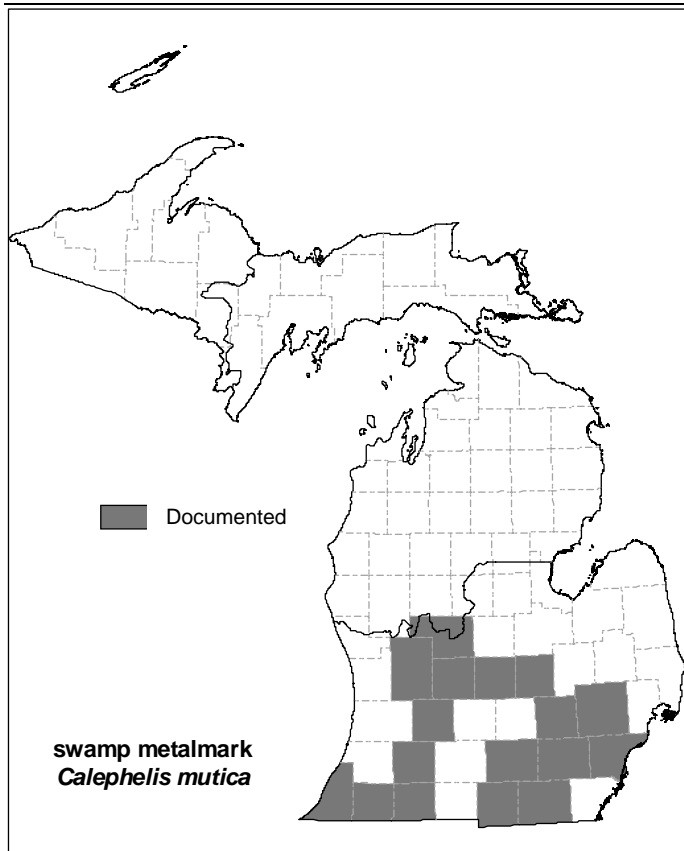


INSECTS



swamp metalmark (*Calephelis mutica*)

DISTRIBUTION & ABUNDANCE: State listed as special concern. Scattered throughout much of the Southern Lower Peninsula. This species is rare and is considered imperiled or critically imperiled in the State. It is considered rare globally.

ASSOCIATED LANDSCAPE FEATURES: lowland shrub; lowland conifer; forest opening; bog; fen; ephemeral wetland; swamp; pond; inland lake; river/stream/riparian/floodplain corridor

ASSOCIATED THREATS: conversion to agriculture lands; dams; altered fire regime; fragmentation; grazing & mowing patterns; altered hydrologic regimes; industrial/residential/recreational development; invasive plants & animals; lack of scientific knowledge; pesticides & herbicides; removal of wildlife; wetland modifications

COMMENTS: Need surveys to assess abundance and distribution; need to assess threats. Need to maintain hydrologic integrity at occupied sites.