

# MATTHAEI BOTANICAL GARDENS: *Landscape change from 1940 to 2010*



1940 (Partial)



1966



1984



1998



2007



2010

The Matthaei Botanical Gardens property, 350 acres of oak-hickory forest, former farm fields, and floodplain wetlands associated with Fleming Creek near its confluence with the Huron River, was donated by the Matthaei family in 1957. The mission of creating a world-class botanical garden for research, teaching, and public enjoyment included the construction of an indoor conservatory and research laboratories and greenhouses, but also led to preservation of several rare natural communities and species.

Much of the Fleming Creek floodplain was described by early surveyors as "wet prairie", and despite extensive agriculture and subsequent residential development in the area, pockets of prairie fen and wet meadow survive on the Botanical Gardens property. The presence of open, grassy upland fields in close proximity to these wetlands creates the combination of habitat types needed by the Eastern Massasauga Rattlesnake, a species of special conservation concern in the state of Michigan and considered endangered throughout the remainder of its range. To preserve this critical wildlife habitat and promote increased plant diversity, several of the old farm fields on the property are now maintained as prairies through the use of prescribed fire and re-introduction of native plants.

The Botanical Gardens property also includes areas of floodplain forest, a complex, swamp-like ecosystem that depends on periodic flooding. The eastern bank of Fleming Creek is forested mainly with hardwood trees, while parts of the western bank include rich tamarack swamp, a wetland influenced by groundwater seepage and dominated by coniferous Tamarack trees. The southernmost part of the property includes nearly approximately 35 acres of old-growth upland forest that has been the subject of long-term ecological research since the 1960s.