



FOOD PLANTS:

Seed Production in Suisun Marsh

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Thanks to

Department of Water Resources
Suisun Resource Conservation District
California Waterfowl Association
D.G. Raveling Endowed Waterfowl Chair

California Department of Fish and Wildlife
United States Geological Survey
UCD Department of Fish, Wildlife and Conservation Bio

Balboa Farms
Cal Farms
Denverton
Goodyear
Grizzly King
Grizzly Ranch
Gum Tree Farms

Hidden Cove
Meridian Gun Club
Morrow Island Land Co.
Mulberry
Potrero Duck Club
The Teal Club
Tip End Gun Club

Tule Belle
Tule Meadows
Tule Red
Walnut Creek Gun Club
West Wind
Wheeler Island
Wings Landing

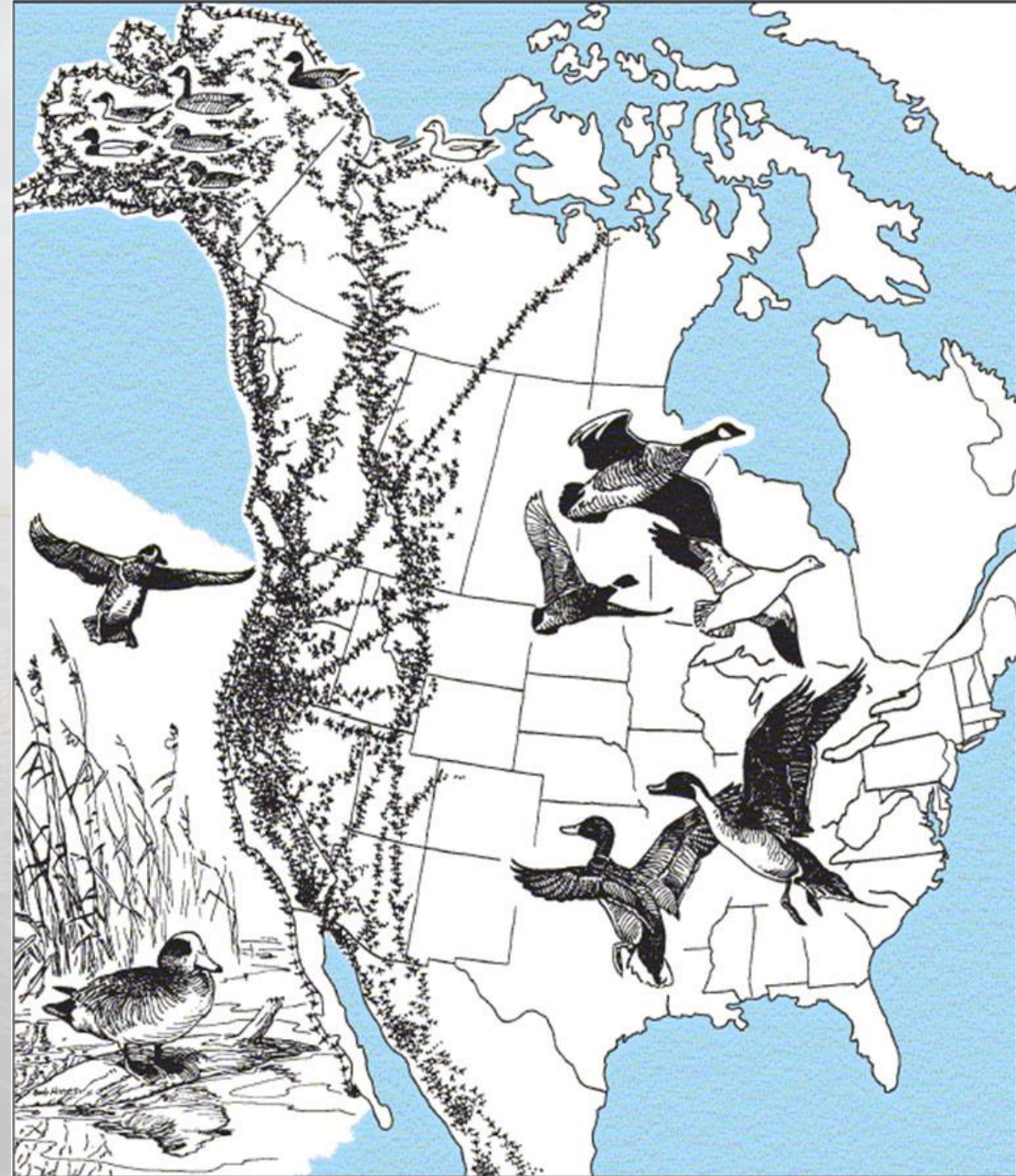


Wetland Management



North American Waterfowl Management Plan

- Restore, enhance, and protect habitat
- Regional implementation



Central Valley Joint Venture

- **How much** habitat is needed to support current waterfowl populations?
- **What types** of habitats are needed to meet these goals?
- **Where** in the Central Valley are these habitats needed?



