

or otherwise disturbed. The dominant trees are usually any two or more of the following: quaking aspen (*Populus tremuloides*), big-tooth aspen (*P. grandidentata*), balsam poplar (*P. balsamifera*), pin cherry (*Prunus pensylvanica*), black cherry (*P. serotina*), red maple (*Acer rubrum*), white pine (*Pinus strobus*), paper birch (*Betula papyrifera*), gray birch (*B. populifolia*), white ash (*Fraxinus americana*), green ash (*F. pensylvanica*), or American elm (*Ulmus americana*). This is a broadly defined community dominated by light-requiring, wind-dispersed species that are well-adapted to establishment following disturbance. Characteristic birds include chestnut-sided warbler (*Dendroica pensylvanica*), Nashville warbler (*Vermivora ruficapilla*) in young forests with aspen and birch seedlings, and yellow-bellied sapsucker (*Sphyrapicus varius*) in mature aspen forests.

A characteristic feature of successional forests is the lack of reproduction of the canopy species. Most of the tree seedlings and saplings in a successional forest are species that are more shade-tolerant than the canopy species. Shrublayer and groundlayer dominants may include many species characteristic of successional old fields, or they may include species that occurred on or near the site prior to disturbance.

Distribution: throughout upstate New York north of the Coastal Lowlands ecozone.

Rank: G5 S5

Source: Mellinger and McNaughton 1975.

21. Successional southern hardwoods: a hardwood or mixed forest that occurs on sites that have been cleared (for farming, logging, etc.) or otherwise disturbed. The dominant trees are usually any of the following: gray birch (*Betula populifolia*), hawthorns (*Crataegus* spp.), sassafras (*Sassafras albidum*), box elder (*Acer negundo*), American elm (*Ulmus americana*), slippery elm (*U. rubra*), red maple (*Acer rubrum*), silver maple (*A. saccharinum*), and eastern red cedar (*Juniperus virginiana*). Certain introduced species are commonly found in successional forests, including black locust (*Robinia pseudo-acacia*), tree-of-heaven (*Ailanthus altissima*), and buckthorn (*Rhamnus cathartica*). Any of these may be dominant or codominant in a successional southern hardwood forest. This is a broadly defined community dominated by light-requiring species that are well-adapted to establishment following disturbance. A characteristic bird is chestnut-sided warbler (*Dendroica pensylvanica*).

A characteristic feature of successional forests is the lack of reproduction of the canopy species. Most of the tree seedlings and saplings in a successional forest are species that are more shade-tolerant than the canopy species. Shrublayer and groundlayer dominants may include many species characteristic of successional old fields, or they may include species that occurred on or near the site prior to disturbance.

Distribution: primarily in the southern half of New York, south of the Adirondacks.

Rank: G5 S5

Sources: Eyre 1980; NHP field surveys.

22. Successional maritime forest: a successional hardwood forest that occurs in low areas near the seacoast. This forest is a variable type that develops after vegetation has burned or land cleared (such as pastureland or farm fields). The trees may be somewhat stunted and flat-topped because the canopies are pruned by salt spray. The forest may be dominated by a single species, or there may be two or three codominants. Characteristic canopy trees include black oak (*Quercus velutina*), post oak (*Quercus stellata*), shadbush (*Amelanchier canadensis*), white oak (*Quercus alba*), black cherry (*Prunus serotina*), black gum (*Nyssa sylvatica*), sassafras (*Sassafras albidum*), and red maple (*Acer rubrum*). A small number of eastern red cedar (*Juniperus virginiana*) may be present. Vines that are common in the understory and subcanopy include riverbank grape (*Vitis riparia*), poison ivy (*Toxicodendron radicans*), Virginia creeper (*Parthenocissus quinquefolia*), and greenbrier (*Smilax* spp.). Data on groundlayer composition and characteristic animals are not available.

Distribution: in the Coastal Lowlands ecozone, in low areas near the coast of Long Island.

Rank: G4 S3S4

Example: William Floyd Estate (Fire Island National Seashore), Suffolk County.

Sources: Clark 1986b; Greller 1977.

D. TERRESTRIAL CULTURAL

This subsystem includes communities that are either created and maintained by human activities, or are modified by human influence to such a degree that the physical conformation of the

TERRESTRIAL COMMUNITIES

substrate, or the biological composition of the resident community is substantially different from the character of the substrate or community as it existed prior to human influence.

1. Cropland/row crops: an agricultural field planted in row crops such as corn, potatoes, and soybeans. This community includes vegetable gardens in residential areas.

Distribution: throughout New York State.

Rank: G5 S5

2. Cropland/field crops: an agricultural field planted in field crops such as alfalfa, wheat, timothy, and oats. This community includes hayfields that are rotated to pasture. Characteristic birds include grasshopper sparrow (*Ammodramus savannarum*), vesper sparrow (*Pooecetes gramineus*), bobolink (*Dolichonyx oryzivorus*), mourning dove (*Zenaida macroura*), and upland sandpiper (*Bartramia longicauda*).

