

# Emerging Invasive Aquatic Plants – Be On the Lookout!

By

Steve Young

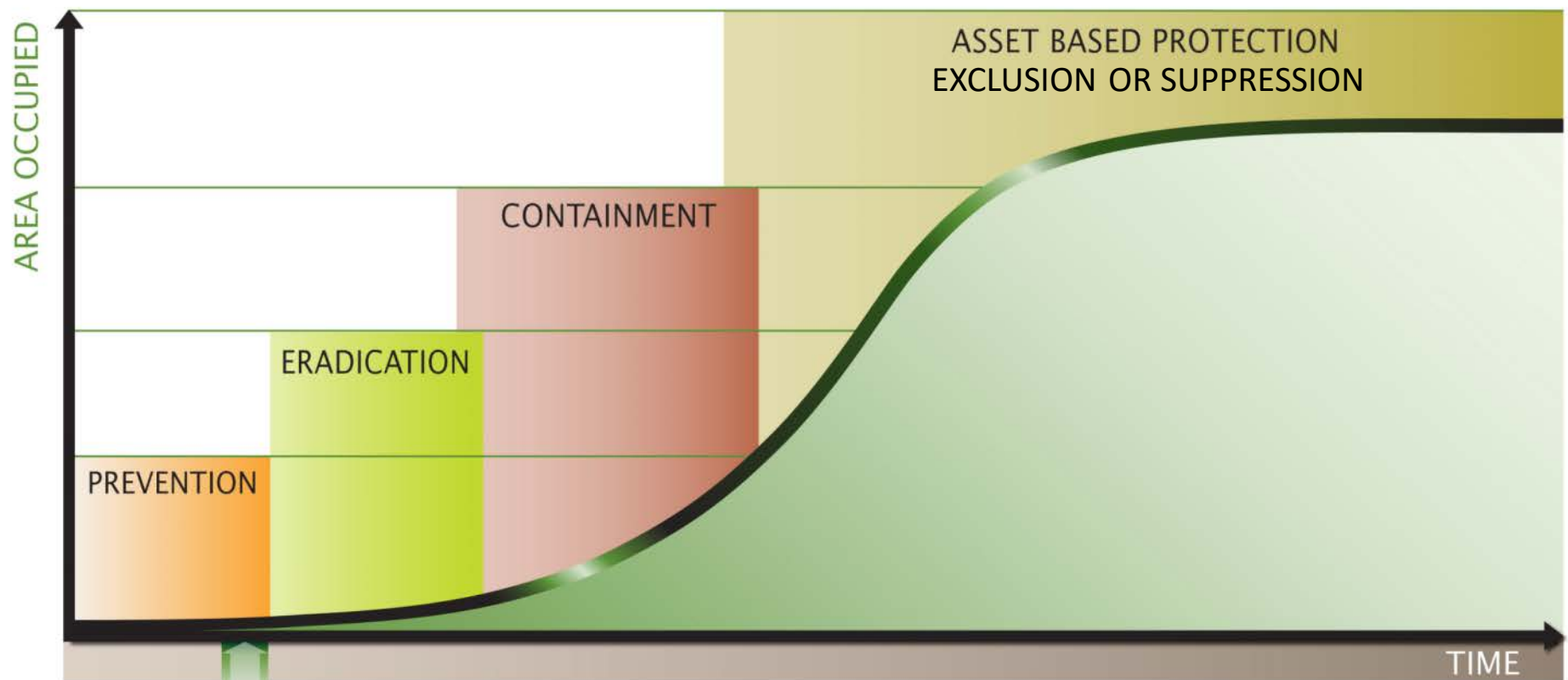
LIISMA Coordinator

NY Natural Heritage Program



# GENERALISED INVASION CURVE SHOWING ACTIONS APPROPRIATE TO EACH STAGE

Version 1.0: 30 APR 2009



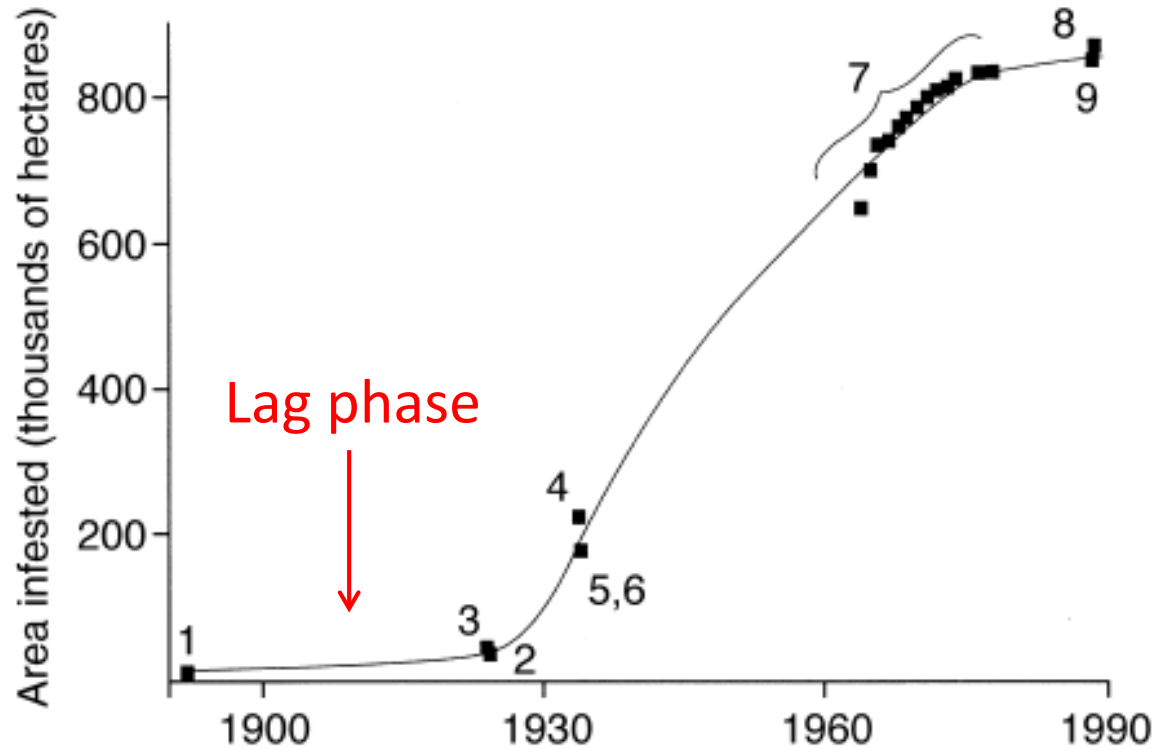
Species absent      Entry of invasive species      Small number of localised populations      Rapid increase in distribution and abundance, many populations      Invasive species widespread and abundant throughout its potential range

