

Appendix N-3
Projection of Wildlife Ecological Response (POWER) Model

PROJECTION OF WILDLIFE ECOLOGICAL RESPONSE (POWER)

NELSON, POPE & VOORHIS, LLC, MICROCOMPUTER MODEL

SPECIES LIST

INTRODUCTION

This appendix has been included to present the results of a computer model used to investigate the various wildlife species which can be expected to be found on the site considering the habitats established. This model was developed by and for the use of Nelson, Pope & Voorhis, LLC using available information and references for the various species. The model utilizes Excel spreadsheets to identify wildlife species commonly found in various Long Island habitats, based upon thorough research of available literature. The habitats investigated consisted of Successional Woodland, Dry Oak Forest, Wooded Swamp, Fresh Water Pond and Beach. Some of the species listed in this model would not be expected on the property given the surrounding development, but are present in similar habitats.

The first column identifies the common name of the species, presented with the main common name in alphabetical order (for example: red-tailed hawk would come before blue jay). The scientific name of particular species is in the second column. The third column shows the legal status of the species, of which there are four possible entries (Endangered, Threatened, Special Concern and Local Concern). The fourth column indicates the seasons during which the species might be expected to be present and the fifth column, of particular importance to the environmental setting, contains information on frequency of the species in the habitat (abundant, common, rare and non expected); the species activity in the habitat (nesting, hunting and resting). References are provided with the reference list provided at the end of the appendix. The printout contained in this appendix, coupled with the discussions provided in the main body of the report, provides significant information of the wildlife found, or expected to be found on site.

Successional Woodland Species - Inventory and Characteristics

Common Name	Scientific Name	Status	Found During				Frequency / Habitat Use	References
			winter	spring	summer	fall		
Birds	Birds							
gray catbird	<i>Dumetella carolinensis</i>	none		Late	X		C / N,F	4 9
black capped chickadee	<i>Parus atricapillus</i>	none	X	X	X	X	A / N,F	4 11
brown-headed cowbird	<i>Molothrus ater</i>	none		X	X	Early	A / N,F	4 6
brown creeper	<i>Certhia familiaris</i>	none		X	X	Early	C / N,F	4 9
American crow	<i>Corvus brachyrhynchos</i>	none	X	X	X	X	A / N,H	4 11
yellow-billed cuckoo	<i>Coccyzus americanus</i>	none		Late	X		C / N,F	4 12
mourning dove	<i>Zenaida macroura</i>	none	X	X	X	X	C / N,H	4 8
rock dove	<i>Columba livia</i>	none	X	X	X	X	C / N,F	4 8
house finch	<i>Carpodacus mexicanus</i>	none		X	X	X	A / N,F	4 20
common flicker	<i>Colaptes auratus</i>	none	X	X	X	X	A / N,F	4 14
common grackle	<i>Quiscalus quiscula</i>	none	X	X	X	X	A / N,F	4 6
ruffed grouse	<i>Bonasa umbellus</i>	none	X	X	X	X	R / N,F	4 8
rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>	none		Late	X	Early	R / N,F	4 20
Cooper's hawk	<i>Accipiter cooperii</i>	special concern		X	X		N / N,H	4 17
red-tailed hawk	<i>Buteo jamaicensis</i>	none	X	X	X	X	C / H	4 16
sharp-shinned hawk	<i>Accipiter striatus</i>	special concern	X	X	X	X	N / N,F	4 16
blue jay	<i>Cyanocitta cristata</i>	none	X	X	X	X	A / N,F	4 10
Northern (dark-eyed) junco	<i>Junco hyemalis</i>	none	X			Late	C / N,F	4 21
American kestrel	<i>Falco sparverius</i>	none	X	X	X	X	C / N,H	4 17
Eastern kingbird	<i>Tyrannus tyrannus</i>	none		X	X	Early	C / N,F	4 15
golden-crowned kinglet	<i>Regulus satrapa</i>	none	X	X		X	R / N,H	4 7
ruby-crowned kinglet	<i>Regulus calendula</i>	none	X	X		X	R / N,H	4 7
Northern mockingbird	<i>Mimus polyglottos</i>	none	X	X	X	X	C / N,F	4 9
great-horned owl	<i>Bubo virginianus</i>	none	X	X	X	X	C / N,H	4 17
long-eared owl	<i>Asio otus</i>	none	X	X	X	X	C / N,H	4 17
American redstart	<i>Setophaga ruticilla</i>	none		Late	X	X	C / N,F	4 19
American robin	<i>Turdus migratorius</i>	none		X	X	Early	A / N,F	4 7
yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	none		Late	X	Early	C / N,F	14
fox sparrow	<i>Passerella iliaca</i>	none	X	X		X	R / F	20 21
house sparrow	<i>Passer domesticus</i>	none	X	X	X	X	C / N,F	4 20
song sparrow	<i>Melospiza melodia</i>	none	X	X	X	X	A / N,F	4 22
white-throated sparrow	<i>Zonotrichia albicollis</i>	none	X	X	X	X	C / N,F	4 22
European starling	<i>Sturnus vulgaris</i>	none	X	X	X	X	A / N,F	4 23
barn swallow	<i>Hirundo rustica</i>	none		Late	X		C / N,F	4 15

Common Name	Scientific Name	Status	Found During				Frequency / Habitat Use	References
			winter	spring	summer	fall		
brown thrasher	<i>Toxostoma rufum</i>	none		X	X	Early	C / N,F	4 9
hermit thrush	<i>Catharus guttatus</i>	none	X	X	X	X	R / N,F	4 7
wood thrush	<i>Hylocichla mustelina</i>	none		X	X	Early	C / N,F	4 7
rufous-sided towhee	<i>Pipilo erythrophthalmus</i>	none		Late	X	Early	A / N,F	4 20
red-eyed vireo	<i>Vireo olivaceus</i>	none		Late	X		C / N,F	4 23
black-and-white warbler	<i>Mniotilta varia</i>	none		X	X		C / N,F	4 18
blue-winged warbler	<i>Vermivora pinus</i>	none		Late	X		C / N,F	4 14
chestnut-sided warbler	<i>Dendroica pensylvanica</i>	none		Late	X		C / N,F	4 19
cedar waxwing	<i>Bombycilla cedrorum</i>	none		X	X	Early	C / N,F	4 23 32
whip-poor-will	<i>Caprimulgus vociferous</i>	special concern		Late	X		C / N	4 12
Eastern wood-peewee	<i>Contopus virens</i>	none		X	X		C / N,F	4 15
American woodcock	<i>Philhela minor</i>	none		X	X	X	R / N,F	4 30
downy woodpecker	<i>Picoides pubescens</i>	none	X	X	X	X	A / N,F	4 14
hairy woodpecker	<i>Picoides villosus</i>	none	X	X	X	X	R / N,F	4 14
red-bellied woodpecker	<i>Melanerpes carolinus</i>	none	X	X	X	X	R / N,F	4 14
Carolina wren	<i>Thryothorus ludovicianus</i>	none	X	X	X	X	C / N,F	4 9
house wren	<i>Troglodytes aedon</i>	none		Late	X	Early	C / N,F	4 9
big-brown bat	<i>Eptesicus fuscus</i>	none	X	X	X	X	C / N,F	1 29
hoary bat	<i>Lasiurus borealis</i>	none			Late	Early	C / N,F	45
Keen's bat	<i>Myotis keenii</i>	none			X	Early	R / N	1 29
Mammals								
little-brown bat	<i>Myotis lucifugus</i>	none	X	X	X	X	C / N,F	1 29
red bat	<i>Lasiurus borealis</i>	none		Late	X	Early	C / N,F	1 29
silver-haired bat	<i>Lasionycteris noctivagans</i>	none			X		R / N,F	1 29
Eastern chipmunk	<i>Tamias striatus</i>	none	X	X	X	X	C / N,F	1 29
Eastern cottontail	<i>Sylvilagus floridanus</i>	none	X	X	X	X	A / N,F	1 29
white-tailed deer	<i>Odocoileus virginianus</i>	none	X	X	X	X	C / F	1 25 29
red fox	<i>Vulpes vulpes</i>	none	X	X	X	X	C / N,H	1 29
Eastern mole	<i>Scalopus aquaticus</i>	none	X	X	X	X	C / N,F	1 29
meadow-jumping mouse	<i>Zapus hudsonicus</i>	none	X	X	X	X	R / N,F	1 29
white-footed mouse	<i>Peromyscus leucopus</i>	none	X	X	X	X	C / N,F	1 29
Virginia opossum	<i>Didelphis virginiana</i>	none	X	X	X	X	C / N,F	1 29
raccoon	<i>Procyon lotor</i>	none	X	X	X	X	C / N,F	1 29
masked shrew	<i>Sorex cinereus</i>	none	X	X	X	X	C / N,F	1 29
short-tailed shrew	<i>Blarina breuicauda</i>	none	X	X	X	X	A / N,F	1 29
striped skunk	<i>Mephitis mephitis</i>	none	X	X	X	X	N / N,F	1 29
Eastern gray squirrel	<i>Sciurus carolinensis</i>	none	X	X	X	X	C / N,F	1 29
meadow vole	<i>Microtus pennsylvanicus</i>	none	X	X	X	X	R / N,F	29 45

Common Name	Scientific Name	Status	Found During				Frequency / Habitat Use	References
			winter	spring	summer	fall		
pine vole	<i>Microtus pinetorum</i>	none	X	X	X	X	C / N,F	1 29
long-tailed weasel	<i>Mustela frenata</i>	none	X	X	X	X	R / N,H	1 29
woodchuck	<i>Marmota monax</i>	none	X	X	X	X	R / N,F	1 29
Herptiles								
Eastern garter snake	<i>Thamnophis sirtalis</i>	none	X	X	X	X	C / N,F	38 40
eastern hognose snake	<i>Heterodon platyrhinos</i>	special concern	X	X	X	X	R / N,H	38
eastern milk snake	<i>Lampropeltis d. triangulum</i>	none	X	X	X	X	C / N,F	38 39

