

**FLORA AND FAUNA**  
**OF**  
**BUCKS COUNTY**



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APPENDIX.

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# APPENDIX.

## FLORA.

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BOTANICAL  
GARDEN

AN ENUMERATION OF INDIGENOUS AND NATURALIZED PLANTS FOUND  
GROWING IN BUCKS COUNTY, PENNSYLVANIA.

BY I. S. MOYER, M. D., QUAKERTOWN, PA.

Although Bucks county is one of the oldest in the state, the author is not aware that an attempt has ever been made to catalogue her rich Flora. There is little doubt that some of the older botanists have collected within our borders. Bartram, Nuttall, Durand, Michaux, Schweinitz, and others, illustrious in botanical annals, have most probably visited portions of our territory, and described new species from typical specimens, first gathered from our soil. As an item of interest in this connection, Professor Porter, of Easton, has kindly furnished an extract from a letter of Zaccheus Collins (a distinguished botanist of Philadelphia, and in whose honor Nuttall has named a genus of Figworts (*Collinsia*) to the eminent botanist Muhlenberg, dated August 23d, 1813, "I was lately in Bucks county, about five miles north-west of Bristol, a spot very interesting to me botanically and geologically. Although my opportunity was transient from bad weather, I met with several plants for the first time, such as your *Malaxis-ophioglossoides*, *Woodsia-onschiodes*, *Orchis*, perhaps *incisa*, and here some years back I first recognized *Hydropeltis-purpurea*, *Crotonopsis-linearis*, Michx. and the only Pennsylvania spot known to me of *Arbutus-uva-ursi*. In fine the *Magnolias*, the glabrous *Prinos*, *Ilex*, etc., seemed involuntarily to transport me to Jersey." Botanical nomenclature has changed somewhat in sixty years, but the botanical student will have no difficulty in tracing these plants under their more recent names, in the catalogue. The plants collected by the veteran Collins, so many years ago, are still found in those haunts (save only the Bearberry), and they are some of the rarest treasures of our Flora. The diversified surface, varying soils, and marked differences in geological formation in different portions of the county combine to produce a rich and varied Flora, which compares favorably with that of any of the neighboring counties. The following is a brief summary of the more interesting botanical localities of the county. In the upper townships, especially in Milford, Richland, Rockhill, and Springfield, a series of bogs occur, in which many fine and peculiar plants are found. In Spring-

Presented by Dr. I. S. Moyer

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field, in the Flint hill range, an out-lying spur of the South mountain, are a succession of deep ravines, having generally a north-north-east direction. At the bottom of these ravines deep, cold bogs are met with, which if not genuine peat-bogs, approach very nearly to them in every essential character. There some rare plants appear not found elsewhere in the county. The Globe Flower, Cranberry, several fine orchids, Cotton Grass, and some rare sedges indicate the richness of the Flora. The extensive bogs south of Quakertown differ widely in character from those of Springfield. Several rare species occur here never seen in the peat-bogs, or elsewhere in our district. In Milford, along the headwaters of Swamp creek, are found low woods and swamps of a somewhat sandy nature, in which a number of forms are met with never discovered elsewhere. Round-leaved Violets, small flowered Lady's Slipper, Pendulous Pogonia, Hairy Wood Rush, and a rare *Glyceria* must suffice as examples. The rocky belt extending through the county from east to west, attaining in Haycock the considerable elevation of Haycock mountain, is known as the Trap rock region, but contrary to expectation this rough and rugged region has not proved very prolific in rare plants. A number of fine species are, however, restricted to this district. Prickly Ash, Round-leaved Gooseberry, Water Milfoil, and Pale *Corydalis* are examples. Buckingham mountain, although affording many fine plants, presents nothing peculiar except the beautiful *Sedum-ternatum*. Of the numerous streams of the county, two only, the Tohickon and Neshaminy, deserve mention in this summary. The Tohickon entering our northern border from Lehigh county, presents no points of interest until it enters the Trap rock region. In this portion of its course it becomes wild and picturesque, presenting much truly romantic scenery. Here many rare plants are met with. The Purple flowered Raspberry reddens its banks, and the White Water Lily floats in virgin beauty upon its bosom. The small yellow Pond Lily, another rarity, growing among it, affords a beautiful contrast of white and gold. I might enumerate many more, but we must hasten down the stream. Emerging from this region, the stream though less wild furnishes many a fine view of bold hill and rich meadow, until we reach the lower part of its course. In the vicinity of Long's mill, the scenery is magnificent, and continues so until the mouth of the stream is reached at Point Pleasant. American *Atragane*, Barren Strawberry, Beaked Hazel, Squirrel Corn, and Green Dragon may be mentioned among a host of things found only or chiefly along this stream. The Neshaminy, the most considerable stream in the county, is rather tame and uninteresting until after the union of its branches west of Doylestown. Just below Doylestown, the beautiful Lupine is found upon its banks. From this point southward until within seven or eight miles of its mouth, it has been little explored, and will doubtless well reward the botanists who will thoroughly investigate its botanical characters. The lower portions have been well examined by the Martindales, and many fine plants found, but not so distinct from neighboring regions as to need special mention. Some water plants, not hitherto detected in the county, will most probably be found in the middle and lower portions of this beautiful stream. It now remains to examine the chief botanical feature of the county, one that has contributed more than all others to round out the rich completeness of our Flora, namely the Delaware river region. This extensive river border, reaching from Durham to Bensalem, is one continuous surprise to one who had previously confined his herborizings to inland localities only. This exceptional richness is easily accounted for. We have here not only the sand and the rich alluvion, each with a vegetation of its own, but bold bluffs, rising in some places into towering and precipitous cliffs, presenting every variety of exposure, thus favoring a rich and varied vegetation. Here are also deep, shaded ravines, where "many a flower

is born to blush unseen," save by the prying eye of the botanist. Commencing at the northern border we soon arrive at the "Narrows," or "Nockamixon rocks." Of the grand natural scenery here we need not speak, for it is, or should be, well-known to every Bucks countian. This locality is the richest in the county, and has many plants peculiarly its own. It has long been a botanical Mecca to the Easton botanists, led by Professor T. C. Porter, of Lafayette college. Here are found the rare *Sedum-Rhodiola*, Canada Water Leaf, Canada Violet, Ginseng, Purple Trillium, and many more equally rare. Proceeding rapidly down the river, meeting many fine plants on the way, such as Harebell, American Bell Flower, Papaw, American Vetch, etc., etc., we reach Point Pleasant, another botanical centre. In this neighborhood a very rich Flora exists, certainly surpassed by no other district of equal area in the county. Among a multitude, we may mention Green Violet, Pencil Flower, Indian Plantain, Squarrose Solidago, Golden Corydalis, Leather Wood, Beaked and Cordate Willows, Silver Maple, etc. Southward from Point Pleasant we hasten, not pausing to note individual peculiarities by the way, until the vicinity of Bristol is reached, another botanical point of special interest. There we meet with a Flora differing in a marked degree from those hitherto noticed. Southern forms appear and the vegetation assumes much of the character of that of New Jersey. The influence of the tide is here also felt, and adds its peculiar character to the Flora. Much of interest might be written in regard to this district, but a want of space forbids. As plants characterizing this region, Magnolia, Clammy Azalea, White Alder, Stagger Bush, Rose Mallow, and Sweet Gum may be mentioned. At Andalusia, I. C. Martindale finds many rare plants, but the catalogue must be referred to for particulars. Having passed in rapid review the most interesting botanical districts of the county, we will now proceed to consider, equally briefly, the botanical features of the county as a whole. In studying the Flora of the county, one fact is at once apparent, namely, the great difference in the vegetation of the northern and southern portions. We find that upwards of ninety native plants have not been collected north of Yardleyville, and on the other hand about one hundred and fifty native plants have not been found south of that place. This interesting fact demonstrates that a line dividing the more distinctively northern from the southern species of Pennsylvania would pass through Bucks a little to the north of that point. Many northern forms seem to have their southern limits in our county, except as they extend further south in the mountains to the west of us. A few western plants have here their eastern limit, notably the Papaw, and narrow-leaved Horse Gentian. A small number of eastern plants also have here their western limit. A comparison of the catalogue with Gray's Manual will make these facts more apparent. The materials for the following catalogue have been collected by the author, and his botanical friends, in many a pleasant ramble over the hills and valleys of old Bucks. During a residence of ten years at Plumsteadville, and seven in Quakertown borough, opportunity has been given to explore, pretty thoroughly, the middle and upper districts, while occasional excursions have also been made to the lower districts. Efficient aid has been rendered in the preparation of the catalogue by Professor T. C. Porter, of Easton, and I. C. Martindale, of Camden, New Jersey, but formerly of Byberry, in Philadelphia. Other botanists have kindly aided in the work, and the author has been careful to give due credit in the body of the catalogue. All the plants of the list have been seen by the author, and every precaution taken to avoid mistakes in identification. Some of the more difficult species have been sent to botanical friends for corroboration. In arrangement and nomenclature the last edition of Gray's Manual has been followed. Although the number of species is gratifyingly large, the field is by no means exhausted. There is no

doubt that many more species remain to be discovered. Some sections have been very imperfectly explored, especially that portion of the county south of New Hope, and north of Morrisville. The catalogue is intended as a basis upon which the botanist may rely in his efforts to render the Flora still more complete. If this catalogue shall furnish a stimulus to the youths of Bucks county to prosecute more zealously the study of this delightful science, the author will feel amply rewarded for the time and labor spent in its preparation.

QUAKERTOWN, PA., June 24, 1876.

SUMMARY.

	Indigenous.	Naturalized.	Total.
Phaenogams, .....	952	171	1123
Cryptogams, .....	43	—	43
Whole number of species and varieties.			1166

NOTE.

The revision of the Catalogue of the wild plants of Bucks county was undertaken at the request of the author of this work.

A period of twenty-nine years has elapsed since the publication of the first catalogue by Dr. I. S. Moyer. During this period great changes have taken place in systematic botany. Many new species have been described. The Engler & Prantl's system of the sequence of orders and families and a new system of nomenclature have been adopted and accepted by the majority of working botanists.

The need therefore of a revision of our Bucks county plants was evident. Many new plants have been added to the Flora, while a few names have been omitted.

The species of *Crataegus* have been identified and arranged by C. S. Sargent, director of the Arnold Arboretum of Harvard University. Several of his new species are described from type specimens collected in the county and published by him in the Proceedings of the Philadelphia Academy of Natural Sciences.

The number of plants reported for the county have increased from 1162 in the former catalogue to 1581. Of this increase three species, *Tulipa sylvestris*, *Vicia villosa*, and *Allium carinatum* are new to the United States Flora.

The Flora of Pennsylvania has also been enriched by the addition of about 40 species from Bucks county.

Britton's Manual of the Flora of the Northern States and Canada, and Britton & Brown's Illustrated Flora, are referred to for descriptions and illustrations of the plants in this list.

Abbreviations:—(M. C.)—Moyer's Catalogue of the Flora of Bucks county; (P. Fl.)—Porter's Flora of Pennsylvania; (P. B. C.)—Philadelphia Botanical Club.

C. D. FRETZ, M. D.

SELLERSVILLE, PA., June 1, 1905.



# FLORA OF BUCKS COUNTY, PENNSYLVANIA.

## Subkingdom PTERIDOPHYTA.

### Order 1. FILICALES.

#### Family 1. Ophioglossaceae Presl.

- Ophioglossum vulgatum** L. Adder's-tongue. Durham, J. A. & H. F. Ruth; Solebury, Miss A. B. Williams; Tullytown, Joseph Crawford.  
**Botrychium obliquum** Muhl. Oblique-leaved Grape-fern. Rockhill.  
**Botrychium dissectum** Spreng. Cut-leaved Grape-fern. Rockhill.  
**Botrychium Virginianum** (L) Sw. Virginia Grape-fern. In rich woods.

#### Family 2. Osmundaceae R. Br.

- Osmunda regalis** L. Royal Fern. In marshy woods.  
**Osmunda cinnamomea** L. Cinnamon Fern. In wet places.  
**Osmunda Claytoniana** L. Clayton's Fern. In moist woods.

#### Family 3. Schizaeaceae Reichenb.

- Lygodium palmatum** (Bernh.) Sw. Climbing Fern. Near Newtown, Dr. Susan Parry; Yardley, L. L. Smith.

#### Family 4. Polypodiaceae R. Br.

- Polypodium vulgare** L. Polypody. Frequent on rocky banks.  
**Adiantum pedatum** L. Maiden-hair Fern. In rocky woods.  
**Pteridium aquilinum** (L.) Kuhn. Bracken. In sunny places.  
**Pellaea atropurpurea** (L.) Link. Purple-stemmed Cliff-brake. Nockamixon; Durham, J. A. & H. F. Ruth.  
**Cheilanthes lanosa** (Michx.) Watt. Hairy Lip-fern. Near Pipersville; Lumberville, (M. C.); Neshaminy, I. C. Martindale.  
**Woodwardia Virginica** (L.) J. E. Smith. Virginia Chain-fern. Bristol, Elias Diffenbaugh; Tullytown, Joseph Crawford.  
**Woodwardia areolata** (L.) Moore. Net-veined Chain-fern. Bristol, Elias Diffenbaugh; Tullytown, Joseph Crawford.  
**Asplenium platyneuron** (L) Oakes. Ebony Spleenwort. On rocks.  
**Asplenium Trichomanes** L. Maiden-hair Spleenwort. On rocks.  
**Asplenium Ruta-muraria** L. Wall Rue Spleenwort. Durham, J. A. & H. F. Ruth.  
**Asplenium acrostichoides** Sw. Silvery Spleenwort. Frequent in rich woods.  
**Asplenium Filix-foemina** (L) Bernh. Lady-fern. In woods.  
**Camptosorus rhizophyllus** (L.) Link. Walking Fern. Rockhill; Harr's dam; Argus; Nockamixon.  
**Polystichum acrostichoides** (Michx.) Schott. Christmas Fern. In woods and rocky places.

- Dryopteris Noveboracensis** (L.) A. Gray. New York Fern. In moist woods.  
**Dryopteris Thelypteris** (L.) A. Gray. Marsh Shield-fern. In wet meadows and marshes.  
**Dryopteris cristata** (L.) A. Gray. Crested Shield-fern. Bogs in Haycock, (M. C.).  
**Dryopteris Goldieana** (Hook.) A. Gray. Goldie's Fern. Bogs in Milford.  
**Dryopteris marginalis** (L.) A. Gray. Everygreen Wood-fern. In rocky woods.  
**Dryopteris spinulosa intermedia** (Muhl.) Underw. Spinulose Shield-fern. In rich woods, rare.  
**Phegopteris hexagonoptera** (Michx.) Fee. Broad Beech-fern. In dry woods.  
**Filix bulbifera** (L.) Underw. Bulblet Cystopteris. Nockamixon.  
**Filix fragilis** (L.) Underw. Brittle Fern. In moist woods.  
**Woodsia Ilvensis** (L.) R. Br. Rusty Woodsia. Nockamixon, Dr. T. C. Porter.  
**Woodsia obtusa** (Spreng.) Torr. Blunt-lobed Woodsia. Rocky banks.  
**Dennstaedtia punctilobula** (Michx.) Moore. Hay-scented Fern. In rich soil on hillsides.  
**Matteuccia Struthiopteris** (L.) Todaro. Ostrich Fern. Nockamixon.  
**Onoclea sensibilis** L. Sensitive Fern. In moist soil.

## Order 2. EUISETALES.

## Family 1. Equisetaceae Michx.

- Equisetum arvense** L. Field Horsetail. Sandy soil, common.  
**Equisetum sylvaticum** L. Wood Horsetail. Frequent in bogs, (M. C.).  
**Equisetum littorale** Kuehl. Shore Horsetail. Shores of the Delaware river at Point Pleasant.  
**Equisetum fluviatile** L. Swamp Horsetail. Bogs near Quakertown, (M. C.); Nockamixon, Benjamin Heritage; Penn Valley, Albrecht Jahn.  
**Equisetum hyemale** L. Scouring Rush. Wet banks along rivers.

## Order 3. LYCOPODIALES.

## Family 1. Lycopodiaceae Michx.

- Lycopodium lucidulum** Michx. Shining Club-moss. Buckingham swamp, (M. C.).  
**Lycopodium inundatum** L. Bog Club-moss. Tullytown.  
**Lycopodium alopecuroides** L. Fox-tail Club-moss. Tullytown.  
**Lycopodium obscurum** L. Ground Pine. Buckingham swamp, (M. C.).  
**Lycopodium clavatum** L. Running Pine. Milford, (M. C.).  
**Lycopodium complanatum** L. Trailing Christmas-green. Ridge Valley, Rockhill.

## Family 2. Selaginellaceae Underw.

- Selaginella rupestris** (L.) Spring. Rock Selaginella. On rocks at Point Pleasant and Nockamixon.  
**Selaginella apus** (L.) Spring. Creeping Selaginella. In moist and grassy places.

## Family 3. Isoetaceae Underw.

- Isoetes echinospora robusta** Engelm. Large Quillwort. Durham, J. A. & H. F. Ruth.

**Isoetes riparia** Engelm. River-bank Quillwort. Andalusia, I. C. Martindale; Tullytown, Prof. L. M. Underwood.

**Isoetes Dodgei** A. A. Eaton. Dodge's Quillwort. Point Pleasant, Dr. G. N. Best.

**Isoetes Engelmanni** A. Br. Engelmann's Quillwort. Sellersville; Riegelsville, E. A. Rau.

**Isoetes Engelmanni gracilis** Engelm. Slender Quillwort. Sellersville.

## Subkingdom SPERMATOPHYTA.

### Class 1. GYMNOSPERMAE.

#### Order 1. PINALES.

##### Family 1. Pinaceae Lindl.

**Pinus Strobus** L. White Pine. A few stations.

**Pinus Virginiana** Mill. Scrub Pine. Along the Delaware.

**Pinus rigida** Mill. Pitch Pine. In rocky soil, not common.

**Tsuga Canadensis** (L.) Carr. Hemlock. Sellersville; Bedminster; Nockamixon; Neshaminy, Dr. E. Newlin Williams.

**Chamaecyparis thyoides** (L.) B. S. P. Southern White Cedar. Bristol, I. C. Martindale.

**Juniperus communis** L. Juniper. In upper and middle townships.

**Juniperus Virginiana** L. Red Cedar. Common throughout.

##### Family 2. Taxaceae Lindl.

**Taxus Canadensis** Marsh. American Yew. Ground Hemlock. Nockamixon; Bedminster; Neshaminy, Doylestown, S. S. VanPelt.

### Class 2. ANGIOSPERMAE.

#### Sub-class 1. MONOCOTYLEDONES.

##### Order 1. PANDANALES.

##### Family 1. Typhaceae J. St. Hil.

**Typha latifolia** L. Broad-leaved Cat-tail. In marshes.

**Typha angustifolia** L. Narrow-leaved Cat-tail. In marshes.

##### Family 2. Sparganiaceae Agardh.

**Sparganium eurycarpum** Engelm. Large Bur-reed. In marshes.

**Sparganium androcladum** (Engelm.) Morong. Branching Bur-reed. In shallow water.

##### Order 2. NAIADALES.

##### Family 1. Naiadaceae Lindl.

**Potamogeton natans** L. Common Pondweed. In ponds and streams.

**Potamogeton amplifolius** Tuckerm. Large-leaved Pondweed. Argus; Sellersville.

- Potamogeton pulcher** Tuckerm. Spotted Pondweed. Bristol, A. F. K. Krout.  
**Potamogeton Nuttallii** Cham. & Sch. Nuttall's Pondweed. In streams in Trap-rock region.  
**Potamogeton lonchites** Tuckerm. Long-leaved Pondweed. Near Sellersville.  
**Potamogeton perfoliatus** L. Claspingleaved Pondweed. In ponds and streams.  
**Potamogeton crispus** L. Crisped Pondweed. Delaware river and Tohickon creek.  
**Potamogeton foliosus** Raf. Leafy Pondweed. Tohickon creek; Sellersville.  
**Potamogeton pusillus** L. Small Pondweed. Sellersville.  
**Potamogeton diversifolius** Raf. Rafinesque's Pondweed. In middle and upper districts.  
**Potamogeton Spirillus** Tuckerm. Spiral Pondweed. Rockhill.  
**Zannichellia palustris** L. Horned Pondweed. Andalusia, I. C. Martindale.  
**Naias flexilis** (Willd.) Rost. & Schmidt. Slender Naias. Tohickon creek; Delaware river; Branch creek at Sellersville.  
**Naias gracillima** (A. Br.) Morong. Thread-like Naias. Swamp near Bristol. Elias Diffenbaugh.

#### Family 2. Alismaceae DC.

- Alisma Plantago-acquatica** L. Water Plantain. Common.  
**Sagittaria latifolia** Willd. Broad-leaved Arrow-head. In shallow water, common.  
**Sagittaria latifolia pubescens** Muhl. Hairy Arrow-head. Sellersville; Doylestown.  
**Sagittaria rigida** Pursh. Sessile-fruited Arrow-head. Sellersville; Perkasio; Bristol, I. C. Martindale.  
**Sagittaria graminea** Michx. Grass-leaved Arrow-head. Bristol, (P. B. C.).  
**Sagittaria subulata** (L.) Buch. Subulate Arrow-head. Bristol, I. C. Martindale.  
**Sagittaria subulata gracillima** (S. Wats.) J. G. Smith. Bristol, Elias Diffenbaugh.

#### Family 3. Vallisneriaceae Dumort.

- Philotria Canadensis** (Michx.) Britton. Water-weed. Ponds and streams.  
**Philotria angustifolia** Muhl. Narrow-leaved Water-weed. Shores of Solliday's island Point Pleasant, Dr. N. L. Britton.  
**Vallisneria spiralis** L. Eel-grass. Tape-grass. In the Delaware.

#### Order 3. GRAMINALES.

##### Family 1. Gramineae Juss.

- Erianthus compactus** Nash. Contracted Plume-grass. Andalusia, I. C. Martindale.  
**Andropogon scoparius** Michx. Broom Beard-grass. Sandy fields.  
**Andropogon corymbosus** (Chapm.) Nash. Bushy Beard-grass. Swamp, Bristol.  
**Andropogon Virginicus** L. Virginia Beard-grass. Quakertown; Sellersville; Bristol; Upper Makefield, Dr. E. Newlin Williams.  
**Andropogon furcatus** Muhl. Forked Beard-grass. Dry soil.  
**Sorghastrum avenaceum** (Michx.) Nash. Indian Grass. Dry fields.  
**Sorghum Halepense** (L.) Pers. Johnson-grass. In the county according to Dr. Porter.  
**Paspalum laeve** Michx. Field Paspalum. In moist fields.  
**Paspalum circulare** Nash. Round-flowered Paspalum. Tullytown.  
**Paspalum setaceum** Michx. Slender Paspalum. In the county according to Dr. I. S. Moyer.

- Paspalum Muhlenbergii* Nash. Muhlenberg's Paspalum. Bristol; Penn Valley.
- Syntherisma filiformis* (L.) Nash. Slender Finger-grass. In dry soil.
- Syntherisma linearis* (Krock.) Nash. Small Crab-grass. In waste places.
- Syntherisma sanguinalis* (L.) Dulac. Large Crab-grass. Common.
- Echinochloa Crus-galli* (L.) Beauv. Barnyard Grass. A common weed.
- Panicum verrucosum* Muhl. Warty Panicum, Bristol, Dr. I. S. Moyer.
- Panicum capillare* L. Witch-grass. Tumble Weed. A weed in cultivated fields.
- Panicum Philadelphicum* Bernh. Wood Panicum. Nockamixon, Dr. Porter; Sellersville: Rockhill.
- Panicum proliferum* Lam. Spreading Panicum. In wet soil.
- Panicum virgatum* L. Tall Smooth Panicum. Along the Delaware, (M. C.).
- Panicum agrostoides* Spreng. Agrostis-like Panicum. Wet ground
- Panicum rostratum* Muhl. Beaked Panicum. Moist soil.
- Panicum depauperatum* Muhl. Starved Panicum. Dry places.
- Panicum linearifolium* Scribn. Narrow-leaved Panicum. Nockamixon, Dr. Porter; Perkasio.
- Panicum dichotomum* L. Forked Panicum. Thickets common.
- Panicum barbdatum* Michx. Barbed Panicum. Tullytown; Penn Valley.
- Panicum nitidum* Lam. Shining Panicum. Solliday's island.
- Panicum unciphyllum* Trin. Hairy Panicum. In dry soil.
- Panicum lanuginosum* Ell. Woolly Panicum. Rockhill.
- Panicum Scribnerianum* Nash. Scribner's Panicum. Solliday's island.
- Panicum xanthophysum* A. Gray. Slender Panicum. Tullytown, (P. Fl.).
- Panicum sphaerocarpon* Ell. Round-fruited Panicum. Bristol; Rockhill.
- Panicum polyanthes* Schult. Small-fruited Panicum. Point Pleasant.
- Panicum commutatum* Schult. Variable Panicum. Rockhill.
- Panicum macrocarpon* LeConte. Large-fruited Panicum. Rockhill.
- Panicum Porterianum* Nash. Porter's Panicum. Rockhill.
- Panicum pubifolium* Nash. Hairy-leaved Panicum. Durham, H. F. Ruth.
- Panicum clandestinum* L. Hispid Panicum. In thickets frequent.
- Panicum decoloratum* Nash. Purple Panicum Tullytown, E. P. Bicknell.
- Chaetochloa verticillata* (L.) Scribn. Fox-tail Grass. Bensalem township, I. C. Martindale.
- Chaetochloa glauca* (L.) Scribn. Yellow Fox-tail. A common weed.
- Chaetochloa viridis* (L.) Scribn. Green Fox-tail. Frequent.
- Chaetochloa Italica* (L.) Scribn. Indian Millet. Hungarian Grass. Sellersville; Perkasio.
- Cenchrus tribuloides* L. Bur-grass. Hedgehog Grass. Chiefly along the Delaware.
- Zizania aquatica* L. Indian Rice. Reed. Along the lower Delaware.
- Homalocenchrus Virginicus* (Willd.) Britton. White Grass. In wet places.
- Homalocenchrus oryzoides* (L.) Poll. Rice Cut-grass. In swamps and along streams.
- Phalaris arundinacea* L. Reed Canary-grass. In moist soil.
- Phalaris Canariensis* L. Canary-grass. Bensalem, I. C. Martindale; Sellersville.
- Anthoxanthum odoratum* L. Sweet Vernal-grass. In meadows.
- Aristida dichotoma* Michx. Poverty-grass. Dry sandy soil.
- Aristida gracilis* Ell. Slender Aristida. Dry Soil.
- Aristida purpurascens* Poir. Purplish Aristida. Near Point Pleasant, (M. C.).
- Stipa avenacea* L. Black Oat-grass. Andalusia, I. C. Martindale.
- Oryzopsis melanocarpa* Muhl. Mountain Rice. Rocky woods.
- Muhlenbergia sobolifera* (Muhl.) Trin. Rock Muhlenbergia. In rocky woods.