Distribution: throughout New York State.

Rank: G5 S5

3. Pastureland: agricultural land permanently maintained (or recently abandoned) as a pasture area for livestock. Characteristic birds include grasshopper sparrow (*Ammodramus savannarum*), vesper sparrow (*Pooecetes gramineus*), horned lark (*Eremophila alpestris*), killdeer (*Charadrius vociferus*), and upland sandpiper (*Bartramia longicauda*).

Distribution: throughout New York State.

Rank: G5 S5

4. Flower/herb garden: residential, commercial, or horticultural land cultivated for the production of ornamental herbs and shrubs. This community includes gardens cultivated for the production of culinary herbs. Characteristic birds include American robin (*Turdus migratorius*) and mourning dove (*Zenaida macroura*).

Distribution: throughout New York State.

Rank: G5 S5

5. Orchard: a stand of cultivated fruit trees (such as apples, cherries, peaches, pears, etc.), often with grasses as a groundcover. An orchard may be currently under cultivation or recently abandoned. Staghorn sumac (*Rhus typhina*), goldenrods (*Solidago* spp.), and poison ivy (*Toxicodendron radicans*) may be common in abandoned orchards. Characteristic birds include American robin (*Turdus migratorius*), eastern kingbird (*Tyrannus tyrannus*), mourning dove (*Zenaida macroura*), and in mature orchards with a minimum dbh of 10 in (about 25 cm), yellow-bellied sapsucker (*Sphyrapicus varius*).

Distribution: throughout New York State at low elevations.

Rank: G5 S5

6. Vineyard: a stand of cultivated vines (such as grapes, or raspberries), often with grasses as a groundcover.

Distribution: throughout New York State at low elevations.

Rank: G5 S5

7. Hardwood plantation: a stand of commercial hardwood species planted for the cultivation and harvest of timber products. These plantations are usually monocultures: more than 90% of the canopy cover consists of one species. Species typically planted in New York are: black cherry (*Prunus serotina*), red oak (*Quercus rubra*), white oak (*Q. alba*), black walnut (*Juglans nigra*), hybrid poplars (*Populus* spp.), and black locust (*Robinia pseudo-acacia*).

Distribution: throughout New York State.

Rank: G5 S3

8. Pine plantation: a stand of pines planted for the cultivation and harvest of timber products, or to provide wildlife habitat, soil erosion control, windbreaks, or landscaping. These plantations may be monocultures with more than 90% of the canopy cover consisting of one species, or they may be mixed stands with two or more codominant species (in which case more than 50% of the cover consists of one or more species of pine). Pines that are typically planted in New York include white pine (*Pinus strobus*), red pine (*P. resinosa*), Scotch pine (*P. sylvestris*), pitch pine

TERRESTRIAL COMMUNITIES

(*P. rigida*), and jack pine (*P. banksiana*). Groundlayer vegetation is usually sparse, apparently because of the dense accumulation of leaf litter. Speedwell (*Veronica officinalis*) is a characteristic groundlayer plant. More data on this community are needed.

Distribution: throughout New York State.

Rank: G5 S5

9. Spruce/fir plantation: a stand of softwoods planted for the cultivation and harvest of timber products, or to provide wildlife habitat, soil erosion control, windbreaks, or landscaping. These plantations may be monocultures with more than 90% of the canopy cover consisting of one species, or they may be mixed stands with two or more codominant species (in which case more than 50% of the cover consists of one or more species of spruce or fir). Softwoods that are typically planted in New York include Norway spruce (*Picea abies*), white spruce (*P. glauca*), balsam fir (*Abies balsamea*), and Douglas fir (*Pseudotsuga menziesii*). Groundlayer vegetation is usually sparse, apparently because of the dense accumulation of leaf litter. Speedwell (*Veronica officinalis*) is a characteristic groundlayer plant. A characteristic bird is golden-crowned kinglet (*Regulus satrapa*). More data on this community are needed.

Distribution: throughout New York State.

Rank: G5 S5

10. Conifer plantation: a stand of softwoods planted for the cultivation and harvest of timber products, or to provide wildlife habitat, soil erosion control, windbreaks, or landscaping. This is a broadly defined community that excludes stands in which pine, spruce, or fir are dominant, although they may be present at low densities. These plantations may be monocultures, or they may be mixed stands with two or more codominant species. Softwoods that are typically planted in these plantations include European larch (*Larix decidua*), Japanese larch (*Larix kaempferi*), and northern white cedar (*Thuja occidentalis*). Groundlayer vegetation is usually sparse, apparently because of the dense accumulation of leaf litter. Speedwell (*Veronica officinalis*) is a characteristic groundlayer plant. More data on this community are needed.

