SAMPLING ARCHAEOBOTANICALS:
PAST, PRESENT, AND FUTURE.

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ABSTRACT

The recovery, analysis, and explanation of archaeobotanical remains provide a necessary, botanical description of changing Native American behavior within a changing environmental landscape. We have made great discoveries. After a thirty-year history of implementing archaeobotanical recovery programs, in Delaware, this essay seeks to ask, where are we now? Section I offers two related topics, first, we review recovery efforts listed in twenty-eight DelDOT sponsored archaeological reports, and second, we review recent advances in identifying living plants and living plant clusters that likely qualify as Native American artifact botanicals. Section II is a current list of adventive plants in Delaware compiled by William McAvoy, state botanist, Delaware Division of Fish and Wildlife, Species Conservation and Research Program. Section III is a list of references cited in this essay.

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INTRODUCTION

This essay is a broad inquiry into the importance of collecting, processing, and analyzing archaeobotanical species. Why do we collect soil flotation samples? What are we looking for? Do the results justify the time and money spent? Are we doing too much, not enough, or just about the right amount? Are the results from each collection program comparable, if not—why not? What plants might we find growing today that owe their existence or arrangement to Native American horticultural efforts? Finally, we provide an assessment of what we might be missing.

SECTION I

Section I presents our selection and arrangement of various attempts to gather meaningful archaeobotanical specimens from twenty-eight DelDOT sponsored archaeological projects. Although we have strived to present a fair and meaningful representation of the results, we strongly encourage readers to review the original reports to view and assess the original findings for themselves.

Of these twenty-eight reports, Delaware Park Site is the oldest, published in 1981, and Gray Farm Site is the newest, published (as revised) in 2013. Because the authors collected many of the flotation samples from Delaware Park and from Gray Farm, as well as on many of the other projects through the ensuing years, we speak with some authority on the soil flotation collection process. However, we are not authorities on the physical identification of either archaeobotanical or ethnobotanical specimens.

A wide range of data collection has been accomplished. We have collected and processed soil flotation samples from "cultural features," "natural features," and "living floors", and we have collected off-site samples for controlled comparison. We have used 3" and 4" bucket augers, and 3" vibra-core tube samples to collect data from wet and sub-aqueous environments. From these various sampling techniques, we have found and identified a variety of wood carbon, nut hulls, seeds, plant fibers, pollen, spores, starch grains, and phytoliths. All of these found items, viewed in context, help to describe changing Native American behavior within a changing environmental landscape.

As scientists, we view every newly identified plant species as an important addition to the overall database. But, when it comes down to comparing species found from one site to another, we have a problem. The process of comparative study usually requires a comparative database generated through sets of comparative samples. The problem is not with the size or locations of the sites themselves, or with the overall integrity of the samples collected. The problem is in the lack of controlled sample size, and in some cases, no samples at all.

At the Delaware Park Site, flotation samples were counted in full, five-gallon bucket loads. The wealth of archaeobotanical specimens identified was, consequently, a reflection of the massive soil volumes sampled. Essentially, we were looking to identify as many plant species as possible. At the time, one of our objectives was to create a database where results of future excavations could be compared.

We will see in some of the following twenty-eight DelDOT sponsored archaeological projects, some researchers decided to forego collecting flotation samples altogether, and some others collected flotation samples at ridiculously small volumes, soil volumes that appear to be testing for mere presence or absence instead of collecting reasonable sample sizes for a reasonable description of archaeobotanicals present.

So, how have these efforts, and in some cases, lack of effort, affected the comparative ability of our overall archaeobotanical database. Well, the combined database of identified archaeobotanicals, in Delaware, is largely not comparative, except for a few nut hull species and a small grouping of seemingly ubiquitous carbonized seed species.

Despite these obvious sampling shortcomings, the processing and identification side of archaeobotanical and ethnobotanical reporting remains stellar. Although we see some reluctance in these labs' published comments—in not instructing us how to collect our samples, we do see their repeated advice--they suggest that scantly identified botanical remains is due to small soil sample size. And, where we do take larger

samples, we get robust results. So, it would appear that some level of botanical remains are recoverable from all archaeological sites, and that the measure of results are proportional to the measure of sampled soil collected.

Collecting and processing large, uniform, measured soil flotation samples is the only way to achieve large, uniform, measured archaeobotanical results.

The Hickory Bluff Site and the Puncheon Run Site excavation programs include significant surveys and records of the present day botanical landscapes, larger than the affected areas of the archaeological sites themselves. The resulting archaeobotanical descriptions appear within a realistic botanical landscape. These efforts and descriptions are well worth a detailed read, especially the milestone syntheses compiled by Justine McKnight. These syntheses appear in the appendices of the Puncheon Run Site report (Berger, 2005).

Not only has the bar been placed higher for individual site, and site complex interpretations, the concepts of past and present day environments serve as a more inclusive context for these cultural explanations. McKnight has demonstrated we need to understand that what grows on the land and in the water are "incentive factors" for site formation and cultural durability. And, that site formation and cultural durability, in a very real sense, differentiates what species, and the quantities of those species, are found on the land and in the water.

We provide discussion of two plant species, recently identified as likely remnant populations of Native American horticultural efforts. The first is a tiny remnant population of American lotus (*Nelumbo lutea*), located off Lotus Lane in the immediate vicinity of the Puncheon Run Site (Berger 2005). McKnight and McAvoy (McKnight, personal communication, July 22, 2013) attribute this population, as well as other populations, or clusters of American lotus, on the Sassafras and Potomac rivers to likely Native American horticultural efforts.

In addition, McKinght and McAvoy (McKnight, personal communication, July 22, 2013, and McAvoy, personal communication, July 22, 2013), also, McAvoy (2000), describe a native population of holy grass (*Hierochloe odorata*) located at the east end of Thompson Island, Delaware, and is known to exist at other locations Maryland, and Virginia. McAvoy suggests, "*H odorata* found on the Delmarva Peninsula may be a result of it being dispersed here by Native Americans." (McAvoy, personal communication, July 22, 2013).

Furthermore, Mellin and Truitt (2013a and 2013b) identified and used GPS mapping to document a variety of botanical clusters at known archaeological sites along the upper Nanticoke River, in Sussex County, Delaware. Mellin and Truitt think these Box Huckleberry (*Gaylussacia brachycera*), Chinquapin (*Castanea pumilla*), American Chestnut (*Castanea dentate*), and Prickly Pear (*Opuntia humifusa*) clusters are likely Native American, remnant, husbanded groves of beneficial species. We suspect ancestral Native Americans planted, transplanted, and husbanded a wide range of plant species that they found beneficial. They likely positioned these plants where they considered them to be conveniently accessible.

William McAvoy applies the term "adventive" to a select group, (one hundred and thirty individual plant species) found in Delaware. All of these adventive plants are considered indigenous to North America. Even though they now occur in Delaware, they are likely naturalized to Delaware from other areas, at various times in the past, and under various circumstances in the past (see McAvoy's list of adventive species for Delaware in Section II).

SECTION II

The following caption from William McAvoy explains his current definition of "adventive" species in Delaware (McAvoy, personal communication, July 22, 2013).

> Section II is a list of plant species considered to be adventive in the state of Delaware. This list was compiled by William A. McAvoy, state botanist with the Delaware Division of Fish & Wildlife, Species Conservation and Research Program. McAvoy defines an adventive species as: a species native to North America, but not to Delaware that is now found growing in

> Delaware outside of its natural range. Adventive species are not considered to be part of Delaware's native flora. These species usually arrive due to the human-caused breakdown of natural barriers to dispersal. Adventive species also include plants that have been introduced, or intentionally planted in Delaware and are now escaping and surviving without cultivation. We feel that many of these plants thought to be adventive in the state, may actually be native and could have become established in the state sometime during the Holocene and may owe their position in time and space to human involvement.

William McAvoy emailed the above caption to the authors for inclusion in this essay on July 22, 2013. Please view the spreadsheet describing all one hundred and thirty adventive plant species in Delaware, Section II, pages 39 through 46 in this essay.

SECTION II

Section III is a useful list of all references cited in this essay.

SITE 7K-C-360, AND DOVER DOWNS 7K-C-365A, and 365B, page 1 of 1

UDCAR, (Lynn Riley, Scott C. Watson, and Jay F. Custer). 1994.
Final Archaeological Investigations at Prehistoric Sites 7K-C-360 and Dover Downs (7K-C-365A and B),
State Route 1 Corridor, Kent County, Delaware.
www.deldot.gov/archaeology/dover_downs... July 7, 2013.

CARBONIZED ARCHAEOBOTANICALS RECOVERED FROM FLOTATION SAMPLES

		7K-C-360	7K-C-365A	7K-C-365B
Eleusine indica	Goosegrass	1	0	0
Chenopodium	Lamb's Quarters	6	0	0
Amaranthus retroflexus	Pigweed	1	0	1
Phytolocca americana	Pokeberry	0	1	0
	Unidentifiable Seeds	1	10	1239
	Spores	76	25	0
	Nut Fragments	23	3	2
	Charcoal	18.55gm	190.54gm	38.64gm

URS Corporation, (Patricia Miller, Douglas Mooney, and Jennifer Rankin).
Archaeological Data-Recovery at Site 7NC-E-152 Airport and Churchman's Road Intersection Improvement Project, Duross Heights New Castle County, Delaware. 2011.
www.deldot.gov/archaeology/airport_churchmans/data_recovery... July 3, 2013.

The above document exhibits no relevant presentation or discussion of recovered archaeobotanical remains. On page 4.9, the authors claim that "charcoal-rich features with seeds and nutshell were not identified at the site" and that "...research issues related to subsistence could not be addressed."

HCI, Inc. (Edward F. Heite, Cara L. Blume, John E. Foss, Inez Reed Hoffman, Peter B. Mires, Bryan D. Much, and William Sandy).
Phase I and Phase II Archaeological Investigations at Beech Ridge Site on the Proposed Route of Crawford Carroll Avenue in the City of Dover, Kent County, Delaware. 2002.
www.deldot.gov/archaeology/beech_ridge/phase1_2... July 11, 2013.

SAMPLE FLOTATION FROM THE EAST PIT FEATURE, UNIT 54

Feature Level (spatial context)	Munsell	Soil Des.	Charcoal	Soil Volume Tested (liters)	Species Identified
1		Root mat			
2		Recent humic soil			
3	10YR7/4	Hard, compact	0.9g	12	Raspberry, sclerotia, nut, poke
3a			0.4g	5	Raspberry, sclerotia, tulip tree, acorn, grass.
3a/3b			trace	0.25	Sclerotia, crabgrass.
3b			0.3g	6	Raspberry, sclerotia, tulip tree.
4	10YR5/2	Greyish, charcoal	2.4g	10	Raspberry, sclerotia, tulip tree, nut, grass.
5	10YR6/4	Silt loam	0.1g	4	Sclerotia.
6	10YR6/4	Silt loam	trace	4	Raspberry, bayberry, sclerotia.
7	10YR7/3	Compact fill	1.1g	14	Raspberry, bayberry, sclerotia, copperleaf, grass, poke.
8	10YR6/4	Fill, clay nodules	0.5g	8	Raspberry, grape, sclerotia
9	10YR7/4	Mottled fill	trace	7	Sclerotia, grass.
10	10YR6/4	Reddish fill	0.1g	2	Sclerotia.
11	10YR6/6	Compact, silty	1.8g	28	Violet, sclerotia.
12	10YR7/3	Grey, powdery	1.7g	10	Raspberry, elderberry, bayberry(?), oxalis, sclerotia.
13	10YR6/4	Sandy lens			None
14	10YR6/4	Appears sterile	0.5g	16	Sclerotia.
15	10YR7/4	Loose, grey, powdery	1.5g	8	Sclerotia.
16	10YR6/4 10YR6/6	Loose fill	0.8g	8	Sclerotia.
17	10YR7/4	Fill	0.1g	4	Sclerotia.

URS Corporation, (William P. Barse and Jennifer Marston).
Phase III Investigations at the Beech Ridge Site for the Crawford Carroll Avenue Project. 2007.
www.deldot.gov/archaeology/beech_ridge/phase3… July 11, 3013.

As detailed in the above report on page 1.1: "…Beech Ridge Site, while not characterized by large quantities of material cultural remains, did preserve a remarkable stratigraphic sequence of classic late Paleoindian through Late Archaic point types." Nevertheless, there is no mention of collecting or processing flotation samples from that stratigraphic sequence. The only reference to archaeobotanicals is the carbon gathered for carbon14 processing.

Versar, Inc. The Archaeology of a Stone Tool Industry: The Black Diamond Site (7NC-J-225)
New Castle County, Delaware. 2011.
www.deldot.gov/archaeology/blackdiamond… July 8, 2013.