KEY:

Frequency:

A- abundant

C- common

R- rare

N- not expected

Activity:

N- nesting

H- hunting

R- resting

F- foraging

Dry Oak Forest Species - Inventory and Characteristics

Common Name	Scientific Name	Status	Found During				Frequency/ Habitat Use	References
			winter	spring	summer	fall		
Birds								
gray catbird	<i>Dumetella carolinensis</i>	none		Late	X		R / N,F	4 9
black capped chickadee	<i>Parus atricapillus</i>	none	X	X	X	X	A / N,F	4 11
brown-headed cowbird	<i>Molothrus ater</i>	none		X	X	Early	A / N,F	4 6
brown creeper	<i>Certhia familiaris</i>	none		X	X	Early	C / N,F	4 9
American crow	<i>Corvus brachyrhynchos</i>	none	X	X	X	X	A / N,H	4 11
yellow-billed cuckoo	<i>Coccyzus americanus</i>	none		Late	X		R / N,F	4 12
house finch	<i>Carpodacus mexicanus</i>	none		X	X	X	A / N,F	4 20
common flicker	<i>Colaptes auratus</i>	none	X	X	X	X	C / N,F	4 14
Acadian flycatcher	<i>Empidonax vireescens</i>	none		Late	X		N / N,F	4 15
great-crested flycatcher	<i>Myiarchus crinitus</i>	none		Late	X		C / N,F	4 15
common grackle	<i>Quiscalus quiscula</i>	none	X	X	X	X	C / N,F	4 6
ruffed grouse	<i>Bonasa umbellus</i>	none	X	X	X	X	C / N,F	4 8
broad-winged hawk	<i>Buteo platypterus</i>	none		X	X		R / N,H	4 16
Cooper's hawk	<i>Accipiter cooperii</i>	special concern		X	X		N / N,H	4 17
red-tailed hawk	<i>Buteo jamaicensis</i>	none	X	X	X	X	C / N,H	4 16
sharp-shinned hawk	<i>Accipiter striatus</i>	special concern	X	X	X	X	N / N,F	4 16
blue jay	<i>Cyanocitta cristata</i>	none	X	X	X	X	A / N,F	4 10
Northern (dark-eyed) junco	<i>Junco hyemalis</i>	none		X	X	Early	R / N,F	4 21
Eastern kingbird	<i>Tyrannus tyrannus</i>	none		X	X	Early	C / N,F	4 15
golden-crowned kinglet	<i>Regulus satrapa</i>	none	X	X		X	R / N,H	4 7
ruby-crowned kinglet	<i>Regulus calendula</i>	none	X	X		X	R / N,H	4 7
purple martin	<i>Progne subis</i>	none		Late	X		R / N,F	4 15
Northern mockingbird	<i>Mimus polyglottos</i>	none	X	X	X	X	C / N,F	4 9
white-breasted nuthatch	<i>Sitta carolinensis</i>	none	X	X	X	X	A / N,F	4 9
northern oriole	<i>Icterus galbula</i>	none		Late	X		C / N,F	4 6
ovenbird	<i>Seiurus aurocapillus</i>	none		Late	X	Early	C / N,F	4 19
common screech owl	<i>Otus asio</i>	none	X	X	X	X	C / N	4 17
great-horned owl	<i>Bubo virginianus</i>	none	X	X	X	X	C / N,H	4 17
long-eared owl	<i>Asio otus</i>	none	X	X	X	X	C / N,H	4 17
American robin	<i>Turdus migratorius</i>	none		X	X	Early	A / N,F	4 7
yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	none		Late	X	Early	C / N,F	14
fox sparrow	<i>Passerella iliaca</i>	none	X	X		X	R / F	20 21
house sparrow	<i>Passer domesticus</i>	none	X	X	X	X	C / N,F	4 20
song sparrow	<i>Melospiza melodia</i>	none	X	X	X	X	C / N,F	4 22

Common Name	Scientific Name	Status	Found During				Frequency/ Habitat Use	References
			winter	spring	summer	fall		
European starling	<i>Sturnus vulgaris</i>	none	X	X	X	X	C / N,F	4 23
scarlet tanager	<i>Piranga olivacea</i>	none		X	X		C / N,F	4
brown thrasher	<i>Toxostoma rufum</i>	none		X	X	Early	R / N,F	4 9
hermit thrush	<i>Catharus guttatus</i>	none	X	X	X	X	C / N,F	4 7
wood thrush	<i>Hylocichla mustelina</i>	none		X	X	Early	C / N,F	4 7
tufted titmouse	<i>Parus bicolor</i>	none	X	X	X	X	C / N,F	4 11
veery	<i>Catharus fuscescens</i>	none		Late	X		R / N,F	4 7
red-eyed vireo	<i>Vireo olivaceus</i>	none		Late	X		C / N,F	4 23
yellow throated vireo	<i>Vireo flavifrons</i>	none		Late	X		R / N,F	4 23
black-and-white warbler	<i>Mniotilta varia</i>	none		X	X		C / N,F	4 18
black-throated blue warbler	<i>Dendroica caerulescens</i>	none		Late	X	Early	C / N,F	18
blue-winged warbler	<i>Vermivora pinus</i>	none		Late	X		R / N,F	4 14
cedar waxwing	<i>Bombycilla cedrorum</i>	none		X	X	Early	C / N,F	4 23 32
whip-poor-will	<i>Caprimulgus vociferous</i>	special concern		Late	X		C / N	4 12
Eastern wood-peewee	<i>Contopus virens</i>	none		X	X		C / N,F	4 15
downy woodpecker	<i>Picoides pubescens</i>	none	X	X	X	X	A / N,F	4 14
hairy woodpecker	<i>Picoides villosus</i>	none	X	X	X	X	C / N,F	4 14
red-bellied woodpecker	<i>Melanerpes carolinus</i>	none	X	X	X	X	C / N,F	4 14
house wren	<i>Troglodytes aedon</i>	none		Late	X	Early	R / N,F	4 9
Mammals								
big-brown bat	<i>Eptesicus fuscus</i>	none	X	X	X	X	C / N,F	1 29
hoary bat	<i>Lasiurus borealis</i>	none			Late	Early	C / N,F	45
Keen's bat	<i>Myotis keenii</i>	none			X	Early	R / N	1 29
little-brown bat	<i>Myotis lucifugus</i>	none	X	X	X	X	C / N,F	1 29
red bat	<i>Lasiurus borealis</i>	none		Late	X	Early	C / N,F	1 29
Eastern pipistrelle	<i>Pipistrellus subflavus</i>	none		X	X	Early	R / N,F	1 29
silver-haired bat	<i>Lasionycteris noctivagans</i>	none			X		R / N,F	1 29
Eastern chipmunk	<i>Tamias striatus</i>	none	X	X	X	X	C / N,F	1 29
Eastern cottontail	<i>Sylvilagus floridanus</i>	none	X	X	X	X	C / N,F	1 29
white-tailed deer	<i>Odocoileus virginianus</i>	none	X	X	X	X	C / N,F	1 25 29
red fox	<i>Vulpes vulpes</i>	none	X	X	X	X	C / N,H	1 29
Eastern mole	<i>Scalopus aquaticus</i>	none	X	X	X	X	C / N,F	1 29
house mouse	<i>Mus musculus</i>	none	X	X	X	X	N / N,F	1 29
meadow-jumping mouse	<i>Zapus hudsonicus</i>	none	X	X	X	X	R / N,F	1 29
white-footed mouse	<i>Peromyscus leucopus</i>	none	X	X	X	X	C / N,F	1 29
Virginia opossum	<i>Didelphis virginiana</i>	none	X	X	X	X	C / N,F	1 29
raccoon	<i>Procyon lotor</i>	none	X	X	X	X	C / N,F	1 29
masked shrew	<i>Sorex cinereus</i>	none	X	X	X	X	C / N,F	1 29

Common Name	Scientific Name	Status	Found During				Frequency/ Habitat Use	References
			winter	spring	summer	fall		
short-tailed shrew	<i>Blarina breuicauda</i>	none	X	X	X	X	A / N,F	1 29
striped skunk	<i>Mephitis mephitis</i>	none	X	X	X	X	N / N,F	1 29
Eastern gray squirrel	<i>Sciurus carolinensis</i>	none	X	X	X	X	A / N,F	1 29
southern-flying squirrel	<i>Glaucimys volans</i>	none	X	X	X	X	C / N,F	1 29
pine vole	<i>Microtus pinetorum</i>	none	X	X	X	X	C / N,F	1 29
long-tailed weasel	<i>Mustela frenata</i>	none	X	X	X	X	R / N,H	1 29
Herptiles								
spring peeper	<i>Hyla crucifer</i>	none	X	X	X	X	R / N,F	33 35 38
red-backed salamander	<i>Plethodon cinereus cinereus</i>	none	X	X	X	X	R / N,F	34 36
marbled salamander	<i>Ambystoma opacum</i>	special concern	X	X	X	X	R / N,F	34 36 38
Eastern garter snake	<i>Thamnophis sirtalis</i>	none	X	X	X	X	C / N,F	38 40
eastern milk snake	<i>Lampropeltis d. triangulum</i>	none	X	X	X	X	C / N,F	38 39
Eastern spadefoot toad	<i>Scaphiopus holbrooki</i>	special concern	X	X	X	X	C / N,F	33

KEY:

Frequency:

A- abundant

C- common

R- rare

N- not expected

Activity:

N- nesting

H- hunting

R- resting

F- foraging

Wooded Swamp Species: Inventory and Characteristics

Common Name	Scientific Name	Status	Found During				Frequency/ Habitat Use	Reference
			winter	spring	summer	fall		
Birds								
red-winged blackbird	<i>Agelaius phoeniceus</i>	none		X	X	Early	A / N,F	4 6
Northern cardinal	<i>Cardinalis cardinalis</i>	none	X	X	X	X	C / N,F	4 20
wood duck	<i>Aix sponsa</i>	none		X	X	Early	C / N,F	4 27
great-crested flycatcher	<i>Myiarchus crinitus</i>	none		Late	X		C / N,F	4 15
blue-grey gnatcatcher	<i>Polioptila caerulea</i>	none		X	X		R / N,F	4 7
rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>	none		Late	X	Early	R / N,F	4 20
yellow-crowned night-heron	<i>Nycticorax violaceus</i>	none	X	X	X	X	C / N,H	4 26
mallard	<i>Anas platyrhynchos</i>	none		X	X	X	C / N,F	4 27
white-breasted nuthatch	<i>Sitta carolinensis</i>	none	X	X	X	X	A / N,F	4 9
osprey	<i>Pandion haliaetus</i>	special concern		X	X	Early	C / N,H	4 16
great-horned owl	<i>Bubo virginianus</i>	none	X	X	X	X	C / N,H	4 17
saw-whet owl	<i>Aegolius acadicus</i>	none	X	X	X	X	C / N,H	4 17
Eastern phoebe	<i>Sayornis phoebe</i>	none		X	X	Early	C / N,F	4 15
spotted sandpiper	<i>Actitis macularia</i>	none		X	X	Early	R / N,F	4 31 32
swamp sparrow	<i>Melospiza georgiana</i>	none	X	X	X	X	C / N,F	4 22
European starling	<i>Sturnus vulgaris</i>	none	X	X	X	X	R / N,F	4 23
tree swallow	<i>Tachycineta bicolor</i>	none		X	X		C / N,F	4 15
tufted titmouse	<i>Parus bicolor</i>	none	X	X	X	X	C / N,F	4 11
veery	<i>Catharus fuscescens</i>	none		Late	X		C / N,F	4 7
yellow warbler	<i>Dendrocica petchia</i>	none		Late	X		C / N,F	4 18
American woodcock	<i>Philhela minor</i>	none		X	X	X	C / N,F	4 30
downy woodpecker	<i>Picoides pubescens</i>	none	X	X	X	X	A / N,F	4 14
hairy woodpecker	<i>Picoides villosus</i>	none	X	X	X	X	C / N,F	4 14
red-bellied woodpecker	<i>Melanerpes carolinus</i>	none	X	X	X	X	C / N,F	4 14
Mammals								
big-brown bat	<i>Eptesicus fuscus</i>	none	X	X	X	X	R / H	1 29
little-brown bat	<i>Myotis lucifugus</i>	none	X	X	X	X	R / H	1 29
Eastern cottontail	<i>Sylvilagus floridanus</i>	none	X	X	X	X	A / F	1 29
white-tailed deer	<i>Odocoileus virginianus</i>	none	X	X	X	X	C / F	1 25 29
red fox	<i>Vulpes vulpes</i>	none	X	X	X	X	C / H	1 29
mink	<i>Mustela vison</i>	none	X	X	X	X	C / N,F	1
star-nosed mole	<i>Condylura cristata</i>	none	X	X	X	X	R / N,F	1 29
meadow-jumping mouse	<i>Zapus hudsonicus</i>	none	X	X	X	X	R / N,F	1 29
white-footed mouse	<i>Peromyscus leucopus</i>	none	X	X	X	X	C / N,F	1 29

Common Name	Scientific Name	Status	Found During				Frequency/ Habitat Use	Reference
			winter	spring	summer	fall		
muskrat	<i>Ondarta zibethicus</i>	none	X	X	X	X	C / N,F	1 29
Virginia opossum	<i>Didelphis virginiana</i>	none	X	X	X	X	C / N,F	1 29
racoon	<i>Procyon lotor</i>	none	X	X	X	X	C / N,F	1 29
Norway rat	<i>Rattus norvegicus</i>	none	X	X	X	X	C / N,F	1 29
masked shrew	<i>Sorex cinereus</i>	none	X	X	X	X	C / N,F	1 29
short-tailed shrew	<i>Blarina breuicauda</i>	none	X	X	X	X	A / N,F	1 29
Eastern gray squirrel	<i>Sciurus carolinensis</i>	none	X	X	X	X	A / N,F	1 29
southern-flying squirrel	<i>Glaucimys volans</i>	none	X	X	X	X	C / N,F	1 29
meadow vole	<i>Microtus pennsylvanicus</i>	none	X	X	X	X	R / N,F	29 45
pine vole	<i>Microtus pinetorum</i>	none	X	X	X	X	R / N,F	1 29
long-tailed weasel	<i>Mustela frenata</i>	none	X	X	X	X	R / N,H	1 29
Herptiles								
bull frog	<i>Rana catesbeiana</i>	none	X	X	X	X	C / N,H	33 34 35 37
common gray treefrog	<i>Hyla versicolor</i>	none	X	X	X	X	C / N,F	33 37
green frog	<i>Rana clamitans</i>	none	X	X	X	X	C / N,H	33 35 37
Southern leopard frog	<i>Rana pipiens sphenoccephala</i>	special concern	X	X	X	X	R / N,F	35 37 38
wood frog	<i>Rana sylvatica</i>	none	X	X	X	X	C / N,F	33 37
red-spotted newt	<i>Notophthalmus viridescens</i>	none	X	X	X	X	C / N,F	36 38
spring peeper	<i>Hyla crucifer</i>	none	X	X	X	X	A / N,F	33 35 38
spotted salamander	<i>Ambystoma maculatum</i>	none	X	X	X	X	C / N,F	34 36 38
Eastern tiger salamander	<i>Ambystoma tigrinum tigrinum</i>	endangered	X	X	X	X	R / N,F	36 38
marbled salamander	<i>Ambystoma opacum</i>	special concern	X	X	X	X	R / N,F	34 36 38
Eastern garter snake	<i>Thamnophis sirtalis</i>	none	X	X	X	X	C / N,F	38 40
eastern milk snake	<i>Lampropettis d. triangulum</i>	none	X	X	X	X	C / N,F	38 39
Eastern ribbon snake	<i>Thamnophis s. sauritus</i>	none	X	X	X	X	C / N,F	38 40
Northern brown snake	<i>Storeria dekayi</i>	none	X	X	X	X	C / N,H	38
Northern ringneck snake	<i>Diadophis punctatus</i>	none	X	X	X	X	C / H	38
Northern water snake	<i>Natrix sipedon sipedon</i>	none	X	X	X	X	C / N,F	38 39
painted turtle	<i>Chrysemys picta</i>	none	X	X	X	X	N / N,F	38 40

KEY:

Frequency:
A- abundant
C- common
R- rare
N- not expected

Activity:
N- nesting
H- hunting
R- resting
F- foraging

Fresh Water Pond Species - Inventory and Characteristics

Common Name	Scientific Name	Status	Found During				Frequency/ Habitat Use	Reference Numbers
			winter	spring	summer	fall		
Birds								
red-winged blackbird	<i>Agelaius phoeniceus</i>	none		X	X	Early	A / N,F	4 6
canvasback	<i>Aythya valisineria</i>	none	X			Late	R / F	4 27
American coot	<i>Fulica americana</i>	none		X	X	Early	R / N,F	4 26
American black duck	<i>Anas rubripes</i>	none	X	X	X	X	R / N,F	4 27
ring-necked duck	<i>Aythya collaris</i>	none	X			X	C / F	4 27
wood duck	<i>Aix sponsa</i>	none		X	X	Early	C / N	4 27
great egret	<i>Casmerodius albus</i>	none		X	X		C / N,F	4 26
gadwall	<i>Anas strepera</i>	none		Late	X	X	C / N,F	4 27
blue-grey gnatcatcher	<i>Poliophtila caerulea</i>	none		X	X		R / N,F	4 7
Canada goose	<i>Branta canadensis</i>	none	X	X	X	X	C / N,F	4 28
horned grebe	<i>Podiceps auritus</i>	none	X	Early		X	C / N,F	32 42
pie-billed grebe	<i>Podilymbus podiceps</i>	none		X		Early	R / F	32
great blue heron	<i>Ardea herodias</i>	none		Late	X		R / M	4 26
green heron	<i>Butorides striatus</i>	none		X	X	Early	C / N,F	4 26
Eastern kingbird	<i>Tyrannus tyrannus</i>	none		X	X	Early	A / N,F	4 15
belted kingfisher	<i>Megaceryle alcyon</i>	none	X	X	X	X	C / N,F	4 12
mallard	<i>Anas platyrhynchos</i>	none		X	X	X	C / N,F	4 27
hooded merganser	<i>Lophodytes cucullatus</i>	none	X	X	X	X	C / N,F	4 27
common screech owl	<i>Otus asio</i>	none	X	X	X	X	C / N,H	4 17
semipalmated plover	<i>Charadrius semipalmatus</i>	none		Late	X	Early	R / F	31 32
least sandpiper	<i>Calidris minutilla</i>	none			X		R / F	32
spotted sandpiper	<i>Actitis macularia</i>	none		X	X	Early	R / N,F	4 31 32
greater scaup	<i>Aythya marila</i>	none	X			X	C / F	32 44
lesser scaup	<i>Aythya affinis</i>	none	X			X	C / F	32 44
fox sparrow	<i>Passerella iliaca</i>	none	X	X		X	R / F	20 21
European starling	<i>Sturnus vulgaris</i>	none	X	X	X	X	R / N,F	4 23
barn swallow	<i>Hirundo rustica</i>	none		Late	X		C / N,F	4 15
rough-winged swallow	<i>Stelgidopteryx ruficollis</i>	none		Late	X		R / N,F	4 15
tree swallow	<i>Tachycineta bicolor</i>	none		X	X		C / N,F	4 15
mute swan	<i>Cygnus olor</i>	none	X	X	X	X	C / N,F	4
green-winged teal	<i>Anas crecca</i>	none		X	X	X	C / N,F	4 27
common tern	<i>Sterna hirundo</i>	threatened		Late	X		R / N,F	4 24
American widgeon	<i>Anas americana</i>	none		X	X		C / N,F	4 27
lesser yellowlegs	<i>Triniga flavipes</i>	none	X	Early		X	R / F	30 32