## ECONOMIC RETURNS (INDICATIVE ONLY)



↑ Emerging Invasives

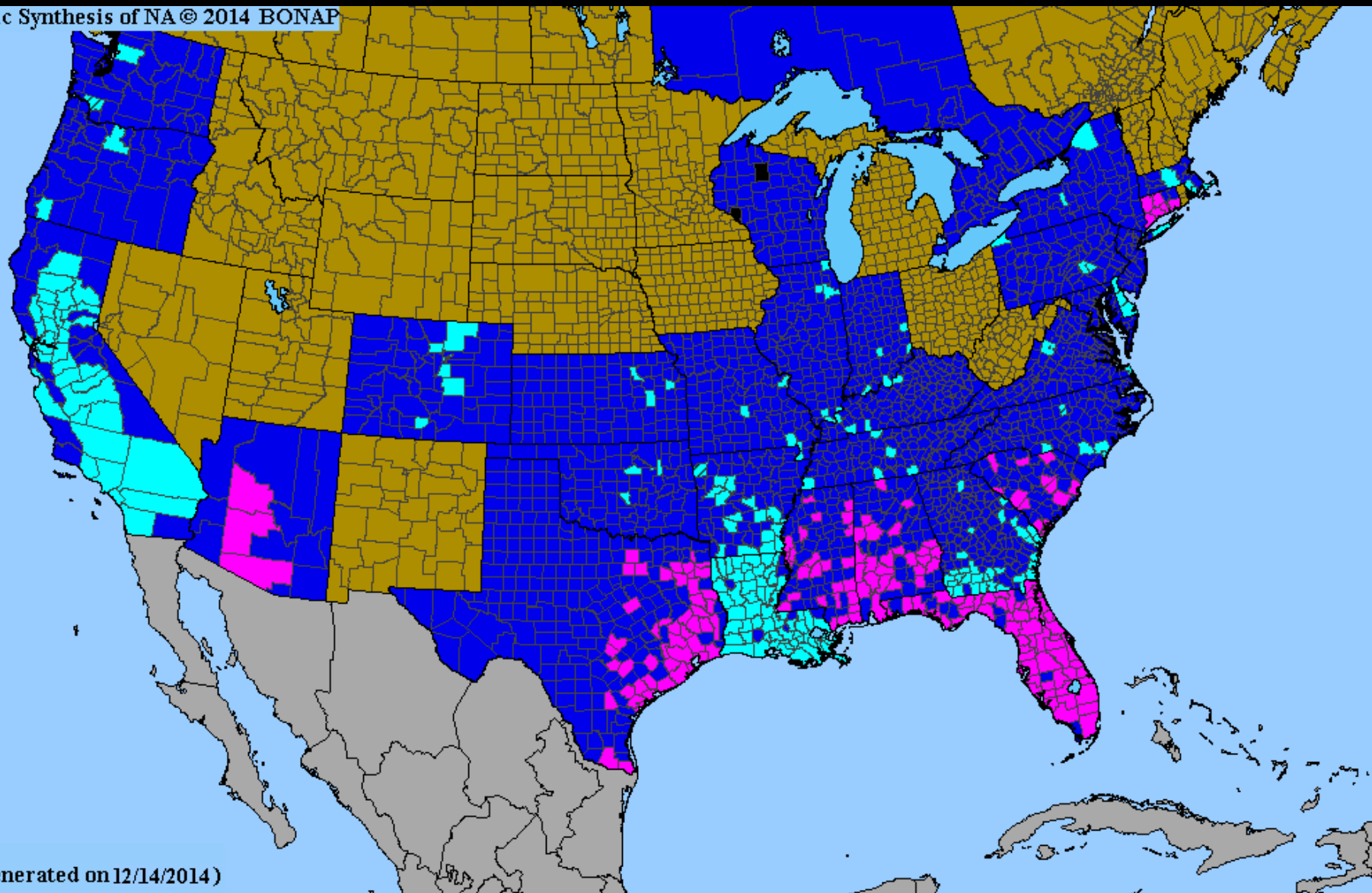
**Lag phase- The real or perceived delay from the time of introduction to the time the invasion actually begins. Many causes. Length is hard to predict.**



By the time we recognize a species as problematic, it has been around a while and is often difficult to eradicate.