Distribution: throughout New York State.

Rank: G5 S5

11. Mowed lawn with trees: residential, recreational, or commercial land in which the groundcover is dominated by clipped grasses and forbs, and it is shaded by at least 30% cover of trees. Ornamental and/or native shrubs may be present, usually with less than 50% cover. The groundcover is maintained by mowing. Characteristic animals include gray squirrel (*Sciurus carolinensis*), American robin (*Turdus migratorius*), mourning dove (*Zenaida macroura*), and mockingbird (*Mimus polyglottos*).

Distribution: throughout New York State.

Rank: G5 S5

12. Mowed lawn: residential, recreational, or commercial land, or unpaved airport runways in which the groundcover is dominated by clipped grasses and there is less than 30% cover of trees. Ornamental and/or native shrubs may be present, usually with less than 50% cover. The groundcover is maintained by mowing. Characteristic birds include American robin (*Turdus migratorius*), upland sandpiper (*Bartramia longicauda*), and killdeer (*Charadrius vociferus*).

Distribution: throughout New York State.

Rank: G5 S5

13. Mowed roadside/pathway: a narrow strip of mowed vegetation along the side of a road, or a mowed pathway through taller vegetation (e.g. meadows, old fields, woodlands, forests), or along utility right-of-way corridors (e.g. power lines, telephone lines, gas pipelines). The vegetation in these mowed strips and paths may be dominated by grasses, sedges, and rushes; or it may be dominated by forbs, vines, and low shrubs that can tolerate infrequent mowing.

Distribution: throughout New York State.

Rank: G5 S5

14. Herbicide-sprayed roadside/pathway: a narrow strip of low-growing vegetation along the side of a road, or along utility right-of-way corridors (e.g. power lines, telephone lines, gas pipelines) that is maintained by spraying herbicides.

TERRESTRIAL COMMUNITIES

Distribution: throughout New York State.

Rank: G5 S5

15. Unpaved road/path: a sparsely vegetated road or pathway of gravel, bare soil, or bedrock outcrop. These roads or pathways are maintained by regular trampling or scraping of the land surface. The substrate consists of the soil or parent material at the site, which may be modified by the addition of local organic material (woodchips, logs, etc.) or sand and gravel. One characteristic plant is path rush (*Juncus tenuis*). A characteristic bird is killdeer (*Charadrius vociferus*).

Distribution: throughout New York State.

Rank: G5 S5

16. Paved road/path: a road or pathway that is paved with asphalt, concrete, brick, stone, etc. There may be sparse vegetation rooted in cracks in the paved surface.

Distribution: throughout New York State.

Rank: G5 S5

17. Roadcut cliff/slope: a sparsely vegetated cliff or steep slope, along a road, that was created by blasting or digging during road construction.

Distribution: throughout New York State.

Rank: G5 S5

18. Riprap/erosion control roadside: a sparsely vegetated slope along a road that is covered with coarse stones, cobbles, or gabions placed for erosion control.

Distribution: throughout New York State.

Rank: G5 S5

19. Rock quarry: an excavation in bedrock from which building stone (e.g. limestone, sandstone, slate) has been removed. Vegetation may be sparse; plants may be rooted in crevices in the rock surface.

Distribution: throughout upstate New York, north of the Coastal Lowlands ecozone.

Rank: G5 S5

20. Gravel mine: an excavation in a gravel deposit from which gravel has been removed. Often these are dug into glacial deposits such as eskers or kames. Vegetation may be sparse if the mine is active; there may be substantial vegetative cover if the mine has been inactive for several years. Near-vertical slopes are used by bank swallows (*Riparia riparia*) for nesting sites.

Distribution: throughout New York State.

Rank: G5 S5

21. Sand mine: an excavation in a sand deposit or sand dune from which sand has been removed. Vegetation is usually sparse. A characteristic bird is bank swallow (*Riparia riparia*).

Distribution: throughout New York State.

Rank: G5 S5

22. Brushy cleared land: land that has been clearcut or cleared by brush-hog. There may be a lot of woody debris such as branches and slashings from trees that were logged. Vegetation is patchy, with scattered herbs, shrubs, and tree saplings. The amount of vegetative cover probably depends on soil fertility and the length of time since the land was cleared.

Distribution: throughout New York State.

Rank: G5 S5

23. Artificial beach: a sand beach constructed on a lake or river shore by depositing sand from outside the site onto the natural substrate; a sandy beach neither created nor maintained by natural lake shore or river processes. These beaches often provide nesting habitat for turtles.

Distribution: throughout New York State.

Rank: G5 S5

24. Riprap/artificial lake shore: a lake shore or pond shore that is covered with coarse stones,

TERRESTRIAL COMMUNITIES

cobbles, concrete slabs, etc. placed for erosion control. The vegetation is usually sparse.

