



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**Claybank Tiger Beetle
*Cicindela limbalis***

State Status: **Threatened**
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 Claybank Tiger Beetle (*Cicindela limbalis*) is 11-16 mm in length (Pearson et al. 2006). It is metallic, reddish or purplish brown in color, with a varying degree of metallic green highlights and distinct white maculations (spots and bands) on the elytra (wing covers). The Purple Tiger Beetle, or “Cow Path Tiger Beetle” (*Cicindela purpurea*) is similar. However, the Claybank Tiger Beetle has middle maculations (the elongate bars in the middle of the elytra) that are complete, extending to the outer edges of the elytra. On the Purple Tiger Beetle, these maculations do not reach the outer edges of the elytra. In addition, the Purple Tiger Beetle very rarely has front maculations at the humeral angle (the “shoulders”), while the Claybank Tiger Beetle almost always does.

HABITAT: The Claybank Tiger Beetle inhabits sparsely-vegetated clay and till banks and cliffs. Larval burrows occur in sloping banks of clay soils (Pearson et al. 2006). In Massachusetts, the Claybank Tiger Beetle occurs on morainal deposits of the offshore islands, on eroding cliffs and adjacent beaches.



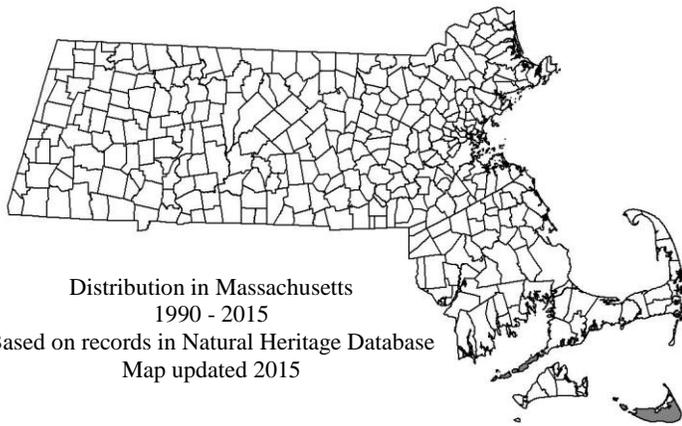
Cicindela limbalis ▪ MA: Dukes Co., Gosnold ▪ 4 Sep 2008 ▪ Photo by M.W. Nelson

Adult Activity Period in Massachusetts

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
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LIFE HISTORY: The Claybank Tiger Beetle has a two to three-year life cycle (Knisley & Schultz 1997). Adult beetles emerge in late summer or early fall, overwinter, and are active in spring and early summer, when mating and egg laying occur. Larvae develop through the first summer and autumn, overwinter, and continue development the second spring and summer. If sufficient size is attained, pupation occurs underground by late summer, and adults emerge from their pupae in late summer and early fall of the second year. Otherwise, larvae overwinter a second time and complete development during the second spring and summer, pupating by late summer; in that case, the adults emerge in the late summer and early fall of the third year.

GEOGRAPHIC RANGE: The Claybank Tiger Beetle ranges from the Maritime Provinces of Canada south to New Jersey, and west to the Northwest Territories and



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

Massachusetts Division of Fisheries & Wildlife

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Colorado (Pearson et al. 2006). In Massachusetts, this species appears to be restricted to areas of suitable habitat along the coastline south of Cape Cod.

STATUS AND THREATS: The Claybank Tiger Beetle is threatened by loss and alteration of its habitat as a result of bank, bluff, and cliff stabilization. These activities disrupt the natural regime of erosion and deposition that creates and maintains the dynamic habitat of this species. Other potential threats include off-road vehicles and insecticide spraying.

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.

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