FLOTATION RECOVERED CARBONIZED PLANT REMAINS

		#5004 N245 E412-413 Fea. 9	#5020 N248 E414-415 Fea. 11	#5017 N248 E414 Fea. 19	#5058 N294 E412 Fea. 24	#5023 N253 E421 Fea. 29	#5030 N238 E407 Fea. 60 w1/2	#5003 N245 E410 Fea. 46	#5003 N245 E410 Fea. 46	#5042 N236 E412 Fea. 69	#5052 N237 E411 Fea. 71
Soil Volume Tested (liters)		2	2	2	2	2	2	2	2	2	2
Wood Charcoal Recovered (grams)		0.02	0.01	0.01	0.02	0.01	0	0	0	0	0
Deciduous taxa (Count)		4	0	0	3	0	0	0	0	0	0
Unidentifiable (Count)		0	1	1	0	1	0	0	0	0	0

FLOTATION RECOVERED NON-CARBONIZED PLANT REMAINS

		#5004 N245 E412-413 Fea. 9	#5020 N248 E414-415 Fea. 11	#5017 N248 E414 Fea. 19	#5058 N294 E412 Fea. 24	#5023 N253 E421 Fea. 29	#5030 N238 E407 Fea. 60 w1/2	#5003 N245 E410 Fea. 46	#5003 N245 E410 Fea. 46	#5042 N236 E412 Fea. 69	#5052 N237 E411 Fea. 71
Soil Volume Tested (liters)		2	2	2	2	2	2	2	2	2	2
Acalypha	Three-sided Mercury	1	1	1	2	0	1	2	0	1	5
Mollugo verticillata	Carpetweed	0	0	0	0	0	0	0	0	1	0
Rubus	Raspberry/Blackberry	0	0	0	1	0	0	0	0	0	0
SOLANACEAE		1	0	0	0	0	0	0	0	0	0
POLYGONACEAE	Knotweed Family	0	0	0	7	0	0	1	0	0	0
	Unidentifiable	0	0	0	0	0	0	1	0	0	0

Versar, Inc. Early Ceramic Occupations Along Blackbird Creek: Archaeological Investigations at the Blackbird Creek Site (7NC-J-195D) New Castle County, Delaware. March 2012. www.deldot/archaeology/Blackbird Creek… July 3, 2013

CARBONIZED ARCHAEOBOTANICALS FROM SITE 7NC-J-195D		
Acer	Maple	Wood (Found in Feature 159)
Carya	Hickory	Wood (Found in Features 39, 95, 96, and 191)
Carya	Hickory	Nut (Found in Feature 145)
Castanea dentata	American Chestnut	Wood (Found in Feature 112)
Lirodendron tulipifera	Tulip Poplar	Wood (Found in Features 96, 112)
Fagus grandifolia	Beech	Wood (Found in Feature 112)
Fagus grandifolia	Beech	Nut (Found in Features 52, 112,and 167)
Juglans nigra	Black Walnut	Wood (Found in Feature 170)
Quercus	White Oak Group	Wood (Found in Features 95,112, 136, 170, and 167)
Quercus	Red Oak Group	Wood (Found in Features 52, 96, 159)
Quercus	Oak	Acorn (Found in Feature 170)
JUGLANDACEAE	NA	Wood (Found in Feature 112)
NA	Deciduous Taxa	Wood, (Found in Features 39, 52, 96, 112, 136, 140, 145, 159, and 191)
NA	Diffuse Porous	Wood, (Found in Features 96, 159, and 170)
NA	Ring Porous	Wood, (Found in Features 39, 52, 95, 145, and 191)
NA	Unidentifiable	Wood, (Found in Features 52, 96, 112, 140, 145, 191)

NON-CARBONIZED SEEDS FROM SITE 7NC-J-195D		
Acalypha	Three-sided Mercury	Seed (Found in Feature 145)
Amaranthus	Pigweed	Seed (Found in Features 145, and 191)
Carex	Sedge	Seed (Found in Features 52, and 145)
Datura stramonium	Jimsonweed	Seed (Found in Feature 191)
Eleusine indica	Goose Grass	Seed (Found in Features 39, 52, 95, and 145)
Mollugo verticillate	Carpetweed	Seed (Found in Features 39, 95, and 145)
Stellaria media	Chickweed	Seed (Found in Feature 145)
AMARANTHACEAE	Pigweed Family	Seed (Found in Feature 39)
POACEAE	Grass Family	Seed (Found in Feature 52)
NA	Unidentifiable	Seed (Found in Feature 39)

Heite Consulting, Inc., (Edward F. Heite and Cara L. Blume).
Archaeological Discoveries in Connection with Scarborough Road Data Recovery Excavations
at the Blueberry Hill Prehistoric Site (7K-C-107) Dover, Kent County, Delaware. 1995.
www.deldot.gov/archaeology/blueberry_hill... July 3, 2013.

POLLEN TAXA IDENTIFIED IN CORES PC14 AND PC17

CONIFERS			**PTEROPSIDA**	
Juniperus	Red Cedar		*Dryopteris*	Wood Fern
Pinus	Pine		Filicineae	Undifferentiated Ferns
Tsuga	Hemlock		*Osmunda*	Cinnamon Fern
			Sphagnum	Sphagnum Moss

ANGIOSPERMS (Arboreal)			**ANGIOSPERMS (Non-arboreal)**	
Alnus	Alder		*Ambrosia*	Ragweed
Betula	Birch		*Cephalanthos*	Buttonbush
Carya	Hickory		Cyperaceae	Sedge Family
Castanea	Chestnut		Ericaceae	Blueberry Family
Celtis	Hackberry		Gramineae	Grass Family
Corylus	Hazelnut		Leguminosae	Legume Family
Fagus	Beech		Myricaceae	Myrtle Family
Fraxinus	Ash		Nympheaceae	Water Lily Family
Ilex	Holly		*Plantago*	Plantain
Juglans	Walnut		Polygonaceae	Buckwheat Family
Liquidambar	Sweet Gum		*Sagittaria*	Arrowhead
Magnolia	Magnolia		Saxifragaceae	Saxifrage Family
Morus	Mulberry		*Sparganium*	Bur-reed
Nyssa	Black Gum		*Solidago*	Golenrod
Platanus	Sycamore		*Stellaria*	Chickweed
Prunus	Cherry		*Typha*	Cattail
Quercus	Oak		Umbelliferae	Parsley Family
Robinia	Black Locust		*Viburnum*	Arrowwood
Salix	Willow		*Vitis*	Grape
Tilia	Basswood			
Ulmus	Elm			

		BRENNAN SITE, page 1 of 1
UDCAR, (Scott C. Watson and Lynn Riley). Final Archaeological Excavations at the Brennan Site (7NC-F-61A) State Route 896, New Castle County, Delaware. 1994. Archaeological Series No. 116. www.deldot.gov.archaeology/brennan… July 3, 2013.		
Amaranthus	Amaranth	Found Carbonized Amaranth Seeds in Heavy and Light Fractions of Feature 4 (Probably Non-cultural). Found Carbonized Amaranth Seeds in TU S9W33 and TU S11W34.
Acalypha	Copperleaf	Found Non-carbonized Copperleaf Seeds in Heavy and Light Fractions of Feature 4 (Probably non-cultural). Found Non-carbonized Copperleaf Seeds in TU S9W33 and TU S11W34.
Chenopodium	Chenopodium Goosefoot	Found Non-carbonized Chenopodium Seeds in TU S9W33 and TU S11W34.
Morus rubra	Mulberry	Found Non-carbonized Mulberry Seeds in TU S9W33.
Oxalis stricta	Woodsorrel	Found Non-carbonized Seeds in TU S11W34.
Honckenya peploides	Sandwort	Found Non-carbonized Sandwort Seeds in TU S9W33.
Lobelia spicata	Stachys/Lobelia	Found Non-carbonized Seeds in TU S9W33 and TU S11W34.

UDCAR, (Jay F. Custer, Scott C. Watson, and Barbara Hsiao Silber). 1996.
Final Archaeological Investigations at the Carey Farm (7K-D-3) and Island Farm (7K-C-13) Sites,
State Route 1 Corridor, Kent County, Delaware.
www.deldot.gov/archaeology/carey… July 7, 2013.

SEEDS IN FLOTATION SAMPLES RECORDED BY SITE AREAS

		South	South Central	North Central	North	The Woods	Island Farm
Chenopodium album	Lamb's Quarter	35	52	10	7	0	5
Tragia urens	Noseburn	1	0	0	0	0	1
Acalypha	Copperleaf	11	3	15	7	0	20
Polygonatum commutatum	Solomon's Seal	0	0	1	1	0	0
Pyrus	Chokeberry	1	0	0	1	0	0
Euphorbia	Spurge	0	2	1	1	0	1
Ilax verticillata	Winterberry	0	1	0	1	0	0
Oenothera biennis	Evening Primrose	0	1	0	0	0	0
Setaria	Bristlegrass	0	1	1	0	0	0
Shepherdia rotundifolia	Buffalo Berry	0	1	0	1	0	0
Liriodendron tulipfeca	Tulip Tree	0	2	0	0	0	0
Croton texensis	Dove Weed	0	1	0	0	0	1
Scleria triglomerata	Scleria	0	0	0	1	0	0
Sassafras	Sassafras	1	2	0	0	0	0
Rubus occidentalis	Raspberry	0	3	1	1	0	0
Polygonatum lepathilolium	Smartweed	0	1	0	0	0	1
Polygonatum aviculare	Knotweed	1	0	0	0	0	0
Phleum pratense	Timothy	0	0	0	1	0	0
Galium asprellum	Bedstraw	0	0	1	1	0	0
Phytolacca americana	Pokeberry	1	0	0	0	0	0
Myrica pennsylvanica	Bayberry	0	1	1	0	0	0
Salvia lyrata	Sage	0	2	1	0	0	0
Amaranth retroflexus	Pigweed	0	31	22	60	0	28
NA	Nut Fragments	0	0	0	0	0	0

DELAWARE AIRPARK, (EAST) 7K-C-431 AND (WEST) 7K-C-382, page 1 of 1

John Milner Associates, Inc. (Robert G. Kingsley, Ph.D., Tod L. Benedict, Matthew D. Harris, and Jennifer A. Ort). Archaeological Data Recovery Investigations at the Delaware Airpark, Airpark East (7K-C-431) and Airpark West (7K-C-382) Sites, Cheswold, Kent County, Delaware. Volume I. 2010. www.deldot.gov/archaeology/del_air_park/final... July 3, 2013.

According to the Phase III Scope of Work (see Appendix 1 , page 5 of the above report), the following strategy was proposed for collecting and analyzing soil flotation samples as subsection 3.2.4 reads:

> 3.2.4 ENVIRONMENT AND ADAPTATION
> Soil samples will be collected for specific sets of data to address the paleoenvironment and adaptive strategies. Flotation samples will be collected to assist in the recovery of charred plant and animal remains. Based on the Phase II investigations in the Delaware Airpark sites (Siegel et al. 2004) and results reported in the Frederick Lodge excavations (Egghart et al. 2003:7-21–7-23) poor preservation of organic remains is expected. Flotation samples, approximately 10 liters in volume, will be collected from features and from selected excavation units across each site. In total, up to 20 flotation samples will be collected and processed. The water separation of these samples will be performed in JMA's laboratory in West Chester, Pennsylvania. Sorting and analysis of the heavy and light fractions will be conducted in the ethnobiological laboratory of New South Associates in Stone Mountain, Georgia.

However, on page 17 of the Delaware Airpark Phase III report, we find the statement: "...no floral or faunal samples were procured, nor was charcoal for radiocarbon dating. Flotation samples from the few features that were excavated did not produce organic matter. This lack of appropriate organic data further confounded the attempted paleoenvironmental reconstruction."

We are uncomfortable with the concept of citing poor preservation or organic remains at the Fredrick Lodge excavations, as justification, to expect poor preservation of organic remains at the Delaware Airpark. A closer look at the evidence from those archaeobotanical recovery efforts shows that only 18 liters of soil was tested from the entire Phase III effort of three sites at Frederick Lodge (7NC-J-97, 98, and 99), and only a total of 18 liters of soil was tested from the entire Phase III effort of one site at Black Diamond (7NC-J-225). As a visual aid, think of 18 liters of soil as a total volume less than 3 gallons of milk, or, about 1 case of beer.