Common Name	Scientific Name	Status	Found During				Frequency/ Habitat Use	Reference Numbers
			winter	spring	summer	fall		
Mammals								
big-brown bat	<i>Eptesicus fuscus</i>	none	X	X	X	X	R / H	1 29
Keen's bat	<i>Myotis keenii</i>	none			X	Early	R / N	1 29
little-brown bat	<i>Myotis lucifugus</i>	none	X	X	X	X	C / H	1 29
red bat	<i>Lasiurus borealis</i>	none		Late	X	Early	R / F	1 29
Eastern pipistrelle	<i>Pipistrellus subflavus</i>	none		X	X	Early	R / F	1 29
silver-haired bat	<i>Lasionycteris noctivagans</i>	none			X		R / N,F	1 29
white-tailed deer	<i>Odocoileus virginianus</i>	none	X	X	X	X	C / F	1 25 29
red fox	<i>Vulpes vulpes</i>	none	X	X	X	X	C / H	1 29
mink	<i>Mustela vison</i>	none	X	X	X	X	C / N,F	1
meadow-jumping mouse	<i>Zapus hudsonicus</i>	none	X	X	X	X	R / N,F	1 29
white-footed mouse	<i>Peromyscus leucopus</i>	none	X	X	X	X	C / N,F	1 29
muskrat	<i>Ondarta zibethicus</i>	none	X	X	X	X	C / N,F	1 29
Virginia opossum	<i>Didelphis virginiana</i>	none	X	X	X	X	C / F	1 29
racoon	<i>Procyon lotor</i>	none	X	X	X	X	C / N,F	1 29
Norway rat	<i>Rattus norvegicus</i>	none	X	X	X	X	C / N,F	1 29
striped skunk	<i>Mephitis mephitis</i>	none	X	X	X	X	N / F	1 29
meadow vole	<i>Microtus pennsylvanicus</i>	none	X	X	X	X	R / N,F	29 45
long-tailed weasel	<i>Mustela frenata</i>	none	X	X	X	X	R / N,H	1 29
bull frog	<i>Rana catesbeiana</i>	none	X	X	X	X	C / N,H	33 34 35 37
Herptiles								
common gray treefrog	<i>Hyla versicolor</i>	none	X	X	X	X	C / N,F	33 37
green frog	<i>Rana clamitans</i>	none	X	X	X	X	C / N,H	33 35 37
wood frog	<i>Rana sylvatica</i>	none	X	X	X	X	C / N,F	33 37
red-spotted newt	<i>Notophthalmus viridescens</i>	none	X	X	X	X	C / N,F	36 38
spring peeper	<i>Hyla crucifer</i>	none	X	X	X	X	R / N,F	33 35 38
spotted salamander	<i>Ambystoma maculatum</i>	none	X	X	X	X	R / N	34 36 38
Eastern tiger salamander	<i>Ambystoma tigrinum tigrinum</i>	endangered	X	X	X	X	R / N,F	36 38
marbled salamander	<i>Ambystoma opacum</i>	special concern	X	X	X	X	R / F	34 36 38
Eastern garter snake	<i>Thamnophis sirtalis</i>	none	X	X	X	X	C / N,F	38 40
Eastern ribbon snake	<i>Thamnophis s. sauritus</i>	none	X	X	X	X	C / N,F	38 40
eastern milk snake	<i>Lampropeltis d. triangulum</i>	none	X	X	X	X	C / N,F	38 39
Northern ringneck snake	<i>Diadophis punctatus</i>	none	X	X	X	X	C / H	38
Northern water snake	<i>Natrix sipedon sipedon</i>	none	X	X	X	X	C / N,F	38 39
stink pot	<i>Sternotherus odoratus</i>	none	X	X	X	X	C / N,F	38
Fowler's toad	<i>Bufo woodhousei fowleri</i>	none	X	X	X	X	C / N,F	33 37
Eastern box turtle	<i>Terrepena carolina</i>	special concern	X	X	X	X	C / N,F	41
painted turtle	<i>Chrysemys picta</i>	none	X	X	X	X	C / N,F	38

Common Name	Scientific Name	Status	Found During				Frequency/ Habitat Use	Reference Numbers
			winter	spring	summer	fall		
snapping turtle	<i>Chelydra serpentina</i>	none	X	X	X	X	C / N,F	38 41
spotted turtle	<i>Chlemys guttata</i>	special concern	X	X	X	X	R / N,F	38 41

KEY:

Frequency:

A- abundant

C- common

R- rare

N- not expected

Activity:

N- nesting

H- hunting

R- resting

F- foraging

Beach Species : Inventory and Characteristics

Common Name	Scientific Name	Status	Found During				Frequency/ Habitat Use	Reference
			winter	spring	summer	fall		
Birds								
fish crow	<i>Corvus ossifragus</i>	none	X	X	X	X	C / H	4 11
short-billed dowitcher	<i>Limnodromus griseus</i>	none		X	X	Early	R / F	32
gadwall	<i>Anas strepera</i>	none		Late	X	X	N / N,F	4 27
Bonaparte's gull	<i>Larus philadelphia</i>	none	X	X		X	R / F	24
great-black-backed gull	<i>Larus marinus</i>	none	X	X	X	X	C / N,F	4 24
herring gull	<i>Larus argentatus</i>	none	X	X	X	X	C / N,F	4 24
ring-billed gull	<i>Larus delawarensis</i>	none	X	X	X	X	N / N,F	4 24
little-blue heron	<i>Egretta caerulea</i>	none		Late	X		R / N,F	4 26
yellow-crowned night-heron	<i>Nycticorax violaceus</i>	none	X	X	X	X	C / H	4 26
common loon	<i>Gavia immer</i>	special concern	X			X	C / N,F	31 32
red-throated loon	<i>Gavia stellata</i>	none	X			X	R / N,F	32 42
red-breasted merganser	<i>Mergus serrator</i>	none	X	X	X	X	R / N,F	4 27
merlin	<i>Falco columbarius</i>	none				X	R / H	32 17
osprey	<i>Pandion haliaetus</i>	special concern		X	X	Early	C / N	4 16
short-eared owl	<i>Asio flammeus</i>	endangered	X	X	X	X	N / N,H	4 17
American oystercatcher	<i>Haematopus palliatus</i>	none	X	X	X	X	C / N,F	4 31
black-bellied plover	<i>Pluvialis squatarola</i>	none		Early	X	Early	N / F	31 32
piping plover	<i>Charadrius melodus</i>	endangered		X	X		C / N,F	4 31 32
semipalmated plover	<i>Charadrius semipalmatus</i>	none		Late	X	Early	C / F	31 32
sanderling	<i>Calidris alba</i>	none	X		Late	X	C / F	30 32
semipalmated sandpiper	<i>Calidris pusilla</i>	none		X	X	Early	C / F	32
spotted sandpiper	<i>Actitis macularia</i>	none		X	X	Early	C / N,F	4 31 32
black skimmer	<i>Rynchops niger</i>	special concern		Late	X		C / N	4 24
Savannah sparrow	<i>Passerculus sandwichensis</i>	none		X	X	Early	C / N,F	4 21
seaside sparrow	<i>Ammodramus maritimus</i>	special concern	X	X	X	X	C / F	4 21
European starling	<i>Sturnus vulgaris</i>	none	X	X	X	X	R / N,F	4 23
common tern	<i>Sterna hirundo</i>	threatened		Late	X		C / N,F	4 24
least tern	<i>Sterna antillarum</i>	threatened		Late	X		C / N,F	4 24
roseate tern	<i>Sterna dougallii</i>	endangered		Late	X	Early	R / N,F	4 24
ruddy turnstone	<i>Arenaria interpres</i>	none	X				C / F	31 32
willet	<i>Catoptrophorus semipalmatus</i>	none		X	X	Early	C / F	4 31
Mammals								
Keen's bat	<i>Myotis keenii</i>	none			X	Early	R / N	1 29
little-brown bat	<i>Myotis lucifugus</i>	none	X	X	X	X	C / H	1 29

