Giant Salvinia

- Free-floating fern
- Descending spore capsules do not produce viable spores
- Pubescent leaves with egg-beater shaped hairs
- May double in biomass in 2 days
- About 10 A infested near Wilmington

Giant Salvinia

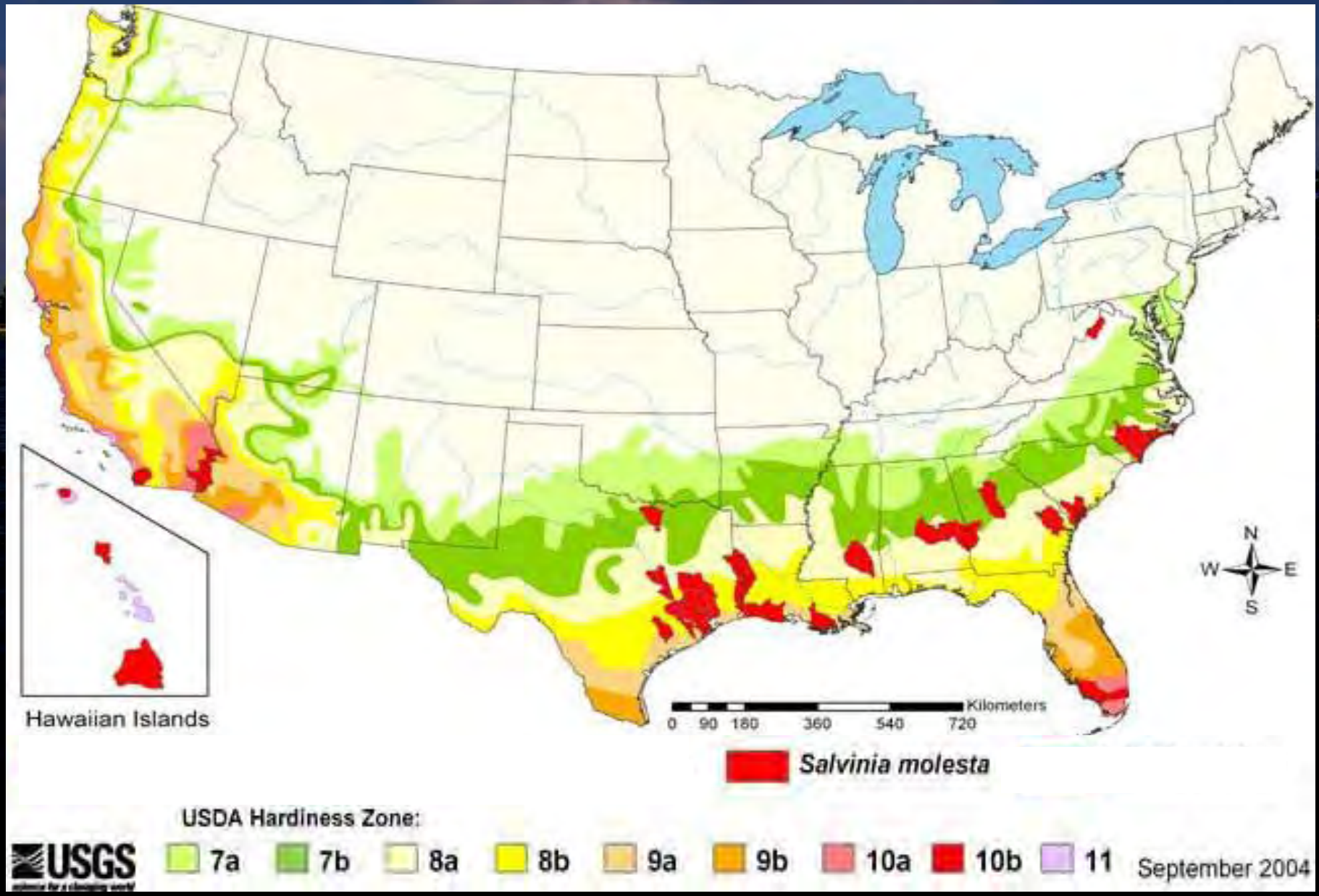
Salvinia molesta

Molesta vs. *Minima*

Characteristic Egg-Beater shaped hairs of *Salvinia molesta*

Leaf hairs of *Salvinia minima* branch but do not rejoin as do *molesta*

US Distribution and Range Prediction



Salvinia On Ice, 1/27/03

NC Salvinia History

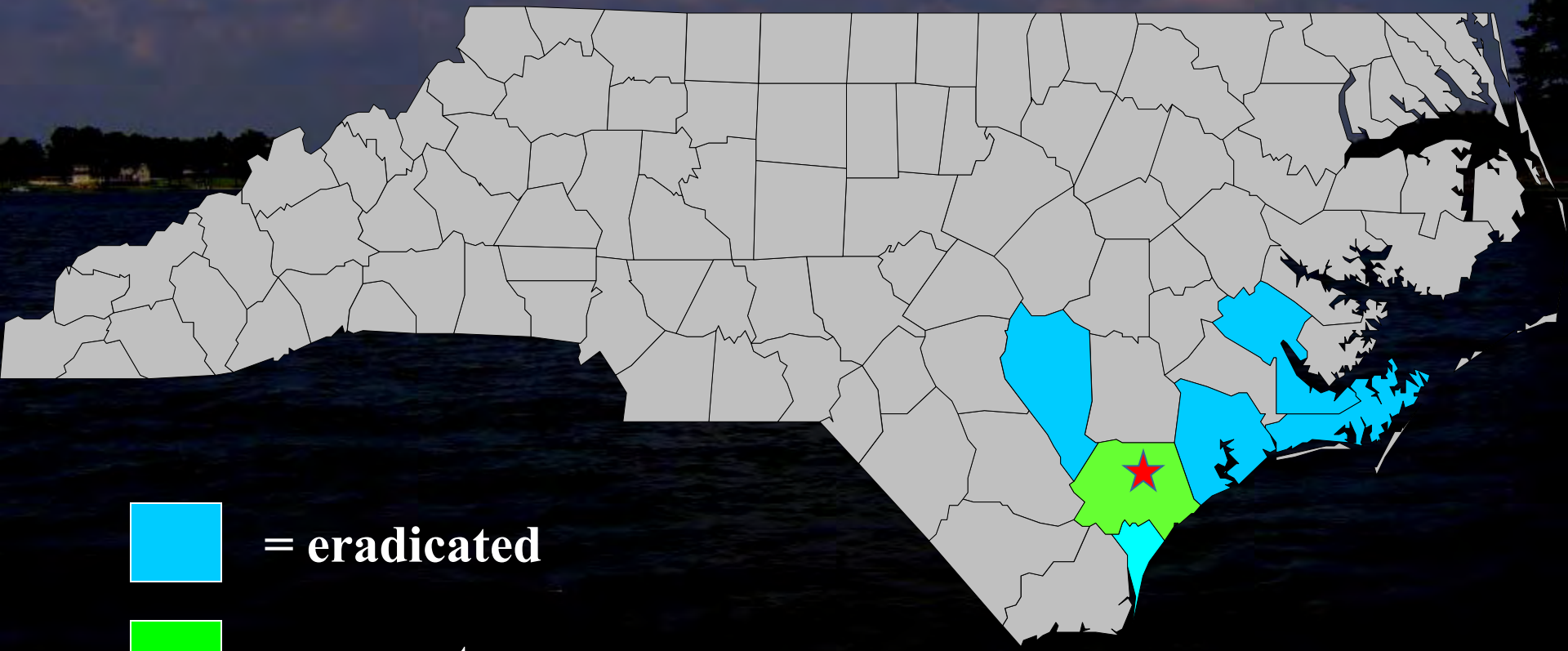
1998: found in Wake County (NC State Fair)

2000: confirmed in Brunswick, New Hanover, Pender, and Onslow counties

2004: Sampson and Craven counties added to infestation list

- Maximum salvinia infestation reached 10 sites and 40 acres
- The Southeast North Carolina Giant Salvinia Task Force was formed to develop and implement an eradication program

North Carolina
Fall 2007 Distribution



= eradicated

= present

* Currently 1 site with <5 acres

NC Giant Salvinia Task Force

- Cooperative effort of:
  - NC Cooperative Extension
  - NCDA
  - NC Dept. of Environment & Natural Resources
  - NCSU
  - SePRO Corporation
  - USGS
- Funding obtained from National Fish and Wildlife Foundation – Pulling Together Initiative

Salvinia Treatment

- Three methods used:
  - Herbicides
  - Biocontrol: salvinia weevil (*Cyrtobagous salviniae*)
  - Limited hand removal
- Infested sites were considered eradicated if no salvinia was found for at least one year after last treatment

Salvinia Weevil

- Weevils collected in TX and shipped to NC by NCDA
- Infested pond adjacent to the Riverbend site was selected for release
- Pond was not treated with herbicides for two years after release
- The salvinia weevil survived and overwintered, but failed to reduce salvinia populations
- Weevils were more effective in controlling salvinia in full sunlight than in shade