

# Significant Features of the Heim Property

(written February 2020)

Located high atop the kettle moraine between Hayward and the L.C.O. Casino in Sawyer County, this 65-acre property possesses numerous attributes which give it significant conservation value. Beginning with the physical features, the kettle (or interlobate) moraine is one of only two in the state; the other being located just west of Milwaukee. Ours formed approximately 12,500 years ago when two tongues of the slowly retreating continental ice sheet, the Chippewa Lobe from the northeast and the Superior Lobe from the northwest, ground against one another depositing a rugged landscape of varied materials. Because of the dual source regions for geological material, areas of clay, sand, and rocky glacial till of diverse mineral composition can all be found in proximity to one another, providing soil microsites for different species of trees and other plant life. Additionally, the dramatically varying aspects and slopes create microsite conditions leading to high biodiversity. There is also regolith (broken up bedrock) of the Cambrian Mt. Simon Sandstone within the channel of one of the brooks, proving that bedrock is not far below.

Along the southern side of the property is the public boat landing for Spring Lake, while a county road parallels the lake following the eastern boundary of the property. These are the only stretches of road by Spring Lake without visible buildings; the public benefits from their forested scenic beauty. At the landing stands a sign describing the kettle moraine and its high biodiversity.

Spring Lake Creek flows thru the property. Spring Lake, which abuts the property, has a relatively small watershed, so the water level in the creek never varies by more than a couple of inches. It flows normally even during prolonged droughts and is open in the coldest winter weather. In the spring, numerous northern pike, walleye, and white suckers frequent the creek during their spawning runs. The creek is tributary to the Namekagon River, a National Wild and Scenic River managed by the National Park Service, and thus the property acts as a filter for water entering this river. Lacking the minimum flow for navigability allows the creek and its wildlife to be protected as private property. There are also three spring-fed rivulets, other springs, and an extensive seepage fen. Additional wetlands include two kettle ponds vital to amphibians, an alder swamp, black ash swamp, black spruce bog, and tamarack bogs. A rare perched open bog is situated on the slope above the creek valley.

Of historical interest are the remnants of a log bridge built in 1886 which spanned the creek. Near the county road is a spring which Ojibwe Indian people in years gone by utilized as a source of pure water. In Ojibwe tradition, the area around Spring Lake is the home of the “Little People” and many still hold this to be true. Not only is this land of historical interest, but it also possesses cultural and spiritual attributes that should be protected for all living beings.

Such a diversity of habitats naturally leads to a diversity of living things. All vertebrate animals and vascular plants (excepting sedges) found native to the property have been documented. Unfortunately, mushroom species have not been fully documented, as there are an overwhelming number of species present, some of which only appear sporadically. 168 species of birds have been observed on or from the property and range from a great gray owl to a little blue heron. Four-toed salamander (a Species of Special Concern), a mosquito species, and a rare lichen were documented for the first time in Sawyer County on this property. Animals of interest also include water shrews, freshwater bryozoans, lynx (two separate observations), and a mountain lion. Other interesting animals are Iowa darter, mottled sculpin, central newt, spotted salamander, boreal and western chorus frogs, five-lined and prairie skinks, northern ringneck snake, goshawk, rough-legged hawk, peregrine falcon, gray-cheeked thrush, blue-gray gnatcatcher (breeding), Canadian warbler (breeding), eastern long-eared bat, silver-haired bat, hoary bat, and bog lemming. UW-Madison entomologists have begun conducting an ongoing study here and already there are significant findings.

Regarding the vegetation, much of the forest is classified as northern dry-mesic, but there is also significant northern mixed-mesic, northern wet, and northern wet-mesic forest present along with a strong boreal component. Twenty-seven species of trees are found natively on the property, including canker-resistant butternuts. Native plants of interest include Canadian yew, Hooker’s orchid, round-leaved orchid, nodding trillium, rattlesnake-plantain orchids (2 spp.), American cancer-root, one-flowered wintergreen, yellow lady’s-slipper orchid, broad-lipped twayblade, puttyroot orchid, Braun’s holly fern, and twisted-stalk. Some of these are Species of Special Concern in the state. Sadly, except for the rattlesnake plantains, none of the other orchids have been seen since deer numbers increased significantly several decades ago. A UW-Madison ecology professor is using and has distributed photo documentation from the property to illustrate changes and the severe impact to forest biodiversity over the past thirty or more years caused by an unnaturally high deer population.

On top of the high natural biodiversity, the property also holds an extensive, but private, temperate-zone arboretum. Its purpose is not only spiritual and aesthetic, but also for scientific research and as a refuge for rare species of plants. Assisted migration is an important area of climate change research and this arboretum is on the cutting edge of this. For instance, the baldcypress trees naturalized in the perched bog made both the U.S. Forest Service and the Bayfield County Forestry Dept. aware of the potential of this tree to replace black ash lost due to climate change and pests. Both agencies are now conducting experimental plantings of this species. Also in relation to climate change, the foresters are keenly interested in tuliptrees originating from the northern edge of their range in Michigan and naturalized in the creek valley. Other species well-established thru assisted migration include sassafras, Fraser magnolia, mountain andromeda, box huckleberry, and Oconee bells. Except for the sassafras, all are rare and/or local in their present-day distributions and are threatened by climate change. Blight-resistant American chestnuts and beech from northeastern Wisconsin have also been naturalized; the latter with its associated beechdrops, an indicator species for high-quality undisturbed forests.

Cold-hardiness and general soil and climate adaptability studies are important components of the plant research being carried out here. With the current high deer population, not all plants would survive without some kind of protection. A large fenced enclosure was constructed in the woods some years ago to nurture sensitive species like the Federally Endangered Florida torreyia and Florida yew. Some, but certainly not all, of this research has been published. Links or attachments of the articles are gladly provided upon request, as is other data and photo documentation. Additionally, letters of recommendation by scientists and others for protection of this property can be made available. Hopefully this information will assist in protecting the biological and other natural features of this land in perpetuity.