HORTUS DUROBRIVENSIS I.

Bernard Harkness

It is intended to present under the above title and in forty-five or more parts a complete catalog of the living collection of woody plants of the parks of Rochester, New York. Such descriptive, cultural and historical notes as seem most valuable are given in brief.

Scientific names follow the <u>Bibliography</u> of <u>Cultivated Trees and Shrubs</u> by Alfred Rehder, with some few exceptions. A conservative orthography is maintained with respect to capitalization of specific names honoring persons and of nouns in apposition.

The authors cited in addition to the accepted author of each taxon are included to indicate some of the references regularly used in preparation of this work, with emphasis on recent publications.

While more complete data of the weather and soils of the park areas will be presented in appendices, it may well be noted at the beginning that Highland Park is on the broken terrain of a moraine deposit of limy gravels and sands. Durand-Eastman Park has nearly neutral sands and silt loams derived from river delta deposits in a glacial lake. A low temperature of -22 degrees Fahrenheit has been recorded in Rochester, but, usually, temperature extremes are tempered by proximity to Lake Ontario.

Many have been instrumental in the building and preservation of the Rochester parks; only a few representative names are mentioned. In 1888 the Ell-wanger and Barry nursery firm gave the land area on which Highland Park was started as well as a complete collection of their nursery list. John Dunbar was active until 1926 in building the collections with skill and knowledge from English training. As Director, Patrick Slavin kept the collections from neglect through the difficult periods of depression and war. Still living are two whose life work was in the parks. Bernard Slavin, a keen plantsman, has had several hybrids and seedling forms of his raising named in his honor. Richard E. Horsey shared most generously with me his knowledge of the collections and his records kept of the plantings for over forty years are basic to this study.

ABELIA - R. Brown in Abel - Narr. Jour. China. 1818 CAPRIFOLIACEAE -- Honeysuckle Family.

Abelia Graebneriana, Rehd. GRAEBNER ABELIA

c & w China

Rehder in Sargent - Plantae Wilsonianae. 1911 Bean I,115 (1950); Besant in Chittenden 192(1940)

Recorded as representing Wilson's #4422 from Fahn-Hsien, w Hupeh, in woodlands from 1500 to 2300 meters of altitude, collected in 1910, plants came to us from the Arnold Arboretum in 1912. The plant persisted in Highland Park somewhat sheltered by taller shrubs until 1951, when it was uprooted by accident. The same plant is now established in the Herbarium courtyard planting. It is recorded as reaching 10 feet in 1930 but severe winters since have reduced it to annual growth up to 3 feet. It is interesting in that it has the larger leaf of the type description rather than the smaller leafed variations of other of Wilson's numbers. It is reported (Bull. of Pop. Inf. 16:2) unreliable after several tests at the Morton Arboretum.

Abelia grandiflora, (André) Rehd. GLOSSY ABELIA (chinensis x uniflora)

Rehder in Bailey - Cyc. Am. Hort. 1900 Mottet 262 (1924); van Melle 61 (1943)

Plants of this best known of the Abelias were received at Highland Park from the nursery of Leon Chenault & Sons, Orleans, France in 1919 but were lost from overcrowding by more vigorous plants after about 25 years. A photo in Cornell Bulletin 772, The Winter Hardiness of Some Ornamental Woody Plants in New York State by John F. Cornman is a record of our plants. A new start of Glossy Abelia now grows in the Herbarium courtyard. Here it is best cut to the ground to encourage strong new shoots which flower in late summer and autumn.

ABIES - Will constitute Part II.

ACANTHOPANAX, Miquel - Ann. Mus. Bot. Lugd. -Bat. 1863 ARALIACEAE - Ginseng Family.

Acanthopanax divaricatus, (S.&Z.) Seeman KEYA ARALIA Japan

Seeman in Journal of Botany. 1867
Blackburn 73 (1952); Pourtet 550 (1949)

An inconspicuous member of a genus that lacks outstanding ornamental characteristics, its five-leaflet pattern of foliage and, in most years, its abundance of black fruits in round heads are its special graces. Pourtet mentions its habit of dropping its leaves early in the fall which limits its landscape value. Plants were received from the Arnold Arboretum in 1906 and 1907. A maximum height of 10 feet was recorded in 1940.