Energy Supply

Habitat acreage
by region

Foraging value of
each habitat type

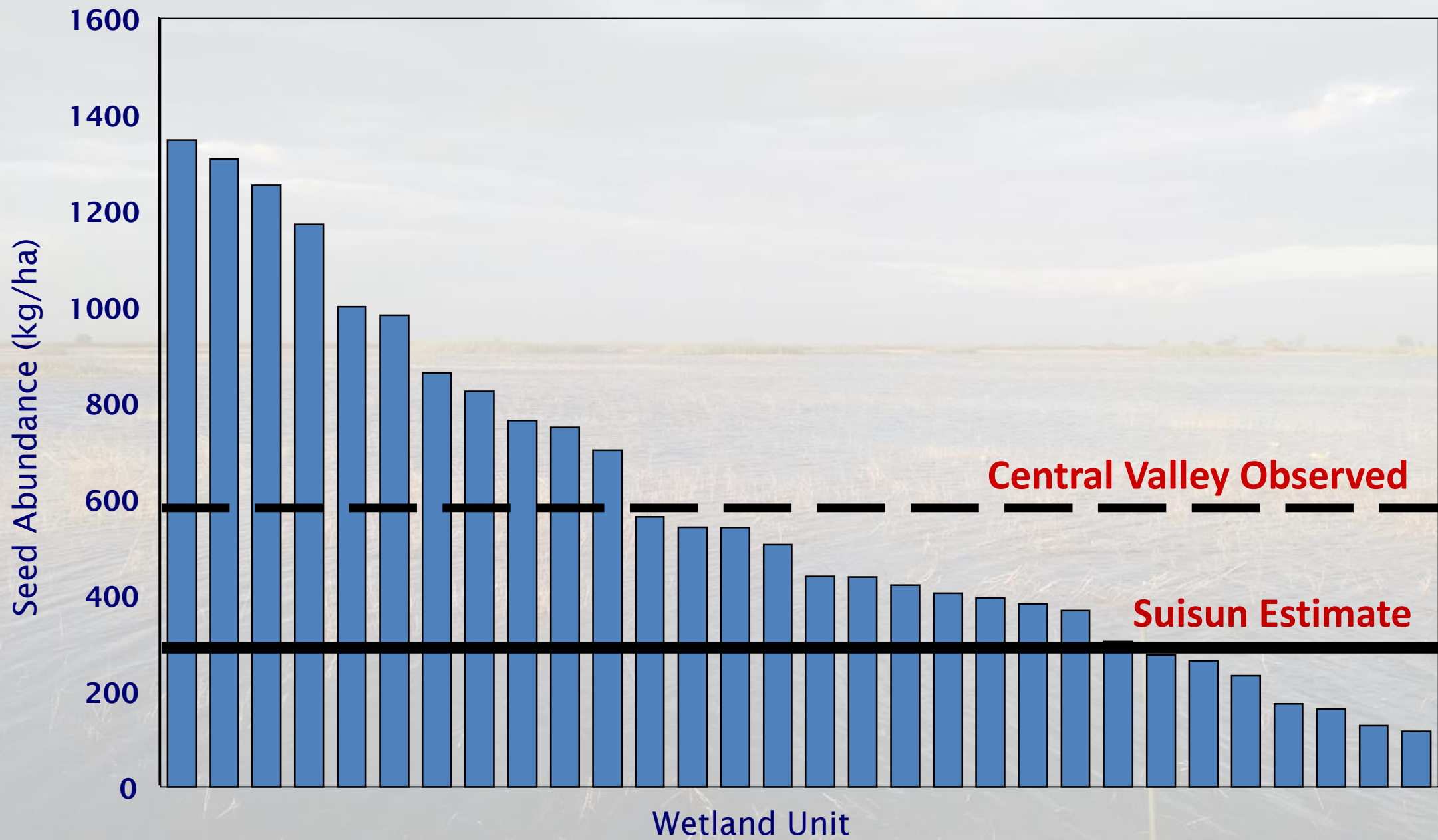
Energy Demand

Population
objectives

Distribution
by region

Bioenergetic Model

$$\text{Acres needed} = \frac{\text{Number of Birds} * \text{Energy / bird}}{\text{Energy available / acre}}$$



