

**APPENDIX D**

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**NJDEP Natural Heritage Database**



# State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Division of Parks and Forestry  
Office of Natural Lands Management  
Natural Heritage Program  
P.O. Box 404  
Trenton, NJ 08625-0404  
Tel. #609-984-1339  
Fax. #609-984-1427

JON S. CORZINE  
Governor

LISA P. JACKSON  
Acting Commissioner

February 7, 2006

David W. Grossmueller  
Paulus, Sokolowski and Sartor, LLC  
67 Mountain Boulevard Extension  
Warren, NJ 07059

Re: Tremley Point Connector Road

Dear Dr. Grossmueller:

Thank you for your data request regarding rare species information for the above referenced project site in Carteret Borough and Linden City, Middlesex and Union Counties.

Searches of the Natural Heritage Database and the Landscape Project (Version 2) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the topographic map(s) submitted with the Request for Data into our Geographic Information System. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Natural Heritage Database and the Landscape Project habitat mapping for occurrences of any rare wildlife species or wildlife habitat on the referenced site. Please see Table 1 for species list and conservation status.

Table 1 (on referenced site).

Common Name	Scientific Name	Federal Status	State Status	Grank	Srank
black-crowned night-heron foraging habitat	<i>Nycticorax nycticorax</i>		T/S	G5	S3B,S4N
colonial waterbird foraging habitat					
yellow-crowned night-heron foraging habitat	<i>Nyctanassa violacea</i>		T/T	G5	S2B

Neither the Natural Heritage Database nor the Landscape Project has records for any additional rare wildlife species or wildlife habitat within 1/4 mile of the referenced site.

We have also checked the Natural Heritage Database for occurrences of rare plant species or ecological communities. The Natural Heritage Database does not have any records for rare plants or ecological communities on or within 1/4 mile of the site.

Attached are lists of rare species and ecological communities that have been documented from Middlesex and Union Counties. If suitable habitat is present at the project site, these species have potential to be present.

Status and rank codes used in the tables and lists are defined in the attached EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS.

If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive I-Map-NJ website at the following URL, <http://www.state.nj.us/dep/gis/depsplash.htm> or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program.

PLEASE SEE THE ATTACHED 'CAUTIONS AND RESTRICTIONS ON NHP DATA'.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

*Herbert A. Lord*

Herbert A. Lord  
Data Request Specialist

cc: Robert J. Cartica  
Lawrence Niles  
NHP File No. 06-4007452

## CAUTIONS AND RESTRICTIONS ON NATURAL HERITAGE DATA

The quantity and quality of data collected by the Natural Heritage Program is dependent on the research and observations of many individuals and organizations. Not all of this information is the result of comprehensive or site-specific field surveys. Some natural areas in New Jersey have never been thoroughly surveyed. As a result, new locations for plant and animal species are continuously added to the database. Since data acquisition is a dynamic, ongoing process, the Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of New Jersey. Information supplied by the Natural Heritage Program summarizes existing data known to the program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. The attached data is provided as one source of information to assist others in the preservation of natural diversity.

This office cannot provide a letter of interpretation or a statement addressing the classification of wetlands as defined by the Freshwater Wetlands Act. Requests for such determination should be sent to the DEP Land Use Regulation Program, P.O. Box 401, Trenton, NJ 08625-0401.

The Landscape Project was developed by the Division of Fish & Wildlife, Endangered and Nongame Species Program in order to map critical habitat for rare animal species. Natural Heritage Database response letters will also list all species (if any) found during a search of the Landscape Project. However, this office cannot answer any inquiries about the Landscape Project. All questions should be directed to the DEP Division of Fish and Wildlife, Endangered and Nongame Species Program, P.O. Box 400, Trenton, NJ 08625-0400.

**This cautions and restrictions notice must be included whenever information provided by the Natural Heritage Database is published.**



NJ Department of Environmental Protection  
Division of Parks and Forestry

Natural Lands Management

## EXPLANATIONS OF CODES USED IN NATURAL HERITAGE REPORTS

### FEDERAL STATUS CODES

The following U.S. Fish and Wildlife Service categories and their definitions of endangered and threatened plants and animals have been modified from the U.S. Fish and Wildlife Service (F.R. Vol. 50 No. 188; Vol. 61, No. 40; F.R. 50 CFR Part 17). Federal Status codes reported for species follow the most recent listing.

