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Agricultural Experiment Station

OF THE

AGRICULTURAL AND MECHANICAL COLLEGE,

AUBURN.

THE FLORA OF ALABAMA.

PART V.

P. H. MELL.

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 The Bulletins of this Station will be sent free to any citizen of the State on application to the Agricultural Experiment Station, Auburn, Alabama.

LIST OF PUBLICATIONS

—OF THE—

ALABAMA AGRICULTURAL EXPERIMENT STATION.

1. Bulletins Nos. 1-10, 1883-1885.
2. Bulletins Nos. 1-9, 1885-1887. "Second series."
3. Bulletins Nos. 1-8 for 1887.
4. Bulletins Nos. 1-5 for 1888.

The above Bulletins were issued in the early formative period of the Experiment Station partly in conjunction with the Commissioner of Agriculture, whose office was then located at Auburn.

5. Bulletins Nos. 1-69 of the current series. These represent the regular bulletins of the station since the foundation under the Hatch fund.

6. Annual Reports of the Agricultural Experiment Station, 1-8, 1888-1895.

By recent action of the Station Council the above bulletins have been arranged into volumes as follows :

Vol. I. To include all Bulletins issued in the first four series and before the foundation under the Hatch act.

Vol. II. To include Bulletins 1-21 of the current series, 1888-1890.

Vol. III. To include Bulletins Nos. 22-58 of the current series, 1891-1894.

Vol. IV. Commencing with No. 59 and now current.

Indices of these bulletins are in process of preparation and when completed will be sent to such as desire to bind their series of bulletins.

In addition to the early bulletins grouped under Vol. I, the following bulletins are out of print and cannot be furnished : Nos. 3, 4, 5, 7, 8, 35, 43, 44, 48, 54, 57, 60, 61, 63.

THE FLORA OF ALABAMA.

PART V.

LEGUMINOSÆ AND ROSACEÆ,

—BY—

P. H. MELL.

INTRODUCTION.

An authentic list of the plants growing wild in Alabama has long been demanded by botanists. No complete work on the subject has ever been printed. With the exception of Chapman's "Flora of the Southern United States," and Darby's "Botany of the Southern States," both of which are now out of date, there is no guide to the botanical explorer in regard to the location and habitat of the plants in this State. In the above works whenever Alabama is mentioned only general references are made, and but little definite information is given when speaking of the location of species.

During the past few years botanical science has undergone material change in the classification of genera, the assignment of authority in the naming of species, the weeding out of superfluous names and the adjustment of synonyms. It is not safe, therefore, to trust entirely to publications issued ten or twelve years since without first consulting the corrections recently made by the light of authoritative investigations. In this bulletin, and in others that will follow from time to time on the same subject, an effort has been made to bring the names of species up to date. No doubt mistakes will occur and the author will esteem it a great favor to have such errors pointed out so that corrections may be made in the publications to follow.

In the migration of plants species have been found in

Alabama within recent years which were supposed formerly to be confined to other sections of the country.

For these and other equally important reasons this publication is issued with the confident belief that it will be gladly welcomed by the students of Botany.

This work will be printed in Parts, each of which will be issued only when the material on hand will warrant the publication. Whenever new material is secured after the printing of the part a supplement will be prepared in such form as to render it comparatively easy to attach it as an appendix. These Parts may not be published in consecutive order, but this will be of no material disadvantage since the entire work, when completed, may be bound in one volume and the orders will then follow each other in accordance with Botanic sequence.

A study of the orders has convinced the author that the most convenient grouping is as follows :

PART I. Ranunculaceæ, Magnoliaceæ, Anonaceæ, Menispermaceæ, Berberidaceæ, Nymphæaceæ, Sarraceniaceæ, Papaveraceæ, Fumariaceæ.

Comprising 9 orders and 41 genera.

PART II. Cruciferae, Capparidaceæ, Resedaceæ, Cistaceæ, Violaceæ.

Comprising 5 orders and 27 genera.

PART III. Caryophyllaceæ, Portulacaceæ, Clusiaceæ, Elatinaceæ, Hypericaceæ, Ternstræmiaceæ, (Camelliaceæ), Malvaceæ, Tiliaceæ, Byttneriaceæ, Linaceæ,

Comprising 10 orders and 47 genera.

PART IV. Oleaceæ, Aurantiaceæ, Cedrelaceæ, Geraniaceæ, (Oxalidaceæ and Balsaminaceæ), Zygophyllaceæ, Rutaceæ, Simarubaceæ, Burseraceæ, Ilicineæ (Aquifoliaceæ) Celastraceæ, Rhamnaceæ, Vitaceæ, Sapindaceæ, (Aceraceæ and Staphyleaceæ) Anacardiaceæ, Polygalaceæ, Krameriaceæ.

Comprising 16 orders and 43 genera.

PART V. Leguminosæ, Rosaceæ.

Comprising 2 orders and 57 genera.

PART VI. Calycanthaceæ, Myrtaceæ, Saxifragaceæ, (Parnassiaceæ and Grossulaceæ), Crassulaceæ, Droseraceæ, Hamamelideæ, Halorageæ (Callitrichaceæ), Melastomaceæ, Lythoraceæ.

Comprising 9 orders and 36 genera.

PART VII. Onagraceæ, Turneraceæ, Cucurbitaceæ, Cactaceæ, Ficoideæ.

Comprising 5 orders and 16 genera.

PART VIII. Umbelliferæ, Araliaceæ, Cornaceæ.

