

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

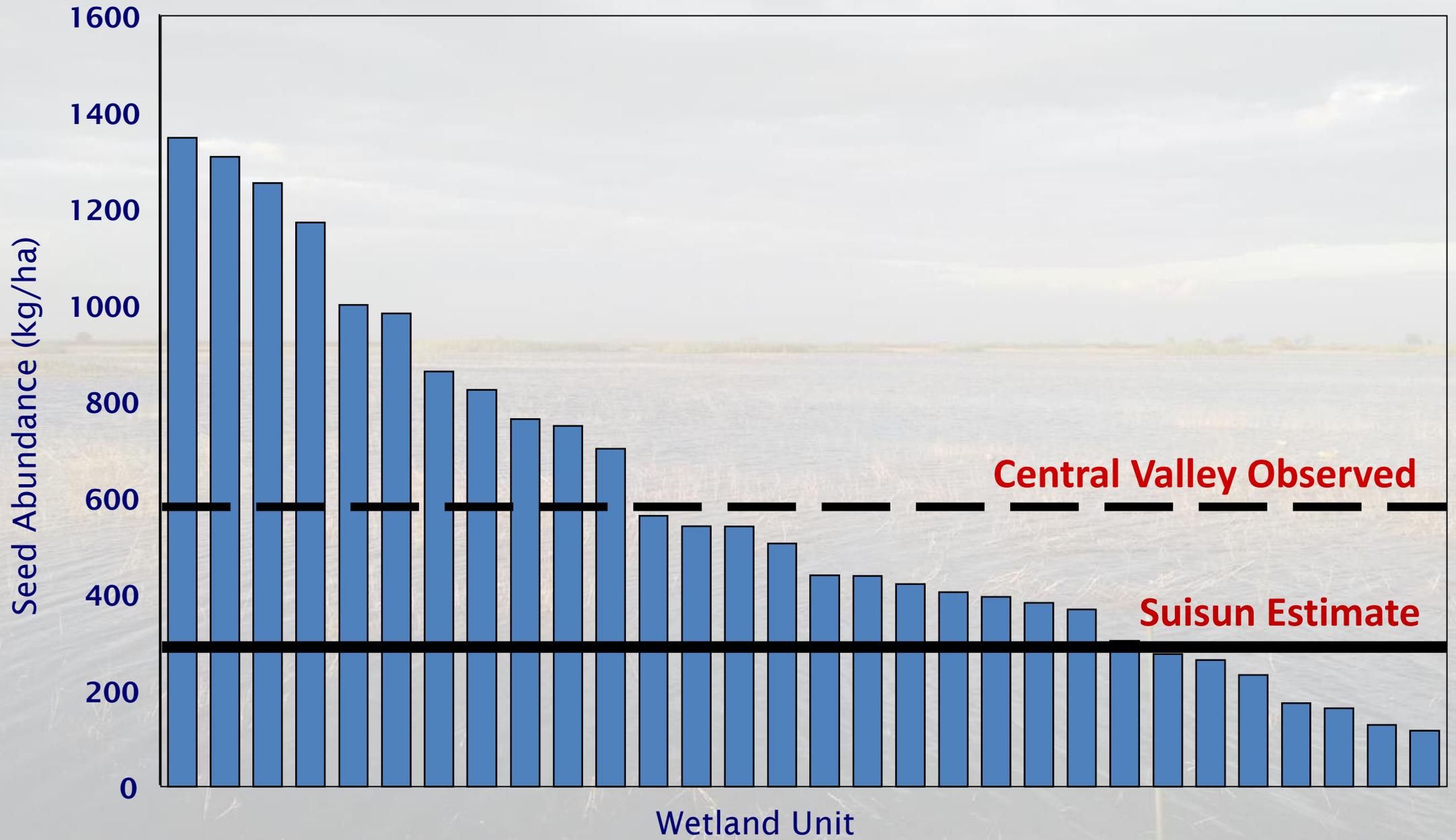
Energy Demand

Population
objectives

Distribution
by region

Bioenergetic Model

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



