

MEDICINAL PLANTS OF FLORIDA.*¹

BY ERNST T. STUHR.

With the establishment of the College of Pharmacy and the Department of Pharmacognosy at the University of Florida the first research problem which presented itself was a survey of the medicinal plants native to the state. This work was ably started by Fr. O Neill, the list of plants presented by him was studied and incorporated into this work.

The research undertaken was a comprehensive investigation of all the plants of Florida, which are now, or may be of medicinal value. This is a field which had not hitherto been investigated, wherefore the results are of marked interest, not only to Florida, but to pharmacognosists throughout the country. This investigation was conducted under the supervision of Dr. F. J. Bacon.

In order to make the material accessible to all interested parties it has been illustrated as completely as time would allow with pictures of the plants photographed in their native habitat, when possible.

The work consists of compilation, description and pharmacognostical analysis of the native medicinal plants. In order to make the list of medicinal plants in Florida more nearly complete, introduced and cultivated plants have been included.

The syllabus of classification has been arranged in close accordance with the system of Engler and Prantl.

The results obtained from covering the plant kingdom like a blanket is so voluminous, that it is impossible and an endless task to present the material in a more appropriate manner than a synopsis or summary of the compilation.

SYNOPSIS OF PLANTS.

American Indian Drug Plants, 80.	Medicinal Parasitic Plants and Allies, 9.
Dye Yielding Medicinal Plants, 16.	Medicinal Root and Root-Bark Plants, 131.
Exotic Plants Cultivated in Experimental Drug Garden, 38.	Medicinal Seeds and Fruits, 92.
Fixed Oil Yielding Drug Plants, 6.	Medicinal Trees and Shrubs, 115.
Plant Families Considered, 111.	Medicinal Woods, 7.
Illustrations, 153.	Official Medicinal Plants, 104.
Medicinal Barks, 61.	Plants Yielding Medicinal Exudations, 19.
Medicinal Flowers, 37.	Starch Bearing Medicinal Plants, 5.
Medicinal Leaves and Herbs, 161.	Volatile Oil Yielding Drug Plants, 26.
	Total Number of Plants Considered, 440.

SYLLABUS OF CLASSIFICATION.

Division I.

THALLOPHYTA.

AGARICACEÆ.

Amanita muscaria L.

Division II.

PTERIDOPHYTA.

OPHIOGLOSSACEÆ

Botrychium Virginianum (L.) Sweet.

POLYPODIACEÆ

Asplenium filix-femina (L.) Roth.

Adiantum Capillus-Veneris L.

OSMUNDACEÆ

Osmunda regalis L.

Division III.

SPERMATOPHYTA.

GYMNOSPERMÆ

A. Subdivision I.

* Scientific Section, A. PH. A., St. Louis meeting.

¹ A Thesis submitted to the Faculty of the Graduate School of the University of Florida, in partial fulfillment of the requirements for the degree of Master of Science in Pharmacy.

CYADACEÆ*Zamia integrifolia* Chapm.**PINACEÆ***Pinus palustris* Mill.*Pinus Taeda* L.*Thuja occidentalis* L.*Juniperus virginiana* L.**ANGIOSPERMÆ**B. *Subdivision II.***Monocotyledoneæ**

Class I.

GRAMINEÆ*Zea Mays* L.*Andropogon cirratus* DC.*Andropogon furcatus* Muhl.*Saccharum officinarum* L.*Oryza sativa* L.*Capriola Dactylon* (L) Kountz.*Agropyron repens* (L) Beauv.**PALMÆ***Serenoa serrulata* (Michx) Hook.*Cocos nucifera* L.**ARACEÆ***Acorus calamus* L.*Spathyema foetida* (L) Raf.*Arisaema Draconium* (L) Schott.*Arisaema triphyllum* (L) Schott.**XYRIDACEÆ***Xyris Caroliniana* Walt.**BROMELIACEÆ***Ananas sativa* Schult, f.**LILIACEÆ***Chamelirium luteum* (L) A. Gray.*Chrosperma muscaetoxicum* Ker.*Melanthium Virginicum* L.*Allium sativum* L.*Erythronium Americanum* Ker.*Asparagus officinalis* L.*Polygonatum bifolium* (Walt) Ell.*Medeola Virginica* L.*Trillium grandiflorum* (Michx) Salisb.*Smilax Pseudo-China* L.*Smilax Bona-Nox* L.*Smilax rotundifolia* L.**AMARYLLIDACEÆ***Agave Americana* L.*Manfreda Virginica* (L) Salisb.*Hypoxis hirsuta* (L) Conville.**DIOSCOREACEÆ***Dioscorea villosa* L.**IRIDACEÆ***Iris versicolor* L.*Iris caroliniana* Watson.**ORCHIDACEÆ***Vanilla planifolia* Andr.*Peramium pubescens* (Willd) Mac. M.*Corallorhiza multiflora* Nutt.*Corallorhiza odontorhiza* (Willd) Nutt.**Dicotyledoneæ**