- Muhlenbergia Mexicana** (L.) Trin. Meadow Muhlenbergia. In swamps and fields.
- Muhlenbergia racemosa** (Michx.) B. S. P. Marsh Muhlenbergia. Durham, J. A. & H. F. Ruth.
- Muhlenbergia sylvatica** Torr. Wood Muhlenbergia. In moist woods and along streams.
- Muhlenbergia tenuiflora** (Willd.) B. S. P. Slender Muhlenbergia. In rocky woods.
- Muhlenbergia diffusa** Willd. Nimble Will. On dry hills and in woods.
- Brachyelytrum erectum** (Schreb.) Beauv. Brachyelytrum. In moist rocky woods.
- Heleochoa schoenoides** (L.) Host. Rush Cat-tail Grass. Bensalem, I. C. Martindale.
- Phleum pratense** L. Timothy. Herd-grass. In fields and meadows.
- Sporobolus longifolius** (Torr.) Wood. Long-leaved Rush grass. Riverbank Nockamixon, Dr. T. C. Porter.
- Sporobolus vaginaeflorus** (Torr.) Wood. Sheathed Rush-grass. In dry soil.
- Polypogon Monspeliensis** (L.) Desf. Beard-grass. In the county according to Dr Porter.
- Cinna arundinacea** L. Wood Reed-grass. In moist woods and swamps frequent.
- Agrostis alba** L. Red-top. Herd-grass. In fields and meadows.
- Agrostis perennans** (Walt.) Tuckerm. Thin-grass. In shaded, damp places.
- Agrostis hyemalis** (Walt.) B. S. P. Rough Hair-grass. In dry or moist soil.
- Calamagrostis Canadensis** (Michx.) Beauv. Blue Joint-grass. Durham, J. A. & H. F. Ruth.
- Calamagrostis cinnoides** (Muhl.) Scribn. Nuttall's Reed-grass. Durham, J. A. & H. F. Ruth.
- Holcus lanatus** L. Velvet-grass. Wet meadows common.
- Deschampsia caespitosa** (L.) Beauv. Tufted Hair-grass. Durham, J. A. & H. F. Ruth.
- Trisetum Pennsylvanicum** (L.) Beauv. Marsh False-oat. Bogs in Milford, (M. C.); Bensalem, I. C. Martindale.
- Arrhenatherum elatius** (L.) Beauv. Oat-grass. Langhorne, S. S. VanPelt.
- Danthonia spicata** (L.) Beauv. Wild Oat-grass. Dry soil.
- Capriola Dactylon** (L.) Kuntze. Bermuda-grass. Bristol, reported by Dr. Porter.
- Spartina cynosuroides** (L.) Willd. Tall Marsh-grass. Durham, J. A. & H. F. Ruth.
- Eleusine Indica** (L.) Gaertn. Wire-grass. Yard-grass. In yards and waste places common.
- Tricuspis seslerioides** (Michx.) Torr. Tall Red-top. In fields.
- Eragrostis capillaris** (L.) Nees. Hair-like Eragrostis. Durham, J. A. & H. F. Ruth.
- Eragrostis Frankii** Steud. Frank's Eragrostis. Durham, J. A. & H. F. Ruth.
- Eragrostis pilosa** (L.) Beauv. Tufted Eragrostis. In waste places.
- Eragrostis Purshii** Schrad. Pursh's Eragrostis. Durham, J. A. & H. F. Ruth; Nockamixon.
- Eragrostis Eragrostis** (L.) Karst. Low Eragrostis. Bensalem, I. C. Martindale.
- Eragrostis major** Host. Strong-scented Eragrostis. Along the Delaware.
- Eragrostis pectinacea** (Michx.) Steud. Purple Eragrostis. In lower end, I. C. Martindale.
- Eragrostis pectinacea spectabilis**. A. Gray. In dry, sandy soil.
- Eragrostis hypnoides** (Lam.) B. S. P. Creeping Eragrostis. Along the Delaware, (M. C.).
- Eatonia obtusata** (Michx.) A. Gray. Blunt-scaled Eatonia. Andalusia, I. C. Martindale.
- Eatonia Pennsylvanica** (DC.) A. Gray. Pennsylvania Eatonia. In hilly woods.

- Eatonia nitida* (Spreng.) Nash. Slender Eatonia. Ridge Valley; Argus; Durham, J. A. & H. F. Ruth.
- Uniola laxa* (L.) B. S. P. Slender Spike-grass. Near Bristol, I. C. Martindale.
- Dactylis glomerata* L. Orchard Grass. Frequent in fields.
- Poa annua* L. Low Spear-grass. In waste and cultivated places.
- Poa flava* L. False Red-top. Durham, J. A. & H. F. Ruth.
- Poa pratensis* L. Kentucky Blue-grass. In meadows, fields and woods.
- Poa trivialis* L. Roughish Meadow-grass. In meadows and waste grounds.
- Poa sylvestris* A. Gray. Sylvan Spear-grass. Nockamixon, Dr. A. P. Garber.
- Poa autumnalis* Muhl. Flexuous Spear-grass. Nockamixon.
- Poa brevifolia* Muhl. Short-leaved Spear-grass. Pipersville, Dr. I. S. Moyer; Nockamixon.
- Poa compressa* L. Wire-grass. In waste and cultivated grounds.
- Panicularia Canadensis* (Michx.) Kuntze. Rattlesnake-grass. Bogs near Quakertown, (M. C.); Bensalem, I. C. Martindale; Tullytown.
- Panicularia elongata* (Torr.) Kuntze. Long Manna-grass. Bogs in Milford, (M. C.).
- Panicularia nervata* (Willd.) Kuntze. Nerved Manna-grass. In wet places.
- Panicularia Americana* (Torr.) MacM. Reed Meadow-grass. Durham, J. A. & H. F. Ruth.
- Panicularia pallida* (Torr.) Kuntze. Pale Manna-grass. Near Quakertown, (M. C.); Bensalem, I. C. Martindale.
- Panicularia fluitans* (L.) Kuntze. Floating Manna-grass. In wet places.
- Panicularia acutiflora* (Torr.) Kuntze. Sharp-scaled Manna-grass. Tullytown, E. P. Bicknell; Lower end, I. C. Martindale.
- Festuca octoflora* Walt. Slender Fesque-grass. Sellersville; Tullytown; Andalusia, I. C. Martindale.
- Festuca Myuros* L. Rat-tail Fesque-grass. Rockhill, Dr. J. B. Brinton.
- Festuca ovina duriuscula* (L.) Hack. Sheep's Fesque-grass. Andalusia, I. C. Martindale.
- Festuca elatior* L. Tall Fesque-grass. In fields.
- Festuca nutans* Willd. Nodding Fesque-grass. Rocky woods.
- Bromus ciliatus* L. Fringed Brome-grass. Quakertown; Rockhill.
- Bromus tectorum* L. Downy Brome-grass. Bristol; Tullytown; Sellersville.
- Bromus sterilis* L. Barren Brome-grass. Near Sellersville.
- Bromus Kalmii* A. Gray. Kalm's Chess. Sellersville.
- Bromus secalinus* L. Cheat. Chess. In fields and waste places.
- Bromus racemosus* L. Upright Chess. In waste places common.
- Lolium perenne* L. Rye-grass. Darnel. In waste grounds.
- Agropyron repens* (L.) Beauv. Couch-grass. In fields and waste places.
- Hordeum nodosum* L. Meadow Barley. Perkasio, Frank L. Bassett.
- Hordeum jubatum* L. Squirrel-tail Grass. Quakertown, Frank Ball; Telford.
- Elymus Virginicus* L. Virginia Wild Rye. Along streams.
- Elymus Canadensis* L. Nodding Wild Rye. Along river banks.
- Hystrix Hystrix* (L.) Millsp. Bottle-brush Grass. In rocky woods.

## Family 2. Cyperaceae J. St. Hil.

- Cyperus flavescens* L. Yellow Cyperus. Near Bristol, I. C. Martindale.
- Cyperus diandrus* Torr. Low Cyperus. In wet places.
- Cyperus rivularis* Kunth. Shining Cyperus. In wet soil.

- Cyperus inflexus* Muhl. Awned Cyperus. Point Pleasant.  
*Cyperus dentatus* Torr. Toothed Cyperus. Point Pleasant; Durham, J. A. & H. F. Ruth.  
*Cyperus esculentus* L. Yellow Nut-grass. In moist fields.  
*Cyperus strigosus* L. Straw-colored Cyperus. Meadows.  
*Cyperus strigosus robustior* Kunth. Large straw-colored Cyperus. Bristol.  
*Cyperus Lancastriensis* Porter. Lancaster Cyperus Tullytown.  
*Cyperus ovularis* (Michx) Torr. Globose Cyperus. Tullytown.  
*Cyperus filiculmis* Vahl. Slender Cyperus. Point Pleasant.  
*Dulichium arundinaceum* (L.) Britton. Dulichium. In wet places.  
*Eleocharis obtusa* Schult. Ovoid Spike-rush. Wet soil.  
*Eleocharis Engelmanni* Steud. Engelmann's Spike-rush. Durham, J. A. & H. F. Ruth; Near Sellersville.  
*Eleocharis palustris* (L.) R. & S. Creeping Spike-rush. In swamps and marshes.  
*Eleocharis glaucescens* (Willd.) Schult. Pale Spike-rush. Sellersville.  
*Eleocharis acicularis* (L.) R. & S. Needle Spike-rush. In wet soil.  
*Eleocharis tenuis* (Willd.) Schult. Slender Spike-rush. Frequent in wet places.  
*Eleocharis acuminata* (Muhl.) Nees. Flat-stemmed Spike-rush. Near Sellersville.  
*Eleocharis intermedia* (Muhl.) Schult. Matted Spike-rush. Near Point Pleasant, Dr. I. S. Moyer.  
*Stenophyllus capillaris* (L.) Britton. Hair-like Stenophyllus. In dry or moist soil.  
*Fimbristylis autumnalis* (L.) R. & S. Slender Fimbristylis. In moist sandy soil.  
*Scirpus planifolius* Muhl. Wood. Wood Club-rush. In rocky woods.  
*Scirpus debilis* Pursh. Weak Club-rush. In streams.  
*Scirpus Americanus* Pers. Three-square Club-rush. Along the Delaware.  
*Scirpus lacustris* L. Great Bulrush. In ponds and swamps.  
*Scirpus sylvaticus* L. Wood Bulrush. Durham, J. A. & H. F. Ruth.  
*Scirpus atrovirens* Muhl. Dark-green Bulrush. In swamps.  
*Scirpus rubrotinctus* Fernald. Small-fruited Bulrush. Penn Valley, E. P. Bicknell.  
*Scirpus polyphyllus* Vahl. Leafy Bulrush. In meadows and swamps.  
*Scirpus cyperinus* (L.) Kunth. Wool-grass. In swamps.  
*Eriophorum gracile* Koch. Slender Cotton-grass. In bogs.  
*Eriophorum Virginicum* L. Virginia Cotton-grass. Springfield; Penn Valley.  
*Hemicarpha micrantha* (Vahl) Britton. Hemicarpha. Point Pleasant.  
*Rynchospora alba* (L.) Vahl. White Beaked-rush. Springfield; Penn Valley.  
*Rynchospora glomerata* (L.) Vahl. Common Beaked-rush. In wet soil.  
*Rynchospora cymosa* Ell. Grass-like Beaked-rush. Bristol, (P. Fl.); Tullytown, C. F. Saunders.  
*Scleria triglomerata* Michx. Tall Nut-rush. Nockamixon.  
*Scleria reticularis pubescens* Britton. Reticulated Nut-rush. Tullytown, C. F. Saunders.  
*Scleria Torreyana* Walp. Torrey's Nut-rush. Tullytown; Bristol.  
*Scleria pauciflora* Muhl. Papillose Nut-rush. Durham, J. A. & H. F. Ruth.  
*Carex folliculata* L. Long Sedge. Swamp, Bristol.  
*Carex intumescens* Rudge. Bladder Sedge. Frequent in bogs.  
*Carex lupulina* Muhl. Hop Sedge. In swamps and ditches.  
*Carex lupuliformis* Sartwell. Hop-like Sedge. Bristol; Nockamixon, Joseph Crawford.  
*Carex utriculata* Boott. Bottle Sedge. Penn Valley.  
*Carex monile* Tuckerm. Necklace Sedge. Sellersville; Nockamixon, Charles D. Lipincott.



- Carex bullata* Schk. Button Sedge. In swampy meadow, Bristol.
- Carex retrorsa* Schwein. Retrorse Sedge. In the county according to Dr. Porter.
- Carex lurida* Wahl. Sallow Sedge. In wet meadows.
- Carex lurida flaccida* Bailey. Flaccid Sedge. Argus.
- Carex lurida parvula* (Paine) Bailey. Small Sedge. Argus.
- Carex hystricina* Muhl. Porcupine Sedge. In low meadows.
- Carex comosa* Boott. Bristly Sedge. Springfield, Quakertown, (M. C.); Argus; Penn Valley.
- Carex squarrosa* L. Squarrose Sedge. Frequent in swamps.
- Carex trichocarpa* Muhl. Hairy-fruited Sedge. Quakertown, (M. C.); Sellersville; Penn Valley, Joseph Crawford; Nockamixon, Benjamin Heritage; Glenlake, Albrecht Jahn.
- Carex riparia* Curtis. River-bank Sedge. Quakertown, Springfield, (M. C.); Argus, Joseph Crawford.
- Carex scabrata* Schwein. Rough Sedge. Near Quakertown; Argus.
- Carex vestita* Willd. Velvet Sedge. Quakertown, (M. C.); Point Pleasant; Bristol; Penn Valley, Joseph Crawford.
- Carex lanuginosa* Michx. Woolly Sedge. In wet meadows.
- Carex filiformis* L. Slender Sedge. Tullytown.
- Carex fusca* All. Brown Sedge. Bedminster; Sellersville.
- Carex stricta* Lam. Tussock Sedge. In bogs.
- Carex stricta angustata* (Boott) Bailey. Tullytown, E. P. Bicknell.
- Carex Haydeni* Dewey. Hayden's Sedge. Bedminster; Sellersville.
- Carex Goodenovii* J. Gay. Goodenough's Sedge. Penn Valley, Joseph Crawford.
- Carex torta* Boott. Twisted Sedge. Sellersville; Argus; Deep Run.
- Carex prasina* Wahl. Drooping Sedge. Along streams.
- Carex limosa* L. Mud Sedge. Boggy meadow near Rockhill.
- Carex crinita* Lam. Fringed Sedge. In wet woods.
- Carex virescens* Muhl. Downy Green Sedge. In woods and thickets.
- Carex costellata* Britton. Ribbed Sedge. Near Sellersville.
- Carex triceps* Michx. Hirsute Sedge. In fields and swamps.
- Carex Caroliniana* Schwein. Carolina Sedge. Nockamixon, Charles D. Lippincott.
- Carex gracillima* Schwein. Graceful Sedge. In wet woods.
- Carex Davisii* Schwein & Torr. Davis' Sedge. Pipersville, (M. C.); Nockamixon, Joseph Crawford.
- Carex longirostris* Torr. Long-beaked Sedge. Nockamixon; Durham.
- Carex arctata* Boott. Drooping Wood Sedge. Penn Valley, Joseph Crawford.
- Carex tenuis* Rudge. Slender-stalked Sedge. In moist woods.
- Carex grisea* Wahl. Gray Sedge. In woods and thickets.
- Carex amphibola* Steud. Narrow-leaved Sedge. Sellersville.
- Carex glaucoidea* Tuckerm. Glaucous Sedge. Argus; Tullytown; Joseph Crawford.
- Carex granularis* Muhl. Meadow Sedge. Rockhill; Sellersville; Tullytown, Joseph Crawford.
- Carex pallescens* L. Pale Sedge. Penn Valley, Joseph Crawford.
- Carex conoidea* Schk. Field Sedge. In the upper townships.
- Carex oligocarpa* Schk. Few-fruited Sedge. Near Sellersville.
- Carex Hitchcockiana* Dewey. Hitchcock's Sedge. Nockamixon, Benjamin Heritage; Pencoyd, Miss. E. L. Tenbrook.
- Carex polymorpha* Muhl. Variable Sedge. Opposite Trenton, (M. C.); Nockamixon, Benjamin Heritage.

- Carex tetanica* Schk. Wood's Sedge. Frequent in the upper end.  
*Carex Meadii* Dewey. Mead's Sedge. Argus, Dr. T. C. Porter; Sellersville.  
*Carex laxiflora* Lam. Loose-flowered Sedge. In meadows and thickets.  
*Carex laxiflora blanda* (Dewey) Boott. Smooth Sedge. Rockhill.  
*Carex laxiflora varians* Bailey. Nockamixon, Charles D. Lippincott.  
*Carex laxiflora patulifolia* (Dewey) Carey. Argus, Joseph Crawford.  
*Carex styloflexa* Buckley. Bent Sedge. Near Sellersville.  
*Carex digitalis* Willd. Slender Wood Sedge. Bensalem, I. C. Martindale; Rockhill; Argus, Joseph Crawford.  
*Carex Alburnina* Sheldon. White Bear Sedge. Nockamixon, Dr. T. C. Porter; Sellersville.  
*Carex plantaginea* Lam. Plantain-leaved Sedge. Nockamixon to Point Pleasant, (M. C.).  
*Carex laxiculmis* Schwein. Spreading Sedge. In the upper end, (M. C.); Penn Valley, Joseph Crawford; Woodbourne.  
*Carex ptychocarpa* Steud. Thicket Sedge. Bristol; Tullytown, Joseph Crawford; Glen Lake.  
*Carex platyphylla* Carey. Broad-leaved Sedge. Haycock, (M. C.); Nockamixon, Dr. T. C. Porter.  
*Carex pedunculata* Muhl. Long-stalked Sedge. Quakertown, (M.C.).  
*Carex pedicellata* (Dewey) Britton. Fibrous-rooted Sedge. Durham; Rockhill township.  
*Carex Pennsylvanica* Lam. Pennsylvania Sedge. In dry soil.  
*Carex varia* Muhl. Emmons' Sedge. Argus, Tullytown, Joseph Crawford; Sellersville; Perkasio.  
*Carex albicans* Willd. Whitish Sedge. Tullytown, E. P. Bicknell.  
*Carex nigro-marginata* Schwein. Black-edged Sedge. Durham, J. A. & H. F. Ruth.  
*Carex umbrellata* Schka. Umbel-like Sedge. Nockamixon, Dr. T. C. Porter; Argus, Penn Valley, Joseph Crawford.  
*Carex pubescens* Muhl. Pubescent Sedge. Quakertown; Durham; Argus, Penn Valley, Joseph Crawford.  
*Carex Willdenovii* Schk. Willdenow's Sedge. Sellersville; Nockamixon, Dr. T. C. Porter.  
*Carex leptalea* Wahl. Bristle-stalked Sedge. In bogs and swamps.  
*Carex stipata* Muhl. Awl-fruited Sedge. In wet meadows.  
*Carex vulpinoidea* Michx. Fox Sedge. In wet meadows.  
*Carex xanthocarpa* Bicknell. Yellow-fruited Sedge. In fields.  
*Carex xanthocarpa annectens* Bicknell. Small Yellow-fruited Sedge. Tullytown, E. P. Bicknell; Perkasio.  
*Carex rosea* Schk. Stellate Sedge. In thickets.  
*Carex rosea radiata* Dewey. Radiate Sedge. Argus; Sellersville; Penn Valley, Joseph Crawford.  
*Carex retroflexa* Muhl. Reflexed Sedge. Rockhill.  
*Carex sparganioides* Muhl. Bur-reed Sedge. Rockhill, Harr's dam; Nockamixon, Benjamin Heritage.  
*Carex cephaloidea* Dewey. Thin-leaved Sedge. Rockhill, Dr. J. B. Brinton.  
*Carex cephalophora* Muhl. Oval-headed Sedge. In dry fields.  
*Carex Muhlenbergii* Schk. Muhlenberg's Sedge. Frequent on hills.  
*Carex Muhlenbergii Xalapensis* (Kunth) Britton. Nerveless Sedge. Nockamixon, Dr. Porter; Point Pleasant; Rockhill.  
*Carex sterilis* Willd. Little Prickly Sedge. In swamps.

- Carex Atlantica* Bailey. Eastern Sedge. Tullytown.  
*Carex interior* Bailey. Inland Sedge. Argus.  
*Carex canescens* L. Silvery Sedge. Andalusia, I. C. Martindale; Bristol; Glenlake.  
*Carex bromoides* Schk. Brome-like Sedge. Common in bogs.  
*Carex tribuloides* Wahl. Blunt Broom Sedge. In meadows.  
*Carex tribuloides Bebbii* Bailey. Bebb's Broom Sedge. Sellersville.  
*Carex scoparia* Schk. Pointed Broom Sedge. On moist ground.  
*Carex cristatella* Britton. Crested Sedge. Quakertown, Sellersville.  
*Carex foenea* Willd. Hay Sedge. Penn Valley, Tullytown, Joseph Crawford.  
*Carex straminea* Willd. Straw Sedge. In dry fields.  
*Carex straminea mirabilis* (Dewey) Tuckerm. Green Straw Sedge. Near Sellersville.  
*Carex tenera* Dewey. Marsh Straw Sedge. Sellersville; Tullytown; Quakertown, I. C. Martindale; Langhorne.  
*Carex festucacea* Willd. Fesque Sedge. Point Pleasant; Penn Valley.  
*Carex alata* Torr. Broad-winger Sedge. Bristol; Tullytown.

## Order 4. ARALES.

## Family 1. Araceae Neck.

- Arisaema triphyllum* (L.) Torr. Indian Turnip. Jack-in-the-pulpit. Common in moist woods.  
*Arisaema pusillum* (Peck) Nash. Small Indian Turnip. Turkey Hill, Joseph Crawford.  
*Arisaema Dracontium* (L.) Schott. Green Dragon. Along streams.  
*Peltandra Virginica* (L.) Kunth. Green Arrow-arum. Bensalem; Bristol.  
*Spathyema foetida* (L.) Raf. Skunk Cabbage. In wet meadows.  
*Orontium aquaticum* L. Golden Club. In swamps and ponds.  
*Acorus Calamus* L. Sweet Flag. Calamus. In swampy meadows.

## Family 2. Lemnaceae Dumort.

- Spirodela polyrhiza* (L.) Schleid. Greater Duckweed. In water.  
*Lemna trisulca* L. Ivy-leaved Duckweed. In water, Ridge Valley.  
*Lemna minor* L. Lesser Duckweed. Point Pleasant; Tullytown.  
*Wolffia Columbiana* Karst. Columbia Wolffia. On pond at Bristol, A. F. K. Krout and Joseph Crawford.

## Order 5. XYRIDALES.

## Family 1. Xyridaceae Lindl.

- Xyris flexuosa* Muhl. Yellow-eyed Grass. Springfield; Tullytown; Bristol, I. C. Martindale, Glenlake.

## Family 2. Eriocaulaceae Lindl.

- Eriocaulon septangulare* With. Pipewort. Bristol, I. C. Martindale.  
*Eriocaulon Parkeri* Rob. Andalusia, Stewardson Brown.

## Family 3. Commelinaceae Reichenb.

- Commelina communis* L. Asiatic Day-flower. Sellersville; Tullytown.  
*Tradescantia Virginiana* L. Spiderwort. Near Point Pleasant.

## Family 4. Pontederiaceae Dumort.

- Pontederia cordata* L. Pickerel-weed. In ponds and streams.  
*Heteranthera reniformis* R. & P. Mud-Plantain. In shallow water.  
*Heteranthera dubia* (Jacq.) MacM. Water Star-grass. In still water.

