

# **Fire Adapted Plants and Plant Communities on the Delmarva Peninsula**

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Salisbury, MD**

A photograph of a forest floor. The foreground is covered in a mix of green grass and brown, fallen leaves. In the middle ground, there are several thin, dark, leafless branches lying on the ground. The background is a dense forest of tall, thin trees with green foliage. The lighting is natural, suggesting a daytime setting.

**Ancient Inland Sand Dune  
or Sand Ridge**







Legend: Drainage Areas (km²)

(Denny and Owens 1979)







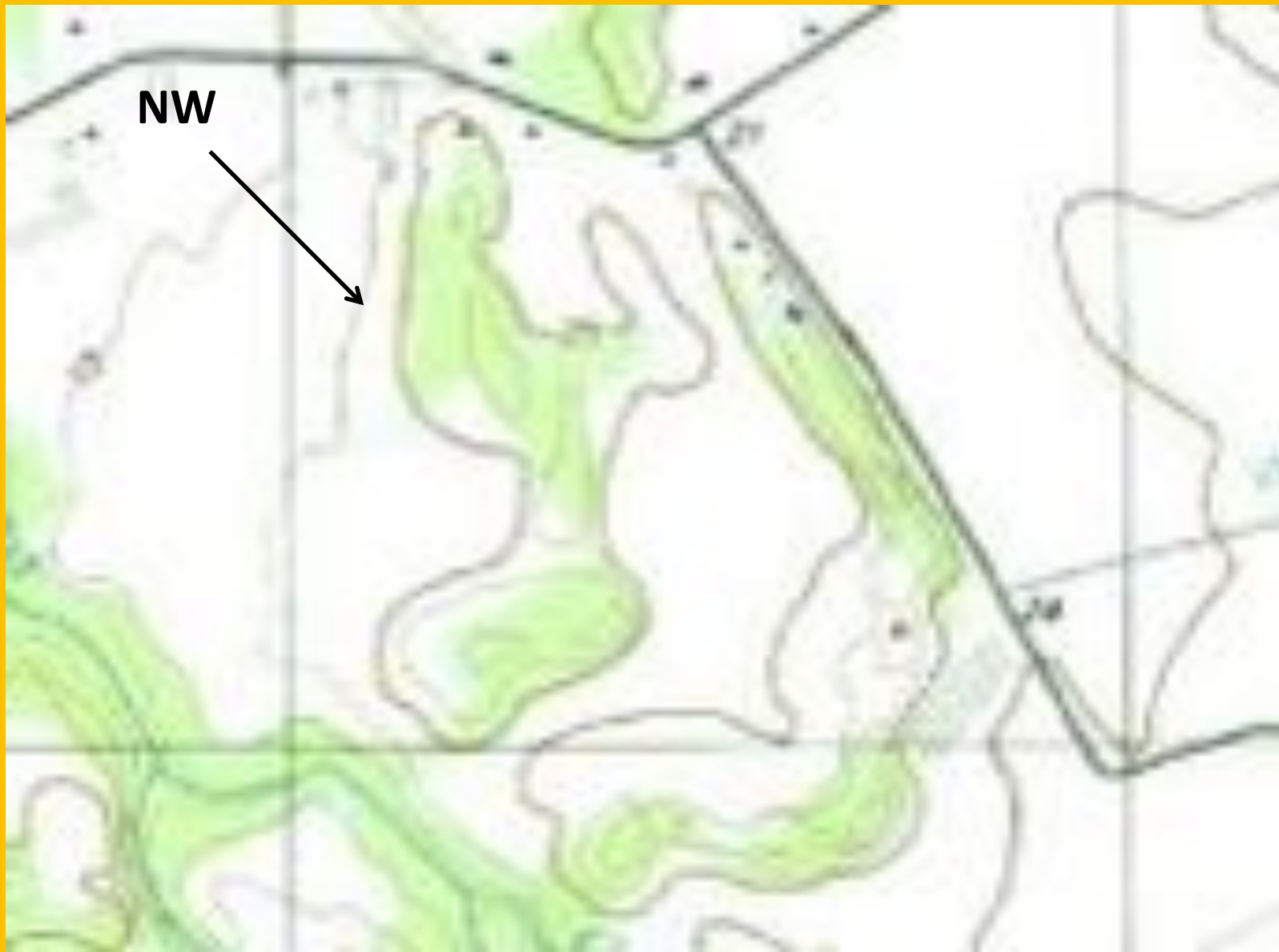
**Denny, C.S., and J.P. Owens. 1979.**

***Sand dunes on the Delmarva Peninsula, Maryland and Delaware.***  
**Geological Survey Professional Paper 1067-C, Washington, D.C.**

