Fire Island Photo Interpretation Key

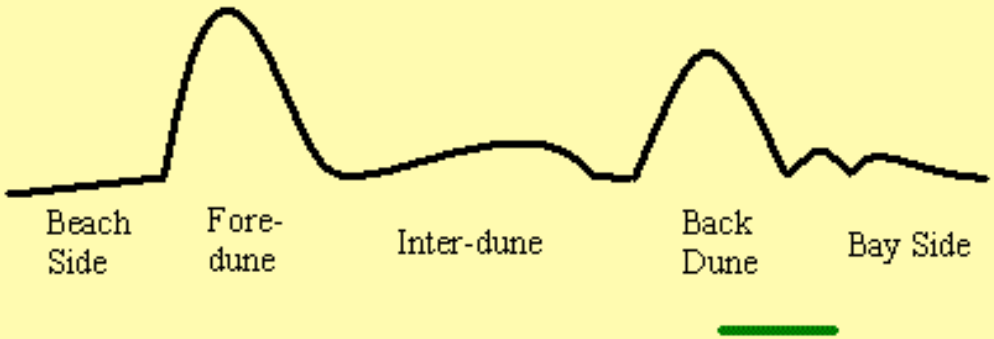
Class: Ilex opaca/Myrica pennsylvanica Forest
(Maritime Holly Forest)

TNC Alliance Code: I. A. 4. N. a. 300. 6376

CMI Code: 6376

Type Locator:
Restricted to the Sunken Forest on Fire Island
Site Map:

Cross-Section:



TNC Alliance Description: The maritime holly forest of Fire Island is dominated by *Ilex opaca* trees of up to 300 years in age. Average diameters of hollies is 24 cm DBH. Frequent associates in the tree canopy include *Amelanchier canadensi* and *Sassafras albidum*. Other associated trees include *Nyssa sylvatica*, *Prunus serotina*,and *Quercus velutina*. The shrub layer is poorly developed and most frequently includes saplings of species in the tree layer, usually *Ilex opaca*, *Nyssa sylvatica*, *Prunus serotina*, and *Amelanchier canadensis*. Although not frequent, *Myrica pensylvanica*, *Vaccinium corymbosum*, *Gaylussacia baccata* and *Ilex glabra* may be present. The herbaceous layer is also poorly developed and is characterized by *Carex pensylvanica*. Vines and lianas are typical of this association, most notably *Smilax rotundifolia*, *Parthenocissus quinquefolia*, and *Smilax glauca*.

Historical studies of this association at Fire Island has revealed a substantial change in the composition of the shrub and herb layers since 1967, when *Gaylussacia baccata* and *Vaccinium corymbosum* were regular associates of the shrub layer and *Aralia nudicaulis*, *Maianthemum canadense*, *Smilacina stellata*, *Pteridium aquilinum*, and *Trientalis borealis* were frequent associates of the herbaceous layer. These changes are attributable to heavy deer browse as a result of the increase in the deer population in recent decades (Art 1987, Art 1992).

Photo Interpretation: This type has one of the few truly green signatures on Fire Island. This type has a definite forest signature, with height apparent in stereoscopic view and large tree-like canopies. It occurs just behind the backdune. Can be distinguished from younger shrublands by visible tree canopies, tall vegetation and dominance of green color signifying the dominant evergreen holly.

Aerial Photo Samples:

Field Notes: An open forest with *Ilex opaca* as the clearly dominant tree. Canopy height usually 5-10m, with an open to moderate understory. Located on a very small portion of Fire Island in the "Sunken Forest".

Ground Photos:

Similar Alliances: Prunus serotina - Sassafras albidum - Amelanchier canadensis / Smilax rotundifolia Shrubland (Northern Deciduous Maritime Shrubland): *Ilex opaca* absent in this alliance.