Comprising 3 orders and 31 genera.

PART IX. Caprifoliaceæ, Rubiaceæ, Valerianaceæ.

Comprising 3 orders and 32 genera.

PART X. Compositæ.

Comprising 1 order and 99 genera.

PART XI. Lobeliaceæ, Goodeniaceæ, Campanulaceæ, Ericaceæ, Diapensiaceæ, Plumbaginaceæ.

Comprising 6 orders and 26 genera.

PART XII. Primulaceæ, Sapotaceæ, Theophrastaceæ, Myrsinaceæ, Ebenaceæ, Styracaceæ, Cyrillaceæ, Oleaceæ, Apocynaceæ, Asclepiadaceæ, Logoniaceæ, Gentianaceæ.

Comprising 12 orders and 38 genera.

PART XIII. Polemoniaceæ, Hydrophyllaceæ, Borraginaceæ, Hydroleaceæ, Convolvulaceæ, Solanaceæ.

Comprising 6 orders and 30 genera.

PART XIV. Scrophulariaceæ, Orobanchaceæ, Lentibulariaceæ, Bignoniaceæ.

Comprising 4 orders and 32 genera.

PART XV. Pedaliaceæ, Acanthaceæ, Verbenaceæ, Labiataæ.

Comprising 4 orders and 40 genera.

PART XVI. Plantaginaceæ, Nyctaginaceæ, Illecebraceæ, Amarantaceæ, Chenopodiaceæ, Phytolaccaceæ, Polygonaceæ.

Comprising 7 orders and 30 genera.

PART XVII. Podostemaceæ, Aristolochiaceæ, Piperaceæ, (Saururaceæ), Lauraceæ, Thymelæaceæ, Loranthaceæ, Santalaceæ, Euphorbiaceæ.

Comprising 8 orders and 25 genera.

PART XVIII. Urticaceæ (Moraceæ), Platanaceæ, Juglandaceæ, Myricaceæ, Cupuliferæ, Salacaceæ, Empetraceæ, Batidaceæ, Ceratophyllaceæ, Coniferæ, Cycadaceæ, Palmæ.

Comprising 12 orders and 31 genera.

PART XIX. Hydrocharidiaceæ, Burmanniaceæ, Orchidaceæ, Cannaceæ, Bromeliaceæ, Hæmodoraceæ, Iridaceæ.

Comprising 7 orders and 33 genera.

PART XX. Amaryllidaceæ, Dioscoriaceæ, Roxburghiaceæ, Liliaceæ (Melonthaceæ), Pontederiaceæ, Xyridaceæ, Mayaceæ.

Comprising 7 orders and 33 genera.

PART XXI. Commelinaceæ, Juncaceæ, Typhaceæ, Araceæ, Lemnaceæ, Alismaceæ, Naidaceæ, Eriocauleæ.

Comprising 8 orders and 28 genera.

PART XXII. Cyperaceæ.

Comprising 1 order and 21 genera.

PART XXIII. Gramineæ.

Comprising 1 order and 65 genera.

The author acknowledges with pleasure, material assistance from Dr. Chas. Mohr, of Mobile, in locating many of the species mentioned in this bulletin.

ORDER 42. LEGUMINOSÆ. PULSE FAMILY.

1. **BAPTISIA**, Vent. *False indigo*. PERENNIAL HERBS.

C. leucantha, Torr. and Gray. *Smooth wild indigo*. Growing on river banks from March to April. Specimens found in Washington county, (Dr. Mohr). Also reported growing in Tennessee (Killebrew), and therefore may be found in north Alabama.

B. alba, R. Br. *White flowered indigo*. Growing in south and middle Alabama—Russell county (Dr. Neisler), Mobile (Dr. Mohr), Lee (Mell), April.

B. perfoliata, R. Br. Dry sandy soils near Auburn, Lee county, (Mell) and probably south. May

B. lanceolata, Ell. Dry pine barrens in south and west Alabama. Baldwin county, (Dr. Mohr.)

2. **CROTALARIA**, L. *Rattle box*. HERBS.

C. sagittalis, L. *Virginian rattle box*. Growing in south and middle Alabama in barren sandy soils. Specimens obtained in Lee (Mell), Russell (Dr. Neisler), Tuscaloosa, Cullman (Dr. Mohr), counties—June, July. Found also growing abundantly in Tennessee, (Killebrew) and therefore may be looked for in North Alabama.

C. ovalis, Push. Dry pine soil throughout lower middle and south Alabama—May, July—Specimens obtained in Russell (Dr. Neisler), Washington, Mobile, Baldwin, Monroe (Dr. Mohr), counties.

C. Purshii, DC. South Alabama—May, June—Mobile, Baldwin (Dr. Mohr) counties.

3. **LUPINUS**, Tourn. *Lupine*. HERBS.

L. perennis, L. *Wild lupine*. From middle to north Alabama—April May—Lee (Mell), Russell (Dr. Neisler), Cullman, Tuscaloosa (Dr. Mohr), counties. Mountains Tennessee (Killebrew).

L. perennis, *Var GRACILIS*, Mobile (Dr. Mohr.)

L. villosus, Willd. *Villous lupine*. South Alabama, Mobile, Baldwin (Dr. Mohr) counties. April.

L. diffusus, Nutt. South Alabama, Mobile, Baldwin (Dr. Mohr) counties—April, May.

4. **TRIFOLIUM**, Tourn. *Clover, Trefoil.* HERBS.