Class II.

A. *Sub-class I. Archichlamydeæ***CASUARINACEÆ***Casuarina equisetifolia* L.**SAURURACEÆ***Saururus cernuus* L.**SALICACEÆ***Salix nigra* Marsh.**MYRICACEÆ***Myrica cerifera* (L) Small.*Myrica Carolinensis* Mill.**JUGLANDACEÆ***Juglans nigra* L.*Hicoria glabra* (Mill & Brit.)**BETULACEÆ***Ostrya Virginiana* Mill.*Betula lenta* L.*Alnus rugosa* (DuRoi) Koch.**FAGACEÆ***Fagus americana* Sweet.*Castanea pumila* (L) Mill.*Quercus alba* L.*Quercus virginiana* Mill.*Quercus velutina* Lam.**ULMACEÆ***Ulmus fulva* Michx.**MORACEÆ***Morus nigra* L.*Morus alba* L.*Morus rubra* L.*Ficus carica* L.*Humulus lupulus* L.**URTICACEÆ***Urticastrum divaricatum* (L) Ktze.**LORANTHACEÆ***Phoradendron flavescens* (Pursh) Nutt.**ARISTOLOCHOACEÆ***Aristolochia Serpentaria* L.**POLYGONACEÆ***Rumex crispus* L.*Rumex obtusifolius* L.*Rumex sanguineus* L.*Rumex acetosella* L.*Polygonum Virginianum* L.*Coccoloba Uvifera* (L) Jacq.**CHENOPODIACEÆ***Chenopodium ambrosoides* var. [■]anthelminticum (L) A. Gray.*Salicornia herbacea* L.*Salsola Kali* L.

PHYTOLACCACEÆ

- Phytolacca decandra* L.
Peiveria alliacea L.

PORTULACACEÆ

- Portulaca oleracea* L.

NYMPHAEACEÆ

- Brasenia purpurea* (Michx) Casp.
Nymphaea advena Soland.
Castalia odorata (Dryand) Woodv. & Wood.

RANUNCULACEÆ

- Actaea alba* (L.) Mill.
Delphinium consolida L.
Delphinium ajacis L.
Hepatica hepatica (L.) Karst.
Xanthorhiza aptifolia L. Her.

BERBERIDACEÆ

- Podophyllum peltatum* L.

MAGNOLIACEÆ

- Magnolia virginiana* L.
Magnolia Grandiflora L.
Lirodendron tulipifera L.
Illicium Floridanum Ell.
Illicium paviflorum Michx.

CALYCANTHACEÆ

- Butneria florida* (L.) Kearney.

ANONACEÆ

- Asimina triloba* (L.) Dunal.
Anona palustris L.
Anona squamosa L.

LAURACEÆ

- Cinnamomum cassia* L.
Cinnamomum camphor (L.) Ness & Eber.
Persea persea (L.) Cockerell.
Sassafras varifolium (Salisb) Ktze.
Lindera benzoin Blume.

PAPAVERACEÆ

- Sanguinaria canadensis* L.
Papaver somniferum L.
Argemone mexicana L.
Argemone alba Lestib.
Fumaria officinalis L.

CAPPARIDACEÆ

- Capparis cynophallophora* L.

CRUCIFERÆ

- Lepidium virginicum* L.
Coronopus coronopus (L.) Karst.
Brassica arvensis (L.) B. S. P.
Brassica nigra (L.) Koch.
Barbarea præcox (J. E. Smith) R. Br.

MORNINGACEÆ

- Moringa moringa* (L.) Millsp.

SARRACENIACEÆ

- Sarracenia purpurea* L.
Sarracenia flava L.
Sarracenia minor Walt.

