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White, Geol. Sur. Iowa, Vol. 1, p. 138; Bessey, Contr. to the Flora of Iowa, p. 119; Arthur, Contr. to the Flora of Iowa, p. 29; Pammel, Proc. Iowa Acad. of Sciences, Vol. 1, pt. 2, 1890-1891, p. 91; Fitzpatrick, Proc. Iowa Acad. of Sciences, Vol. 5, p. 164; Vol. 6, p. 196; Iowa Geol. Sur., Vol. 8, p. 314; Reppert, Iowa Geol. Sur., Vol. 9, p. 387; Macbride, Iowa Geol. Sur., Vol. 7, p. 108; Gray's Manual, Ed. 6, p. 478; Barnes, Reppert, and Miller, Proc. Davenport Acad. of Nat. Sciences, Vol. 8, p. 257; Sargent, Forest Trees of N. A., p. 154.

SHRUBS AND TREES OF MADISON COUNTY.

H. A. MUELLER.

Madison county is considered a prairie country, yet fully one-fourth of its area is covered with shrubs and trees of some description. The county is traversed from the west to the east by three medium-sized streams, North River, Middle River, and Clanton Creek; thus it is known as the "Three-river country." North River, with its two larger tributaries, North Branch and Cedar Creek, is situated in the north half of the county. The principal timber areas along these streams are in Douglas, Jefferson, and Union townships. Middle River flows through the central part, while its largest tributary, Clanton Creek, flows through the south half from the southwest to the northeast. The larger bodies of timber along these two streams lie principally in Lincoln, Scott, Walnut, and South townships. Nearly three-fourths of South township has been covered with timber. South River flows through a small portion of the southeast part. There is not much timber growing on this stream. Grand River, west of the Mississippi-Missouri divide, flows through the southwest corner of the county. Some timber is found along this stream and its branches.

The surface of Madison county is quite rolling, notably so in the eastern portion. The streams flow through well-

developed valleys which have been cut down into the Des Moines stage of the Carboniferous. Nearly everywhere along the brow of the bluff are exposures of limestone of the Missourian stage. Sandstone of the Des Moines stage is found in the eastern part of the county. The hill slopes, and ridges lying near the larger streams are loess-covered; the prairies are covered with a dark, black loam.

On the hills and clay ridges grow the white and black oaks, the ironwood and the hickory. The basswood and the bur oak flourish on the lower slopes; the ash, the elms, the buckeye, the walnuts, and the hard maple on the bottoms. Along the river banks are found the box-elder and soft maple, the cottonwood and the willow. The hazel, the plum, the crab apple and the haw may be found everywhere.

In spite of the fact that the primeval forest is nearly exhausted, the timber area has increased to a considerable extent since the first advent of man in 1846.

After the prairies were broken out no more fires swept over the country, keeping the timber confined to a narrow strip along the streams. Thus within the last forty years there has developed what is known as "second-growth" timber, which is found growing on the outskirts of the original timber area.

At present not many large trees are left standing, and these are rapidly disappearing. Since the fencing is done almost entirely with wire, only fence posts are in demand. These posts are made principally from second-growth white and bur oak. Wood for fuel is still quite plentiful, yet it is diminishing at a rapid rate.

What will be the outcome of the forest conditions of Madison and other counties of Iowa? Will the hills and valleys be stripped of the clothing nature intended they should have, or will man awake to his folly and cease destroying the forests without replacing them? This is a question worthy of intelligent consideration. The problem of forests has been solved in some of the European countries, especially in Germany

Since good farming land has increased so much in value within the last five years the timber land will be encroached upon more and more for farming purposes. All the best timber land has been under the plow for some time. The portion that remains now consists mostly of the steep hillslopes and clay ridges on either side of the streams.

One hopeful fact is that the small wood lots are being gathered together into larger areas and used for pasture, thus to a certain extent preserving the timber, yet pasturing is detrimental to young trees. Man and the goat are doing their part in destroying the young trees and underbrush of the steep hills.

Madison county has enough rough land, unfit for the plow, to grow sufficient timber to supply all her people with fuel and fence posts, if the proper care be given it. A good oak post can be grown in twenty years, and timber for fuel in less time.

Is it not true that the government should make some provisions to preserve the forest upon land that is of little use otherwise than grazing?

The following is a list of shrubs and trees found in Madison county:

Angiospermæ.

Dicotyledones.

TILIACEÆ.

Tilia americana Linn. Basswood. Linden.

Common on bottoms and lower slopes of hills between the oak ridges and the bottom land.

RUTACEÆ.