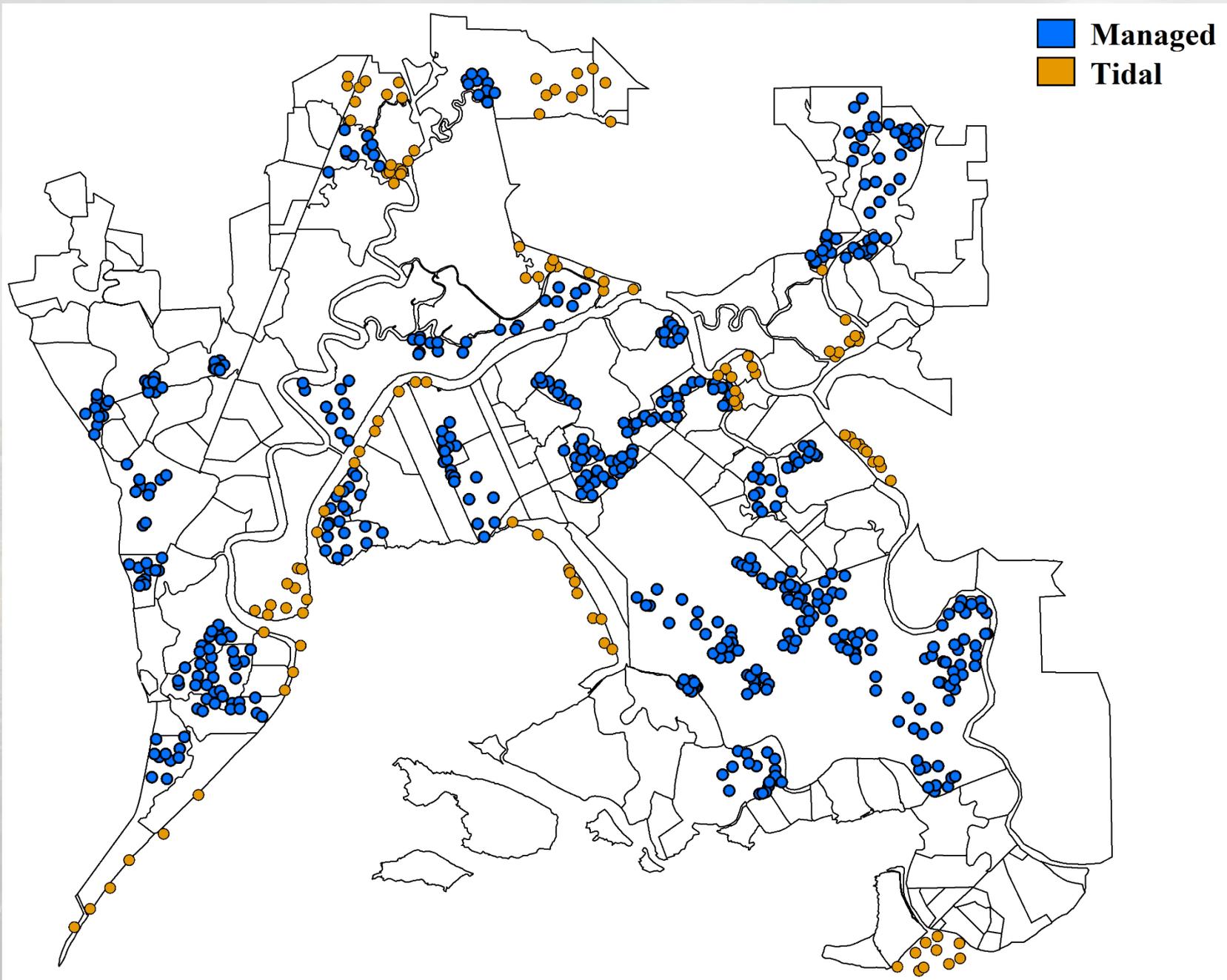
Challenges

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



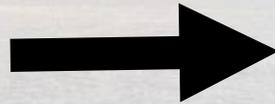
Study Goals

- 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?