T. pratense, L. *Red clover.* Escaped from cultivation in middle and south Alabama—Lee (Mell), Mobile (Dr. Mohr), counties. Also in Tennessee (Killebrew).

T. reflexum, L. *Buffalo clover.* From middle to north Alabama—Lee, Montgomery (Mell), Tuscaloosa, Autauga, Cullman, Winston (Dr. Mohr), counties—April, May.

T. repens, L. *White clover.* Generally throughout the State in sandy soils—Lee (Mell), Mobile, Baldwin (Dr. Mohr). Also in Tennessee (Killebrew). May.

T. Carolinianum, Michx. *Southern clover.* Middle and southern extending into north-west Alabama—Lee, Macon, Montgomery (Mell), Mobile, Baldwin, Tuscaloosa (Dr. Mohr), counties—March, April. Tennessee (Killebrew).

T. procumbens, L. *Low hop clover—Small yellow clover.* Middle and northern Alabama—in waste places—Lee (Mell), Madison, Tuscaloosa, Jackson (Dr. Mohr), counties.

5. **HOSACKIA**, Dougl. HERBS.

H. Purshiana, Benth. Introduced from Texas (Dr. Mohr).

6. **MELILOTUS**, Tourn. *Medick, Melilot, Sweet Clover.* HERBS.

M. officinalis, Willd. *Yellow clover.* An introduced species escaped from cultivation—Lee (Mell), and probably in other sections of middle Alabama.

M. alba, Lam. *White clover.* Throughout middle Alabama—Lee, Macon, Montgomery (Mell), Hale (Dr. Mohr), counties.

M. parciflora, Desf. Lower middle and south Alabama, Perry, Mobile counties (Dr. Mohr). Introduced.

7. **MEDICAGO**, Tourn. *Hop medick—Black medick.* HERBS.

M. lupulina, L. *Black medick—Nonesuch.* In waste places and in old fields in all parts of the State.—Lee, Russell, Dallas, Montgomery (Mell), Mobile, Baldwin, Monroe (Dr. Mohr) counties. Tennessee (Killebrew).

M. maculata, Willd. *Spotted medick.* Introduced into south Alabama with ballast, Mobile (Dr. Mohr), county.

M. denticulata, Willd. *Reticulated medick.* Introduced with ballast in Mobile (Dr. Mohr), county.

8. **PSORALEA**, L. PERENNIAL HERBS.

P. melilotoides, Michx. Dry soils—May, June—Lee, Montgomery (Mell), Washington, Cullman, Monroe, Shelby, St. Clair, Calhoun (Dr. Mohr), Russell (Dr. Neisler), counties. Tennessee (Killebrew).

P. canescens, Michx. Dry sandy soils in south Alabama, probably extending into lower middle. Mobile (Dr. Mohr), county—April, May.

9. **AMORPHA**, L. *False indigo*. SHRUBS.

A. herbacea, Walt. Middle Alabama, Lee (Mell), Russell (Dr. Neisler) counties.

A. fruticosa, L. *False indigo*—*Lead plant*. Tall shrub sometimes arborescent along banks of streams.—May, June. Montgomery (Mell), Mobile, Baldwin, Hale (Dr. Mohr), counties. Tennessee (Killebrew).

10. **PETALOSTEMON**, Michx. *Prairie clover*. PERENNIAL HERBS.

P. gracilis, Nutt. Sandy soils in south Alabama, Mobile, Baldwin (Dr. Mohr), counties. August.

P. carneum, Michx. Dry sandy soils in lower middle and south Alabama—Henry (Dr. Mohr), Dallas (Mell), counties.

P. candidens, Michx. Montgomery (Dr. Mohr), county.

P. carymbosum, Michx. *Virginian lupine*—*Silk, prairie clover*. Dry sandy soils in middle and south Alabama, Lee (Mell), Russell (Dr. Neisler), Mobile (Dr. Mohr) counties. It may also be found in north Alabama since Dr. Killebrew reports it as growing in Tennessee.

P. decumbens, Nutt. *Low prairie clover*. Northern portions of State. Franklin (Dr. Mohr), Jackson (Dr. E. A. Smith), counties.

P. violacens, Michx. Hale (Dr. Mohr), county.

11. **TEPHROSIA**, Pers. *Hoary pea*. PERENNIAL HERBS.

T. Virginiana, Pers. *Goats rue*. Common in all parts of the State—June, July.

T. spicata, Torr. and Gray. Dry Soils extending from north to south Alabama—June, July. Mobile, Baldwin, Monroe, Escambia, Clark, Washington (Dr. Mohr), Lee, Cullman (Mell), counties, extending into Tennessee (Killebrew).

T. hispidula, Pers. Dry sandy soils in south Alabama, June, July. Mobile (Dr. Mohr).

T. onobrychoides, Nutt. Pine barrens near Mobile (Dr. Mohr).

T. chrysophylla, Pursh. Sandy soils in south Alabama, Mobile, Baldwin (Dr. Mohr), counties.

T. ambigua, Curtis. Dry sandy soils in south Alabama, Mobile (Dr. Mohr).

12. **INDEGOFERA**, L. *Indigo*. HERBS OR SHRUBS.

I. Caroliniana, Walt. *Wild indigo*. Dry sandy soils in middle and southern Alabama—July, August. Lee, Montgomery (Mell), Russell (Dr. Neisler), Mobile (Dr. Mohr), counties.

13. **ROBINIA**, L. *Locust*. TREES OR SHRUBS.

