

Penikese Burying Beetle Monitoring, 2007 (preliminary)

We conducted burying and carrion beetle trapping over 241 trap-nights, from 16 June to 24 July. For the fifth consecutive year, no individuals of the federally-Endangered American burying beetle (*Nicrophorus americanus*) were trapped. There was, however, an unconfirmed sighting by Penikese Island School staff in early June. This sighting remains questionable due to the ease with which *N. americanus* and *N. orbicollis* (which were trapped in high numbers) can be confused by an untrained observer.

Trapping numbers for nearly all species of beetle were down from past years (Table 15). An exception to this trend was the trapping of *Nicrophorus tomentosus* for the first time since trapping began in 2000. This may have been due to a slightly later than normal trapping schedule than in past seasons which better overlapped with their late summer active period. A total of 17 individuals of *N. tomentosus* were trapped over the course of the season at a rate of 0.071 per trap night.

The most commonly trapped species was the Common Burying Beetle (*Nicrophorus orbicollis*), representing 75.2% of the total catch. In total, 209 individuals of *N. orbicollis* were trapped for an average of 0.867 per trap night. This is lower than most years and dwarfed by the 2004 high of 3.78 per trap night. *Necrophilia americana* was trapped at an average of 0.216 per trap night. This is the lowest trapping rate since trapping began in 2000. A total of 52 *N. americana* were trapped. These three species, *N. orbicollis*, *N. americana*, and *N. tomentosus*, were the only burying and carrion beetle species caught during trapping. Previously caught species that were not seen in 2007 include *Nicrophorus americanus*, *Nicrophorus pustulatus*, *Necroides surinamensis*, *Olceoptoma novaboracense*, *Oiceoptoma innequale*, and *Thanatophilus lapponicus*. These species were never abundant in past years and their absence may simply reflect a sampling error.

Table 16. Burying and Carrion Beetles caught per trap-night on Penikese Island, 2000-2007.

Year	2000	2001	2002	2003	2004	2005	2006
(trap (241) nights)	(360)	(61)	(140)	(72)	(209)	(149)	(130)
<i>Nicrophorus</i> 0.000 <i>americanus</i>	0.003	0.120	0.014	0.000	0.000	0.000	0.000
<i>Nicrophorus</i> 0.867 <i>orbicollis</i>	0.710	3.070	0.879	0.680	3.780	1.872	1.238

Nicrophorus 0.000 pustulatus	0.000	0.000	0.007	0.000	0.005	0.007	0.000
+-----+							
Necrophilia 0.216 Americana	0.400	1.510	1.000	0.319	0.411	4.067	0.992
+-----+							
Necroides 0.000 surinamensis	0.000	0.030	0.021	0.000	0.000	0.000	0.023
+-----+							
Olceoptoma 0.000 0.000 novaboracens e	0.000	0.000	0.014	0.000	0.000	0.000	
+-----+							
Olceoptoma 0.000 inaequale	0.000	0.000	0.000	0.000	0.005	0.000	0.000
+-----+							
Thanatophilu Thanatophilu s lapponicus	0.000	0.000	0.000	0.000	0.005	0.000	
+-----+							
Nicrophorus 0.071 tomentusus	0.000	0.000	0.000	0.000	0.000	0.000	0.000
+-----+							

Houghton, W. and C. S. Mostello. 2007. Penikese Island ternery restoration project: Year 10 (2007). Massachusetts Division of Fisheries and Wildlife. Westborough, MA.