Mid-Atlantic Archaeological Research, Inc. (Ronal A. Thomas), Archaeological Investigations at the Delaware Park Site (7NC-E-41) Stanton, New Castle County, Delaware. 1981.
www.deldot.gov/archaeology/del_park… July 3, 2013

FLOTATION RECOVERED ARCHAEOBOTANICAL REMAINS

CARBONIZED SEEDS

Mollugo verticillata	Carpetweed	Edible (Found in 28 features)
Amaranthus	Pigweed	Edible (Found in 30 features)
Chenopodium	Pigweed Goosefoot Lambsquarters	Edible, medicinal (Found in 30 features)
Lonicera	Honeysuckle	Edible, medicinal (Found in 1 feature)
Sambucus	Elderberry	Edible, medicinal (Found in 4 features)
Polanisia	Clammyweed	(Found in 1 feature)
Silene or C*erastium*	Catchfly or Chickweed	Edible, medicinal (Found in 23 features)
Taraxacum officinale	Dandelion	Introduced from Europe (Found in 3 features)
Cruciferae	Mustard Family	(Found in 1 feature)
Cruciferae brassica	Mustard Seed	Edible, medicinal (Found in 7 features)
Carmelina microcarpa	Small Seeded False Flax	(Found in 1 feature)
Carex	Sedge	(Found in 1 feature)
Fimbristylis	Sedge	(Found in 1 feature)
Scirpus	Bulrush	(Found in 1 feature)
EUPHORBIACEAE	Spurge Family	Toxic (Found in 2 features)
Acaylpha	Copperleaf or Three-seeded Mercury	Found in 31 features)
Euphorbia	Spurge	Toxic (Found in 8 features)
Euphorbia corrollata	Flowering Spurge	Toxic, medicinal (Found in 2 features)
Graminae	Grass Family	(Found in 7 features)
Eleusine indica	Goosegrass	Introduced from Europe (Found in 4 features)
Setaria glauca/lutescens	Foxtail Bristlegrass	(Found in 18 features)
Hypericum	Saint John's Wort	Introduced from Europe (Found in 1 feature)
Labiatae	Mint Family	(Found in 3 features)
Monarda	Mint	Edible, medicinal (Found in 1 feature)
Scutellaria	Skullcap	Medicinal (laxative, and to promote retarded menstruation) (Found in 4 features)
Teucrium	Wood Sage	[No data]
Thymus serpyllum	Wild Thyme	Edible, medicinal (Found in 1 feature)
Trichostema dichotomum		(Found in 1 feature)

		DELAWARE PARK SITE, page 2 of 2
Sassafras	Sassafras	Medicinal (Found in 1 feature)
Legumineae	Bean family	(Found in 3 features)
Amphicarpa bracteata	Hog Peanut	Edible (Found in 1 feature)
Lespedeza	Slender Bush Clover	Possible medicinal (Found in 1 feature)
Lotus	Deer Vetch	(Found in 2 features)
Polygonatum biflorum	Solomon's Seal	Edible, medicinal (Found in 1 feature)
Myrica pennsylvanica	Bayberry	Edible, medicinal (Found in 1 feature)
Conopholis americana	Squawroot	(Found in 1 feature)
Oxalis stricta	Oxalis	(Found in 8 features)
Phytolacca	Pokeweed	Edible, medicinal (Found in 9 features)
Polygonum	Smartweed	Edible, medicinal (Found in 27 features)
Polygonum lapathifolium	Dock-leaved Smartweed	(Found in 2 features)
Rumex acetosella	Sheep Sorel	Edible, medicinal (Found in 2 features)
Ranunculus	Buttercup	Edible, medicinal (Found in 1 feature)
Potentilla arguta	Tall Cinquefoil	medicinal (Found in 1 feature)
Prunus	Plum/Cherry	Edible, medicinal (Found in 2 features)
Rubus	Blackberry/Raspberry	Edible, medicinal (Found in 13 features)
Galium	Bedstraw	Edible, medicinal (Found in 1 feature)
Solarum	Nightshade	medicinal (Found in 1 feature)
Vitis riparia	Wild Grape	Edible, medicinal (Found in 4 features)
CARBONIZED NUT FRAGMENTS		
Quercus	Acorn	Edible (Found in 1 feature)
Juglandaceae	Walnut/Hickory Family	Edible (Found in 16 features)
Carya	Hickory	Edible, medicinal (Found in 14 features)

Versar, Inc. (Christopher Egghart, Dennis Knepper, and Chris Bowen).
American Indian Settlement of Bay/Basin Landscapes in the Archaic and Woodland Periods:
The Frederick Lodge Site Complex, 7NC-J-97, 7NC-J-98, and 7NC-J-99 New Castle County, Delaware. June 2011.
www.deldot.gov/archaeology/frederick_lodge… July 3, 2013.

ARCHAEOBOTANICAL RESULTS FROM SITES 7NC-J-97, 7NC-J-98, AND 7NC-J-99
(a combined total of 18 liters was tested)

CARBONIZED BOTANICALS

Pinus	Pine	Wood, Found in Block E N306 E567 Feature 10, and N298 E546 Feature 32.
Quercus	Oak	Wood, Found in N285 E575-576 Feature 2.
NA	NA	Wood, Deciduous Taxa Found in Block E N306 E567 Feature 10.
NA	NA	Wood, Ring Porous Found in N298 E 546 Feature 32.
NA	NA	Wood, Unidentifiable Found in N205 E664 Feature 23, N298 E 546 Feature 32, Block D N294 E551 Strata B Level 2, Block D N294 E552 Strata B Level 2.
Myrica	Bayberry	Seed fragment, Found in N205 E664 Strata I Level 2.

NON-CARBONIZED BOTANICALS
(a combined total of 18 liters of soil was tested)

Acalypha	Three-sided Mercury	Seed, Found in Block D N296 E540 Feature 30, N296 E549 Strata B Level 2, Block D N294 E552 Strata B Level 2.
Amaranthus	Pigweed	Seed, Found in Block I N221 E717 Strata B Level 2.
Mollugo verticillata	Carpetweed	Seed, Found in N205 E664 Feature 23 Strata I Level 2, N285 E575-576 Feature 2 Strata B Level 1, Block D N296 E540 Feature 30 Strata B Level 1, Trench I N219 E720 Strata B Level 1, and Block I N221 E717 Strata B Level 2.
Panicum	Panic Grass	Seed, Found in N205 E664 Feature 23 Strata I Level 2, N285 E575-576 Feature 2 Strata B Level 1, Trench I N219 E720 Strata B Level 1, and Block I N221 E717 Strata B Level 2.
POACEAE	Grass Family	Seed, Found in N205 E664 Feature 23 Strata I Level 2, N285 E575-576 Feature 2 Strata B Level I, Block E N306 E567 Feature 10 Strata II Level 7, Block D N296 E540 Feature 30 Strata B Level 1, N298 E546 Feature 32, Block D N294 E551 Strata B Level 2, N296 E549 Strata B Level 2, Block D N294 E552 Strata B Level 2, Trench I N219 E720 Strata B Level 1, and Block I N221 E717 Strata B level 2.
POLYGONACEAE	Knotweed Family	Seed, Found in N285 E575-576 Feature 2 Strata B Level 1.

URS Corporation, (William P. Barse and Daniel Eichinger).
Phase III Excavations at the Gabor Prehistoric Site (7NC-D-131B), S.R. 4, Ogletown Interchange, New Castle County, Delaware. 2003.
www.deldot.gov/archaeology/gabor… July 9, 2013.

Flotaion samples were collected during the Phase II, determination of eligibility process. However, on page 1.2 of the above report, we read: "Although numerous flotation samples had been taken, none were present with the materials retrieved from Rutgers, and no data indicating the processing of such material was evident." There is no indication that flotation samples were taken during the Phase III process. Furthermore, there is no indication of an effort to look for and describe archaeobotanicals, even though the authors speculate in their Abstract (p.i): "The Late Woodland component, characterized by a small assemblage of Riggins Fabric-Impressed pottery, may represent a small, seasonal hamlet occupation, perhaps tied to the location of a swidden field."

Archaeological & Historical Consultants, Inc. (Conran A. Hay, Ph.D., Melissa Diamanti, Ph.D., and David Rue, Ph D.)
Gray Farm Site: Phase II and III Excavations on the Murderkill River (Sites 7K-F-11 and 7K-F-169).
Revised, March 2013. www.deldot.gov/archaeology/north_frederica/grayfarmsite...

FLOTATION-RECOVERED ARCHEOBOTANICAL REMAINS (Table 02)

	Wood Charcoal	
Acer sp.	Maple	6 Pieces
Carya spp.	Hickory	73 Pieces
Castanea sp.	Chestnut	1 Piece
Pinus spp.	Pine	2 Pieces
Quercus spp.	Oak	15 Pieces
Quercus spp.	White oak	53 Pieces
Quercus spp.	Red oak	24 Pieces
NA	Ring Porous	6 Pieces
NA	Deciduous	215 Pieces
NA	Unidentifiable	70 Pieces
	Carbonized Nuts	
Carya spp.	Hickory (Thick-walled)	540 Pieces
	Carbonized Seeds	
Rubus spp.	Raspberry or blackberry	1 Seed
Vitis sp.	Grape	1 Seed
POACEAE (possible)	Grass	1 Seed
NA	Unid. Large Frag.	1 Seed
NA	Unid. Ovoid	1 Seed
NA	Unidentifiable	2 Seeds
	Miscellaneous Plant Remains (carbonized)	
NA	Monocot Stem Frag.	9 Pieces
NA	Gall	1 Piece
NA	Fungal Fructification	4 Pieces
NA	Amorphous Carbon	85 Pieces
NA	Unknown Fragments	3
	Non-carbonized Seeds, (Percentages)	
Acalypha sp.	Copperleaves	3%
Amaranthus sp.	Pigweed	20%
Mollugo verticillata	Carpetweed	67%
Phytolacca americana	Poke	3%
Polygonum/Rumex	Knotweed/dock	3%
Rhus sp.	Sumac	0%
Rubus sp.	Blackberry/raspberry	3%
Stellaria media	Chickweed	40%
Taraxacum sp.	Dandelion	3%
Trifolium sp.	Clover	3%
POACEAE	Grass Family	3%
SOLANACEAE	Nightshade Family	10%
NA	Unknown	3%

		GRAY FARM SITE, page 2 of 2
STARCH GRAIN (Figure 1)		
Seteria	Maize or grass	Starch-subangular, maize or grass. (Feature 10, Sample 11, Woodland II ceramic), (Feature 185, Sample 13, Middle Woodland I ceramic), (Feature 344, Sample 7, metate).
Seteria	Maize or grass	Starch-angular, maize or grass. (Feature 10, Sample 9, Woodland II ceramic), (Feature 3, Sample 6, Late Woodland I steatite), (Feature 279, Sample 4, Early Woodland I ground stone), (Test Unit 38, Sample 14, Middle Woodland I ceramic).
POACEAE	Grass seed	Starch-centric, grass seed. (Feature 10, Sample 8, Woodland II ceramic), Feature 3, Sample 6, Late Woodland I? steatite), Feature 344, Sample 7, metate).
POACEAE	Grass seed	Starch-centric/elongate, grass seed. (Feature 10, Sample 9, Woodland II ceramic), (Feature 10, Sample 8, Woodland II ceramic).
Hordeum pusillum	Little barley	Starch-lenticular with lamellae. (Test Unit 38, Sample 14, Middle Woodland I ceramic).
Hordeum pusillum	Little barley	Starch-large lenticular with lamellae. (Feature 10, Sample 9, Woodland II ceramic), (Feature 10, Sample 8, Woodland II ceramic).
Hordeum pusillum	Little barley	Starch-lenticular with lamellae cluster. (Feature 10, Sample 9, Woodland II ceramic), (Feature 10, Sample 8, Woodland II ceramic).
Hordeum Elymus	Barley-wildrye type	Starch-small lenticular cluster. (Feature 10, Sample 8, Woodland II ceramic).
Sagittaria latifolia	Wapato, Indian Potato	Starch-eccentric wapato type. (Test Unit 38, Sample 14, Middle Woodland I ceramic).
PHYTOLITH (FIGURE 1)		
CYPERACEAE	Sedge, achene	Cone-cell sedge, achene. (Feature 344, Sample 7, metate).
CYPERACEAE	Sedge, root-type	Irregular with cylindric projection, sedge, root-type. (Test unit 38, Sample 14, Middle Woodland I ceramic).
POACEAE	Grass seed	Dendriform grass seed indicator. (Feature 10, Sample 12, Woodland II ceramic), (Feature 10, Sample 9, Woodland II ceramic), (Feature 10, Sample 10, Woodland II ceramic), Feature 3, Sample 6, Late Woodland I? steatite), (Feature 279, Sample 3, Early Woodland I ground stone), (Feature 279, Sample 4, Early Woodland I ground stone), (Feature 344, Sample 7, metate).
NA	NA	Non-phytolith xylem fragment. (Feature 10, Sample 9, Woodland II ceramic), Feature 280, Sample 1, lithic micro-tool).
Asteraceae inflorescence	[daisey and/or sunflower]	Opaque perf. plate. [of the daisey and sunflower family] (Feature 3, Sample 6, Late Woodland I? steatite), (Feature 279, Sample 4, Early Woodland I ground stone), (Feature 344, Sample 7, metate).