Common Name	Scientific Name	Status	Found During				Frequency/ Habitat Use	Reference
			winter	spring	summer	fall		
red bat	<i>Lasiurus borealis</i>	none		Late	X	Early	R / F	1 29
silver-haired bat	<i>Lasionycteris noctivagans</i>	none			X		R / N,F	1 29
Eastern cottontail	<i>Sylvilagus floridanus</i>	none	X	X	X	X	R / F	1 29
white-tailed deer	<i>Odocoileus virginianus</i>	none	X	X	X	X	C / F	1 25 29
red fox	<i>Vulpes vulpes</i>	none	X	X	X	X	C / N,H	1 29
mink	<i>Mustela vison</i>	none	X	X	X	X	C / N,F	1
Eastern mole	<i>Scalopus aquaticus</i>	none	X	X	X	X	R / N,F	1 29
house mouse	<i>Mus musculus</i>	none	X	X	X	X	R / N,F	1 29
meadow-jumping mouse	<i>Zapus hudsonicus</i>	none	X	X	X	X	R / N,F	1 29
white-footed mouse	<i>Peromyscus leucopus</i>	none	X	X	X	X	R / F	1 29
Virginia opossum	<i>Didelphis virginiana</i>	none	X	X	X	X	C / F	1 29
racoon	<i>Procyon lotor</i>	none	X	X	X	X	R / N,F	1 29
Norway rat	<i>Rattus norvegicus</i>	none	X	X	X	X	C / N,F	1 29
masked shrew	<i>Sorex cinereus</i>	none	X	X	X	X	C / N,F	1 29
Eastern gray squirrel	<i>Sciurus carolinensis</i>	none	X	X	X	X	N / F	1 29
pine vole	<i>Microtus pinetorum</i>	none	X	X	X	X	R / N,F	1 29
long-tailed weasel	<i>Mustela frenata</i>	none	X	X	X	X	R / N,H	1 29
Herptiles							\	
Fowler's toad	<i>Bufo woodhousei fowleri</i>	none	X	X	X	X	C / F	33 37

KEY:

Frequency:

A- abundant
C- common
R- rare
N- not expected

Activity:

N- nesting
H- hunting
R- resting
F- foraging

PROJECTION OF WILDLIFE ECOLOGICAL RESPONSE (POWER)

NELSON, POPE & VOORHIS, LLC, MICROCOMPUTER MODEL

SPECIES ADAPTABILITY

This portion of the appendix has been included to present the results of a computer program to identify "Species Adaptability." This list is another component of the program developed for use by Nelson, Pope & Voorhis, LLC to determine potential impacts of the proposed project on wildlife. In this application the "Adaptability" of the observed and expected species are shown. The "adaptability" as indicated in the table, refers to whether an individual species may potentially benefit from (+) a habitat change from natural to urban/suburban setting; or, be impacted (-), or remain constant (=), as a result of this change. These values are not intended to represent the dynamics of actual species on the subject site under post-development conditions. The column entitled "Comments" provides relevant information which was obtained from the literature, as regards special habits of the particular species, such as adaptability, nesting, food, etc. This column is particularly important in assessing the potential impacts to the species as a result of the proposed project. The preceding text considers the site specific aspects of the proposed development in regard to individual species. This appendix is included to provide the reader with the benefit of what the literature which was consulted in connection with the Habitat Suitability Model suggests, in terms of generalized species dynamics resulting from land use. References are the same as those cited in the previous Species List portion of the appendix.

Successional Woodland Species - Adaptability and Comments

Common Name	Scientific Name	Adapt.	Comments	References
Birds				
American crow	<i>Corvus brachyrhynchos</i>	=	extremely adaptable; omnivorous	4 11
American kestrel	<i>Falco sparverius</i>	-	adaptable; prefers open areas and parks; will nest near humans	4 17
American redstart	<i>Setophaga ruticilla</i>	-	urbanization and agriculture have negative effects	4 19
American robin	<i>Turdus migratorius</i>	=	very adaptable; abundant in parks; nests in man-made structures	4 7
American woodcock	<i>Philhela minor</i>	-	prefers moist woodland and thicket near open fields	4 30
barn swallow	<i>Hirundo rustica</i>	+	nests almost entirely on buildings	4 15
black capped chickadee	<i>Parus atricapillus</i>	=	abundant around parks, urban and suburban areas	4 11
black-and-white warbler	<i>Mniotilta varia</i>	-	builds nests under shrubs and/or trees	4 18
blue jay	<i>Cyanocitta cristata</i>	=	extremely adaptable to human activity and other stresses	4 10
blue-winged warbler	<i>Vermivora pinus</i>	-	primarily abandoned and overgrown field, and thickets	4 14
brown creeper	<i>Certhia familiaris</i>	-	prefers predominantly deciduous wooded areas	4 9
brown thrasher	<i>Toxostoma rufum</i>	=	common in parks, suburban areas, wooded edges, dry open areas	4 9
brown-headed cowbird	<i>Molothrus ater</i>	=	lays eggs in other bird's nests; some stay during winter	4 6
Carolina wren	<i>Thryothorus ludovicianus</i>	=	associated with woodland thickets and brushy areas, often near water	4 9
cedar waxwing	<i>Bombycilla cedrorum</i>	+	prefers open woodlands, orchards and residential areas	4 23 32
chestnut-sided warbler	<i>Dendroica pensylvanica</i>	-	prefers first growth woods, with some open brush area	4 19
common flicker	<i>Colaptes auratus</i>	=	abundant around parks, suburban and urban areas	4 14
common grackle	<i>Quiscalus quiscula</i>	=	adapts well to urban and suburban habitats	4 6
Cooper's hawk	<i>Accipiter cooperii</i>	-	needs extensive woodland	4 17
downy woodpecker	<i>Picoides pubescens</i>	=	found in parks and suburban areas	4 14
Eastern kingbird	<i>Tyrannus tyrannus</i>	=	very adaptable to human activities; prefers open areas	4 15
Eastern wood-peewee	<i>Contopus virens</i>	=	prefers suburban areas, parks and villages with shade trees	4 15
European starling	<i>Sturnus vulgaris</i>	+	extremely adaptable to human activity; considered a pest	4 23
fox sparrow	<i>Passerella iliaca</i>	-	boreal species, winters here in edge, thickets, brushy areas	20 21
golden-crowned kinglet	<i>Regulus satrapa</i>	-	prefers spruce vegetation; no atlas sightings on Long Island	4 7
gray catbird	<i>Dumetella carolinensis</i>	=	abundant around parks, urban and suburban areas	4 9
great-horned owl	<i>Bubo virginianus</i>	-	nocturnal; rare in wooded areas of less than 20 acres	4 17
hairy woodpecker	<i>Picoides villosus</i>	=	found mainly in deciduous forests	4 14
hermit thrush	<i>Catharus guttatus</i>	=	not common on Long Island; when present, prefers pine barrens	4 7
house finch	<i>Carpodacus mexicanus</i>	+	nests almost entirely on buildings; considered a pest species	4 20
house sparrow	<i>Passer domesticus</i>	+	prefers buildings, urban, suburban, gardens; considered a pest	4 20
house wren	<i>Troglodytes aedon</i>	=	found in suburban areas and gardens; nests in crevices of buildings	4 9
long-eared owl	<i>Asio otus</i>	-	nocturnal; prefers dense forested areas near water	4 17
mourning dove	<i>Zenaida macroura</i>	=	abundant around parks, urban and suburban areas	4 8
Northern (dark-eyed) junco	<i>Junco hyemalis</i>	-	prefers forested area with elevation >300 meters; no LI atlas record	4 21

Common Name	Scientific Name	Adapt.	Comments	References
Northern mockingbird	<i>Mimus polyglottos</i>	+	prefers to nest near humans	4 9
red-bellied woodpecker	<i>Melanerpes carolinus</i>	=	prefers forest openings; mostly found on Long Island north shore	4 14
red-eyed vireo	<i>Vireo olivaceus</i>	=	found in parks and suburban areas with shade trees and undergrowth	4 23
red-tailed hawk	<i>Buteo jamaicensis</i>	-	needs 100 foot radius undisturbed area for nest	4 16
rock dove	<i>Columba livia</i>	+	nesting almost entirely on buildings; considered a pest species	4 8
rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>	=	mainly found on north shore	4 20
ruby-crowned kinglet	<i>Regulus calendula</i>	-	occurs as non-breeding species; present during migration	4 7
ruffed grouse	<i>Bonasa umbellus</i>	-	prefers dense cover, thick woods; avoids humans	4 8
rufous-sided towhee	<i>Pipilo erythrophthalmus</i>	-	may be present year round on Long Island	4 20
sharp-shinned hawk	<i>Accipiter striatus</i>	-	avoids humans; nests in heavily forested areas	4 16
song sparrow	<i>Melospiza melodia</i>	=	common to most habitats except deep forest, open field and marsh	4 22
whip-poor-will	<i>Caprimulgus vociferous</i>	-	nocturnal; prefers open woods with adjacent fields	4 12
white-throated sparrow	<i>Zonotrichia albicollis</i>	-	prefers brushy areas and thick undergrowth	4 22
wood thrush	<i>Hylocichla mustelina</i>	=	prefers vacant wood (trees >40 feet); may adapt of wooded suburban	4 7
yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	=	nesting in tree cavity; found in parks, yards and gardens	14
yellow-billed cuckoo	<i>Coccyzus americanus</i>	-	avoids heavy urban areas; prefers wooded open or edges for nests	4 12
Mammals				
big-brown bat	<i>Eptesicus fuscus</i>	+	roosts in structures; found throughout LI; hunts over water	1 29
hoary bat	<i>Lasiurus borealis</i>	=	roosts in trees, sometimes found in parks	45
Keen's bat	<i>Myotis keenii</i>	+	roosts in buildings, crevices and bark; more common on eastern LI	1 29
little-brown bat	<i>Myotis lucifugus</i>	+	roosts in buildings and man made structures; hunts over water	1 29
red bat	<i>Lasiurus borealis</i>	-	feeds in marsh area; nests within 1000 yards of marsh in trees	1 29
silver-haired bat	<i>Lasiorycteris noctivagans</i>	-	prefers wooded areas near water, primarily during summer months	1 29
Eastern chipmunk	<i>Tamias striatus</i>	=	prefers open woods, thickets, and rocky areas	1 29
Eastern cottontail	<i>Sylvilagus floridanus</i>	=	will adapt to suburban areas, if there is sufficient cover	1 29
white-tailed deer	<i>Odocoileus virginianus</i>	-	requires range of one-half square mile	1 25 29
red fox	<i>Vulpes vulpes</i>	-	builds den in wooded areas with loose-sandy soil and good drainage	1 29
Eastern mole	<i>Scalopus aquaticus</i>	=	tunnels underground	1 29
meadow-jumping mouse	<i>Zapus hudsonicus</i>	=	found around water in pine barrens; prefers open areas with grasses	1 29
white-footed mouse	<i>Peromyscus leucopus</i>	=	common to most all habitats; does not adapt well to human activity	1 29
Virginia opossum	<i>Didelphis virginiana</i>	=	common in suburban areas, woods, marsh and coastal areas	1 29
raccoon	<i>Procyon lotor</i>	+	nocturnal; very adaptive; found in urban and forest areas	1 29
masked shrew	<i>Sorex cinereus</i>	=	tunnels underground; common in wood and wet habitats	1 29
short-tailed shrew	<i>Blarina brevicauda</i>	=	tunnels underground; abundant in a variety of habitats	1 29
striped skunk	<i>Mephitis mephitis</i>	=	prefers mixed wood & brush within 2 miles of water; not expected on LI	1 29
Eastern gray squirrel	<i>Sciurus carolinensis</i>	=	found in parks, urban and suburban areas; very adaptable	1 29
meadow vole	<i>Microtus pennsylvanicus</i>	=	tunnels underground; prefers open woodland	29 45
pine vole	<i>Microtus pinetorum</i>	=	tunnels underground; prefers sandy soil in woods and field; can swim	1 29