Acanthopanax Giraldii, Harms GIRALDI ARALIA

c & nw China

Harms in Bot. Jahrb. 1905 Krüssmann 20 (1952); Li 80 (1942)

Densely growing to four feet with numerous very bristly shoots, our plant has its older stems die back and apparently will never reach the nine foot height of its natural habitat. It is recorded as being Purdom's #849, but the province of that number and the date of accession here are not known at present. Probably hardier strains are in cultivation. Flowering and fruiting are infrequent on our plant.

Acanthopanax lasiogyne, Harms SIKANG ARALIA

w China

Harms in Sargent - Plantae Wilsonianae. 1915
----Bean I,140 (1950); Li 78 (1942)

The Rochester experience with this plant agrees with that reported from Kew Gardens by Bean who calls it one of the hardiest and most satisfactory of the hardy araliads. Certainly the zone given in Rehder as VII? may be changed to V. It is the tallest plant of the genus in the Highland Park collection reaching 14 feet with a natural arching spread of almost as many feet. It flowers and fruits well. Our plant was obtained from R.&J. Farquhar in 1917. Introduction of this valuable plant should be credited to E. H. Wilson who collected it near Tachienlu

in 1908 and 1910 and from whose specimens Harms described the species. As its range has not been extended by later collections and as the Tachienlu area now is included in that province, an English name of Sikang Aralia is proposed.

Acanthopanax senticosus, (Rupr. & Maxim.) Harms
MANCHURIAN ARALIA n Asia

Harms in Nat. Pflanzenfam. 1897 Li 71 (1942); Woeikoff 75 (1941)

The large five-segmented leaf gives a rather coarse effect for this plant which stays at about six feet in cultivation. In the shady forests across northern Asia, including Japan, it is reported to reach 15 feet. Woeikoff notes the use of young foliage as a salad. The St. Petersburg nursery of Regel & Kesselring was the source in 1910 of one Highland Park plant; the other came from the Arnold Arboretum with a U.S.D.A. introduction number. This plant may well be called Manchurian Aralia.

Acanthopanax Sieboldianus, Mak. FIVELEAF ARALIA Japan

Makino in Bot. Mag. Tokyo. 1898 van Melle 62 (1943); Wyman 95 (1949)

The only plant of its genus which has and its way generally into nursery lists. Gardeners have valued it as useful for its tolerance of less favorable conditions of soil and shade. It is good hedging material and its slight thorniness adds to its effectiveness. Plants of Fiveleaf Aralia are dioccious and material in cultivation seems to be all pistillate, which, without fertilization, produces no fruit.

Acanthopanax Simonii, Schneid. SIMON ARALIA c China

C.K. Schneider - Ill. Handb. Laubh. 1909
----Bean I,144 (1950); Li 75 (1942)

This shrub might well be chosen to represent the genus in gardens where neat and small (6 ft.) plants only are desired. Its leaves are not large, its sum-

mer flowering and black fruits in autumn are abundant. Its thorniness is confined to a few prickles curved like some rose species. Our plant was received from the Arnold Arboretum in 1919.

Acanthopanax Wardii, W. W. Sm. THREELEAF ARALIA

w China

W. W. Smith in Notes Bot. Gard. Edinb. 1917
Blackburn 73 (1952); Li 88 (1942)

From R.& J. Farquhar & Co., the Boston nursery firm, in 1917 there came two plants called Acanthopanax lasiogyne. It was not until the studies for this work were undertaken that it was discovered that one plant lacked the tomentose flower parts of that species, and that it must be referred to this species, formerly known as A. ternatum. As Li states it closely simulates A. lasiogyne, but in addition to the technical characters separating them, a close checking of our plants showed that the Threeleaf Aralia holds its leaves in good condition until early November at least two weeks longer than the Sikang species, the leaves are less leathery in texture and its individual fruits are noticeably larger.

ACER -- Will constitute Part III.

