



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**Twelve-spotted Tiger Beetle
*Cicindela duodecimguttata***

State Status: **Special Concern**
Federal Status: **None**

DESCRIPTION: Tiger Beetles are so named because of their “tiger-like” behavior of chasing down and capturing prey with their long mandibles. The Twelve-spotted Tiger Beetle (*Cicindela duodecimguttata*) is 12-15 mm in length (Pearson et al. 2006). It is dark brown in color with a metallic sheen, the elytra (wing covers) marked with white maculations (spots and bands). The Bronzed Tiger Beetle (*Cicindela repanda*) resembles the Twelve-spotted Tiger Beetle, although the Bronzed Tiger Beetle is smaller on average, a lighter shade of bronzed brown, and the elytra are marked with maculations that are more complete (the bands are less broken into spots). In addition, the Twelve-spotted Tiger Beetle has a thorax that is trapezoidal in shape (wider anteriorly than posteriorly), while the thorax of the Bronzed Tiger Beetle is cylindrical.

HABITAT: Open areas with silty or sandy soil, typically in or near wetlands; particularly stream and river banks and lake and pond shores. Adult beetles may be found in anthropogenic habitats such as old sand pits and sand roads, particularly in or near wetlands. Larval habitats typically consist of eroding stream and river banks (Knisley & Schultz 1997).

LIFE HISTORY: The Twelve-spotted Tiger Beetle has a



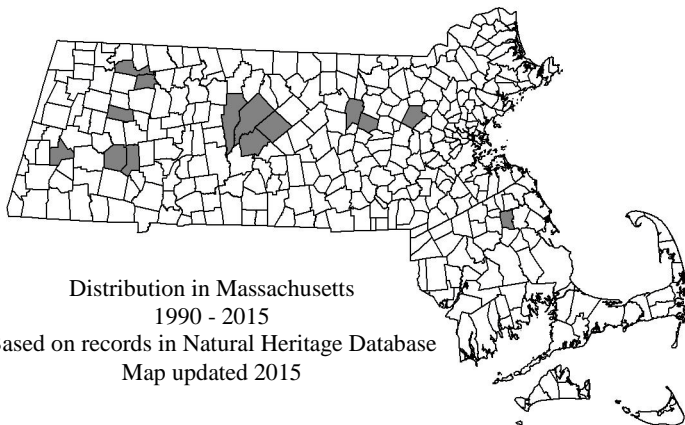
Cicindela duodecimguttata ▪ MA: Worcester Co., Hardwick ▪ 14 Aug 2007 ▪ Photo by M.W. Nelson

Adult Activity Period in Massachusetts

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

two-year life cycle. Adult beetles emerge in late summer, overwinter, and are active again in spring and early summer. In Massachusetts, mating and egg laying occur in May and June. A few adults may survive into early July. Larvae develop through the first summer and autumn, overwinter, and continue development the following spring and summer, emerging as adults in August of the second year.

GEOGRAPHIC RANGE: The Twelve-spotted Tiger Beetle is widely distributed across much of North America, from Newfoundland and Labrador south to Georgia, and west to Alberta and Texas (Pearson et al. 2006). The Twelve-spotted Tiger Beetle occurs throughout most of mainland Massachusetts, although there are no recent records from the northeastern part of the state or more southeast than the Town of Hanson.



Distribution in Massachusetts
1990 - 2015
Based on records in Natural Heritage Database
Map updated 2015

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

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Colonies are localized, restricted to areas of suitable habitat.

STATUS AND THREATS: The Twelve-spotted Tiger Beetle is threatened by hydrologic alteration that disrupts natural seasonal flooding and deposition of silt and sand in its habitat. Other potential threats include invasion by exotic plants, eutrophication or other water pollution, river bank stabilization, aerial insecticide spraying, and off-road vehicles.

Literature Cited

- Knisley, C.B. and T.D. Schultz. 1997. *The Biology of Tiger Beetles and a Guide to the Species of the South Atlantic States*. Virginia Museum of Natural History Special Publication Number 5. Virginia Museum of Natural History, Martinsville, Virginia. 210 pp.
- Pearson, D.L., C.B. Knisley, and C.J. Kazilek. 2006. *A Field Guide to the Tiger Beetles of the United States and Canada*. Oxford University Press, New York, New York. 227 pp.

Authored by M.W. Nelson, NHESP Invertebrate Zoologist, April 2015

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