adapted to regrowth after fires and grazing. Now that much of the Cape is suburban, wildfires and grazing are artifacts of the past, meaning that large tracts of sandplain grasslands may also soon disappear under trees or buildings.

8. Highbush Blueberry

Blueberries are as much a part of wild fruit gathering on the Cape as cranberries or beach plums. Though typically found in peaty bogs and red maple swamps, highbush blueberry (Vaccinium corymbosum; V. vitis-idaea) can grow wherever the soils are acidic and not too dry. In some bogs, highbush blueberry can grow to fifteen feet with a stem diameter of over six inches. Ring counts have indicated that this plant can live for a very long time, well over a century if left undisturbed. The highbush blueberry ripens in early July just after the lowbush variety. While there is no accounting for taste, many wild fruit gatherers swear that the highbush is more juicy but less sweet than the lowbush blueberry. There is no question however, that the highbush is easier on the back to pick!

10. Black Locust/Scotch Pine

A Naturalized Duo - Two common Cape trees which are not indigenous to this region are found in the Whelan Conservation Area woodlands: the black locust (Robinia pseudo-acacia) and Scotch pine (Pinus sylvestris). Both are naturalized, meaning they have been a part of the Cape’s landscape for so long that they no longer need human cultivation and proliferate generally in the sandy, nutrient poor Cape soils.

Scotch pine is native throughout Eurasia, from Scotland to Siberia, occupying a range larger than any pine species in the world. This adaptability to a wide range of habitats led foresters in the early years of this century to plant scotch pine in plantations as an erosion control agent and to quickly establish a cover crop in stripped land. Superficially resembling the native pitch pine, scotch pine has needles in bunches of two and a distinctive orange bark on the upper half of the trunk. Black locust was discovered by English settlers in 1607 near Jamestown, Virginia and was immediately extolled as a superior, rot-resistant wood for a variety of uses such as fence posts, timber supports and even ship planking nails. Indeed, black locust wood will not rot or succumb to termite infestation even in direct contact with the ground. Word of its admirable longevity came north with the pilgrim settlements in Plymouth and Barnstable Counties and soon black locust was cultivated widely throughout southern New England. Today, black locust is a common invader of dry, sandy soils throughout the Cape but is eventually shaded out by other hardwoods. Look for its beautiful wisteria-like racemes of white flowers in early June and the long flat seed pods later in the summer.

11. White Pine (Pinus strobus)

Natural Pioneer - The white pine was New England’s grandest timber tree, with some ancient specimens rising over two hundred feet in height and trunk diameters of ten feet or more. Though trees of this stature probably never grew on the impoverished soils of Cape Cod, William Bradlitt of his fellow Massachusetts land granted at the great grove-like forests, including white pines, at Provincetown when they landed in 1620. By the time of the American Revolution, the tall straight trunks of white pine were so valued by the English monopoly that any white pine greater than 24 inches in diameter was given the “King’s Broad Arrow”, a blaze burned on to the trunk which forbade any har- vesting, as a contribution to the defense of the country and masts for the King’s navy. This prohibition engen- dered more outrage than the tea tax, and many a rebel- lious six inch cut from the trunk of a great tree would cut down any unfortunate white pine which bore the King’s blaze. The first flag of the New England states was the three-stripe military colors displayed the emblem of this noble giant.

White pine, the only five needled species, is rela- tively common in Marstons Mills but diminishes in number and size as the soils become more sandy on the lower Cape. Many white pine seedlings cover the floor of the woods, waiting for their chance to take over if the canopy of red maple, pitch pine or black oak is removed.

15. Ground Juniper or Old Field Cedar

The sprawling cousin of red juniper is ground juniper (Juniperus communis variety depressa). Commonly used as an ornamental planting for shrub borders, true native ground juniper is rare on the Cape, occurring naturally only in the town of Barnstable (Svenson and Pyle, 1975). The ground juniper is a hardy, deciduous field juniper and with low, spreading growth form, provides habitat for a variety of ground-feeding birds and mammals. The blue berries are produced on modified cones which have a pungent flavor and the scent of gin. They’re a favorite of the shrub’s namesake, the cedar waxwing.