R. pseudacacia, L. *Common locust, False acacia*. Common throughout middle and north Alabama—April, May. Wood valuable for lumber because of hardness and beautiful color.

14. **ACACIA**, Neck. MOSTLY TREES OR SHRUBS.

A. Farnesiana, Willd. *Opoponax*. Growing in waste places in the lower part of the State. Naturalized near Mobile (Dr. Mohr).

15. **WISTORIA**, Nutt. HARDY CLIMBERS.

W. frutescens, Poir. *Carolina kidney bean*. From Mobile westward and north in alluvial soils and along margins of swamps—Mobile, Baldwin, Monroe, Clark (Dr. Mohr) counties.

16. **ASTRAGALUS**, Tourn. *Milk vetch*. CHIEFLY HERBS.

A. Plattensis var *Tennesseensis*, Gray. Franklin (Dr. Mohr).

A. villosus, Michx. Dry sandy soils in middle and south Alabama—Lee (Mell), Russell (Dr. Neisler), Baldwin (Dr. Mohr) counties—extending into Tennessee (Killebrew).

17. **GLOTTIDIUM**, Des. ANNUAL.

G. Floridanum, DC. Damp soils in south Alabama. August—Mobile, Baldwin (Dr. Mohr).

18. **SESBANIA**, Pers. HERBS OR SHRUBS.

S. macrocarpa, Muhl. South Alabama—August, September—Mobile, Baldwin counties (Dr. Mohr).

19. **ÆSCHYNOMENE**, L. *Sensitive joint vetch*. HERBS OR SHRUBS.

Æ. hispida, Willd. Borders of swamps in south Alabama—August.

Æ. viscidula, Michx. South Alabama, in sandy soils—Mobile (Dr. Mohr).

20. **ZORNIA**, Gmel. PERENNIAL HERBS.

Z. tetraphylla, Michx. South and west Alabama, in dry sandy soils—June, August—Mobile, Baldwin (Dr. Mohr).

21. **DESMODIUM**, Des. *Tick, Trefoil*. PERENNIAL HERBS.

D. nudiflorum, DC. *Crowded leaved trefoil*. Rich soils in western Alabama—July, August.

D. acuminatum, DC. *Pointed Tick Trefoil*. Rich soils in shady places in nearly all portions of State—Lee, Macon, Montgomery (Mell), Russell (Dr. Neisler), Mobile, Cullman, Franklin (Dr. Mohr) counties—July, August.

D. pauciflorum, DC. *Few flowered tick trefoil*. From middle to north Alabama—August—Montgomery (Mell), Bibb (Dr. Mohr), extending into Tennessee (Killebrew); growing in rich woods soil.

D. rotundifolium, DC. *Round leaved tick trefoil*. In dry rocky woods soil from south to north Alabama—August—Lee, Montgomery (Mell), Russell (Dr. Neisler), Mobile, Baldwin, Autauga (Dr. Mohr) counties, extending into Tennessee (Killebrew).

D. glabellum, DC. (Resembles *D. Marilandica* and *D. paniculatum*)—Russell county (Dr. Neisler).

D. humifusum, Beck. Dry sandy soil in Russell (Dr. Neisler) and on Alpine mountain, Talladega (Dr. Mohr).

D. canescens, DC. Moist places in south, middle and north Alabama—July, August—Mobile, Talladega, Franklin (Dr. Mohr), Lee, Macon (Mell) counties.

D. cuspidatum, Torr. and Gray. *Sharp pointed tick trefoil*. Middle and north Alabama—Lee, Macon (Mell), Russell (Dr. Neisler), Calhoun (Dr. Mohr) counties, extending into Tennessee (Killebrew)—August.

D. lævigatum, DC. Middle and northeast Alabama—August—Russell (Dr. Neisler), Talladega (Dr. Mohr) counties.

D. viridiflorum, Beck. In dry rich soil in middle Alabama. Russell (Dr. Neisler), Lee (Mell), Montgomery (Dr. Mohr) counties.

D. Dillenii, Darl. In open woods from south Alabama to Tennessee. Mobile, Baldwin (Dr. Mohr), Lee (Mell), Tennessee (Killebrew)—August.

D. paniculatum, DC. *Smooth tick trefoil*. In shady places throughout Alabama—Mobile, Talladega (Dr. Mohr), Clay (Mell), extending into Tennessee (Killebrew)—August.

D. strictum, DC. *Stiff tick trefoil*. Pine barrens, from south to north Alabama—Mobile (Dr. Mohr), Russell (Dr. Neisler), Montgomery, Lee (Mell), extending into Tennessee (Killebrew)—July, September.

D. Canadense, DC. In north Alabama (Dr. Smith), extending into Tennessee (Killebrew).

D. rigidum, DC. Montgomery, Talladega, Calhoun (Dr. Mohr)—August.

D. ciliare, DC. Dry hills and sandy fields in most sections of the State—August—Mobile, Talladega (Dr. Mohr), Montgomery, Macon (Mell).

D. Marilandicum, Boott. Dry open woods soil in northeast Alabama—Talladega, Calhoun (Dr. Mohr), Clay, Randolph (Mell) counties. August.

D. lineatum, DC. South Alabama—August—Mobile, Baldwin (Dr. Mohr) counties.

D. tenuifolium, Torr. and Gray. Dry pine barren in south Alabama—July, August—Mobile, Baldwin, Monroe counties (Dr. Mohr).

22. **LESPEDEZA**, Michx. *Bush clover*. HERBS.