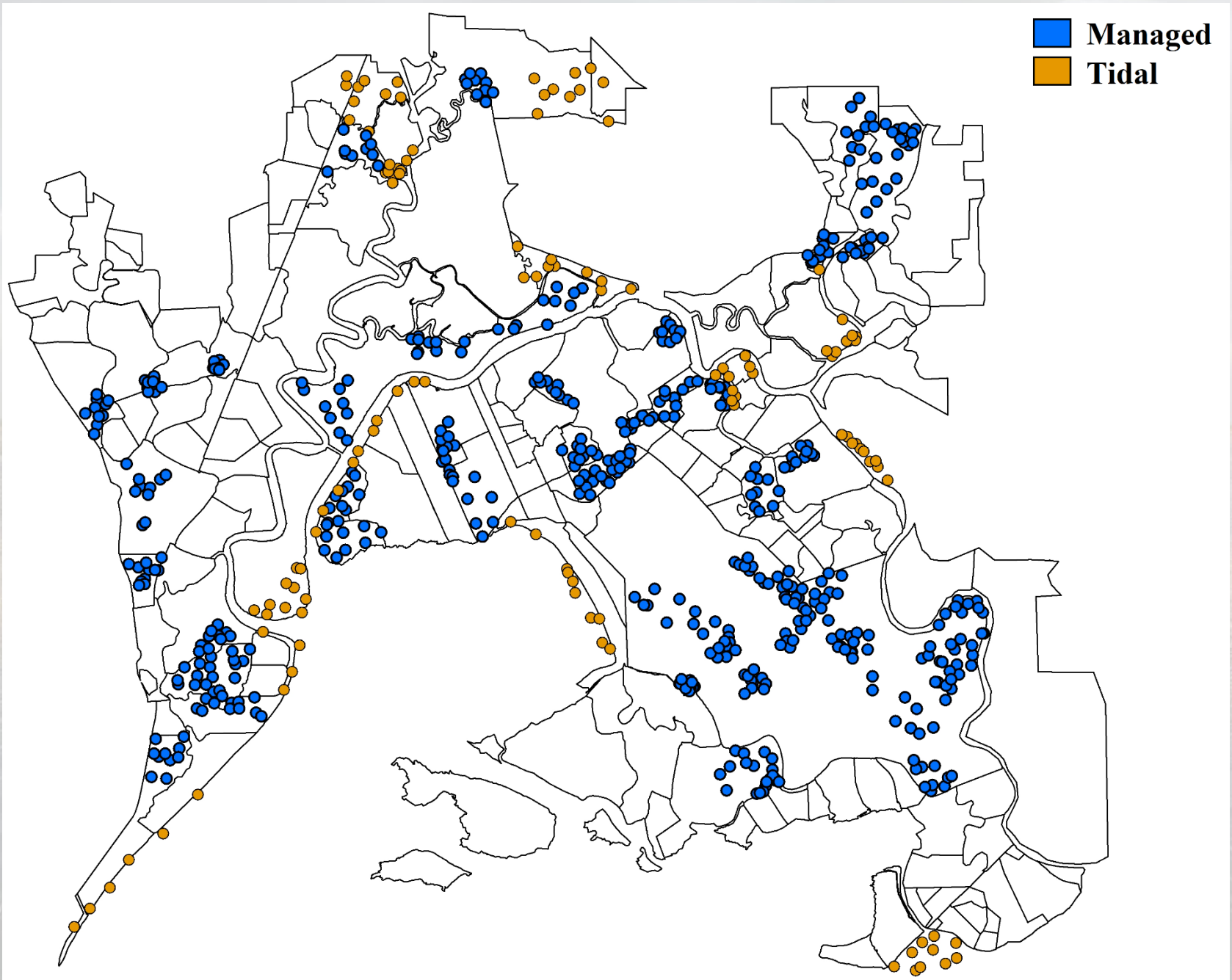
Challenges

- Tidal restoration
- Water availability and salinity
- Management costs
- No agricultural waste grain
- Decline in hunter numbers



Study Goals

- What are the primary food plants in Suisun Marsh?
- What is the food availability in Suisun Marsh?
- Do tidal and managed wetlands differ, if so how?
- How do these seeds degrade over winter?