*Eichornia crassipes* Water-hyacinth  
Long Island Ponds, Catskills





*Aldrovanda vesiculosa*

Waterwheel

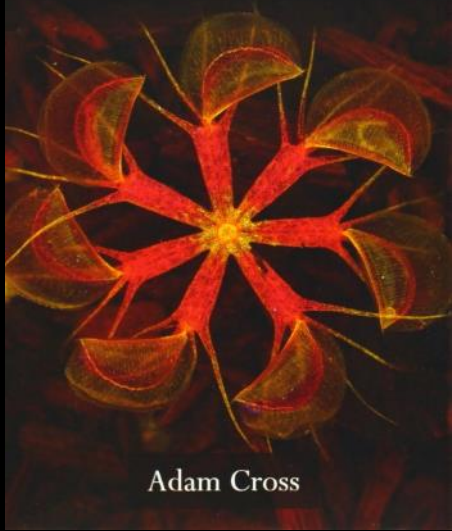
Catskill Pond



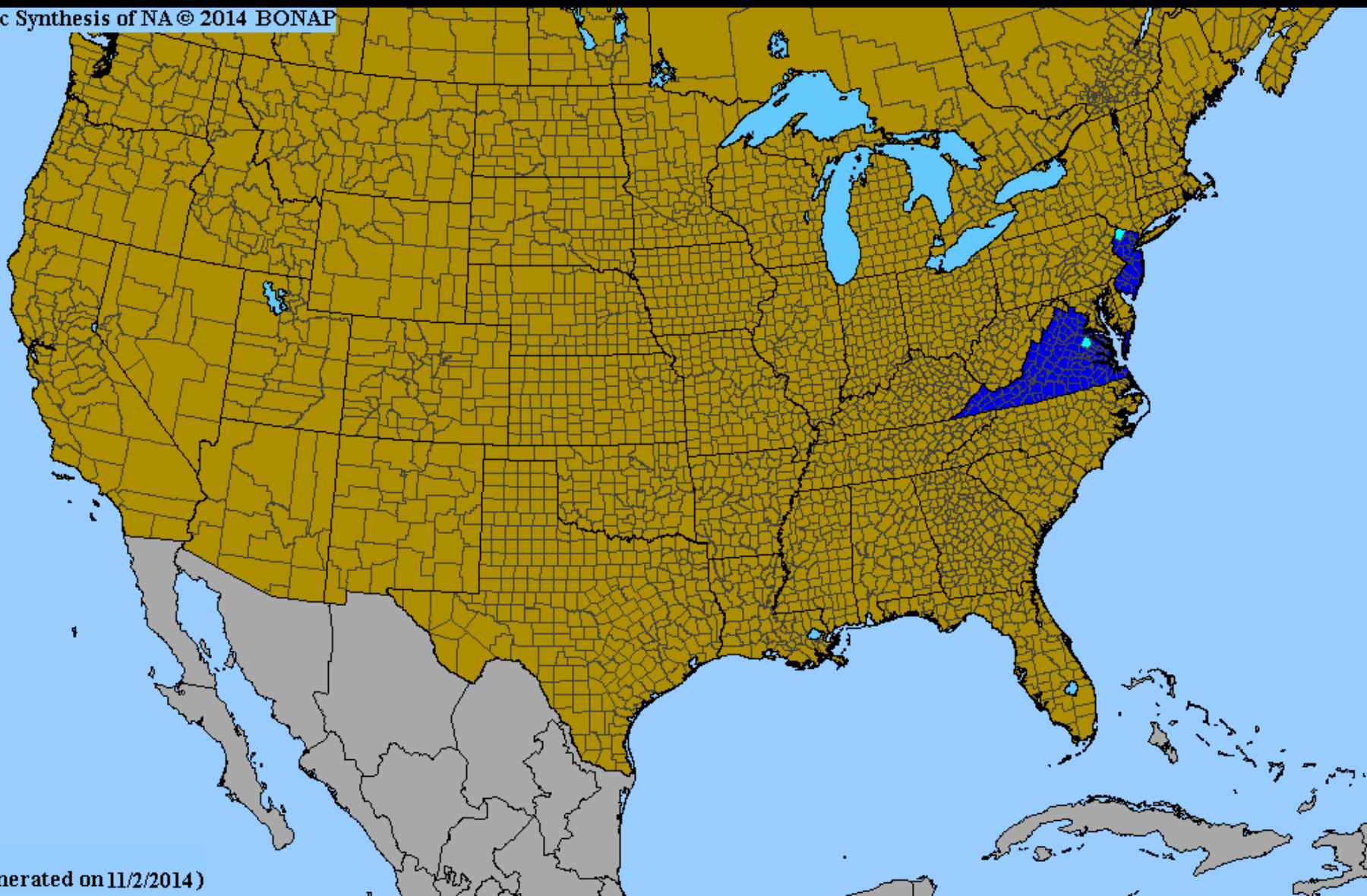


*Aldrovanda*  
The Waterwheel Plant

---



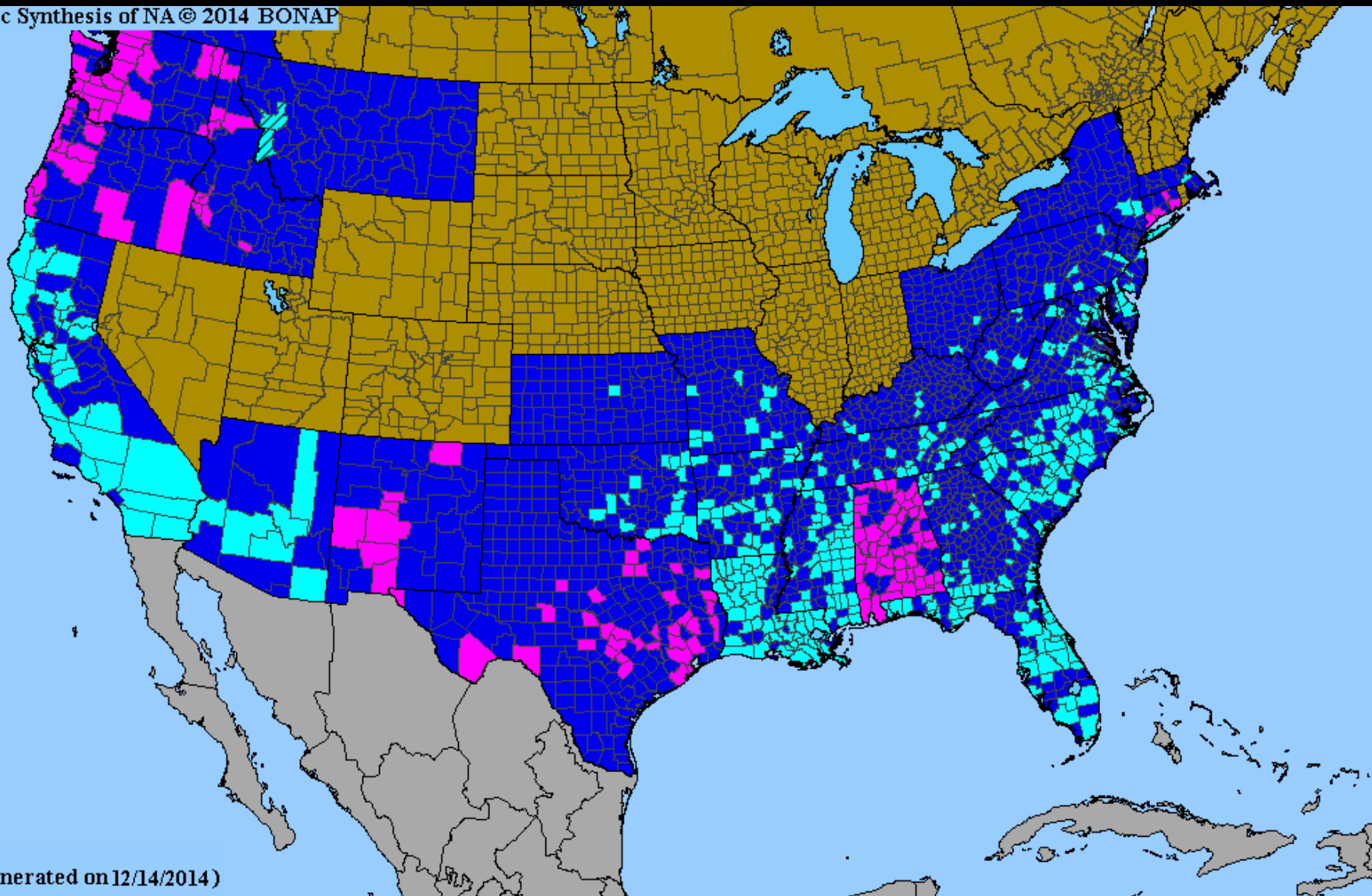
Adam Cross