Common Name	Scientific Name	Adapt.	Comments	References
long-tailed weasel	<i>Mustela frenata</i>	-	prefers dense wood, but may appear in all land habitats near water	1 29
woodchuck	<i>Marmota monax</i>	-	appears primarily in scrub woods and brushy areas; not common on LI	1 29
Herptiles				
Eastern garter snake	<i>Thamnophis sirtalis</i>	=	occupies a variety of habitats	38 40
eastern hognose snake	<i>Heterodon platyrhinos</i>	=	sandy soil and sunny roadside; feeds on herptiles and insects	38
eastern milk snake	<i>Lampropeltis d. triangulum</i>	=	occupies a variety of habitats	38 39

Dry Oak Forest Species - Adaptability and Comments

Common Name	Scientific Name	Adapt.	Comments	References
Birds				
Acadian flycatcher	<i>Empidonax virescens</i>	-	prefers cool, damp, mature hardwood forests	4 15
American crow	<i>Corvus brachyrhynchos</i>	=	extremely adaptable; omnivorous	4 11
American robin	<i>Turdus migratorius</i>	=	very adaptable; abundant in parks; nests in man-made structures	4 7
black capped chickadee	<i>Parus atricapillus</i>	=	abundant around parks, urban and suburban areas	4 11
black-and-white warbler	<i>Mniotilta varia</i>	-	builds nests under shrubs and/or trees	4 18
black-throated blue warbler	<i>Dendroica caerulescens</i>	=	migratory, large range; forest interior specie; can adapt to suburb	18
blue jay	<i>Cyanocitta cristata</i>	=	extremely adaptable to human activity and other stresses	4 10
blue-winged warbler	<i>Vermivora pinus</i>	-	primarily abandoned and overgrown field, and thickets	4 14
broad-winged hawk	<i>Buteo platypterus</i>	-	avoids humans; nests only in dense forests; prefers to be near water	4 16
brown creeper	<i>Certhia familiaris</i>	-	prefers predominantly deciduous wooded areas	4 9
brown thrasher	<i>Toxostoma rufum</i>	=	common in parks, suburban areas, wooded edges, dry open areas	4 9
brown-headed cowbird	<i>Molothrus ater</i>	=	lays eggs in other bird's nests; some stay during winter	4 6
cedar waxwing	<i>Bombycilla cedrorum</i>	+	prefers open woodlands, orchards and residential areas	4 23 32
common flicker	<i>Colaptes auratus</i>	=	abundant around parks, suburban and urban areas	4 14
common grackle	<i>Quiscalus quiscula</i>	=	adapts well to urban and suburban habitats	4 6
common screech owl	<i>Otus asio</i>	=	nocturnal; nests in hollow trees, abandoned buildings, nest boxes	4 17
Cooper's hawk	<i>Accipiter cooperii</i>	-	needs extensive woodland	4 17
downy woodpecker	<i>Picoides pubescens</i>	=	found in parks and suburban areas	4 14
Eastern kingbird	<i>Tyrannus tyrannus</i>	=	very adaptable to human activities; prefers open areas	4 15
Eastern wood-peewee	<i>Contopus virens</i>	=	prefers suburban areas, parks and villages with shade trees	4 15
European starling	<i>Sturnus vulgaris</i>	+	extremely adaptable to human activity; considered a pest	4 23
fox sparrow	<i>Passerella iliaca</i>	-	boreal species, winters here in edge, thickets, brushy areas	20 21
golden-crowned kinglet	<i>Regulus satrapa</i>	-	prefers spruce vegetation; no atlas sightings on Long Island	4 7
gray catbird	<i>Dumetella carolinensis</i>	=	abundant around parks, urban and suburban areas	4 9
great-crested flycatcher	<i>Myiarchus crinitus</i>	-	prefers deciduous forests and deciduous open woodland	4 15
great-horned owl	<i>Bubo virginianus</i>	-	nocturnal; rare in wooded areas of less than 20 acres	4 17
hairy woodpecker	<i>Picoides villosus</i>	=	found mainly in deciduous forests	4 14
hermit thrush	<i>Catharus guttatus</i>	=	not common on Long Island; when present, prefers pine barrens	4 7
house finch	<i>Carpodacus mexicanus</i>	+	nests almost entirely on buildings; considered a pest species	4 20
house sparrow	<i>Passer domesticus</i>	+	prefers buildings, urban, suburban, gardens; considered a pest	4 20
house wren	<i>Troglodytes aedon</i>	=	found in suburban areas and gardens; nests in crevices of buildings	4 9
long-eared owl	<i>Asio otus</i>	-	nocturnal; prefers dense forested areas near water	4 17
Northern (dark-eyed) junco	<i>Junco hyemalis</i>	-	prefers forested area with elevation >300 meters; no LI atlas record	4 21
Northern mockingbird	<i>Mimus polyglottos</i>	+	prefers to nest near humans	4 9
northern oriole	<i>Icterus galbula</i>	=	prefers deciduous woodland and shade trees	4 6

Common Name	Scientific Name	Adapt.	Comments	References
ovenbird	Seiurus aurocapillus	-	prefers open forest floor and woodlot greater than 35 acres	4 19
purple martin	Progne subis	-	found in parks, suburbs, cities and open woods; nests in nest boxes	4 15
red-bellied woodpecker	Melanerpes carolinus	=	prefers forest openings; mostly found on Long Island north shore	4 14
red-eyed vireo	Vireo olivaceus	=	found in parks and suburban areas with shade trees and undergrowth	4 23
red-tailed hawk	Buteo jamaicensis	-	needs 100 foot radius undisturbed area for nest	4 16
ruby-crowned kinglet	Regulus calendula	-	occurs as non-breeding species; present during migration	4 7
ruffed grouse	Bonasa umbellus	-	prefers dense cover, thick woods; avoids humans	4 8
scarlet tanager	Piranga olivacea	-	rare in wooded area of less than 50 acres; affected by fragmentation	4
sharp-shinned hawk	Accipiter striatus	-	avoids humans; nests in heavily forested areas	4 16
song sparrow	Melospiza melodia	=	common to most habitats except deep forest, open field and marsh	4 22
tufted titmouse	Parus bicolor	=	common in suburban areas	4 11
veery	Catharus fuscescens	-	prefers damp forest with undergrowth; affected by fragmentation	4 7
whip-poor-will	Caprimulgus vociferous	-	nocturnal; prefers open woods with adjacent fields	4 12
white-breasted nuthatch	Sitta carolinensis	=	abundant in parks, urban and suburban areas	4 9
wood thrush	Hylocichla mustelina	=	prefers vacant wood (trees >40 feet); may adapt of wooded suburban	4 7
yellow throated vireo	Vireo flavifrons	-	sensitive to fragmentation and urbanization	4 23
yellow-bellied sapsucker	Sphyrapicus varius	=	nests in tree cavity; found in parks, yards and gardens	14
yellow-billed cuckoo	Coccyzus americanus	-	avoids heavy urban areas; prefers wooded open or edges for nests	4 12
Mammals				
big-brown bat	Eptesicus fuscus	+	roosts in structures; found throughout LI; hunts over water	1 29
hoary bat	Lasiurus borealis	=	roosts in trees, sometimes found in parks	45
Keen's bat	Myotis keenii	+	roosts in buildings, crevices and bark; more common on eastern LI	1 29
little-brown bat	Myotis lucifugus	+	roosts in buildings and man made structures; hunts over water	1 29
red bat	Lasiurus borealis	-	feeds in marsh area; nests within 1000 yards of marsh in trees	1 29
Eastern pipistrelle	Pipistrellus subflavus	=	found near water in open woods, also found in buildings	1 29
silver-haired bat	Lasionycteris noctivagans	-	prefers wooded areas near water, primarily during summer months	1 29
Eastern chipmunk	Tamias striatus	=	prefers open woods, thickets, and rocky areas	1 29
Eastern cottontail	Sylvilagus floridanus	=	will adapt to suburban areas, if there is sufficient cover	1 29
white-tailed deer	Odocoileus virginianus	-	requires range of one-half square mile	1 25 29
red fox	Vulpes vulpes	-	builds den in wooded areas with loose-sandy soil and good drainage	1 29
Eastern mole	Scalopus aquaticus	=	tunnels underground	1 29
house mouse	Mus musculus	+	lives in association with man, not expected away from buildings	1 29
meadow-jumping mouse	Zapus hudsonicus	=	found around water in pine barrens; prefers open areas with grasses	1 29
white-footed mouse	Peromyscus leucopus	=	common to most all habitats; does not adapt well to human activity	1 29
Virginia opossum	Didelphis virginiana	=	common in suburban areas, woods, marsh and coastal areas	1 29
racoon	Procyon lotor	+	nocturnal; very adaptive; found in urban and forest areas	1 29
masked shrew	Sorex cinereus	=	tunnels underground; common in wood and wet habitats	1 29
short-tailed shrew	Blarina brevicauda	=	tunnels underground; abundant in a variety of habitats	1 29