DROSERACEÆ

- Drosera rotundifolia* L.

CRASSULACEÆ

- Penthorum sedoides* L.
Bryophyllum pinnatum (Lam) Kurz.

SAXIFRAGACEÆ

- Hydrangea arborescens* L.

HAMAMELIDACEÆ

- Liquidambar styraciflua* L.
Hamamelis virginiana L.

ROSACEÆ

- Rubus cuneifolius* Pursh.
Rubus trivalis Michx.
Rubus villosus A. Gray.
Prunus serotina Ehrh.
Prunus caroliniana (Mill) Ait.
Prunus americana Marsh.
Chrysobalanus Icaco L.

LEGUMINOSÆ

- Vachellia Farnesina* (L.) Wight & Arn.
Acuan illinoensis (Michx) Ktze.
Gleditsia triacanthos L.
Tamarindus Indica L.
Cassia occidentalis L.
Cassia Marylandica L.
Parkinsonia aculeata L.
Krameria secundiflora DC.
Cercis canadensis L.
Baptisia tinctoria (L.) R. Br.
Lupinus villosus Willd.
Indigofera anil L.
Ichthyomenchia piscipula (L.) Hitchcock.
Melilotus officinalis (L.) Lam.
Amorpha fruticosa L.
Cracca Virginiana L.
Stylosanthes biflora (L.) B. S. P.
Abrus precatorius L.

ZYGOPHYLLACEÆ

- Guaiacum sanctum* L.

RUTACEÆ

- Xanthoxylum Clava-Herculis* L.
Ruta graveolens L.
Ptelea trifoliata L.
Citrus medica L.
Citrus medica var. *Limonum* Risso.
Citrus Limetta Risso.
Citrus Aurantium L.
Citrus Aurantium var. *sinensis* L.

SIMARUBACEÆ

- Simaruba glauca* DC.
Ailanthus glandulosa Desf.
Bursera Simaruba (L.) Sarg.

MELIACEÆ

- Svietenia Mahagoni* Jacq.
Melia azedarach L.

POLYGALACEÆ

- Polygala polgama* Walt.
Polygala boykinii Nutt.

EUPHORBIACEÆ

- Phyllanthus Nieuri* L.
Mercurialis annus L.
Acalypha Virginica L.
Ricinus communis L.
Manihot Manihot (L.) Lyons.
Sapium sebiferum (L.) Roxb.
Hippomane mancinella L.
Stillingia sylvatica L.
Eupharbria corollata L.
Euphorbia prostrata Ait.
Euphorbia ipecacuanha L.
Euphorbia pilulifera L.

ANACARDIACEÆ

- Mangifera Indica* L.
Rhus Metopium L.
Rhus glabra L.
Rhus radicans L.
Rhus Toxicodendron L.
Rhus vernix L.
Rhus aromatica Ait.

AQUIFOLIACEÆ

- Ilex glabra* (L.) A. Gray.
Ilex verticillata (L.) A. Gray.
Ilex decidua Walt.
Ilex vomitoria Ait.
Ilex opaca Ait.

CELASTRACEÆ

- Euonymus atropurpureus* Jacq.

ACERACEÆ

- Acer rubrum* L.
Acer Negundo L.

SAPINDACEÆ

- Cardiospermum Halicacabum* L.
Sapindus saponaria L.
Sapindus marginatus Willd.

BALSAMINACEÆ

- Impatiens biflora* Walt.

RHAMNACEÆ

- Zizyphus sativa* Gaertn.
Rhamnus caroliniana Walt.
Ceanothus americanus L.
Colubrina reclinata (L. Her) Brongon.
Gouania Domingensis L.

VITACEÆ

- Parthenocissus quinquefolia* (L.) Planch.

MALVACEÆ

- Abutilon abutilon* (L.) Rusby.
Althea officinalis L.
Sida rhombifolia L.
Urena lobata L.
Hibiscus Rosa-sinensis L.
Hibiscus esculentus L.

- Gossypium herbaceum* L.

STERCULIACEÆ

- Waltheria americana* Lindl.

THEACEÆ

- Gordonia Lasianthus* (L.) Ellis.

HYPERICACEÆ

- Ascyrum hypericoides* L.
Hypericum maculatum Walt.
Sarothra gentianoides L.

CISTACEÆ

- Lechea villosa* Ell.