**Denny, C.S., J.P. Owens, L.A. Sirkin, and M. Rubin. 1979.**

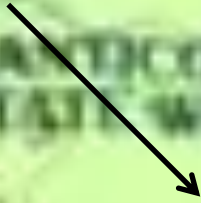
***The Parsonsburg Sand in the Central Delmarva Peninsula.***  
**Geological Survey Professional Paper 1067-B, Washington, D.C.**





NW

NANTICOKE  
STATE WILDLIFE AREA









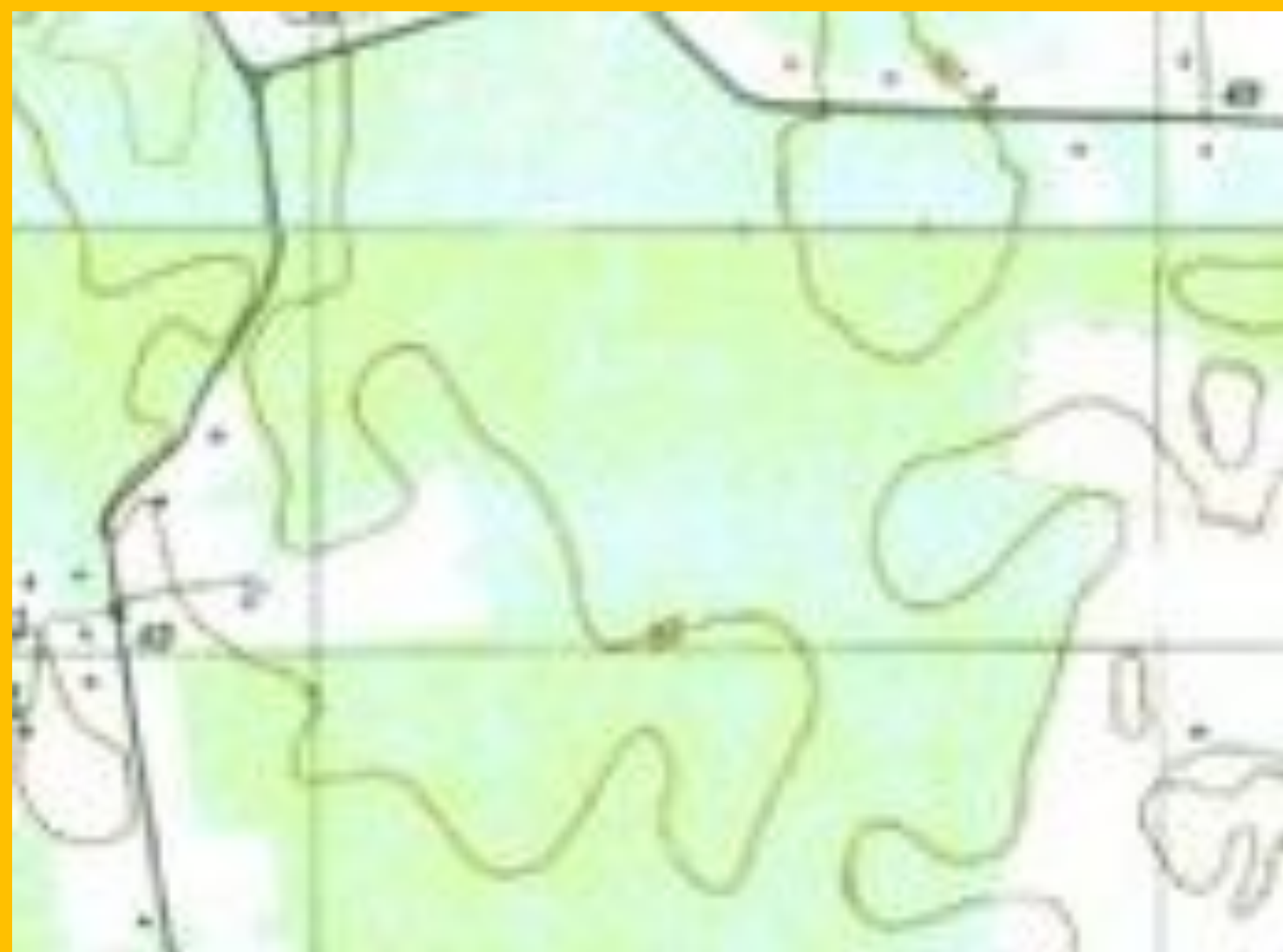




**31 March - 18, 275 YBP**































*Carya pallida*, sand hickory

*Quercus alba*, white oak





*Quercus falcata*, southern red oak



*Quercus montana*, chestnut oak





*Pinus echinata*, shortleaf pine







*Pinus taeda*, loblolly pine

*Pinus virginiana*, Virginia pine







*Quercus marilandica*, blackjack oak



*Quercus stellata*, post oak





*Diospyros virginiana*, persimmon



*Quercus nigra*, water oak



***Cornus florida*, flowering dogwood**





***Sassafras albidum*, sassafras**





*Ilex opaca*, American holly



***Gaylussacia baccata*, black huckleberry**



*Vaccinium stamineum*, sand blueberry





***Vaccinium pallidum*, lowbush blueberry**





*Crataegus uniflora*, dwarf hawthorn



*Toxicodendron pubescens*, poison oak





***Morella pensylvanica*, Northern bayberry**



*Comptonia peregrina*, sweet-fern





























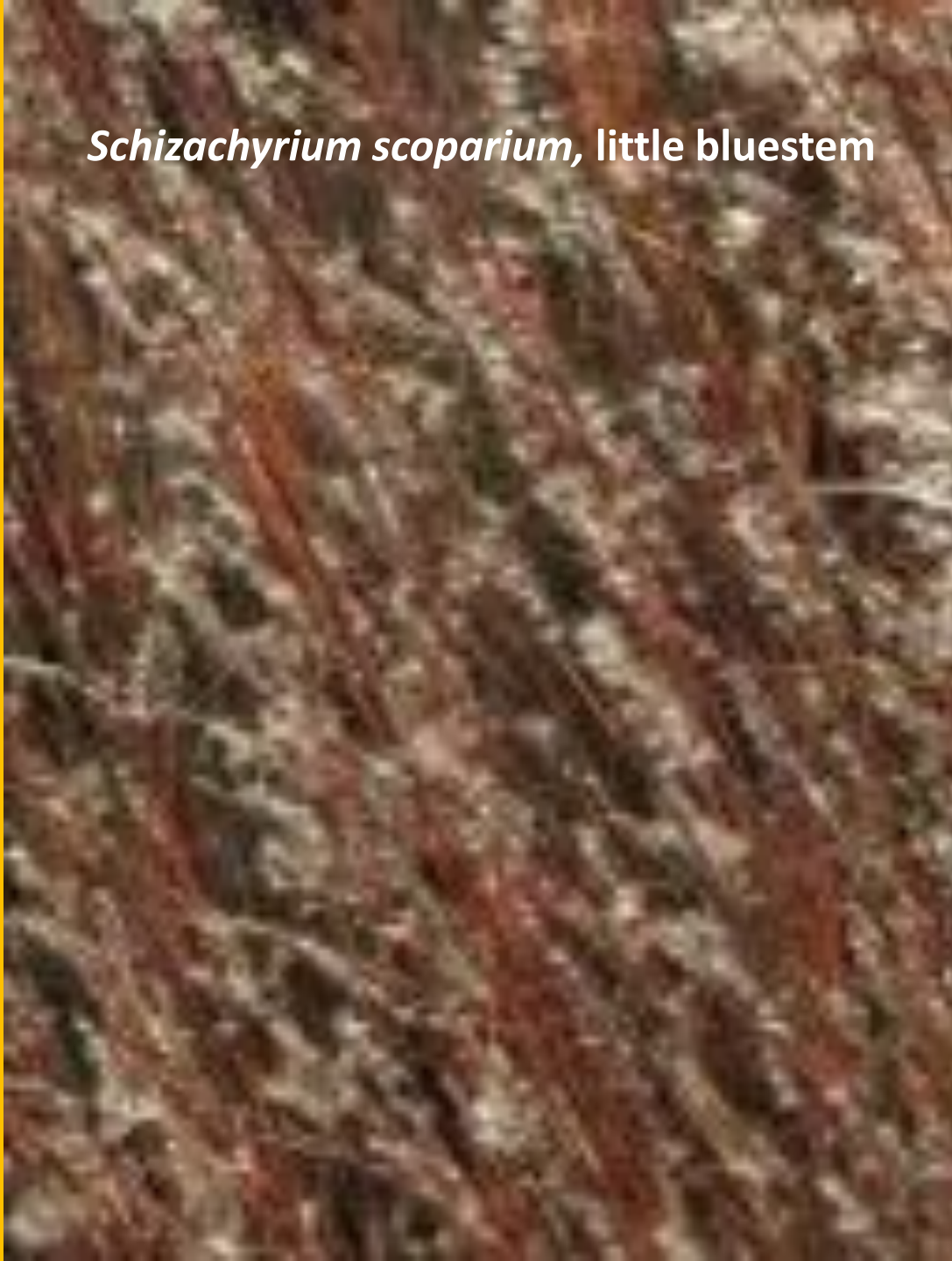




*Andropogon ternarius*, silver bluestem



*Schizachyrium scoparium*, little bluestem



***Aristida purpurascens*, purple three-awn grass**





*Eragrostis hirsuta*  