ACTINIDIA, Lindley - Nat. Syst. Bot., ed.2. 1836 ACTINIDIACEAE -- Actinidia Family

Actinidia arguta, (S.& Z.) Miq.
BOWER ACTINIDIA ne Asia, Japan

Miquel in Ann. Mus. Bot. Lugd.-Bat. 1867

Krüssmann 37 (1951); Woeikoff 32 (1941)

When grown, as it is in Highland Park, in a shrub form by annual pruning back, its flowering and fruiting qualities are lost, though the large leaves on new shoots give a bold, exotic effect. Bower Actinidia is the hardiest of the genus and its fruiting potentialities have been demonstrated at Geneva, New York. Woeikoff notes, however, that its pollination is not always achieved by insects which makes its fruit crop uncertain. In its native forests it is a strong climber going to the tops of large trees. Plants were received here in 1992 from the Spath nurseries of Berlin, Germany.

Actinidia chinensis, Planch. CHINESE ACTINIDIA

c China

Planchon in Lond. Jour. Bot. 1847 Blackburn 83 (1952); Wilson II,32 (1913)

The young shoots of Chinese Actinidia are densely set with pinkish hairs which extend over the stem and veins of the leaf. Our plant does not respond as well as other Actinidias to the annual cutting back, but sends out awkward long shoots each season. It is probably best grown as a vine. Seven years after Wilson sent seeds from Hupeh to England in 1900, its European introduction, plants were received at Highland Park from the Veitch nurseries.

Actinidia polygama, (S.& Z.) Max. SILVER VINE e Asia, Japan

Maximowicz in Mem. Div. Sav. Acad. Sci. St. Petersb. 1859

Bean I,182 (1950), Woeikoff 32 (1941)

Silver Vine responds well to the annual cutting back given in Highland Park and usually exhibits the characteristic silvering of some of its leaves. It has also flowered well but produces no fruits. Bean recommends growing it as a thicket because of its weak growth. Bean labels the fruits as disagreeable in flavor, but Woeikoff, though admitting a burning reaction when unripe, compares the ripe fruits to fresh figs. Our start came from the Arnold Arboretum in 1923.

AESCULUS, Linnaeus - Sp. Pl. 1753 HIPPOCASTANACEAE -- Horse-Chestnut Family.

Aesculus arguta, Buckl. TEXAS BUCKEYE

Mo. to Texas

Buckley in Proc. Acad. Nat. Sci. Phil. 1860 Krüssmann 39 (1951); Pourtet 517 (1949)

At first considered a shrub (Sargent - to 1.5 m. high, with numerous small stems often prostrate on the ground in the autumn from the weight of the abundant fruit) as observed at Larissa, Texas, at Rochester Texas Buckeye has grown into small tree

form, single trunked with rough bark and up to 18 feet in height. It is tolerant of dry weather and will grow in the shade of overhanging trees. Its small leaf size is distinctive and its apiculate bud scales indicate its relationship to A. glabra. Two plants of Texas origin have leaves which remain puberulous through the season, which suggests the same variations exist as are recognized in other species of the Buckeyes. It sheds its leaves early in the fall. Texas Buckeye has been growing in Rochester since 1911.

Aesculus carnea, Hayne RED HORSE-CHESTNUT

(Hippocastanum x Pavia)

Hayne in Guimpel, Otto & Hayne - Abbild. Fremd. Holzart. 1821

Bean I,188 (1950); Sheat 36 (1948)

Though not a long-lived tree, its striking beauty in flower recommends this hybrid of the Common Horse-Chestnut from the Balkan Peninsula and the Red Buckeye of our southern states. As Sheat records, it is a stable hybrid reproducing itself well by seed. Most of the park plantings are derived from an East Avenue tree from seed sown in 1916. a normal fall season the foliage turns a pleasing golden-yellow through the middle of October.

Aesculus carnea f. Brioti, (Carr.) Rehd.
RUBY HORSE-CHESTNUT (Hippocastanum x Pavia)

Rehder - Bibliog. of Cult. Trees & Shrubs. 1949 Bean I,188 (1950); Wyman 124 (1951)

According to its history as given by Bean, this clone of greatest brilliance in flower came from seed at Trianon in 1858. It is a vigorous plant with larger leaves and flower panicles well worth the necessary trouble of grafting it on Common Horse-Chestnut stock to perpetuate it. Our trees are presumably from the Ellwanger and Barry nursery which had at one time a varied collection of Aesculus varieties.