L. procumbens, Michx. (*L. repens* Bart.) *Creeping bush clover*. Extending throughout the State—August—Mobile, Cullman, Talladega, Morgan (Dr. Mohr), Lee, Macon, Clay (Mell), Russell (Dr. Neisler), found also in Tennessee (Killebrew).

L. polystachya, Michx. (*L. hirta*, Ell.) *Hairy bush clover*. Dry hill soils throughout most of the State—Mobile, Baldwin, Clark, Washington, Bibb, St. Clair, Calhoun (Dr. Mohr), Lee, Montgomery, Clay, Cullman (Mell), Russell (Dr. Neisler)—July, August.

L. violacea, Pers. *Purple bush clover*. Russell (Dr. Neisler)—July, September.

L. reticulata, Pers. (*L. violacea* var. *angustifolia* T. and G.) Generally distributed throughout the State—Mobile, Calhoun, Talladega, Madison (Dr. Mohr), Clay, Lee (Mell).

L. Stuvei, Nutt. *Downy bush clover*. In portions of North Alabama (Dr. Smith).

L. Stuvei, var. *Intermediæ*, Wat (*L. violacea* var. *sessiliflora* Man.) has about the same distribution as last.

L. capitata, Michx. *Round headed bush clover*. Dry sandy soils—Lee, Montgomery, Cullman (Mell), Russell (Dr. Neisler), Mobile, Clark, Washington, Autauga (Dr. Mohr) counties, extending into Tennessee—August.

L. striata, Hook and Arnott. An introduced species found in old fields throughout the State.

L. Nuttallii, Darl. Talladega (Dr. Mohr).

23. **STYLOSANTHES**, Sw. *Pencil flower*. LOW PERENNIAL HERBS.

S. elatior. Sandy soils, common everywhere—June, August.

24. **VICIA**, Tourn. *Vetch. Tare.* MOSTLY CLIMBING HERBS.

V. sativa, L. *Common vetch or tare.* An introduced species found in cultivated soil in south and middle Alabama—Lee (Mell), Mobile (Dr. Mohr).

V. hirsuta, Koch. Introduced in ballast near Mobile (Dr. Mohr)—April, May.

V. micrantha, Nutt. *Small flowered vetch.* Shady banks of streams in Wilcox county (Dr. Mohr)—April.

V. Caroliniana, Walt. *Carolina vetch.* Dry open woods soil in north Alabama—Cullman (Mell), Blount (Dr. Mohr)—April, May.

V. acutifolia, Ell. South Alabama—Mobile (Dr. Mohr), March, May.

V. Ludoviciana, Nutt. Southwest Alabama—Mobile (Dr. Mohr).

25. **LATHYRUS**, Tourn. *Everlasting pea—Bitter Vetch.* PERENNIAL HERBS.

L. venosus, Muhl. Shady banks throughout upper east Alabama, probably extending west—Lee, Clay (Mell), Russell (Dr. Neisler), Cullman (Dr. Mohr) counties—June, July.

26. **APIOS**, Boerh. *Ground nut—Wild Bean.* PERENNIAL HERB.

A. tuberosa, Mœnch. Growing near swamps from middle to northern Alabama—Lee, Macon (Mell), Russell (Dr. Neisler), Cullman, Winston, Madison (Dr. Mohr) counties, extending into Tennessee (Killebrew)—July, August.

27. **CENTROSEMA**. DC *Spurred butterfly pea.* TWINING PERENNIAL HERBS.

C. Virginianum, Benth. Dry sandy soil from Lee (Mell) and Russell (Dr. Neisler), Mobile, Baldwin (Dr. Mohr) counties. June, September.

28. **PHASEOLUS**. Tourn. *Kidney bean.* PROSTRATE OR TWINING HERBS.

P perennis, Walt. *Wild kidney bean*. In woods and along field margins from middle towards north Alabama. Lee, Tallapoosa, Clay (Mell), Russell (Dr. Neisler), Talladega (Dr. Mohr), extending into Tennessee (Killebrew).

29. **STROPHOSTYLES**, Ell. PROSTRATE OR TWINING HERBS.

S. angulosa, Ell. (*P. diversifolius* Pers and *P. helvolus* L). *Creeping kidney bean*. Sandy banks of streams from Mobile to Tennessee. June, September. Lee, Coosa (Mell), Baldwin, Mobile, Calhoun (Dr. Mohr), Russell (Dr. Neisler) counties, extending into Tennessee (Killebrew). June, September.

S peduncularis, Ell (*P. helvolus*, Man) sandy soils over the same territory as preceding. June, September.

30. **VIGNA**. Savi. TWINING HERBS.

V. glabra, Savi. Brackish marshes along coast. June, September. Mobile (Dr. Mohr).

31. **ERYTHRINA**, L. TREES, SHRUBS RARELY HERBS.

E. herbacea, *Coral plant*. Light sandy soils in lower middle and south Alabama—Macon (Mell), Russell (Dr. Neisler), Mobile, Clark, Monroe (Dr. Mohr) counties. April, May.

32. **CLITORIA**, L. *Butterfly pea*. PERENNIAL HERBS.

C. Mariana, L. Dry sandy soils. Lee, Macon (Mell), Russell (Dr. Neisler), Mobile, Baldwin, Monroe, Clark, Washington (Dr. Mohr) counties, extending into Tennessee (Killebrew). July, August.

33. **AMPHICARPEA**, Ell. *Hog peanut*. PERENNIAL HERBS.