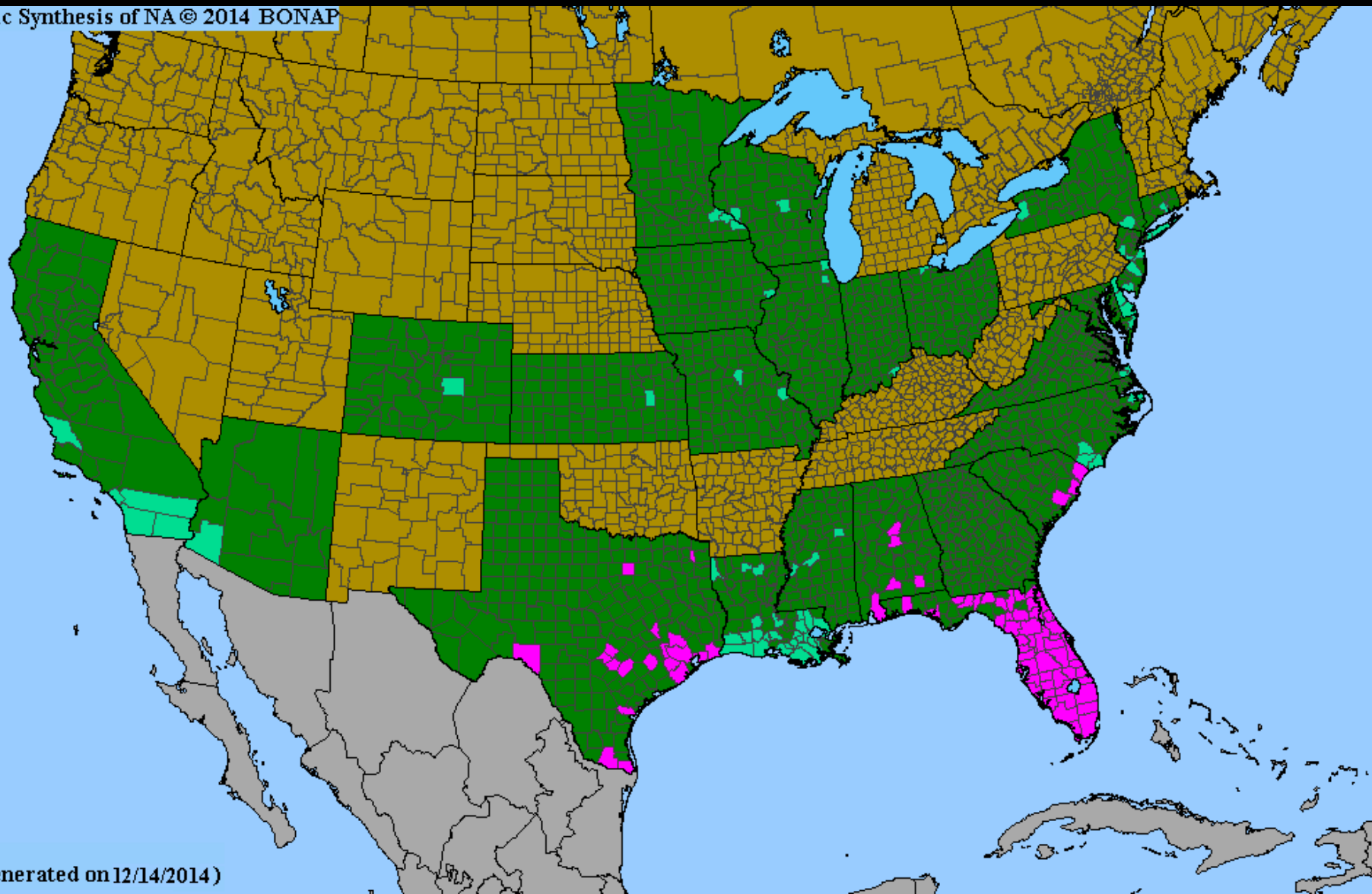


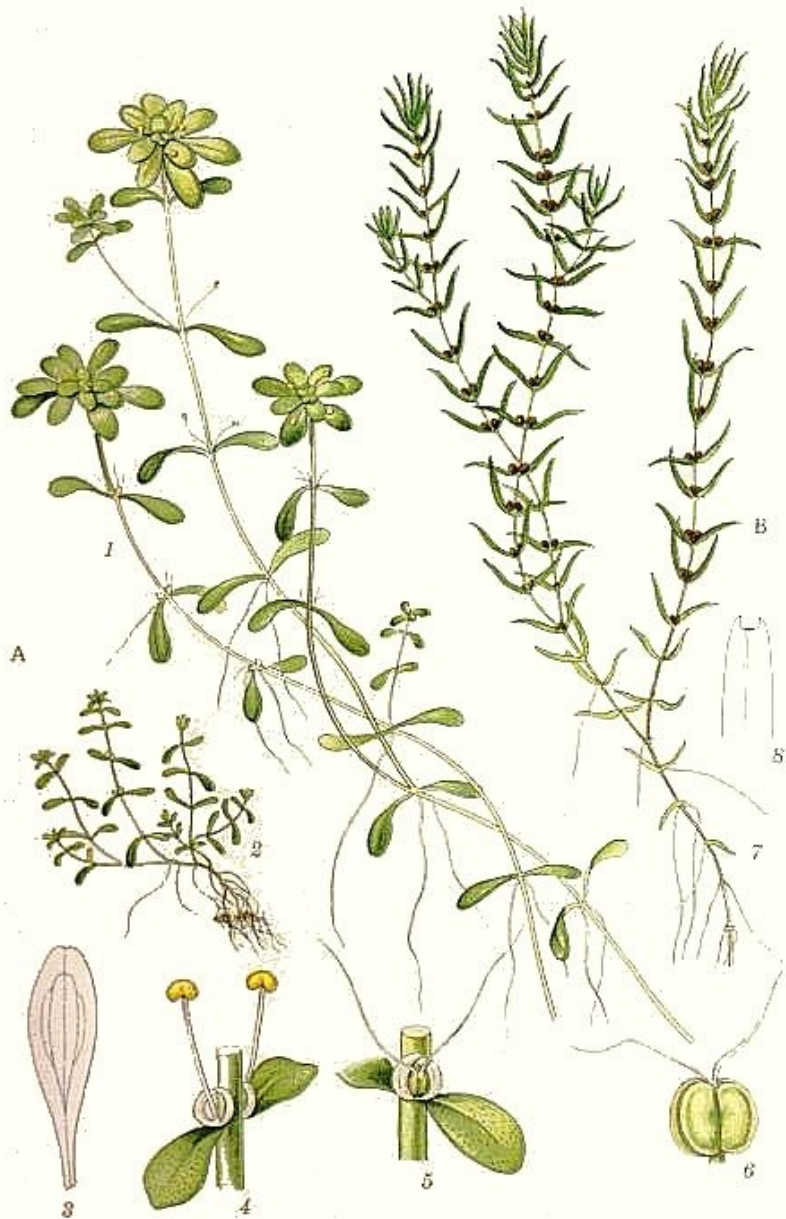
*Myriophyllum aquaticum* Parrot-feather  
Long Island Ponds, Dutchess Co.