Text: Mario DiGregorio
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Barnstable Conservation Commission
(508) 790-6245

Barnstable Conservation Commission
Conservation Area
Grassland
Walking Trail

Barnstable

Grassland
Walking Trail

Barnstable
Conservation
Commission

Little Bluestem

Trailing Arbutus

Little Bluestem

Trailing Arbutus
The aromatic leaves of pignut hickory (Carya glabra), an uncommon pioneer conifer of Cape woodlands is the pitch pine (Pinus rigida). This serotinous three-needled pine is fire dependent and specially adapted to the harsh growing conditions of this wind-swept peninsula. Despite popular belief, the pitch pine grew on the sandy impoverished soils of Cape Cod long before white settlement. After two hundred years of land clearing, the thin “garment” of vegetation and forest duff which anchored the sandy soils was rent, resulting in migration of dunes and wind-blown sand into the very village streets of Cape Cod towns. By the time Thoreau traveled the Cape in 1849, the first attempt to halt erosion and sand migration had already started with the planting of large tracts of pitch pine in the towns of Barnstable, Yarmouth and Dennis. By 1884, a government report stated that over 10,000 acres of waste ground had been planted to pitch pine in three lower Cape towns. The success of these programs is evident in the large number of pitch pine barrens still extant today on Cape Cod.

4. **Pignut Hickory Grove**

The wiry-branched tree in the small grove before you is pignut hickory (Carya glabra), an uncommon Cape Cod tree more at home in the richer soils of the southern United States. The aromatic leaves of pignut hickory are compound, with five to seven leaflets arranged along the central axis. The fruit is a hard nutlet covered in a tough, hide-like husk which splits open along four seams or valves after dropping to the ground in late summer. The wood is tough and grough- and shock-resistant and was used during the early years of white settlement for axe handles, wagon wheels and textile looms. Hickory trees are also tenacious survivors in natural succession, being able to push through the dense shade of other trees and, once established, seem to form colonies or groves to the exclusion of other hardwoods. Though the nut meat is somewhat bitter, it is an important mast producer for wildlife including deer, wild turkey and grouse.

5. **TRAILING ARBUTUS-SPRING HARBRINGER**

Even before the spring ephemerals, the trailing arbutus or mayflower puts forth its fragrant pink or white flowers even as the last snows of winter melt away. Actually a creeping evergreen shrub, the mayflower was once over-collected for spring gar-lands and wild flower gardens; up to a few years ago it was sold from temporary stands along the Cape Cod Canal. Today with the Cape woodland more plentiful than at any time since the 1700’s, the mayflower is again a locally common but beautiful harbinger of the flowering season. It is the state flower of Massachusetts. (See flip side for illustration)
Sandplain Grassland Walking Trail

Station 1-15

1. A CHANGING LANDSCAPE

The Whelan Conservation Area supports an array of introduced or non-native plant species which are the calling cards of former human habitation. Among the most noticeable is the large, showy evergreen shrub switch-ivy (Leucothoe catesbaei), widely planted throughout the Whelan Conservation Area. Once extensively grown, this plant, like many of the typical Cape Cod tree more at home in the richer soils of the southern United States. The aromatic leaves of pignut hickory are compound, with five to seven leaflets arranged along the central axis. The fruit is hard nutlet covered in a tough, hide-like husk which splits open along four seams or valves after dropping to the ground in late summer. The wood is tough and shock-resistant and was used during the early years of white settlement for axe handles, wagon wheels and textile looms. Hickory trees are also tenacious survivors in natural succession, being able to push through the dense shade of other trees and, once established, seem to form colonies or groves to the exclusion of other hardwoods. Though the nut meat is somewhat bitter, it is an important mast producer for wildlife including deer, wild turkeys and grouse.

