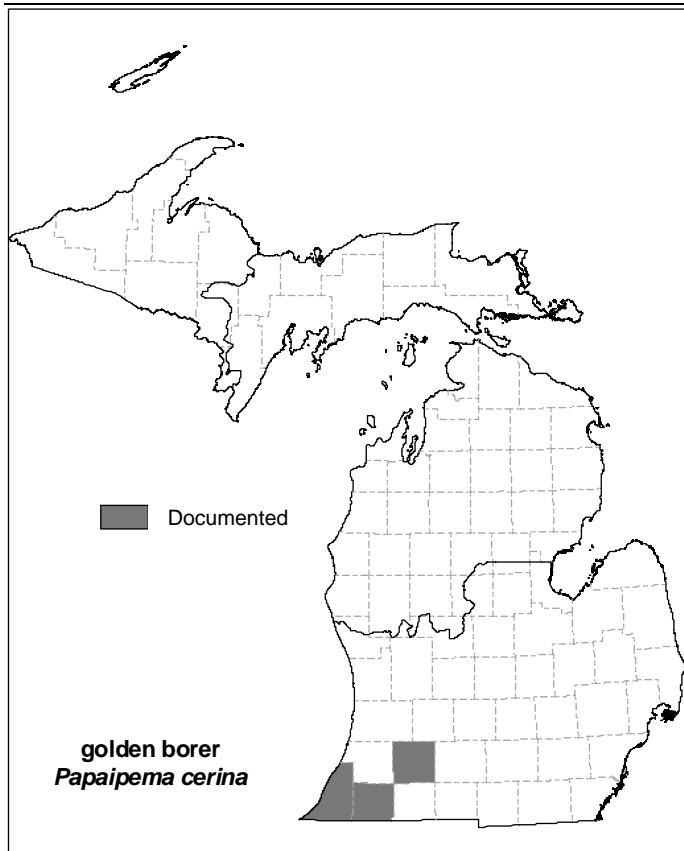


INSECTS



golden borer

(*Papaipema cerina*)

DISTRIBUTION & ABUNDANCE: State listed as special concern. Occurs in three southwest Michigan counties. It prefers a complex mosaic of wetland and upland habitats, so it is rare and populations tend to occur patchily. It is considered imperiled or critically imperiled in the State.

ASSOCIATED LANDSCAPE FEATURES: prairie; idle/old field; right-of-way; mesic hardwood; dry hardwood; lowland conifer; inland emergent wetland; fen; swamp; large contiguous natural landscape

ASSOCIATED THREATS: conversion to agriculture lands; fragmentation; grazing & mowing patterns; industrial/residential/recreational development; invasive plants & animals; lack of scientific knowledge; forestry practices; pesticides & herbicides; wetland modifications

COMMENTS: Need surveys to assess abundance and distribution; need information on life history and ecology; need to assess threats. Golden borers are poor fliers and are therefore highly susceptible to fragmentation. Protection or restoration of complex habitat mosaics, particularly those containing fens or other wetlands, forest, and prairie, is critical to the conservation of this species. More information on the use of these mosaics and comprehensive planning efforts will benefit this species.