

Ecological Assessment  
"Surke Meadow"  
35 Division Road, Edgartown  
Part of Assessors Map 37, Lot 46

Prepared by Richard W. Johnson  
Vineyard Environmental  
10 Tori Lane, VH 02568  
vineyard.environment@gmail.com  
508 693-1893

### Introduction

The Surke Meadow is part of a proposed subdivision of a 17.28 acre parcel located at 35 Division Road in Edgartown, Assessors Map 37, Lot 46. The proposed subdivision includes five building lots and two open space lots. Open Space A is a 4.55 acre lot adjacent to Meeting House Way. Open Space B is the 5.58 acre Surke Meadow that is the subject of this report.

Surke Meadow is bordered on the southeast by Division Road, a private dirt road of variable width located within a 40" Roadway Easement, on the northeast and northwest by the five proposed building lots and to the southwest by Open space A (see attached plan entitled "Surke Meadow", overlay plan, Edgartown Mass., Prepared for ADEC Meeting House Way Real Estate, LLC, Scale 1" = 100', dated February 21, 2023 and revised may 15, 2023 and June 1, 2023, by Schoefield, Barbini and Hoehn.

For this assessment, I visited the property two times; on June 15, 2023 and June 19, 2023. During each site visit I compiled plant lists, listened and watched for birds, watched for mammals and checked for their sign (e.g. trails and scat) and assessed the habitat for reptiles and amphibians, as well as checking for the animals themselves.

### Property description

Soils are in the Carver series, which are "very deep, excessively drained, sandy soils formed in glacial outwash". They are classified as Carver loamy coarse sand (CeA) with slopes of 0 to 3%, which are found "in large broad areas of outwash plains mostly in the central and eastern parts of Martha's Vineyard". (*Soil Survey of Dukes County, MA*, USDA Soil Conservation Service, 1986). In short, the soils are classic sandplain soils.

Surke Meadow is between 20 to 30 feet above sea level, with the highest land in the southwestern portion and sloping downward to the southeast.

The vegetation is a mix of native sandplain grassland species and agricultural grasses, with some non-native invasives. There are a few black oak and white oaks, as well as a couple of red cedar growing in the meadow. The meadow is surrounded by oak woodland with an understory dominated by huckleberry. The woodland plants are growing into the meadow around the edges; however it appears that regular brushcutting of the meadow has minimized the size and number of woodland plants encroaching on the meadow.

## Findings

### *Plants*

Although I recorded all plants I found in the meadow, I did not try to do a complete botanical inventory or comprehensive plant list. I did find several species of native sandplain plants of interest, including more than 70 butterfly milkweed (*Asclepias tuberosa*), 30 or 40 racemed milkwort (*Polygala polygama*), extensive little bluestem grass (*Schizachyrium scoparium*), sandplain blue-eyed grass (*Sisyrinchium fuscatum*), hairy pinweed (*Leachea mucronata*), roundhead bushclover (*Lespedeza capitata*) and a small number of wild indigo (*Baptisia tinctoria*).

There were also large numbers of common native sandplain plants such as dewberry (*Rubus hispidus*), sweet-fern (*Comptonia peregrina*), sweet goldenrod (*Solidago odora*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*) and poison ivy (*Toxicodendron radicans*).

All the plants I saw in the meadow, including scientific names, are listed in Appendix A.

### *Birds*

I did not see or hear many birds, which is not too surprising since June tends to be a quiet time for birds. I did see kingbirds perched in the trees and on posts, occasionally sallying forth to snatch an insect. There was also a single tree swallow hunting insects over the meadow, brown headed cowbirds and chipping sparrows singing in the trees. A birdlist is included as Appendix B

### *Reptiles and amphibians*

I did not see any reptiles or amphibians during my site visits. However, there are several species that could potentially be found in the meadow, including three species of snakes: black racer, garter snake and red bellied snake. Black racers are rare on the Island but have been found in the Katama area. Garter snakes are very common might be found in the meadow or surrounding area. It is hard to assess the number of red bellied snakes since they are secretive burrowers that spend most of their time underground. However, we believe they are fairly common and could live in this type of habitat. (*This Broken Archipelago: Cape Cod and the Islands Amphibians and Reptiles*, James D. Lazell Jr., 1976).

