The weather was perfect on this Sunday morning, as members of the Philadelphia Botanical Club joined the leader for an informal 600-meter linear survey, aggregating to less than one-tenth of an acre, of the plant life around the perimeter of a small suburban shopping mall and a recent construction zone. We were rewarded by finding 109 species of vascular plants of which 52 were annuals, 34 were perennials, and 23 were woody plants or woody vines. Of the 52 annuals, 31 were non-native. Of the 34 perennials, 16 were non-native. Of the 23 woody plants, 13 were non-native. Of the 109 total species, 60 were non-native. Few of the plants we saw during our walk were unfamiliar to the seasoned field botanists of our group, but Calibrachoa parviflora, a late nineteenth century ballast dump plant which has reappeared in New Jersey three times, in different locations, in recent years, was an exception. After completing our walk and a brief rest, we braved thickets of Ampelopsis heterophylla and Clematis terniflora to reach the shores of Broad Street Lake, where a quick look around produced 55 species of which 14 were annuals, 25 were perennials, and 16 were woody plants or woody vines. Of the 55 total lakeshore species, 17 were non-native. This trip amply demonstrated both the adaptability of native and introduced plants, and the botanical diversity of a site that might otherwise have been dismissed as uninteresting.

Even 207 years ago, many of the non-native plants we found would have been familiar to William P. C. Barton, who was then writing his Compendium Florae Philadelphicae. Such would have included Mollugo verticillata, Digitaria sanguinalis, Portulaca oleracea, Sida spinosa, and Persicaria maculosa. But Diodia virginiana, Cyperus iria, Arthraxon hispidus, and even Lonicera japonica would have been new to him. The town of Woodbury is mentioned 73 times in the Compendium, which, covering "plants found within a circuit of ten miles around Philadelphia," includes a large area in New Jersey. Barton used the town as a seasonal base of operations.

Barton would have arrived in New Jersey via the ferry from Philadelphia to Kaighn's Point. Taking the Woodbury Road south for seven miles, he would have noticed our trip site which was then a wet meadow bordering Woodbury Creek, still tidal at three miles from its mouth. (Here is a current map of the survey site.) A few hundred yards farther south was the Friends Meeting House, constructed in 1715. (Click here to learn about Woodbury Friends). And another hundred yards south was two-story Wilkin's Inn, the northernmost of three hostelries in the town. What else could he have needed? Barton was a surgeon (a more general term then than now) in the United States Navy, but in his era much of medicine derived from plants and in 1815 at the age of 27 he became the Professor of Medical Botany at the University of Pennsylvania. The Compendium grew out of Barton's need to provide a "field guide" for his students to use during their excursions with his class into the environs of Philadelphia.

PLANT LIST

SUBURBAN BOTANY TRIP, SEPTEMBER 8, 2024

BROAD STREET AND RED BANK AVENUE, WOODBURY NJ

CVS PARKING LOT PERIMETER, PLANTING BEDS, PAVEMENT CRACKS, CONSTRUCTION SITE

ANNUAL OR BIENNIAL PLANTS

Acalypha rhomboidea - Copperleaf

Ambrosia artemisiifolia - Ragweed

Artemisia annua - Sweet wormwood NN

Artemisia vulgaris - Mugwort NN

Bidens frondosa – Beggarticks

Bidens bipinnata - Spanish needles

Calibrachoa parviflora - Seaside petunia NN

Cenchrus longispinus – Mat sandbur

Chenopodium album – Lamb's quarters NN

Cirsium vulgare - Bull thistle NN

Commelina communis - Dayflower NN

Conyza canadensis - Horseweed

Cyperus bipartitus – Shining flatsedge

Cyperus iria – Ricefield flatsedge NN

Cyperus microiria - Asian Flatsedge NN

Cyperus squarrosus – Bearded flatsedge

Digitaria sanguinalis – Large crabgrass NN

Diodia virginiana - Virginia buttonweed

Dysphania pumilio - Clammy goosefoot NN

Echinochloa crus-galli - Barnyard grass NN

Eclipta prostrata - False daisy NN

Eleusine indica - Goosegrass NN

Eragrostis cilianensis – Stinkgrass NN

Eragrostis pectinacea – Tufted lovegrass

Erechtities hieracifolia - American burnweed

Erigeron strigosus – Prairie fleabane.