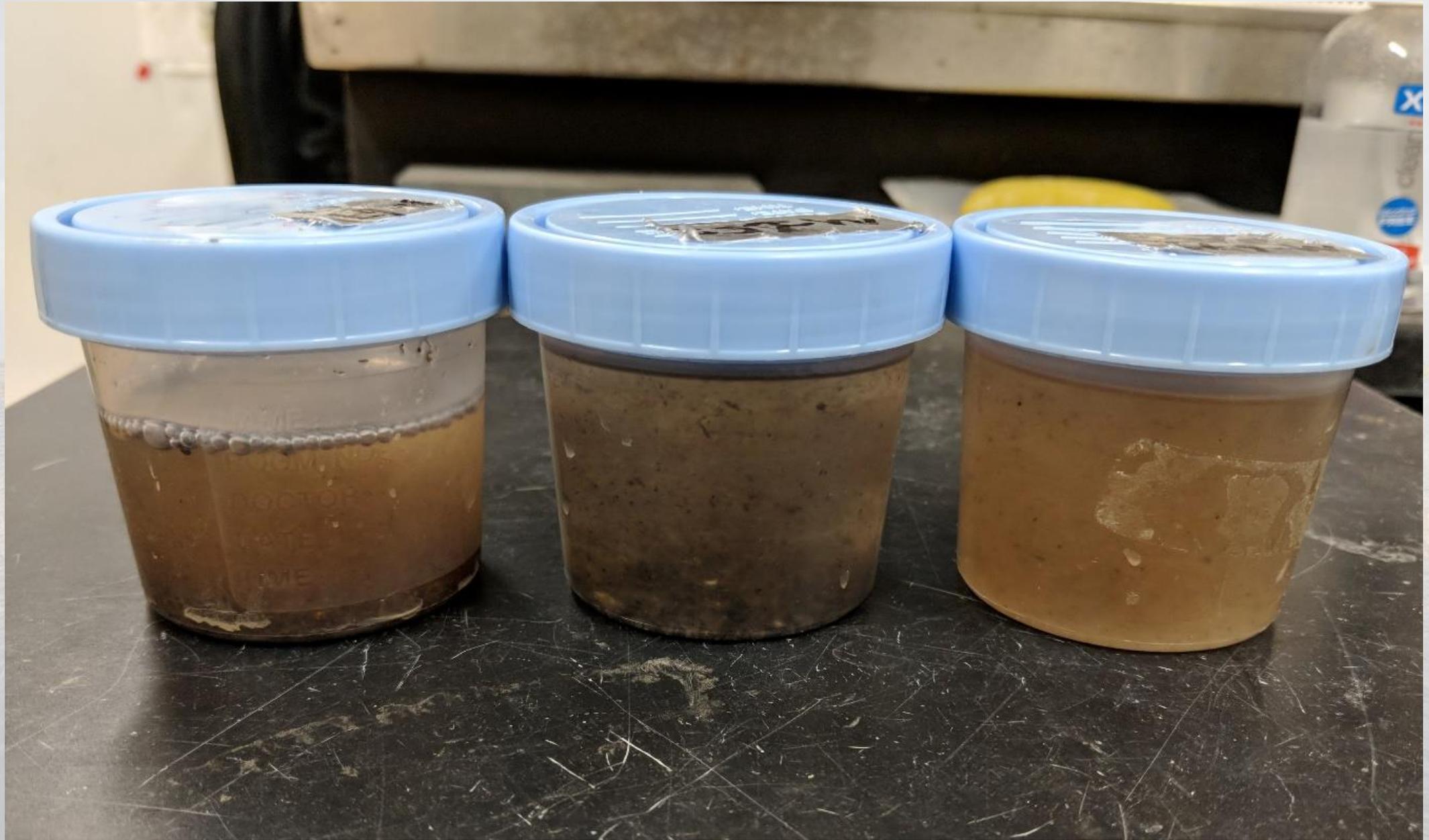
- **500** Managed Wetland Samples
- **130** Tidal Wetland Samples