Aesculus discolor, Pursh var. mollis, (Raf.) Sarg. SCARLET BUCKEYE s U. S.

Sargent - Trees and Shrubs II. 1913

Bean I,186 (1950); Blackburn 85 (1952)

Brought north from Georgia, Alabama or the lower Mississippi valley, Scarlet Buckeye makes a small tree, probably never much over 20 feet, of elegant habit, often distinctly vase-shaped with a flat top. It has other distinctions: dark red flowers, leaves conspicuously white downy beneath and seeds much lighter in colot than other buckeyes. It holds its leaves well into autumn with very little change of color. Our Scarlet Buckeyes were received as plants from the Arnold Arboretum in 1915.

Aesculus glabra, Willd. OHIO BUCKEYE

ec U. S.

Willdenow - Enum. Pl. Hort. Berol. 1809
Werthner 324 (1935); Wyman 125 (1951)

A native Ohioan, William B. Werthner, has characterized the Ohio Buckeye as singularly graceless in habit, with bark of a disagreeable odor and with fruit poisonous to cattle, and of little economic use. But he does point out its especial ornamental value in the spring when the unfolding leaves burst out of rose-tinted sheaths. Full foliage is reached early before many trees have come into leaf. Individual trees vary but some have been noted here as holding partly green leaves until the middle of October when others were completely bare. A part of our many Ohio Buckeyes represent a collection of seed by R. E. Horsey at Columbus, Ohio in 1914.

Aesculus glabra var. leucodermis, Sarg. WHITEBARK BUCKEYE Mo., Ark.

Sargent - Trees and Shrubs II. 1913

Krüssmann 41 (1951); Pourtet 517 (1949)

As grown here, the young wood is not as lightbarked as the name implies. The trunk bark quickly grows to considerable thickness and is dark with deep fissures to whitish inner bark producing a distinctive striped effect. A white tomentum on the undersides of the leaves is pronounced. By the middle of October the leaves are mostly yellowed and fallen. Our plants are from the Arnold Arboretum and one represents a collection by E. J. Palmer at Eureka Springs, Arkansas in 1913.

Aesculus glabra var. Sargentii, Rehd.
SARGENT BUCKEYE Iowa, Kan., Mo.

Rehder in Jour. Arn. Arb. 1926

Bean in Chittenden I,59 (1951)

Rehder seems to have given Sargent Buckeye the incorrect habit designation of a shrub in his Manual. Bean follows by calling it shrubby. So far as can be observed here and in the Arnold Arboretum it is tree-like in habit to 25 or more feet high. The Gray's Manual, 8th ed., classification of small tree or large shrub seems more accurate. Sargent never writes of this variety as differing in growth habit from the type, and he made a var. monticola for the shrubby form. Sargent Buckeye varies in having, frequently, two more leaflets and a heavier pubescence on branchlets and leaves. Our plants have a conspicuous rufous pubescence on the leaf petioles. The foliage drops early in the fall.

Aesculus Hippocastanum, L. COMMON HORSE-CHESTNUT

Balkan Pen.

Linnaeus - Sp. Pl. 1753

Bean I,190 (1950); Turrill 138 (1929)

Knowledge of the origin of this tree did not accompany its introduction into horticultural use in 1576. Over 250 years later it was discovered that the widely distributed Horse-Chestnut was one of the interesting relict species native to restricted areas in the Balkans. Except for an unfortunate leaf blotch disease, the Horse-Chestnut is still an important ornamental flowering tree. Some trees in Highland Park gave a good yellow foliage effect last October.

Aesculus Hippocastanum f. Baumanni, Schneid. BAUMANN HORSE-CHESTNUT

Schneider - Ill. Handb. Laubh. 1909 Pourtet 516 (1949); Wyman 125 (1951)

In many situations, as public parks where fruiting is undesirable, the double-flowering Baumann Horse-Chestnut is preferable to plant. Its flowers are of good substance and last longer than those of the typical tree. Our trees are equally floriferous and the flower effect is most stately. There is no record of the source of our two old specimen trees.

