



Mike Drummond/USFWS

Northeastern Beach Tiger Beetle

Cicindela dorsalis dorsalis

Physical Characteristics

The northeastern beach tiger beetle can be recognized by its distinct coloring. It has a bronze-green head and thorax, with white or tan elytra (its hardened forewings) often covered with several gray-green lines. Tiger beetles are typically found on long, wide beaches that have little human activity.

Habitat

These beetles live their entire life on the beach, and prefer medium to medium-coarse sand. Adults occur on the beach from June through September and often congregate around the water's edge on warm days.

Tiger beetles mate and lay eggs from late June to August. Females are believed to lay eggs at night in shallow burrows in the mid- to high tide zone of the coast. The larvae hatch in late July and August and spend the following 1-2 years of their larval life cycle in vertical burrows in the sand.

Larvae remain active into November and hibernate in winter. They do not emerge from their burrows until they complete three different larval stages and fully develop into adults. This process can take up to two years to complete. The mature adults typically emerge from the burrows in June and July.

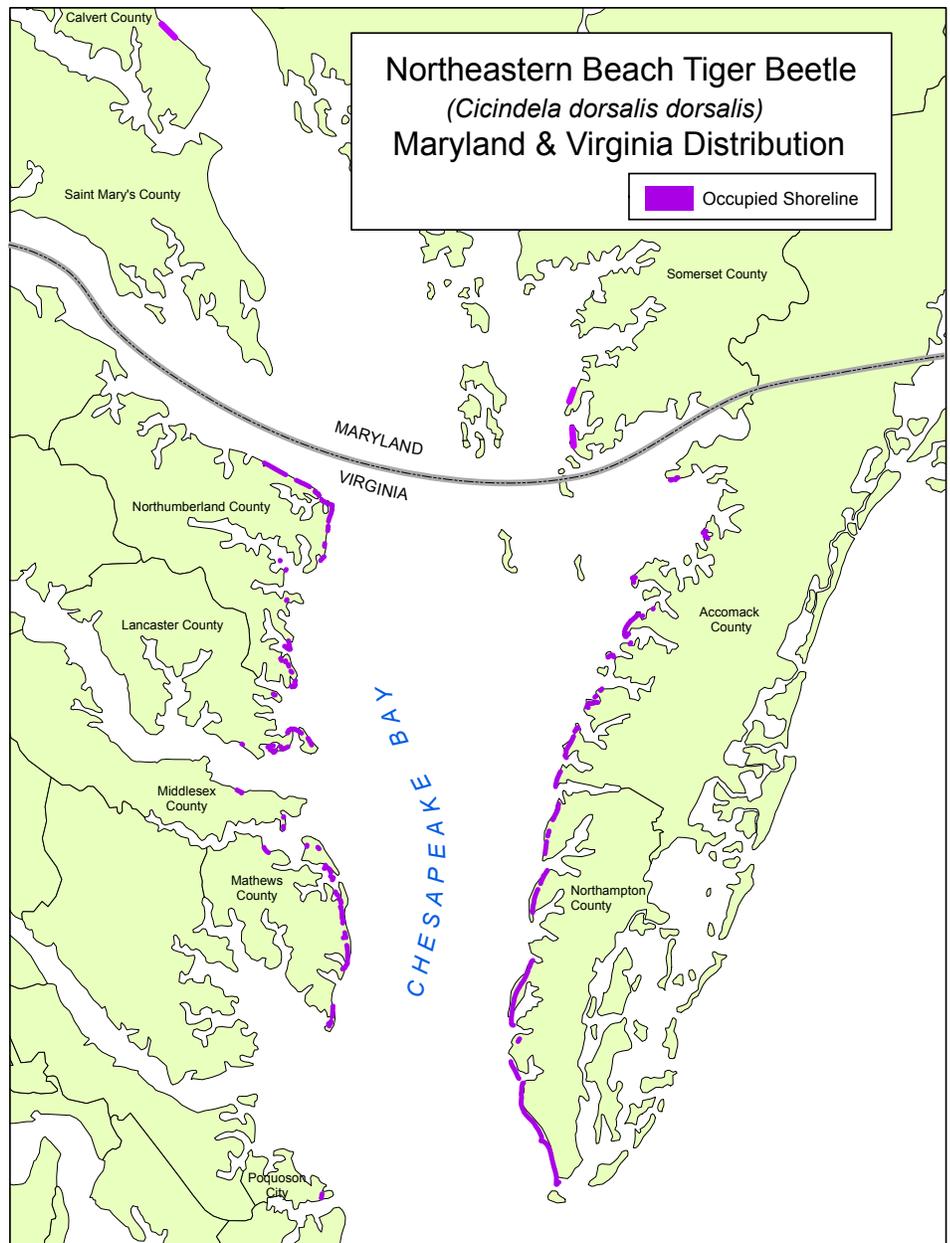
Adults prey on small invertebrates and also scavenge on dead fish, crabs and amphipods. Larvae are sedentary ambush predators, feeding on prey that happens to pass by their burrows.

Range and Status

The northeastern beach tiger beetle was once abundant along coastal beaches from Massachusetts to New Jersey and along the Chesapeake Bay in Maryland and Virginia.

Populations have been extirpated from Rhode Island, Connecticut, New York, and possibly New Jersey. This beetle can now only be found in the

Chesapeake Bay and Massachusetts. The status of one population that was translocated to Gateway National Park in New Jersey is unknown because



Map displaying the current range of the northeastern beach tiger beetle in Maryland and Virginia

recent surveys have not located the beetle.

Only four sites that support northeastern beach tiger beetles remain in Maryland, and the largest populations occur along Virginia's sandy shorelines within the Chesapeake Bay. Outside of the Bay, the northeastern beach tiger beetle is only known from two areas in Massachusetts—Martha's Vineyard and a translocated population on Monomoy National Wildlife Refuge.

In 1990, the tiger beetle was listed as a threatened species. In 2009, the U.S. Fish and Wildlife Service completed a five-year status review and recommended changing the tiger beetle's status to endangered, due to continuing habitat loss and population decline. At this time the Service has not formally proposed the recommended status change.

Tiger beetle population decline and habitat loss primarily results from shoreline development, beach stabilization and high levels of recreational use. Shoreline erosion and inundation rates are steadily increasing due to sea-level rise induced by climate change, resulting in beach stabilization of tiger beetle habitat. Other known threats are pollution, pesticides and oil slicks. Some natural limiting factors are beach erosion, flood tides, hurricanes, parasites and predators.

Recovery

Recovery for the tiger beetle depends to a large extent on re-establishing suitable habitat across its former range along the Atlantic Coast and protecting remaining habitat within the Chesapeake Bay.

The Service is working with communities to develop model approaches to encourage shoreline management that will maintain or improve habitat for beetles.



Scott Hardaway/Virginia Institute of Marine Science

The Service considers the Bavon Beach shoreline in Mathews County, Virginia, to be an important site to maintain populations of the northeastern beach tiger beetle, and is working with the local communities and county to protect this site.



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