- LE Taxa formally listed as endangered.
- LT Taxa formally listed as threatened.
- PE Taxa already proposed to be formally listed as endangered.
- PT Taxa already proposed to be formally listed as threatened.
- C Taxa for which the Service currently has on file sufficient information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species.
- S/A Similarity of appearance species.

### STATE STATUS CODES

Two animal lists provide state status codes after the Endangered and Nongame Species Conservation Act of 1973 (N.J.A.C. 23:2A-13 et. seq.): the list of endangered species (N.J.A.C. 7:25-4.13) and the list defining status of indigenous, nongame wildlife species of New Jersey (N.J.A.C. 7:25-4.17(a)). The status of animal species is determined by the Nongame and Endangered Species Program (ENSP). The state status codes and definitions provided reflect the most recent lists that were revised in the New Jersey Register, Monday, June 3, 1991.

- D Declining species—a species which has exhibited a continued decline in population numbers over the years.
- E Endangered species—an endangered species is one whose prospects for survival within the state are in immediate danger due to one or many factors – a loss of habitat, over exploitation, predation, competition, disease. An endangered species requires immediate assistance or extinction will probably follow.
- EX Extirpated species—a species that formerly occurred in New Jersey, but is not now known to exist within the state.
- I Introduced species—a species not native to New Jersey that could not have established itself here without the assistance of man.
- INC Increasing species—a species whose population has exhibited a significant increase, beyond the normal range of its life cycle, over a long term period.
- T Threatened species—a species that may become endangered if conditions surrounding the species begin to or continue to deteriorate.
- P Peripheral species—a species whose occurrence in New Jersey is at the extreme edge of its present natural range.
- S Stable species—a species whose population is not undergoing any long-term increase/decrease within its natural cycle.
- U Undetermined species—a species about which there is not enough information available to determine the status.

Status for animals separated by a slash(/) indicate a dual status. First status refers to the state breeding population, and the second status refers to the migratory or winter population.

Special Concern applies to animal species that warrant special attention because of some evidence of decline, inherent vulnerability to environmental deterioration, or habitat modification that would result in their becoming a Threatened species. This category would also be applied to species that meet the foregoing criteria and for which there is little understanding of their current population status in the state.

Plant taxa listed as endangered are from New Jersey's official Endangered Plant Species List N.J.S.A. 131B-15.151 et seq.

E Native New Jersey plant species whose survival in the State or nation is in jeopardy.

#### REGIONAL STATUS CODES FOR PLANTS AND ECOLOGICAL COMMUNITIES

- LP Indicates taxa listed by the Pinelands Commission as endangered or threatened within their legal jurisdiction. Not all species currently tracked by the Pinelands Commission are tracked by the Natural Heritage Program. A complete list of endangered and threatened Pineland species is included in the New Jersey Pinelands Comprehensive Management Plan.
- HL Indicates taxa or ecological communities protected by the Highlands Water Protection and Planning Act within the jurisdiction of the Highlands Preservation Area.

#### EXPLANATION OF GLOBAL AND STATE ELEMENT RANKS

The Nature Conservancy has developed a ranking system for use in identifying elements (rare species and natural communities) of natural diversity most endangered with extinction. Each element is ranked according to its global, national, and state (or subnational in other countries) rarity. These ranks are used to prioritize conservation work so that the most endangered elements receive attention first. Definitions for element ranks are after The Nature Conservancy (1982: Chapter 4, 4.1-1 through 4.4.1.3-3).

#### GLOBAL ELEMENT RANKS

- G1 Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.
- G2 Imperiled globally because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extinction throughout its range.
- G3 Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g., a single western state, a physiographic region in the East) or because of other factors making it vulnerable to extinction throughout its range; with the number of occurrences in the range of 21 to 100.
- G4 Apparently secure globally; although it may be quite rare in parts of its range, especially at the periphery.
- G5 Demonstrably secure globally; although it may be quite rare in parts of its range, especially at the periphery.
- GH Of historical occurrence throughout its range i.e., formerly part of the established biota, with the expectation that it may be rediscovered.
- GU Possibly in peril range-wide but status uncertain; more information needed.
- GX Believed to be extinct throughout range (e.g., passenger pigeon) with virtually no likelihood that it will be rediscovered.
- G? Species has not yet been ranked.
- GNR Species has not yet been ranked.

