

APPENDIX 1. Supplementary tables and figures

Table A1. Possible statuses of piping plover nests during each nest check in New Jersey, USA, 2015–2017.

Status	Description
Active	Nest actively being tended by both adults; incubation observed
Hatched	Nest hatched; chicks present
Depredated	Nests lost to predation as evidenced by predator tracks at the nest bowl
Overwashed	Nest lost to flooding as evidenced by the high tide line above the nest bowl, nest bowl no longer visible, and no predator tracks at the nest
Abandoned	Nest inactive; adults not tending eggs; no plover tracks at the nest bowl; eggs cold
Buried	Eggs covered with 3+ inches of sand following a high windstorm event, evidenced by digging out nest scrape and finding eggs
Unknown	Eggs missing from the nest scrape with no reliable evidence as to the cause

Table A2. Sample sizes of nesting attempts and renesting attempts of piping plovers at sites where red foxes were present or absent in New Jersey, USA, 2015–2017.

Event	Fox present	Fox absent	Total
Nest attempts	87	90	177
Renest attempts	29	35	64

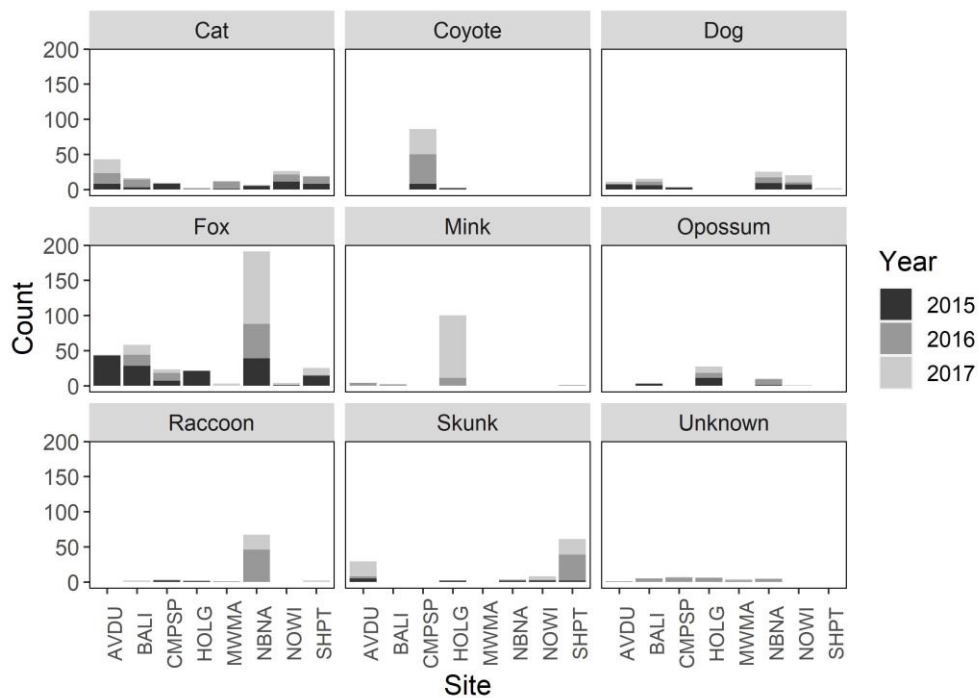


Figure A1. Number of detections of each mammalian predator species at piping plover breeding sites in New Jersey, USA, 2015–2017. Species are as follows: feral cat (Cat, *Felis catus*); coyote (*Canis latrans*); domestic dog (*Canis lupus familiaris*); red fox (Fox, *Vulpes vulpes*); American mink (Mink, *Neovison vison*); Virginia opossum (Opossum, *Didelphis virginiana*); raccoon (*Procyon lotor*); striped skunk (Skunk, *Mephitis mephitis*); and unknown mammal (Unknown). Study sites include Barnegat Lighthouse States Park (BALI), Holgate Unit, E.B. Forsythe NWR (HOLG), North Brigantine Natural Area (NBNA), Malibu Beach Wildlife Management Area (MWMA), Avalon-Dunes (AVDU), Stone Harbor Point (SHPT), North Wildwood (NOWI), Cape May Point State Park (CMPSP).