## Order 6. LILIALES.

## Family 1. Juncaceae Vent.

- Juncus effusus* L. Common Rush. In swamps throughout.  
*Juncus bufonius* L. Toad Rush. On dry soil.  
*Juncus tenuis* Willd. Slender Rush. In dry or moist soil.  
*Juncus secundus* Beauv. Secund Rush. Sellersville.  
*Juncus dichotomus* Ell. Forked Rush. Tullytown; Point Pleasant; Bristol, Elias  
 Diffenbaugh.  
*Juncus marginatus* Rostk. Margined Rush. Grassy places.  
*Juncus nodosus* L. Knotted Rush. Point Pleasant.  
*Juncus scirpoides* Lam. Scirpus-like Rush. Neshaminy, I. C. Martindale.  
*Juncus Canadensis* J. Gay. Canada Rush. In wet places.  
*Juncus Canadensis subcaudatus* Engelm. Durham, J. A. & H. F. Ruth.  
*Juncus acuminatus* Michx. Sharp-fruited Rush. Wet meadows.  
*Juncus acuminatus debilis* (A. Gray) Engelm. Pointed Rush. Opposite Trenton.  
*Juncoides pilosum* (L.) Kuntze. Hairy Wood-rush. Milford; Argus.  
*Juncoides campestre* (L.) Kuntze. Common Wood-rush. In woodlands.

## Family 2. Melanthaceae R. Br.

- Chamaelirium luteum* (L.) A. Gray. Blazing-star. Plumsteadville, (M. C.); Rock-  
 hill; Bycot, Albrecht Jahn.  
*Chrosperma muscaetoxicum* (Walt.) Kuntze. Fly-poison. Bensalem, I. C. Martin-  
 dale; Tullytown, Charles S. Williamson.  
*Melanthium Virginicum* L. Bunch-flower. Bristol.  
*Melanthium latifolium* Desr. Crisped Bunch-flower. Rockhill; Argus.  
*Veratrum viride* Ait. American White Hellebore. In wet woods.  
*Uvularia perfoliata* L. Perfoliate Bellwort. Moist woods and thickets.  
*Uvularia sessilifolia* L. Sessile-leaved Bellwort. In moist woods and thickets.

## Family 3. Liliaceae Adans.

- Hemerocallis fulva* L. Day Lily. Escaped in a few places.  
*Allium tricoccum* Ait. Wild Leek. Milford, Bedminster, (M. C.); Rockhill.  
*Allium vineale* L. Field Garlic. In fields and meadows.  
*Allium carinatum* L. Keeled Garlic. Grenoble, N. E. Arnold.  
*Allium Canadense* L. Meadow Garlic. In meadows common.  
*Lilium Philadelphicum* L. Red Lily. Philadelphia Lily. In woods and thickets

- Lilium Canadense** L. Wild Yellow Lily. Frequent in fields and meadows.  
**Lilium superbum** L. Turk's-Cap Lily. Bristol; Tullytown, Arthur N. Leeds.  
**Tulipa sylvestris** L. Wild Tulip. Near Sellersville; thoroughly established.  
**Erythronium Americanum** Ker. Dog's-tooth Violet. In woods and thickets.  
**Ornithogalum umbellatum** L. Star-of-Bethlehem. In meadows.  
**Muscari botryoides** (L.) Mill. Grape Hyacinth. Frequently escaped.  
**Alettris farinosa** L. Colic-root. In middle and lower townships, (M. C.).

## Family 4. Convallariaceae Link.

- Asparagus officinalis** L. Asparagus. Naturalized in a few places.  
**Vagnera racemosa** (L.) Morong. False Spikenard. In woods and thickets.  
**Vagnera stellata** (L.) Morong. Star-flowered Solomon's Seal. Wyker's island, (M. C.); Sellersville, Ridge Valley.  
**Unifolium Canadense** (Desf.) Greene. Two-leaved Solomon's Seal. \*Moist woods.  
**Salomonina biflora** (Walt.) Britton. Solomon's Seal. In woods and thickets.  
**Salomonina commutata** (R. & S.) Britton. Great Solomn's Seal. Moist woods.  
**Convallaria majalis** L. Lily-of-the-valley. Haycock, Dr. Joseph Thomas; near Perkasio.  
**Medeola Virginiana** L. Indian Cucumber-root. In moist woods and thickets.  
**Trillium erectum** L. Purple Wake-robin. Nockamixon.  
**Trillium cernuum** L. Nodding Wake-robin. Nockamixon; Rockhill; Edison.

## Family 5. Smilacaceae Vent.

- Smilax herbacea** L. Carrion-flower. In woods and thickets.  
**Smilax glauca** Walt. Glaucous-leaved Greenbrier. Point Pleasant; Bristol; Tullytown; Sellersville.  
**Smilax rotundifolia** L. Greenbrier. In woods and thickets.  
**Smilax hispida** Muhl. Bristly Greenbrier. In moist thickets.

## Family 6. Amaryllidaceae Lindl.

- Narcissus Pseudo-Narcissus** L. Daffodil. Escaped from cultivation.  
**Hypoxis hirsuta** (L.) Coville. Star-grass. Common in dry soil.

## Family 7. Dioscoreaceae Lindl.

- Dioscorea villosa** L. Wild. Yam-root. In moist thickets.

## Family 8. Iridaceae Lindl.

- Iris versicolor** L. Larger Blue Flag. In wet thickets and meadows.  
**Iris prismatica** Pursh. Slender Blue Flag. Sellersville; Tullytown, Joseph Crawford.  
**Iris Pseudacorus** L. Yellow Flag. Morrisville, Dr. E. Newlin Williams.  
**Gemmingia Chinensis** (L.) Kuntze. Blackberry Lily. Haycock, Rockhill, (M. C.); Solebury, Dr. E. Newlin Williams.  
**Sisyrinchium mucronatum** Michx. Michaux's Blue-eyed Grass. Sellersville.  
**Sisyrinchium angustifolium** Miller. Northern Blue-eyed Grass. In fields.

- Sisyrinchium graminoides* Bicknell. Stout Blue-eyed Grass. In meadows.  
*Sisyrinchium Atlanticum* Bicknell. Eastern Blue-eyed Grass. Tullytown.

## Order 7. ORCHIDALES.

## Family I. Orchidaceae Lindl.

- Cypripedium acaule* Ait. Purple Ladies' Slipper. Moccasin Flower. In sandy or rocky woods.  
*Cypripedium hirsutum* Mill. Large Yellow Ladies' Slipper. Lower Black's Eddy, Dr. E. Newlin Williams; Argus, Albrecht Jahn.  
*Cypripedium parviflorum* Salisb. Small Yellow Ladies' Slipper. Haycock.  
*Galeorchis spectabilis* (L.) Rydb. Showy Orchis. In rich woods.  
*Perularia flava* (L.) Rydb. Small Pale-green Orchis. Buckingham, (M. C.); Rock-hill; Nockamixon, Dr. E. Newlin Williams.  
*Gymnandeniopsis clavellata* (Michx.) Rydb. Green Wood Orchis. Point Pleasant, (M. C.).  
*Blephariglottis cristata* (Michx.) Raf. Crested Yellow Orchis. Langhorne, I. C. Martindale.  
*Blephariglottis lacera* (Michx.) Rydb. Ragged Orchis. Wet woods in upper end, (M. C.).  
*Blephariglottis psychodes* (L.) Rydb. Purple Orchis. In the upper end.  
*Pogonia ophioglossoides* (L.) Ker. Rose Pogonia. Rockhill.  
*Isotria verticillata* (Willd.) Raf. Whorled Pogonia. Andalusia, I. C. Martindale; Buckingham, Dr. E. Newlin Williams; Tullytown, Joseph Crawford.  
*Triphora trianthophora* (Sw.) Rydb. Nodding Pogonia. Near Quakertown.  
*Limodorum tuberosum* L. Grass Pink. Calopogon. Springfield, (M. C.)  
*Gyrostachys plantaginea* (Raf.) Britton. Ladies' Tresses. Andalusia, I. C. Martindale; Point Pleasant; Upper Black's Eddy, Dr. E. Newlin Williams.  
*Gyrostachys cernua* (L.) Kuntze. Nodding Ladies' Tresses. In meadows.  
*Gyrostachys simplex* (A. Gray) Kuntze. Little Ladies' Tresses. Penn Valley, Joseph Crawford.  
*Gyrostachys gracilis* (Bigel.) Kuntze. Slender Ladies' Tresses. In woods.  
*Peramium pubescens* (Willds.) MacM. Rattlesnake Plantain. In dry woods.  
*Leptorchis liliifolia* (L.) Kuntze. Twayblade. In woods and thickets.  
*Leptorchis Loeselii* (L.) MacM. Loesel Twayblade. Yardley, A. B. Kauffman.  
*Aplectrum spicatum* (Walt.) B. S. P. Adam-and-Eve. Haycock, Rockhill, (M. C.) Jericho Hill, Dr. E. Newlin Williams.  
*Corallorhiza odontorhiza* (Willd.) Nutt. Small-flowered Coral-root. In woods.  
*Corallorhiza multiflora* Nutt. Large Coral-root. Haycock. (M. C.); Holicong, Dr. E. Newlin Williams.

## Subclass 2. DICOTYLEDONES.

## Series I. CHORIPETALAE.

## Order I. PIPERALES.

## Family I. Saururaceae Lindl.

- Saururus cernuus* L. Lizard's-tail. In swamps and streams.

## Order 2. SALICALES.

## Family 1. Salicaceae Lindl.

- Populus candicans* Ait. Balm of Gilead. Bedminster, Argus.  
*Populus dilatata* Ait. Lombardy Poplar. Rockhill township.  
*Populus grandidentata* Michx. Large-toothed Aspen. Sellersville; Perkasio; Rockhill, Alexander MacElwee.  
*Populus tremuloides* Michx. American Aspen. Sellersville; Argus; Mechanicsville, Dr. E. Newlin Williams.  
*Salix nigra* Marsh. Black Willow. Along streams and lakes.  
*Salix lucida* Muhl. Shining Willow. Bensalem, I. C. Martindale.  
*Salix fragilis* L. Brittle Willow. Escaped from cultivation.  
*Salix alba* L. White Willow. Along streams.  
*Salix alba vitellina* (L.) Koch. Golden Osier. Along streams.  
*Salix Babylonica* L. Weeping Willow. Spontaneous in a few places.  
*Salix cordata* Muhl. Heart-leaved Willow. Point Pleasant, (M. C.).  
*Salix fluviatilis* Nutt. River-bank Willow. Islands of the Delaware, in the upper end, (M. C.).  
*Salix petiolaris* J. E. Smith. Slender Willow. In swamps.  
*Salix discolor* Muhl. Glaucous Willow. Pussy Willow. On moist hillsides.  
*Salix Bebbiana* Sarg. Bebb's Willow. Near Point Pleasant, (M. C.); Perkasio.  
*Salix humilis* Marsh. Prairie Willow. In dry soil.  
*Salix tristis* Ait. Sage Willow. Dwarf Gray Willow. In dry soil.  
*Salix sericea* Marsh. Silky Willow. In swamps and along streams.  
*Salix purpurea* L. Purple Willow. Bensalem, I. C. Martindale.

## Order 3. MYRICALES.

## Family 1. Myricaceae Dumort.

- Comptonia peregrina* (L.) Coulter. Sweet Fern. In dry soil. A few stations.

## Order 4. JUGLANDALES.

## Family 1. Juglandaceae Lindl.

- Juglans nigra* L. Black Walnut. In rich woods.  
*Juglans cinerea* L. Butternut. White Walnut. In rich or rocky woods.  
*Hicoria minima* (Marsh.) Britton. Bitter-nut. In moist woods.  
*Hicoria ovata* (Mill.) Britton. Shell-bark Hickory. In rich soil.  
*Hicoria laciniosa* (Michx. f.) Sarg. King-nut. Bull-nut. Near Pipersville; Ridge Valley.  
*Hicoria alba* (L.) Britton. Mocker-nut. In rich soil.  
*Hicoria glabra* (Mill.) Britton. Pig-nut. In dry or moist woods.

## Order 5. FAGALES.

## Family 1. Betulaceae Agardh.

- Carpinus Caroliniana* Walt. American Hornbeam. Blue Beech. In moist woods and along streams.

- Ostrya Virginiana* (Mill.) Willd. Iron-wood. In dry woods.  
*Corylus Americana* Walt. Hazel-nut. In thickets.  
*Corylus rostrata* Ait. Beaked Hazel-nut. On rocky hillsides.  
*Betula populifolia* Marsh. American White Birch. Near Bristol, I. C. Martindale;  
 Springfield, Dr. J. J. Ott; Morrisville, Dr. E. Newlin Williams; Bensalem.  
*Betula nigra* L. River Birch. Red Birch. Along streams.  
*Betula lenta* L. Sweet Birch. In woods and thickets.  
*Alnus rugosa* (DuRoi) K. Koch. Smooth Alder. In wet soil.

## Family 2. Fagaceae Drude.

- Fagus Americana* Sweet. American Beech. In rich soil.  
*Castanea dentata* (Marsh.) Borkh. American Chestnut. In rich soil.  
*Quercus rubra* L. Red Oak. In rich soil.  
*Quercus palustris* DuRoi. Pin Oak. Swamp Oak. In moist ground.  
*Quercus coccinea* Wang. Scarlet Oak. In dry soil.  
*Quercus velutina* Lam. Black Oak. Quercitron. In dry soil.  
*Quercus digitata* (Marsh.) Sudw. Spanish Oak. In dry soil.  
*Quercus nana* (Marsh.) Sarg. Scrub Oak. In dry or rocky soil.  
*Quercus Marylandica* Muench. Black-Jack. Along the Delaware in the lower end;  
 Perkasio.  
*Quercus Rudkini* Britton. Rudkin's Oak. Tullytown, Joseph Crawford.  
*Quercus Phellos* L. Willow Oak. Near Bristol.  
*Quercus alba* L. White Oak. In rich, moist soil.  
*Quercus minor* (Marsh.) Sarg. Post Oak. Iron Oak. Carversville.  
*Quercus platanoides* (Lam.) Sudw. Swamp White Oak. In moist soil.  
*Quercus Prinus* L. Rock Chestnut Oak. In dry soil.  
*Quercus prinoides* Willd. Scrub Chestnut Oak. Barrens of Plumstead and Nock-  
 amixon, (M. C.).

## Order 6. URTICALES.

## Family 1. Ulmaceae Mirbel.

- Ulmus Americana* L. American White or Water Elm. In moist soil.  
*Ulmus fulva* Michx. Slippery, Red or Moose Elm. In wood and on hills.  
*Celtis occidentalis* L. Sugar-berry. On dry ground.  
*Celtis crassifolia* Lam. Hackberry. Near Sellersville.

## Family 2. Moraceae Lindl.

- Morus rubra* L. Red Mulberry. In rich woods.  
*Morus alba* L. White Mulberry. Escaped, in a few places.  
*Humulus Lupulus* L. Hop. Native along streams.  
*Cannabis sativa* L. Hemp. In waste places, occasionally.

## Family 3. Urticaceae Reichenb.

- Urtica dioica* L. Stinging Nettle. In waste places.  
*Urtica gracilis* Ait. Slender Nettle. In rich soil.  
*Urticastrum divaricatum* (L.) Kuntze. Wood Nettle. In rich woods.  
*Adicea pumila* (L.) Raf. Clearweed. Richweed. In wet, shaded places.  
*Boehmeria cylindrica* (L.) Willd. False Nettle. In moist situations.



**Parietaria Pennsylvanica** Muhl. Pennsylvania Pellitory. Sellersville; Nockamixon, Dr. T. C. Porter.

Order 7. SANTALALES.

Family 1. Santalaceae R. Br.

**Comandra umbellata** (L.) Nutt. Bastard Toad-flax. In dry fields.

Order 8. ARISTOLOCHIALES.

Family 1. Aristolochiaceae Blume.

**Asarum Canadense** L. Wild Ginger. In rich woods.

**Asarum reflexum** Bicknell. Short-lobed Wild Ginger. Ridge Valley.

**Aristolochia Serpentaria** L. Virginia Snakeroot. In dry, rich woods.

Order 9. POLYGONALES.

Family 1. Polygonaceae Lindl.

**Rumex Acetosella** L. Sheep Sorrel. In dry fields.

**Rumex Hydrolapathum** Huds. English Dock. In waste grounds, Sellersville

**Rumex crispus** L. Curled Dock. In fields and waste places.

**Rumex sanguineus** L. Red-veined Dock. Near Sellersville.

**Rumex obtusifolius** L. Bitter Dock. In waste places.

**Fagopyrum Fagopyrum** (L.) Karst. Buckwheat. In waste places.

**Polygonum emersum** (Michx.) Britton. Swamp Persicaria. In moist soil.

**Polygonum Pennsylvanicum** L. Pennsylvania Persicaria. In waste grounds.

**Polygonum Persicaria** L. Lady's Thumb. In waste places.

**Polygonum hydropiperoides** Michx. Mild Water Pepper. In wet soil.

**Polygonum Hydropiper** L. Smart-weed. In moist waste places.

**Polygonum punctatum** Ell. Water Smart-weed. In swamps and wet places.

**Polygonum orientale** L. Prince's Feather. In waste places.

**Polygonum Virginianum** L. Virginia Knotweed. In woods.

**Polygonum aviculare** L. Door-weed. Knotgrass. In cultivated grounds.

**Polygonum erectum** L. Erect Knotweed. In moist soil.

**Polygonum tenue** Michx. Slender Knotweed. In dry soil.

**Polygonum Convolvulus** L. Black Bindweed. In cultivated grounds.

**Polygonum cilinode** Michx. Fringed Black Bindweed. Tullytown, Joseph Crawford.

**Polygonum scandens** L. Climbing False Buckwheat. In woods and thickets.

**Polygonum Zuccarinii** Small. Japanese Knotweed. Penn Valley, Dr. N. L. Britton.

**Polygonum sagittatum** L. Arrow-leaved Tear-thumb. In wet soil.

**Polygonum arifolium** L. Halbred-leaved Tear-thumb. In moist soil.

Order 10. CHENOPODIALES.

Family 1. Chenopodiaceae Dumort.

**Chenopodium album** L. Lamb's Quarters. In waste grounds.

**Chenopodium glaucum** L. Oak-leaved Goosefoot. Andalusia, I. C. Martindale; Sellersville.

- Chenopodium leptophyllum* (Moq.) Nutt. Narrow-leaved Goosefoot. Bristol.  
*Chenopodium polyspermum* L. Many-seeded Goosefoot. In the county, (P. Fl.).  
*Chenopodium Boscianum* Moq. Bosc's Goosefoot. Quakertown, (M. C.); Nockamixon, Dr. T. C. Porter.  
*Chenopodium urbicum* L. City Goosefoot. Richland, (M. C.); Hilltown.  
*Chenopodium murale* L. Nettle-leaved Goosefoot. Sellersville; Bristol.  
*Chenopodium hybridum* L. Maple-leaved Goosefoot. In waste places.  
*Chenopodium Botrys* L. Jerusalem Oak. Bristol, I. C. Martindale.  
*Chenopodium ambrosioides* L. Mexican Tea. In waste places.  
*Chenopodium anthelminticum* L. Wormseed. New Hope, Dr. E. Newlin Williams; Quakertown, Gottlieb Frey.; Bristol.  
*Atriplex patula* L. Spreading Orache. Sellersville.  
*Atriplex hastata* L. Halberd-leaved Orache. Andalusia, I. C. Martindale; Quakertown, Gottlieb Frey; Sellersville.  
*Salsola Tragus* L. Russian Thistle. Telford, Frank H. Strohm.

Family 2. Amaranthaceae J. St. Hil.

- Amaranthus retroflexus* L. Rough Pigweed. A weed in waste grounds.  
*Amaranthus hybridus* L. Slender Pigweed. In waste places.  
*Amaranthus hybridus paniculatus* (L.) Uline & Bray. Panicked Pigweed. In waste places.  
*Amaranthus spinosus* L. Spiny Amaranth. In waste grounds.  
*Amaranthus blitoides* S. Wats. Prostrate Amaranth. Quakertown, Frank Ball.  
*Amaranthus graecizans* L. Tumble-weed. In waste and cultivated ground.  
*Acnida cannabina* L. Salt-marsh Water-hemp. River-bank, Bristol.  
*Acnida tamariscina tuberculata* (Moq.) Uline & Bray. Tubercled Water-hemp. Andalusia, I. C. Martindale.

Family 3. Phytolaccaceae Lindl.

- Phytolacca decandra* L. Poke. Pigeon-berry. In rich soil.

Family 4. Nyctaginaceae Lindl.

- Allionia albida* Walt. Pale Umbrella-wort. Streets of Bristol.

Family 5. Aizoaceae A. Br.

- Mollugo verticillata* L. Carpet-weed. In cultivated and waste grounds.

Family 6. Portulacaceae Reichenb.

- Claytonia Virginica* L. Spring Beauty. In moist grounds.  
*Portulaca oleracea* L. Purslane. In fields and waste places.  
*Portulaca grandiflora* Hook. Garden Portulaca. Blooming Glen.

Family 7. Caryophyllaceae Reichenb.

- Agrostemma Githago* L. Corn Cockle. In grain fields usually.  
*Silene stellata* (L.) Ait. Starry Campion. In woods.

- Silene antirrhina** L. Sleepy Catchfly. In dry soil.
- Silene noctiflora** L. Night-flowering Catchfly. Andalusia, I. C. Martindale; Near
- Silene Armeria** L. Sweet William. Buckingham; Tullytown. Sellersville.
- Lychnis alba** Mill. White Champion. Doylestown, Prof. A. S. Martin; Springtown, Mrs. O. H. Melchor; Sellersville.
- Lychnis Flos-cuculi** L. Cuckoo Flower. Morrisville, Carversville, Dr. E. Newlin Williams.
- Lychnis Coronaria** (L.) Desr. Mullein Pink. Carversville; Lumberville.
- Saponaria officinalis** L. Bouncing Bet. Soapwort. Roadsides.
- Vaccaria Vaccaria** (L.) Britton. Cow-herb. Sellersville.
- Dianthus Armeria** L. Deptford Pink. In fields and roadsides.
- Dianthus barbatus** L. Sweet William. In thicket at Ridge Valley.
- Alsine uliginosa** (Murr.) Britton. Marsh Chickweed. In wet meadows.
- Alsine media** L. Common Chickweed. In waste places and meadows.
- Alsine pubera** (Michx.) Britton. Great Chickweed. Quakertown, (M. C.); Sellersville; Perkasio.
- Alsine longifolia** (Muhl.) Britton. Long-leaved Stitchwort. In swamps.
- Cerastium viscosum** L. Mouse-ear Chickweed. Bensalem, I. C. Martindale.
- Cerastium vulgatum** L. Larger Mouse-ear Chickweed. Common throughout.
- Cerastium longipedunculatum** Muhl. Nodding Chickweed. In moist places.
- Cerastium arvense** L. Field Chickweed. Along the Delaware south to New Hope.
- Cerastium arvense oblongifolium** (Torr.) Holl. & Britt. Long-leaved Chickweed. New Hope, Dr. Joseph Stokes.
- Sagina apetala** Ard. Small-flowered Pearlwort. Near Sellersville, Frank L. Bassett.
- Arenaria serpyllifolia** L. Thyme-leaved Sandwort. In dry rocky places.
- Arenaria Michauxii** (Fenz.) Hook. Rock Sandwort. On rocks near Point Pleasant, (M. C.)
- Moehringia lateriflora** (L.) Fenzl. Blunt-leaved Sandwort. In moist places.
- Tissa rubra** (L.) Britton. Sand Spurry. Near Perkasio.
- Anychia dichotoma** Michx. Forked Chickweed. In dry woods and thickets.
- Anychia Canadensis** (L.) B. S. P. Slender Forked Chickweed. In dry woods.
- Scleranthus annuus** L. Carpet-weed. Point Pleasant; New Hope, Lahaska, Dr. E. Newlin Williams; Perkasio, Prof. A. C. Rutter.

## Order II. RANALES.

## Family I. Nyphaeaceae DC.

- Brasenia purpurea** (Michx.) Casp. Water Shield. Near Bristol, I. C. Martindale.
- Nymphaea advena** Soland. Large Yellow Pond Lily. Spatter Dock. In ponds.
- Nymphaea Kalmiana** (Michx.) Sims. Small Pond Lily. Tohickon near Keelersville, (M. C.); Warwick, I. C. Martindale.
- Castalia odorata** (Dryand) Woodv. & Wood. White Water Lily. Tohickon near Keelersville, (M. C.); Near Bristol, I. C. Martindale.

## Family 2. Ceratophyllaceae A. Gray.

- Ceratophyllum demersum** L. Hornwort. Sellersville; Penn Valley, Prof. Charles S. Williamson.

## Family 3. Magnoliaceae J. St. Hil.

- Magnolia Virginiana** L. Sweet Bay. Tullytown; Bristol.  
**Liriodendron Tulipifera** L. Tulip-tree. In woods.

## Family 4. Anonaceae DC.

- Asimina triloba** (L.) Dunal. North American Papaw. Erwinna, (M. C.); Argus.