Euphorbia maculata - Spotted Spurge

Euphorbia nutans - Eyebane

Ipomoea hederacea – Ivy-leaved morning glory NN

Ipomoea lacunosa - Small white morning glory NN

Kellochloa verrucosum – Warty panic grass

Kummerowia striata – Japanese clover NN

Lactuca serriola – Prickly lettuce NN

Lepidium virginicum – Virginia pepperwort

Melilotus alba – White sweetclover NN

Melilotus officinalis - Yellow sweetclover NN

Mollugo verticillata - Carpetweed NN

Persicaria longiseta – Oriental lady's thumb NN

Persicaria maculosa – Spotted lady's thumb NN

Physalis angulata – Cutleaf ground cherry

Polygonum aviculare – Prostrate knotweed NN

Portulaca oleracea - Purslane NN

Senecio vulgaris – Common groundsel NN

Setaria faberi – Nodding foxtail NN

Setaria pumila - Yellow foxtail NN

Setaria viridis - Green foxtail NN

Sida spinosa – Prickly fanpetals NN

Solanum emulans – American black nightshade

Strophpostyles helvola – Trailing fuzzybean

Triplasis purpurea – Sandgrass

Verbascum phlomoides - Orange mullein NN

Vicia tetrasperma - Slender vetch NN

Xanthium strumarium – Cocklebur

PERENNIALS

Andropogon virginicus – Broomsedge

Apocynum cannabinum – Dogbane

Artemisia vulgaris - Mugwort NN

Asclepias syriaca - Common milkweed

Calystegia sepium – Hedge False bindweed

Cichorium intybus - Chicory NN

Convolvulus arvensis - Field bindweed NN

Cynodon dactylon – Bermudagrass NN

Cyperus esculentus – Chufa flatsedge NN

Cyperus Iupulinus – Great Plains flatsedge

Cyperus strigosus – Straw-colored flatsedge

Erodium cicutaria - Storksbill

Eupatorium serotinum – Late-flowering boneset NN

Hypochoeris radicata - Cat's ear NN

Juncus tenuis - Path rush

Lolium sp. - Ryegrass NN

Lythrum salicaria – Purple loosestrife NN

Oenothera biennis - Evening primrose

Oxalis sp. - Wood sorrel

Persicaria hydropiperoides – Swamp smartweed

Phragmites australis - Common reed NN

Phytolacca americana - Pokeweed

Plantago lanceolata - NN

Plantago major – Common plantain NN

Plantago rugelii – Blackseed plantain

Reynoutria japonica – Japanese knotweed NN

Rumex obtusifolius – Broad-leaved dock NN

Schizachyrium scoparium - Little bluestem

Solidago altissima – Tall goldenrod

Symphyotrichum pilosum – White oldfield aster

Symphyotrichum racemosum – Small white aster

Taraxacum sp. – Dandelion NN

Tridens flavus – Purpletop

Trifolium repens – White clover NN

WOODY PLANTS

Ailanthus altissima - Tree of Heaven NN

Ampelopsis heterophylla – Porcelainberry NN

Baccharis halimifolia - Groundsel tree

Buddleia davidii - Butterfly bush NN

Celastrus orientalis - Asiatic bittersweet NN

Clematis terniflora – Autumn clematis NN

Hedera helix - English ivy NN

Juglans nigra – Black walnut

Juniperus virginiana – Red cedar

Liquidambar styraciflua - Sweet gum

Lonicera japonica – Japanese honeysuckle NN

Morus alba - White mulberry NN

Parthenocisssus quinquefolia – Virginia creeper

Platanus occidentalis – Sycamore

Populus deltoides - Eastern cottonwood

Prunus serotina – Black cherry

Pyrus calleriana - Bradford pear NN

Robinia pseudoacacia - Black locust NN