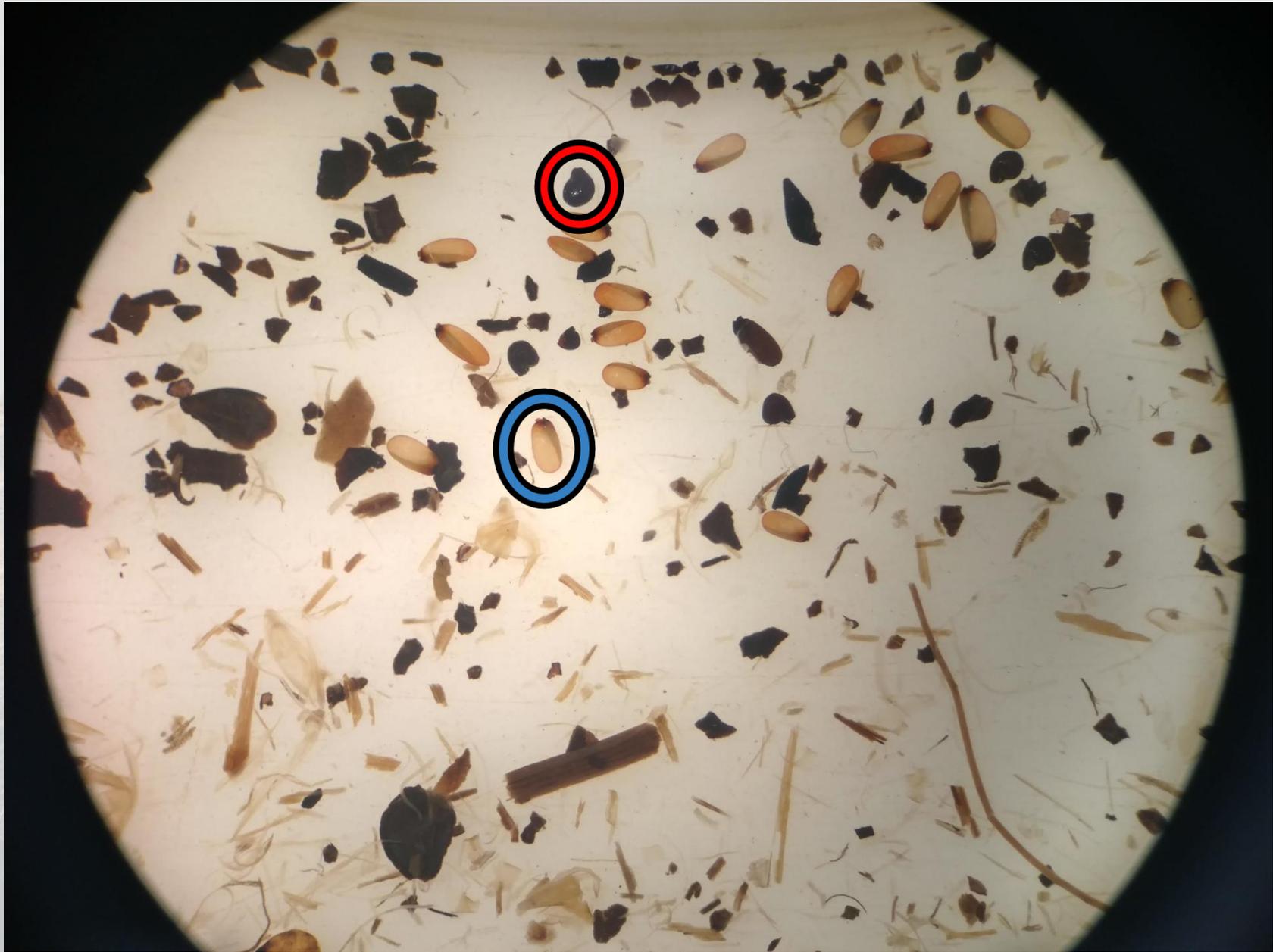














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