## Family 5. Ranunculaceae Juss.

- Hydrastis Canadensis** L. Golden Seal. Rich woods near Quakertown.  
**Caltha palustris** L. Marsh Marigold. In swampy meadows.  
**Trollius laxus** Salisb. American Globe-flower. Swamp in Springfield.  
**Helleborus viridis** L. Green Hellebore. Near Quakertown, Dr. Joseph Thomas; Rockhill.  
**Actaea alba** (L.) Mill. White Baneberry. In hilly woods.  
**Cimicifuga racemosa** (L.) Nutt. Black Snakeroot. In woods.  
**Aquilegia Canadensis** L. Wild Columbine. In rocky woods.  
**Aquilegia vulgaris** L. European Columbine. Escaped occasionally.  
**Delphinium Consolida** L. Field Larkspur. Sellersville.  
**Anemone Virginiana** L. Tall Anemone. In woods and thickets.  
**Anemone riparia** Fernald. River-bank Anemone. Point Pleasant.  
**Anemone Canadensis** L. Canada Anemone. Near Doylestown, Prof. A. S. Martin.  
**Anemone quinquefolia** L. Wind-flower. In woods and thickets.  
**Hepatica Hepatica** (L.) Karst. Hepatica. Liver-leaf. In woods.  
**Syndesmon thalictroides** (L.) Hoffmg. Rue Anemone. In woods.  
**Clematis Virginiana** L. Virgin's Bower. Along fences.  
**Atragene Americana** Sims. Purple Virgin's Bower. Bedminster; Durham; Point Pleasant, Dr. E. Newlin Williams.  
**Ranunculus delphinifolius** Torr. Yellow Water-Crowfoot. Nockamixon, (M. C.).  
**Ranunculus pusillus** Poir. Low Spearwort. Near Quakertown, Dr. I. S. Moyer; Buckingham swamp, Horace Lequear.  
**Ranunculus reptans** L. Creeping Spearwort. Solliday's island (M. C.)  
**Ranunculus obtusisculus** Raf. Water Plantain Spearwort. Near Quakertown, (M. C.); Rockhill.  
**Ranunculus abortivus** L. Small-flowered Crowfoot. In rich woods.  
**Ranunculus micranthus** Nutt. Rock Crowfoot. Near Sellersville.  
**Ranunculus sceleratus** L. Cursed Crowfoot. In wet ditches.  
**Ranunculus recurvatus** Poir. Hooked Crowfoot. In moist woods.  
**Ranunculus acris** L. Tall Buttercup. In fields and meadows.  
**Ranunculus bulbosus** L. Bulbous Buttercup. In fields and meadows.  
**Ranunculus Pennsylvanicus** L. f. Bristly Buttercup. Along the lower Delaware, I. C. Martindale.  
**Ranunculus repens** L. Creeping Buttercup. Bristol, Tullytown.  
**Ranunculus septentrionalis** Poir. Swamp Buttercup. In wet meadows.  
**Ranunculus hispidus** Michx. Hispid Buttercup. Near Sellersville.  
**Ranunculus fascicularis** Muhl. Early Crowfoot. Springfield, rare.  
**Batrachium trichophyllum** (Chaix) Bossch. White Water-Crowfoot. Near Applebachsville, (M. C.); Near Sellersville, Penn Valley.  
**Thalictrum dioicum** L. Early Meadow-Rue. In woods and rocky hillsides.

- Thalictrum purpurascens** L. Purplish Meadow-Rue. Nockamixon, Dr. T. C. Porter; near Sellersville.  
**Thalictrum polygamum** Muhl. Tall Meadow-Rue. In meadows and thickets.

## Family 6. Berberidaceae T. &amp; G.

- Berberis vulgaris** L. Barberry. Bensalem, I. C. Martindale; near Jericho Hill, Dr. E. Newlin Williams; Doylestown, Prof. A. S. Martin.  
**Caulophyllum thalictroides** (L.) Michx. Blue Cohosh. Near Bedminsterville; Ed-ison.  
**Jeffersonia diphylla** (L.) Pers. Twin-leaf. Near New Hope, Miss Margaret W. Ely.  
**Podophyllum peltatum** L. May Applè. Mandrake. In rich woods.

## Family 7. Menispermaceae DC.

- Menispermum Canadense** L. Canada Moonseed. In woods.

## Family 8. Lauraceae Lindl.

- Sassafras Sassafras** (L.) Karst. Sassafras. In dry, rich soil.  
**Benzoin Benzoin.** (L.) Coulter. Spice Bush. In moist woods.

## Order 12. PAPAVERALES.

## Family 1. Papaveraceae B. Juss.

- Papaver somniferum** L. Opium Poppy. Garden Poppy. In waste grounds.  
**Papaver dubium** L. Smooth-fruited Poppy. In waste grounds.  
**Sanguinaria Canadensis** L. Bloodroot. In rich soil.  
**Chelidonium majus** L. Celandine. In rich woods and in waste places.  
**Bicuculla Cucullaria** (L.) Millsp. Dutchman's Breeches. In rich woods.  
**Bicuculla Canadensis** (Goldie) Millsp. Squirrel Corn. Near Pipersville.  
**Adlumia fungosa** (Ait.) Greene. Alleghany Vine. In rocky woods, rare.  
**Capnoides sempervirens** (L.) Borck. Pink Corydalis. Rockhill; Ridge Valley; Argus, Prof. Charles S. Williamson.  
**Capnoides flavulum** (Raf.) Kuntze. Pale Corydalis. On rocks near Carversville; Yardley, Prof. A. B. Kauffman.  
**Fumaria officinalis** L. Fumitory. In waste places.

## Family 2. Cruciferae B. Juss.

- Lepidium campestre** (L.) R. Br. Field Cress. A weed in fields and roadsides.  
**Lepidium Virginicum** L. Wild Peppergrass. In fields and roadsides.  
**Lepidium apetalum** Willd. Apetalous Peppergrass. Point Pleasant, E. P. Bicknell; Perkasio; Sellersville.  
**Thlaspi arvense** L. Field Penny-cress. Near Bristol, I. C. Martindale; Rockhill.  
**Sisymbrium officinale** (L.) Scop. Hedge Mustard. In waste places, common.  
**Sisymbrium altissimum** L. Tall Sisymbrium. Waste grounds, Sellersville.  
**Sinapis alba** L. White Mustard. In waste grounds near Point Pleasant, (M. C.); lower end, I. C. Martindale.  
**Brassica nigra** (L.) Koch. Black Mustard. In fields and waste places.

- Brassica arvensis** (L.) B. S. P. Charlock. Toresdale, I. C. Martindale; Sellersville.  
**Brassica campestris** L. Turnip. In fields and waste ground.  
**Raphanus Raphanistrum** L. Wild Radish. Lower end, I. C. Martindale.  
**Barbarea Barbarea** (L.) MacM. Winter Cress. In fields and waste places.  
**Barbarea strica** Andrz. Erect-fruited Winter Cress. Sellersville; Langhorne.  
**Barbarea praecox** (J. E. Smith) R. Br. Early Winter Cress. South Perkasio; Doylestown; Penn Valley; Deep Run.  
**Roripa sylvestris** (L.) Bess. Creeping Yellow Water Cress. Solliday's Island.  
**Roripa palustris** (L.) Bess. Marsh Cress. In wet places.  
**Roripa hispida** (Desv.) Britton. Hispid Yellow Cress. Along the Delaware.  
**Roripa Nasturtium** (L.) Rush. Water Cress. Lower end, I. C. Martindale; Sellersville, Perkasio; Solebury, Dr. E. Newlin Williams.  
**Roripa Armoracia** (L.) A. S. Hitchcock. Horseradish. Escaped from gardens.  
**Cardamine Pennsylvanica** Muhl. Pennsylvania Bittercress. In wet places.  
**Cardamine parviflora** L. Small flowered Bittercress. Near Sellersville; near Bristol, I. C. Martindale.  
**Cardamine flexuosa** With. Wood Bitter-cress. Tullytown, Three-mile-run.  
**Cardamine bulbosa** (Schreb.) B. S. P. Spring Cress. In wet meadows.  
**Cardamine rotundifolia** Michx. American Water-cress. Springfield township.  
**Dentaria laciniata** Muhl. Common Toothwort. In rich woods.  
**Dentaria diphylla** Michx. Two-leaved Toothwort. Nockamixon, Dr. T. C. Porter.  
**Dentaria heterophylla** Nutt. Slender Toothwort. Near Quakertown, (M. C.)  
**Lunaria annua** L. Honesty. Nockamixon, Dr. T. C. Porter.  
**Bursa Bursa-pastoris** (L.) Britton. Shepherd's Purse. In waste grounds.  
**Camelina sativa** (L.) Crantz. False Flax. In waste places.  
**Camelina microcarpa** Andrz. Small-fruited False Flax. Penn Valley.  
**Draba verna** L. Early Whitlow-grass. In fields and roadsides.  
**Draba Caroliniana** Walt. Carolina Whitlow-grass. Islands of the Delaware near Point Pleasant.  
**Stenophragma Thaliana** (L.) Celak. Mouse-ear Cress. On rocky hillsides.  
**Arabis lyrata** L. Rock Cress. In rocky and sandy places.  
**Arabis hirsuta** (L.) Scop. Hairy Rock-cress. Rocks along the Delaware.  
**Arabis laevigata** (Muhl) Poir. Smooth Rock-cress. In rocky woods.  
**Arabis Canadensis** L. Sickle-pod. In woods.  
**Hesperis matronalis** L. Dame's Violet. Sellersville.

### Family 3. Capparidaceae Lindl.

- Cleome spinosa** L. Spider-flower. Escaped at Bristol.

### Family 4. Resedaceae S. F. Gray.

- Reseda Luteola** L. Dyer's Rocket. Roadsides near Pleasant Hill, (M. C.).

## Order 13. SARRACENIALES.

### Family 1. Droseraceae S. F. Gray.

- Drosera rotundifolia** L. Round-leaved Sundew. Bogs in Springfield, (M. C.); Tullytown.  
**Drosera intermedia** Hayne. Spatulate-leaved Sundew. Bogs near Tullytown.

## Order 14. ROSALES.

## Family 1. Podostemaceae Lindl.

**Podostemon Ceratophyllum** Michx. River-weed. Delaware river near Point Pleasant; Nockamixon, Dr. Linnaeus Fussel.

## Family 2. Crassulaceae DC.

**Sedum roseum** (L.) Scop. Roseroot. Nockamixon rocks, Dr. T. C. Porter.

**Sedum Telephium** L. Live-forever. In fields and meadows.

**Sedum acre** L. Wall-pepper. Stonecrop. Along roadsides.

**Sedum ternatum** Michx. Wild Stonecrop. Buckingham mountain, I. C. Martindale.

## Family 3. Penthoraceae Rydb.

**Penthorum sedoides** L. Virginia Stonecrop. In ditches and swamps.

## Family 4. Parnassiaceae Dumort.

**Parnassia Caroliniana** Michx. Carolina Grass-of-Parnassus. In the county, (P. Fl.).

## Family 5. Saxifragaceae Dumort.

**Saxifraga Pennsylvanica** L. Swamp Saxifrage. In swamps.

**Saxifraga Virginiensis** Michx. Early Saxifrage. On dry hillsides.

**Heuchera Americana** L. Alum-root. On dry banks.

**Mitella diphylla** L. Bishop's Cap. Rockhill; New Hope, Dr. E. Newlin Williams; along the Delaware.

**Chrysosplenium Americanum** Schwein. Golden Saxifrage. In wet, shaded places, rare.

## Family 6. Hydrangeaceae Dumort.

**Hydrangea arborescens** L. Wild Hydrangea. Banks of the Delaware, and the larger streams.

## Family 7. Grossulariaceae Dumort.

**Ribes Uva-crispi** L. Garden Gooseberry. Sellersville.

**Ribes rotundifolium** Michx. Eastern Wild Gooseberry. Nockamixon; Haycock.

**Ribes rubrum** L. Red Currant. Nockamixon; Haycock, Dr. E. Newlin Williams.

**Ribes floridum** L'Her. Wild Black Currant. In woods and thickets.

## Family 8. Hamamelidaceae Lindl.

**Hamamelis Virginiana** L. Witch-Hazel. In woods.

**Liquidambar Styraciflua** L. Sweet Gum. Lower Delaware, I. C. Martindale; Woodbourne.

## Family 9. Platanaceae Lindl.

**Platanus occidentalis** L. Button-wood. Sycamore. Along streams.

## Family 10. Rosaceae B. Juss.

- Opulaster opulifolius* (L.) Kuntze. Eastern Ninebark. Along river banks.  
*Spiraea salicifolia* L. Common Meadow-sweet. In moist ground.  
*Spiraea salicifolia latifolia* (Ait.) Wiegand. Nockamixon.  
*Spiraea tomentosa* L. Hardhack. In low grounds, not common.  
*Spiraea Japonica* L. f. Japanses Spiraea. Along the banks of the Delaware near Point Pleasant.  
*Porteranthus trifoliatius* (L.) Britton. Indian Physic. In woods.  
*Rubus odoratus* L. Purple-flowering Raspberry. In rocky woods.  
*Rubus Americanus* (Pers.) Britton. Dwarf Raspberry. Near Quakertown, Dr. I. S. Moyer.  
*Rubus strigosus* Michx. Wild Red Raspberry. Islands of the Delaware, (M. C.)  
*Rubus occidentalis* L. Black Raspberry. In moist or dry soil.  
*Rubus laciniatus* Willd. Cut-leaved Blackberry. Point Pleasant, Bristol.  
*Rubus cuneifolius* Pursh. Sand Blackberry. Bensalem; Bristol; Penn Valley.  
*Rubus nigrobaccus* Bailey. High Bush Blackberry. In dry soil.  
*Rubus Randii* (Bailey) Rydb. Rand's Blackberry. In the county, (P. Fl.)  
*Rubus procumbens* Muhl. Low Running Blackberry. In dry soil.  
*Rubus Baileyanus* Britton. Bailey's Blackberry. Penn Valley, Dr. N. L. Britton.  
*Rubus nigricans* Rydb. Peck's Dewberry. Tullytown, E. P. Bicknell.  
*Rubus hispidus* L. Running swamp Blackberry. In swamps.  
*Drymocallis arguta* (Pursh) Rydb. Tall Cinquefoil. Opposite Point Pleasant, (M. C.); Malta island, Dr. E. Newlin Williams.  
*Fragaria virginiana* Duchesne. Virginia Strawberry. In dry soil.  
*Fragaria vesca* L. European Wood Strawberry. Along the Delaware (M. C.)  
*Fragaria Americana* (Porter) Britton. American Wood Strawberry. Nockamixon, Dr. T. C. Porter.  
*Duchesnea Indica* (Andr.) Focke. Yellow Strawberry. Durham Furnace; Nockamixon, (P. Fl.)  
*Potentilla argentea* L. Silvery Cinquefoil. Sellersville.  
*Potentilla sulphurea* Lam. Rough-fruited Cinquefoil. Springtown, Mrs. O. H. Melchor.  
*Potentilla Monspeliensis* L. Rough Cinquefoil. In fields.  
*Potentilla Canadensis* L. Five-finger. On dry banks.  
*Potentilla pumila* Poir. Dwarf Five-finger. In poor soil.  
*Waldsteinia fragarioides* (Michx.) Tratt. Barren Strawberry. Plumstead, Dr. I. S. Moyer; Sellersville.  
*Geum vernum* (Raf.) T. & G. Spring Avens. Quakertown, Dr. Joseph Thomas.  
*Geum Canadense* Jacq. White Avens. In thickets.  
*Geum Virginianum* L. Rough Avens. In thickets.  
*Geum flavum* (Porter) Bicknell. Cream-colored Avens. Woods and thickets.  
*Geum strictum* Ait. Yellow Avens. Quakertown, (M. C.); Sellersville.  
*Ulmaria rubra* Hill, Queen-of-the-Prairie. Near Steinsburg, (M. C.)  
*Agrimonia hirsuta* (Muhl.) Bicknell. Tall Hairy Agrimony. In thickets.  
*Agrimonia striata* Michx. Woodland Agrimony. In the county, (P. Fl.)  
*Agrimonia mollis* (T. & G.) Britton. Soft Agrimony. Sellersville.  
*Agrimonia parviflora* Soland. Small-flowered Agrimony. In moist soil.  
*Sanguisorba Sanguisorba* (L.) Britton. Garden Burnet. Rockhill.  
*Sanguisorba Canadensis* L. American Great Burnet. Pipersville; Bristol.  
*Rosa setigera* Michx. Climbing Rose. In the county, (P. Fl.)



- Rosa blanda* Ait. Meadow Rose. Hilltown, rare.  
*Rosa Carolina* L. Swamp Rose. In swamps.  
*Rosa lucida* Ehrh. Glossy Rose. Not common.  
*Rosa humilis* Marsh. Pasture Rose. On dry hillsides, common.  
*Rosa humilis villosa* Best. Villous Rose. Point Pleasant, Dr. G. N. Best.  
*Rosa canina* L. Dog Rose. Along the Delaware; near Sellersville.  
*Rosa rubiginosa* L. Sweetbrier. In waste places.

## Family II. Pomaceae L.

- Aronia arbutifolia* (L.) Ell. Red Croke-berry. Near Perkasio.  
*Aronia nigra* (Willd.) Britton. Black Choke-berry. In low woods and swamps.  
*Amelanchier Canadensis* (L.) Medic. June-berry. In woods.  
*Amelanchier Botryapium* (L. f.) DC. Shad-bush. In moist soil.  
*Amelanchier spicata* (Lam.) Dec. Low June-berry. Near Sellersville.  
*Crataegus Crus-galli* L. Cockspur Thorn. In meadows and thickets.  
*Crataegus Crus-galli oblongata* Sarg. Durham; Tullytown; Tohickon.  
*Crataegus rivalis* Sarg. In the Branch Valley, at Sellersville.  
*Crataegus Canbyi* Sarg. Canby's Thorn. Near Quakertown.  
*Crataegus punctata* Jacq. Large-fruited Thorn. Along streams.  
*Crataegus punctata canescens* Britton. Canescent Thorn. Durham.  
*Crataegus pausiaca* Ashe. Durham Furnace.  
*Crataegus arcana* Beadle. Rockhill; Bedminster.  
*Crataegus austera* Sarg. Rockhill; Bedminster.  
*Crataegus Ruthiana* Sarg. Durham Furnace.  
*Crataegus jejuna* Sarg. Bedminster; Rockhill.  
*Crataegus dissona* Sarg. South Perkasio.  
*Crataegus deltoidea* Ashe. Rockhill township.  
*Crataegus alacris* Sarg. Deep Run.  
*Crataegus deducta* Sarg. Near Sellersville.  
*Crataegus Fretzii* Sarg. Durham station.  
*Crataegus delicata* Sarg. Near Harr's dam.  
*Crataegus scabriuscula* Sarg. Durham township.  
*Crataegus tenella* Ashe. Rockhill township.  
*Crataegus rufipes* Ashe. Near South Perkasio.  
*Crataegus lata* Sarg. Rockhill.  
*Crataegus Collinsiana* Sarg. Hilltown.  
*Crataegus pumila* Sarg. Rockhill.  
*Crataegus firma* Sargent. Pleasant Spring bridge.  
*Crataegus condensa* Sarg. Hilltown.  
*Crataegus Moyeriana* Sarg. Hilltown.  
*Crataegus saturata* Sarg. Pleasant Spring bridge.  
*Crataegus longipetiolata* Sarg. West Rockhill.  
*Crataegus stolonifera* Sarg. Hilltown; West Rockhill.  
*Crataegus modica* Sarg. Hilltown.  
*Crataegus digna* Sarg. West Rockhill.  
*Crataegus Holmesiana villipes* Ashe. Sellersville; near Telford.  
*Crataegus arcuata* Ashe. Sellersville; Hilltown.  
*Crataegus Dodgeii* Ashe. Near Quakertown.  
*Crataegus abjecta* Sarg. Pleasant Spring bridge; Deep Run; Hagersville.  
*Crataegus nemoralis* Sarg. Rockhill.

- Crataegus apposita* Sarg. Rockhill.  
*Crataegus Schweinitziana* Sarg. Ridge Valley.  
*Crataegus uniflora* Muench. Dwarf Thorn. In thickets frequent.  
*Crataegus Smithii* Sarg. Harr's dam.  
*Crataegus tomentosa* L. Pear Thorn. Not rare in thickets.  
*Crataegus structilis* Ashe. Sellersville.  
*Crataegus opica* Ashe. Sellersville; West Rockhill.  
*Crataegus succulenta* Link. Sellersville.  
*Crataegus infera* Sarg. West Rockhill.  
*Crataegus pygmaea* Sarg. West Rockhill.  
*Crataegus micracantha* Sarg. West Rockhill.  
*Crataegus cordata* (Mill.) Ait. Washington Thorn. Frequent throughout.  
*Crataegus oxyacantha* L. English Hawthorn. In the lower end.  
*Cotoneaster Pyracantha* (L.) Spach. Fire Thorn. New Britain, A. S. Martin.  
*Malus coronaria* (L.) Mill. American Crab Apple. In thickets.  
*Malus Malus* (L.) Britton. Apple. Thickets and along fences.

#### Family 12. Drupaceae DC.

- Amygdalus Persica* L. Peach. Escaped into thickets.  
*Prunus Americana* Marsh. Wild Plum. Along streams and in thickets.  
*Prunus pumila* L. Sand Cherry. Islands and shores of the Delaware, (M. C.).  
*Prunus Cerasus* L. Sour Cherry. Along fences and in thickets.  
*Prunus Avium* L. Sweet Cherry. Woods and thickets.  
*Prunus Virginiana* L. Choke Cherry. In thickets.  
*Prunus serotina* Ehrh. Wild Black Cherry. Along fences.

#### Family 13. Caesalpiniaceae Kl. & Garcke.

- Cercis Canadensis* L. Red-bud, Judas Tree. Occasionally throughout.  
*Cassia nictitans* L. Sensitive Pea. In dry soil.  
*Cassia Chamaecrista* L. Partridge Pea. Chiefly along the Delaware.  
*Cassia Marylandica* L. American Senna. Along streams.  
*Gleditsia triacanthos* L. Honey Locust. In woods along the Delaware.

#### Family 14. Papilionaceae L.

- Baptisia tinctoria* (L.) R. Br. Wild Indigo. In a few places.  
*Crotalaria sagittalis* L. Rattle-box. Pipersville; Holicong, Miss Emma Trego;  
 Upper Makefield, Miss Agnes B. Williams, Glenlake.  
*Cytisus scoparius* (L.) Link. Broom. In the county, (P. Fl.).  
*Lupinus perennis* L. Wild Lupine. A few stations.  
*Medicago sativa* L. Alfalfa. Purple Medic. Doylestown, Prof. A. S. Martin.  
*Medicago lupulina* L. Black Medic. In fields and waste places, not common.  
*Medicago denticulata* Willd. Toothed Medic. In the county, (P. Fl.).  
*Medicago Arabica* All. Spotted Medic. Andalusia, I. C. Martindale.  
*Melilotus alba* Desv. White Melilot. Durham Furnace; Sellersville; Point Pleasant;  
 New Hope, Dr. E. Newlin Williams, Langhorne.  
*Melilotus officinalis* (L.) Lam. Yellow Melilot. Quakertown; Point Pleasant; New  
 Hope, Dr. E. Newlin Williams, Langhorne.

- Trifolium aureum* Poll. Yellow or Hop-clover. Roadsides and waste places.  
*Trifolium procumbens* L. Smaller Hop-clover. In fields and roadsides.  
*Trifolium dubium* Sibth. Least Hop-clover. Penn Valley.  
*Trifolium incarnatum* L. Crimson Clover. Penn Valley; Hilltown.  
*Trifolium arvense* L. Rabbit-foot Clover. In fields and waste places.  
*Trifolium pratense* L. Red Clover. In fields and meadows.  
*Trifolium hybridum* L. Alsike Clover. Frequent throughout.  
*Trifolium repens* L. White Clover. In fields and waste places.  
*Cracca Virginiana* L. Goat's Rue. Sandy soil, chiefly near the Delaware.  
*Robinia Pseudacacia* L. Locust-tree. Naturalized occasionally.  
*Robinia viscosa* Vent. Clammy Locust. Escaped from cultivation.  
*Stylosanthes biflora* (L.) B. S. P. Pencil-flower. Point Pleasant; Bristol.  
*Meibomia nudiflora* (L.) Kuntze. Naked-flowered Tick-trefoil. In woods.  
*Meibomia grandiflora* (Walt.) Kuntze. Pointed-leaved Tick-trefoil. In rocky woods.  
*Meibomia Michauxii* Vail. Prostrate Tick trefoil. In dry woods.  
*Meibomia glabella* (Michx.) Kuntze. Trailing Tick-trefoil. Durham, J. A. & H. F. Ruth.  
*Meibomia canescens* (L.) Kuntze. Hoary Tick-trefoil. Along the Delaware.  
*Meibomia bracteosa* (Michx.) Kuntze. Large-bracted Tick-trefoil. In thickets.  
*Meibomia paniculata* (L.) Kuntze. Panicked Tick-trefoil. On dry ground.  
*Meibomia viridiflora* (L.) Kuntze. Velvet-leaved Tick-trefoil. In the county, (P. Fl.).  
*Meibomia Dillenii* (Darl.) Kuntze. Dillen's Tick-trefoil. In dry soil.  
*Meibomia Canadensis* (L.) Kuntze. Canadian Tick-trefoil. Along river banks.  
*Meibomia rigida* (Ell.) Kuntze. Rigid Tick-trefoil. In dry soil.  
*Meibomia Marylandica* (L.) Kuntze. Maryland Tick-trefoil. In dry ground.  
*Meibomia obtusa* (Muhl.) Vail. Obtuse-leaved Tick-trefoil. In dry soil.  
*Lespedeza repens* (L.) Bart. Creeping Bush-clover. In sandy soil.  
*Lespedeza procumbens* Michx. Trailing Bush-clover. In dry soil.  
*Lespedeza Nuttallii* Darl. Nuttall's Bush-clover. Nockamixon.  
*Lespedeza violacea* (L.) Pers. Violet Bush-clover. In dry soil.  
*Lespedeza frutescens* (L.) Britton. Wand-like Bush-clover. In dry soil.  
*Lespedeza Virginica* (L.) Britton. Slender Bush-clover. In dry soil.  
*Lespedeza hirta* (L.) Ell. Hairy Bush-clover. In dry soil.  
*Lespedeza capitata* Michx. Round-headed Bush-clover. In dry soil.  
*Lespedeza angustifolia* (Pursh) Ell. Narrow-leaved Bush-clover. Penn Valley, Joseph Crawford.  
*Vicia Cracca* L. Cow Vetch. Plumstead, (M. C.); Sellersville; New Hope, Dr. E. Newlin Williams.  
*Vicia villosa* Roth. Hairy Vetch. Penn Valley.  
*Vicia Americana* Muhl. American Vetch. Delaware river near Erwinna, (M. C.).  
*Vicia Caroliniana* Walt. Carolina Vetch. Near Point Pleasant, (M. C.); Durham.  
*Vicia sativa* L. Common Vetch. Durham, J. A. & H. F. Ruth.  
*Lathyrus venosus* Muhl. Veiny Pea. Near New Hope, Dr. E. Newlin Williams.  
*Lathyrus palustris* L. Marsh Vetchling. Near Bristol, I. C. Martindale.  
*Lathyrus myrtifolius* Muhl. Myrtle-leaved Marsh Pea. Near Bristol, I. C. Martindale.  
*Falcata comosa* (L.) Kuntze. Hog Pea-nut. Moist thickets.  
*Apios Apios* (L.) MacM. Ground-nut. In moist rich ground, not common.  
*Phaseolus polystachyus* (L.) B. S. P. Wild Kidney Bean. Nockamixon, Dr. T. C. Porter; Solebury, Dr. E. Newlin Williams.