UDCAR, (Jay F. Custer and David C. Bachman). Phase III Data Recovery Excavations of the Prehistoric Components from the Hawthorn Site 7NC-E-46 New Churchman's Road Christiana, New Castle County, Delaware. 1984.
www.deldot.gov/archaeology/hawthorne… July 7, 2013.

CARBONIZED ARCHAEOBOTANICALS RECOVERED FROM FLOTATION (HEAVY FRACTION ONLY)

	Charcoal (grams)	Hickory (grams)	Chenopodium Seed (Count)	Hackberry Seed (Count)
E203 S50 L.4	0.28	0	0	0
E198 S65 L.3 ss.12	0.06	0	0	0
E183 S60 L.4 ss.13	2.08	0	0	1
E198 S65 L.3 ss.13	0.55	0	0	0
E198 S65 L.3 ss.2	2.36	0	0	1
E183 S60 L.3	2.62	0.02	0	0
E198 S65 L.3 ss.1	0.18	0	0	0
E213 S50 L.5	1.19	0.08	0	0
E208 S60 L.2 ss.13	2.54	0.11	0	0
E198 S65 L.3 ss.13	6.23	0.57	0	0
E183 S60 L.3 ss.13	0.39	0	0	0
E198 S65 L.3 ss.24	2.79	0.57	2	1
E193 S70 L.2	1.38	0.09	0	0
E178 S50 L.2 ss.13	0.75	0	0	0
E208 S65 L.5	0.44	0	1	4
E198 S65 L.3 ss.23	0.17	0.18	0	1
E188 S55 L.2 ss.13	0.38	0.07	0	0
E198 S65 L.2	0.03	0	0	0
E198 S70 L.4	0.03	0	0	0
E173 S60 L.2	0.01	0	1	0
E198 S65 L.3 ss.16	0.01	0	0	0
E198 S65 L.3 ss.19	0.05	0	0	5
E208 S55 L.2 ss.13	0.06	0.09	0	0
E208 S65 L.3	0.09	0	0	0
E173 S65 L.2 ss.13	0.01	0	1	0
E183 S60 L.2 ss.13	0.01	0.01	0	0
E198 S65 L.3 ss.21	0.01	0	0	0
E198 S65 L.3 ss.6	0.01	0	0	0
E173 S65 L.3 ss.13	0.01	0	0	0
E188 S55 L.3 ss.13	0.01	0	0	2
E203 S70 L.2 ss.13	0.02	0.01	0	
E208 S50 L.5 ss.13	0.03	0.02	0	
E203 S70 L.4 ss.13	6.39	2.83	5	15
E203 S70 L.3 ss.13	0.54	0.32	0	0
E203 S50 L.4 ss.13	0.03	0	0	0
E193 S65 L.4 ss.13	0.01	0.01	0	0

HAWTHORN SITE, page 2 of 2				
	Charcoal (grams)	Hickory (grams)	Chenopodium Seed (Count)	Hackberry Seed (Count)
E188 S65 L.2 ss.13	0.01	0	0	0
E198 S65 L.3 ss.18	0.01	0.01	0	0
E198 S65 L.3 ss.17	0.01	0	0	0
E198 S65 L.3 ss.13	0.02	0.01	0	2
E198 S65 L.3 ss.5	0.02	0.13	0	0
E198 S65 L.3 ss.15	0.01	0.01	0	0
E148 S65 L.3 ss.12	0.01	0	0	0
E198 S65 L.3 ss.8	0.01	0	0	0
E198 S65 L.3 ss.3	0.52	0	0	0
E198 S65 L.3 ss.9	0.01	0	0	0
E178 S50 L.3 ss.13	0.01	0	0	0
E203 S55 L.2 ss.13	0.01	0	0	0
E193 S70 L.3 ss.13	0.01	0	0	0
E193 S60 L.4 ss.13	0.01	0	0	0
E203 S45 L.3 ss.13	0.38	0	0	0
E203 S55 L.3	0.01	0	1	0
E163 S70 L.4 ss.13	0.01	0	0	0
E203 S50 L.3	0.01	0	0	0
E198 S70 L.3	0.01	0.01	0	0
E183 S60 L.2	0.01	0	0	0
E198 S55 L.2 ss.13	0.01	0	1	0
E213 S50 L.4 ss.13	0.01	0.01	0	0
E178 S65 L.4	0.01	0	0	0
E183 S60 L.3 ss.13	0.93	0.13	0	0
E198 S65 L.3 ss25	0.67	0.07	0	2
E198 S65 L.3 ss.10	0.02	0	0	0
E198 S60 L.4	0.01	0	0	0
E163 S70 L.5 ss.13	0.01	0	0	0
E183 S60 L.1 ss.10	0.01	0	0	0
E188 S65 L.3 ss.13	0.01	0	5	0
E173 S55 L.2 ss.13	0.01	0.01	0	0
E198 S65 L.3 ss.7	0.01	0	0	0
E173 S55 L.3 ss.13	0.01	0	0	0
E208 S65 L.2 ss.13	0.01	0	0	0
E198 S65 L.3 ss.11	0.01	0	0	0
E198 S65 L.3 ss.14	0.01	0	0	0
E198 S65 L.3 ss.20	7.30	2.30	0	0
E198 S65 L.3 ss.4	5.20	1.93	0	0
E198 S70 L.4 Fea. 1	19.75	25.36	0	0
E198 S70 L.2 ss.13	0.01	0	0	0
E198 S70 L.4 ss.13	0.01	0	0	0

Parsons Inc. (Michael D. Petraglia, Susan L. Bupp, Sean P. Fitzell, and Kevin W. Cunningham).
Hickory Bluff: Changing Perceptions of Delmarva Archaeology. 2022.
www.deldot.gov/archaeology/hickory_bluff… July 9, 2013.

SPECIES SPECIFIC CHARCOAL RECOVERED FROM FEATURE SPECIFIC, 2 LITER FLOTATION SAMPLES

Acer	Maple	Found in Features 90, 99, 166, and 249.
Acer or *Betula*	Maple or Birch	Found in Features 87, and 165.
Carya	Hickory	Found in Features 87, 99, 120, 137, 165, 166, 174, 230, 249, 253, 281, 296, 298, and 310.
Castanea dentata	American Chestnut	Found in Features 176, 227, and 298.
Juglans nigra	Black Walnut	Found in Features 87, 120, 165, and 176.
Prunus serotina	Cherry	Found in Feature 174.
Quercus	Oak (White Group)	Found in Features 2, 46, 90, 165, 174, and 176.
Quercus	Oak (Red Group)	Found in Feature 289.
Quercus	Oak (Unspec.)	Found in Features 98, 174, 176, and 414.
NA	Diffuse Porous	Found in Feature 87.
NA	Ring Porous	Found in Features 46, 120, 227, and 230.
NA	Deciduous Taxa	Found in Features 46, 87, 90, 99, 137, 165, 166, 174, 176, 227, 230, 240, 249, 253, 281, 289, 296, 298, and 310.
NA	Unidentifiable	Found in Features 46, 87, 98, 120, 165, 169, 175, and 310.

CARBONIZED NUT AND SEED SPCIMEN(S) FOUND IN FEATURE SPECIFIC, 2 LITER FLOTATION SAMPLES

Carya	Hickory (Thick Wall)	Nut Fragment(s) Found in Features 2, 46, 90, 98, 99, 137, 165, 174, 176, 230, 249, 289, and 310.
Juglandaceae	Walnut (Family)	1 Nut Fragment Found in Feature 98.
NA	NA	1 Seed Found in Feature 120.

NON-CARBONIZED SEED SPECIMEN(S) FOUND IN FEATURE SPECIFIC, 2 LITER FLOTATION SAMPLES		
Amaranthus	Pigweed	Found in Features 98, 202, 230, and 414.
Crotolaria	Rattlebox	Found in Features 99, and 298.
Euphorbia	Spurge	Found in Features 46, 87, 98, 118, 120, 165, 166, 169, 174, 175, 176, 202, 227, 249, 281, 296, 298, 310, and 414.
Liriodendron tulipifera	Tulip Poplar	Found in Features 87, 98, 99, 137, 176, and 281.
Panicum	Panic Grass	Found in Feature 296.
Phytolacca americana	Pokeweed	Found in Feature 87.
Polygonum pennsylvanicum	Knotweed	Found in Feature 166.
Polygonum	Knotweed	Found in Features 99, 120, 227, and 298.
Prunus serotina	Cherry	Found in Features 99, 174, 253, and 281.
Rubus	Raspberry/Blackberry	Found in Features 46, 87, 98, 99, 137, 176, 227, 230, and 281.
Sambucus canadensis	Elderberry	Found in Feature 99.
Trifolium	Clover	Found in Features 46, 99, 230, 281, and 310.
Vitis labrusca	Fox Grape	Found in Features 87, 98, and 281.
Polygonaceae	Knotweed (Family)	Found in Feature 166.
NA	Unidentifiable	Found in Features 118, 169, and 253.

UDCAR, (Jay F. Custer and Jay Hodny).
Final Archaeological Investigations at the Hockessin Valley Site (7NC-A-17). 1989.
www.deldot.gov/archaeology/hockessin_valley… July 7, 2013.

CARBONIZED ARCHAEOBOTANICALS RECOVERED FROM FEATURES

Vitis	Grape	2 Seeds in Feature 8
Chenopodium	Goosefoot	1 Seed in Feature 24
Carya	Hickory	Charcoal Found in Features 1 and the Hearth, 1 Nut Fragment Found in Feature 9.
Quercus	Oak	Charcoal Found in Features 23, and the Hearth
Juglans	Walnut	Charcoal Found in Features 23, and the Hearth
Fagus grandifolia	American Beech	Charcoal Found in the Hearth

CHARCOAL WEIGHTS IN FEATURE SAMPLES

Feature 1		3.11gm Charcoal Recovered
Feature 8		1.29gm Charcoal Recovered
Feature 9	S 1/2 Lv. 2	24.72gm Charcoal Recovered
Feature 12	NE Area 0-10cm.	0.07gm Charcoal Recovered
Feature 12	NE Area 10-20cm.	4.24gm Charcoal Recovered
Feature 12	S 1/2 10-20cm.	1.13gm Charcoal Recovered
Feature 12	N 1/2 20cm--Bottom	3.99gm Charcoal Recovered
Feature 12	S 1/2 20-30cm.	1.13gm Charcoal Recovered
Feature 18	N19W13 N 1/2 (Silty)	1.97gm Charcoal Recovered
Feature 18	N 1/2	4.90gm Charcoal Recovered
Feature 23	N 1/2	1.12gm Charcoal Recovered
Feature 23	S 1/2	0.16gm Charcoal Recovered
Feature 24	NW 1/2	1.85gm Charcoal Recovered
Feature 26	NW 1/2	31.96gm Charcoal Recovered
Feature 26	SE 1/2	12.76gm Charcoal Recovered

UDCAR, (Jay F. Custer, Lynn Riley, and Glen Mellin).
Archaeology--Leipsic Site (7K-C-194A) Kent County, Delaware. 1996.
www.deldot.gov/archaeology/leipsic_site_sr1… July 3, 2013.