A. monoica, Nutt. Rich moist soils throughout south, middle and northwest Alabama. Lee, Montgomery (Mell), Russell (Dr. Neisler), Mobile, Tuscaloosa (Dr. Mohr) counties, extending into Tennessee (Killebrew). August, September.

34. **GALACTIA**, P. Br. *Milk pea*. PROSTRATE AND TWINING HERBS.

G. glabella. Michx. *Smooth milk pea.* Extending throughout middle and probably into north Alabama, growing in sandy soils. July, August. Lee (Mell), Russell (Dr. Neisler), Autauga (Dr. Mohr) counties. Reported also from Tennessee (Killebrew).

G. pilosa. Ell. (*G. mollis*, Gray). Generally distributed over the State. July, September. Lee (Mell), Russell (Dr. Neisler), Mobile, Baldwin, Cullman (Dr. Mohr) counties.

G. sessiliflora. Torr & Gray. South Alabama, Mobile (Dr. Mohr). June, August.

35. **DIOCLEA.** Kunth. (*Dolichos*, L). TWINING SHRUB.

D. Boykinii. Benth. Hale county (Dr. Mohr).

36. **RHYNCHOSIA,** Lour. TWINING OR TRAILING PERENNIAL HERBS.

R. tomentosa. Hook & Arn. (*R. tomentosa* var *volubilis* (T. & G.) Dry soils in rolling pine lands of Mobile, Monroe, Washington, Cullman counties (Dr. Mohr).

R. erecta. DC (*R. tomentosa* var *erecta* T. & G.) Dry pine wood soils from middle Alabama south. Lee (Mell), Russell (Dr. Neisler), Mobile (Dr. Mohr) counties.

R. galactioides, Endl. Dry sandy soils in south Alabama. June. Mobile, Baldwin (Dr. Mohr).

R. minima, DC. Damp soils in extreme south Alabama. Mobile county (Dr. Mohr), July.

37. **CERCIS,** L. *Red bud—Judas tree.* TREES.

C. Canadensis, L. Generally distributed over the upper half of the State. Handsome tree with bright pink flowers early in February. Lee, Coosa, Clay, Tallapoosa, Talladega (Mell), Russell (Dr. Neisler), Cullman, Winston, Madison, Lauderdale, Morgan (Dr. Mohr) counties, extending into Tennessee (Killebrew).

38. **CASSIA,** Tourn. *Senna.* HERBS.

C. Marilandica, L. *Wild American senna.* Growing in the lower half of the State in rich soil—Mobile, Clark, Choctaw counties (Mohr)—August.

C. tora, L. (*C. obtusifolia*, L.). *Wild senna*. Extending over the State from south to north, along the banks of streams, Tennessee (Killebrew), Russell and Muscogee, Ga. (Dr. Neisler), Mobile (Dr. Mohr), Lee (Mell).

C. occidentalis, L. Introduced species in portions of middle and south Alabama. Lee (Mell), Russell (Dr. Neisler), Mobile, (Dr. Mohr).

C. chamæcrista, L. *Partridge pea*. Common in dry, barren soils in most sections of the State. Tennessee (Killebrew), Cullman, Lauderdale, Mobile, Baldwin (Dr. Mohr), Lee, Montgomery, Wilcox (Mell), Russell (Dr. Neisler).

C. nictitans, L. *Wild sensitive plant*. Rather common over the State, in sandy soils. Montgomery, Lee (Mell), Russell (Dr. Neisler), Mobile, Cullman (Dr. Mohr).

39. **GLEDITSCHIA**, L. *Honey locust*. THORNY TREES.

G. triacanthus, L. *Three thorned acacia*. Common throughout the State.

40. **NEPTUNIA**, Lourn. PERENNIAL HERBS.

N. lutea, Benth. Damp sandy soils along the coast—Mobile (Dr. Mohr)—June.

41. **DESMANTHUS**, Willd. HERBS OR SHRUBS.

D. brachylobus, Benth. In alluvial soils along streams, Mobile, Montgomery (Dr. Mohr).

42. **SCHRANKIA**. Willd. *Sensitive briar*. PERENNIAL PROSTRATE HERBS.

S. uncinata. Willd. Sandy soil. Lee county (Mell) June, August.

S. angustata. T. & G. *Narrow leaved sensitive briar*. From south to north Alabama. Mobile, Clark, Washington, Munroe, Callman (Dr. Mohr), Tennessee (Killebrew).

In addition to the species mentioned in the preceding list, the following may also exist in Alabama. The evidence in the possession of the author is not, however, positive enough to warrant their insertion in the list given :

Baptisia tinctoria, R. Br.—B. leucophæa, Nutt—B. microphylla, Nutt—Cladrastis tinctoria, Raf—Trifolium amphianthum, T. & G.—Medicago sativa L—Psoralea lupinellus, Michx—Indigofera letosepala, Nutt—Robinia viscosa Vent—R. hispida L—Astragalus plattensis, Nutt—A. Canadensis, L—A. glaber, Michx—A. obcordatus Ell—Lespedeza angustifolia, Ell—Lathyrus pusillus, Ell—Rhynchosia reniformis DC.—Gleditschia aquatica Marsh—Mimosa strigillosa T. & G.

ORDER 43. **ROSACEÆ.** (ROSE FAMILY).

1. **CHRYSOBALANUS, L.** LOW SHRUBS.

O. oblongifolius. Michx. Dry Sandy soils in south Alabama. May, June. Mobile, Monroe, Baldwin, Washington, Escambia, Choctaw counties (Dr. Mohr).