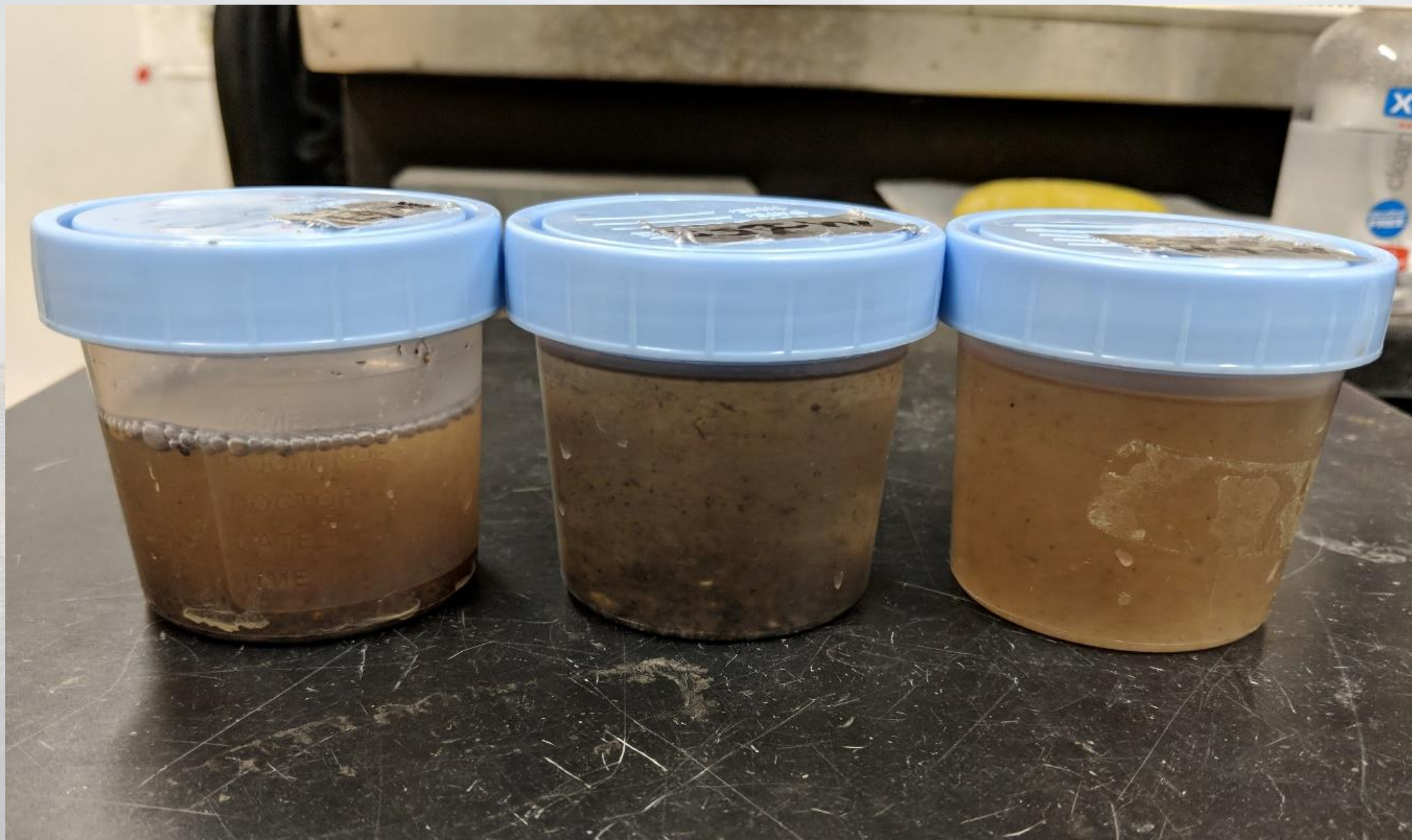


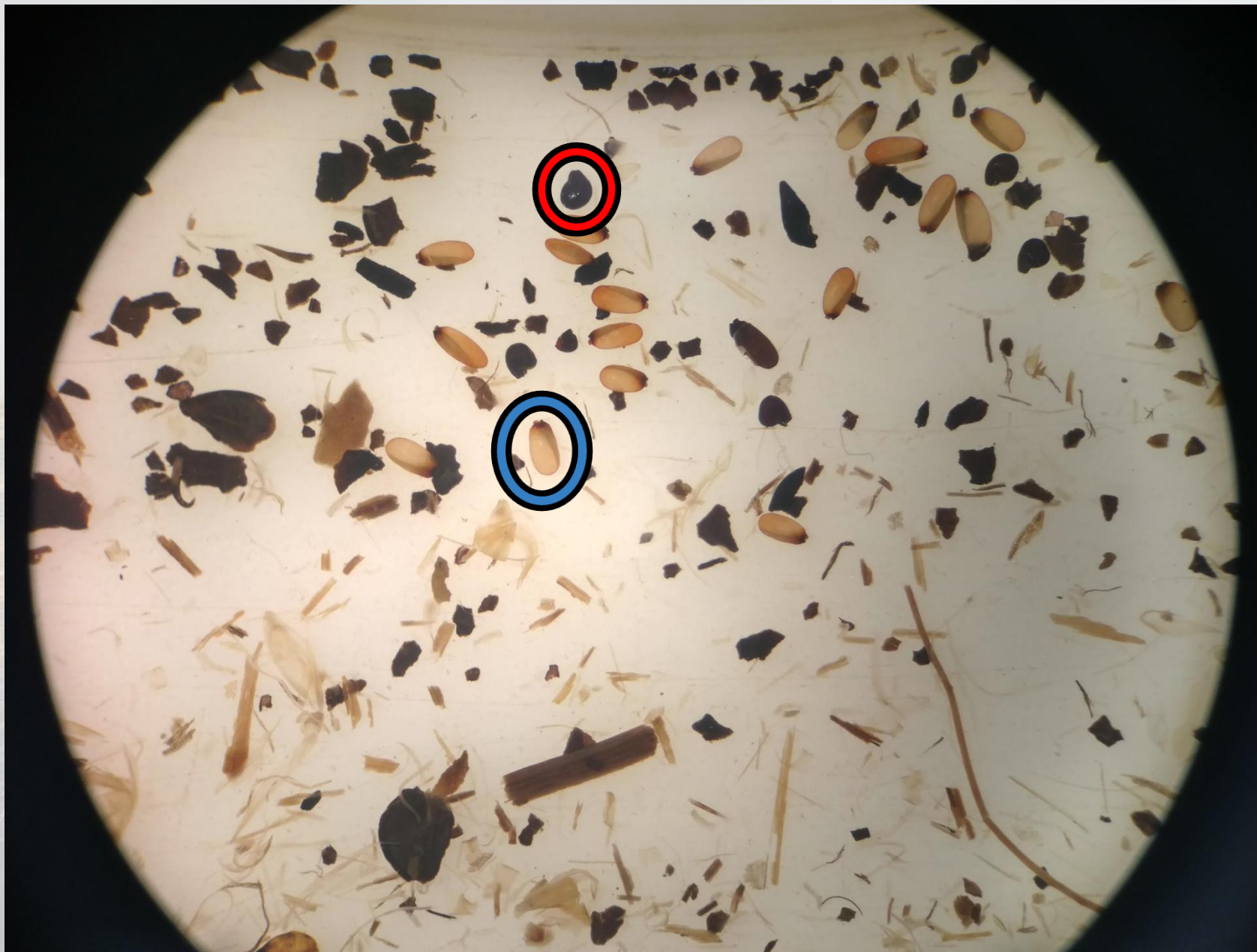
- **500** Managed Wetland Samples
- **130** Tidal Wetland Samples