CANELLACEÆ

- Canella Winteriana* (L.) Gaertn.

VIOLACEÆ

- Viola pedata* L.

FLACOURTIACEÆ

- Taraktogenous Kurzii* King.

PASSIFOLIACEÆ

- Passiflora incarnata* L.
Passiflora lutea L.

PAPAYACEÆ

- Carica Papaya* L.

CACTACEÆ

- Cactus grandiflorus* L.

THYMELAEACEÆ

- Dircia palustris* L.

PUNICACEÆ

- Punica granatum* L.

RHIZOPHORACEÆ

- Rhizophora Mangle* L.

MYRTACEÆ

- Eucalyptus Globulus* Lab.

ONAGRACEÆ

- Isnardia palustris* L.
Oenothera biennis L.

ARALIACEÆ

- Aralia spinosa* L.
Panax quinquefolium L.

UMBELIFERÆ

- Hydrocotyle umbellata* L.
Hydrocotyle ranunculoides L. f.
Centella repanda (Pers) Small.
Eryngium aquaticum L.
Sanicula canadensis L.
Coriandrum sativum L.
Apium graveolens L.
Petroselinum sativum Hoffm.
Cicuta maculata L.
Ammi Visnaga L.
Carum carvi L.
Carum ajowan Bentley.
Sium cicutaeifolium J. F. Gmel.
Foeniculum vulgare Mill.
Anethium graveolens L.
Angelica villosa (Walt) B. S. P.

CORNACEÆ

- Cornus florida* L.
Cornus amomum Mill.

B. Sub-class II. *Metachlamydeæ***ERICACEÆ**

- Monotropa uniflora* L.
Hypopitys lanuginosa Michx.
Kalmia latifolia L.
Kalmia hirsuta L.
Oxydendrum arboreum (L) DC.
Pieris Mariana (L) Benth & Hook.

PRIMULACEÆ

- Anagallis arvensis* L.

PLUMBAGINACEÆ

- Plumbago scandens* L.
Limonium Brasiliense (Boiss) Small.

SAPOTACEÆ

- Sapota Achras* Mill.

EBENACEÆ

- Diospyros virginiana* L.

STYRACACEÆ

- Symplocos tinctoria* (L) L Her.

OLEACEÆ

- Fraxinus americana* L.
Chionanthus virginica L.
Olea europaea L.

LOGANIACEÆ

- Gelsemium sempervirens* (L) Ait.
Spigelia marilandica L.

GENTIANACEÆ

- Sabbatia angularis* (L) Pursh.
Sabbatia brachiata Eill.
Gentiana quinquefolia L.
Gentiana elliottii Chapm.
Gentiana saponaria L.

APOCYNACEÆ

- Thevetia Thevetia* (L) Millsp.
Apocynum cannabinum L.
Nerium Oleander L.

ASCLEPIADACEÆ

- Periploca Graeca* L.
Asclepias tuberosa L.
Asclepias curassavica L.

CONVOLULACEÆ

- Ipomoea pandurata* L.
Ipomoea hederacea (L) Jacq.

BORRAGINACEÆ

- Onosmodium virginianum* (L) DC.
Borrago officinalis L.

VERBENACEÆ

- Lantana Camara* L.
Verbena officinalis L.
Verbena urticaefolia L.
Verbena hastata L.
Callicarpa americana L.
Vitex Agnus-Castus L.

- Avicennia nitida* Jacq.

LABIATEÆ

- Rosmarinus officinalis* L.
Scutellaria lateriflora L.
Scutellaria integrifolia L.
Lavandula spica L.
Marrubium vulgare L.
Nepeta cataria L.
Stachys aspera Michx.
Salvia officinalis L.
Salvia horminum L.
Salvia scalrea L.
Monarda fistulosa L.
Monarda punctata L.
Hedeoma pulegioides L.
Melissa officinalis L.
Hyssopus officinalis L.
Satureia hortensis L.
Cunila organoides (L) Britton.
Koellia muica (Michx) Britton.
Origanum majorana L.
Thymus vulgaris L.
Lycopus virginicus L.
Mentha piperita L.
Mentha arvensis var. *piperascens* L.
Mentha spicata L.
Collinsonia Canadensis L.
Ocimum Basilicum L.

