

Headstarting as a Tool in Restoration of an Endangered Population of Northern Red-bellied Cooter



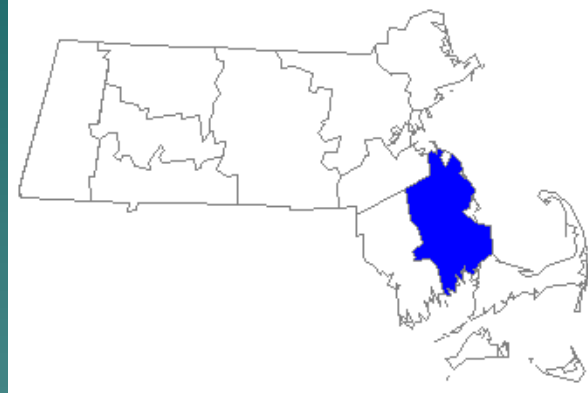
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Toronto Zoo - Turtle Stewardship and
Management
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Natural History

- ◆ *Pseudemys rubiventris* ranges from the coastal plains of North Carolina up to New Jersey and inland to West Virginia.
- ◆ Formerly, there was a population on Staten Island

Status of Massachusetts Population at Time of Listing in 1980



- Put on the Federal List of Endangered Species with fewer than 200 adults in 12 ponds in Plymouth County and very low recruitment
- Few good nest sites due to lakeshore development and to protection from fire, resulting in forest succession
- Nearly all nests destroyed by predators

Status of Massachusetts Population at Time of Listing in 1980



Federal Pond in Plymouth Mass.

- 60% of population was found in one pond, ironically the site of a commercial cranberry harvesting operation.
- This site was very open

Purposes of Head Starting



- Increase recruitment
- Enhance Small populations
- Restore extirpated populations
- Introduce the species to nearby appropriate habitat to expand contiguous distribution

Nest Protection



- Locate and cage all nests
- Allow all eggs to hatch at natural temperatures

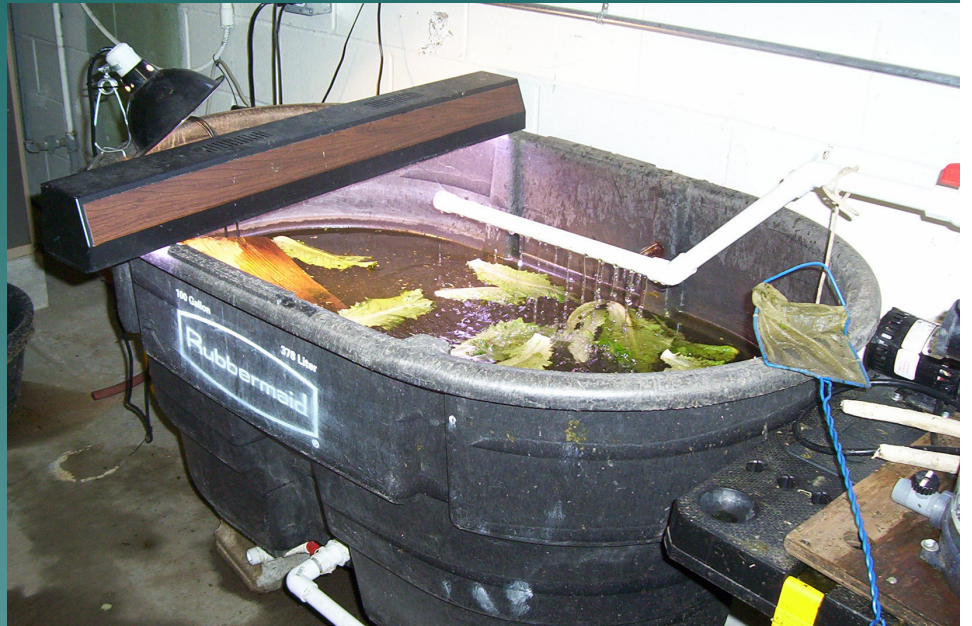
Head Starting Protocol



- Immediately release 80% of hatchlings into donor pond with year class shell notch (536 in 2006)
- Individually mark by shell notches and distribute all remaining hatchlings to 20+ institutions and individuals (143 in 2006) for headstarting.