Aesculus Hippocastanum f. umbraculifera, (Jag.) UMBRELLA HORSE-CHESTNUT Schelle

Schelle in Beissner et al. - Handb. Laubh.-Ben. 1903

Bean I,191 (1950); Krüssmann 41 (1951)

Undoubtedly as a younger tree it had more definite form, or if it were grown in a less crowded situation our one old Umbrella Horse-Chestnut would be more convincing. Krussmann gives a thick and spherical crown as characteristic, while Bean describes it as with a low, dense rounded head of branches. It will be necessary to start some new plants to be certain that we have good material of this form; its source is not known.

Aesculus hybrida, DC LYON BUCKEYE

(octandra x Pavia)

De Candolle - Cat. Hort. Monsp. 1813 Krüssmann 41 (1951); Pourtet 519 (1949)

Many forms of this hybrid have been recorded. The one known as Lyoni was in the Ellwanger and Barry collection; one of our plants came here from the Arnold Arboretum in 1915. The flowers of Lyon Buck-eye are an intermediate orange red, but various color combinations from the Yellow (or Sweet) Buckeye and Red Buckeye have been noted. A striking rufous pubescence along the midrib of the leaves is an inheritance from A. octandra. In habit our 25 foot trees are upright and densely branching. Leaves yellow and fall by the middle of October.

Aesculus mississippiensis, Sarg. (glabra x Pavia) MISSISSIPPI BUCKEYE

Sargent in Jour. Arn. Arb. 1920 Krüssmann 41 (1951)

Representing this hybrid, we have a plant received from the Arnold Arboretum in 1922. Another tree is recorded as from Harbison's #1061A, which with #1061 are the type collections made in Brook-ville, Mississippi in 1913. These two trees of small statue (18') have some redness along the veins and midribs in the autumnal coloring of their leaves. Their fruits are small as compared with Ohio Buckeye. Another more vigorous (28') seedling of Harbison's #1061A without redness on the leaves evidently is closer to the glabrs ancestry.

Aesculus neglecta, Lindl. var. pubescens, (Sarg.) se U.S. ETOWAH BUCKEYE

Sargent in Jour. Arn. Arb. 1924 Blackburn 85 (1952)

Older plants of Etowah Buckeye in Highland Park have become excellent trees; one is 36 feet high. The Arnold Arboretum and the Ellwanger and Barry nursery are the known sources of our trees, those from the latter source being yellow-flowered. Sargent wrote here that the Arnold Arboretum plants from the Stone Mountain, Georgia collection made by Harbison were all red-flowered. Leaves fall early from this variety, the trees being bare early in

Aesculus neglecta var. tomentosa, Sarg. S. Carolina OCONEE BUCKEYE

Sargent in Jour. Arn. Arb. 1924 Blackburn 85 (1952)

In the nursery catalogs of Ellwanger and Barry this plant was listed as A. rubra carnea superba.
Another plant known in horticulture as Michauxi is now considered synonymous. Mr. Horsey noted of the latter at Highland Park that, though the leaves were the same, it appeared slower growing and dwarfer in

habit. Our best tree of Oconee Buckeye is only 18 feet high. In addition to its slow-growing habit, the felty, grayish undersurface of the leaves and its red flowers distinguish it. A few handsome golden brown, pink-veined leaves were hanging on one tree last October fifteenth, but most plants were bare of leaves.

Aesculus octandra, Marsh. SWEET BUCKEYE

e U.S.

Marshall - Arbust. Am. 1785 Peattie 479 (1950); Wyman 125 (1951)

Highland Park has a tree of Sweet Buckeye which is over 50 feet in height. Its recorded heights of ninety feet make this the largest tree of the native Buckeyes, and its value as a large specimen tree is thereby indicated. Good golden brown autumn foliage with some reddish tinting was noted last year in the middle of October.

