

**Long term movement histories for headstarted juvenile, and translocated adult and juvenile Eastern Box Turtles in NW Pennsylvania sanctuaries**

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We present hand-drawn overhead transparency, and ArcView-plotted GPS, maps of locations recorded since 1993 for translocated adult, and 2-yr-old headstarted, eastern box turtles in our repatriation studies at two (200 vs 500 acre) sanctuaries in NW Pennsylvania. Archived locations recorded at 1-10 d intervals for each turtle, across consecutive yrs, provide insight into movements overlooked by occasional glimpses at habitat use.

Our 20 plus representative maps (from >100 telemetered turtles) illustrate that: translocated adult box turtles, and headstarted juveniles, often move well beyond small (200-500 acres) sanctuary boundaries; most translocated adults don't develop site fidelity within sanctuary boundaries despite repeated food and mate offerings at a central site; repeatedly retrieving dispersing turtles, to return them to a sanctuary's core, probably helps little, if at all, to promote adoption of habitat inside the sanctuary; short term (e.g. 2 yrs) confinement of translocated box turtles does not guarantee their site fidelity for the locale after release; translocated adults, and headstarted juveniles, rarely disperse in directions heading back toward their origins; our first years of field data from 2-yr-old juveniles, headstarted by the Michell protocol, suggest that the male juveniles are more likely to leave a sanctuary; each passing year sees more, who had initially demonstrated apparent site fidelity, begin outbound migrations, leaving a currently unclear, fluid assessment of this strategy's promise; individuals differ greatly in movement pattern and range, and propensity to disperse ~ behavioral generalizations are hard to come by for this species; habitat locales favored by some individuals are ignored by others; 2000 acres of unfragmented habitat is probably a conservative minimum for a sanctuary to be considered as a potential box turtle repatriation site; tens of thousands of turtles could be required to even hope to rebuild density sufficient for a population to become self-sustaining;