*Strophostyles helvola* (L.) Britton. Trailing Wild Bean. Andalusia, I. C. Martindale; Tullytown; Bristol.

*Strophostyles umbellata* (Muhl.) Britton. Pink Wild Bean. Tullytown; Langhorne, Dr. E. Newlin Williams; Bristol, I. C. Martindale.

#### Order 15. GERANIALES.

##### Family 1. Geraniaceae J. St. Hil

*Geranium maculatum* L. Wild Crane's-bill. In woods and meadows.

*Geranium Robertianum* L. Herb Robert Geranium. Along the Delaware; Argus; Rockhill.

*Geranium columbinum* L. Long-stalked Crane's-bill. Tinicum, (M. C.).

*Geranium Carolinianum* L. Carolina Crane's-bill. In dry soil.

*Geranium molle* L. Dove's-foot Crane's-bill. Sellersville.

##### Family 2. Oxalidaceae Lindl.

*Oxalis violacea* L. Violet Wood-sorrel. In moist soil.

*Oxalis stricta* L. Upright Yellow Wood-sorrel. In moist soil.

*Oxalis rufa* Small. Red Wood-sorrel. Sellersville.

*Oxalis cymosa* Small. Tall Yellow Wood-sorrel. In fields and waste ground.

*Oxalis corniculata* L. Yellow Procumbent Wood-sorrel. Durham Furnace.

*Oxalis Brittoniae* Small. Britton's Wood-sorrel. Sellersville.

##### Family 3. Linaceae Dumort.

*Linum usitatissimum* L. Common Flax. In waste places.

*Linum Virginianum* L. Wild Yellow Flax. In woods.

*Linum medium* (Planch.) Britton. Stiff Yellow Flax. Three-mile-run; Perkasio.

*Linum striatum* Walt. Ridged Yellow Flax. Rockhill; Tullytown; Penn Valley; Durham, Harvey F. Ruth.

##### Family 4. Rutaceae Juss.

*Xanthoxylum Americanum* Mill. Prickly Ash. Ridge Valley; Argus.

*Ptelea trifoliata* L. Shrubby Trefoil. Ridge's and Stover's islands, Delaware river (M. C.); above Morrisville, Dr. E. Newlin Williams.

##### Family 5. Simarubaceae DC.

*Ailanthus glandulosa* Desf. Ailanthus. Tree-of-Heaven. Roadside near Buckingham mountain, Dr. E. Newlin Williams.

##### Family 6. Polygalaceae Reichenb.

*Polygala lutea* L. Orange Milkwort. Near Bristol, I. C. Martindale.

*Polygala cruciata* L. Marsh Milkwort. Swamp near Bristol.

*Polygala verticillata* L. Whorled Milkwort. In dry soil.

*Polygala ambigua* Nutt. Loose-spiked Milkwort. In dry soil.

*Polygala viridescens* L. Purple Milkwort. In fields and meadows.

- Polygala Nuttallii* T. & G. Nuttall's Milkwort. Near Bristol; Tullytown, Joseph Crawford.
- Polygala Senega* L. Seneca Snakeroot. Near Bristol, I. C. Martindale; Springfield, rare, (M. C.).
- Polygala paucifolia* Willd. Flowering Wintergreen. Near Quakertown, Dr. I. S. Moyer.

## Family 7. Euphorbiaceae J. St. Hil.

- Crotonopsis linearis* Michx. Crotonopsis. Bristol, I. C. Martindale, Elias Diffenbaugh.
- Acalypha ostryaefolia* Ridd. Hornbeam Three-seeded Mercury. Morrisville, Mr. Lanning.
- Acalypha Virginica* L. Virginia Three-seeded Mercury. In thickets.
- Acalypha gracilens* A. Gray. Slender Three-seeded Mercury. In thickets.
- Euphorbia hirsuta* (Torr.) Wiegand. Hairy Spurge. Tullytown; Nockamixon; Hilltown.
- Euphorbia maculata* L. Spotted Spurge. Common throughout.
- Euphorbia nutans* Lag. Upright Spotted Spurge. In fields and thickets.
- Euphorbia corollata* L. Elowering Spurge. Along the Delaware.
- Euphorbia marginata* Pursh. White-margined Spurge. Near Sellersville.
- Euphorbia Ipecacuanhae* L. Ipecac Spurge. Penn Valley, Joseph Crawford.
- Euphorbia Lathyris* L. Mole Spurge. Escaped in a few places.
- Euphorbia Cyparissias* L. Cypress Spurge. In waste grounds.

## Family 8. Callitrichaceae Lindl.

- Callitriche Austini* Engelm. Terrestrial Water-starwort. In damp soil, Sellersville; Glenlake.
- Callitriche palustris* L. Vernal Water-starwort. In water, common.
- Callitriche heterophylla* Pursh. Larger Water-starwort. Streams, Rockhill.
- Callitriche bifida* (L.) Morong. Northern Water-starwort. Rockhill township, rare.

## Order 16. SAPINDALES.

## Family 1. Limnanthaceae Lindl.

- Floerkea proserpinacoides* Willd. False Mermaid. Bedminster, (M. C.); Sellersville; Bensalem, I. C. Martindale.

## Family 2. Anacardiaceae Lindl.

- Rhus copallina* L. Dwarf Sumac. In dry soil, not common.
- Rhus hirta* (L.) Sudw. Staghorn Sumac. Along the Delaware; Haycock mountain.
- Rhus glabra* L. Smooth Upland Sumac. In dry soil.
- Rhus Vernix* L. Poison Sumac. In bogs throughout.
- Rhus radicans* L. Poison Ivy. Thickets and along fences.

## Family 3. Ilicaceae Lowe.

- Ilex opaca* Ait. American Holly. Attleborough, Bristol, I. C. Martindale.
- Ilex glabra* (L.) A. Gray. Inkberry. Near Bristol, I. C. Martindale.

- Ilex verticillata** (L.) A. Gray. Black Alder. In moist soil.  
**Ilex verticillata cyclophylla** Robinson. Small-leaved Ilex. Buckwampum mountain, Durham, J. A. & H. F. Ruth.  
**Ilex laevigata** (Pursh) A. Gray. Smooth Winter-berry. Bristol, I. C. Martindale; Tullytown.

## Family 4. Celastraceae Lindl.

- Euonymus Americanus** L. Strawberry Bush. Bensalem, I. C. Martindale; Bristol; Grenoble, N. E. Arnold.  
**Euonymus obovatus** Nutt. Running Strawberry Bush. Langhorne's Hill, I. C. Martindale.  
**Euonymus atropurpureus** Jacq. Burning Bush. Wahoo. In thickets.  
**Euonymus Europaeus** L. Spindle-tree. Bristol; Tullytown.  
**Celastrus scandens** L. Climbing Bittersweet. In thickets.

## Family 5. Staphyleaceae DC.

- Staphylea trifolia** L. American Bladder-nut. On moist hillsides.

## Family 6. Aceraceae St. Hil.

- Acer saccharinum** L. Silver Maple. Native along the lower Delaware.  
**Acer rubrum** L. Red Maple. In meadows and swamps.  
**Acer saccharum** Marsh. Sugar Maple. Frequent in the upper districts.  
**Acer nigrum** Michx. Black Sugar Maple. Narrows.  
**Acer Pennsylvanicum** L. Striped Maple. In the county according to Porter.  
**Acer spicatum** Lam. Mountain Maple. Along the Delaware south to Point Pleasant, and up the Tohickon to Pipersville, (M. C.).  
**Acer Negundo** L. Box Elder. Along streams in the lower end, I. C. Martindale; Sellersville.

## Family 7. Balsaminaceae Lindl.

- Impatiens biflora** Walt. Spotted Touch-me-not. In moist grounds.  
**Impatiens aurea** Muhl. Pale Touch-me-not. Along the Delaware.

## Order 17. RHAMNALES.

## Family 1. Rhamnaceae Dumort.

- Ceanothus Americanus** L. New Jersey Tea. In woods and thickets.

## Family 2. Vitaceae Lindl.

- Vitis Labrusca** L. Northern Fox-grape. In thickets.  
**Vitis aestivalis** Michx. Summer Grape. In thickets.  
**Vitis bicolor** LeConte. Winter Grape. In the county, (P. Fl.).  
**Vitis vulpina** L. Riverside Grape. Nockamixon rocks, Dr. T. C. Porter; near New Hope, Dr. E. Newlin Williams.  
**Vitis cordifolia** Michx. Frost Grape. Chicken Grape. Along streams.  
**Parthenocissus quinquefolia** (L.) Planch. Virginia Creeper. In thickets.

## Order 18. MALVALES.

## Family 1. Tiliaceae Juss.

**Tilia Americana** L. Bass-wood. American Linden. In rich woods.

## Family 2. Malvaceae Neck.

- Althaea officinalis** L. Marsh-mallow. In the county, (P. Fl.).  
**Althaea rosea** Cav. Hollyhock. Sellersville; Perkasio; Rockhill.  
**Malva sylvestris** L. High Mallow. In waste grounds.  
**Malva rotundifolia** L. Common Mallow. Cheeses. In waste places.  
**Malva crispa** L. Curled Mallow. Near Mount Pleasant.  
**Malva moschata** L. Musk Mallow. In the county, (P. Fl.).  
**Sida spinosa** L. Prickly Sida. Along the entire river border.  
**Abutilon Abutilon** (L.) Rusby. Velvet Leaf. Indian Mallow. In waste places.  
**Hibiscus Moscheutos** L. Swamp Rose-mallow. Bristol swamps.  
**Hibiscus Trionum** L. Bladder Ketmia. In waste grounds.  
**Hibiscus Syriacus** L. Shrubby Althaea. Rose-of-Sharon. In lower end.

## Order 19. PARIETALES.

## Family 1. Hypericaceae Lindl.

- Ascyrum stans** Michx. St. Peter's-wort. Near Bristol, I. C. Martindale.  
**Ascyrum hypericoides** L. St. Andrew's Cross. Hulmeville, I. C. Martindale.  
**Hypericum Ascyron** L. Great St. John's-wort. Nochamixon; Point Pleasant.  
**Hypericum adpressum** Bart. Creeping St. John's-wort. Tullytown; Bristol.  
**Hypericum ellipticum** Hook. Pale St. John's-wort. Solliday's island, (M. C.); Morrisville, Dr. E. Newlin Williams.  
**Hypericum virgatum** Lam. Copper-colored St. John's-wort. Bristol, I. C. Martindale.  
**Hypericum perforatum** L. Common St. John's-wort. In fields, a common weed.  
**Hypericum maculatum** Walt. Spotted St. John's-wort. In moist soil.  
**Hypericum mutilum** L. Dwarf St. John's-wort. In wet grounds.  
**Hypericum gymnathum** Engelm. & Gray. Claspingleaved St. John's-wort, Bristol, I. C. Martindale.  
**Hypericum Canadense** L. Canadian St. John's-wort. In wet soil.  
**Sarothra gentianoides** L. Orange-grass. Pine-weed. On dry banks.  
**Triadenum Virginicum** (L.) Raf. Marsh St. John's-wort. In swamps.

## Family 2. Elatinaceae Lindl.

**Elatine Americana** (Pursh.) Arn. Water-wort. Andalusia, I. C. Martindale.

## Family 3. Cistaceae Lindl.

- Helianthemum majus** (L.) B. S. P. Hoary Frostweed. Solliday's island; near Sellersville.  
**Helianthemum Candense** (L.) Michx. Frost-wort. Bristol, Tullytown.

- Lechea minor** L. Thyme-leaved Pin-weed. Bristol, Dr. T. C. Porter.  
**Lechea racemulosa** Michx. Oblong-fruited Pin-weed. Sellersville.  
**Lechea villosa** Ell. Hairy Pin-weed. Frequent in dry soil.  
**Lechea maritima** Leggett. Beach Pin-weed. Bristol, I. C. Martindale.  
**Lechea intermedia** Leggett. Large-podded Pin-weed. Argus.

Family 4. *Violaceae* DC.

- Viola palmata** L. Early Blue Violet. In rocky woodlands.  
**Viola palmata dilatata** Ell. Three-lobed Blue Violet. Nockamixon, Rockhill.  
**Viola palmata variabilis** Greene. Variable-leaved Violet. Argus.  
**Viola palmata sororia** (Willd.) Pollard. Hairy Blue Violet. In woodlands.  
**Viola Angellae** Pollard. Angell's Violet. Haycock; Ridge Valley.  
**Viola Brittoniana** Pollard. Coast Violet. Tullytown; Bristol.  
**Viola pedata** L. Bird's-foot Violet. On hillsides. A few stations.  
**Viola affinis** LeConte. Thin-leaved Wood Violet. In meadows and thickets.  
**Viola papilionacea** Pursh. Hooded Blue Violet. Woodlands and meadows.  
**Viola papilionacea domestica** (Bucknell) Pollard. Yard Violet. Sellersville, Penn Valley; Durham.  
**Viola villosa** Walt. Southern Wood Violet. Rockhill; Lower end, I. C. Martindale.  
**Viola cucullata** Ait. Marsh Blue Violet. In wet meadows and bogs.  
**Viola sagittata** Ait. Arrow-leaved Violet. In wet place.  
**Viola emarginata** (Nutt.) LeConte. Triangle-leaved Violet. Blooming Glen.  
**Viola fimbriatula** J. E. Smith, Ovate-leaved Violet. On dry banks.  
**Viola odorata** L. Sweet Violet. Escaped from gardens.  
**Viola rotundifolia** Michx. Round-leaved Violet. Milford township.  
**Viola blanda** Willd. Sweet White Violet. Wet meadows and bogs.  
**Viola LeConteana** Don. Woodland White Violet. Nockamixon.  
**Viola primulaefolia** L. Primrose-leaved Violet. In middle and lower end.  
**Viola lanceolata** L. Lance-leaved Violet. Near Quakertown; Point Pleasant; Bristol; near Doylestown, Prof. A. S. Martin.  
**Viola pubescens** Ait. Hairy Yellow Violet. In dry woods.  
**Viola scabriuscula** (T. & G.) Schwein. Smoothish Yellow Violet. Near Sellersville; lower end, I. C. Martindale.  
**Viola Canadensis** L. Canada Violet. Nockamixon.  
**Viola striata** Ait. Pale Violet. Bedminster, along the Tohickon.  
**Viola Labradorica** Schrank. American Dog Violet. In meadows.  
**Viola rostrata** Pursh. Long-spurred Violet. Rockhill township; New Hope, Dr. E. Newlin Williams.  
**Viola tricolor** L. Pansy. Heart's-ease. Lower end, I. C. Martindale; near Carversville (M. C.).  
**Viola Rafinesquii** Greene. Field Pansy. Near Sellersville; Solebury, Dr. E. Newlin Williams; Yardley, Prof. A. B. Kauffman; John Cawley, Reiglesville.  
**Cubelium concolor** (Forst.) Raf. Green Violet. Near Point Pleasant, (M. C.).

Order 20. *THYMELEALES*.Family I. *Thymeleaceae* Reichenb.

- Dirca palustris** L. Leather-wood. Near Lumberton.



## Order 21. MYRTALES.

## Family 1. Lythraceae Lindl.

- Decodon verticillatus** (L.) Ell. Swamp Loosestrife. Penn Valley.  
**Lythrum Hyssopifolia** L. Hyssop Loosestrife. In ditches near Grier's corner in Plumstead.  
**Lythrum Salicaria** L. Purple Loosestrife. Nockamixon, Dr. T. C. Porter; Solliday's island, Harvey F. Ruth; Morrisville, Dr. E. Newlin Williams.  
**Parsonsia petiolata** (L.) Rusby. Clammy Cuphea. In dry soil.

## Family 2. Melastomaceae R. Br.

- Rhexia Mariana** L. Maryland Meadow-Beauty. Near Bristol.  
**Rhexia Virginica** L. Meadow-Beauty. Lower end; Near Quakertown, (M. C.).

## Family 3. Onagraceae Dumort.

- Isnardia palustris** L. Water Purslane. In ditches and swamps.  
**Ludwigia sphaerocarpa** Ell. Globe-fruited Ludwigia. Near Bristol, Elias Diffenbaugh.  
**Ludwigia alternifolia** L. Rattle-box. In swamps and wet places.  
**Chamaenerion angustifolium** (L.) Scop. Great Willow-herb. Near Bristol, I. C. Martindale; Sellersville; Springfield; Rockhill; Grenoble, N. E. Arnold.  
**Epilobium lineare** Muhl. Marsh Willow-herb. In Milford and Springfield townships, (M. C.).  
**Epilobium coloratum** Muhl. Common Willow-herb. In wet grounds.  
**Onagra biennis** (L.) Scop. Common Evening-primrose. On dry banks.  
**Oenothera laciniata** Hill. Sinuate-leaved Evening-primrose. Bristol.  
**Kneiffia longipedicellata** Small. Long-stemmed Sundrops. Tullytown.  
**Kneiffia pumila** (L.) Spach. Small Sundrops. In dry soil.  
**Kneiffia fruticosa** (L.) Raimann. Common Sundrops. In dry soil.  
**Kneiffia fruticosa pilosella** (Raf.) Britton. In the county, (P. Gl.).  
**Hartmannia speciosa** (Nutt.) Small. Showy Primrose. Trumbauersville, Frank Ball.  
**Gaura biennis** L. Biennial Gaura. In dry soil along rivers and streams.  
**Circaea Lutetiana** L. Enchanter's Nightshade. In woods.

## Family 4. Haloragidaceae Kl. &amp; Garcke.

- Proserpinaca palustris** L. Mermaid-weed. In swamps.  
**Myriophyllum verticillatum** L. Whorled Water-milfoil. In the county (P. El.).  
**Myriophyllum heterophyllum** Michx. Water-milfoil. Boggy stream near Applebachsville, (M. C.).

## Order 22. UMBELLES.

## Family 1. Araliaceae Vent.

- Aralia spinosa** L. Hercules' Club. Andalusia, I. C. Martindale.  
**Aralia racemosa** L. American Spikenard. In rocky woods.  
**Aralia nudicaulis** L. Wild Sarsaparilla. In rich woods.  
**Panax quinquefolium** L. Ginseng. Sparingly in rich woods.  
**Panax trifolium** L. Dwarf Ginseng. In woods and thickets.

## Family 2. Umbelliferae B. Juss.

- Hydrocotyle umbellata** L. Umbellate Marsh-pennywort. Near Bristol; New Britain, Prof. A. S. Martin.
- Hydrocotyle Canbyi** C. & R. Canby's Marsh-pennywort. Near Doylestown, Prof. A. S. Martin.
- Hydrocotyle Americana** L. American Marsh-pennywort. In wet places.
- Sanicula Marylandica** L. Sanicle. In rich woods.
- Sanicula gregaria** Bicknell. Clustered Snake-root. Three-mile-run; Durham, Harvey F. Ruth; Doylestown; Deep Run.
- Sanicula Canadensis** L. Canada Sanicle. In woods.
- Sanicula trifoliata** Bicknell. Large-fruited Sanicle. Point Pleasant, E. P. Bicknell.
- Eryngium Virginianum** Lam. Button Snake-root. Near Bristol, I. C. Martindale.
- Chaerophyllum procumbens** (L.) Crantz. Spreading Chervil. Along the Delaware.
- Washingtonia Claytoni** (Michx.) Britton. Woolly Sweet-cicely. In woods.
- Washingtonia longistylis** (Torr.) Britton. Smooth Sweet-cicely. In woods.
- Conium maculatum** L. Poison Hemlock. Lumberville; Point Pleasant, (M. C.); New Hope, Dr. E. Newlin Williams.
- Bupleurum rotundifolium** L. Thorough-wax. Bensalem, I. C. Martindale.
- Zizia aurea** (L.) Koch. Early Meadow-parsnip. Near Sellersville; Nockamixon, Benjamin Heritage.
- Zizia cordata** (Walt.) DC. Heart-leaved Alexanders. In woods.
- Cicuta maculata** L. Water Hemlock. In swamps and streams.
- Cicuta bulbifera** L. Bulb-bearing Water-Hemlock. In swamps.
- Deringa Canadensis** (L.) Kuntze. Honewort. In woods.
- Carum Carui** L. Caraway. Rockhill, Dr. J. B. Brinton.
- Taenidia integerrima** (L.) Drude. Yellow Pimpernel. On rocky hillsides.
- Pimpinella Saxifraga** L. Pimpernel. Durham, J. A. & H. F. Ruth; Wyker's island, Gottlieb Frey.
- Sium cicutaefolium** Gmel. Hemlock Water-parsnip. In swamps and streams.
- Sium Carsoni** Durand. Carson's Water-parsnip. Rockhill.
- Ptilimnium capillaceum** (Michx.) Raf. Mock Bishol-weed. Tullytown.
- Aethusa Cynapium** L. Fool's Parsley. Rockhill, A. MacElwee.
- Foeniculum Foeniculum** (L.) Karst. Fennel. In the county, (P. Fl.).
- Thaspium trifoliatum** (L.) Britton. Purple Meadow-Parsnip. In moist soil.
- Thaspium trifoliatum aureum** (Nutt.) Britton. Golden Alexanders. In woods.
- Thaspium barbinode** (Michx.) Nutt. Bearded Meadow-Parsnip. Along the Delaware, (M. C.).
- Angelica villosa** (Walt.) B. S. P. Hairy Angelica. Tullytown; Rockhill.
- Oxypolis rigidus** (L.) Raf. Cow-bane. Tullytown; Penn Valley.
- Pastinaca sativa** L. Wild Parsnip. Waste places and roadsides.
- Heracleum lanatum** Michx. Cow-Parsnip. Andalusia; Quakertown, Gottlieb Frey; Doylestown, Prof. A. S. Martin.
- Daucus Carota** L. Wild Carrot. A common weed in fields and waste places.

## Family 3. Cornaceae Link.

- Cornus florida** L. Flowering Dogwood. In woods.
- Cornus circinata** L'Her. Round-leaved Cornel. In rocky woods.
- Cornus Amomum** Mill. Silky Cornel. Kinnikinnik. Along streams.
- Cornus candidissima** Marsh. Panicked Cornel. In rich soil.

**Cornus alternifolia** L. f. Alternate-leaved Cornel. In woods.

**Nyssa sylvatica** Marsh. Sour Gum. Tupelo. In rich woods.

Series 2. GAMOPETALAE.

Order 1. ERICALES.

Family 1. Clethraceae Klotsch.

**Clethra alnifolia** L. Sweet Pepperbush. Along the lower Delaware; Buckingham mountain, Dr. E. Newlin Williams.

Family 2. Pyrolaceae Agardh.

**Pyrola rotundifolia** L. Round-leaved Wintergreen. In dry woods.

**Pyrola chlorantha** Sw. Greenish-flowered Wintergreen. Near Point Pleasant (M. C.).

**Pyrola elliptica** Nutt. Skin-leaf. In rich woods.

**Chimaphila maculata** (L.) Pursh. Spotted Wintergreen. In dry woods.

**Chimaphila umbellata** (L.) Nutt. Pipsissewa. In dry woods.

Family 3. Monotropaceae Lindl.

**Monotropa uniflora** L. Indian Pipe. Corpse Plant. In rich woods.

**Hypopitys Hypopitys** (L.) Small. Pine-sap. In dry woods.

Family 4. Ericaceae DC.

**Azalea nudiflora** L. Wild Honeysuckle. In woods and thickets.

**Azalea viscosa** L. Swamp Honeysuckle. Bristol; Tullytown; Buckingham mountain, Dr. E. Newlin Williams.

**Rhododendron maximum** L. Great Laurel. Along the Delaware south to New Hope.

**Kalmia angustifolia** L. Sheep Laurel. Lambkill. In woods and thickets.

**Kalmia latifolia** L. Mountain Laurel. In woods.

**Leucothoe racemosa** (L.) A. Gray. Leucothoe, Bristol; near Sellersville.

**Pieris Mariana** (L.) Benth. & Hook. Stagger-bush. Near Bristol, I. C. Martindale; Buckingham valley, Dr. E. Newlin Williams.

**Xolisma ligustrina** (L.) Britton. Privet Andromeda. In wet woods.

**Epigaea repens** L. Trailing Arbutus. Mayflower. A few stations.

**Gaultheria procumbens** L. Wintergreen. In dry woods.

**Arctostaphylos Uva-Ursi** (L.) Spreng. Bearberry. Northeast of Bristol, Dr. T. C. Porter; first collected there by Zaccheus Collins prior to 1813.