Rubus phoenicolasius - Wineberry NN

Toxicodendron radicans – Poison ivy

Ulmus americana - American elm

Ulmus parvifolia – Chinese elm NN

Wisteria sp. – Wisteria NN

ALONG ADJACENT BROAD STREET LAKE

ANNUAL PLANTS

Acalypha rhomboidea - Copperleaf

Ambrosia artemisifolia - Ragweed

Arthraxon hispidus – Small carpgrass NN

Commelina communis - Dayflower NN

Cyperus iria - Ricefield flatsedge NN

Digitaria sanguinalis – Large crabgrass NN

Diodia virginana – Virginia buttonweed

Echinochloa crus-galli – Barnyard grass NN

Eclipta prostrata – False daisy NN

Euphorbia nutans - Eyebane

Lindernia dubia – Yellowseed false pimpernel

Persicaria longiseta – Oriental lady's thumb NN

Persicaria sagittata - Arrowleaf tearthumb

Setaria pumila – Yellow foxtail NN

PERENNIALS

Andropogon virginicus – Broomsedge bluestem

Apios americana – Groundnut

Apocynum cannabinum – Dogbane

Asclepias incarnata – Swamp milkweed

Calystegia sepium – Hedge false bindweed

Cyperus strigosus – Straw-colored flatsedge

Desmodium glabellum - Dillenius' ticktrefoil

Eupatorium serotinum – Late-flowering boneset NN

Hibiscus moscheutos - Swamp rosemallow

Ludwigia peploides – Floating primrose-willow NN

Lythrum salicaria - Purple loosestrife NN

Mikania scandens – Climbing hempweed

Panicum virgatum - Switchgrass

Paspalum setaceum – Thin paspalum

Persicaria hydropiperoides - Swamp smartweed

Phragmites australis - Common reed NN

Plantago lanceolata – Narrowleaf plantain NN

Phytolacca americana - Pokeweed

Solanum carolinense – Carolina horsenettle

Solidago altissima – Tall goldenrod

Solidago gigantea - Giant goldenrod

Sorghastrum nutans – Indiangrass

Symphyotrichum pilosum – White oldfield aster

Symphotrichum lanceolatum - Panicled aster

Tridens flavus - Purpletop

WOODY PLANTS

Alnus serrulata - Smooth alder

Amorpha fruticosa – Desert false indigo NN

Ampelopsis heterophylla - Porcelainberry NN

Catalpa bignonioides – Southern catalpa NN

Cephalanthus occidentalis – Buttonbush

Clematis terniflora - Autumn clematis NN

Lonicera japonica – Japanese honeysuckle NN

Nyssa sylvatica – Black gum

Parthenocissus virginiana – Virginia creeper

Prunus serotina – Black cherry

Rubus sp. - Blackberry

Sambucus canadensis – American black elderberry

Sassafras albidum – Sassafras

Toxicodendron radicans - Poison ivy

Ulmus americana - American elm

Viburnum dentatum – Southern arrowwood

English names are from various sources.

NN = Species not native to New Jersey

SUMMARY

Around the parking lot: 110 species total, of which 53 were annual plants, 34 were perennials, and 23 were woody plants or woody vines. Of the 53 annuals, 32 were non-native. Of the 34 perennials, 16 were non-native. Of the 23 woody plants, 13 were non-native. Overall, of the 110 total species, 61 were non-native.

Along the lake: 55 species total, of which 14 were annual plants, 25 were perennials, and 16 were woody plants or woody vines. Of the 14 annuals, 8 were non-native. Of the 25 perennials, 5 were non-native. Of the 16 woody plants, 5 were non-native. Overall, of the 55 total species, 18 were non-native.