EXCAVATED ARCHAEOLOBOTANICALS OF EUROPEAN ORIGIN		
Setania	Bristlegrass	Seeds, 1 Carbonized, 301 Non-carbonized
Mollugo verticillata	Carpetweed	Seeds, 4 Carbonized, 297 Non-Carbonized
Acalypha	Copperleaf	Seeds, 54 Carbonized, 5,049 Non-carbonized
Digitana	Crabgrass	Seeds, 3 Carbonized, 534 Non-carbonized
Gramminaea	Grass	Seeds, 4 Carbonized, 9 Non-carbonized
Panicum	Wartgrass	Seeds, 4 Carbonized, 588 Non-carbonized
Triticum aestivum	Wheat	Seeds, 2 Carbonized, 4 Non-carbonized
Salvia	Sage	Seeds, 1 Carbonized, 1 Non-carbonized
Euphorbia	Spurge	Seeds, 2 Carbonized, 54 Non-carbonized
Portulaca oleracea	Purslane	Seeds, 2 Carbonized, 63 Non-carbonized
EXCAVATED ARCHAEOBOTANICALS OF NATIVE ORIGIN		
Chenopodium	Lambsquarter	Seeds, 18 Carbonized, 215 Non-carbonized
Amaranthus retroflexus	Pigweed	Seeds, 1 Carbonized, 102 Non-carbonized
Clitonia	Butterflypea	Seeds, 1 Carbonized, 0 Non-carbonized
Pyrus	Chokeberry	Seeds, 1 Carbonized, 0 Non-carbonized
Oenothera	Evening primrose	Seeds, 6 Carbonized, 8 Non-carbonized
Comus florida	Flowering Dogwood	Seeds, 18 Carbonized, 0 Non-carbonized
Vitis	Grape	Seeds, 2 Carbonized, 8 Non-carbonized
Smilax	Greenbriar	Seeds, 1 Carbonized, 2 Non-carbonized
Lechea	Pinweed	Seeds, 1 Carbonized, 0 Non-carbonized
Rubus occidentalis	Raspberry	Seeds, 1 Carbonized, 1 Non-carbonized
Trianthema	Sea Purslane	Seeds, 3 Carbonized, 2 Non-carbonized
Rumex acetosella	Sheep Sorrel	Seeds, 2 Carbonized, 4 Non-carbonized
Polygonatum	Solomon's Seal	Seeds, 1 Carbonized, 2 Non-carbonized
Liriodendron tulipfera	Tuliptree	Seeds, 3 Carbonized, 6 Non-carbonized
NA	Spores	Spores, 6,439 Carbonized, 91,439 Non-carbonized
Carya	Hickory	Nut, Carbonized, Present
Erythrobalanus	Oak (Red family)	Wood, Carbonized, Present
NA	Unidentified	211 Carbonized, 0 Non-carbonized

UDCAR, (Jay F. Custer, Wade P. Catts, Jay Hodny, and Colleen DeSantis Leithren).
Final Archaeological Investigations at the Lewden Green Site (7NC-E-9),
Christiana, New Castle County, Delaware. 1990.
www.deldot.gov/archaeology/lewden_green… July 7, 2013.

We include the Lewden Green Site (a terminal Phase II project) in this synthesis because the site was a special situation, an important ceramic yielding location. In the Abstract (p.i) we find: "Phase II excavations at the Lewden Green Prehistoric Site in northern New Castle County, Delaware, recovered numerous artifacts from plowzone contexts. No features or in situ archaeological deposits are present at the site." Consequently, no attempt was made to recover archaeobotanical samples from soil flotation.

LUMS POND SITE, page 1 of 1

Parsons Engineering Science, (Michael Petraglia, Dennis Knepper, John Rutherford, Philip LaPorta, Kathryn Puseman, Joseph Schuldenrein, and Noreen Tuross). The Prehistory of Lums Pond: The Formation of an Archaeological Site in Delaware, Volume II. 1998. www.deldot.gov/archaeology/lums_pond... July 9, 2013.

		No. 3392 (Fea. 2) 3.35 Liters	No. 3394 (Fea. 14) 5.4 Liters	No. 3395 (Fea. 16) 3.0 Liters	No. 3397 (Fea. 19) 3.5 Liters	No. 3398 (Fea. 23) 4.5 Liters	No. 3400 N314 E332 7.1 Liters	No. 3401 N230 E241 3.6 Liters	No. 3405 N232 E242 etc. 2.0 Liters	No. 3402 N232 E242 5.5 Liters	No. 3406 N230 E240 etc. 5.2 Liters	No. 3407 N238 E254 etc. 3.9 Liters	No. 3404 N241 E258 3.3 Liters
CARBONIZED													
Carya	Hickory (Wood, Frags.)	0	3	0	1	0	0	0	0	0	0	0	0
Quercus	Oak (Wood, Frags.)	30	47	12	19	10	9	6	20	17	0	4	2
NA	Unident. (Wood, Frags.)	0	0	0	0	0	0	4	0	3	0	4	3
Carya	Hickory (Nut, Frags.)	3	1	0	0	9	1	0	0	1	0	0	0
Quercus	Oak (Acorn, Frags.)	0	0	2	0	0	0	0	0	0	0	1	0
Gaylussacia	Huckleberry (Seed)	0	0	0	0	0	0	1	1	0	3	0	0
Lamiaceae	Pennyroyal (Seed)	0	0	0	0	0	0	1	0	0	0	0	0
NA	Unidentified (Seed)	0	0	0	0	0	0	0	0	1	0	0	0
NON-CARBONIZED													
Amaranthus	Pigweed (Seed)	0	0	0	0	0	1	0	0	0	0	0	0
Asteraceae	Sneezeweed (Seed)	0	0	0	0	0	1	0	0	0	0	0	0
Brassicaceae	Mustard (Seed)	0	0	0	0	0	0	1	0	0	0	0	0
Euphorbia	Spurge (Seed)	0	0	0	0	0	2	0	0	0	0	0	0
Lamiaceae	Bugleweed (Seed)	0	0	0	0	0	5	4	4	0	2	2	0
Liliaceae	Cucumber-root (Seed)	0	0	0	0	0	0	0	0	1	0	0	0
Mollugo verticillata	Carpetweed (Seed)	0	0	0	0	0	20	0	2	0	0	0	0
Oenothera	Evening Primrose (Seed)	0	0	0	0	0	4	3	2	0	0	0	0
Oxalis stricta	Oxalis (Seed)	0	0	0	0	0	0	1	0	1	0	0	0
Polanisia	Clammyweed (Seed)	0	0	0	0	0	1	0	0	0	0	0	0
Polygonum	Solomon's Seal (Seed)	0	0	0	0	0	1	0	0	0	0	0	0
Portulaca	Purslane (Seed)	0	3	0	0	1	0	0	0	0	0	0	0
Rubus	Rasp/Blackberry (Seed)	0	0	0	0	0	0	0	0	0	5	0	0
Trifolium	Clover (Seed)	0	0	0	0	0	0	20	0	0	0	0	0
NA	Unidentified (Seed)	0	0	0	0	0	6	0	0	0	2	1	0

UDCAR, (Jay F. Custer, Angela Hoseth, Barbara Hsiao Silber, David J. Grettler, and Glen Mellin). 1997.
Final Archaeological Investigations at the Pollack Prehistoric Site (7K-C-203),
State Route 1 Corridor, Kent County, Delaware.
www.deldot.gov/archaeology/pollack/final... July 7, 2013.

SEEDS IN FLOTATION SAMPLES RECORDED BY SITE AREAS

		Area A	**Area B**	**Area C**	**Area D**	**Area E**	**Area F**	**Area G**
Chenopodium album	Lamb's-quarters	13	3	3	2	0	0	0
Tragia urens	Noseburn	5	2	1	2	0	0	0
Acalypha	Copperleaf	13	0	0	0	0	0	0
Portulaca oleracea	Purslane	14	0	0	1	0	0	0
Polygonatum commutatum	Solomon's Seal	2	0	0	3	0	0	0
Hypericum	St. John's Wort	6	0	0	0	0	0	0
Pyrus	Chokeberry	1	0	0	1	0	0	0
Quercus prinus	Acorn	1	0	0	0	0	0	0
Euphorbia	Spurge	1	0	0	0	0	1	0
Comus florida	Dogwood	1	0	0	0	0	0	0
Ilax verticillata	Winterberry	2	0	0	0	0	0	0
Crataegus	Possoin Haw	1	0	0	0	0	0	0
Oenothera biennis	Evening Primrose	2	0	0	0	0	0	0
Setaria	Bristlegrass	1	0	0	1	0	0	0
Collomia grandiflora	Collomia	1	0	0	0	0	0	0
Shepherdia rotundifolia	Buffalo Berry	1	0	0	0	0	0	0
Prunetta vulgaris	Self Heal	1	0	0	0	0	0	0
Liriodendron tulipifeca	Tulip Tree	1	0	0	1	0	0	0
Croton texensis	Dove Weed	0	2	0	0	0	0	0
Scleria triglomerata	Scleria	0	12	6	2	1	0	0
Amaranth retroflexus	Pigweed	0	1	2	1	0	0	0
Carex	Sedge	0	1	0	0	0	0	0
Ampelopsis arborea	Peppervine	0	1	0	0	1	0	0
Sassafras	Sassafrass	0	1	1	1	0	0	0
Rubus occidentalis	Raspberry	0	1	0	0	0	0	0
Polygonatum lepathilolium	Smartweed	0	0	1	0	0	0	0
Vicia americana	Vetch	0	0	2	2	0	0	0
Polygonatum aviculare	Knotweed	0	0	1	0	0	0	0
Smilax	Greenbriar	0	0	0	1	0	0	0

								POLLACK SITE, page 2 of 2
		Area A	**Area B**	**Area C**	**Area D**	**Area E**	**Area F**	**Area G**
Salvia lyrata	Sage	0	0	0	1	0	0	0
Solarium	Nightshade	0	0	0	1	0	0	0
	Clammyweed	0	0	0	1	0	0	0
Ruppia maritima	Widgeongrass	0	0	0	2	0	0	0
Quercus	Oak	0	0	0	1	0	0	0
Phleum pratense	Timothy	0	0	0	1	0	0	0
Galium asprellum	Bedstraw	0	0	0	1	0	0	0
	Scurf Pea	0	0	0	1	0	0	0
	Grey Feather	0	0	0	1	0	0	0
Galium aparine	Goosegrass	0	0	0	6	0	0	0
Phasectus meticalfi	Wild Bean	0	0	0	1	0	0	0
Phytolacca americana	Pokeberry	0	0	0	2	0	0	0
Myrica pennsylvanica	Bayberry	0	0	0	0	0	1	0
	Nut Fragments	0	0	0	0	0	0	0

PUNCHEON RUN SITE, page 1 of 1

Berger Group, Inc. (Charles LeeDecker, John Bedell, Robert Jacoby, and Stuart Fiedel).
Archaeology of the Puncheon Run Site. Volume I and II. 2005.
www.deldot.gov/archaeology/puncheon_run… July 13, 2013.

TOTAL SITE SOIL SAMPLE VOLUME, 249.5 LITERS
TOTAL SITE CHARCOAL, N=4563, WEIGHING 44.93 GRAMS

CARBONIZED WOOD (Pieces)					
Acer	Maple	11	*Acer/Betula*	Maple/Birch	8
Carya	Hickory	99	*Castanea dentata*	American Chestnut	10
Cornus florida	Flowering Dogwood	1	*Diospyros virginiana*	Persimmon	5
Fraxinus	Ash	2	*Ilex opaca*	American Holly	7
Juglans nigra	Black Walnut	8	*Liquidambar styracif.*	Sweetgum	40
Liriodendron tulipifera	Tulip Poplar	4	*Morus ruba*	Red Mulberry	2
Pinus	Pine (Group)	5	*Prunus serotina*	Black Cherry	1
Quercus	Oak (Red Group)	40	*Quercus*	Oak (White Group)	290
Quercus	Unspec.	85	*Robinia pseudoacacia*	Black Locust	4
Sassafras albidum	Sassafras	2	NA	Diffuse Porous	5
NA	Ring Porous	83	NA	Coniferous Taxa	1
NA	Deciduous Taxa	248	NA	Unidentifiable	257
CARBONIZED NUT REMAINS, N=157, WEIGHING 2.22 GRAMS					
Quercus	Acorn	2	*Carya*	Thick-walled Hickory	155
CARBONIZED SEEDS, N=85, WEIGHING 0.14 GRAMS					
Acalypha virginica	Copperleaf	1	*Chenopodium*	Goosefoot	47
Nelumbo lutea (poss.)	American Lotus (poss.)	1	*Phytolacca americana*	Poke	2
Polygonum	Knotweed	2	*Rumex*	Dock	1
Stellaria media	Chickweed	1	*GRAMINEAE*		5
NA	Unident. Seed Frag.	1	NA	Unident. Eroded Seed	17
NA	Unident. Large Seed	6	NA	Unknown Seed	1
NON-CARBONIZED SEED REMAINS, N=1082, WEIGHING 0.35 GRAMS					
Amaranthus	Pigweed	50	*Ambrosia artemisiifolia*	Common Ragweed	1
Crotolaria sagittalis	Rattlebox	1	*Euphorbia*	Spurge	17
Frageria	Strawberry	5	*Mollugo verticillata*	Carpetweed	769
Myrica	Bayberry?	1	*Oxalis stricta*	Wood Sorrel	30
Panicum	Panic Grass	6	*Phytolacca americana*	Poke	0
Polygonum pensylvan.	Knotweed	2	*Polygonum*	Knotweed	49
Prunus serotina	Black Cherry	3	*Rubus*	Raspberry/Blackberry	1
Solanum rostratum	Buffalobur	1	*Stellaria media*	Chickweed	69
Trifolium	Clover	6	*Vicia*	Vetch	1
Vitis	Grape	1	*AMARANTHACEAE*	Pigweed (Family)	62
LEGUMINOSAE	Bean (Family)	1	*POACEAE*	Grass (Family)	4
NA	Unid. Seed Coat Frag.	1	Presence/Absence	Phase II Analysis	50/91
OTHER PLANT REMAINS, N=356, WEIGHING 2.8 GRAMS					
NA	Amorphous Carbon	307	NA	Monocot Stem Frag.	3
NA	Unident. Charcoal	5	NA	Coniferous Bud Frag.	1
NA	Unident. Bud Frag.	3	NA	Unident. Rind Frag.	20
NA	Unident. Plant Frag.	8	NA	Unid. Spherical Spec.	1
NA	Fungal Fructification	1	NA	Woody Bud Frag.	3
NA	Hull Frag.	2	NA	Peduncle Frag.	1

RONALD MCDONALD SITE, page 1 of 1
Skelly and Loy, Inc. (Barbara J. Gundy, Ph.D., R.P.A., Kenneth W. Mohney, Ph.D., Christopher T. Espenshade, Albert T. Vish, and Margaret G. Sams, C.P.S.S.). A Few Hours in the Piedmont: Archaeological Investigations of Site 7NC-B-54 (Ronald McDonald House), Blue Ball Area Transportation Improvements, Brandywine Hundred, New Castle County, Delaware. 2008. www.deldot.gov/archaeology/blue_ball/piedmont… July 3, 2013.
We were unable to find where the above report described a soil flotation program for the purpose of recovering archaeobotanical evidence.