2. SPRING EPHEMERALS

Before the overhead leaves fully expand to block the sunlight, the springtime forest floor comes alive with a short-lived but sprightly community of herbaceous wildflowers. The most common of these include Maystar (Trientalis borealis) and Wild lily-of-the-valley or Canada mayflower (Maianthemum canadense). Along with wild sarsaparilla (Aralia nudicaulis), sessile bellwort (Uvularia sessilifolia) and pink moss-fern flower (Cypripedium acaule), these "spring ephemerals" bloom within a relatively short period from mid May to early June.

The "Anchor" of Cape Cod - The birch-bark-covered mound in the small grove before you is pignut hickory (Carya glabra), an uncommon pioneer conifer of Cape woodlands and the only native hardwood found on Cape Cod. The wiry-branched tree in the small grove before you is pignut hickory (Carya glabra), an uncommon pioneer conifer of Cape woodlands and the only native hardwood found on Cape Cod.

3. Pitch Pine

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6. LEUCOTHOE-SWITCH-IVY

The American Holly (Ilex opaca) is Cape Cod's only native broad-leaved evergreen tree. A native of the southern United States, American holly reaches the northern limit of its range just south of Boston. While the low growing American holly in Cape Cod, here in Marstons Mills holly becomes a subdominant understory species in moose woodlands, usually growing beneath the taller canopy branches of red maple, white and pitch pine. The remnants of the oldest holly forest on the Cape are found just west of here near Route 149. It was from this holly population that Winifred Wheeler, the Commonwealth's first commissioner of agriculture, procured scions for the planting of Ashumet Holly Audubon Sanctuary in Falmouth.

American holly has for centuries been associated with the Christmas holidays, with its brilliant scarlet berries and thorny evergreen leaves commonly used to adorn holiday wreaths and decorations. This festive association has led to over-collection and fragmented limbs, cut bark and access paths for boring insects and fungal blights. Please enjoy the Whelan Conservation Area hollies and refrain from collecting the distinctive leaves and berries.

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8. SANDPLAIN GRASSLANDS

Cape Cod Prairies - Sandplain grasslands were once much more extensive on Cape Cod when the backwaters of a high protective border involved land use such as agriculture and grazing. In the open areas of the region are herbs which developed in open white settlement areas of dune and sandplain bunched cash (Stipa scoparium), the very same grass which the pioneers in their Conestoga wagons ("the sod-busters") met with in Kansas, and which was the inspiration for expansion of the 1800's. On Cape Cod, little blue stem is the indicator species of a habitat which is fast being lost under the twin threats of development and forest succession.

Grasses, unlike most plants, can regenerate from their underground parts called "tillers". If a grass plant is mowed, burned or cropped, it regenerates from its base even though the leading shoot is gone. Bunch grasses such as the little blue stem are particularly...
Sandplain Grassland Walking Trail

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2. SPRING EPHEMERALS

The overhead leaves fully expand to block the sunlight, the springtime forest floor comes alive with a short-lived but sprightly community of herbaceous wildflowers. The most common of these include Maystar (Trientalis borealis) and Wild lily-of-the-valley or Canada mayflower (Maianthemum canadense). Along with wild sarsaparilla (Aralia nudicaulis), sessile bellwort (Uvularia sessilifolia) and pink moss-cupflower (Cypripedium acaule) these “spring ephemerals” bloom within a relatively short period from mid May to early June.

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The American Holly (Ilex opaca) is Cape Cod’s only broad leaved native evergreen. A common flood plain tree of the southern U.S., American holly reaches the northern limits of its range on Cape Cod. A native of the southern United States, this plant, like all members of the Heath family, enjoys acidic, well-drained soils in partial shade. The long brown, curling seed pods of switch-ivy flowers begin to form in winter, resembling in fragrance and form the lily-of-the-valley. Look for other introduced plants which are doing well, sometimes growing in clusters with the natives, but not true evidence of the human history of the property.