Hatchling Care

- Maintain hatchlings for 9 months, September – May
- Feed leaf lettuce and aquatic turtle food pellets
- Maintain water temperature at 82-86 degrees Fahrenheit
- Provide basking site and UV lighting
- Try to keep water clean

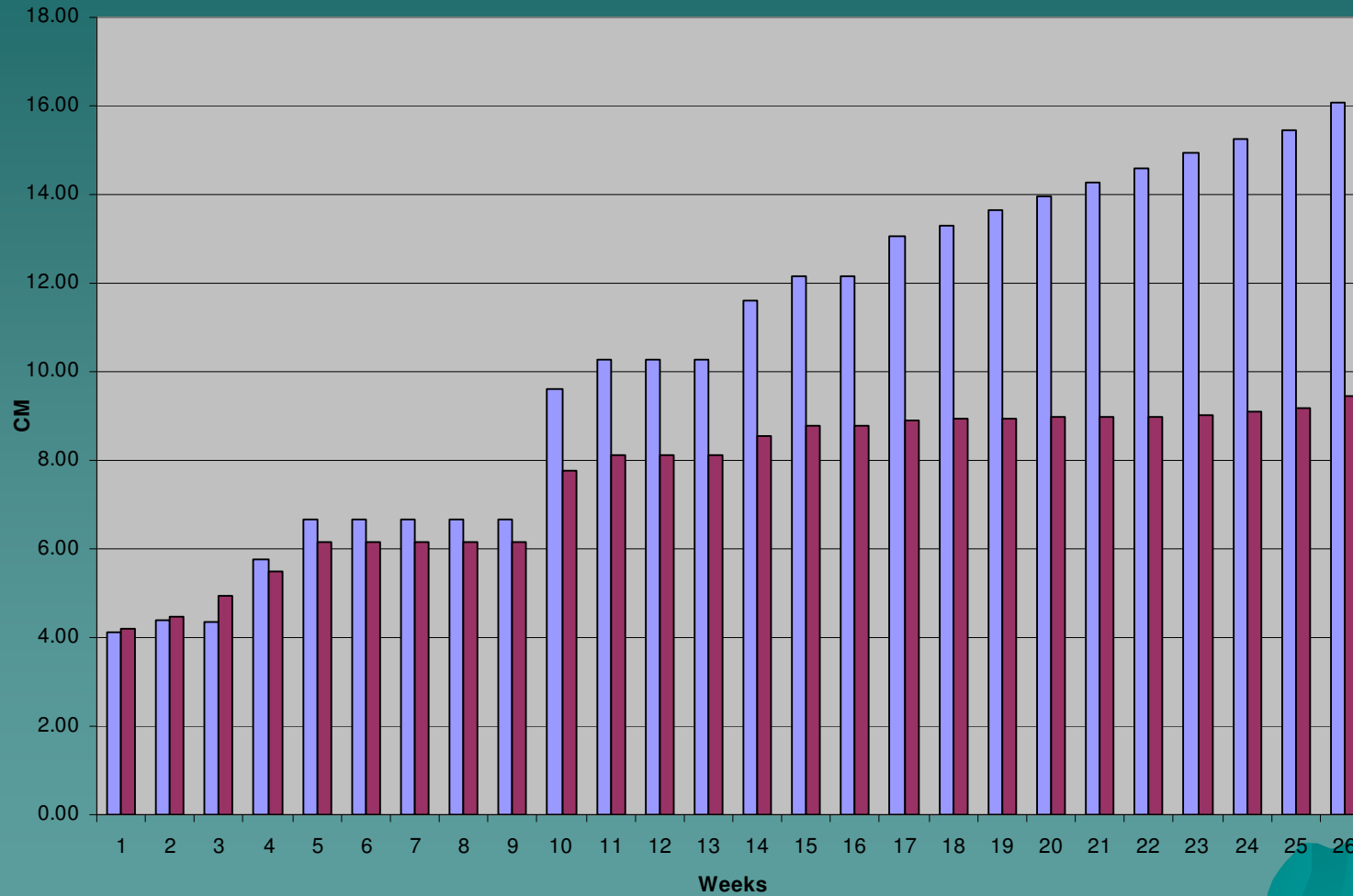


Monitoring Hatchling Progress

- Each month volunteers submit weights and carapace lengths



Size Comparison from '93-'94



Release



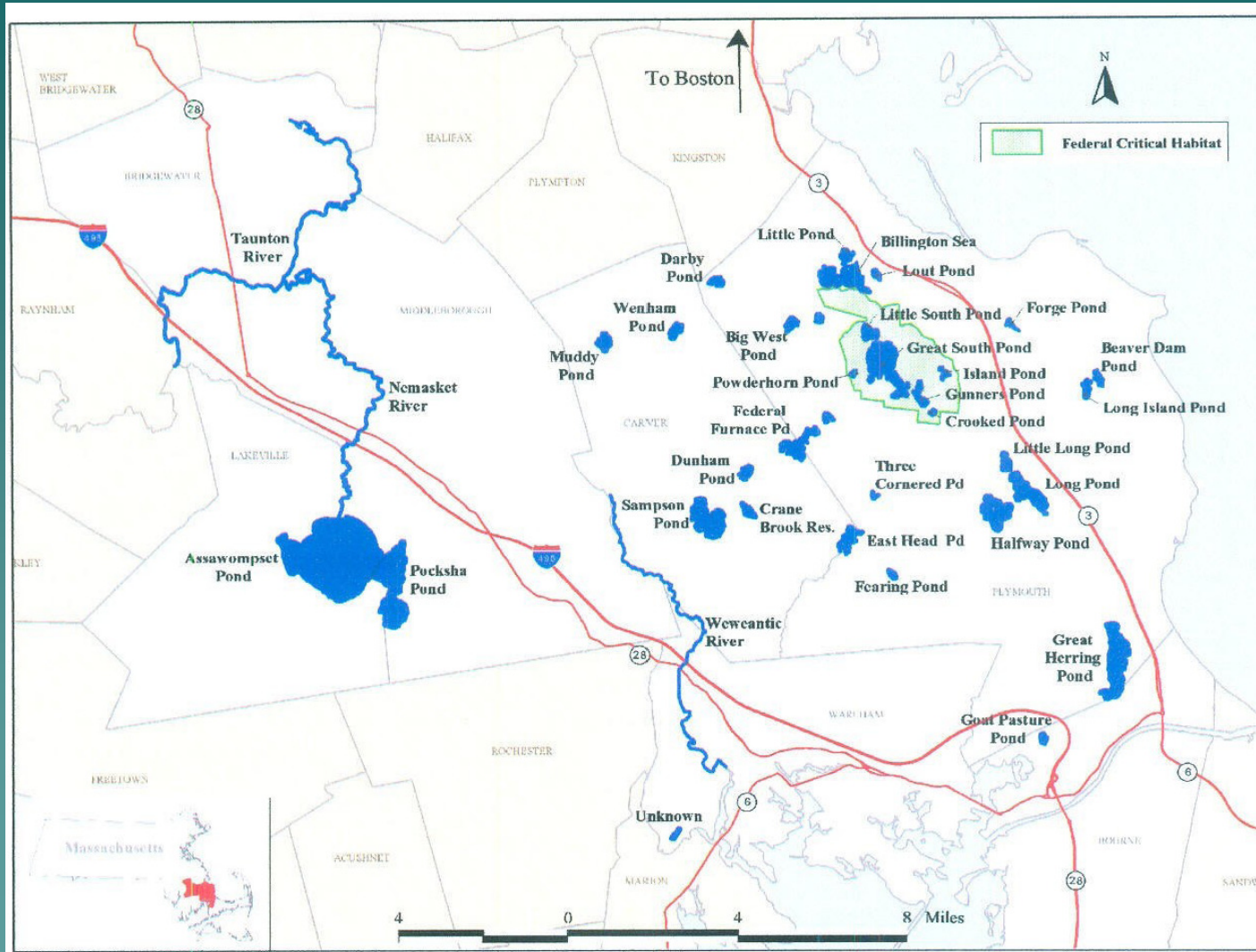
- Take final weight and carapace measurement
- Refresh shell notches
- Release
- To avoid introduction of pathogens, no head started turtles are released into the original pond

Results

- About 80% survival of hatchlings
- Release of 2,865 from 1985-2007 (140 more ready for 2008 release)
- Populations in 13 new ponds and 2 rivers established
- First wild nesting of headstarted female in 2000 (13 yr. old)



Current Distribution



Questions



Northern Red-bellied Cooter (head started adult with shell notches) and Eastern Painted Turtle

Acknowledgements



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