Family 5. Vacciniaceae Lindl.

**Gaylussacia frondosa** (L.) T. & G. Tangleberry. Glenlake, Dr. N. L. Britton, Turkey Hill, Joseph Crawford.

**Gaylussacia resinosa** (Ait.) T. & G. Black Huckleberry. In woods.

**Polycodium stamineum** (L.) Green. Buckberry. In woods and thickets.

- Polycodium candicans** (C. Mohr.) Small. Glenlake, Dr. N. L. Britton.  
**Vaccinium corymbosum** L. Tall Blueberry. In wet woods and thicket.  
**Vaccinium atrococcum** (A. Gray) Heller. Black Blueberry. Lower Solebury, Dr. E. Newlin Williams.  
**Vaccinium Pennsylvanicum** Lam. Dwarf Blueberry. Penn Valley; Bristol.  
**Vaccinium vacillans** Kalm. Low Blueberry. In dry soil.  
**Oxycoccus macrocarpus** (Ait.) Pers. Large Cranberry. Swamp in Springfield.

## Order 2. PRIMULALES.

## Family 1. Primulaceae Vent.

- Samolus floribundus** H. B. K. Water Pimpernel. Quakertown (M. C.); Ridge Valley; Upper Black's Eddy, Dr. E. Newlin Williams; lower end, I. C. Martindale.  
**Lysimachia quadrifolia** L. Whorled Loosestrife. In thickets.  
**Lysimachia terrestris** (L.) B. S. P. Bulb-bearing Loosestrife. In thickets.  
**Lysimachia producta** (A. Gray) Fernald. Bracted Loosestrife. Rockhill.  
**Lysimachia Nummularia** L. Moneywort. In ditches and waste places, Sellersville.  
**Steironema ciliatum** (L.) Raf. Fringed Loosestrife. In moist ground.  
**Steironema lanceolatum** (Walt.) A. Gray. Lance-leaved Loosestrife. Quakertown, (M. C.); lower end, I. C. Martindale.  
**Trientalis Americana** (Pers.) Pursh. Star-flower. Forks of the Neshaminy, Dr. J. C. Martindale.  
**Anagallis arvensis** L. Scarlet Pimpernel. In waste places throughout.

## Order 3. EBENALES.

## Family 1. Ebenaceae Vent.

- Diospyros Virginiana** L. Persimmon. In fields and woods.

## Order 4. GENTIANALES.

## Family 1. Oleaceae Lindl.

- Syringa vulgaris** L. Lilac. Escaped in a few places.  
**Fraxinus Americana** L. White Ash. In rich woods.  
**Fraxinus Biltmoreana** Beadle. Biltmore Ash. Woodbourne, Dr. N. L. Britton.  
**Fraxinus Pennsylvanica** Marsh. Red Ash. In moist soil.  
**Fraxinus nigra** Marsh. Black Ash. Rather rare in moist woods.  
**Ligustrum vulgare** L. Privet. Along roadsides.

## Family 2. Gentianaceae Dumort.

- Sabbatia angularis** (L.) Pursh. American Centaury. Rose-Pink. Rich soil.  
**Sabbatia campanulata** (L.) Slender Marsh Pink. Bristol; Tullytown.  
**Gentiana crinita** Froel. Fringed Gentian. Rockhill, Ridge Valley; Buckingham mountain, Dr. E. Newlin Williams.  
**Gentiana quinquefolia** L. Stiff Gentian. Durham, J. A. & H. F. Ruth.

- Gentiana Saponaria** L. Soap-wort Gentian. Tullytown, Joseph Crawford.  
**Gentiana Andrewsii** Griseb. Closed Blue Gentian. In moist ground.  
**Gentiana flavida** A. Gray. Yellowish Gentian. Durham, J. A. & H. F. Ruth.  
**Gentiana villosa** L. Striped Gentian. Buckingham Valley, C. A. Boice,  
**Obolaria Virginica** L. Pennywort. In rich woods.  
**Bartonia Virginica** (L.) B. S. P. Yellow Bartonia. Andalusia, I. C. Martindale;  
 Bristol; Tullytown.

## Family 3. Menyanthaceae G. Don.

- Menyanthes trifoliata** L. Buckbean. Swamp near Rockhill.  
**Limnanthemum lacunosum** (Vent.) Griseb. Floating Heart. Near Bristol, I. C. Martindale.

## Family 4. Apocynaceae Lindl.

- Vinca minor** L. Periwinkle, Bristol; Durham, Harvey F. Ruth; New Hope, Dr. E. Newlin Williams.  
**Apocynum androsaemifolium** L. Spreading Dogbane. In fields and thickets.  
**Apocynum cannabinum** L. Indian Hemp. In fields and meadows.  
**Apocynum medium** Greene. Intermediate Dogbane. Glenlake, Dr. N. L. Britton.  
**Apocynum album** Greene. River-bank Dogbane. In the county, (P. Fl.).  
**Apocynum hypericifolium** Ait. Clasping-leaved Dogbane. Along streams.

## Family 5. Asclepiadaceae Lindl.

- Asclepias tuberosa** L. Butterfly-weed. Pleurisy-root. In fields.  
**Asclepias rubra** L. Red Milkweed. Near Bristol.  
**Asclepias purpurascens** L. Purple Milkweed. In fields and thickets.  
**Asclepias incarnata** L. Swamp Milkweed. In wet meadows and swamps.  
**Asclepias pulchra** Ehrh. Hairy Milkweed. Swamps. Bristol and Tullytown.  
**Asclepias amplexicaulis** J. E. Smith. Blunt-leaved Milkweed. Bristol, I. C. Martindale; Quakertown, Gottlieb Frey; Tullytown, Joseph Crawford.  
**Asclepias exaltata** (L.) Muhl. Poke Milkweed. Sellersville; Springfield; Bycot, Albrecht Jahn; New Hope, Dr. Joseph Stokes.  
**Asclepias variegata** L. White Milkweed. Lower end, I. C. Martindale; Buckingham mountain, and lower Solebury, Dr. E. Newlin Williams.  
**Asclepias quadrifolia** Jacq. Four-leaved Milkweed. On wooded hillsides.  
**Asclepias Syriaca** L. Common Milkweed. In rich ground.  
**Asclepias verticillata** L. Whorled Milkweed. Near Kintnersville.  
**Acerates viridiflora** (Raf.) Eaton. Green Milkweed. In dry soil.  
**Acerates viridiflora Ivesii** Britton. Lance-leaved Green Milkweed. Sellersville.

## Order 5. POLEMONIALES.

## Family 1. Convolvulaceae Vent.

- Quamoclit Quamoclit** (L.) Britton. Cypress Vine. In the county, (P. Fl.).  
**Quamoclit coccinea** (L.) Moench. Small Red Morning-glory. Sellersville.  
**Ipomoea pandurata** (L.) Meyer. Wild Potato Vine. In dry fields.  
**Ipomoea purpurea** (L.) Roth. Morning-glory. In waste grounds.

- Ipomoea hederacea** Jacq. Ivy-leaved Morning-glory. Sellersville; Bristol.  
**Convolvulus sepium** L. Hedge Bindweed. In moist soil.  
**Convolvulus Japonicus** Thunb. Japanese Morning-glory. Springfield.  
**Convolvulus spithameus** L. Upright Bindweed. In dry sandy fields.  
**Convolvulus arvensis** L. Small Bindweed. In fields.

## Family 2. Cuscutaceae Dumort.

- Cuscuta Epilinum** Weihe. Flax Dodder. Plumsteadville, (M. C.).  
**Cuscuta arvensis** Beyrich. Field Dodder, Kintnersville, Dr. T. C. Porter; Sellersville.  
**Cuscuta Gronovii** Willd. Common Dodder. In fields and thickets.  
**Cuscuta compacta** Juss. Compact Dodder. Along the Delaware.

## Family 3. Polemoniaceae DC.

- Phlox paniculata** L. Garden Phlox. Escaped in the lower end, I. C. Martindale.  
**Phlox maculata** L. Wild Sweet-William. In moist soil.  
**Phlox pilosa** L. Downy Phlox. In dry soil.  
**Phlox subulata** L. Moss Pink. Rocky banks along the Delaware.  
**Polemonium reptans** L. Greek Valerian. In the lower end, I. C. Martindale; Edison.

## Family 4. Hydrophyllaceae Lindl.

- Hydrophyllum Virginicum** L. Virginia Water-leaf. In moist shaded ground.  
**Hydrophyllum Candense** L. Canada Water-leaf. Nockamixon, Dr. T. C. Porter.  
**Macrocalyx Nyctelea** (L.) Kuntze. Nyctelea. Opposite Trenton, Dr. T. C. Porter.  
**Phacelia dubia** (L.) Small. Small-flowered Phacelia. Telford, Frank H. Strohm.

## Family 5. Boraginaceae Lindl.

- Heliotropium Curassavicum** L. Sea-side Heliotrope. In the county, (P. Fl.).  
**Heliotropium Indicum** L. Indian Heliotrope. In the county, (P. Fl.).  
**Cynoglossum officinale** L. Hound's-tongue. In waste places.  
**Cynoglossum Virginicum** L. Wild Comfrey. In woods.  
**Lappula Virginiana** (L.) Greene. Virginia Stickseed. In woods and thickets.  
**Mertensia Virginica** (L.) DC. Virginia Cowslip. Lower Neshaminy, I. C. Martindale; Yardley, Prof. W. H. Slotter.  
**Myosotis laxa** Lehm. Smaller Forget-me-not. In wet places.  
**Myosotis Virginica** (L.) B. S. P. Spring Scorpion-grass. In dry fields.  
**Lithospermum arvense** L. Corn Gromwell. In fields and waste places.  
**Onosmodium Virginianum** (L.) DC. False Gromwell. Point Pleasant.  
**Symphytum officinale**. L. Comfrey. In waste places.  
**Echium vulgare** L. Blueweed. Viper's Bugloss. In waste ground.

## Family 6. Verbenaceae J. St. Hil.

- Verbena urticifolia** L. White Vervain. In fields and along roadsides.  
**Verbena hastata** L. Blue Vervain. In moist ground.  
**Verbena angustifolia** Michx. Narrow-leaved Vervain. A few stations.

## Family 7. Labiatae B. Juss.

- Teucrium Canadense* L. American Germander. In thickets.
- Isanthus brachiatus* (L.) B. S. P. False Pennyroyal. Along the Delaware.
- Trichostema dichotomum* L. Blue Curls. In dry fields.
- Trichostema lineare* Nutt. Narrow-leaved Blue Curls. Bristol, Elias Diffenbaugh.
- Scutellaria lateriflora* L. Mad-dog Skullcap. In wet places.
- Scutellaria pilosa* Michx. Hairy Skullcap. In woods and thickets.
- Scutellaria integrifolia* L. Hyssop Skullcap. In woods and thickets.
- Scutellaria parvula* Michx. Small Skullcap. Nockamixon, Dr. T. C. Porter; Sellersville.
- Scutellaria galericulata* L. Hooded Skullcap. Andalusia, I. C. Martindale.
- Scutellaria nervosa* Pursh. Veined Skullcap. Rockhill; Nockamixon, Dr. E. Newlin Williams.
- Marrubium vulgare* L. Hoarhound. In waste places.
- Agastache nepetoides* (L.) Kuntze. Catnep Giant-Hyssop. Sellersville; Nockamixon; Solebury, Dr. E. Newlin Williams.
- Agastache scrophulariaefolia* (Willd.) Kuntze. Figwort. Sellersville.
- Nepeta Cataria* L. Catnep. Catmint. In waste places.
- Glechoma hederacea* L. Ground Ivy. In waste grounds.
- Prunella vulgaris* L. Heal-all. In fields and woods.
- Leonurus Cardiaca* L. Motherwort. In waste grounds.
- Lamium amplexicaule* L. Dead Nettle. In waste and cultivated ground.
- Lamium maculatum* L. Spotted Dead Nettle. Nockamixon township.
- Stachys hyssopifolia* Michx. Hyssop Hedge Nettle. Bristol, I. C. Martindale.
- Stachys Atlantica* Britton. Coast Hedge Nettle. In the county, (P. Fl.)
- Stachys ambigua* (A. Gray) Britton. Dense-flowered Hedge Nettle. Bristol, Elias Diffenbaugh.
- Stachys tenuifolia* Willd. Smooth Hedge Nettle. Bristol, Dr. T. C. Porter.
- Stachys palustris* L. Hedge Nettle. In moist ground.
- Stachys aspera* Michx. Rough Hedge Nettle. In moist soil.
- Salvia lyrata* L. Wild Sage. Lower end, I. C. Martindale; Doylestown, Alfred Fackenthal.
- Monarda didyma* L. Oswego Tea. Point Pleasant, Miss Murray.
- Monarda Clinopodia* L. Basal Balm. Deep Run.
- Monarda fistulosa* L. Wild Bergamot. In thickets.
- Monarda media* Willd. Purple Bergamot. Doylestown.
- Monarda mollis* L. Canescent Wild Bergamot. Sellersville.
- Monarda punctata* L. Horse-Mint. Bristol, I. C. Martindale; Solebury township, Dr. E. Newlin Williams.
- Hedeoma pulegioides* (L.) Pers. Pennyroyal. In dry soil.
- Melissa officinalis* L. Garden Balm. Haycock mountain, Dr. I. S. Moyer.
- Clinopodium vulgare* L. Wild Basil. In woods and thickets.
- Hyssopus officinalis* L. Hyssop. South Perkasio.
- Origanum vulgare* L. Wild Marjoram. Lower end, I. C. Martindale.
- Koellia flexuosa* (Walt.) MacM. Narrow-leaved Mountain-Mint. In thickets.
- Koellia Virginiana* (L.) MacM. Virginja Mountain-Mint. In thickets.
- Koellia verticillata* (Michx.) Kuntze. Torrey's Mountain-Mint. Tullytown.
- Koellia clinopodioides* (T. & G.) Kuntze. Basil Mountain-Mint. Point Pleasant.
- Koellia incana* (L.) Kuntze. Hoary Mountain-Mint. On dry hillsides.
- Koellia mutica* (Michx.) Britton. Short-toothed Mountain-Mint. Sandy soil.

- Thymus Serpyllum* L. Creeping Thyme. Near Quakertown, (M. C.); lower end, I. C. Martindale.
- Cunila origanoides* (L.) Britton. Dittany. On hillsides.
- Lycopus Virginicus* L. Purple Bugle-weed. In moist soil.
- Lycopus Americanus* Muhl. Cut-leaved Water Hoarhound. In wet soil.
- Lycopus Europaeus* L. Water Hoarhound. In waste places.
- Mentha spicata* L. Spearmint. In moist ground.
- Mentha piperita* L. Peppermint. In wet soil.
- Mentha longifolia* (L.) Huds. Horse Mint. In the county, (P. El.)
- Mentha rotundifolia* (L.) Huds. Round-leaved Mint. Centre Bridge, (M. C.); near New Hope, Dr. E. Newlin Williams.
- Mentha alopecuroides* Hull. Woolly Mint. Extensively escaped in the upper end.
- Mentha gentilis* L. Creeping Whorled Mint. Hilltown; Sellersville.
- Mentha sativa* L. Marsh Whorled Mint. New Hope; Point Pleasant; Morrisville, Dr. E. Newlin Williams.
- Mentha Canadensis* L. Wild Mint. In moist soil.
- Collinsonia Canadensis* L. Horse-Balm. In rich woods.
- Perilla frutescens* (L.) Britton. Perilla. Nockamixon, Dr. T. C. Porter.

#### Family 8. Solanaceae Pers.

- Physalodes Physalodes* (L.) Britton. Apple-of-Peru. Chiefly in lower districts, (M. C.).
- Physalis pruinosa* L. Tall Hairy Ground-Cherry. Sellersville.
- Physalis Virginiana* Mill. Virginia Ground-Cherry. Sellersville; Wycombe.
- Physalis heterophylla* Nees. Clammy Ground-Cherry. In rich soil.
- Physalis heterophylla ambigua* (A. Gray) Rydberg. Upright Clammy Ground-Cherry. In rich soil.
- Solanum nigrum* L. Black Nightshade. In rich soil.
- Solanum Carolinense* L. Horse-Nettle. In fields and in waste places.
- Solanum rostratum* Dunal. Beaked Nightshade. Sand Bur. Near Perkasio.
- Solanum Dulcamara* L. Nightshade. Along fences and in thickets.
- Lycium vulgare* (Ait. f.) Dunal. Matrimony Vine. Bristol; Penn Valley.
- Hyoscyamus niger* L. Henbane. Sellersville.
- Datura Stramonium* L. Jimson-weed. Thorn-Apple. In waste places.
- Datura Tatula* L. Purple Thorn-Apple. In waste places.
- Petunia axillaris* (Lam.) B. S. P. White Petunia. Sellersville.

#### Family 9. Scrophulariaceae Lindl.

- Verbascum Thapsus* L. Great Mullein. In fields and waste places.
- Verbascum Lychnitis* L. White Mullein. Newtown; Point Pleasant; Durham, Harvey F. Ruth; Malta island, Dr. E. Newlin Williams.
- Verbascum Blattaria* L. Moth Mullein. In fields and waste places.
- Cymbalaria Cymbalaria* (L.) Wettst. Kenilworth Ivy. Carversville, Point Pleasant; New Hope, Buckingham, and Wrightstown, Dr. E. Newlin Williams.
- Kickxia Elatine* (L.) Dumont. Prostrate Toad-Flax. Near Quakertown, (M. C.) lower end, I. C. Martindale; near Doylestown.
- Linaria Linaria* (L.) Karst. Yellow Toad-Flax. In fields and waste places.



- Linaria Canadensis* (L.) Dumort. Wild Toad-Flax. Chiefly in the lower end.
- Scrophularia Marylandica* L. Maryland Figwort. In thickets.
- Scrophularia leporella* Bicknell. Hare Figwort. In thickets.
- Chelone glabra* L. Turtle-head. In swamps.
- Pentstemon hirsutus* (L.) Willd. Hairy Beard-tongue. On dry banks.
- Pentstemon Digitalis* (Sweet) Nutt. Foxglove Beard-tongue. Hilltown; Trumbauersville.
- Pentstemon Pentstemon* (L.) Britton. Smooth Beard-tongue. Sellersville; Rockhill, Albrecht Jahn; Buckingham, Dr. E. Newlin Williams.
- Mimulus ringens* L. Monkey-flower. In swamps and along streams.
- Mimulus alatus* Soland. Winged Monkey-flower. Rockhill; Solebury, Dr. E. Newlin Williams.
- Gratiola Virginiana* L. Clammy Hedge-hyssop. In wet places.
- Gratiola aurea* Muhl. Golden Hedge-hyssop. Bristol; Neshaminy, Benjamin Heritage.
- Ilysanthes dubia* (L.) Barnhart. False Pimpernel. In wet places.
- Limosella tenuifolia* Hoffm. Mudwort. Andalusia, I. C. Martindale.
- Veronica Anagallis-aquatica* L. Water Speedwell. Sellersville.
- Veronica Americana* Schwein. American Brooklime. In swamps and streams.
- Veronica scutellata* L. Marsh Speedwell. Near Quakertown, (M. C.); Haycock mountain, Dr. E. Newlin Williams.
- Veronica officinalis* L. Common Speedwell. In fields and woods.
- Veronica serpyllifolia* L. Thyme-leaved Speedwell. In fields and meadows.
- Veronica peregrina* L. Purslane Speedwell. Common in waste places.
- Veronica arvensis* L. Corn Speedwell. In fields and waste places.
- Veronica agrestis* L. Field Speedwell. Bensalem, I. C. Martindale.
- Veronica Byzantina* (Sibth. & Smith) B. S. P. Buxbaum's Speedwell. Andalusia, I. C. Martindale.
- Leptandra Virginica* (L.) Nutt. Culver's Physic. In moist ground.
- Dasystoma Pedicularia* (L.) Benth. Lousewort False Foxglove. In woods and thickets.
- Dasystoma flava* (L.) Wood. Downy False Foxglove. In woods and thickets
- Dasystoma Virginica* (L.) Britton. Smooth Foxglove. Argus; Tullytown, Joseph Crawford.
- Gerardia purpurea* L. Purple Gerardia. Near Bristol, I. C. Martindale; Tullytown.
- Gerardia paupercula* (A. Gray) Britton. Small-flowered Gerardia. Tullytown.
- Gerardia tenuifolia* Vahl. Slender Gerardia. In dry woods and thickets.
- Gerardia auriculata* Michx. Auricled Gerardia. Plumstead; Leidytown; Rockhill.
- Castilleja coccinea* (L.) Spreng. Painted-cup. Frequent in the upper districts.
- Pedicularis lanceolata* Michx. Swamp Lousewort. TurkeyTill, Joseph Crawford.
- Pedicularis Canadensis* L. Lousewort. In woods and meadows.
- Melampyrum lineare* Lam. Cow-wheat. In dry woods and thickets.

#### Family 10. Lentibulariaceae Lindl.

- Utricularia inflata* Walt. Swollen Bladderwort. Near Bristol, I. C. Martindale.
- Utricularia vulgaris* L. Greater Bladderwort. Penn Valley; Bristol, I. C. Martindale.
- Utricularia intermedia* Hayne. Flat-leaved Bladderwort. Penn Valley, Joseph Crawford.
- Utricularia gibba* L. Humped Bladderwort. In the county, (P. Fl.).

## Family 11. Orobanchaceae Lindl.

- Thalesia uniflora* (L.) Britton. Pale Broom-rape. In woods and thickets.  
*Conopholis Americana* (L. f.) Wallr. Squaw-root. Argus; Rockhill, Dr. Joseph Thomas; Southampton, I. C. Martindale.  
*Leptamnium Virginianum* (L.) Raf. Beech-drops. In beech woods.

## Family 12. Bignoniaceae Pers.

- Tecoma radicans* (L.) DC. Trumpet-creeper. Tullytown.  
*Catalpa Catalpa* (L.) Karst. Catalpa. Escaped occasionally.

## Family 13. Martyniaceae Link.

- Martynia Louisiana* Mill. Unicorn-plant. In the lower end, I. C. Martindale.

## Family 14. Acanthaceae J. St. Hil.

- Dianthera Americana* L. Water Willow. Andalusia, I. C. Martindale.

## Family 15. Phrymaceae Schauer.

- Phryma Leptostachya* L. Lopseed. In woods and thickets.

## Order 6. PLANTAGINALES.

## Family 1. Plantaginaceae Lindl.

- Plantago major* L. Plantain. In waste places.  
*Plantago Rugelii* Dec. Rugel's Plantain. In waste places.  
*Plantago lanceolata* L. Rib-grass. In fields and waste places.  
*Plantago aristata* Michx. Large-bracted Plantain. Near Sellersville; Tullytown.  
*Plantago Virginica* L. Dwarf Plantain. In dry fields.

## Order 7. RUBIALES.

## Family 1. Rubiaceae B. Juss.

- Houstonia coerulea* L. Bluets. In moist meadows.  
*Houstonia longifolia* Gaertn. Long-leaved Houstonia. In the county, (P. Fl.).  
*Cephalanthus occidentalis* L. Button-bush. In low grounds.  
*Mitchella repens* L. Partridge-berry. In woods.  
*Diodia teres* Walt. Button-weed. Shores of the Delaware from Point Pleasant to the southern border.  
*Galium verum* L. Yellow Bedstraw. Tullytown, Dr. N. L. Britton.  
*Galium Mollugo* L. Wild Madder. Doylestown, Prof. A. S. Martin; Tullytown.  
*Galium Aparine* L. Cleavers. Goosegrass. In rich soil.  
*Galium pilosum* Ait. Hairy Bedstraw. In dry soil.  
*Galium lanceolatum* Torr. Torrey's Wild Licorice. In dry woods.  
*Galium circaezans*, Michx. Wild licorice. In woods.

- Galium boreale** L. Northern Bedstraw. In moist soil.  
**Galium triflorum** Michx. Fragrant Bedstraw. In woods.  
**Galium tinctorium** L. Marsh Bedstraw. Wet meadows, Argus; Rockhill.  
**Galium Claytoni** Michx. Clayton's Bedstraw. Swampy meadow, Rockhill.  
**Galium concinnum** T. & G. Shining Bedstraw. Bensalem, I. C. Martindale.  
**Galium asprellum** Michx. Rough Bedstraw. In moist soil.

## Family 2. Caprifoliaceae Vent.

- Sambucus Canadensis** Ls. American Elder. In moist soil.  
**Sambucus pubens** Michx. Red-berried Elder. Along the Delaware.  
**Viburnum acerifolium** L. Maple-leaved Arrow-wood. In rocky woods.  
**Viburnum pubescens** (Ait.) Pursh. Downy Arrow-wood. Nockamixon, Dr. T. C. Porter; near Sellersville.  
**Viburnum dentatum** L. Arrow-wood. In thickets.  
**Viburnum venosum** Britton. Coast Arrow-wood. Near Sellersville.  
**Viburnum venosum Canbyi** Rehder. Canby's Arrow-wood. Woodbourne; near Sellersville.  
**Viburnum cassinoides** L. Withe-rod. Tullytown, Alexander MacElwee.  
**Viburnum nudum** L. Larger Withe-rod. Tullytown.  
**Viburnum Lentago** L. Sweet Viburnum. In rich soil occasionally  
**Viburnum prunifolium** L. Black Haw. Sheep-berry. In rich soil.  
**Triosteum perfoliatum** L. Horse-Gentian. In rich shady places.  
**Triosteum angustifolium** L. Yellow Horse-Gentian. Near Pipersville.  
**Symphoricarpos racemosus** Michx. Snowberry. Lower end, I. C. Martindale.  
**Symphoricarpos Symphoricarpos.** (L.) MacM. Coralberry. Near Point Pleasant.  
**Lonicera dioica** L. Small Honeysuckle. In the upper townships.  
**Lonicera sempervirens** L. Trumpet Honeysuckle. Rockhill; Tullytown.  
**Lonicera Japonica** Thunb. Japanese Honeysuckle. Frequently escaped.  
**Diervilla Diervilla** (L.) MacM. Bush Honeysuckle. In rocky woods.