### *Mammals*

I did not see any deer, rabbits, skunks or other mammals or their sign (e.g. pellets or trails) in the meadow. Meadow voles are almost certainly in the meadow but they are not easily observed.

### Summary and Recommendations

Despite the presence of significant amounts of agricultural grasses, from an ecological perspective the meadow appears to be in relatively good shape. The amount of Asiatic bittersweet, bush honeysuckle and Russian olive is fairly low relative to many other post-agricultural fields. As noted earlier there were significant numbers of relatively rare sandplain plants growing in the meadow. The presence of kingbirds, which fly from perches to snatch insects from the air or ground and the tree swallows, which catch insects on the wing, suggests that the plants in the meadow are supporting a variety of insects. I also saw several dragonflies hunting over the field, which also indicate the presence of significant numbers of insects.

There are a number of small trees and shrubs in the meadow, as well as growing in from around the edges, which have been kept small by regular brushcutting. Therefore, if the meadow is not brushcut on a regular basis it will return to woods surprisingly fast. I recommend that the meadow be brushcut annually in late October or November to keep the brushy and woody species under control. However, many of the non-native invasive plants are growing underneath the existing trees where a tractor mounted brushcutter can't reach them. It would be a good idea to cut these areas by hand or with a walk behind brushcutter to knock back the invasives and prevent them from spreading into the open meadow.

## APPENDIX A

### Plants found in the Surke Meadow

| <u>Common Name</u>    | <u>Scientific name</u>         | <u>Butterfly</u> |
|-----------------------|--------------------------------|------------------|
| milkweed              | <i>Asclepias tuberosa</i>      | Racemed          |
| milkwort              | <i>Polygala polygama</i>       |                  |
| Little bluestem grass | <i>Schizachyrium scoparium</i> |                  |
| Panic grass           | <i>Panicum virgatum</i>        |                  |
| Rockrose sp.          | <i>Helianthemum species</i>    |                  |
| Hairy pinweed         | <i>Leachea mucronata</i> ,     |                  |
| Roundhead bushclover  | <i>Lespedeza capitata</i>      |                  |
| Wild indigo           | <i>Baptisia tinctoria</i>      |                  |
| Sweet fern            | <i>Comptonia peregrina</i>     |                  |
| Dewberry              | <i>Rubus hispidus</i>          |                  |

Sweet goldenrod  
Hawkweed  
Virginia creeper  
Hay-scented fern  
Bracken fern  
Sumac  
Butter and eggs  
Oxeye daisy  
\*\*Velvet grass  
\*\*Redtop  
\*\*Orchard grass  
Yellow hop-clover  
Bayberry  
Poison ivy  
Scrub oak  
Black oak  
White oak  
Scrub oak  
Pitch pine  
Black or Wild cherry  
Red cedar  
Huckleberry  
Low bush blueberry  
Red fescue  
\*Oriental bittersweet  
\*Bush honeysuckle  
\*Japanese honeysuckle  
\*Russian olive

*Solidago odora*  
*Hieracium species*  
*Parthenocissus quinquefolia*  
*Dennstaedtia punctilobula*  
*Pteridium aquilinum*  
*Rhus copallinum*  
*Linaria vulgaris*  
*Chrysanthemum leucanthemum*  
*Holcus lanatus*  
*Agrostis gigantea*  
*Dactylis glomerata*  
*Trifolium aureum*  
*Myrica pensylvanica*  
*Toxicodendron radicans*  
*Quercus ilicifolia*  
*Quercus velutina*  
*Quercus alba*  
*Quercus ilicifolia*  
*Pinus rigida*  
*Prunus serotina*  
*Juniperus virginiana*  
*Gaylussacia baccata*  
*Vaccinium pallidum*  
*Festuca rubra*  
*Celastrus orbiculatus*  
*Lonicera morrowii*  
*Lonicera japonica*  
*Elaeagnus angustifolia*

**\* Indicates non-native invasive species**

**\*\* Indicates non-native agricultural grass**

Scientific names are as listed in *The Flora of Martha's Vineyard*, MV Sandplain Restoration Project, first edition, undated

## **APPENDIX B**

### **Birds Observed During Site Visits**

Kingbird

Tree swallow

chipping sparrow

Brown headed cowbird