big-top lovegrass



*Avenella flexuosa*  
wavy hairgrass



*Dichanthelium depauperatum*  
starved witch grass





***Piptochaetium avenaceum*, blackseed needlegrass**



*Saccharum brevibarbe* var. *contortum*  
bent-awn plumegrass



*Aristida lanosa*  
woolly three-awn grass







***Carex nigromarginata*, black-edge sedge**

*Carex pensylvanica*, Pennsylvania sedge



**Cyperus lupulinus, slender flatsedge**





***Baptisia tinctoria*, yellow wild indigo**



*Tephrosia virginiana*, goat's-rue





*Lupinus perennis*  
wild lupine





Frosted Elfin



***Clitoria mariana*, Maryland butterfly-pea**



*Desmodium fernaldii*, Fernald's tick-trefoil





*Rhynchosia tomentosa*, hairy snoutbean





*Centrosema virginianum*, coastal butterfly-pea

*Asclepias amplexicaulis*  
clasping milkweed





*Asclepias tuberosa*  
butterfly weed



*Solidago odora*,  
sweet goldenrod



*Solidago bicolor*  
white goldenrod





*Pityopsis graminifolia* var. *latifolia*  
grassleaf golden aster



*Euphorbia ipecacuanhae*, variable-leaf spurge



*Galium pilosum*, hairy bedstraw





*Ipomoea pandurata*, big-root morning-glory



***Polygonella articulata*, Eastern jointweed**



***Monarda punctata*, horsemint beebalm**





*Crocanthemum canadense*, Canada frostweed



***Opuntia humifusa*, Eastern prickly-pear cactus**



***Commelina erecta*, sand dayflower**





*Silene caroliniana* var. *pennsylvanica*, Northern wild pink



