

American Burying Beetle, *Nicrophorus americanus*

Status:

State: Endangered

Federal: Endangered

Identification

The American burying beetle is the largest native member of the carrion beetle family Silphidae, of which there are 31 species in North America and 570 species worldwide (Ratcliffe). Adults range in length from 1.0-1.5 in. (25-35 mm), and average 1.2 in. (30 mm). Its coloration, orange-red on shiny black, is distinctive. One colored mark covers the frons, an upper frontal head plate, and another covers



Photo by Michael Amaral, courtesy US FWS

the pronotum, the shield-like area just behind the head (Ratcliffe). Black wings have two pairs of scalloped red spots and antenna tips are orange. Below the frons, males have a distinguishing large orange-red rectangular facial mark, while females have a smaller triangular mark.

Swarms of orange-colored mites, which keep the beetles and carcasses they feed upon clean of microbes and fly eggs, are often present on the beetles' bodies (N.Y. DEC).

Habitat

Whether it is coastal grassland/scrub in the East or prairie or savannah-like oak-hickory forests with open understories in the Midwest, American burying beetles require landscapes that are open enough to allow a large beetle with limited flight maneuverability to be active at night.

Status and Conservation

The prevailing theory indicates habitat fragmentation was largely responsible for the American burying beetle's decline (Raithel). Such fragmentation reduced or eliminated prey species favored for breeding carrion, such as passenger pigeons, wild turkeys and prairie chickens. Meanwhile, the resulting increase in "edge" habitat increased the number of scavengers competing with the beetles for the carrion, such as the American crow, raccoon, fox, opossum and skunk (Amaral, pers. comm.).

The American burying beetle was listed as federally endangered in 1989. Even though it apparently has been extirpated from New Jersey, as a result of the federal listing the state listed the beetle as threatened in the same year.

At the time of the federal listing, the beetle was known to occur naturally on only Block Island, R.I. and in one Oklahoma county. Subsequently, the U.S. Fish and Wildlife Service required surveys during environmental planning for proposed developments in eastern Oklahoma and western Arkansas. As a result of these surveys, several additional populations were found.

In the East, attempts have been made to expand the population by breeding adults captured on Block Island and reintroducing their offspring on two Massachusetts islands, Penikese and Nantucket. Building on the early experience of Boston University, zookeepers at the Roger Williams Park Zoo in Providence, R.I., have since raised more than 25 generations of American burying beetles.

Like Block Island, both Penikese and Nantucket islands are free of predators, such as foxes, raccoons, skunks and coyotes, which would compete with the beetles for carcasses. As of 2001, it was still unclear, however, whether the reintroduced populations had become self-sustaining. Eight years after the end of a four-year reintroduction program on 70-acre Penikese Island, beetles could still be found. But, considering adults appear capable of traveling a kilometer per night, determining the status of the reintroduced population on much-larger Nantucket Island is much more difficult (Michael Amaral, pers.comm. 2001).