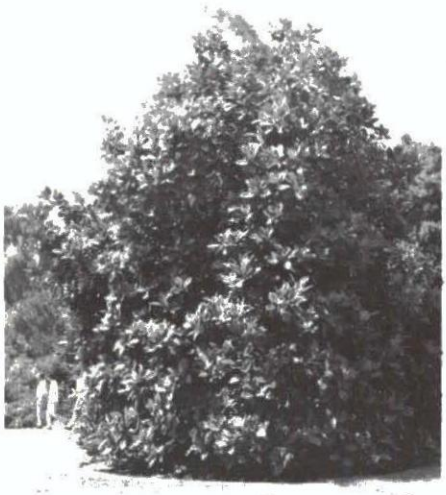

Magnolia delavayi *tree in Huntington Botanical Garden, San Marino, California, as photographed by Dick Figlar.*

Hellbox

Wherein the editor, erring often and human always, contritely owns to commissions and omissions in past issues, humbly and tardily attempts restitution, begs forgiveness for misleading readers and misprinting authors, shrives himself, delivers homily and opinion and incidental intelligence, and sheds sundry weights from his conscience.

We have sought an article on the oft-mentioned collection of Magnolias at the University of Washington Arboretum for some years, and now Joe Witt has come through with a comprehensive piece just in the nick, giving members a hint of some of the glorious spectacles they may see, with any luck, at the Society's national meeting there on March 30-31. We doubt if there's any other location in the U.S. where both Asian and American species can be grown together in such variety and perfection. The advice from here is to start saving your coin and hocking your future to make it to the Far Corner in Spring of '80.

In this issue we have temporarily set aside a long standing editorial policy of publishing only original articles to reprint a piece that ran in June 1971 in the *Journal of the Arizona Academy of Science*. No publication that becomes simply a conduit for re-runs can normally expect to maintain its integrity or readership (though *Readers Digest* hasn't done bad), but because this scientific publication is not seen by most of our members and because of the somewhat unexpected occurrence of the evergreen

Mexican *Magnolia schiedeana* in northwestern Mexico, we felt that our western members particularly would not want to miss it. *M. schiedeana* is said to be Mexico's most widely distributed magnolia.

The furor in Washington about whether to chisel J. Edgar Hoover's name off the entrance of the new F.B.I. Building puts me in mind of a remark made by Gene Eisenbeiss, the National Arboretum plant researcher who has passed on lots of good advice to me about growing things. A fellow once informed Gene that he had developed a new *Ilex* hybrid and proposed to name it after himself. "Go ahead," Gene told him, "but don't be too disappointed if your holly becomes a dog on the market."

What Gene meant, of course, is that a person looking for a new plant to ornament his garden is more likely to buy one with an intriguing name than one with a name intended to confer honor on an individual. As long as people aren't cloned we will have plant names spiced with variety, but I would suggest that even a mediocre magnolia, if it has a name evocative of hearts or flowers, will sell brisky long after people tire of another blessed with good breeding and hindered by a forgettable name. Anybody with blood coursing through him is never going to let matters rest till he finds that the poet who named 'Heaven Scent' and 'Rouged Alabaster' and the poet who bred them wanted HIS charmers to turn people every which way but loose.

I'm always pleased to see the energy, enthusiasm, and thinking contributed by rank amateurs to Magnolia lore and culture, not for commercial gain or professional recognition, but simply because they see something that needs to be done or said about Magnolia and then do it. The amateur's own garden, whether it's 20 by 30 feet or bigger, is where the buck stops and where plants have to prove themselves.

If somebody wants to talk my leg off he's assured of a leg up if he'll harangue me with minutiae about Magnolias. When I receive an article contributed by an amateur I have no trouble finding my rose colored glasses. Amateurs have no reputations to protect and are likely to be found dealing in essentials.

In this issue we hear once again of that small forest of favorites presided over in Switzerland by one of the most gung ho amateurs in our society. If there's a worthwhile Magnolia he hasn't stuck into his hillside, it's in hiding. This time Sir Peter Smithers has come up with prospects to intrigue those of us cradle robbers who find it almost unbearable to wait several years for our sweethearts to grow up.

Gene German aroused the members of Round Robin No. 2 some months ago with his photos of *Magnolia sharpii* sent around in the add-on letter package, and I haven't let him rest since. He has finally ferreted out the available information about this Mexican species introduced to the U.S. several years ago.

Both Sir Peter and Gene have been fiddling around with some other thoughts about the magnoliafication of gardens that I hope they'll set down soon. How about you other amateurs out there?

One of the greatest plant explorers of yesteryear was the Englishman Ernest Henry "Chinese" Wilson who, after discovering, introducing, or collecting around a dozen Magnolia species or forms and many other plant treasures from China early in this century, was named director of Arnold Arboretum and set down some of his thoughts about them prior to his death in an automobile accident in 1930. Wilson's writings have occasionally been challenged as to accuracy, but his accomplishments are looked upon with awe, and everything he published is read with interest. Now Dr. Richard A. Howard, who recently retired as director of Arnold, writes that Wilson left

Flower bud of Magnolia delavayi *Huntington Botanical Garden, San Marino, California, in June 1978, photographed by Dick Figlar.*

some unpublished writings about Magnolias and Dr. Howard has kindly offered to get them in shape to be introduced as contributions to this Newsletter. We are proud Dr. Howard has selected this publication as the vehicle for Wilson's final remarks on his Magnolias and we think it's the right choice. We look forward to the series.

One AMS member who bought Neil Treseder's book, *Magnolias*, isn't entirely happy with how the publishers handled it. Here are comments from R.O. Pawling, Meadowby Arboretum & Nursery, 598 Fairground Rd., Lewisburg, Pa. 17837:

"This is not a book review in the usual sense for I am content that the efforts of Neil Treseder in presenting his enthusiasm and knowledge and in assembling the information for his *Magnolias*, covering the Temperate Zone magnolias, was a labor of love.

"I am commenting on the aesthetic disappointment. Here was a book, alone in its field, with so much potential. I do not especially find any great fault with the 246 × 189 mm. size but it's a pity that Margorie Blamey's paintings were reduced to miniatures interspersed among the color photographs. Somehow the publisher saw fit to reproduce two of the magnolia paintings in a pleasing size for the front and back of the dust cover. Unfortunately, even with the plates available, these were not repeated in the book.

"The technique of the line drawings of many of the flowers is not entirely convincing.

"Finally, the binding! If one plans to place the rather outrageously priced book on a coffee table it would be best to place a heavy object on top to prevent the lightweight covers from curling. Mr. Neil Treseder deserved better."

We learn of a recent expedition last fall by a party of Magnolia growers to the site in Mexico where George Pfaffman a few years ago collected material of *Magnolia dealbata* in behalf of the Society for introduction into the U.S. Members of the party traveling to the mountain location near the San Luis Potosi-Hidalgo bordor included AMS members Tom Dodd III and Lynn Lowrey, British nurseryman Harold Hillier, and Gene Cline, a former Society member (charter). New *M. dealbata* material was collected. We hope to persuade some of the party to recount their adventures in the next issue.

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