



MARBLE KNOLL

Marble knoll is an uncommon habitat type that is restricted in Dutchess County to the Harlem Valley region. It occurs primarily where Stockbridge Marble bedrock forms low knolls or ridges, usually with extensive marble outcrops and sandy or gravelly soils, which help to create a warm and dry microclimate. Marble knolls were commonly used for pasture within the last few decades, and many now support red cedar woodlands with small meadow-like openings. Those with at least a partly open canopy can be important sites for **rare plant species**.



K. Bell 2006



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Maidenhair spleenwort and Allegheny-vine

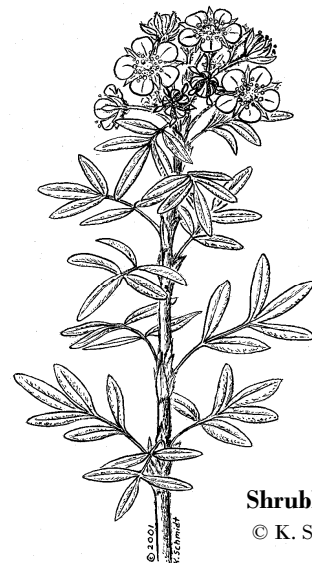
TYPICAL PLANTS

- Eastern red cedar
- Shrubby cinquefoil, American prickly-ash
- Native grasses such as little bluestem and Indian grass

SPECIES OF CONSERVATION CONCERN

- At least 19 rare plant species including side-oats grama, Bicknell's sedge, and Carolina whitlow-grass
- Nesting box turtle, spotted turtle, wood turtle, and eastern hognose snake
- Roosting northern saw-whet owl and other raptors

These are just a few of the species of regional or statewide conservation concern that are known to occur in marble knoll habitats. See Tabak et al. (2006) for a more extensive list.



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Shrubby cinquefoil

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THREATS TO MARBLE KNOLLS

Marble knolls may be desirable areas for mining, house construction, and other intensive uses. The calcareous sands on these hills are very susceptible to **erosion**. **Soil disturbance** by vehicles, foot traffic, or construction equipment, or **removal of vegetation, use of pesticides, or alteration of water runoff patterns** could do great harm to rare plant communities. On the other hand, the rare plants of marble knolls may benefit from **maintaining the meadow openings** that might otherwise be overgrown by red cedars or other trees and shrubs.



Smooth cliffbrake
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CONSERVATION RECOMMENDATIONS

- ❖ Protect marble knolls from disturbances such as the construction of communication towers, construction of buildings or roads, mining, and high intensity human recreation.
- ❖ Protect intact habitats around marble knolls to allow safe movement of mobile wildlife using habitat complexes.
- ❖ Maintain corridors between marble knolls. Protecting intact habitats in the intervening areas between marble knolls will allow for animal and plant movement and dispersal between knolls.
- ❖ Maintain open areas. Use light grazing, occasional mowing, or occasional manual removal of tall woody plants where necessary to maintain meadow habitats for the rare plants of marble knolls, and for nesting reptiles.
- ❖ Consult with the New York Natural Heritage Program about any activity proposed in the vicinity of a marble knoll habitat.

References

- Kiviat, E. 1988. Significant habitats of the Town of Dover, Dutchess County, New York. Report to the Town of Dover Planning Board. Hudsonia Ltd., Annandale, NY. 46 p.
- Tabak, N., K. Bell, and G. Stevens. 2006. Significant habitats in the Town of Amenia, Dutchess County, New York: Report to the Town of Amenia, the Millbrook Tribute Garden, the Dyson Foundation, and the Dutchess Land Conservancy. Hudsonia Ltd., Annandale, NY. 133 p.