2. **PRUNUS.** Tourn. *Plum, Cherry.*

P. Americana. Marsh. *Wild yellow or red plum* Lee, Tallapoosa, (Mell), Clark, Cullman, Winston, Lauderdale (Dr. Mohr) counties. March, April.

P. maritima. Wang. *Beach plum.* Sea coast. Mobile. (Dr. Mohr).

P. umbellata. Ell. *Southern bullace plum. Sloe. Wild plum.* Tallapoosa, Montgomery (Mell), Baldwin, Mobile, Wilcox (Dr. Mohr), Russell (Dr. Neisler). February, March.

P. Chicasa. Mich. *Chickasaw plum.* Old fields. Marsh extending nearly over entire State.

P. serotina. Ehr. *Wild black cherry.* April, May. Lee, Macon, Tallapoosa (Mell), Russell (Dr. Neisler), Mobile, Clark, Blount, Cullman, Madison (Dr. Mohr).

P. Caroliniana, Ait. *Mock orange.* Lee, Macon (Mell), Russell (Dr. Neisler), Mobile, Pike (Dr. Mohr), an introduced species escaped from hedges.

3. **NEVIUSIA.** Gray. SHRUB.

N. Alabamensis. Gray. Growing in only one place in the State, near Tuscaloosa. It was discovered in 1857 by

Rev. R. D. Nevius, an Episcopal clergyman. It is a handsome plant with many showy flowers.

4. **SPIRÆA**, L. *Meadow sweet*. SHRUBS OR PERENNIAL HERBS.

S. aruncus, L. *Goats beard*. Growing in the northeast portions of State. June. Coosa (Mell), Cullman (Dr. Mohr).

5. **PHYSOCARPUS**, Maxim. *Nine bark*. SHRUBS.

P. opulifolius, Maxim. Tallapoosa, Coosa (Mell), Lauderdale (Dr. Mohr). April, May.

6. **GILLENIA**, Moench. *Indian physic*. PERENNIAL HERBS.

G. trifoliata, Moench. *Bowman's root*. Cullman, Madison, Autauga (Dr. Mohr). June.

G. stipulacea, Nutt. *American ipecac*. Mountains of Alabama. Coosa (Mell), Cullman (Dr. Mohr). June.

7. **RUBUS**, Tourn. *Bramble briar*. PERENNIAL HERBS.

R. occidentalis, L. *Black raspberry, thimbleberry*. Winston county (Dr. Mohr). May.

R. villosus, Ait. *Common or high blackberry*. Common everywhere.

R. hispidus, L. *Running swamp blackberry*. Along the flank of Lookout Mountain, DeKalb county (Dr. Mohr). May, June.

R. cuneifolius, Pursh. *Sand blackberry*. Lee, Montgomery (Mell), Monroe, Clark, Escambia, Tuscaloosa (Dr. Mohr).

R. trivialis, Michx. *Low bush blackberry*. Common in sandy soil everywhere. April.

8. **GEUM**, L. *Avens*. PERENNIAL HERBS.

G. album, Gmel. Borders of woods. Montgomery (Mell), Autauga, Tuscaloosa, Lauderdale, Cullman, Madison (Dr. Mohr). April, May.

9. **FRAGARIA**, Tourn. *Strawberry*. PERENNIAL HERBS.

F. Virginiana, Mill. *Wild strawberry*. Rich woods.

Lee, Macon, Russell (Mell), Lawrence, Franklin (Dr. Mohr).

F. Indica, L. Introduced in south Alabama—Baldwin, Mobile, Choctaw counties (Dr. Mohr).

10. **POTENTILLA**, L. *Cinque-foil, Five-finger barren strawberry.* HERBS OR SHRUBS.

P. Canadensis, L. Lee, Coosa, Montgomery (Mell), Tuscaloosa, Lawrence, Cullman (Dr. Mohr). July, August.

11. **AGRIMONIA**, Tourn. *Agrimony.* PERENNIAL HERBS.

A. Eupatoria, L. *Common agrimony*, (or *A. striata* Michx). Growing in Russell (Dr. Neisler), Tuscaloosa, Autauga, Cullman (Dr. Mohr). August.

A. parviflora, Ait. *Small flowered agrimony.* Tuscaloosa (Dr. Mohr), Coosa (Dr. Smith), Clay, Tallapoosa, Talladega (Mell). August.

A. incisa, T. & G. Dry open woods in south Alabama, Baldwin, Mobile (Dr. Mohr), Coffee (Mell). August.

12. **ROSA**, Tourn. *Rose.* PRICKLY SHRUBS.

R. setigera, Michx. *Climbing or prairie rose.* Morgan county (Dr. Mohr). June. Chapman reports this species growing in Florida along swamps. It should therefore be also found in south Alabama.

R. Carolina, L. *Swamp rose.* Madison, Franklin (Dr. Mohr). June.

R. humilis, Marshall. *Dwarf wild rose.* Talladega, St. Clair, Madison (Dr. Mohr), Lee, Coosa, Randolph (Mell), Russell (Dr. Neisler). May, June.

R. canina, L. *Dog rose.* Introduced near Mobile and naturalized (Dr. Mohr).

R. bracteata, Wend. Naturalized near Mobile (Dr. Mohr).

R. rubiginosa, L. *Sweet briar Eglantine.* Tuscaloosa county (Dr. Mohr).

R. lævigata, Michx. *Cherokee rose.* Found in many sections of middle and south Alabama.

13. **PYRUS**, L. *Pear, apple.* TREES OR SHRUBS.