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Cape Cod Prairies - Sandplain grasslands were once much more extensive on Cape Cod when the homeland of the Abnaki who had used them as pasture land for their cattle. With the arrival of European settlers, these “spring ephemerals” bloom within a relatively short period from mid May to early June. The most important pioneer conifer of Cape woodlands is the pitch pine (Pinus rigida). This serotinous three-needled pine is fire dependent and specially adapted to the harsh growing conditions of this wind-swept peninsula. Despite popular belief, the pitch pine grew on the sandy impoverished soils of Cape Cod long before white settlement. After two hundred years of land clearing, the thin “garment” of vegetation and forest duff which anchored the sandy soils was rent, resulting in migration of dunes and wind-blown sand into the very village streets of Cape Cod towns. By the time Thoreau traveled the Cape in 1849, the first attempts to halt erosion on sand migration had already started with the planting of large tracts of pitch pine in the towns of Barnstable, Yarmouth and Dennis. By 1884, a government report stated that over 10,000 acres of waste ground had been planted to pitch pine in three lower Cape towns. The success of these programs is evident in the large number of pitch pine barrens still extant today on Cape Cod.

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adapted to regrowth after fires and grazing. Now that much of the Cape is suburban, wildfires and grazing are artifacts of the past, meaning that large tracts of sandplain grasslands may also soon disappear under trees or buildings.

Highbush Blueberry
Blueberries are as much a part of wild fruit gathering on the Cape as cranberries or beach plums. Though typically found in peaty bogs and red maple swamps, highbush blueberry (Vaccinium corymbosum; V. vitis-idaea) can grow wherever the soils are acidic and not too dry. In some bogs, highbush blueberry can grow to fifteen feet with a stem diameter of over six inches. Ring counts have indicated that this plant can live for a very long time, well over a century if left undisturbed. The highbush blueberry ripens in late July just after the lowbush variety. While there is no accounting for taste, many wild fruit gatherers swear that the highbush is more juicy but less sweet than the lowbush blueberry. There is no question however, that the highbush is easier on the back to pick!

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Scotch pine is native throughout Eurasia, from Scotland to Siberia, occupying a range larger than any pine species in the world. This adaptability to a wide range of habitats led foresters in the early years of this century to plant Scotch pine in plantations as an erosion control agent and to quickly establish a cover crop in stippled land. Superficially resembling the native pitch pine, Scotch pine has needles in bunches of two and a distinctive orange bark on the upper half of the trunk. Pitch pine is typically found near the coast on the Whelan Conservation Area, which lacks true wetlands, may be as a result of the somewhat “tight” sandy land to found in some parts of the mid-Cape. In autumn, its deep blood-red leaves are arrayed in horizontal ranks of branches growing straight out from the trunk.

Tuleo (Nyssa sylvatica locust - Named by the Cree Indians eto opewi meaning “tree swamp”, the tulpeo or black gum is a rugged appearing tree usually found ringing an old bog, river or salt marsh. Its place here on the Cape is likely due to the desire to grow the valuable red heart wood, saturated with aromatic oils, was once used in the manufacture of pencils and cedar chests.

The sprawling cousin of red cedar is ground juniper (Juniperus communis). Both are naturalized, meaning they have been a part of the Cape’s landscape for so long that they no longer need human cultivation and proliferate generally in the sandy, nutrient poor Cape soils.

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Tuleo wood is legendary for its hardness and was practically impossible to split even with the sharpest ax. It had some commercial use however, in the manufacture of industrial rollers, chopping blocks and factory equipment. Most of its wood is marketed if still known as “beetle wood”; the tough wood was made into wooden mallets known as “beetles” and stoppers called “bungs”, which were pounded into holes in casks of whale oil.

Human Altered vs. Natural Environment
After emerging from the woodland, two worlds meet; the managed world of cultivation and the native community in the sandplain grassland. Compare the manicured lawn with the native bunchgrass field. Which has greater diversity of species? Growing within an old orchard of crab apple and cherry, ornamental “escapes” such as myrtle and ground ivy cover the ground. The sandplain grassland as called an ecotone and provides edge habitat for many birds such as bluebirds, song sparrows and Carolina wrens. The open sandplain area provides habitat for other bird species such as meadowlarks, bobwhite quail and tree swallows.