Xanthoxylom americanum Mill. Prickly Ash.

Common everywhere.

CELASTRACEÆ.

Celastrus scandens Linn. Climbing Bitter-Sweet.

Frequent, found everywhere climbing over shrubs.

Euonymus atropurpureus Jacq. Wahoo. Burning Bush.

This is quite common on the bottoms and along ravines.

RHAMNACEÆ.

Ceanothus americanus Linn. New Jersey Tea. Red-Root.

Quite common on the prairies and edge of the timber.

Rhamnus lanceolata Pursh. Buckthorn.

Common among cherry and plum thickets.

VITACEÆ.

Vitis riparia Michx.

The wild grape is very common along our streams and ravines. It may be found along every old fence or hedge row.

Ampelopsis quinquefolia Michx. Virginia Creeper.

Common. Dry woods and fences.

SAPINDACEÆ.

Æsculus glabra Willd. Ohio Buckeye.

Very common on the river bottoms.

Acer dasycarpum Ehrh. Soft Maple.

Very common along the river banks. This tree composes ninety per cent of our artificial groves.

Acer saccharinum. Sugar or Hard Maple. Rock Maple.

Common, found principally in groves on the river bottoms.

Negundo aceroides Moench. Box Elder. Ashleaved Maple.

Very common along the rivers and tributaries, growing in rich, alluvial soil.

ANACARDIACEÆ.

Rhus glabra Linn. Common Sumac. Smooth Sumac.

Very common everywhere.

Rhus toxicodendron Linn. Poison Ivy. Poison Oak.

Very common in timber and along fences and hedge rows.

LEGUMINOSÆ.

Gleditschia triacanthos Linn. Honey-Locust.

Not common.

Robinia pseud-acacia Linn. Black Locust.

Found only where planted, or escaped from cultivation.

Gymnocladus canadensis Lam. Kentucky Coffee Tree.

Frequent in rich soil of river bottoms.

LEGUMINOSÆ.

Amorpha canescens Nutt. Lead Plant.

Common on the prairies.

Amorpha fruticosa Linn. False Indigo.

Very common on wet, swampy ground on bottoms and along sloughs.

ROSACEÆ.

Prunus americana Marsh. Wild Plum.

Common everywhere on rich soils.

Prunus pennsylvanica L. f. Wild Red Cherry.

Rare.

Prunus virginiana Linn. Choke Cherry.

Common. Found in rich soils with the plum.

Prunus serotina Ehrh. Wild Cherry. Black Cherry.

Very common everywhere.

Physocarpus opulifolius Maxim. Ninebark.

Frequent along banks of streams and ravines.

Rubus villosus Ait. Blackberry.

Common on slopes of hills. Much killed by pasturing.

Rubus occidentalis Linn. Black Raspberry.

Not so common as the Blackberry, and found in the same localities.

Rosa blanda Aiton. Wild Rose.

Very common.

Rosa Arkansana Port.

Found on the prairies.

Pyrus coronaria Linn. American Crab-Apple.

Very common, growing in clumps in rich soil, along with the Plum.

Crataegus coccinea Linn. Red Haw. Hawthorn.

Not common.

Crataegus crus-galli Linn. Cockspur Thorn.

Rare.

Crataegus tomentosus Linn. Thorn Apple.

Very common. Found same localities with Plum and Crab-Apple.

Amelanchier canadensis T. & G. June-berry. Service-berry.

Common on steep hillsides along ravines.

SAXIFRAGACEÆ.

Ribes gracilis. Wild Gooseberry.

Common in rich soil in open ground and along fence-rows and hedges.

CORNACEÆ.

Cornus sericea.

Common along streams and in wet places.

Cornus alternifolia L. f. Alternate-leaved Cornel.

Quite common on hillsides.

Cornus paniculata L'Her. Panicked Cornel.

Common everywhere in thickets.

CAPRIFOLIACEÆ.

Sambucus Canadensis Linn. Elderberry.

Very common on low, rich bottoms Difficult to kill on cultivated lands.

Viburnum lentago. Black Haw.

Rare.

Symphoricarpos vulgaris Michx.

Very common along roadsides and open ground where the hazel has been cleared. This shrub has become quite a nuisance in timber pastures and along fences and hedge rows.

Lonicera glauca. Honeysuckle.

Frequent in woods on hillsides.

RUBIACEÆ.

Cephalanthus occidentalis Linn. Button-Bush.

Not frequent; found only in ponds and wet places.

OLEACEÆ.

Fraxinus americana Linn. White Ash.

Quite common on river bottoms and along streams.

URTICACEÆ.