## STATE ELEMENT RANKS

- S1 Critically imperiled in New Jersey because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres). Elements so ranked are often restricted to very specialized conditions or habitats and/or restricted to an extremely small geographical area of the state. Also included are elements which were formerly more abundant, but because of habitat destruction or some other critical factor of its biology, they have been demonstrably reduced in abundance. In essence, these are elements for which, even with intensive searching, sizable additional occurrences are unlikely to be discovered.
- S2 Imperiled in New Jersey because of rarity (6 to 20 occurrences). Historically many of these elements may have been more frequent but are now known from very few extant occurrences, primarily because of habitat destruction. Diligent searching may yield additional occurrences.
- S3 Rare in state with 21 to 100 occurrences (plant species and ecological communities in this category have only 21 to 50 occurrences). Includes elements which are widely distributed in the state but with small populations/acreage or elements with restricted distribution, but locally abundant. Not yet imperiled in state but may soon be if current trends continue. Searching often yields additional occurrences.
- S4 Apparently secure in state, with many occurrences.
- S5 Demonstrably secure in state and essentially ineradicable under present conditions.
- SA Accidental in state, including species (usually birds or butterflies) recorded once or twice or only at very great intervals, hundreds or even thousands of miles outside their usual range; a few of these species may even have bred on the one or two occasions they were recorded; examples include European strays or western birds on the East Coast and vice-versa.
- SE Elements that are clearly exotic in New Jersey including those taxa not native to North America (introduced taxa) or taxa deliberately or accidentally introduced into the State from other parts of North America (adventive taxa). Taxa ranked SE are not a conservation priority (viable introduced occurrences of G1 or G2 elements may be exceptions).
- SH Elements of historical occurrence in New Jersey. Despite some searching of historical occurrences and/or potential habitat, no extant occurrences are known. Since not all of the historical occurrences have been field surveyed, and unsearched potential habitat remains, historically ranked taxa are considered possibly extant, and remain a conservation priority for continued field work.
- SP Element has potential to occur in New Jersey, but no occurrences have been reported.
- SR Elements reported from New Jersey, but without persuasive documentation which would provide a basis for either accepting or rejecting the report. In some instances documentation may exist, but as of yet, its source or location has not been determined.
- SRF Elements erroneously reported from New Jersey, but this error persists in the literature.
- SU Elements believed to be in peril but the degree of rarity uncertain. Also included are rare taxa of uncertain taxonomical standing. More information is needed to resolve rank.
- SX Elements that have been determined or are presumed to be extirpated from New Jersey. All historical occurrences have been searched and a reasonable search of potential habitat has been completed. Extirpated taxa are not a current conservation priority.
- SXC Elements presumed extirpated from New Jersey, but native populations collected from the wild exist in cultivation.

**SZ** Not of practical conservation concern in New Jersey, because there are no definable occurrences, although the taxon is native and appears regularly in the state. An SZ rank will generally be used for long distance migrants whose occurrences during their migrations are too irregular (in terms of repeated visitation to the same locations), transitory, and dispersed to be reliably identified, mapped and protected. In other words, the migrant regularly passes through the state, but enduring, mappable element occurrences cannot be defined.

Typically, the SZ rank applies to a non-breeding population (N) in the state – for example, birds on migration. An SZ rank may in a few instances also apply to a breeding population (B), for example certain lepidoptera which regularly die out every year with no significant return migration.

Although the SZ rank typically applies to migrants, it should not be used indiscriminately. Just because a species is on migration does not mean it receives an SZ rank. SZ will only apply when the migrants occur in an irregular, transitory and dispersed manner.

**B** Refers to the breeding population of the element in the state.

**N** Refers to the non-breeding population of the element in the state.

**T** Element ranks containing a "T" indicate that the infraspecific taxon is being ranked differently than the full species. For example *Stachys palustris* var. *homotricha* is ranked "G5T? SH" meaning the full species is globally secure but the global rarity of the var. *homotricha* has not been determined; in New Jersey the variety is ranked historic.

**Q** Elements containing a "Q" in the global portion of its rank indicates that the taxon is of questionable, or uncertain taxonomical standing, e.g., some authors regard it as a full species, while others treat it at the subspecific level.

**.1** Elements documented from a single location.

**Note:** To express uncertainty, the most likely rank is assigned and a question mark added (e.g., G2?). A range is indicated by combining two ranks (e.g., G1G2, S1S3).

#### IDENTIFICATION CODES

These codes refer to whether the identification of the species or community has been checked by a reliable individual and is indicative of significant habitat.