*Pistia stratioides*      Water Lettuce  
Long Island, WNY Ponds

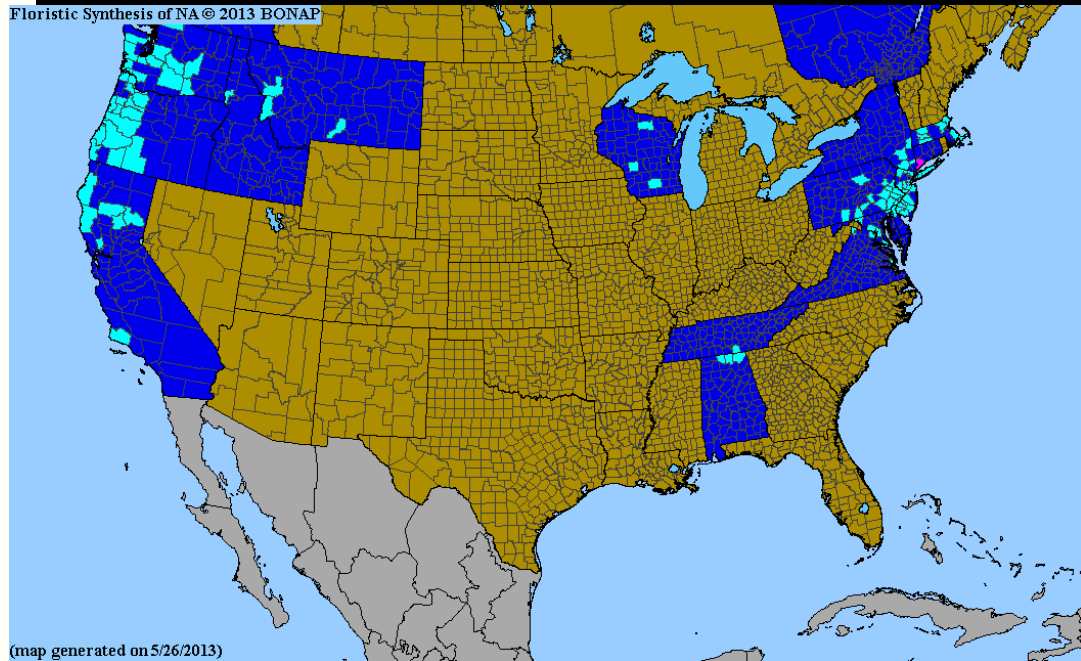






A. VÄRLÄNKE, *CALLITRICHE STAGNALIS* SCOP.  
 B. HÖSTLÄNKE, *CALLITRICHE AUTUMNALIS* L.

Floristic Synthesis of NA © 2013 BONAP



*Callitriche stagnalis* Pond Water-starwort  
 Long Island Ponds, Hudson Valley

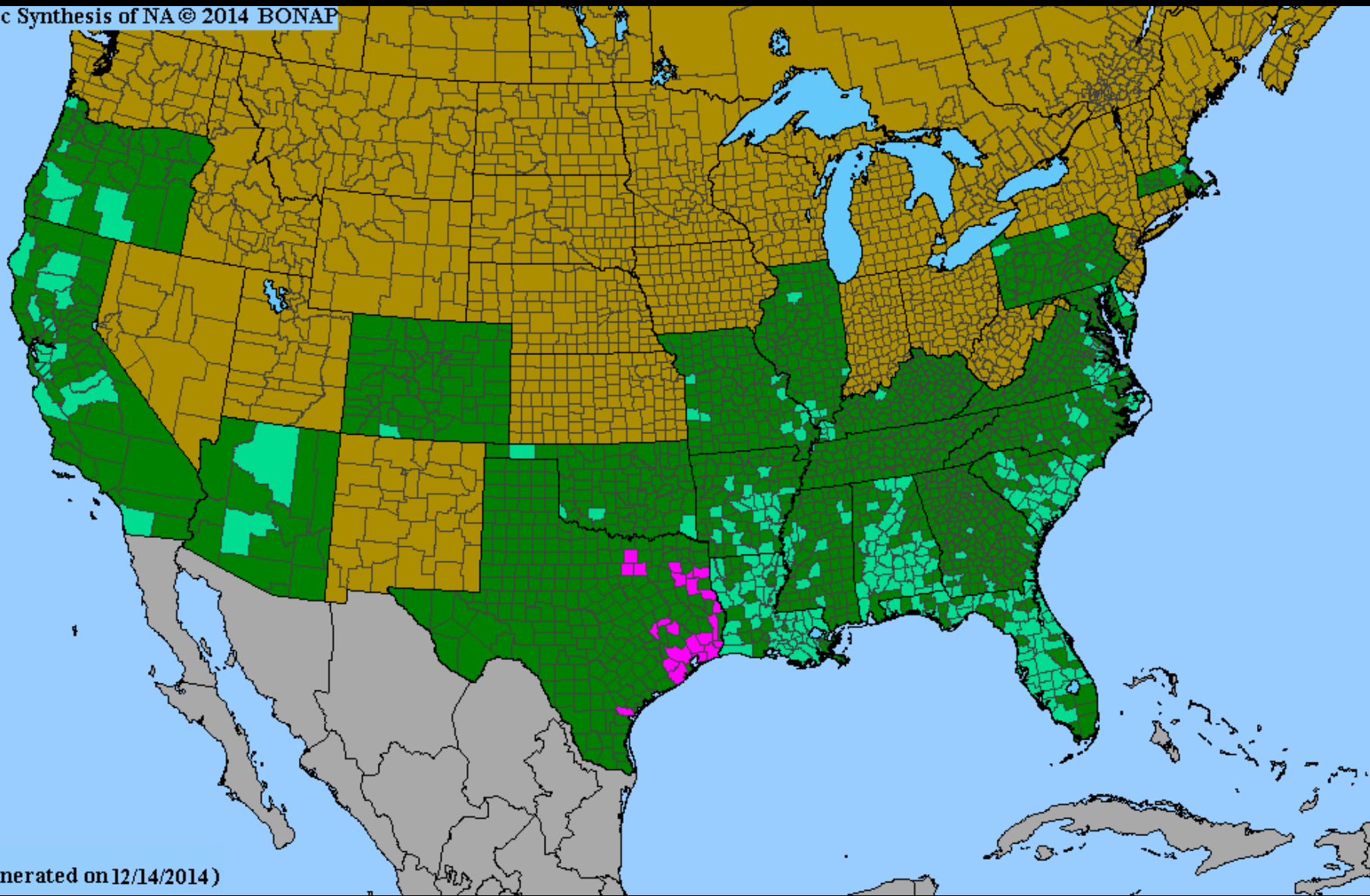


## A Key To The Genera Of Lemnaceae

- 1a. Plant body with 1 - several roots.
  - 2a. Root one.....[Lemna](#)
  - 2b. Roots 2 - 12.
    - 3a. Roots 7 - 12 (or more); plant 10 mm long.....[Spirodela](#)
    - 3b. Roots 2 - 3 (up to 5); plant 3 - 6 mm long.....[Landoltia](#)
- 1b. Plant body without roots.
  - 4a. Plant body flattened; 3 - 10 mm long.....[Wolffiella](#)
  - 4b. Plant body globose-ovoid; 0.6 - 1.2 mm long.....[Wolffia](#)