Common Name	Scientific Name	Adapt.	Comments	References
striped skunk	<i>Mephitis mephitis</i>	=	prefers mixed wood & brush within 2 miles of water; not expected on LI	1 29
Eastern gray squirrel	<i>Sciurus carolinensis</i>	=	found in parks, urban and suburban areas; very adaptable	1 29
southern-flying squirrel	<i>Glaucomys volans</i>	-	common in deep mixed, deciduous and coniferous woods	1 29
pine vole	<i>Microtus pinetorum</i>	=	tunnels underground; prefers sandy soil in woods and field; can swim	1 29
long-tailed weasel	<i>Mustela frenata</i>	-	prefers dense wood, but may appear in all land habitats near water	1 29
Herptiles				
spring peeper	<i>Hyla crucifer</i>	=	prefers pools/marsh near woodland; found high in trees in summer	33 35 38
red-backed salamander	<i>Plethodon cinereus cinereus</i>	-	terrestrial, prevalent in moist situations	34 36
marbled salamander	<i>Ambystoma opacum</i>	=	moist to sandy areas; lays eggs in fall in low spots wet by rain	34 36 38
Eastern garter snake	<i>Thamnophis sirtalis</i>	=	occupies a variety of habitats	38 40
eastern milk snake	<i>Lampropeltis d. triangulum</i>	=	occupies a variety of habitats	38 39
Eastern spadefoot toad	<i>Scaphiopus holbrooki</i>	-	nocturnal; burrows in sandy soil; eats insects, worms; gardens, etc.	33

Common Name	Scientific Name	Adapt.	Comments	References
Virginia opossum	<i>Didelphis virginiana</i>	=	common in suburban areas, woods, marsh and coastal areas	1 29
raccoon	<i>Procyon lotor</i>	+	nocturnal; very adaptive; found in urban and forest areas	1 29
Norway rat	<i>Rattus norvegicus</i>	+	nocturnal; usually associated with human activity	1 29
masked shrew	<i>Sorex cinereus</i>	=	tunnels underground; common in wood and wet habitats	1 29
short-tailed shrew	<i>Blarina brevicauda</i>	=	tunnels underground; abundant in a variety of habitats	1 29
Eastern gray squirrel	<i>Sciurus carolinensis</i>	=	found in parks, urban and suburban areas; very adaptable	1 29
southern-flying squirrel	<i>Glaucimys volans</i>	-	common in deep mixed, deciduous and coniferous woods	1 29
meadow vole	<i>Microtus pennsylvanicus</i>	=	tunnels underground; prefers open woodland	29 45
pine vole	<i>Microtus pinetorum</i>	=	tunnels underground; prefers sandy soil in woods and field; can swim	1 29
long-tailed weasel	<i>Mustela frenata</i>	-	prefers dense wood, but may appear in all land habitats near water	1 29
Herptiles				
bull frog	<i>Rana catesbeiana</i>	-	strictly aquatic, wooded lakes	33 34 35 37
common gray treefrog	<i>Hyla versicolor</i>	-	prefer mossy trees near ponds	33 37
green frog	<i>Rana clamitans</i>	-	mainly aquatic species	33 35 37
Southern leopard frog	<i>Rana pipiens sphenoccephala</i>	-	prefers shallow fresh to brackish pond; may be in meadow in summer	35 37 38
wood frog	<i>Rana sylvatica</i>	-	prefers leafy pools and transient pools in wooded areas	33 37
red-spotted newt	<i>Notophthalmus viridescens</i>	-	prefers shallow ponds in wooded areas; open moist woods	36 38
spring peeper	<i>Hyla crucifer</i>	=	prefers pools/marsh near woodland; found high in trees in summer	33 35 38
spotted salamander	<i>Ambystoma maculatum</i>	-	will breed in pond or vernal ponds in late March, early April	34 36 38
Eastern tiger salamander	<i>Ambystoma tigrinum tigrinum</i>	-	needs fishless pond or vernal pond with 500' vacant radius to breed	36 38
marbled salamander	<i>Ambystoma opacum</i>	=	moist to sandy areas; lays eggs in fall in low spots wet by rain	34 36 38
Eastern garter snake	<i>Thamnophis sirtalis</i>	=	occupies a variety of habitats	38 40
eastern milk snake	<i>Lampropeltis d. triangulum</i>	=	occupies a variety of habitats	38 39
Eastern ribbon snake	<i>Thamnophis s. sauritus</i>	=	semi-aquatic specie seldom wanders far from wet areas	38 40
Northern brown snake	<i>Storeria dekayi</i>	=	prefers fresh marsh, moist woods, but, adapts to urban environment	38
Northern ringneck snake	<i>Diadophis punctatus</i>	=	prefers secluded moist areas under logs/stones; can adapt to suburb	38
Northern water snake	<i>Natrix sipedon sipedon</i>	-	common in swamp, bog, marsh, stream, pond and lake environments	38 39
painted turtle	<i>Chrysemys picta</i>	-	prefers small bodies of water	38

Freshwater Pond Species : Adaptability and Comments

Common Name	Scientific Name	Adapt.	Comments	References
Birds				
red-winged blackbird	Agelaius phoeniceus	=	needs water	4 6
canvasback	Aythya valisineria	-	rarely winters in the area	4 27
American coot	Fulica americana	-	winters occasionally in area	4 26
American black duck	Anas rubripes	-	nests in thick vegetation within 1.2 meters of water	4 27
ring-necked duck	Aythya collaris	-	does not nest on Long Island	4 27
wood duck	Aix sponsa	-	prefers wooded rivers and ponds, and wooded swamps	4 27
great egret	Casmerodius albus	-	common in south shore bays; nests in tall vegetation	4 26
gadwall	Anas strepera	-	observed in south shore bays; may occupy pond and river areas	4 27
blue-grey gnatcatcher	Poliioptila caerulea	=	prefers dense foliated trees along water ways	4 7
Canada goose	Branta canadensis	=	prefers lakes, rivers, bays and marshes	4 28
horned grebe	Podiceps auritus	-	prefers southeast shores, oceans, and bays	32 42
pie-billed grebe	Podilymbus podiceps	-	prefers brackish water in Long Island area	32
great blue heron	Ardea herodias	-	occurs as non-breeding species; present during migration	4 26
green heron	Butorides striatus	-	may be found near lakes, streams, ponds and marshes	4 26
Eastern kingbird	Tyrannus tyrannus	=	very adaptable to human activities; prefers open areas	4 15
belted kingfisher	Megaceryle alcyon	-	nests in banks (rarely in trees), up to a mile from fishing area	4 12
mallard	Anas platyrhynchos	-	adaptable to human activity	4 27
hooded merganser	Lophodytes cucullatus	-	not expected on Long Island	4 27
common screech owl	Otus asio	=	nocturnal; nests in hollow trees, abandoned buildings, nest boxes	4 17
semipalmated plover	Charadrius semipalmatus	-	non-breeder on LI; may forage during summer, occasionally winter	31 32
least sandpiper	Calidris minutilla	-	may occasionally winter on Long Island	32
spotted sandpiper	Actitis macularia	-	nests on ground in grassy areas	4 31 32
greater scaup	Aythya marila	-	winters in bay areas	32 44
lesser scaup	Aythya affinis	-	prefers ponds, lakes, rivers and sometimes marshes	32 44
fox sparrow	Passerella iliaca	-	boreal species, winters here in edge, thickets, brushy areas	20 21
European starling	Sturnus vulgaris	+	extremely adaptable to human activity; considered a pest	4 23
barn swallow	Hirundo rustica	+	nests almost entirely on buildings	4 15
rough-winged swallow	Stelgidopteryx ruficollis	=	common to streams & rivers; nests in low banks, buildings, cavities	4 15
tree swallow	Tachycineta bicolor	=	always nests near water	4 15
mute swan	Cygnus olor	=	common in bays, very adaptable	4
green-winged teal	Anas crecca	-	nests in upland areas in proximity to water	4 27
American widgeon	Anas americana	-	rare on Long Island; some may be found during winter months	4 27
lesser yellowlegs	Triniga flavipes	-	does not nest on Long Island; considered a migratory shorebird	30 32
Mammals				
big-brown bat	Eptesicus fuscus	+	roosts in structures; found throughout LI; hunts over water	1 29