**Y** Identification has been verified and is indicative of significant habitat.

**BLANK** Identification has not been verified but there is no reason to believe it is not indicative of significant habitat.

**?** Either it has not been determined if the record is indicative of significant habitat or the identification of the species or community may be confusing or disputed.

30 AUG 2004

MIDDLESEX COUNTY  
 RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN  
 THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK	SRANK
AMMODRAMUS HENSLOWII	HENSLOW'S SPARROW		E		G4	S1B
AMMODRAMUS SAVANNAHARUM	GRASSHOPPER SPARROW		T/S		G5	S2B
ASIO OTUS	LONG-EARED OWL		T/T		G5	S2B, S2N
BARTRAMIA LONGICAUDA	UPLAND SANDPIPER		E		G5	S1B
CIRCUS CYANEUS	NORTHERN HARRIER		E/U		G5	S1B, S3N
CLEMmys INSCULPTA	WOOD TURTLE		T		G4	S3
CLEMmys MUHLBERGII	BOG TURTLE	Lt	E		G3	S2
DOLICHONYX ORYZIVORUS	BOBOLINK		T/T		G5	S2B
FALCO PEREGRINUS	PEREGRINE FALCON		E		G4	S1B, S?N
HALIAETUS LEUCOCEPHALUS	BALD EAGLE		E		G4	S1B, S2N
HYLA ANDERSONII	PINE BARRENS TREEFROG	Lt	T		G4	S3
IXOBRYCHUS EXILLIS	LEAST BITTERN		D/S		G5	S3B
LANIUS LUDOVICIANUS MIGRANS	MIGRANT LOGGERHEAD SHRIKE		E		G4T3Q	S1B, S1N
NYCTANASSA VIOLACEA	YELLOW-CROWNED NIGHT-HERON		T/T		G5	S2B
PANDION HALIAETUS	OSPREY		T/T		G5	S2B
PASSERCULUS SANDWICHENSIS	SAVANNAH SPARROW		T/T		G5	S2B, S4N
PODILYMBUS PODICEPS	PIED-BILLED GREBE		E/S		G5	S1B, S3N
LEERSIA ORYZOIDES - POLYGONUM (CAESPITOSUM, HYDROPIPER)	RICE CUTGRASS - (ORIENTAL LADYSTHUMB, MARSHPEPPER KNOTWEED) COASTAL PLAIN				G4	S2S3
HERBACEOUS VEGETATION	INTERMITTENT POND HERBACEOUS VEGETATION					
AESHNA CLEPSYDRA	MOTTLED DARNER				G4	S2S3
ALASMIDONTA UNDULATA	TRIANGLE FLOATER		T		G4	S3
ANAX LONGIPES	COMET DARNER				G5	S2S3

\*\*\* Vertebrates

\*\*\* Ecosystems

\*\*\* Invertebrates

MIDDLESEX COUNTY  
 RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN  
 THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK	SRANK
BOLOGIA SELENE MYRINA	A SILVER-BORDERED FRITILLARY		T		G5T5	S2
CALLOPHRYS IRUS	FROSTED ELFIN		T		G3	S2S3
CALLOPHRYS POLIOS	HOARY ELFIN				G5	S3
CELITHEMIS MARTHA	MARTHA'S PENNANT				G4	S3S4
ENALLAGWA BASIDENS	DOUBLE-STRIPED BLUET				G5	S3
ENALLAGWA PICTUM	SCARLET BLUET				G3	S3
ERYNNIS PERSIUS PERSIUS	A PERSIUS DUSKYWING				G5T2T3	SH
HESPERIA LEONARDUS	LEONARD'S SKIPPER				G4	S2
LASMIGONA SUBVIRIDIS	GREEN FLOATER		E		G3	S1
LESTES EURINUS	AMBER-WINGED SPREADWING				G4	S2
METARRANTHIS PILOSARIA	COASTAL BOG METARRANTHIS				G3G4	S3S4
PAPAPEMA NECOPINA	SUNFLOWER BORER MOTH				G4?	SH
PONTIA PROTODICE	CHECKERED WHITE		T		G4	S1
SATYRODES EURYDICE	EYED BROWN				G4	S1
SPEYERIA APHRODITE	APHRODITE FRITILLARY				G5	S2S3
SPEYERIA IDALIA	REGAL FRITILLARY				G3	SH
SYMPETRUM AMBIGUUM	BLUE-FACED MEADOWHAWK				G5	S2
AGALINIS AURICULATA	EAR-LEAF FALSE FOXGLOVE				G3	SX
AGASTACHE NEPETOIDES	YELLOW GIANT-HYSOP				G5	S2
ARTEMISIA CAMPESTRIS SSP CAUDATA	BEACH WORMWOOD				G5T5	S2
ASCLEPIAS RUBRA	RED MILKWEED			LP	G4G5	S2
ASCLEPIAS VERTICILLATA	WHORLED MILKWEED				G5	S2
ASTER RADULA	LOW ROUGH ASTER		E		G5	S1
BIDENS BIDENTOIDES	ESTUARY BURR-MARIGOLD				G3	S2
BIDENS EATONII	EATON'S BEGGAR-TICKS		E		G2	S1.1
CALAMOVILFA BREVIFFILIS	PINE BARREN REEDGRASS			LP	G4	S4
CAREX BARRATTII	BARRATT'S SEDGE			LP	G4	S4