*Silene caroliniana* var. *pennsylvanica*, Northern wild pink





*Dicranum condensatum*





*Dicranum scoparium*



*Leucobryum glaucum*



*Polytrichum ohioense*





*Cladina subtenuis*, dixie reindeer lichen



# **The Vascular Flora of Inland Sand Dunes on the Delmarva Peninsula**

**109 Total Taxa**

**32 Families**

**71 Genera**

**23 Poaceae**

**16 Fabaceae**

**9 Aster**

**8 Cyperaceae**

**6 Fagaceae**

# **The Vascular Flora of Inland Sand Dunes on the Delmarva Peninsula**

**23 grasses**

**8 sedges**

**45 herbs**

**16 peas**

**15 trees (4 pines, 6 oaks)**

**12 shrubs**

**2 woody vines**

**1 herbaceous vine**

**1 cactus**



# **The Vascular Flora of Inland Sand Dunes on the Delmarva Peninsula**

**23 Rare Plants**

**14 Maryland T&E**

**22 Delaware Rare**



















***Pinus echinata*, shortleaf pine**





*Quercus marilandica*  
blackjack oak



*Quercus falcata*, southern red oak



*Quercus stellata*, post oak





*Quercus nigra*, water oak





*Asclepias amplexicaulis*  
clasping milkweed



A photograph of a field of wild lupine plants. The plants are green with characteristic bipinnate leaves and tall, upright spikes of small purple flowers. The background is a blurred field of similar plants under bright, natural light. The image is framed by a yellow border.