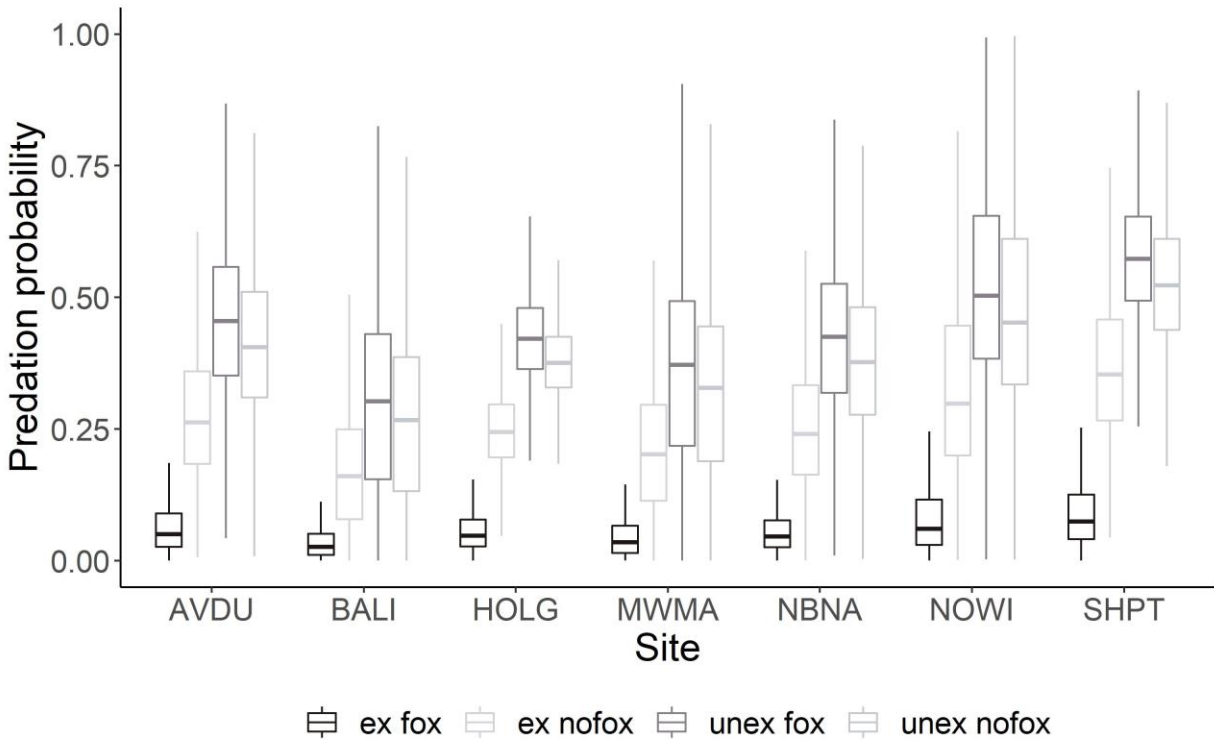


Figure A2. Predation probability for piping plover nests at sites where red foxes were present (fox) and where foxes were absent (nofox) with (ex) and without (unex) nest enclosures in New Jersey, USA, 2015–2017. Study sites are labeled as follows: BALI, Barnegat Lighthouse States Park; HOLG, Holgate Unit, E.B. Forsythe NWR; NBNA, North Brigantine Natural Area; MWMA, Malibu Beach Wildlife Management Area; AVDU, Avalon-Dunes; SHPT, Stone Harbor Point; NOWI, North Wildwood; CMPSP, Cape May Point State Park. Each box represents the inter-quartile range (25th and 75th percentiles) where the center stripe of each box represents the median. The whiskers represent the observation greater than or equal to the 25th percentile $-1.5 \times \text{IQR}$ or the 75th percentile $+1.5 \times \text{IQR}$.

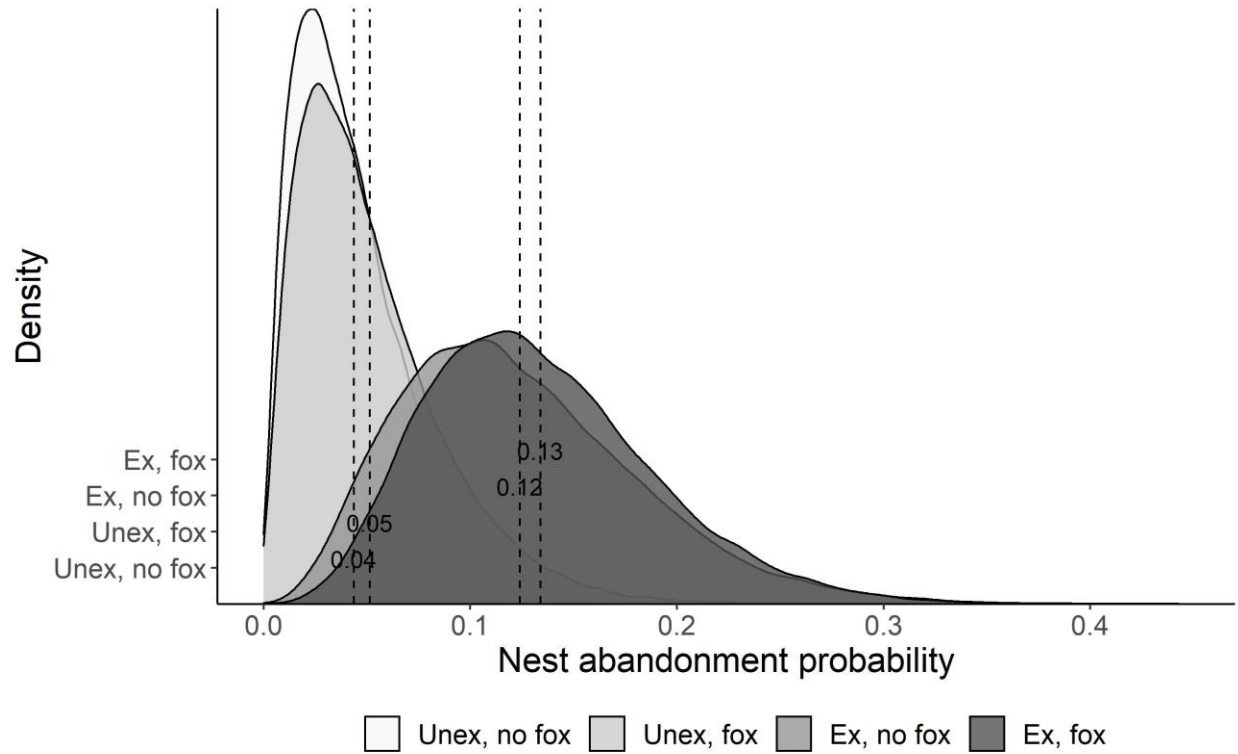


Figure A3. Nest abandonment posterior probability density for piping plover nests at sites where red foxes were present (fox) and where foxes were absent (no fox) with (Ex) and without (Unex) nest enclosures in New Jersey, USA, 2015–2017. Dashed lines represent mean estimates, and the width of each distribution represents the variability around the mean estimate.