*Landoltia punctata* Spotted duckweed  
Pennsylvania south to West Coast





*Stratoides aloides* Water soldiers  
Trent River, Ontario

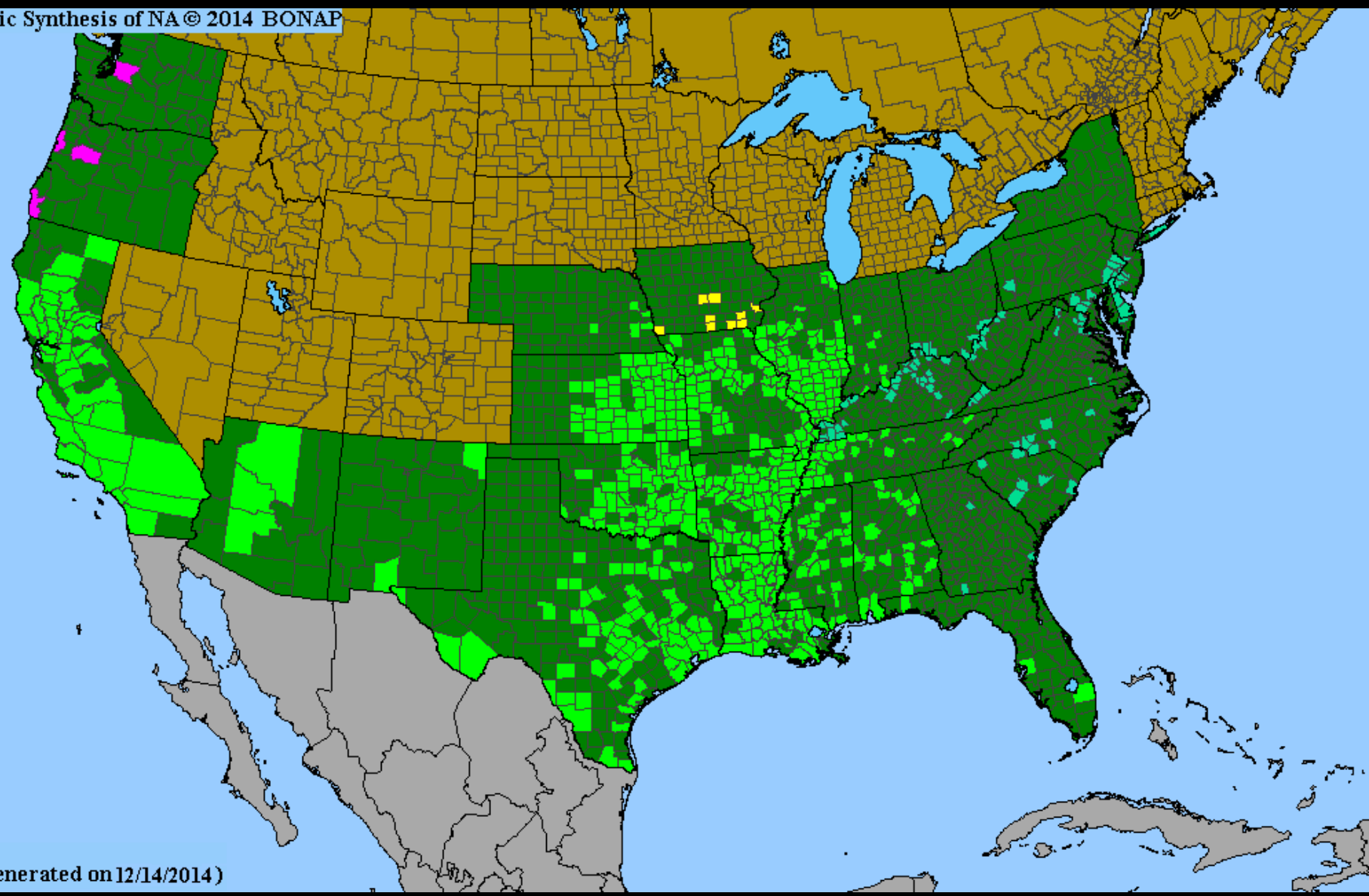




*Ludwigia peploides* Floating primrose-willow  
