

Upland Shrub-Forb

Definition

These are upland sites dominated by forbs and shrubs, with at least 50% shrub canopy cover and few if any trees. Forb- and shrub-dominated areas are often variable and inter-mixed across space due to variable disturbance intensities and across time because disturbance drives areas to forbs which then develop into shrubs.

Ecological Function

Many wildlife species require shrub and forb meadows for breeding and foraging. These species include American woodcock, brown thrasher, prairie warbler, field sparrow, eastern bluebird, eastern kingbird, orchard oriole, northern shrike, eastern towhee, and eastern cottontail. This element seeks to complement naturally occurring shrubland (such as alder swamps) and young forest. Together these three elements should provide sufficient quantities and types of forb and shrubland, distributed across the state to support the many of the wildlife species the rely on forb and shrub habitat.

Priority Target for an Ecologically Functional Landscape

Forb-shrub targets are stated as percentages of undeveloped land area in each Biophysical Region:

- Northern Green Mountains, Southern Green Mountains, and Southern Vermont Piedmont: 0.5%
- Northeast Highlands, Taconic Mountains, Vermont Valley, Champlain Highlands, and Northern Vermont Piedmont: 1%
- Champlain Valley: 2-3%

Highest Priority: Any forb- or shrubland dominated by noninvasive vegetation and near forest, wetland, open areas, or other non-developed habitats

Guidelines for Maintaining Ecological Function

Disturbance (mowing, grazing, burning, etc.) should occur outside the growing season (preferably April-early May or October-November) to minimize mortality to foraging and nesting birds, reptiles, and insects. Disturbance should be regular enough to prevent trees from gaining dominance. To allow successful breeding of many shrubland birds, patches should be at least 5 acres and should be blocky or circular in shape to maximize interior area. Forb and shrublands should be composed primarily of non-invasive vegetation.

Locations of shrub and forb patches should be carefully chosen to prevent impacts to other higher priority features. Small patches of shrub-forb (less than 5 acres) have the least impact to forest blocks, but in some situations larger patches can still be appropriately placed in large forest blocks. All shrub-forb areas should be in proximity with others to provide increased function for shrubland



birds. Patches of managed forb-shrubland that are smaller than the minimum size may provide habitat of a lower quality, but still have value, particularly for reptiles.

Restoration Needs

Efforts should focus on maintaining and improving existing areas. Establishment of new shrubland should take place outside of the highest-priority landscape-scale elements, and in locations that avoid conflicts with other habitat and natural community-scale targets.

Mapping Comments

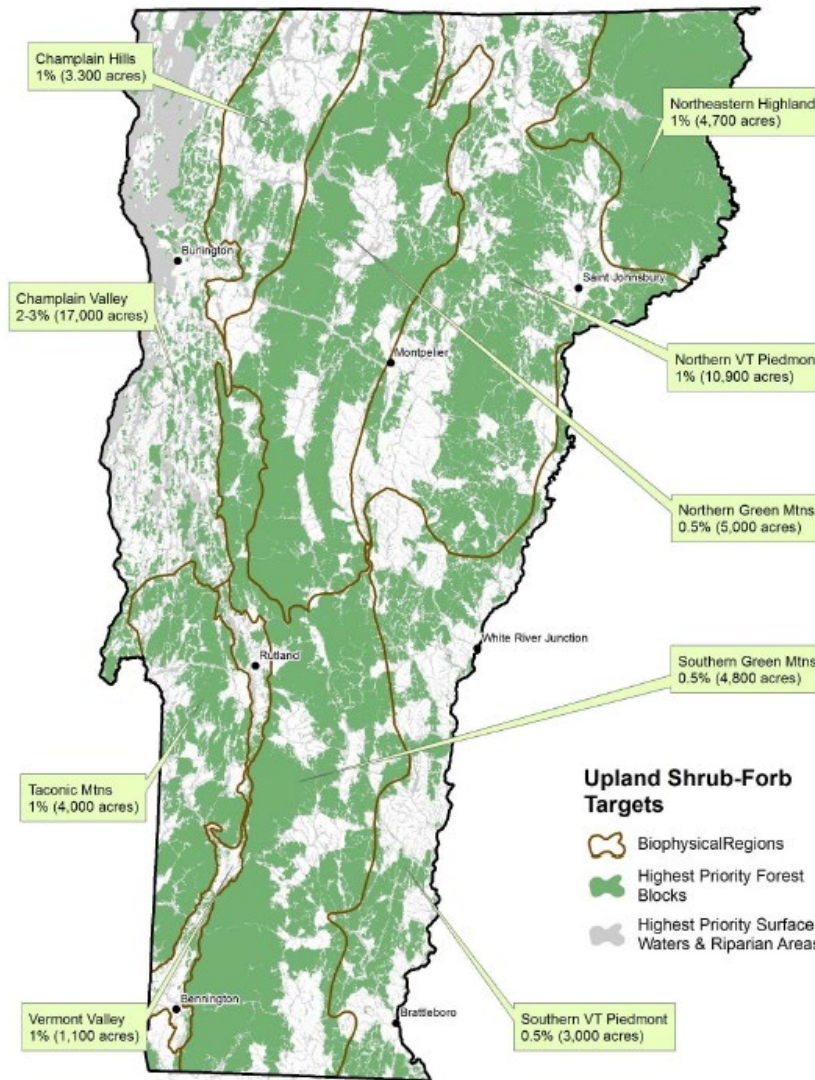
Spatial locations for upland shrub-forb targets are dynamic and expected to change as a result of land use and natural disturbance patterns over time. Upland shrub-forb targets are not mapped.

Methods and Rationale

The wildlife species that rely on shrublands are experiencing significant declines across the US and the northeast. Habitat loss is the primary threat to these species in Vermont. Maintaining and enhancing shrub- and forb-land of sufficient quality, size, and arrangement will enable populations of birds, plants, and other animals to persist in Vermont into the future.

Shrub-forb targets were selected to maintain the current levels (based on available data) of forb and shrubland in most of the state, while increasing the level in the Champlain Valley, the location of the greatest shrub-dependent bird diversity in the state. These targets complement those set for young forest and wetland shrub habitats. The variety of types is important both within and between these groups, as the range of species using these habitats prefer a variety of conditions.

Map 11: Upland Shrub-Forb Percentage Targets



Upland Shrub-Forb Targets as a percentage of undeveloped land in each biophysical region.



For more information

For more information specific to this component, contact Vermont Fish & Wildlife Department, Jens Hilke, at 802-461-6791, jens.hilke@vermont.gov and Bob Zaino, at 802-476-0128, Robert.Zaino@vermont.gov