Red Cedar
- Fragrant Pioneer - The slow but steady march of Eastern red cedar (Juniperus virginiana) into the sandplain here indicates that this field was probably used formerly as pasture land for grazing and not as a plowed cultivated farmland. All over the Cape, abandoned farmland succeeded to the graceful spikes of red cedar and in some old pastures a vestige of forest of red cedars crowds together. Apple growers do not look kindly upon any encroaching red cedar near their orchards, as it is the alternate host to the destructive cedar apple rust (Gymnosporangium juniperus) which can decimate apple fruit. Look for its strange, orange-tentacled fruited bodies after a spring rain.

As other trees such as black and scarlet oak, pitch and white pine become established, the red cedar is eventually shaded out. Many dead and dying red cedars can be seen along this trail just inside the edge of the invading woodland. Eastern red cedar is actually a pioneer species on the Cape. The red heart wood, saturated with aromatic oils, was once used in the manufacture of pencils and cedar chests.

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Natural succession is at work here at the Whelan Conservation Area. Notice the march of red and ground cedars, bayberry and pitch pines into the once open grassland. Were it not for the efforts of the town resource management professionals, these pioneers would soon out compete the bunch grasses for critical sunlight and the sandplain ecosystem would pass into history.

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Scotch pine is native throughout Eurasia, from Scotland to Siberia, occupying a range larger than any pine species in the world. This adaptability to a wide range of habitats led foresters in the early years of this century to plant Scotch pine in plantations as an erosion control agent and to quickly establish a cover crop in striped land. Superficially resembling the native pitch pine, Scotch pine has needles in bunches of two and a distinctive orange bark on the upper half of the trunk.

Black locust was discovered by English settlers in 1607 near Jamestown, Virginia and was immediately extolled as a superior, rot-resistant wood for a variety of uses such as fence posts, timber supports and even ship planking nails. Indeed, black locust wood will not rot or succumb to termite infestation even in direct contact with the ground. Word of its admirable longevity came north with the Pilgrim settlements in Plymouth and Barnstable Counties and soon black locust was cultivated widely throughout southern New England. Today, black locust is a common invader of dry, sandy soils throughout the Cape but is eventually shaded out by other hardwoods. Look for its beautiful wisteria-like racemes of white flowers in early June and the long flat seed pods later in the summer.

11. White Pine (Pinus strobus)

Natural Pioneer - Arene. The white pine was New England's grandest timber tree, with some ancient specimens rising over two hundred feet in height, trunk diameters of ten feet or more. Though trees of this stature probably never grew on the impoverished soils of Cape Cod, William Brantling said his fellow New Englanders at the great grove-like forests, including white pines, at Provincetown when they landed in 1620. By the time of the American Revolution, the tall straight trunks of white pine were so valued by the English monarchy that any white pine greater than 24 inches in diameter was given the "King's Broad Arrow", a blaze burned on to the trunk which forbade any harvesting of these trees for the King's navy. This prohibition engendered more outrage than the tea tax, and many a rebel lit six-inch-long pitchfork darts would cut down any unfortunate white pine which bore the King's blaze. The first flag of the New England revolutionary forces displayed the emblem of this noble giant.

White pine, the only five needle species, is relatively sweet than the lowbush blueberry. There is no question however, that the highbush is easier on the back to pick!