Long Island, Staten Island





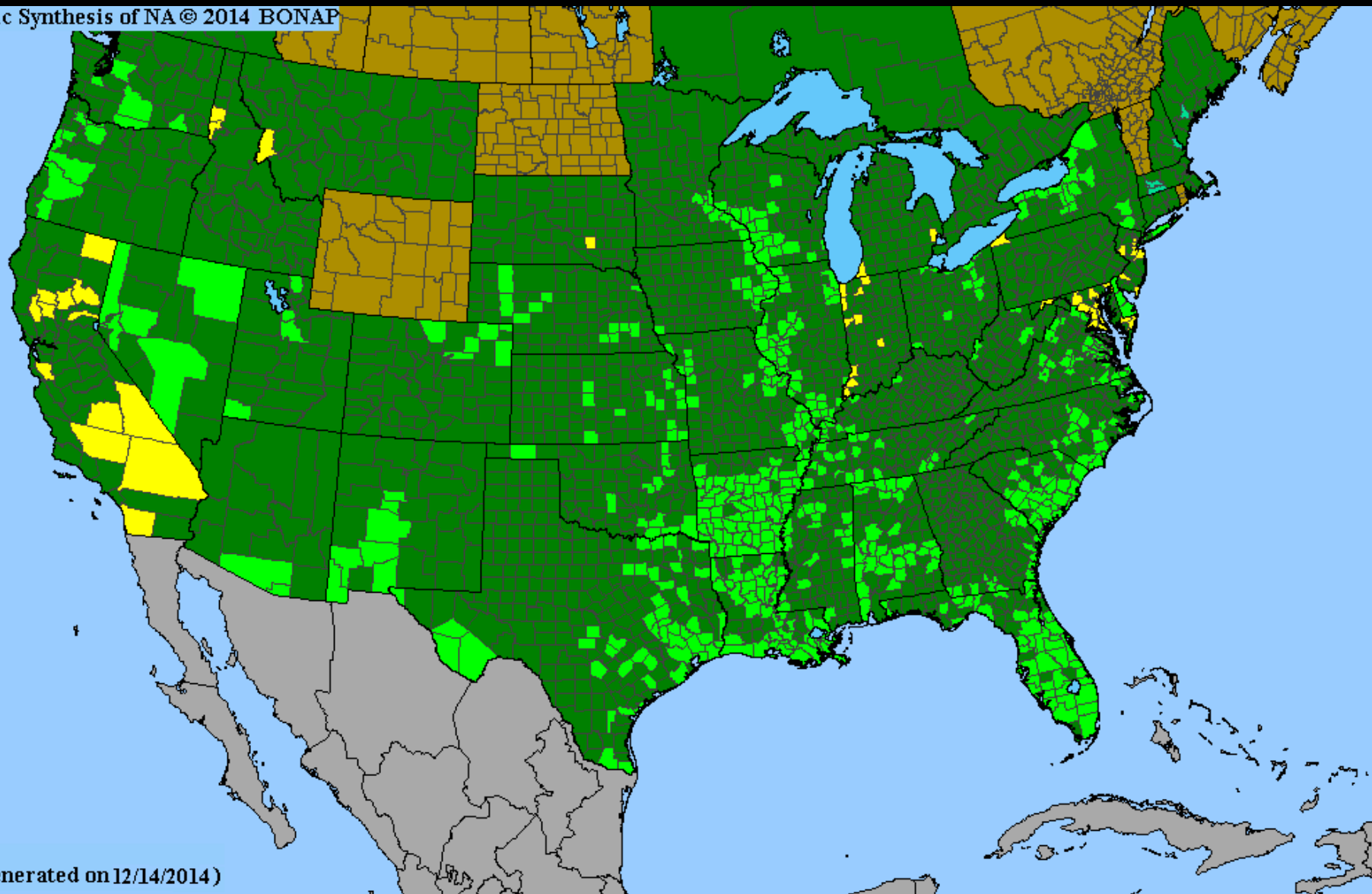


*Azolla cristata* Eastern Mosquito-fern  
Long Island, Lower Hudson, Great Lakes



© Sarah A. White







# Questions?