P. coronaria, L. *American crab apple.* April. Lee, Tallapoosa (Mell), Russell (Dr. Neisler).

P. angustifolia, Ait. Lee, Montgomery, Macon (Mell), Mobile, Baldwin, Clark, Choctaw, Cullman, Jefferson, Tuscaloosa (Dr. Mohr) counties. April.

P. arbutifolia, L. f. *Red choke berry.* Lee (Mell), Russell and Muscogee, Ga. (Dr. Neisler). Growing in damp soils on borders of swamps.

P. arbutifolia, var. **erythrocarpa** Chap. *Choke berry.* Mobile, Baldwin, Cullman (Dr. Mohr) Tallapoosa, Clay (Mell).

14. **CRATÆGUS**, L. *Hawthorn, whitethorn.* THORNY TREES OR SHRUBS.

C. spathulata, Michx. *Spathula shaped leaved thorn.* Tallapoosa, Clay, Macon, Talladega (Mell), Choctaw, Autauga, Cullman, Morgan, Montgomery (Dr. Mohr) counties. April.

C. viridis, L. (*C. arborescens*, Ell). Mobile, Clark, Choctaw, Baldwin, Dallas, Hale, Wilcox counties (Dr. Mohr). March, April.

C. apiifolia, Michx. *Parsley leaved thorn.* Lee, Montgomery, Tallapoosa (Mell), Russell (Dr. Neisler), Baldwin, Mobile, Wilcox, Dallas, Tuscaloosa (Dr. Mohr). River swamps. March, April.

C. coccinea, L. Coosa, Clay, Talladega, Randolph (Mell), Montgomery, Tuscaloosa, Franklin, Madison (Dr. Mohr) counties. Open woods. April, May.

C. coccinea var **mollis**, T. & G. Clark, Cullman (Dr. Mohr) counties.

C. crus-galli, L. *Cockspur thorn, white thorn.* Montgomery, Macon, Tallapoosa (Mell), Cullman, Morgan, Franklin, Madison (Dr. Mohr). April, May.

C. æstivalis, T. & G. South Alabama. Mobile (Dr. Mohr). March, April.

C. flava, Ait. *Summer haw, yellow haw.* Clark (Mell), Baldwin, Monroe (Dr. Mohr) counties. May.

C. glandulosa, Michx. *Glandular thorn*. Mobile (Dr. Mohr).

C. parvifolia. Ait. *Dwarf thorn*. *Small-leaved thorn*. Sandy soil, Macon, Tallapoosa, Montgomery (Mell), Mobile, Clark, Cullman (Dr. Mohr). April—May.

15. **AMELANCHIER**, Medic. *June-berry*.

A. Canadensis T. & G. *Shadflower—Service-berry*. Quite common in nearly all sections of the State. February—March.

The following species of Rosaceæ have been also reported to the author as growing wild in the State, but the evidence is not strong enough to include them in the above list.

Prunus Virginiana L—*Cratægus tomentosa* L—*Cratægus punctata*, Jacq.

The following species mentioned in this bulletin are considered valuable for agricultural and commercial uses.

FORAGE PLANTS: *Crotalaria sagittalis*, *Trifolium pratense*, *T. repens*, *T. reflexum*, *T. procumbens*, *Melilotus officinalis*, *M. alba*, *Medicago lupulina*, *Astragalus plattensis* var *Tennesseeensis*, *Desmodium nudiflorum*, *D. pauciflorum*, *D. cuspidatum*, *D. paniculatum*, *D. Canadense*, *Lespedeza procumbens*, *L. violacea*, *L. Stuvei*, *L. polystachya*, *L. capitata*, *L. striata*, *Vicia sativa*, *V. Caroliniana*, *V. micrantha*, *Lathyrus venosus*, *Apios tuberosa* (root bears tubes which are eatable; hogs are fond of them). *Centrosema Virginianum*, *Strophostyles angulosa*, *Galactia glabella*, *G. pilosa* (excellent forage for cows). *Desmanthus brachylobus*.

ORNAMENTAL PLANTS: *Amorpha fruticosa*—leaves large, of a pleasant green color and beautifully pinnated. Flowers purple and singular in structure. *Wistaria frutescens*, *Erythrina herbacea*, *Cercis Canadensis*, *Prunus Caroliniana*, *Neviusia Alabamensis*, *Spiræa aruncus*, *Physocarpus opulifolius*, *Rosa setigera*, *R. lævigata*, *Cratægus spathulata*.

LUMBER AND CABINET WORK: *Robinia pseudacasia*, *Cercis Canadensis*, *pruna serotina*.

MEDICINAL and COMMERCIAL: *Indigofera Caroliniana* (indigo), *Cercis Canadensis* (dye wool of fine nankeen color), *Cassia Marilandica* (senna from leaves and pod), *Prunus serotina* (bark for tonic, &c.), *Agrimonia eupatoria* (with bismuth dyes wool beautiful color—a powerful astringent.)

FRUIT PLANTS: *Prunus Americana*, *P. maritima*, *P. chicasa*, *Rubus occidentalis*, *R. villosus*, *R. cuneifolius*, *Fragaria Virginiana*, *F. Indica*, *Pyrus coronaria*, *Cratægus coccinea*, *C. flava*, *C. glandulosa*.

HEDGE PLANTS: *Prunus Caroliniana*, *Cratægus apiifolia*, *C. crus-galli*.