Versar, Inc. American Indians in the Delmarva Uplands: Archaeology at the Sandom Branch Site Complex (7NC-J-227, 7NC-J-228), New Castle County, Delaware. May, 2011.
www.deldot.gov/archaeology/sandom_branch… July 3, 2013.

CARBONIZED ARCHAEOBOTANICALS FROM SITE 7NC-J-227		
LEUCOBALANUS group Quercus	White Oak	Wood
ERYTHROBALANUS group Quercus	Red Oak	Wood
Quercus	Oak	Wood
Liquidambar styraciflua	Sweetgum	Wood
Acer	Maple	Wood
Liriodendron tulipifera	Yellow Poplar	Wood
Fraxinus	Ash	Wood
Juglans nigra	Black Walnut	(Tentative identification) Wood
Carya	Nut shell	Wood
Quercus	Acorn	Wood
POACEAE family	Grass	Seed
NON-CARBONIZED ARCHAEOBOTANICALS FROM SITE 7NC-J-227		
Euphorbia	Spurge	Seed
Vitis	Grape	Seed
POLYGONACEAE family	Knotweed	Seed
CARBONIZED ARCHAEOBOTANICALS FROM SITE 7NC-J-228		
Acer	Maple	Wood
Quercus	White group	Wood
NA	NA	Ring Porous Wood
NA	NA	Deciduous Taxa Wood
NA	NA	Unidentifiable Wood
NON-CARBONIZED ARCHAEOBOTANICALS FROM SITE 7NC-J-228		
Chenopodium	Goosefoot	Seed
Euphorbia	Spurge	Seed
Oxalis stricta	Sheep Sorrel	Seed
Panicum	Panic Grass	Seed
Polygonum/Rumex	Knotweed, Dock	Seed
Rubus	Raspberry/Blackberry	Seed
Trifolium	Clover	Seed

UDCAR, (Jay F. Custer and Barbara Hsiao Silber).
Final Archaeological Investigations at the Snapp Prehistoric Site (7NC-G-101), State Route 1 Corridor, Chesapeake and Delaware Canal Section, New Castle County, Delaware. 199
www.deldot.gov/archaeology/snap_prehis_site... July 7, 2013.

EXAMPLES OF SEED TYPES IN VARIOUS FEATURES

CARBONIZED ARCHAEOBOTANICALS FROM FEATURE 33		
Acalypha	Copperleaf	2 Seeds
Amaranthus	Pigweed	3 Seeds
Euphorbia	Spurge	1 Seed
	Lamb's Quarter	1 Seed
Rubus occidentalis	Raspberry	1 Seed
CARBONIZED ARCHAEOBOTANICALS FROM FEATURE 153		
	Thimbleberry	3 seeds
	Greenbrier	1 Seed
Chenopodium	Chenopodium	3 Seeds
Morella	Bayberry	1 Seed
Persicaria	Smartweed	1 Seed
Commelina	Dayflower	1 Seed
	Eastern Buminbush	1 Seed
CARBONIZED ARCHAEOBOTANICALS FROM FEATURE 230		
Ambrosia	Ragweed	2 Seeds
Cuscuta	Smartweed	1 Seed

Berger & Associates, (Charles H. LeeDecker, Brad Koldehoff, and Cheryl A. Holt).
Excavation of the Two Guys Site (7S-F-68), Sussex County, Delaware. 1996.
www.deldot.gov/archaeology/two_guys… July 3, 2013.

ARCHAEOBOTANICAL PERCENTAGES RECOVERED FROM A TOTAL OF FIFTY SOIL FLOTATION SAMPLES

NA	Carpetweed	Carpetweed Seeds Found in 63% of Flotation Samples (0 Carbonized)
NA	Purslane	Purslane Seeds Found in 2% of Flotation Samples (0 Carbonized)
NA	Chickweed	Chickweed Seeds Found in 3% of Flotation Samples (0 Carbonized)
NA	Oxalis	Oxalis Seeds Found in 2% of Flotation Samples (0 Carbonized)
NA	Knawel	Knawel Seeds Found in 39% of Flotation Samples (0 Carbonized)
NA	Thistle	Thistle Seeds Found in 2% of Flotation Samples (0 Carbonized)
NA	Chenopodium	Chenopodium Seeds Found in 19% of Flotation Samples (0 Carbonized)
NA	Amaranthus	Amaranthus Seeds Found in 3% of Flotation Samples (0 Carbonized)
NA	Knotweed	Knotweed Seeds Found in 3% of Flotation Samples (0 Carbonized)
NA	Pokeweed	Pokeweed Seeds Found in 5% of Flotation Samples (0 Carbonized)
NA	Sedge	Sedge Seeds Found in 22% of Flotation Samples (0 Carbonized)
NA	Chufa	Chufa Seeds Found in 3% of Flotation Samples (0 Carbonized)
NA	Flatsedge	Flatsedge Seeds Found in 44% of Flotation Samples (0 Carbonized)
NA	Grass	Grass Seeds Found in 58% of Flotation Samples (0 Carbonized)
NA	Spurge	Spurge Seeds Found in 3% of Flotation Samples (0 Carbonized)
NA	Blackberry	Blackberry Seeds Found in 3% of Flotation Samples (0 Carbonized)
NA	Deerberry	Deerberry Seeds Found in 3% of Flotation Samples (0 Carbonized)
NA	Paspalum	Paspalum Seeds Found in 5% of Flotation Samples (0 Carbonized)
NA	Doveweed	Doveweed Seeds Found in 7% of Flotation Samples (0 Carbonized)
NA	Cress	Cress Seeds Found in 3% of Flotation Samples (0 Carbonized)
NA	Chokecherry	Chokecherry Seeds Found in 3% of Flotation Samples (0 Carbonized)
NA	Dodder	Dodder Seeds Found in 2% of Flotation Samples (0 Carbonized)
NA	Woodbine	Woodbine Seeds Found in 5% of Flotation Samples (Carbonized example(s) Found in 1 Sample)
NA	Sumac	Sumac Seeds Found in 3% of Flotation Samples (Carbonized example(s) Found in 2 Samples)
NA	Sumpweed	Sumpweed Seeds Found in 7% of Flotation Samples (Carbonized example(s) Found in 4 Samples)
NA	NA	Wood Carbon Found in 75% of Flotation Samples (Carbonized example(s) Found in 35 Samples)

		WHITBY BRANCH SITE, page 1 of 1
Berger & Associates, (Robert M. Jacoby, Charles H. LeeDecker, Richard J. Dent, and John C. Bedell). Excavation of the Whitby Branch Site (7NC-G-151) State Route 1 Corridor, Odessa Segment New Castle County, Delaware. 2001. www.deldot.gov/archaeology/whitby_branch... July 3, 2013.		
CARBONIZED ARCHAEOBOTANICALS		
JUGLANDACEAE	Walnut	Nut Fragments, Found in Features 3, 4, 5, 6, 7, 8, 11, 12, 13, 15, 16, 18, 19, 20, 21, and 22.
Carya	Hickory	Nut Fragments, Found in Features 3, 4, 5, 6, 7, 8, 11, 12, 13, 15, 16, 18, 19, 20, 21, and 22.
NA	NA	Seed, Unidentifiable. Found in Feature 11.
Chenopodium		Seed Found in Off-site Sample No. 4.
Quercus	Oak	Wood, Carbon
Carya	Hickory	Wood, Carbon
Fraxinus americana	White Ash	Wood, Carbon

WRANGLE HILL SITE, page 1 of 1

UDCAR, (Jay F. Custer, Douglass Kellogg, Barbara Hsiao Silber, and Robert Varisco).
Final Archaeological Investigations at the Wrangle Hill Prehistoric Site (7NC-G-105) State Route 1 Corridor, Chesapeake and Delaware Canal Section, New Castle County, Delaware. 1995.
www.deldot.gov/archaeology/wrangle_hill... July 7, 2013.

CARBONIZED ARCHAEOBOTANICALS FROM 16 FEATURES

Chenopodium album	Lamb's Quarter	
Tragia urens	Noseburn	
Portulaca oleracea	Purslane	European
Polygonatum commutatum	Solomon's Seal	
Euphorbia	Spurge	European
Crataegus	Possoin Haw	
Ruppia maritima	Widgeongrass	
Myrica pennsylvanica	Bayberry	
Viburnum	Viburnum	
Ambrosia	Ragweed	
Rhus radicans	Poison Ivy	
Descurainia pinnata manziesii	Tansy Mustard	
Scutellaria galericulata	Skullcap	
Panicum	Panicum	European
Gilia	Gilia	
Hibiscus palustris	Swamp Rose Mallow	
Rumex acetosella	Sheep Sorrel	European
Rhamnus	Buckthorn	
	Blue-eyed Grass	
Scirpus	Bulrush	
Linum	Flax	
NA	NA	Nut Fragments, 6 Unidentifiable

ADVENTIVE PLANTS in DELAWARE, WILLIAM A. MCAVOY, DELAWARE DIVISION of FISH & WILDLIFE, JULY, 2013

SCIENTIFIC NAME	COMMON NAME	FAMILY SCIENTIFIC NAME	LIFE FORM	DURATION	FLOWERING PERIOD	PHYSIOGRA. PROVINCE	HABITAT	NORTH AMERICAN DISTRIBUTION
Acer nigrum	black maple	Sapindaceae	Tree (deciduous)	Perennial	Spring	Piedmont	Cultivated and a rare escape from cultivation to disturbed ground	A northern and Midwestern species
Agastache foeniculum	blue giant-hyssop	Lamiaceae	Herb	Perennial	Summer-Fall	Piedmont	Rare escape to disturbed ground	Native to prairies and plains of the western U.S.
Amaranthus albus	white pigweed amaranth	Amaranthaceae	Herb	Annual	Summer	Piedmont-Coastal Plain	Disturbed areas, edges, fields, roadsides	Native to prairies and plains of the Midwest
Amaranthus blitoides	prostrate amaranth	Amaranthaceae	Herb	Annual	Summer	Piedmont	Rare introduction to disturbed areas	Native in the western states
Amaranthus palmeri	Palmer's amaranth	Amaranthaceae	Herb	Annual	Summer	Coastal Plain	A weed of agricultural fields and edges	Native to the Southwestern states
Amaranthus tuberculatus	tall amaranth	Amaranthaceae	Herb	Annual	Summer	Piedmont	Rare introduction on disturbed soils	Native in the Midwestern states
Ampelopsis cordata	raccoon grape	Vitaceae	Vine (woody)	Perennial	Summer	Coastal Plain	Cultivated and a rare escape to edges and thickets	A northern and western species
Amsonia tabernaemontana	blue-star	Apocynaceae	Herb	Perennial	Spring-Summer	Piedmont	Cultivated and occasionally escaping to disturbed areas	Native in the southern states
Artemisia biennis	biennial wormwood	Asteraceae	Herb	Annual	Summer-Fall	Piedmont-Coastal Plain	Rare introduction to disturbed areas	Native to the western portions of the U.S.
Artemisia ludoviciana	sagebrush wormwood	Asteraceae	Herb	Perennial	Summer-Fall	Piedmont-Coastal Plain	Disturbed areas, edges, fields, roadsides	Native in the western states and northern Mexico
Azolla caroliniana	Eastern mosquito-fern	Azollaceae	Fern (aquatic, free-floating)	Perennial	Summer	Piedmont-Coastal Plain	Floating on the waters surface, in mill ponds and farm ponds, impoundments, slow moving streams and rivers; primarily of the Coastal Plain, rare in the Piedmont	Native to the southeast, likely introduced through commercial crayfish farming
Bidens polylepis	tick-seed sunflower	Asteraceae	Herb	Annual	Summer-Fall	Piedmont-Coastal Plain	Marshes, wet meadows, depressions, ditches, fields	Native in the Midwestern states
Cabomba caroliniana	Carolina fanwort	Cabombaceae	Herb (aquatic, submersed)	Perennial	Summer	Coastal Plain	Ponds and quiet waters	Native in the Midwestern states
Calycanthus floridus var. *floridus*	hairy sweet-shrub	Calycanthaceae	Shrub (deciduous)	Perennial	Summer	Coastal Plain	Cultivated and occasionally escaping to natural areas	Native to the south
Calycanthus floridus var. *glaucus*	smooth sweet-shrub	Calycanthaceae	Shrub (deciduous)	Perennial	Summer	Piedmont	Cultivated and occasionally escaping to natural areas	Native to the south
Cardamine diphylla	pepper-root bittercress	Brassicaceae	Herb	Perennial	Spring	Piedmont	Intentionally planted to natural areas and persisting	Native to the eastern mountains, Quebec to North Carolina