## Order 8. VALERIANALES.

## Family 1. Valerianaceae Batsch.

- Valerianella Locusta** (L.) Bettke. European Corn Salad. In waste places.  
**Valerianella radiata** (L.) Dufur. Beaked Corn Salad. In moist soil.  
**Valerianella Woodsiana** (T. & G.) Walp. Wood's Corn Salad. In the county, (P. Fl.).  
**Valerianella Woodsiana patellaria** (Sulliv.) A. Gray. Meadow, Sellersville, Deep Run.

## Family 2. Dipsacaceae Lindl.

- Dipsacus sylvestris** Huds. Wild Teasel. In waste places.

## Order 9. CAMPANULALES.

## Family 1. Cucurbitaceae B. Juss.

- Micrampelis lobata** (Michx.) Greene. Wild Balsam Apple. Near Pipersville; Sellersville; River shore; Bool's island, Dr. E. Newlin Williams.  
**Sicyos angulatus** L. Wild Cucumber. In moist ground.

## Family 2. Campanulaceae Juss.

- Campanula rotundifolia* L. Harebell. On rocks along the Delaware.  
*Campanula rapunculoides* L. European Bellflower. Hilltown.  
*Campanula aparinoides* Pursh. Marsh Bellflower. In wet meadows.  
*Campanula Americana* L. Tall Bellflower. Along the Delaware; Forks of the Neshaminy, Dr. E. Newlin Williams.  
*Specularia perfoliata* (L.) A. DC. Venus' Looking-glass. On dry banks.  
*Lobelia cardinalis* L. Cardinal-Flower. In wet soil.  
*Lobelia syphilitica* L. Blue Cardinal-Flower. In wet soil.  
*Lobelia spicata* Lam. Pale Spiked Lobelia. In fields and thickets.  
*Lobelia inflata* L. Indian Tobacco. In fields and thickets.  
*Lobelia Nuttallii* R. & S. Nuttall's Lobelia. Near Bristol; Tullytown, I. C. Martindale.

## Family 3. Cichoriaceae Reichenb.

- Cichorium Intybus* L. Chicory. In fields and waste places.  
*Adopogon Virginicum* (L.) Kuntze. Cynthia. In woods and meadows.  
*Adopogon Carolinianum* (Walt.) Britton. Dwarf Dandelion. In dry soil.  
*Tragopogon porrifolius* L. Oyster Plant. Salsify. Sellersville; Tullytown; Doylestown, Prof. A. S. Martin.  
*Taraxacum Taraxacum* (L.) Karst. Dandelion. In fields and meadows.  
*Taraxacum erythrospermum* Andr. Red-seeded Dandelion. In fields and woods.  
*Sonchus oleraceus* L. Sow-thistle. In fields and waste places.  
*Sonchus asper* (L.) All. Spiny. Sow-thistle. Bristol.  
*Lactuca Scariola* L. Prickly Lettuce. Quakertown; Sellersville, Prof. A. C. Rutter; near New Hope, Dr. E. Newlin Williams.  
*Lactuca Canadensis* L. Tall Lettuce. In moist grounds.  
*Lactuca Canadensis montana* Britton. mountain Lettuce. Point Pleasant, Dr. N. L. Britton.  
*Lactuca hirsuta* Muhl. Red Wood-Lettuce. In dry soil.  
*Lactuca sagittifolia* Ell. Arrow-leaved Lettuce. In dry soil.  
*Lactuca villosa* Jacq. Hairy-veined Blue Lettuce. In thickets.  
*Lactuca Floridana* (L.) Gaertn. Florida Lettuce. Near Argus.  
*Lactuca spicata* (Lam.) Hitchc. Tall Blue Lettuce. In moist soil.  
*Crepis tectorum* L. Narrow-leaved Hawksbeard. Sellersville.  
*Hieracium venosum* L. Rattlesnake-weed. In woods and thickets.  
*Hieracium Canadense* Michx. Canada Hawkweed. Near Riegelsville.  
*Hieracium paniculatum* L. Panicked Hawkweed. In dry woods.  
*Hieracium scabrum* Michx. Rough Hawkweed. In woods and thickets.  
*Hieracium Gronovii* L. Hairy Hawkweed. In dry soil.  
*Nabulus altissimus* (L.) Hook. Tall White Lettuce. In woods and thickets.  
*Nabulus albus* L. Hook. Rattlesnake-root. In woods and thickets.  
*Nabulus serpentarius* (Pursh) Hook. Lion's foot. Barrens near Point Pleasant, (M. C.).  
*Nabulus trifoliolatus* Cass. Tall Rattlesnake-root. In the county, (P. Fl.)

## Family 4. Ambrosiaceae Reichenb.

- Ambrosia trifida* L. Great Ragweed. In rich soil.  
*Ambrosia trifida integrifolia* (Muhl.) T. & G. Bitter-weed. In moist soil.

- Ambrosia artemisiaefolia* L. Ragweed. A weed in cultivated fields.  
*Xanthium spinosum* L. Spiny Clotbur. Opposite Trenton, (M. C.); near Bristol; Doylestown.  
*Xanthium glabratum* (DC.) Britton. Smoothish Clotbur. In waste places.  
*Xanthium Pennsylvanicum* Wallr. Pennsylvania Clotbur. Sellersville.  
*Xanthium echinatum* Murr. Beach Clotbur. Near Sellersville.

## Family 5. Compositae Adans.

- Vernonia noveboracensis* (L.) Willd. New York Iron-weed. In meadows.  
*Vernonia glauca* (L.) Britton. Broad-leaved Iron-weed. In the county, (P. Fl.).  
*Eupatorium maculatum* L. Spotted Joe-pye Weed. Tullytown; Bristol.  
*Eupatorium maculatum amoenum* (Pursh) Britton. Bristol.  
*Eupatorium purpureum* L. Joe-Pye Weed. In wet meadows.  
*Eupatorium sessilifolium* L. Upland Boneset. In middle and lower end.  
*Eupatorium verbenaefolium* Michx. Vervain Thoroughwort. Near Bristol; Springfield, (M. C.).  
*Eupatorium rotundifolium* L. Round-leaved Thoroughwort. Near Bristol.  
*Eupatorium perfoliatum* L. Boneset. Thoroughwort. In wet meadows.  
*Eupatorium ageratoides* L. f. White Snake-root. In rich woods.  
*Eupatorium coelestinum* L. Mist-Flower. Lower end, I. C. Martindale.  
*Willughbaeya scandens* (L.) Kuntze. Climbing Hempweed. Frequent in swamps.  
*Lacinaria spicata* (L.) Kuntze. Button-Snakeroot. Ridge Valley.  
*Chrysopsis Mariana* (L.) Nutt. Maryland Golden Aster. Near Bristol; Glenlake.  
*Solidago squarrosa* Muhl. Ragged Goldenrod. Point Pleasant; Argus.  
*Solidago caesia* L. Blue-stemmed Goldenrod. In woods and thickets.  
*Solidago flexicaulis* L. Broad-leaved Goldenrod. In rich woods.  
*Solidago bicolor* L. White Goldenrod. In dry soil.  
*Solidago hispida* Muhl. Hairy Goldenrod. Near Sellersville; Buckingham, Dr. Ida A. Keller; Doylestown, Prof. A. S. Martin.  
*Solidago speciosa* Nutt. Showy Goldenrod. Nockamixon, Albrecht Jahn.  
*Solidago sempervirens* L. Sea side Goldenrod. Penn Valley, Joseph Crawford.  
*Solidago odora* Ait. Sweet Goldenrod. Andalusia, I. C. Martindale.  
*Solidago rugosa* Mill. Tall Hairy Goldenrod. In dry soil.  
*Solidago patula* Muhl. Spreading Goldenrod. Swamp in Springfield, (M. C.).  
*Solidago ulmifolia* Muhl. Elm-leaved Goldenrod. In woods and thickets.  
*Solidago neglecta* T. & G. Swamp Goldenrod. Bristol; Penn Valley.  
*Solidago juncea* Ait. Early Goldenrod. Near Sellersville, Doylestown, A. S. Martin.  
*Solidago arguta* Ait. Cut-leaved Goldenrod. In rich woods.  
*Solidago serotina* Ait. Late Goldenrod. Along fences in rich soil.  
*Solidago serotina gigantea* (Ait.) A. Gray. Giant Goldenrod. In moist soil.  
*Solidago Canadensis* L. Canada Goldenrod. In rich soil.  
*Solidago Canadensis scabriuscula* Porter. Rough Canada Goldenrod. Near Sellersville.  
*Solidago nemoralis* Ait. Field Goldenrod. In dry soil common.  
*Solidago rigida* L. Stiff Goldenrod. Near Pipersville; near Sellersville.  
*Euthamia graminifolia* (L.) Nutt. Bushy Goldenrod. In moist soil.  
*Euthamia Caroliniana* (L.) Greene. Slender Fragrant Goldenrod. Tullytown.  
*Sericocarpus linifolius* (L.) B. S. P. Narrow-leaved White-topped Aster. Near Bristol; Doylestown, Prof. A. S. Martin.  
*Sericocarpus asteroides* (L.) B. S. P. White-topped Aster. In dry woods.

- Aster divaricatus* L. White Wood Aster. In open woodlands and thickets.  
*Aster Claytoni* Burgess. Clayton's Aster. Argus.  
*Aster Schreberi* Ness. Schreber's Aster. Rockhill, Prof. W. Reiff Nauman.  
*Aster macrophyllus* L. Large-leaved Aster. In shaded woodlands.  
*Aster cordifolius* L. Blue Wood Aster. In woods and thickets.  
*Aster cordifolius polycephalus* Porter. In the county (P. Fl.).  
*Aster Lowrieanus* Porter. Lowrie's Aster. Argus; Nockamixon; Rockhill.  
*Aster Lowrieanus lancifolius* Porter. Lance-leaved Lowrie's Aster. Argus; Rockhill.  
*Aster Lowrieanus Bicknellii* Porter. In the county, (P. Fl.).  
*Aster sagittifolius* Willd. Arrow-leaved Aster. Bedminster; Haycock; Springfield.  
*Aster undulatus* L. Wavy-leaved Aster. In dry soil.  
*Aster patens* Ait. Late Purple Aster. In dry woods.  
*Aster phlogifolius* Muhl. Thin-leaved Purple Aster. Rockhill.  
*Aster Novae-Angliae* L. New England Aster. Chiefly along the Delaware, (M. C.).  
*Aster puniceus* L. Purple-stem Aster. In swamps and meadows.  
*Aster puniceus firmus* (Nees) T. & G. In the county, (P. Fl.)  
*Aster puniceus Crawfordii* Porter. Tullytown, Joseph Crawford.  
*Aster prenanthoides* Muhl. Crooked-stem Aster. Pipersville; Three-mile-run.  
*Aster prenanthoides porrectifolius* Porter. Long-leaved aster. Three-mile-run.  
*Aster laevis* L. Smooth Aster. In dry soil.  
*Aster laevis amplifolius* Porter. Rockhill.  
*Aster dumosus* L. Bushy Aster. Along Deep Run, (M. C.).  
*Aster salicifolius* Lam. Willow Aster. Sellersville.  
*Aster paniculatus* Lam. Panicked Aster. Sellersville; Buckingham, Albrecht Jahn.  
*Aster Tradescanti* L. Tradescant's Aster. Along the lower Tohickon, (M. C.).  
*Aster ericoides* L. White Heath Aster. In dry soil.  
*Aster lateriflorus* (L.) Britton. Starved Aster. In dry or moist soil.  
*Aster lateriflorus thyrsoides* (A. Gray) Sheldon. Rockhill township.  
*Aster vimineus* Lam. Small White Aster. Rockhill; Point Pleasant.  
*Aster multiflorus* Ait. Dense-flowered Aster. Durham, J. A. & H. F. Ruth; Upper Black's Eddy, Dr. E. Newlin Williams  
*Erigeron pulchellus* Michx. Robin's Plantain. In meadows and on banks.  
*Erigeron Philadelphicus* L. Philadelphia Fleabane. Along the Delaware; Argus.  
*Erigeron annuus* (L.) Pers. Daisy Fleabane. In fields.  
*Erigeron ramosus* (Walt.) B. S. P. Daisy Fleabane. In fields.  
*Leptilon Canadense* (L.) Britton. Horse-weed. In fields and waste places.  
*Doellingeria umbellata* (Mill.) Nees. Flat-top White Aster. In moist soil.  
*Doellingeria infirma* (Michx.) Greene. Cornel-leaved Aster. Near Pipersville; Sellersville; Rockhill; Bristol, I. C. Martindale.  
*Ionactis linariifolius* (L.) Greene. Linear-leaved Aster. In dry soil.  
*Gifola Germanica* (L.) Dumort. Herba Impia. Bedminster.  
*Pluchea camphorata* (L.) DC. Salt-marsh Feabane. Bristol, Elias Diffenbaugh.  
*Antennaria neodioica* Greene. Smaller Cat-foot. Nockamixon, Dr. T. C. Porter; Rockhill; Penn Valley; near Sellersville.  
*Antennaria neglecta* Greene. Field Cat'sfoot. In fields and pastures.  
*Antennaria plantaginifolia* (L.) Richards. Plantain-leaved Everlasting. In open woods.  
*Antennaria Parlinii* Fernald. Parlin's Cat's-foot. Tullytown, (P. Fl.).  
*Anaphalis margaritacea* (L.) Benth. & Hook. Pearly Everlasting. Dry soil.

- Gnaphalium obtusifolium** L. Fragrant Life Everlasting. In dry open places.
- Gnaphalium uliginosum** L. Low Cudweed. In damp soil.
- Gnaphalium purpureum** L. Purplish Cudweed. In dry soil.
- Inula Helenium** L. Elecampane. In fields and along roadsides.
- Heliopsis helianthoides** (L.) B. S. P. Ox-eye. False Sunflower. Near Telford; Nockamixon, Albrecht Jahn.
- Eclipta alba** (L.) Hassk. Eclipta. Along the Delaware; Quakertown, Dr. Joseph Thomas.
- Rudbeckia hirta** L. Black-eyed Susan. Yellow Daisy. In fields.
- Rudbeckia fulgida** Ait. Orange Cone-flower. Ridge Valley; Rockhill; Nockamixon.
- Rudbeckia laciniata** L. Tall Cone-flower. In moist thickets.
- Helianthus angustifolius** L. Swamp Sunflower. Tullytown.
- Helianthus giganteus** L. Giant Sunflower. In swamps and wet meadows.
- Helianthus divaricatus** L. Woodland Sunflower. In dry woodlands.
- Helianthus trachelifolius** Mill. Throatwort Sunflower. In the county, (P. Fl.).
- Helianthus strumosus** L. Pale-leaved Wood Sunflower. In dry woods.
- Helianthus tuberosus** L. Jerusalem Artichoke. Native along the Delaware.
- Coreopsis rosea** Nutt. Rose Tickseed. Near Bristol, I. C. Martindale.
- Coreopsis lanceolata** L. Lance-leaved Tickweed. Andalusia, a waif, I. C. Martindale.
- Bidens laevis** (L.) B. S. P. Smooth Bur-Marigold. In wet meadows.
- Bidens cernua** L. Nodding Bur-Marigold. Tullytown; Aquetong, Lower Solebury. Dr. E. Newlin Williams.
- Bidens connata** Muhl. Swamp Beggar-ticks. In swamps or moist soil.
- Bidens comosa** (A. Gray) Wiegand. Leafy-bracted Tickseed. In moist soil.
- Bidens bidentoides** (Nutt.) Britton. Swamp Beggar-ticks. Along the Delaware in the lower townships, I. C. Martindale.
- Bidens frondosa** L. Black Beggar-ticks. In moist soil.
- Bidens vulgata** Greene. Tall Beggar-ticks. In moist soil common.
- Bidens bipinnata** L. Spanish Needles. In moist rich soil.
- Bidens trichosperma** (Michx.) Britton. Tall Tickseed Sunflower. Bristol.
- Galinsoga parviflora** Cav. Galinsoga. Quakertown; Andalusia, I. C. Martindale.
- Galinsoga parviflora hispida** DC. Hispid Galinsoga. Point Pleasant; Sellersville.
- Helenium autumnale** L. Sneezeweed. In wet places.
- Achillea Millefolium** L. Yarrow. Milfoil. A weed in moist soil.
- Anthemis Cotula** L. Mayweed. Fetid Camomile. In fields and waste places.
- Anthemis arvensis** L. Corn Camomile. Point Pleasant; Sellersville; lower end, I. C. Martindale.
- Chrysanthemum Leucanthemum** L. Ox-eye Daisy. White-weed. In pastures, fields and waste places.
- Chrysanthemum Parthenium** (L.) Pers. Common Feverfew. In waste places.
- Tanacetum vulgare** L. Tansy. In fields and along roadsides.
- Artemisia annua** L. Annual Wormwood. Nockamixon, Dr. T. C. Porter.
- Artemisia vulgaris** L. Common Mugwort. In waste places.
- Petasites Petasites** (L.) Karst. Butter-bur. Upper end townships, (M. C.).
- Erechtites hieracifolia** (L.) Raf. Fire-weed. In thickets and waste places.
- Mesadenia atriplicifolia** (L.) Raf. Pale Indian Plantain. Point Pleasant; Lower Solebury, Dr. E. Newlin Williams.
- Senecio obovatus** Muhl. Round-leaved Squaw-weed. On banks and in moist soil, along the Delaware at Nockamixon, and Durham.

- Senecio Crawfordii** Britton. Crawford's Squaw-weed. Tullytown.  
**Senecio Balsamitae** Muhl. Balsam Groundsel. In dry or rocky soil.  
**Senecio aureus** L. Golden Ragwort. In streams and wet meadows.  
**Senecio aureus gracilis** (Pursh) Britton. Slender Golden Ragwort. In wet meadows, Sellersville.  
**Senecio vulgaris** L. Common Groundsel. Sellersville; Andalusia, I. C. Martindale.  
**Arctium minus** Schk. Common Burdock. In waste places.  
**Carduus lanceolatus** L. Common Thistle. In fields and waste places.  
**Carduus altissimus** L. Tall Thistle. Plumsteadville; Sellersville.  
**Carduus discolor** (Muhl.) Nutt. Field Thistle. In fields and along fences.  
**Carduus odoratus** (Muhl.) Porter. Pasture Thistle. In fields.  
**Carduus muticus** (Michx.) Pers. Swamp Thistle. In swamps and moist soil.  
**Carduus arvensis** (L.) Robs. Canada Thistle. A pernicious weed in fields.  
**Centaurea Calcitrapa** L. Star Thistle. Near Tullytown.



# BIRDS.

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## AN ENUMERATION OF THE BIRDS FOUND IN BUCKS COUNTY DURING THE WHOLE OR PART OF THE YEAR.

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BY JOSEPH THOMAS, M. D., QUAKERTOWN, PA.

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Bucks county, in common with other districts of the state, and, in fact, the whole country, has suffered a serious decimation of her feathered denizens by the hand of man. This has been occasioned in various ways. The march of civilization, transforming the face of the county by cutting down and removing the timber growth, once so abundant here, and subjecting the soil to tillage, has destroyed, or at least materially circumscribed, the haunts of many of our native birds that once made the forest vocal with their song. Like the American Indian, against whom civilization has waged a constant and relentless warfare, even to extermination in many cases, so the birds have suffered indiscriminate destruction from the same ruthless foe; the sportsman for pleasure, the ignorant farmer from mistaken motives of protecting his crops, and the thoughtless urchin from promptings of wantonness and mischief, as well as others, actuated by a desire of gain, have contributed likewise in diminishing the number of birds, formerly so numerous. Unmindful of the mischievous consequences of destroying these ministers of beneficence to man, his hand has been staid only when, comparatively recently, our legislature sounded a truce by enacting laws forbidding the destruction of insectivorous birds, and permitting certain game birds to be shot at specified periods in the year. To repair in a measure the damage done in the past, it was found expedient a few years ago to send abroad and import the English sparrow to aid in extinguishing the insect pest that had become such a nuisance. Fifty years or more ago, when Wilson, Audubon, and others traversed our woods and fields to study and describe our native fauna, many species of birds, now rare and only occasionally seen within our borders, were observed in great abundance.

In 1683 William Penn, Proprietary and governor of Pennsylvania, wrote to the committee of the Free Society of Traders residing in London, in relation to some of the resources of the province, as follows: "Of living creatures, fish, fowl, and the beasts of the wood, there are divers sorts, some for food and profit, and some for profit only. For food, as well as profit, the elk, as big as a small ox, deer bigger than ours, beaver, raccoon, rabbits, squirrels; some eat young bear, and commend it. Of food of the land there is the turkey, forty and fifty pounds weight, which is very great, pheasants, heath birds, pigeons and partridges in abundance. Of the water,

the swan, goose, white and grey, brant, ducks, teals; also the snipe and curloe, and that in great number, but the duck and teal excel, nor so good have I ate in other countries."

Geographically considered, this county is very favorably located for the abode of a great and diversified number of species of birds, either as resident or visiting. The Delaware river, with tide-water, forming the boundaries for a long stretch on the north-east and south along the border of the county, with numerous creeks emptying into it, furnishes a resort for a great variety of water birds, some of which reside and breed here, while others remain only temporary, in their spring or autumn migration. Among the latter may be included some of the salt water birds, or those that frequent the sea-coast, such as the gulls, terns, sandpipers and ducks. A considerable tract of country, especially in the upper end of the county, in Nockamixon, Haycock, the Rockhills and Milford, being still wooded and comparatively little changed from its primitive condition, affords the undisturbed and solitary haunts so favorable to many species of birds, and hence in these locations are still found in considerable numbers rapacious birds, warblers, etc., rarely seen in other places.

In presenting a catalogue of the feathered fauna of the county, it has been considered proper to include in the list, according to the arrangement and nomenclature of Baird, all the species of birds that are known to have been seen within its limits, embracing as follows: 1st, those resident the entire year; 2d, those resident only during the warm and genial months of the year, breeding here but migrating south in the autumn, to return again at different periods in the spring; 3d, those resident here in the winter only, migrating further north at the approach of spring; 4th, those making only a temporary stay of a few weeks with us, in their migration north in the spring and south in the fall; and 5th, those that are occasional visitors only.

There are comparatively few species of birds remaining with us the whole year, for even in this climate most of them are excluded from an adequate and proper supply of food during the winter season, for then insect life, upon which many of them feed exclusively, is dormant and unattainable; and our streams, from which some obtain subsistence, are frozen over. They are, hawks, owls, downy woodpecker, butcher bird, song sparrow, cardinal grossbeak, rose-breasted grossbeak, meadow lark, the common crow to some extent, blue jay, pheasants, partridge, and a few others. Those of the second division are quite numerous, and constitute largely the birds seen here throughout the summer season, among which may be named the cuckoos, the woodpeckers, humming bird, chimney swallow, whippoorwill, night hawk, kingfisher, the family of flycatchers, thrushes, robin, blue bird, black and white creeper, several of the warblers, red start, scarlet tanager, the swallow, purple martin, the vireos, cat bird, the wren, American creeper, finch, thistle bird, sparrows, indigo bird, reed bird, ground robin, cow bird, black birds, orioles, purple grackle, common dove, herons and bitterns, plovers, killdeer, woodcock, snipe and sandpipers, some species of duck, etc. The third division embraces principally the following birds: Snow bird, shore lark, tree sparrows, nuthatches, the titmouse, titlark, and perhaps a few others. The fourth includes most of the warblers, the kinglets or crowned wrens, some of the flycatchers, lesser red poll, some of the sparrows, fox-colored sparrow, English snipe, some of the ducks, wild pigeon, etc. The fifth takes in the snow bunting, goshawk, the snowy owl, turkey buzzard, the bald eagle, golden eagle, fish eagle, red-cockaded woodpecker, large-billed water thrush, rough-winged swallow, wax wing, Bewick's wren, Lapland long spur,

the cross bills, Lincoln's finch, white heron, night heron, purple sandpiper, some of the duck and grebe families, etc. It is probable that a few other species of birds, not named in the list, may at irregular intervals visit within the limits of the county, but sufficient reliable data are not furnished to establish it. The English sparrow, introduced into this country a few years ago from England, has become firmly established, and it is now abundant in nearly all parts of this county.

