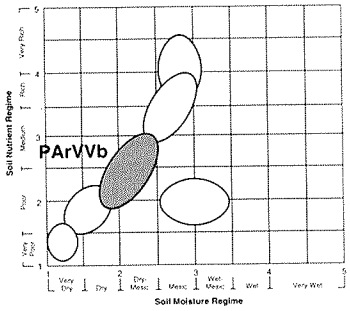
PArVVb

Pinus strobus-Acer rubrum/Vaccinium-Viburnum acerifolium
(White pine-Red maple/Blueberry-Maple-leaved viburnum)

Distribution:
Scattered throughout northern lower Michigan but most commonly observed in Otsego, Montmorency, Presque Isle, Crawford, Roscommon, Ogemaw, Oscoda, Kalkaska, Grand Traverse and Manistee counties. This area includes Subsections VII.1, VII.2, VII.3, VII.4, VII.5, and VII.6 (Albert 1995).



Similar habitat types: PArVHa,

Landform and soils:
Predominantly found on and loamy sand to sandy loam soils with moderate horizon development on level plains and gentle slopes associated with glacial outwash plains and coarse textured moraines. A typical soil series is Croswell loamy sand. Terrain is often marked by nearly continuous pit and mound topography. In Presque Isle county this type can also be found on beach ridges along Lake Huron. Gravelly and cemented subsurface layers are common often with evidence of seasonal high water table or periods of extended saturation. The common occurrence of clay lenses or clay banding results in higher nutrient and moisture levels than are found on the **PVCd** or **PArVHa** habitat types. **This type is classified as dry to dry-mesic /poor to medium nutrient**.

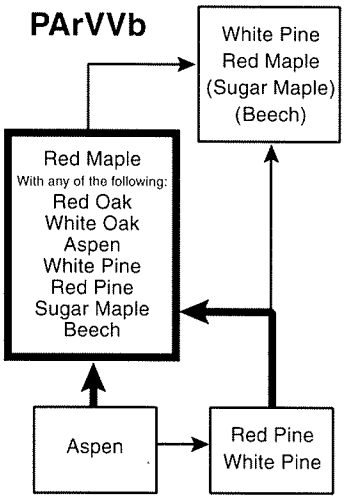
VEGETATION

Common forest cover types: Mixed stands of red oak, red maple, and big tooth aspen are most commonly found on this type. All of these species exhibited superior growth and form on stands sampled. White pine is a common associate and when present exhibits vigorous growth and superior form. Widely scattered, marginal quality stems of sugar maple and American beech can be encountered on this type.

Shrub and small tree layer: The shrub layer is moderately well developed and is represented by a number of species. The common presence of witch hazel, maple-leaved viburnum and American fly honeysuckle differentiates this type from the drier/poorer nutrient habitat types. This type is the most mesic/nutrient rich type where blueberry can still be regularly found. Red maple and white pine stems often dominate the sapling layer. American beech, sugar maple, red oak and ironwood saplings are only occasionally present with moderate coverage.

Ground flora characteristics: The diversity of species is higher than on any other habitat type of the region. The following species are useful in differentiating this type from the drier types of the region: hairy Solomon's seal, partridgeberry, wild sarsaparilla and fringed polygala. Presence of typical dry-mesic species such as bracken fern, wintergreen and starflower, distinguish this type from the more mesic/nutrient rich types. Bracken fern is the most common understory species and often dominates beneath canopy openings with waist-high growth.

DISTURBANCE AND SUCCESSION



A variety of forests types occurred on this habitat type at time of settlement including stands categorized as red pine/white pine, beech/sugar maple/hemlock, white pine/mixed hardwoods, and mixed pine/oak. Following initial logging and or grazing disturbance, oak and aspen formed the second growth forest with a mixture of red maple, white pine and to a lesser degree red pine. This type represents the position on the moisture/nutrient gradient that sugar maple and other components of the "northern hardwood" forest first appear. Based on understory composition and soil characteristics we conclude that sugar maple is not a likely dominant of climax forest on this type. Red maple is better adapted to these sites and is therefore presumed to represent the potential climax. White pine continues to have a presence most often in the seedling and sapling layers. The commonly visible cut and burned out stumps are evidence of white pine's one time dominant presence. White pine has been successful in establishing itself on sites where seed source exists and given its longevity will remain a permanent member of the climax association. The accompanying diagram depicts the common present cover types and most conspicuous directions of change in the absence of disturbance.

MANAGEMENT IMPLICATIONS

Regeneration: A large number of species were found to successfully regenerate on this type. Seedlings of red maple and white pine are most likely to be present. Red oak and white oak, in the larger size classes, are commonly stump sprout origin and although seedlings are often present in the understory, few are being recruited into the sapling layer.

American beech, white ash, black cherry, sugar maple, and ironwood are occasionally present but are often poor performers. Red pine seedlings generally are scarce.

Growth potential: Several of the less tolerant species attain near optimal growth on this type. High quality stems of red oak, white oak, big tooth aspen, and red pine are common. Mid-tolerant white pine most often has superior form. Red maple often exhibits vigorous growth and good form, but is most often found in the pole size class. Sugar maple and American beech are generally poor performers although large trees can be found.

Other management considerations: This type has the capability to support stands of high quality timber of a number of important species. This offers foresters the opportunity to consider a larger variety of management alternatives than are available on either the drier/poorer or more mesic/richer habitat types. The lack of severe competition from the most tolerant hardwood species is a major positive factor in this respect. Red maple is the most aggressive competitor on most sites and if not desired, will require special attention to prevent it from taking over a stand. The current composition and condition of stands will strongly influence management decisions.