Aesculus octandra f. vestita, (Sarg.) Fern.
KENTUCKY SWEET BUCKEYE Ohio valley, w Kentucky

Fernald in Rhodora, 1937 Blackburn 85 (1952)

A good number of trees of this variety are grow-ing in Highland Park, some from the wild and others from European and American cultivation. Though Fernald in Gray's Manual of Botany,8th ed., speaks of this forma as rare, Horsey found it to be common in the Ohio valley and in the western Kentucky uplands. When Sargent first separated this plant he selected the Pikeville, Kentucky specimen of R. E. Horsey for the type specimen. Hence, if a geographical name is to be associated with this plant, it should be Kentucky rather than Carolina. R. E. Horsey collected seed at Portsmouth, Ohio in September, 1915 from which a tree grown in Highland Park now stands just under 30 feet in height. Autumn leaf fall varies with some trees holding their leaves until the middle of October.

Aesculus parviflora, Walt. BOTTLEBRUSH BUCKEYE

se U.S.

Walter - Fl. Carol. 1786

Bean I,193 (1950); van Melle 185 (1943)

Long valued for its July flowering, Bottlebrush Buckeye by suckering grows into large clumps. It is most impressive when there is opportunity for mass effects to be viewed over a sweep of lawn, which is descriptive of an era of landscapes now past for private homes. In parks and other large-scale plantings it should be introduced more frequently.

Aesculus parviflora f. serotina, Rehd.

LATE BOTTLEBRUSH BUCKEYE

Alabama

Rehder in Jour. Arn. Arb. 1928
Blackburn 84 (1952)

About August tenth, at least two weeks later than the Bottlebrush Buckeye in Highland Park, comes the flower display in Durand-Eastman Park of this form. Their longer flower stalks had been noted before, but it was not until recently that their later flowering was found to check with Rehder's published forma. It is not known when or how these plants were acquired, but it must have been soon after their first introduction to cultivation in 1919.

Aesculus Pavia, L. RED BUCKEYE

se U.S.

Linnaeus - Sp. Pl. 1753

Bean I,194 (1950); Pourtet 518 (1949)

Sargent wrote here that he was unable to establish Red Buckeye at the Arnold Arboretum; Bean mentions it as a rarity in English gardens; Pourtet, however, calls it perfectly hardy at Barres. Because of its propensity to hybridize with other species, it seems possible that it may not always be represented by the true species, which may well be rather tender. The most acceptable planting here is a clump of several stems thinly branched reaching 18 feet in height but scarcely ornamental. Other more tree-like plants labelled for Red Buckeye are of doubtful identity.

Aesculus plantierensis, André
DAMASK HORSE-CHESTNUT (x carnea x Hippocastanum)

André in Rev. Hort. 1894

Bean I,194 (1950); Mottet 110 (1924)

It seems necessary to differ from Rehder in the separation of Damask Horse-Chestnut from the x carnea group. It is now well established by chromosome count that it is the result of a back cross of the x carnea with Hippocastanum, the latter being the seed parent. Though this back cross supposedly brought sterility, one of our trees was fruiting sparsely in 1952. Because of its softer pink flower color and longer life as a healthy tree it may well be recommended as better than the Red Horse-Chestnut.

Aesculus splendens, Sarg. FLAME BUCKEYE

s U.S.

Sargent in Trees and Shrubs II. 1913
Bean I,195 (1950); Blackburn 85 (1952)

From the 1915-16 distribution of plants by the Arnold Arboretum, one plant of the Flame Buckeye of wet calcareous soils in Alabama and neighboring states has survived in Highland Park. It is now a large shrub, 16 feet high. This is an indication that it is as hardy as the rest of the southern buckeyes, a point on which Rehder was uncertain. It does have a brightness to its red flowers which merits the praise given it by Sargent. There is only a slight yellowing of the leaves before they begin to fall in mid-October.

Aesculus turbinata, Blume JAPANESE HORSE-CHESTNUT

Japan

Blume - Rumphia. 1837

Blackburn 84 (1952); Pourtet 516 (1949)

As an ornamental tree, the Japanese Horse-Chestnut extends the flowering time by one week beyond that of Common Horse-Chestnut and bears a somewhat larger leaf. Some yellowing of the leaves takes place before they fall off in late October. Plants were received at Highland Park in 1907 from the Ellwanger and Barry nursery. Aesculus woerlitzensis, Koehne
WOERLITZ BUCKEYE Origin unknown.