## CATALOGUE.

- 1 The Turkey Buzzard, (*Cathartes Aura*.) Occasionally seen, though formerly much more frequently.
- 2 Pigeon Hawk, (*Falco Columbarius*.) Occasionally seen in different parts of the county.
- 3 Sparrow Hawk, (*Falco Sparverius*.) Frequent summer and winter.
- 4 Duck Hawk, (*Falco Anatum*.) Rare and along the Delaware and larger streams.
- 5 The Goshawk, (*Astur Atricapillus*.) A handsome bird; very rare; occasionally seen in winter coming from a more northern latitude.
- 6 Cooper's Hawk, (*Accipiter Cooperii*.) Frequent throughout the county.
- 7 Sharp-shinned Hawk, (*Accipiter Fuscus*.) Frequent throughout the county.
- 8 The Red-tailed Hawk, (*Buteo Borealis*.) Frequent and resident.
- 9 The Red-shouldered Hawk, (*Buteo Lineatus*.) Frequent and resident.
- 10 Broad-winged Hawk, (*Buteo Pennsylvanicus*.) Frequent.
- 11 The Rough-legged Hawk, (*Archibuteo Lagopus*.) Frequent throughout the county.
- 12 The Black Hawk, (*Archibuteo Sancti Johannis*.) Rare.
- 13 The Harrier Marsh Hawk, (*Circus Hudsonius*.) Rare.
- 14 The Golden Eagle, (*Aquila Canadensis*.) Rare, but seen occasionally in Nockamixon, along the Narrows, and 'n Haycock township.
- 15 The Bald Eagle, (*Haliaeetus Leucocephalus*.) Rare; the writer has one alive that was shot and wounded slightly three years ago along the Narrows.
- 16 The Fish Hawk, (*Osprey Pandion; Pandion Caroliensis*.) Occasionally seen along the larger streams.
- 17 The Barn Owl, (*Strix Pratincola*.) Occasionally seen and resident.
- 18 The Great Horned Owl, (*Bubo Virginianus*.) Frequent and resident.
- 19 The Screech Owl, (*Scops Asio*.) Frequent and resident.
- 20 The Long-eared Owl, (*Otus Wilsonianus*.) Occasionally seen and resident.
- 21 The Short-eared Owl, (*Brachyotus Cassinii*.) Frequent and resident.
- 22 The Barred Owl, (*Syrnium Nebulosum*.) Rarely seen, but resident.
- 23 Saw-whet Owl, (*Nyctale Acadica*.) Rare.
- 24 The Snowy Owl, (*Nyctea Nivea*.) Occasionally seen; large and beautiful; a visitor from a more northern latitude.
- 25 Yellow-billed Cuckoo, (*Coccyzus Amerocanus*.) Common; breeding here.
- 26 Black-billed Cuckoo, (*Coccyzus Erythrophthalmus*.) Common; breeding here.
- 27 The Hairy Woodpecker, (*Picus Villosus*.) Variety medius; not infrequently seen.
- 28 The Downy Woodpecker, (*Picus Pubescens*.) Common.
- 29 The Red-cockaded Woodpecker, (*Picus Borealis*.) Very rarely seen; belongs farther south.
- 30 Yellow-bellied Woodpecker, (*Sphyrapicus varius*.) Frequent.

31. Black Wood Cock—Log Cock, (*Hyalotomus Pileatus*.) Occasionally seen.
32. Red-bellied Woodpecker, (*Centurus Carolinus*.) Occasionally seen.
33. Red-headed Woodpecker, (*Melanerpes Erythrocephalus*.) Common and in mild seasons remaining through the winter.
34. Flicker—Yellow-shafted Woodpecker, (*Colaptes Auratus*) Common.
35. Ruby-throated Humming Bird, (*Trochilus Colubris*.) Common; this is the only species of Humming Bird (a numerous family) perhaps properly resident in the United States east of the Mississippi river.
36. Chimney Swallow, (*Chaetura Pelagica*.) Abundant; migratory.
37. Whippoorwill, (*Anthrostomus Voci-ferris*.) Frequent; breeding here.
38. Night Hawk, (*Chordeiles Popetue*.) Common; breeding here.
39. Common Belted Kingfisher, (*Ceryle Alcyon*.) Frequent along streams.
40. Kingbird, Bee Martin, (*Tyrannus Carolinensis*.) Common throughout the county.
41. Great-crested Flycatcher, (*Myiarchus Crinitus*.) Common; breeding here.
42. Pewee, (*Sayornis Fuscus*.) Common; breeding here.
43. Wood Pewee, (*Contopus Virens*.) Common; breeding here.
44. Olive-sided Flycatcher, (*Contopus Borealis*.) Very rare; belongs farther north.
45. Trail's Flycatcher, (*Empidonax Traillii*.) Seen occasionally.
46. Least Flycatcher, (*Empidonax Minimus*.) Common; breeding here.
47. Small Green-crested Flycatcher, (*Empidonax Acadicus*.) Occasionally seen.
48. Yellow-bellied Flycatcher, (*Empidonax Flaviventris*.) Frequent breeding here.
49. Wood Thrush, (*Turdus Mustelinus*.) Abundant throughout the county.
50. Hermit Thrush, (*Turdus Pallasii*.) Frequent.
51. Wilson's Thrush, (*Turdus Fuscescens*.) Frequent throughout the county.
52. Olive-backed Thrush, (*Turdus Swainsonii*.) Frequent.
53. Robin, (*Turdus Migratorius*.) Abundant and occasionally, in mild winters, some remaining with us throughout the year.
54. Blue Bird, (*Sialia Sialis*.) Abundant; the earliest of the migratory birds here in the spring.
55. Ruby-crowned Wren, (*Regulus Calendula*.) Frequent in spring and autumn.
56. Golden-crested Wren, (*Regulus Satrapa*.) Frequent in spring and autumn.
57. Tit Lark, (*Anthus Ludovicianas*.) Occasionally seen in the winter.
58. Black and White Creeper, (*Mniotilta Varia*.) Frequent; breeding here.
59. Blue Yellow-backed Warbler, (*Parula Americana*.) Frequent; breeding here.
60. Maryland Yellow Throat, (*Geothelphidia*.) Occasionally seen.
61. Morning Warbler, (*Geothlypis Phillypis Trichas*.) Frequently seen.
62. Connecticut Warbler, (*Oporornis Agilis*.) Occasionally seen.
63. Kentucky Warbler, (*Oporornis Formosus*.) Very rare here.
64. Yellow-breasted Chat, (*Icteria Viridis*.) Occasionally seen.
65. Worm-eating Warbler, (*Helminthophaga Vermivorus*.) Frequent in spring and autumn.
66. Blue-winged Yellow Warbler, (*Helminthophaga*.) Frequent breeding here.
67. Golden-winged Warbler. (*Helminthophaga Pinus*.) Frequent; (*thophaga Chrysoptera*.) Occasionally seen.
68. Nashville Warbler, (*Helminthophaga Ruficapilla*.) Occasionally seen in the spring and autumn.
69. Tennessee Warbler; (*Helminthophaga Peregrina*.) Rare; in spring.

70. Oven Bird, Golden-crowned Thrush, (*Seiurus Aurocapillus.*) Common; breeding here.
71. Water Thrush, (*Seiurus Noveboracensis.*) Frequently breeding here.
72. Large-billed Water Thrush, (*Seiurus Ludovicianus.*) Very Rare.
73. Black-throated Green Warbler, (*Dendroica Virens.*) Frequent in spring and autumn.
74. Black-throated Blue Warbler, (*Dendroica Canadensis.*) Frequent in spring and autumn.
75. Yellow-rumped Warbler, (*Dendroica Coronata.*) Common in spring and autumn migrations.
76. Blackburnian Warbler, (*Dendroica Blackburnioe.*) Common in spring and autumn.
77. Bay-breasted Warbler, (*Dendroica Castanea.*) Frequent in spring and autumn.
78. Pine-creeping Warbler, (*Dendroica Pinus.*) Frequent in spring and autumn.
79. Chestnut-sided Warbler, (*Dendroica Pennsylvanica.*) Frequent in spring and autumn.
80. Blue Warbler, (*Dendroica Coerulea.*) Frequently seen in spring and autumn.
81. Black-poll'd Warbler, (*Dendroica Striata.*) Frequent in spring and autumn.
82. Yellow Warbler, (*Dendroica Aestiva.*) Common; breeding here.
83. Black and Yellow Warbler, (*Dendroica Maculosa.*) Frequent in spring and autumn.
84. Cape May Warbler, (*Dendroica Tigrina.*) Occasionally seen in spring and autumn.
85. Yellow Red Poll, (*Dendroica Palmorum.*) Frequent in spring and autumn.
86. Yellow-throated Warbler, (*Dendroica Superciliosa.*) Occasionally seen in spring and autumn.
87. Prairie Warbler, (*Dendroica Discolor.*) Rare; seen in spring and autumn.
88. Hooded Warbler, (*Myiodyctes Mit-ratus.*) Occasionally seen in spring autumn.
89. Green Black-cap Flycatcher, (*Myiodyctes Pusillus.*) Frequent in spring and autumn.
90. Canada Flycatcher (*Myiodyctes Canadensis.*) Frequent in spring and autumn.
91. Red Start, (*Setophaga Ruticilla.*) Common in spring.
92. Scarlet Tanager; (*Piranga Rubra.*) Common; breeding here.
93. Barn Swallow, (*Hirundo Horreorum.*) Abundant.
94. Cliff Swallow, (*Hirundo Lunifrons.*) Frequent; breeding here; building their nests of mud under the eaves of buildings.
95. White-bellied Swallow, (*Hirundo Bicolor.*) Frequent; breeding here.
96. Bank Swallow, (*Cotyle Riparia.*) Occasionally seen along the Delaware.
97. Rough-winged Swallow, (*Cotyle Serripennis.*) Occasionally seen.
98. Purple Martin; (*Progne Purpurea.*) Common; breeding in boxes, etc.; returning season after season and occupying the same location.
99. Cedar Bird, (*Ampelis Cedorum.*) Common.
100. Wax-wing, Bohemian Chatterer, (*Ampelis Garrulus.*) Very rarely seen.
101. Butcher Bird, The Great Northern Shrike, (*Collyrio Borealis.*) Frequently seen.
102. Red-eyed Flycatcher, (*Vireo Olivaceus.*) Common.
103. Warbling Flycatcher, (*Vireo Gilvus.*) Frequently seen.
104. White Flycatcher, (*Vireo Noveboracensis.*) Common.
105. Blue-headed Flycatcher, (*Vireo Solitarius.*) Frequently seen.
106. Yellow-throated Flycatcher, (*Vireo Flavifrons.*) Frequently seen.
107. Cat Bird, (*Mimus Carolinensis.*) Common.

108. Brown Thrush Thrasher, (*Harp-rhynchus Rufus*.) Common.
109. Great Carolina Wren, (*Thriothorus Ludovicianus*.) Occasionally seen.
110. Bewick's wren, (*Thriothorus Bewickii*.) Rarely seen.
111. Long-billed Marsh Wren, (*Cistothorus Palustris*.) Frequently seen along the Delaware.
112. Short-billed Marsh Wren, (*Cistothorus Stelaris*.) Occasionally seen along the Delaware.
113. House Wren, (*Troglodytes Aedon*.) Common; raising two broods in a season.
114. Wood Wren, (*Troglodytes Americanus*.) Rarely seen.
115. Winter Wren, (*Troglodytes Hyemalis*.) Occasionally seen.
116. American Creeper, (*Certhia Americana*.) Occasionally seen.
117. White-bellied Nuthatch, Sapsucker, (*Sitta Carolinensis*.) Common.
118. Red-bellied Nuthatch, (*Sitta Canadensis*.) Frequent.
119. Blue-grey Flycatcher, (*Poliophtila Coerulea*.) Occasionally seen.
120. Tufted Titmouse, (*Lophophanes Bicolor*.) Frequently seen.
121. Black-cap Titmouse, (*Parus Atricapillus*.) Occasionally seen.
122. Shore Lark, Sky Lark, (*Eremophila Cornuta*.) Frequent in winter.
123. Pine Grossbeak, (*Pinicola Canadensis*.) Occasionally seen.
124. Purple Finch, (*Carpodacus Purpureus*.) Frequent in the spring migration.
125. Thistle Bird, Salad Bird, (*Chrysomitris Tristis*.) Abundant in the summer season.
126. Pine Finch, (*Chrysomitris Pinus*.) Occasionally seen.
127. Red Crossbill, (*Curvirostra Americana*.) Occasionally seen.
128. White-winged Crossbill, (*Curvirostra Leucoptera*.) Occasionally seen.
129. Lesser Red Poll Linnet, (*Aegiothus Linaria*.) Occasionally frequent in early spring.
130. Snow Bunting, (*Plectrophanes Ni-valis*.) Occasionally seen in the winter.
131. Lapland Long-spur, (*Plectrophanes Laponicus*.) Very rare.
132. Savannah Sparrow, (*Passerculus Savannaha*.) Frequent; breeding here.
133. Grass Finch, (*Pooecetes Gramineus*.) Frequent; breeding here.
134. Yellow-winged Sparrow, (*Coturniculus Passerinus*.) Frequent.
135. White-throated Sparrow, (*Zonotrichia Albicollis*.) Frequent.
136. White-crowned Sparrow, (*Zonotrichia Leucophys*.) Occasionally seen.
137. Snow Bird, (*Junco Hyemalis*.) Common in winter; migrating north in spring.
138. Tree Sparrow, (*Spizella Monticola*.) Frequent in winter.
139. Field Sparrow, (*Spizella Pusilla*.) Common.
140. Chipping Sparrow, (*Spizella Socialis*.) Common.
141. Song Sparrow, Tomtit, (*Melospiza Melodia*.) Abundant.
142. Swamp Sparrow, (*Melospiza Palustris*.) Frequent along streams.
143. Lincoln's Finch, (*Melospiza Lincolnii*.) Rare.
144. Fox-colored Sparrow, (*Passerella Iliaca*.) Frequent in spring and autumn.
145. Black-throated Bunting, (*Euspiza Americana*.) Occasionally seen.
146. Rose-breasted Grossbeak, (*Guiraca Ludoviciana*.) Occasionally seen; Breeding here.
147. Blue Grossbeak, (*Guiraca Coerulea*.) Occasionally seen.
148. Indigo Bird, (*Cyanospiza Cyanea*.) Frequent; breeding here.
149. Red Bird, Cardinal Grossbeak, (*Cardinalis Virginianus*.) Frequent along streams.
150. Ground Robin, Tohee Bunting, (*Pipilo Erythroptalmus*.) Frequent.
151. Boblink, Reed Bird, Rice Bird, (*Dolichonyx Oryzivorus*.) Frequent in spring; sometimes breeding here.

152. Cow Bird, (*Molothrus Pecoris.*) Common.
153. Red-winged Blackbird, (*Agelaius Phoeniceus.*) Abundant.
154. Meadow Lark, (*Sturnella Magna.*) Common.
155. Orchard Oriole, (*Icterus Spurius.*) Frequent.
156. Baltimore Oriole, Hanging Bird, (*Icterus Baltimore.*) Frequent.
157. Rush Blackbird, (*Scolecophagus Ferrigineus.*) Frequent.
158. Purple Grackle, (*Quiscalis Versicolor.*) Frequent.
159. Common Crow, (*Corvus Americanus.*) Common.
160. Blue Jay, (*Cyanurus. Cristatus.*) Frequent.
161. Wild Pigeon, (*Ectopistes Migratoria.*) Some seasons abundant; spring and autumn.
162. Common Dove, Turtle Dove, (*Zenaidura Carolinensis.*) Common.
163. Pheasant-ruffed Grouse, (*Bonasa Umbellus.*) Common.
164. Partridge Quail, Bobwhite, (*Ortyx Virginianus.*) Common.
165. Snowy Heron, (*Barzetta Candidissima.*) Rare; occasionally seen.
166. White Heron, (*Herodias Egretta.*) Rare.
167. Great Blue Heron, (*Ardea Herodias.*) Frequently seen.
168. Least Bittern, (*Ardetta Exilis.*) Frequent.
169. Bittern, Stake Driver, (*Botaurus Lentiginosus.*) Frequent along streams.
170. Green Heron, Fly-up-the-Creek, (*Butorides Virescens.*) Frequent along streams.
171. Night Heron, (*Nyctiardea Gardeni.*) Rare.
172. Golden Plover, (*Charadrius Virginicus.*) Occasionally seen in autumn.
173. Killdeer, (*Aegialitis Vociferus.*) Common.
174. King Plover, Semipalmated Plover, (*Aegialitis Semipalmatus.*) Frequent.
175. Piping Plover, (*Aegialitis Melodius.*) Occasionally seen in summer.
176. Black-bellied Plover, (*Squatarola Helvetica.*) Rare, though occasionally seen in the county.
177. Turnstone, (*Streptilas Interpres.*) Occasionally seen along the Delaware.
178. Northern Phalarope, (*Phalaropus Hyperboreus.*) Rare; occasionally seen along the Delaware.
179. American Woodcock, (*Philohela Minor.*) Common.
180. English Snipe, Wilson's Snipe, (*Gallinago Wilsonii.*) Frequently seen in the spring.
181. Gray Snipe, (*Macrohamphus Griseus.*) Occasionally seen.
182. Gray Back, Robin Snipe, (*Tringa Canutus.*) Occasionally seen on the Delaware.
183. Purple Sandpiper, (*Tringa Maritima.*) Occasionally seen on the Delaware; rare.
184. Red-backed Sandpiper, (*Tringa Alpina.*) Rarely seen long the Delaware.
185. Jack Snipe, (*Tringa Maculata.*) Occasionally seen along the Delaware.
186. Least Sandpiper, (*Tringa Wilsonii.*) Occasionally seen along the Delaware.
187. Little Snipe, (*Tringa Bonapartii.*) Rarely seen on the Delaware.
188. Sanderling, (*Calidris Arenaria.*) Occasionally seen along the Delaware.
189. Semipalmated Sandpiper, (*Ereunetes Petrificatus.*) Occasionally seen on the Delaware.
190. Tell Tale, Stone Snipe, (*Gambetta Melanoleuca.*) Occasionally seen on the Delaware.
191. Yellow Legs, (*Gambetta Flavipes.*) Occasionally seen.
192. Solitary Sandpiper, (*Rhyacophilus Solitarius.*) Frequently seen.
193. Spotted Sandpiper, (*Tringoides Macularius.*) An occasional visitor along the Delaware river.
194. Field Plover, Bartram's Sandpiper, (*Actirturus Bartramius.*) Frequent; breeding here.

195. Buff-breasted Sandpiper, (*Tryngites Rufescens.*) An occasional visitor along the Delaware river.
196. Marbled Godwit, (*Limosa Fedoa.*) Occasionally seen along the Delaware.
197. Marsh Hen, King Rail, (*Rallus Elegans.*) Occasionally seen along the Delaware.
198. Mud Hen, Clapper Rail, (*Rallus Crepitans.*) Occasionally seen along the Delaware.
199. Virginia Rail. (*Rallus Virginianus.*) Occasionally seen.
200. Common Rail, Ortolan, (*Porzana Carolina.*) Occasionally seen.
201. Yellow Rail, (*Porzana Noveboracensis.*) Occasionally seen.
202. Coot, Mud Hen, (*Fulica Americana.*) Occasionally seen.
203. Florida Gallinule, (*Gallinula Galeata.*) Occasionally seen.
204. Canada Goose, (*Bernicula Canadensis.*) Occasionally seen.
205. Mallard, Green Head, (*Anas Boschas.*) Occasionally seen.
206. Black Duck, (*Anas Obscura.*) Occasionally seen, and occasionally breeding here.
207. Pintail, (*Dafila Acuta.*) Occasionally seen.
208. Green-winged Teal, (*Nettion Carolinensis.*) Sometimes frequent in spring and autumn.
209. Blue-winged Teal, (*Querquedula Discors.*) Occasionally seen.
210. Spoonbill, Shoveller, (*Spatula Clypeata.*) Occasionally seen.
211. Summer Duck, (*Aix Sponsa.*) One of the most beautiful of the wild ducks; frequent and perhaps breeding here; builds in hollow trees.
212. American Widgeon, (*Mareca Americana.*) Occasionally seen.
213. Big Black-head, Scaup Duck, (*Fulix Marilla.*) Occasionally seen in spring and autumn.
214. Little Black-head, Blue Bill, (*Fulix Affinis.*) Occasionally seen.
215. Ring-necked Duck, (*Fulix Collaris.*) Occasionally seen.
216. Red Head, (*Aylteya Americana.*)
217. Butter Ball, Dipper, (*Bucephala Americana.*) Occasionally seen.
218. American Golden Eye Whistle-wing Duck (*Glaucionetta Clan gula Americana.*) A diver—seen on the Delaware.
219. Harlequin Duck, (*Histrionicus Torquatus.*) Occasionally seen.
220. Long Tail, Old Wife, (*Harelda Glacialis.*) Occasionally seen.
221. Sea Coot, Surf Duck, (*Pelionetta Perspicillata.*) Occasionally seen.
222. Ruddy Duck, (*Erismatura Rubida.*) Occasionally seen.
223. Fish Duck, (*Mergus Americanus.*) Frequent in our ponds and rivers.
224. Red-breasted Merganser, (*Mergu Serrator.*) Occasionally seen.
225. The Great Northern Diver, The Leon, (*Colymbus Torquatus.*) Occasionally seen.
226. The Red-necked Grebe, (*Podiceps Griseigena.*) Occasionally seen in the winter.
227. The Crested Grebe, (*Podiceps Cristatus.*) Occasionally seen.
228. The Horned Grebe, (*Podiceps Cornutus.*) Occasionally seen.
229. The Pied-bill Grebe, (*Podilymbus Podiceps.*) Occasionally seen.



# MAMMALS.

## AN ENUMERATION OF MAMMALS FOUND IN BUCKS COUNTY.

BY JOSEPH THOMAS, M. D., QUAKERTOWN, PA.

The following list of mammals embrace nearly or perhaps quite all the species known to exist or having been seen within a recent period within the limits of Bucks county. Many of them have been rendered exceedingly scarce by encroachments upon their haunts in the agricultural development of the country, while others, obnoxious to civilized man, have been vigorously hunted and destroyed, until only an occasional wary survivor remains protected in his rocky or woody solitude from the intrusion of man. Several species, such as the deer, bear, wolf, etc., now extinct in this portion of the country, were many years ago, in the early settlement of Bucks county, quite common and frequently encountered.

The upper portion of the county, included within the belt of trap-rocky formation stretching across from the Delaware river to the Montgomery county line, affords still a safe retreat for such animals as the mink, weasel, foxes, racoon, opossum, and perhaps the wild cat. Even the squirrel and rabbit, formerly so numerous as to be a great annoyance to the farmer, are every year becoming fewer in numbers, while the fate of most of the native quadrupes of the county has been to retire and succumb before the march of civilization, a few species, aliens however, have increased with great rapidity and defied man's keenest ingenuity to extirpate them. These are the rat and common mouse. They were brought to this country from Europe by the early settlers on ship-board.

### CATALOGUE.

1. The Evening Bat, (*Nycticejus Crepuscularis*.) Not frequent.
2. Red Bat, (*Lasiurus Noveboracensis*.) Moderately abundant.
3. Carolina Bat, (*Scotophilus Carolinensis*.) Occasionally seen.
4. Brown Bat, (*Scotophilus Fuscus*.) Frequently seen.
5. Georgiana Bat, (*Scotophilus Georgianus*.) Rare.
6. Silvery-haired Bat, (*Scotophilus Noveboracensis*.) Rare.
7. Little Brown Bat, (*Vespertilio Subulatus*.) Rare.
8. Blunt-nosed Bat, (*Vespertilio Lucifugus*.) Occasionally seen.
9. Forster's Shrew, (*Sorex Forsteri*.) Rare.
10. Larger Shrew, (*Blarina Talpoides*.) Frequent.

11. Smaller Shrew, (*Blarina Cinerea*.) Occasionally seen.
12. Common Mole, (*Scalops Aquaticus*.) Common.
13. Star-nosed Mole, (*Condylura Cristat.*) Occasionally seen.
14. American Wild Cat, (*Lynx Rufus*.) Rare; two or three have been killed within the last ten years in Rockhill and Haycock townships.
15. Common Red Fox, or American Fox, (*Vulpes Fulvus*.) Common in parts of the county.
16. Grey Fox, (*Vulpes Virginianus*.) Rare.
17. Common Weasel, Ermine or White Weasel, (*Putorius Noveboracensis*.) Not common; in summer brown, in winter white.
18. Common Mink, (*Putorius Vison*.) Occasionally seen.
19. American Otter, (*Lutra Canadensis*.) Very rare.
20. Skunk, (*Mephitis Mephitica*.) Common.
21. Raccoon, (*Procyon Lotor*.) Not uncommon.
22. Opossum, (*Didelphys Virginiana*.) not uncommon.
23. Cat or Fox Squirrel, (*Sciurus Cinereus*.) Rare.
24. Gray Squirrel, (*Sciurus Carolinensis*.) Common.
25. Red Squirrel, (*Sciurus Hudsonius*.) Common.
26. Flying Squirrel, (*Pteromys Volucella*.) Frequently seen.
27. Chipping, Striped or Ground Squirrel, Chipmunk, (*Tamias Striatus*.) Common.
28. Woodchuck, Ground Hog, (*Areomys Monax*.) Frequently seen.
29. Jumping Mouse, (*Jaculus Hudsonius*.) Occasionally seen.
30. Common Rat, Brown Rat, Norway Rat, (*Mus Decumanus*.) Too common.
31. Common Mouse, (*Mus Musculus*.) Common.
32. Black Rat, (*Mus Ratta*.) Occasionally seen.
33. White-footed Mouse, (*Hesperomys Leucopus*.) Rare.
34. Meadow Mouse, (*Arvicola Riparia*.) Not uncommon.
35. Field Mouse, (*Arvicola Pinetorum*.) Not common.
36. Musk Rat (*Fiber Zibethicus*.) Common.
37. Gray Rabbit, (*Lepus Sylvaticus*.) Common.
38. Whale, (*Balaena Mysticetus*.) It has been known to occur near or within the limits of the county in the Delaware river.
39. Porpoise, (*Delphinus Phocaena*.) Very rarely ascends the Delaware to within the limits of Bucks county.