\*\*\* Vascular plants

MIDDLESEX COUNTY  
 RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN  
 THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	CRANK	SRANK
CAREX LOUISIANICA	LOUISIANA SEDGE		E		G5	S1
CAREX POLYMORPHA	VARIABLE SEDGE		E		G3	S1
CAREX UTRICULATA	BOTTLE-SHAPED SEDGE				G5	S2
CAREX WILLDENOWII VAR WILLDENOWII	WILLDENOW'S SEDGE				G5T5	S2
CRATAEGUS CALPODENDRON	PEAR HAWTHORN		E		G5	S1
CYPERUS LANCASTRIENSIS	LANCASTER FLAT SEDGE		E		G5	S1
DRABA REPTANS	CAROLINA WHITLOW-GRASS		E		G5	SH
ELATINE AMERICANA	AMERICAN WATERWORT				G4	S2
EUPATORIUM ALTISSIMUM	TALL BONESET				G5	S2
GENTIANA SAPONARIA VAR SAPONARIA	SOAPWORT GENTIAN				G5T?	S3
HELOMIA BULLATA	SWAMP-PINK	LT	E	LP	G3	S3
HOTTONTIA INFLATA	FEATHERFOIL		E		G4	S1
HYDROCOYLE RANUNCULOIDES	FLOATING MARSH-PENNYWORT		E		G5	S1
ISOETES RIPARIA VAR RIPARIA	SHORE QUILLWORT				G5?T5?Q	S3
LATHRUS OCHROLEUCUS	CREAM VETCHLING		E		G4G5	SH
LIATRIS SCARIOSA VAR NOVAE-ANGLIAE	NORTHERN BLAZING-STAR		E		G5?T3	SH
LISTERA AUSTRALIS	SOUTHERN TWAYBLADE			LP	G4	S2
LYGODIUM PALMATUM	CLIMBING FERN			LP	G4	S2
LYSIMACHIA HYBRIDA	LOWLAND LOOSESTRIFE				G5	S3
MELANTHIUM VIRGINICUM	VIRGINIA BUNCHFLOWER		E		G5	S1
MICRANTHEMUM MICRANTHEMOIDES	NUTTALL'S MUDWORT		E		GH	SH
MIMULUS ALATUS	WINGED MONKEY-FLOWER				G5	S3
MYRIOPHYLLUM TENELLUM	SLENDER WATER-MILFOIL		E		G5	S1
MYRIOPHYLLUM VERTICILLATUM	WHORLED WATER-MILFOIL		E		G5	SH
PHORADENDRON LEUCARPUM	AMERICAN MISTLETOE			LP	G5	S2
PLANTAGO MARITIMA VAR JUNCOIDES	SEASIDE PLANTAIN				G5T5	S2