Carex oklahomensis	Oklahoma sedge	Cyperaceae	Sedge	Perennial	Spring-Summer	Coastal Plain	Disturbed poorly drained soils, ditches	Native to southeast Missouri, west to Kansas, Oklahoma, northeast Texas, Arkansas, Louisiana
Carex shortiana	Short's sedge	Cyperaceae	Sedge	Perennial	Spring-Summer	Piedmont	Rare introduction in hay fields	Native from south-central and southwestern Pennsylvania to the Midwestern states
Carex texensis	sedge	Cyperaceae	Sedge	Perennial	Spring-Summer	Piedmont	Rare in meadows, edges, grassy areas	Native to the southeast and Midwest
Catalpa bignonioides	Southern catalpa	Bignoniaceae	Tree (deciduous)	Perennial	Summer	Piedmont-Coastal Plain	Cultivated and escaping to woodlands and edges	Native in the southern states
Cenchrus spinifex	field sandbur	Poaceae	Grass	Annual	Summer-Fall	Coastal Plain	Sandy roadsides and fields	Native in the southeastern states
Chaerophyllum tainturieri	Tainturier's chervil	Apiaceae	Herb	Annual	Spring	Coastal Plain	Infrequent on disturbed soils, road banks	Native to the southern states
Chloris verticillata	tumble windmill grass	Poaceae	Grass	Perennial	Summer-Fall	Coastal Plain	Infrequent in disturbed areas, edges, fields, roadsides	Native to the Midwestern states
Coreopsis lanceolata	lance-leaf coreopsis	Asteraceae	Herb	Perennial	Summer	Coastal Plain	Cultivated and occasionally escaping to roadsides and often seeded in meadows	Native in the western regions of the U.S.
Coreopsis tinctoria var. *tinctoria*	golden tickseed	Asteraceae	Herb	Annual	Summer	Piedmont-Coastal Plain	Cultivated and occasionally escaping to disturbed areas	Native to the central and southern Great Plains
Crataegus phaenopyrum	Washington hawthorn	Rosaceae	Tree (deciduous)	Perennial	Spring	Piedmont	Fields, edges, thin canopy woods	A species with a southern distribution, naturalized and cultivated northward
Croton capitatus	woolly croton	Euphorbiaceae	Herb	Annual	Summer	Coastal Plain	Rare on disturbed soils	Native farther west of Delaware
Croton texensis	Texas croton	Euphorbiaceae	Herb	Annual	Summer	Coastal Plain	Rare introduction on disturbed ground	Native in the mid and southwestern states
Cynanchum laeve	sandvine	Apocynaceae	Vine (herbaceous)	Perennial	Summer	Piedmont-Coastal Plain	Fields, edges, early successional habitats	Native to the southern states
Cyperus compressus	poorland flatsedge	Cyperaceae	Sedge	Annual	Summer	Coastal Plain	Disturbed soils	Native to the southeast and Tropical America
Cyrilla racemiflora	swamp cyrilla	Cyrillaceae	Shrub (evergreen)	Perennial	Summer	Coastal Plain	Intentionally planted to natural areas and persisting	A southeastern species, north to Virginia
Cystopteris tennesseensis	Tennessee bladderfern	Woodsiaceae	Fern	Perennial	Summer	Piedmont	Rare on limestone masonry of stone walls	Native to the western states on calcareous substrates
Datura stramonium	jimsonweed	Solanaceae	Herb	Annual	Summer	Piedmont-Coastal Plain	Disturbed areas, fields, roadsides	Introduced from farther west of Delaware
Dracocephalum parviflorum	American dragonhead	Lamiaceae	Herb	Annual	Summer	Piedmont	Cultivated and a rare escape to disturbed areas	Native in Canada to Alaska and south to New Jersey

Eragrostis mexicana	Mexican lovegrass	Poaceae	Grass	Annual	Summer-Fall	Piedmont	Disturbed areas, edges, fields, roadsides	Native to western North America and Mexico
Eryngium prostratum	prostrate eryngo	Apiaceae	Herb	Perennial	Summer	Coastal Plain	Moist swales, depressions, sandpits	Native from Florida to southeast Virginia
Eschscholzia californica	California poppy	Papaveraceae	Herb	Annual	Summer	Coastal Plain	Rare garden escape to disturbed ground	Native to western North America
Euphorbia hexagona	six-angle spurge	Euphorbiaceae	Herb	Annual	Summer	Piedmont	Rare introduction on disturbed soils	Native in the western states
Froelichia floridana	Florida cottonweed	Amaranthaceae	Herb	Annual	Summer	Coastal Plain	Dry sandy soils, roadsides, power-lines, fields, edges	Native to the southeast
Froelichia gracilis	slender cottonweed	Amaranthaceae	Herb	Annual	Summer	Coastal Plain	Dry sandy soils, roadsides, power-lines, fields, edges	Native in the Midwestern states
Gaillardia pulchella var. *pulchella*	fire-wheel blanket-flower	Asteraceae	Herb	Annual	Summer	Coastal Plain	Cultivated and occasionally escaping to roadsides	Native in the west and along the coast to Virginia
Geranium robertianum	Robert's crane's-bill	Geraniaceae	Herb	Annual	Spring	Piedmont	Occasional garden escape to moist rich woods	Distributed more to the north in Piedmont and Mountain provinces
Geum vernum	spring avens	Rosaceae	Herb	Perennial	Spring	Piedmont	Moist woods and clearings	Adventive from the west
Gleditsia triacanthos	honey-locust	Fabaceae	Tree (deciduous)	Perennial	Spring-Summer	Piedmont-Coastal Plain	Cultivated and occasionally escaping to woodlands	Native to the central U.S.
Grindelia squarrosa var. *squarrosa*	broadleaf gumweed	Asteraceae	Herb	Biennial	Summer-Fall	Coastal Plain	Cultivated and occasionally escaping to disturbed areas	Native in the Midwestern states
Helianthus annuus	domesticated sunflower	Asteraceae	Herb	Annual	Summer-Fall	Piedmont-Coastal Plain	Cultivated and occasionally escaping to disturbed areas	Native to the western plains
Helianthus grosseserratus	sawtooth sunflower	Asteraceae	Herb	Perennial	Summer-Fall	Piedmont-Coastal Plain	Rare along roadsides and in fields	Native of the western prairies
Helianthus tuberosus	Jerusalem artichoke	Asteraceae	Herb	Perennial	Fall	Piedmont-Coastal Plain	Roadsides, fields	Native to the Midwest, cultivated in the east
Heliotropium curassavicum	seaside heliotrope	Heliotropaceae	Herb	Perennial	Spring-Summer	Coastal Plain	Rare introduction to coastal sands	Native to Tropical America and the southeastern U.S.
Hordeum brachyantherum subsp. *brachyantherum*	meadow barley	Poaceae	Grass	Perennial	Spring-Summer	Coastal Plain	Rare introduction to disturbed areas	Native to the western states
Hordeum jubatum	foxtail barley	Poaceae	Grass	Perennial	Spring-Summer	Piedmont-Coastal Plain	Disturbed areas, edges, fields, roadsides, salt meadows	Native to the western states
Houstonia pusilla	tiny bluet	Rubiaceae	Herb	Annual	Spring	Coastal Plain	Roadside banks and mossy lawns	Native from Virginia south and in the Midwest
Ipomopsis rubra	red standing-cypress	Polemoniaceae	Herb	Biennial	Summer	Coastal Plain	Cultivated and a rare escape to disturbed areas	Native to the southeastern U.S., north to North Carolina

Juncus brachycarpus	short-fruited rush	Juncaceae	Rush	Perennial	Summer	Coastal Plain	Roadside drainage ditches	Native of the southeastern and Midwestern states
Juncus diffusissimus	diffuse rush	Juncaceae	Rush	Perennial	Summer	Coastal Plain	Rare on disturbed ground and in ditches	Native in the south-central states
Juncus scirpoides var. *compositus*	lobulate round-head rush	Juncaceae	Rush	Perennial	Summer	Coastal Plain	Roadside drainage ditches	Native to the southeastern Coastal Plain
Juncus torreyi	Torrey's rush	Juncaceae	Rush	Perennial	Summer	Coastal Plain	Disturbed poorly drained soils, ditches and roadsides	Its native distribution is primarily western in North America
Juncus validus var. *validus*	vigorous rush	Juncaceae	Rush	Perennial	Summer	Coastal Plain	Roadside drainage ditches	Native from North Carolina to Florida, west to Texas
Juniperus communis	ground juniper	Cupressaceae	Shrub (evergreen, needle-leaf)	Perennial	Spring	Piedmont	Cultivated and a rare escape to disturbed areas	In North America, this specie is primarily northern and in the mountains
Justicia americana	American water-willow	Acanthaceae	Herb	Perennial	Summer	Coastal Plain	A waif along the banks of the C & D Canal	Native to the eastern shore of Maryland in tidal systems, but historical from artificial habitat (C&D Canal) in Delaware
Koeleria macrantha	prairie Junegrass	Poaceae	Grass	Perennial	Spring-Summer	Piedmont	Rare introduction to fields	Native in the western U.S.
Lepidium densiflorum	dense-flower pepper-grass	Brassicaceae	Herb	Annual	Spring-Summer	Piedmont-Coastal Plain	Disturbed areas, edges, fields, roadsides	Native farther west of Delaware
Leucothoe axillaris	coastal doghobble	Ericaceae	Shrub (evergreen)	Perennial	Spring	Coastal Plain	Cultivated and escaping to moist woods	Native from Florida to southeast Virginia
Liatris cylindracea	slender blazingstar	Asteraceae	Herb	Perennial	Summer-Fall	Coastal Plain	Cultivated and a rare escape to disturbed areas	Native more to the west of Delaware, often on calcareous soils
Ludwigia leptocarpa	water-willow seedbox	Onagraceae	Herb	Annual	Summer-Fall	Coastal Plain	Waterfowl impoundments	Native in the southern states and Tropical America
Ludwigia peploides subsp. *glabrescens*	floating seedbox	Onagraceae	Herb	Perennial	Summer-Fall	Piedmont-Coastal Plain	Ponds, slow shallow streams, impoundments, ditches	Native to the Midwest and Texas, north to the Carolina's
Maclura pomifera	osage orange	Moraceae	Tree (deciduous)	Perennial	Spring	Piedmont-Coastal Plain	Hedge rows	Native to Arkansas, Oklahoma and Texas, planted in the east
Magnolia tripetala	umbrella tree	Magnoliaceae	Tree (deciduous)	Perennial	Spring	Piedmont	Cultivated and escaping to woodland edges and canopy gaps	Native in the southern states
Mahonia repens	creeping hollygrape	Berberidaceae	Shrub (evergreen)	Perennial	Spring-Summer	Piedmont	A rare escape from cultivation to natural areas	Native to the western U.S.
Matricaria discoidea	pineapple-weed	Asteraceae	Herb	Annual	Summer	Piedmont-Coastal Plain	Disturbed areas, roadsides	Native to western North America

