

American burying beetle (*Nicrophorus americanus*) captive propagation and reintroduction program

1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005

In 1989, the American burying beetle (ABB) was listed as an endangered species by the US Fish & Wildlife Service (USFWS). Once commonly found in the eastern and central US and in southern portions of three Canadian provinces, the only native population of the American burying beetle east of the Mississippi River now occurs on Block Island, Rhode Island. One of the stated goals of the US Fish & Wildlife Service's Recovery Plan (1991) is to maintain the Block Island American burying beetle population and to establish another self-sustaining population in their historic habitat on Nantucket Island, MA. Roger Williams Park Zoo is the sole breeding facility for the reintroduction effort. Starting in 1995, the beetles produced at Roger Williams Park Zoo are annually reintroduced to their historic habitat on Nantucket Island, MA. Research is being done to assess the success of reintroductions on Nantucket Island.

1994- The zoo receives the first American burying beetle Adult founders from Boston University to be used to produce the first captive reared ABB's to be reintroduced to Nantucket Island off the coast of Massachusetts.

In the summer of 1995 RWPZ staff in partnership with the USFWS, took part in the first American burying beetle reintroduction on NI. The zoo contributed 108 individual beetles that were provisioned with a carcass to help bolster the success of each introduced pair. Thirteen days from brood set up, a random number of broods will be exhumed and numbers of larvae seen will be recorded to help gauge the success of the release. Post release trapping will be conducted for F1 population estimates.

1996- The zoo contributes 20 American burying beetles for the NI reintroduction effort. Population numbers continue to be monitored by USFWS and members of the RWPZ staff by Pre and post release trapping intervals.

1997- Zoo staff supplies 108 American burying beetles for the NI reintroduction effort. Population monitoring and brood checks continue.

1998- 54 American burying beetles were supplied by the RWPZ staff for reintroduction onto NI.

1999- 174 American burying beetles were supplied for the annual release on NI. Population monitoring continues.

In 2000 the RWPZ staff contributes 250 American burying beetles to the NI reintroduction effort. Zoo staff, in partnership with the USFWS continues to take part in the annual population monitoring.

In the summer of 2001, the zoo steps up the numbers of beetles produced with the captive rearing program supplying 211 pairs of ABBs for the Nantucket reintroduction effort. The estimated F1 generation for this release is 1853 larva. Two releases took place in June and one fifteen days later in July. Zoo staff traveled to the island to aid in the release. In addition zoo staff member Ming Lee Prospero spent the summer of 2001 on NI trapping for beetles and researching the success of the reintroduction effort in partnership with USFWS and URI.

Opportunities for other zoo keepers were available for ABB fieldwork through the summer.

In the summer of 2002, the zoo provided USFWS 321 pairs of ABBs for the NI reintroduction effort. The estimated F1 generation is 2417 larvae. Zoo staff continues to provide logistical support and help to the trapping efforts and the releases on NI.

In the summer of 2003, Roger Williams Park Zoo provided 161 pairs of beetles for the annual US Fish and Wildlife release on Nantucket Island, MA. As in 2002, there were two release sites on Nantucket, one on the west side of the island on Nantucket Conservation Foundation property, and the other on the east side of the island on Massachusetts Audubon Society Land. Wild beetles were also trapped, paired and provisioned with carrion. An estimated 1,012 larvae were produced by the captive-bred beetles and the wild provisioned beetles.

In the summer of 2004, 160 pairs of American burying beetles were bred at RWPZ for release on Nantucket Island. Zoo staff continues to add support to USFWS for releases and monitoring the introduced population.

In the summer of 2005, Zoo staff supplied USFWS 190 pairs of ABBs for the NI release effort. In June 2005, 90 pairs of beetle were provisioned by USFWS and zoo staff on the two NI release sites. Another 90 pairs were provisioned fifteen days later in July at the same two release sites. It has been decided by USFWS that after the last five years of releasing 200 or more pairs of ABB's that the program take on strictly an observational phase.

The 2006 and 2007 Nantucket Island field seasons will consist only of population monitoring to help determine if the reintroduction effort has established a self sustaining population. Trap results pending