15. Ground Juniper or Old Field Cedar

The sprawling cousin of red cedar is ground juniper (Juniperus communis variety depressa). Commonly used as an ornamental planting for shrub borders, true native ground juniper is rare on the Cape, occurring naturally only in the town of Barnstable (Svenson and Pyle, 1973). Not a ground juniper in the true field juniper and with low, spreading growth form, provides habitat for a variety of ground-feeding birds and small mammals. The blue berries are a favorite of the shrub's namesake, the cedar waxwing. The "Beetle-bung" tree used as an ornamental planting for shrub borders, true native ground juniper is rare on the Cape, occurring naturally only in the town of Barnstable (Svenson and Pyle, 1973). Not a ground juniper in the true field juniper and with low, spreading growth form, provides habitat for a variety of ground-feeding birds and small mammals. The blue berries are a favorite of the shrub's namesake, the cedar waxwing.

Tupelo wood is legendary for its hardness and was practically impossible to split, even with the sharpest ax. It had some commercial use however, in the manufacture of industrial rollers, chopping blocks and factory the trunk and higher branches. Mother's Village it's still known as beetle bung; the tough wood was made into wooden mallets known as "beetles" and stoppers called "bungs", which were pounded into holes in casks of whale oil.

13. Human Altered vs. Natural Environment

After emerging from the woodland, two worlds meet; the managed world of cultivation and the native community in the sandplain grassland. Compare the manicured lawn with the native bunchgrass field. Which has greater diversity of species? Growing within an old orchard of crab apple and cherry, ornamental "escapes" such as myrtle and ground ivy cover the ground beneath the trees. This meeting of two communities is called an ecotone and provides edge habitat for many birds such as bluebirds, song sparrows and Carolina wrens. The open sandplain area provides habitat for other bird species such as meadowlarks, bobwhite quail and tree swallows.

14. Red Cedar

Fragrant Pioneer - The slow but steady march of Eastern red cedar (Juniperus virginiana) into the sandplain here indicates that this field was probably used formerly as pasture land for grazing and not as a plowed cultivated farmland. All over the Cape, abandoned farmland succeeded to the graceful spires of red cedar and in some old pastures a veritable forest of red cedars crowds together. Apple growers do not look kindly upon any encroaching red cedar near their orchards, as it is the alternate host to the destructive cedar apple rust (Gymnosporangium juniperus) which can decimate apple fruit. Look for its strange, orange-tentacled fruiting bodies after a spring rain. As other trees such as black and scarlet oak, pitch and white pine become established, the red cedar is eventually shaded out. Many dead and dying red cedars can be seen along this trail just inside the edge of the invading woodland. Eastern red cedar is actually a pest, killing the native cedars in its path. The red heart wood, saturated with aromatic oils, was once used in the manufacture of pencils and cedar chests.
adapted to regrowth after fires and grazing. Now that much of the Cape is suburban, wildfires and grazing are artifacts of the past, meaning that large tracts of sandplain grasslands may also soon disappear under trees or buildings.

9. HIGHBUSH BLUEBERRY
Blueberries are as much a part of wild fruit gathering on the Cape as cranberries or beach plums. Though typically found in peaty bogs and red maple swamps, highbush blueberry (Vaccinium corymbosum; V. atrococcum) can grow wherever the soils are acidic and not too dry. In some bogs, highbush blueberry can grow to fifteen feet with a stem diameter of over six inches. Ring counts have indicated that this plant can live for a very long time, well over a century if left undisturbed. The highbush blueberry ripens in early July just after the lowbush variety. While there is no accounting for taste, many wild fruit gatherers swear that the highbush is more juicy but less sweet than the lowbush. There is no question, however, that the highbush is easier on the back to pick!

10. BLACK LOCUST/SCOTCH PINE
A Naturalized Duo - Two common Cape trees which are not indigenous to this region are found in the Whelan Conservation Area woodlands: the black locust (Robinia pseudo-acacia) and Scotch pine (Pinus sylvestris). Both are naturalized, meaning they have been a part of the Cape’s landscape for so long that no longer need human cultivation and proliferate generally in the sandy, nutrient poor Cape soils.