Common Name	Scientific Name	Adapt.	Comments	References
Keen's bat	Myotis keenii	+	roosts in buildings, crevices and bark; more common on eastern LI	1 29
little-brown bat	Myotis lucifugus	+	roosts in buildings and man made structures; hunts over water	1 29
red bat	Lasiurus borealis	-	feeds in marsh area; nests within 1000 yards of marsh in trees	1 29
Eastern pipistrelle	Pipistrellus subflavus	=	found near water in open woods, also found in buildings	1 29
silver-haired bat	Lasionycteris noctivagans	-	prefers wooded areas near water, primarily during summer months	1 29
white-tailed deer	Odocoileus virginianus	-	requires range of one-half square mile	1 25 29
red fox	Vulpes vulpes	-	builds den in wooded areas with loose-sandy soil and good drainage	1 29
mink	Mustela vison	-	prefers wetlands surrounded by forested areas	1
meadow-jumping mouse	Zapus hudsonicus	=	found around water in pine barrens; prefers open areas with grasses	1 29
white-footed mouse	Peromyscus leucopus	=	common to most all habitats; does not adapt well to human activity	1 29
muskrat	Ondarta zibethicus	-	prefers damp and marshy fresh and salt water habitats	1 29
Virginia opossum	Didelphis virginiana	=	common in suburban areas, woods, marsh and coastal areas	1 29
raccoon	Procyon lotor	+	nocturnal; very adaptive; found in urban and forest areas	1 29
Norway rat	Rattus norvegicus	+	nocturnal; usually associated with human activity	1 29
meadow vole	Microtus pennsylvanicus	=	tunnels underground; prefers open woodland	29 45
long-tailed weasel	Mustela frenata	-	prefers dense wood, but may appear in all land habitats near water	1 29
Herptiles				
bull frog	Rana catesbeiana	-	strictly aquatic, wooded lakes	33 34 35 37
common gray treefrog	Hyla versicolor	-	prefer mossy trees near ponds	33 37
green frog	Rana clamitans	-	mainly aquatic species	33 35 37
wood frog	Rana sylvatica	-	prefers leafy pools and transient pools in wooded areas	33 37
red-spotted newt	Notophthalmus viridescens	-	prefers shallow ponds in wooded areas; open moist woods	36 38
spring peeper	Hyla crucifer	=	prefers pools/marsh near woodland; found high in trees in summer	33 35 38
spotted salamander	Ambystoma maculatum	-	will breed in pond or vernal ponds in late March, early April	34 36 38
Eastern tiger salamander	Ambystoma tigrinum tigrinum	-	needs fishless pond or vernal pond with 500' vacant radius to breed	36 38
marbled salamander	Ambystoma opacum	=	moist to sandy areas; lays eggs in fall in low spots wet by rain	34 36 38
Eastern garter snake	Thamnophis sirtalis	=	occupies a variety of habitats	38 40
eastern milk snake	Lampropeltis d. triangulum	=	occupies a variety of habitats	38 39
Eastern ribbon snake	Thamnophis s. sauritus	=	semi-aquatic specie seldom wanders far from wet areas	38 40
Northern ringneck snake	Diadophis punctatus	=	prefers secluded moist areas under logs/stones; can adapt to suburb	38
Northern water snake	Natrix sipedon sipedon	-	common in swamp, bog, marsh, stream, pond and lake environments	38 39
stink pot	Sternotherus odoratue	-	not common on LI; prefers lake, pond and sluggish streams	38
Fowler's toad	Bufo woodhousei fowleri	-	found in suburban areas, gardens; breeds in shallow permanent ponds	33 37
Eastern box turtle	Terrepepe carolina	-	terrestrial based species	41
painted turtle	Chrysemys picta	-	prefers small bodies of water	38
snapping turtle	Chelydra serpentina	-	sometimes found on land near water	38 41
spotted turtle	Chlemys guttata	-	found in bogs and ponds; may be in brooks and pools	38 41

Beach Species : Adaptability and Comments

Common Name	Scientific Name	Adapt.	Comments	References
Birds				
fish crow	<i>Corvus ossifragus</i>	=	maritime species; prefers coniferous vegetation; less often inland	4 11
short-billed dowitcher	<i>Limnodromus griseus</i>	-	on-breeding species found in summer; some during winter months	32
gadwall	<i>Anas strepera</i>	-	observed in south shore bays; may occupy pond and river areas	4 27
Bonaparte's gull	<i>Larus philadelphia</i>	=	occurs as non-breeding species during winters	24
great-black-backed gull	<i>Larus marinus</i>	=	prefers to nest in impacted & dredge spoil areas; rare on north shore	4 24
herring gull	<i>Larus argentatus</i>	-	prefers to nest in impacted & dredge spoil areas; rare on north shore	4 24
ring-billed gull	<i>Larus delawarensis</i>	=	no breeding records for Long Island; generally not expected in locale	4 24
little-blue heron	<i>Egretta caerulea</i>	-	prefers protected areas without human activity (sanctuaries, islands)	4 26
yellow-crowned night-heron	<i>Nycticorax violaceus</i>	-	nesting in low coastal shrubbery; prefers islands	4 26
common loon	<i>Gavia immer</i>	-	prefers bay and ocean areas	31 32
red-throated loon	<i>Gavia stellata</i>	-	rarely winters on eastern LI; prefers oceans rather than bay area	32 42
red-breasted merganser	<i>Mergus serrator</i>	-	nesting in shrubs and/or under driftwood, close to water	4 27
merlin	<i>Falco columbarius</i>	-	migrates in fall through coastal areas	32 17
osprey	<i>Pandion haliaetus</i>	-	associated with seacoast, sometimes lakes and rivers	4 16
short-eared owl	<i>Asio flammeus</i>	-	coastal species; nests on sand beaches and beach grass, south shore	4 17
American oystercatcher	<i>Haematopus palliatus</i>	-	prefers salt marsh islands, dredge spoil islands, high sandbars	4 31
black-bellied plover	<i>Pluvialis squatarola</i>	-	non-breeder on LI; may forage during summer, occasionally winter	31 32
piping plover	<i>Charadrius melodus</i>	-	found in dry, bare sandy areas; nests in sand and beach grass	4 31 32
semipalmated plover	<i>Charadrius semipalmatus</i>	-	non-breeder on LI; may forage during summer, occasionally winter	31 32
sanderling	<i>Calidris alba</i>	-	more pronounced in ocean beach and sandbar areas	30 32
semipalmated sandpiper	<i>Calidris pusilla</i>	-	prefers south shore of Long Island	32
spotted sandpiper	<i>Actitis macularia</i>	-	nesting on ground in grassy areas	4 31 32
black skimmer	<i>Rynchops niger</i>	-	not expected on north shore, feeds in bays and inlets	4 24
Savannah sparrow	<i>Passerculus sandwichensis</i>	-	found in shore areas; not expected inland	4 21
seaside sparrow	<i>Ammodramus maritimus</i>	-	not expected on Long Island north shore	4 21
European starling	<i>Sturnus vulgaris</i>	+	extremely adaptable to human activity; considered a pest	4 23
common tern	<i>Sterna hirundo</i>	-	prefers to nest on islands, locally common on north shore	4 24
least tern	<i>Sterna antillarum</i>	-	prefers to nest on islands, locally common on north shore	4 24
roseate tern	<i>Sterna dougallii</i>	-	very fragile, not very adaptable, prefers isolated areas	4 24
ruddy turnstone	<i>Arenaria interpres</i>	-	more abundant during autumn months	31 32
willet	<i>Catoptrophorus semipalmatus</i>	-	common on Long Island south shore	4 31
ruddy turnstone	<i>Arenaria interpres</i>	-	more abundant during autumn months	31 32
Mammals				
Keen's bat	<i>Myotis keenii</i>	+	roosts in buildings, crevices and bark; more common on eastern LI	1 29
little-brown bat	<i>Myotis lucifugus</i>	+	roosts in buildings and man made structures; hunts over water	1 29

Common Name	Scientific Name	Adapt.	Comments	References
red bat	<i>Lasiurus borealis</i>	-	feeds in marsh area; nests within 1000 yards of marsh in trees	1 29
silver-haired bat	<i>Lasionycteris noctivagans</i>	-	prefers wooded areas near water, primarily during summer months	1 29
Eastern cottontail	<i>Sylvilagus floridanus</i>	=	will adapt to suburban areas, if there is sufficient cover	1 29
white-tailed deer	<i>Odocoileus virginianus</i>	-	requires range of one-half square mile	1 25 29
red fox	<i>Vulpes vulpes</i>	-	builds den in wooded areas with loose-sandy soil and good drainage	1 29
mink	<i>Mustela vison</i>	-	prefers wetlands surrounded by forested areas	1
Eastern mole	<i>Scalopus aquaticus</i>	=	tunnels underground	1 29
house mouse	<i>Mus musculus</i>	+	lives in association with man, not expected away from buildings	1 29
meadow-jumping mouse	<i>Zapus hudsonicus</i>	=	found around water in pine barrens; prefers open areas with grasses	1 29
white-footed mouse	<i>Peromyscus leucopus</i>	=	common to most all habitats; does not adapt well to human activity	1 29
Virginia opossum	<i>Didelphis virginiana</i>	=	common in suburban areas, woods, marsh and coastal areas	1 29
raccoon	<i>Procyon lotor</i>	+	nocturnal; very adaptive; found in urban and forest areas	1 29
Norway rat	<i>Rattus norvegicus</i>	+	nocturnal; usually associated with human activity	1 29
masked shrew	<i>Sorex cinereus</i>	=	tunnels underground; common in wood and wet habitats	1 29
Eastern gray squirrel	<i>Sciurus carolinensis</i>	=	found in parks, urban and suburban areas; very adaptable	1 29
pine vole	<i>Microtus pinetorum</i>	=	tunnels underground; prefers sandy soil in woods and field; can swim	1 29
long-tailed weasel	<i>Mustela frenata</i>	-	prefers dense wood, but may appear in all land habitats near water	1 29
Herptiles				
Fowler's toad	<i>Bufo woodhousei fowleri</i>	-	found in suburban areas, gardens; breeds in shallow permanent ponds	33 37

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