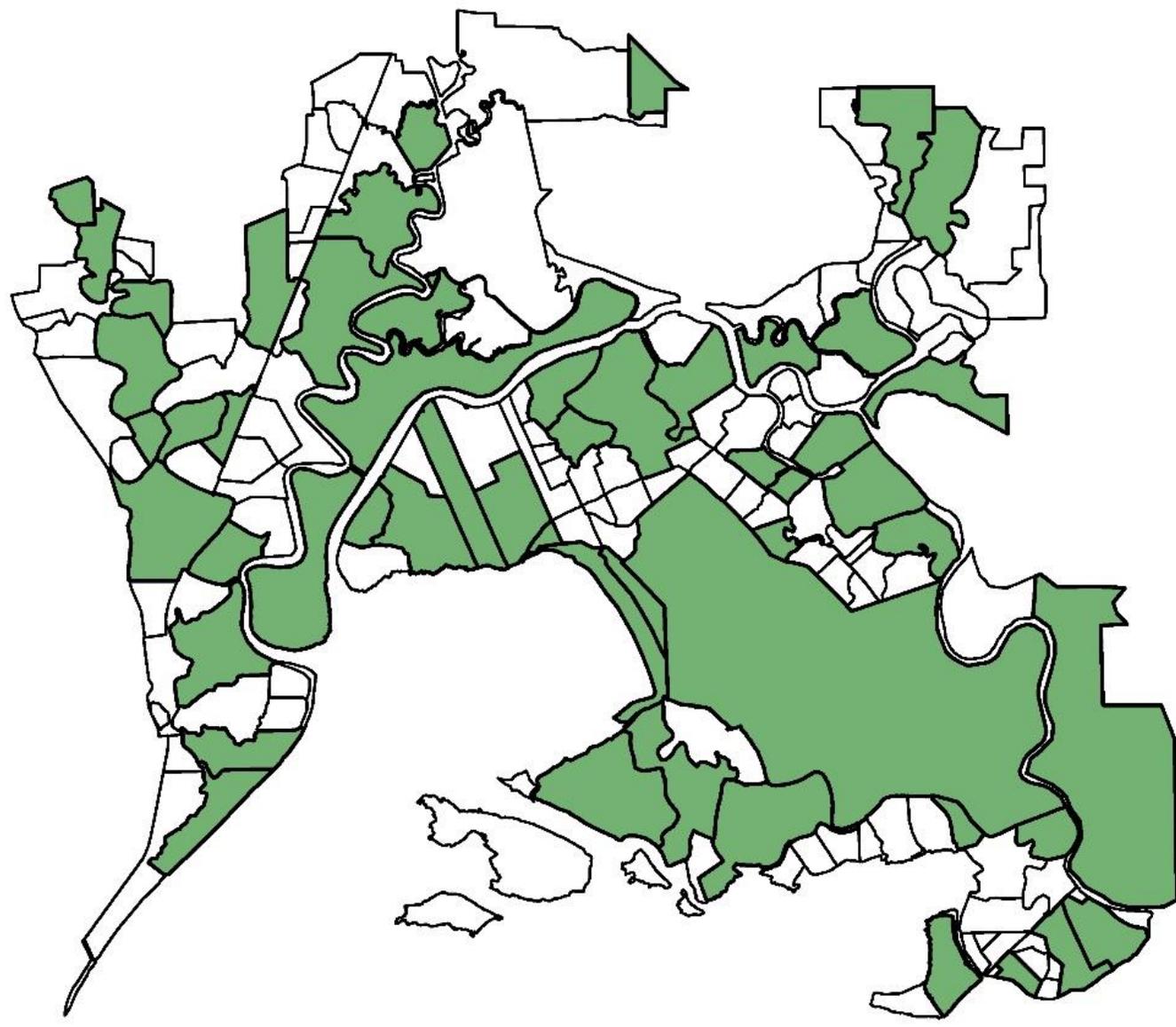
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