Scotch pine is native throughout Eurasia, from Scotland to Siberia, occupying a range larger than any pine species in the world. This adaptability to a wide range of habitats led foresters in the early years of this century to plant Scotch pine in plantations as an erosion control agent and to quickly establish a cover crop in stripped land. Superficially resembling the native pitch pine, Scotch pine has needles in bunches of two and a distinctive orange bark on the upper half of the trunk. Black locust was discovered by English settlers in 1607 near Jamestown, Virginia and was immediately extolled as a superior, rot-resistant wood for a variety of uses such as fence posts, timber supports and even ship planking nails. Indeed, black locust wood will not rot or succumb to termite infestation even in direct contact with the ground. Word of its admirable longevity came north with the pilgrim settlements in Plymouth and Barnstable Counties and soon black locust was cultivated widely throughout southern New England. Today, black locust is a common invader of dry, sandy soils throughout the Cape but is eventually shaded out by other hardwoods. Look for its beautiful wisteria-like racemes of white flowers in early June and the long flat seed pods later in the summer.

11. WHITE PINE (Pinus strobus)
Natural Pine - Arene. The white pine was New England’s grandest timber tree, with some ancient specimens rising over two hundred feet in height and trunk diameters of ten feet or more. Though trees of this stature probably never grew on the wooded soils of Cape Cod, William Bradford and his fellow Pilgrim pine carvers stood amazed at the grove-like forests, including white pines, at Provincetown when they landed in 1620. By the turn of the American Revolution, the tall straight trunks of white pine were so valued by the English monarchy that any white pine greater than 24 inches in diameter was given the “King’s Broad Arrow”, a blaze burned on to the trunk which forbade any harvesting or cutting. The red pine (Pinus resinosa) grew wherever the soils and climate were suitable for the King’s navy. This prohibition engendered more outrage than the tea tax, and many a rebelloose six inches square. Ring counts have indicated that this plant can live for a very long time, well over a century if left undisturbed. The highbush blueberry ripens in early July just after the lowbush variety. While there is no accounting for taste, many wild fruit gatherers swear that the highbush is more juicy but less sweet than the lowbush. There is no question, however, that the highbush is easier on the back to pick!

12. TUPELO (Nyssa sylvatica)
- Named by the Cree Indians eko opehv meaning “tree swamp”, the tupelo or black gum is a rugged appearing tree usually found ringing an old bog, river or salt marsh. Its place here on the Whelan Conservation Area, which lacks true wetlands, may be as a result of the somewhat “tight” sandy land to found in some old fields. Tupelo wood is legendary for its hardness and was practically impossible to split even with the sharpest ax. It had some commercial use however, in the manufacture of industrial rollers, chopping blocks and factory trunks and higher branches. Most of Virginia’s famous tobacco was grown in wooden hods which were pounded into holes in casks of whale oil.

13. HUMAN ALTERED VS.
NATURAL ENVIRONMENT
After emerging from the woodland, two worlds meet: the managed world of cultivation and the native community in the sandplain grassland. Compare the manicured lawn with the native bunchgrass field. Which has greater diversity of species? Growing with an old orchard of crab apple and cherry, ornamental “escapes” such as myrtle and ground ivy cover the ground, providing edge habitat for many birds such as bluebirds, song sparrows and Carolina wrens. The open sandplain area provides habitat for other bird species such as meadowlarks, bobwhite quail and tree swallows.

14. RED CEDAR
Fragrant Pioneer - The slow but steady march of the American Revolution, the tall straight trunks of white pine were so valued by the English monarchy that any white pine greater than 24 inches in diameter was given the “King’s Broad Arrow”, a blaze burned on to the trunk which forbade any harvesting or cutting. The red pine (Pinus resinosa) grew wherever the soils and climate were suitable for the King’s navy. This prohibition engendered more outrage than the tea tax, and many a rebelloose six inches square. Ring counts have indicated that this plant can live for a very long time, well over a century if left undisturbed. The highbush blueberry ripens in early July just after the lowbush variety. While there is no accounting for taste, many wild fruit gatherers swear that the highbush is more juicy but less sweet than the lowbush. There is no question, however, that the highbush is easier on the back to pick!