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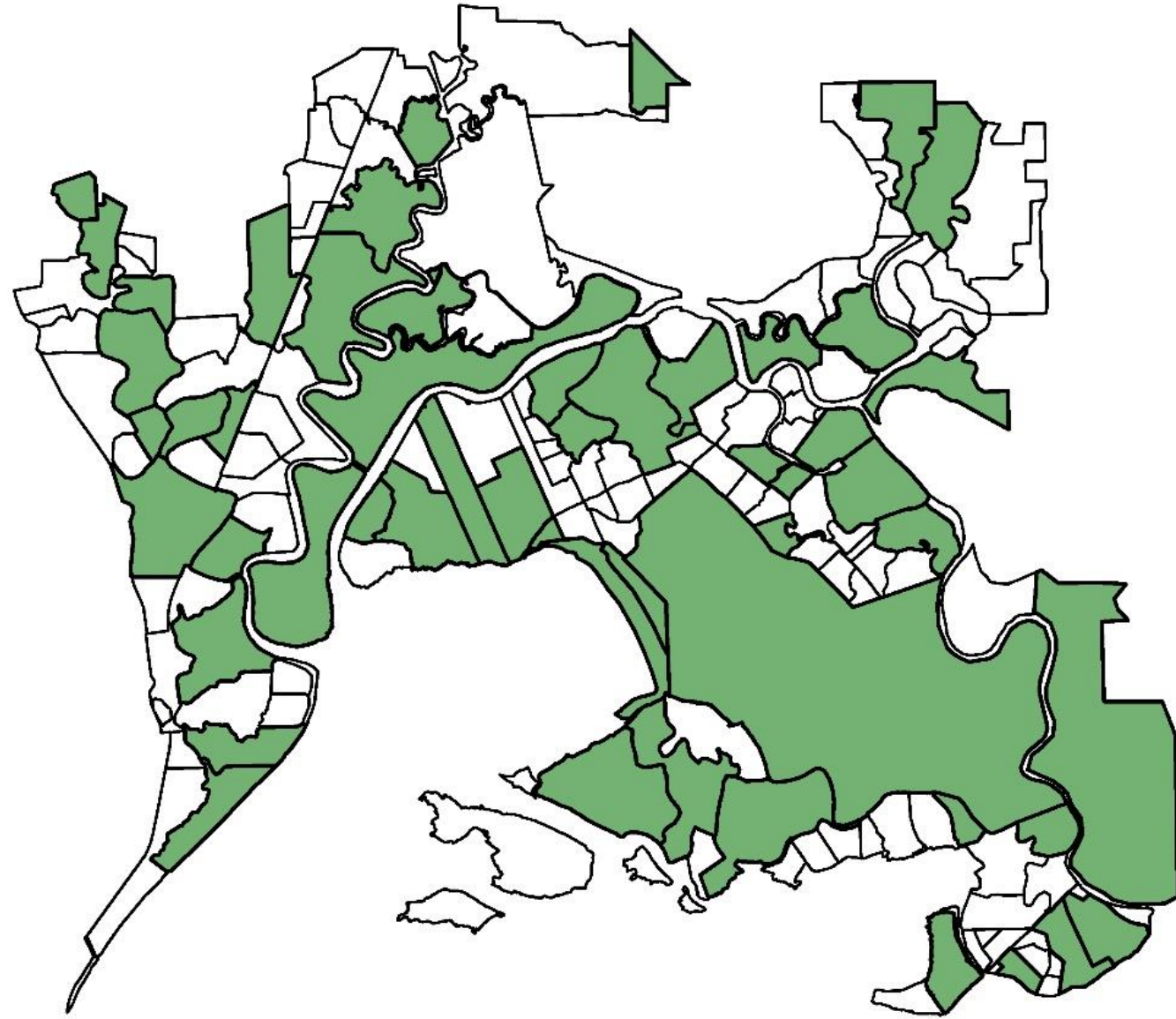
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