MIDDLESEX COUNTY  
 RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN  
 THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	CRANK	SRANK
PLATANThERA FLAVA VAR FLAVA	SOUTHERN REIN ORCHID		E		G4T4?Q	S1
PLATANThERA PERAMOENA	PURPLE FRINGELESS ORCHID		E		G5	S1
POLYCALA POLYCHAMA	RACEMED MILKWORT				G5	S2
POLYGONUM GLAUCUM	SEA-BEACH KNOTWEED		E		G3	S1
PUCcINELLIA FASCICULATA	SALTMARSH ALKALI GRASS				G3G5	S2
PyCnANTHEMUM TORREI	TORREY'S MOUNTAIN-MINT		E		G2	S1
RANUNCULUS PUSILLUS VAR PUSILLUS	LOW SPEARWORT				G5T4?	S2
RHODENDRON CANADENSE	RHODORA		E		G5	S1
RIbES CYNOSBATI	PRICKLY GOOSEBERRY				G5	SH
SAGITTARIA AUSTRALIS	SOUTHERN ARROWHEAD		E		G5	S1
SAGITTARIA CALYCINA VAR SPONGIOSA	TIDAL ARROWHEAD				G5T4	S3
SCIRPUS MARITIMUS	SALTMARSH BULRUSH		E		G5	SH
SCUTELLARIA LEONARDII	SMALL SKULLCAP		E		G4T4	S1
SOLIDAGO ELLIOTTII	ELLIOTT'S GOLDENROD				G5	S3
SOLIDAGO RIGIDA	PRAIRIE GOLDENROD		E		G5T5	S1
STACHYS HYSSOPIFOLIA	HYSSOP HEDGE-NETTLE				G5	S2
TRIGLOCHIN MARITIMA	SEASIDE ARROW-GRASS		E		G5	S1
UTRICULARIA GIBBA	HUMPED BLADDERWORT			LP	G5	S3
UTRICULARIA PURPUREA	PURPLE BLADDERWORT			LP	G5	S3
VERBENA SIMPLEX	NARROW-LEAF VERVAIN		E		G5	S1
VICIA AMERICANA VAR AMERICANA	AMERICAN PURPLE VETCH				G5T5	S2
VIOLA BRITTONIANA VAR BRITTONIANA	BRITTON'S COAST VIOLET				G4G5T4T5	S3
ZIGADENUS LEIMANTHOIDES	DEATH-CRMUS		E		G4Q	S1

UNION COUNTY  
RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN  
THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK	SRANK
<b>*** Vertebrates</b>						
BARTRAMIA LONGICAUDA	UPLAND SANDPIPER		E		G5	S1B
CLEMYS INSCULPTA	WOOD TURTLE		T		G4	S3
CLEMYS MUEHLEBERGII	BOG TURTLE	LT	E		G3	S2
EURYCEA LONGICAUDA LONGICAUDA	LONGTAIL SALAMANDER		T		G5T5	S2
PASERCULUS SANDWICHENSIS	SAVANNAH SPARROW		T/T		G5	S2B, S4N
STERNA ANTYLLARUM	LEAST TERN		E		G4	S1B
STRIX VARIA	BARRED OWL		T/T		G5	S3B
<b>*** Ecosystems</b>						
TRAPROCK GLADE/ROCK OUTCROP COMMUNITY	TRAPROCK GLADE/ROCK OUTCROP COMMUNITY				G2	S1
<b>*** Invertebrates</b>						
ALASMIDONIA UNDULATA	TRIANGLE FLOATER		T		G4	S3
PAPALPEMA AERATA	A BORER MOTH				GH	SH
POLITES MYSTIC	LONG DASH				G5	S3?
PONTIA PROTODICE	CHECKERED WHITE		T		G4	S1
<b>*** Other types</b>						
COASTAL HERON ROOKERY	COASTAL HERON ROOKERY				GU	S3
<b>*** Vascular plants</b>						
CAREX BEBBII	BEBB'S SEDGE				G5	S2
CAREX POLYMORPHA	VARIABLE SEDGE				G3	S1
CYNOGLOSSUM VIRGINIANUM VAR VIRGINIANUM	WILD COMFREY		E		G5T5	S2
LEMNA VALDIVIANA	PALE DUCKWEED		E		G5	S1
LIATRIS SCARIOSA VAR NOVAE-ANGLIAE	NORTHERN BLAZING-STAR		E		G5?T3	SH

UNION COUNTY  
 RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN  
 THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK	SRANK
MIMULUS ALATUS	WINGED MONKEY-FLOWER				G5	S3
MONARDA CLINOPODIA	BASIL BEEBALM		E		G5	SH
MUHLENBERGIA CAPILLARIS	LONG-AWN SMOKE GRASS		E		G5T?	S1
PHLOX PILOSA	DOWNY PHLOX		E		G5T5	SH
RANUNCULUS PUSILLUS VAR PUSILLUS	LOW SPEARWORT				G5T4?	S2
VIOLA CANADENSIS	CANADIAN VIOLET		E		G5T?	S1