Koehne in Repert. Sp. Nov. Reg. Veg. 1912 Blackburn 87 (1952); Krüssmann 42 (1951)

Woerlitz Buckeye is a tree out of European nurseries for which no counterpart has been reported as a native plant nor has an accepted hybridity been proposed. Rehder places it close to A. neglecta in relationship. Early importations made by the Ell-wanger and Barry nursery had the horticultural names of A. purpurea and A. rubra. Trees in Highland Park are now over 25 feet tall.

Aesculus woerlitzensis var. Ellwangeri, Rehd. ELLWANGER BUCKEYE Origin unknown.

Rehder in Mitt. Deutsch. Dendr. Ges. 1913
Blackburn 87 (1952)

The variety honoring the Rochester nurseryman came to the Ellwanger and Barry nursery as A. atrosanguinea and A. Whitleyi from European sources. It has darker red flowers and larger leaflets than the Woerlitz tree. Highland Park trees range around 25 feet in height. Their mid-October golden brown foliage has, in full sun, additional handsome red tints.

AILANTHUS, Desfontaines in Hist. Mem. Acad. Sci. Paris. 1786
SIMAROUBACEAE -- Quassia Family.

Ailanthus altissima, (Mill.) Swingle
TREE OF HEAVEN

n China

Swingle in Jour. Wash. Acad. Sci. 1916

Bean I,197 (1950); Krüssmann 42 (1951)

An ubiquitous urban tree, but in park plantings no weedler than many other trees. The large fruit clusters which may remain most of the winter have considerable ornamental value. Maturing fast, older trees in Highland Park of 50 and 40 foot heights have recently all died out and the tree, apparently, is not destined to attain old age in this area.

BIBLIOGRAPHY

- Trees and Shrubs Hardy in the 1950 Bean, W. J. British Isles, 7th ed. London.
- Blackburn, B. Trees and Shrubs in Eastern 1952 North America. New York.
- 1940 Chittenden, F. J., ed. Ornamental Flowering Trees and Shrubs.
- 1950 Chittenden, F. J., ed. Dictionary of Gardening. Oxford.
- 1943 Everett, T. H. Catalog of Hardy Trees and Shrubs. (Bot. Gard.) New York.
- 1951 Krüssmann, G. Die Laubgehölze. Berlin.
- 1942 Li, H. The Araliaceae of China. Jamaica Plain.
- 1924 Mottet, S. Arbres et Arbustes d'Ornament de Pleine Terre. Paris.
- Peattie, D. C. A Natural History of Trees of 1950 Eastern and Central North America. Boston.
- Pourtet, J. Catalogue des Espèces Cultivées 1949 dans l'Arboretum des Barres. Paris.
- 1948 Sheat, W. G. Propagation of Trees, Shrubs and Conifers. London.
- The Plant-Life of the Balkan 1929 Turrill, W. B. Peninsula.
- 1943 van Melle, P. J. Shrubs and Trees for the Small Place. New York.
- Werthner, W. B. Some American Trees. New York. Wilson, E. H. A Naturalist in Western China. 1935
- 1913 London.
- Woeikoff, A. D. What Can Manchurian Flora.. 1941 Give to Gardens ... Harbin.
- 1949 Shrubs and Vines for American Wyman, D.
- Gardens. New York.
- 1951 Wyman, D. Trees for American Gardens. New York.



Harkness, B. 1953. "Hortus durobrivensis I." Phytologia 4, 269-284.

View This Item Online: https://www.biodiversitylibrary.org/item/47070

Permalink: https://www.biodiversitylibrary.org/partpdf/176541

Holding Institution

New York Botanical Garden, LuEsther T. Mertz Library

Sponsored by

The LuEsther T Mertz Library, the New York Botanical Garden

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Phytologia

License: http://creativecommons.org/licenses/by-nc-sa/3.0/

Rights: https://biodiversitylibrary.org/permissions

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.