Distribution: throughout New York State.

Rank: G5 S5

25. Dredge spoil lake shore: a lake shore or pond shore that is composed of dredge spoils. The vegetation may be sparse.

Distribution: throughout New York State.

Rank: G5 S5

26. Construction/road maintenance spoils: a site where soil from construction work and/or road maintenance materials have been recently deposited. There is little, if any, vegetation.

Distribution: throughout New York State.

Rank: G5 S5

27. Dredge spoils: an upland site where dredge spoils have been recently deposited. On sandy dredge spoils along the Hudson River, characteristic species of early successional deposits include winged pigweed (*Cycloloma atriplicifolium*), lovegrass (*Eragrostis pectinacea*), purple sandgrass (*Triplasis purpurea*), tall crabgrass (*Digitaria sanguinalis*), and field sandbur (*Cenchrus longispinus*); cottonwood (*Populus deltoides*) is common on late successional deposits. Maritime dredge spoil islands along the seacoast of Long Island provide nesting habitat for herring gull (*Larus argentatus*), least tern (*Sterna antillarum*), and piping plover (*Charadrius melodius*).

Distribution: throughout New York State, especially near large rivers, lakes, or the ocean.

Rank: G5 S5

28. Mine spoils: a site where mine spoils have been deposited. These sites may be extensive. Mine spoils may include tailings, crushed rock, and overburden deposits.

Distribution: throughout upstate New York, north of the Coastal Lowlands ecozone.

Rank: G5 S5

29. Landfill/dump: a site that has been cleared or excavated, where garbage is disposed. The bulk of the material in the landfill or dump is organic and biodegradable; although some inorganic material (plastic, glass, metal, etc.) is usually present.

Distribution: throughout New York State.

Rank: G5 S5

30. Junkyard: a site that has been cleared for disposal or storage of primarily inorganic refuse, including discarded automobiles, large appliances, mechanical parts, etc.

Distribution: throughout New York State.

Rank: G5 S5

31. Urban vacant lot: an open site in a developed, urban area, that has been cleared either for construction or following the demolition of a building. Vegetation may be sparse, with large areas of exposed soil, and often with rubble or other debris. Characteristic trees are often naturalized exotic species such as Norway maple (*Acer platanoides*), white mulberry (*Morus alba*), and tree of heaven (*Ailanthus altissima*), a species native to northern China and introduced as an ornamental. Tree of heaven is fast growing and tolerant of the harsh urban environment; it can dominate a vacant lot and form dense stands.

Distribution: throughout New York State.

Rank: G5 S5

32. Urban structure exterior: the exterior surfaces of metal, wood, or concrete structures (such as commercial buildings, apartment buildings, houses, bridges) or any structural surface composed of inorganic materials (glass, plastics, etc.) in an urban or densely populated suburban area. These sites may be sparsely vegetated with lichens, mosses, and terrestrial algae; occasionally vascular plants may grow in cracks. Nooks and crannies may provide nesting habitat for birds and insects, and roosting sites for bats. Characteristic birds include common nighthawk (*Chordeiles minor*) on rooftops, American robin (*Turdus migratorius*) on porches or under shelter, and exotic birds such as rock dove (*Columba livia*) and house sparrow (*Passer domesticus*).

TERRESTRIAL COMMUNITIES

Distribution: throughout New York State.

Rank: G5 S5

33. Rural structure exterior: the exterior surfaces of metal, wood, or concrete structures (such as commercial buildings, barns, houses, bridges) or any structural surface composed of inorganic materials (glass, plastics, etc.) in a rural or sparsely populated suburban area. These sites may be sparsely vegetated with lichens, mosses, and terrestrial algae; occasionally vascular plants may grow in cracks. Nooks and crannies may provide nesting habitat for birds and insects, and roosting sites for bats. Characteristic birds include American robin (*Turdus migratorius*) on porches or under shelter, barn swallow (*Hirundo rustica*) under shelter, and exotic birds such as rock dove (*Columba livia*), house sparrow (*Passer domesticus*), and European starling (*Sturnus vulgaris*).

Distribution: throughout New York State.

Rank: G5 S5

34. Interior of barn/agricultural building: the interior spaces of a barn or other agricultural building which provides shelter for livestock or storage space for agricultural products (hay, straw, silage, etc.). Characteristic animals besides the livestock are small rodents, bats, cats, native and exotic birds such as barn swallow (*Hirundo rustica*) and rock dove (*Columba livia*).

Distribution: throughout New York State.

Rank: G5 S5

35. Interior of non-agricultural building: the interior spaces of a house, garage, commercial building, or industrial building that is used primarily by people for living space, work space, or storage space. A characteristic bird is chimney swift (*Chaetura pelagica*) which nests in chimneys and inner walls of buildings.

Distribution: throughout New York State.

Rank: G5 S5