SOLANACEÆ

- Physalodes physalodes* (L) Britton.
Hyoscyamus niger L.
Capsicum frutescens L.
Capsicum annum L.
Solanum carolinense L.
Solanum Floridanum L.
Solanum tuberosum L.
Solanum nigrum L.
Datura stramonium L.
Datura Tatula L.
Datura Metal L.
Nicotiana Tabacum L.
Nicotiana rustica L.

SCROPHULARIACEÆ

- Verbascum thapsus* L.
Chelone glabra L.
Digitalis purpurea L.

BIGNONIACEÆ

- Bignonia crucigera* L.
Catalpa catalpa (L) Karst.

OROBANCHACEÆ

- Conopholis americana* (L. f.) Wallr.
Leptamnium virginianum (L) Raf.

ACANTHACEÆ

- Ruellia ciliosa* Pursh.

PLANTAGINACEÆ

- Plantago lanceolata* L.

RUBIACEÆ

Pincknegia pubens Michx.
Exostema Caribaeum (Jacq) R. & S.
Cephalanthus occidentalis L.
Randia aculeata L.
Chiococca racemosa L.
Coffea arabica L.
Mitchella repens L.
Morinda Rowe L.
Richardia scabra L.
Galium Aparine L.
Galium tinctorium L.
Galium triflorum Michx.
Rubia tinctorium L.

CAPRIFOLIACEÆ

Sambucus canadensis L.
Viburnum cassinoides L.
Viburnum prunifolium L.
Viburnum obovatum Walt.

CURCUBITACEÆ

Citrullus Citrullus (L) Small.
Cucurbita Pepo L.
Sicyos angulata L.

CAMPANULACEÆ

Lobelia cardinalis L.

COMPOSITÆ

Eupatorium aromaticum L.
Eupatorium verbenaeifolium Michx.
Eupatorium perfoliatum L.
Eupatorium purpureum L.
Conoclinium coelestinum (L) DC.
Solidago odora Ait.
Baccharis halimifolia L.
Pluchea camphorata (L) DC.

Chaenolobus undulatus (Walt) Small.
Gnaphalium obtusifolium L.
Polymnia Uvedalia L.
Parthenium Hysterophorus L.
Ambrosia trifida L.
Ambrosia elatior L.
Xanthium spinosum L.
Rudbeckia laciniata L.
Rudbeckia hirta L.
Brauneria purpurea (L) Brit.
Helianthus annuus L.
Helianthella tenuifolia Torr. & gr.
Bidens bipinnata L.
Helenium tennifolium L.
Helenium autumnale (L) Karst.
Achillea millifolium L.
Chrysanthemum cinerariaefolium L.
Artemesia gnaphalodes Mill.
Arnica acaulis (Walt) B. S. P.
Erechites hieracifolia (L) Raf.
Mesadenia atriplicifolia (L) Raf.
Senecio aureus L.
Senecio obovatus Muhl.
Calendula officinalis L.
Arcium lappa L.
Trilisa odoratissima (Walt) Cass.
Lacinaria scariosa (L) Hill.
Lacinaria spicata (L) Ktze.
Lacinaria squarrosa (L) Hill.
Carthamus tinctorius L.
Cichorium Intybus L.
Hieracium Gronovii L.
Nabalus serpentarius (Pursh) Hook.
Lactuca canadensis L.

THE DOCTRINE OF SIGNATURES.

An interesting article on the above subject by Prof. Leo. Suppau was printed in the June JOURNAL. In an address by Prof. W. E. Dixon, as one of the Chadwick Public Lectures, in London, the speaker stated that "plants came into existence on the earth myriads of years before animals, hence their excretions, their storage of food products and their vitamins were not elaborated in the interest of animals (including man) but for the plants' own benefit. Animals subsequently lived upon plants and thus made use of such products as were already formed in the plants. Sometimes both plants and animals formed substances or excretions of the same nature.

All vertebrate animals secrete adrenalin, while some plants elaborate similar substances such as ephedrine. Man learned the use of plant excretions, often alkaloidal in nature, through thousands of years of experiment on himself, and then only imperfectly. The 'Doctrine of Signatures' suggested that an all-beneficent Deity had stamped on plants, by some color or shape, a resemblance to a body organ, and hence our liverwort, heartsease, lungwort, etc. Rational treatment was much aided by the revelation that the human body elaborates its own drugs, stores them up, and gives them out to the tissues to meet the body needs."