Matteuccia struthiopteris var. *pensylvanica*	ostrich fern	Onocleaceae	Fern	Perennial	Summer	Piedmont	A rare escape from cultivation to natural areas	Native much farther north and west of Delaware, but native south in the mountains to Virginia
Melothria pendula var. *pendula*	creeping cucumber	Cucurbitaceae	Vine (herbaceous)	Perennial	Spring-Summer	Coastal Plain	Disturbed areas	Native to the southern U.S.
Mirabilis nyctaginea	heart-leaved umbrella-wort	Nyctaginaceae	Herb	Perennial	Spring-Summer	Piedmont-Coastal Plain	Disturbed areas, edges and roadsides	Native in the Midwestern states
Modiola caroliniana	bristly-fruited mallow	Malvaceae	Herb	Annual	Summer	Coastal Plain	Rare introduction on disturbed ground	Native to Tropical America north to South Carolina
Monarda didyma	Oswego-tea beebalm	Lamiaceae	Herb	Perennial	Summer	Piedmont	Cultivated and a rare escape to disturbed areas	Native farther north and south of Delaware in the mountains
Myosurus minimus	Eastern mousetail	Ranunculaceae	Herb	Annual	Spring	Coastal Plain	Rare introduction in wet ditches	Native in the western states
Parietaria floridana	Florida pellitory	Urticaceae	Herb	Annual	Summer	Piedmont	Rare introduction in city sidewalk cracks, likely not persisting	Native in the southeast, west to Texas
Parthenium hysterophorus	Santa Maria feverfew	Asteraceae	Herb	Annual	Summer-Fall	Coastal Plain	Rare occurrence on waste ground	Native to Tropical America and the southeastern U.S.
Paspalum pubiflorum var. *glabrum*	hairyseed paspalum	Poaceae	Grass	Perennial	Summer-Fall	Piedmont	Roadsides	Native in the Midwestern states
Passiflora incarnata	purple passion-flower	Passifloraceae	Vine (herbaceous)	Perennial	Summer	Coastal Plain	Cultivated and infrequently escaping to roadsides, clearings and thickets	Native in the south, north to southeast Virginia
Pellaea atropurpurea	purple-stem cliff-brake	Pteridaceae	Fern	Perennial	Summer	Piedmont	Crevices of stone walls with limestone masonry	A species of limestone outcrops and other calcareous rock; with us on artificial substrates containing limestone
Phalaris arundinacea	reed canary grass	Poaceae	Grass	Perennial	Spring-Summer	Piedmont-Coastal Plain	Fresh and brackish, tidal and non-tidal marshes and streams	Native to the northwest
Phlox divaricata var. *divaricata*	blue phlox	Polemoniaceae	Herb	Perennial	Spring	Piedmont	Cultivated and escaping to roadsides and edges	Native in the eastern U.S., but only introduced populations are known in Delaware
Phlox paniculata	fall phlox	Polemoniaceae	Herb	Perennial	Spring	Piedmont-Coastal Plain	Cultivated and escaping to roadsides and edges	Native in the eastern U.S., but only introduced populations are known in Delaware
Physalis angulata var. *angulata*	cutleaf ground-cherry	Solanaceae	Herb	Annual	Summer	Coastal Plain	Uncommon on disturbed sandy soils	Adventive from the south
Physostegia virginiana subsp. *virginiana*	false dragonhead	Lamiaceae	Herb	Perennial	Summer-Fall	Piedmont-Coastal Plain	Cultivated and occasionally escaping to poorly drained disturbed areas	Native farther north, west and south of Delaware, rarely near the coast

Picea rubens	red spruce	Pinaceae	Tree (evergreen, needle-leaf)	Perennial	Spring	Piedmont-Coastal Plain	Cultivated and often planted in natural areas and persisting, also found around old home sites	Native in Canada and New England, south in the mountains to North Carolina
Pieris floribunda	evergreen mountain fetterbush	Ericaceae	Shrub (evergreen)	Perennial	Spring	Coastal Plain	Cultivated and a rare escape to woodland edges	A southern Appalachian Mountain endemic
Pinus strobus	Eastern white pine	Pinaceae	Tree (evergreen, needle-leaf)	Perennial	Spring	Piedmont-Coastal Plain	Cultivated and occasionally escapes to woodlands	Native to the north and south in the Mountains
Planodes virginicum	Virginia-cress	Brassicaceae	Herb	Annual	Spring	Coastal Plain	Rare along edges and roadsides	Native farther south
Plantago aristata	large-bract plantain	Plantaginaceae	Herb	Annual	Summer	Coastal Plain	Disturbed sand soils and dunes	Native farther west of Delaware
Plantago heterophylla	slender plantain	Plantaginaceae	Herb	Annual	Summer	Coastal Plain	Rare introduction on disturbed ground	Native in the southeast, north to Virginia
Plantago pusilla	dwarf plantain	Plantaginaceae	Herb	Annual	Summer	Piedmont-Coastal Plain	Fields and roadsides	Native in the western states
Poa chapmaniana	Chapman's bluegrass	Poaceae	Grass	Annual	Spring-Summer	Coastal Plain	Rare introduction on open sandy soils	Native to the central Great Plains
Poa palustris	fowl bluegrass	Poaceae	Grass	Perennial	Spring-Summer	Piedmont-Coastal Plain	Wet meadows, thickets, fields, lawns, disturbed soils	Native to the northern climates of North America and Eurasia
Populus balsamifera	balsam cottonwood	Salicaceae	Tree (deciduous)	Perennial	Spring	Piedmont	Cultivated and rarely escaping to disturbed areas	A species native to the northern latitudes, Maine to Alaska
Populus deltoides var. *deltoides*	Eastern cottonwood	Salicaceae	Tree (deciduous)	Perennial	Spring	Piedmont-Coastal Plain	Cultivated as an ornamental and occasionally escaping to natural areas	A northern and western species, generally west of the mountains
Populus tremuloides	quaking aspen cottonwood	Salicaceae	Tree (deciduous)	Perennial	Spring	Piedmont	Cultivated and a rare escape to disturbed areas	A northern species and irregularly south to New Jersey and Virginia
Prunus angustifolia var. *angustifolia*	Chickasaw plum	Rosaceae	Shrub (deciduous)	Perennial	Spring	Piedmont-Coastal Plain	Sandy soils, open woods, thickets, around old home sites	Native in the south, planted and escaping in Delaware
Ptelea trifoliata	hoptree	Rutaceae	Shrub (deciduous)	Perennial	Spring-Summer	Piedmont	Cultivated and occasionally escaping to thickets and edges	Native to the west and south
Quercus imbricaria	shingle oak	Fagaceae	Tree (deciduous)	Perennial	Spring	Piedmont	Cultivated and escaping to fields	Native in the Piedmont and Mountains from Pennsylvania south, planted and escaping in Delaware
Quercus macrocarpa	bur oak	Fagaceae	Tree (deciduous)	Perennial	Spring	Piedmont	Cultivated and escaping to fields	Native in Canada and south to Virginia, planted and escaping in Delaware
Ratibida columnifera	columnar prairie coneflower	Asteraceae	Herb	Perennial	Summer	Piedmont	Rare escape to roadsides	Native to the Midwestern prairies

Rhododendron maximum	great rhododendron	Ericaceae	Shrub (evergreen)	Perennial	Spring-Summer	Piedmont-Coastal Plain	Planted and escaped from cultivation to moist woodlands of the Piedmont	Native in the mountains from Nova Scotia to Georgia
Rhynchospora inexpansa	nodding beakrush	Cyperaceae	Sedge	Perennial	Summer	Coastal Plain	Power-line swales and wet roadsides and ditches	Native to the southeastern Coastal Plain
Robinia hispida var. *hispida*	bristly locust	Fabaceae	Tree (deciduous)	Perennial	Spring-Summer	Piedmont-Coastal Plain	Cultivated and escaping to edges and thickets	Native in the mountains from Virginia south
Robinia pseudoacacia	black locust	Fabaceae	Tree (deciduous)	Perennial	Spring-Summer	Piedmont-Coastal Plain	Fields, roadsides, edges, often planted	Native in the mountains from Maryland south, extending west to Oklahoma
Rorippa palustris var. *hispida*	hairy bog yellowcress	Brassicaceae	Herb	Annual	Summer	Piedmont-Coastal Plain	Poorly drained disturbed soils	Native more to the north of Delaware
Rorippa palustris var. *palustris*	bog yellowcress	Brassicaceae	Herb	Annual	Summer	Piedmont-Coastal Plain	Poorly drained disturbed soils	Native more to the north of Delaware
Rosa setigera	prairie rose	Rosaceae	Shrub (deciduous)	Perennial	Summer	Coastal Plain	Meadows, fields, thickets, edges	Native to the Midwest and south
Rudbeckia fulgida var. *speciosa*	orange coneflower	Asteraceae	Herb	Perennial	Summer-Fall	Coastal Plain	Open woodlands	Native to the Midwestern states
Rudbeckia hirta var. *pulcherrima*	black-eyed-Susan	Asteraceae	Herb	Perennial	Summer	Piedmont-Coastal Plain	Fields, roadsides and edges	Native to the Midwest
Rudbeckia triloba	brown-eyed Susan	Asteraceae	Herb	Perennial	Summer-Fall	Piedmont-Coastal Plain	Cultivated and escaping to meadows and fields	Native more to the north of Delaware, frequently planted and escaping in the state
Silphium perfoliatum	cup-plant	Asteraceae	Herb	Perennial	Summer-Fall	Coastal Plain	Cultivated and escaping to disturbed areas	Native to the Midwest and the southern states
Solanum carolinense var. *carolinense*	Carolina nightshade	Solanaceae	Herb	Perennial	Summer	Piedmont-Coastal Plain	Disturbed areas, edges, fields, roadsides	Native to the southeast, north to Virginia
Solanum citrullifolium	watermelon nightshade	Solanaceae	Herb	Annual	Summer	Piedmont	Rare introduction on disturbed ground	Adventive from the central U.S.
Solanum rostratum	buffalo bur nightshade	Solanaceae	Herb	Annual	Summer	Piedmont	Rare introduction on disturbed ground	Native to western North America
Stellaria corei	Tennessee starwort	Caryophyllaceae	Herb	Perennial	Spring-Summer	Piedmont	Rare garden escape to rich wooded slopes	Native in high to moderate elevations in the north and south
Stylophorum diphyllum	celandine poppy	Papaveraceae	Herb	Perennial	Summer	Piedmont	Cultivated and occasionally escaping to disturbed areas	A species native to the Midwestern and southern states
Symphoricarpos albus var. *laevigatus*	white coral-berry	Caprifoliaceae	Shrub (deciduous)	Perennial	Summer	Piedmont	Cultivated and escaping to meadows and fields	Native to the western U.S.
Symphoricarpos orbiculatus	coral-berry	Caprifoliaceae	Shrub (deciduous)	Perennial	Summer	Piedmont-Coastal Plain	Cultivated and escaping to thickets, edges and meadows	Native from Connecticut to North Carolina and west, escaping from cultivation in Delaware

Taxodium ascendens	pond cypress	Cupressaceae	Tree (deciduous, needle-leaf)	Perennial	Spring	Coastal Plain	Intentionally planted to natural areas and persisting	Native to the southeastern Coastal Plain to North Carolina
Tradescantia ohiensis	Ohio spiderwort	Commelinaceae	Herb	Perennial	Spring	Coastal Plain	Cultivated and a rare escape to disturbed areas	Most common in the Midwest
Trifolium carolinianum	Carolina clover	Fabaceae	Herb	Annual	Summer	Coastal Plain	Rare on dry, open sandy soils	Native to the southeastern and south-central U.S.
Trillium grandiflorum	great white trillium	Trilliaceae	Herb	Perennial	Spring	Piedmont	Cultivated and escaping to rich woodlands of the Brandywine Valley	Native in the Mountains and Piedmont to the north and south
Tripsacum dactyloides var. *dactyloides*	gamagrass	Poaceae	Grass	Perennial	Summer-Fall	Coastal Plain	Brackish ditches and wet roadsides	A wetland plant native to the Great Plains of the Midwest
Uniola paniculata	sea oats	Poaceae	Grass	Perennial	Summer-Fall	Coastal Plain	Intentionally planted on coastal dunes and persisting	Native to the southeastern Coastal Plain
Urochloa texana	Texas signalgrass	Poaceae	Grass	Annual	Summer	Coastal Plain	A weed of agricultural fields and edges	Native to Texas
Verbena stricta	hoary vervain	Verbenaceae	Herb	Perennial	Summer	Piedmont-Coastal Plain	Disturbed areas, edges, fields, roadsides	Native to the Midwestern prairies
Wisteria frutescens	American wisteria	Fabaceae	Vine (woody)	Perennial	Spring	Coastal Plain	Cultivated and occasionally escaping to open woods and thickets, occasionally found around abandoned home sites and gardens	Native from Florida, north to Virginia

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