*Lupinus perennis*, wild lupine







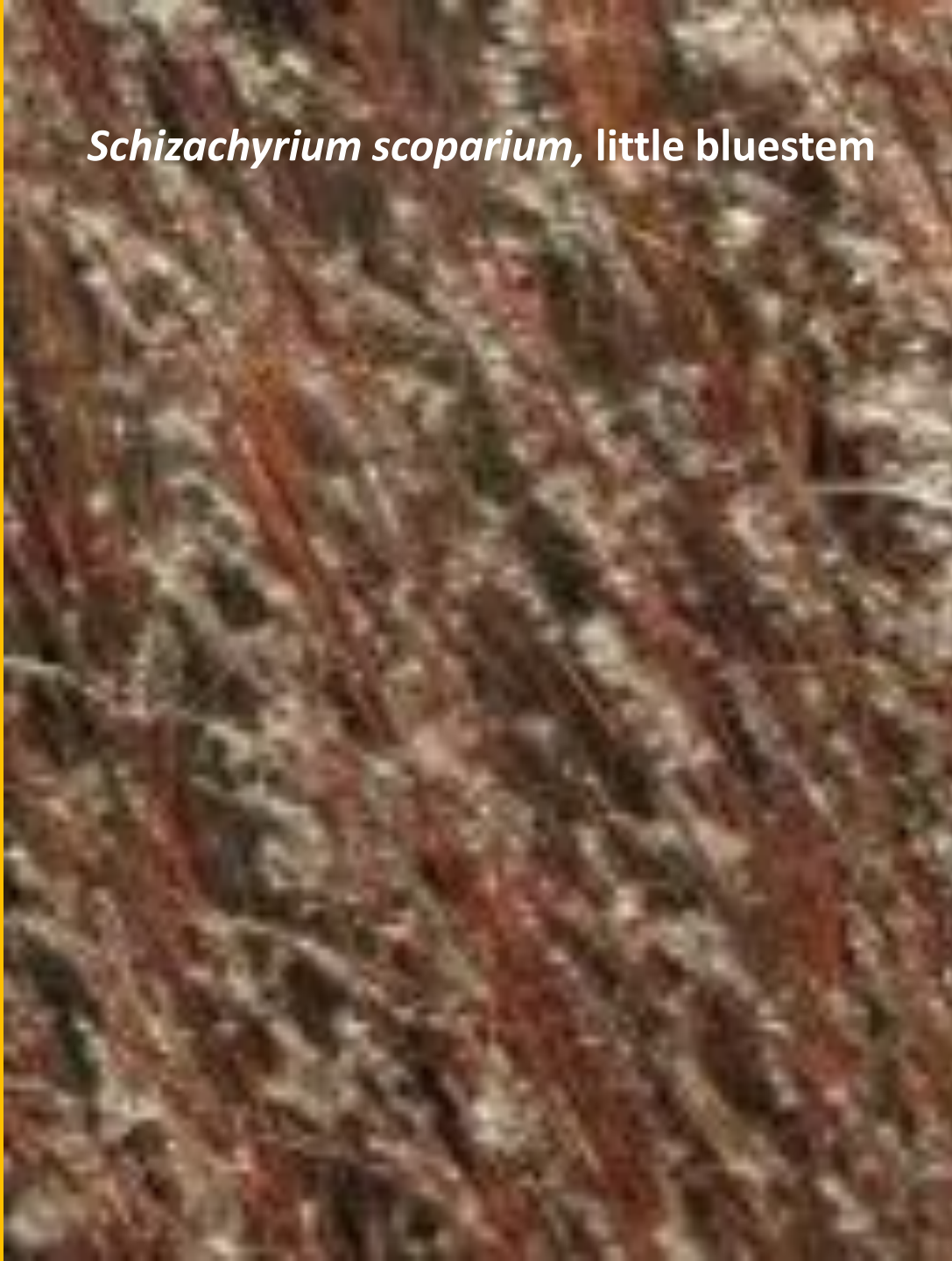
*Lupinus perennis*, wild lupine



*Andropogon ternarius*, silver bluestem



*Schizachyrium scoparium*, little bluestem







➤ **Community Characteristics**

**Dry environment**

**Light demanding species**

**Easily ignited fine fuels**

➤ **Species Distributions**

**Southern affinities**

➤ **Similarities to Fire-adapted Systems of the SE**

**Dune morphology and origin**

**Plant species composition**

## ➤ **Plant Life Histories**

**Re-sprouting of short-leaf pine and oak**

**Thick tree bark**

**Rhizomatous re-sprouting herbs**

**Protective meristems on perennial grasses**

**High % of germination occurs on bare sand**