Ulmus pulva Michx. Red Elm. Slippery Elm.

Common. Rich upland and bottoms.

Ulmus americana Linn.

Very common. Everywhere in damp woods.

URTICACEÆ.

Ulmus racemosa Thomas. Hickory Elm. Rock Elm.

Not common. There were several large groves in an early day on North River. A few trees are now found about the mouth of North Branch.

Celtis occidentalis Linn. Hackberry.

Common on river bottoms and along ravines.

Morus rubra Linn. Red Mulberry.

Not common. River bottoms.

PLATANACEÆ.

Platanus occidentalis Linn. Sycamore. Buttonwood.

Along streams near water's edge and old river channels on gravel beds. Union and Douglas townships.

JUGLANDACEÆ.

Juglans cinerea Linn. Butternut.

White Walnut. Common on rich river bottoms; trees have been cut two and one-half to three feet in diameter.

Juglans nigra Linn. Black Walnut.

This tree was very common in an early day on the rich bottoms, but the large trees have all been cut. They were sold and shipped East. In early days rails were split from the best logs. There are many groves of young trees.

Carya alba Nutt. Shellbark Hickory.

Common on the uplands.

Carya amara Nutt. Bitternut.

Common everywhere. Trees on the upland are dying from the effects of drouth and pasturing.

CUPULIFERÆ.

Corylus americana Walt. Hazelnut.

Very abundant on the outskirts of the timber, and where the trees are small and scattered.

Ostrya virginica Willd. American Hop-Hornbeam.

Ironwood. Common along steep hillsides.

Quercus alba Linn. White Oak.

Common on clay ridges.

Quercus Muhlenbergii. Chestnut Oak.

Not common. Found on steep, rocky hillsides.

Quercus macrocarpa Michx. Bur Oak.

Very common. Found everywhere, but more abundant on the upland.

Quercus palustris Du Roi. Spanish Oak.

Frequent.

Quercus rubra Linn. Red Oak.

Common.

Quercus coccinea Wang. Scarlet Oak.

Quite common on upland.

Quercus coccinea Var. *tinctoria* Gray. Black Oak. Jack Oak. Common on upland.

SALICACEÆ.

Salix tristis. Dwarf Willow. Gray Willow.

Somewhat rare. Found on upland bordering thickets.

Salix humilis Marsh. Prairie Willow.

Common on uplands.

Salix discolor Muhl. Pussy Willow.

Rare; wet places.

Salix longifolia Muhl. Sand-bar Willow.

Common in low, wet places and on sandbars.

Salix nigra Marsh. Black Willow.

Very common along the banks of streams.

Populus tremuloides Michx. American Aspen. Quaking Asp. Rare. Upland.

Populus monilifera Ait. Cottonwood.

Very common along streams, the largest trees growing on very low ground near the water. This tree makes very rapid growth. Trees become large enough for lumber in thirty to forty years.

Monocotyledones.

LILIACEÆ.

Smilax hispida Muhl. Greenbrier.

Quite common in rich woods.

GYMNOSPERMÆ.

CONIFERÆ.

Juniperus virginiana Linn. Red Cedar.

Rare. Found on steep bluffs along North River and Cedar Creek. In Douglas Township there was a small grove on a rocky bluff, wherein the trees reached a foot or more in diameter.

A TERRACE FORMATION IN THE TURKEY RIVER VALLEY, IN FAYETTE COUNTY, IOWA.

BY G. E. FINCH.

The Turkey River flows, in the lower part of its course, through the driftless area in Fayette county, through wide bottom lands. These are usually a half-mile, sometimes a mile or more in width, showing considerable progress in base-leveling.

Fringing the bluffs on one or both sides of the river may usually be found a "bench," rising ten or twenty feet above the general level of the valley. A few rods northwest of the Huntsinger bridge over the Turkey River in Dover township, Fayette county, a small tributary called Dry Run, coming from the north, has cut into the side of one of these terraces from top to bottom, showing in a broad, concave curve, a section about 300 feet long and 25 feet high. Several formations are exposed. Starting at bed rock and extending upward about three feet, is an iron-stained formation that seems to be residual. It is composed largely of cherty fragments from the lower part of the Maquoketa shales with a smaller mixture of greenstones and quartz pebbles, all imbedded in rusty earth. Above this occurs some eight feet of a loess-like material, merging into a soil at the top. Somewhat abruptly above this, the bank changes to thin-bedded sand and gravel strata for about four feet. Then occurs six feet of limestone fragments with a small percentage of glacial pebbles, packed so close and even in horizontal layers as to