

Conservation of Amphibian and Reptiles of the Delaware Inland Bays

Nate Nazdrowicz, PhD
Herpetologist
DNREC Fish and Wildlife



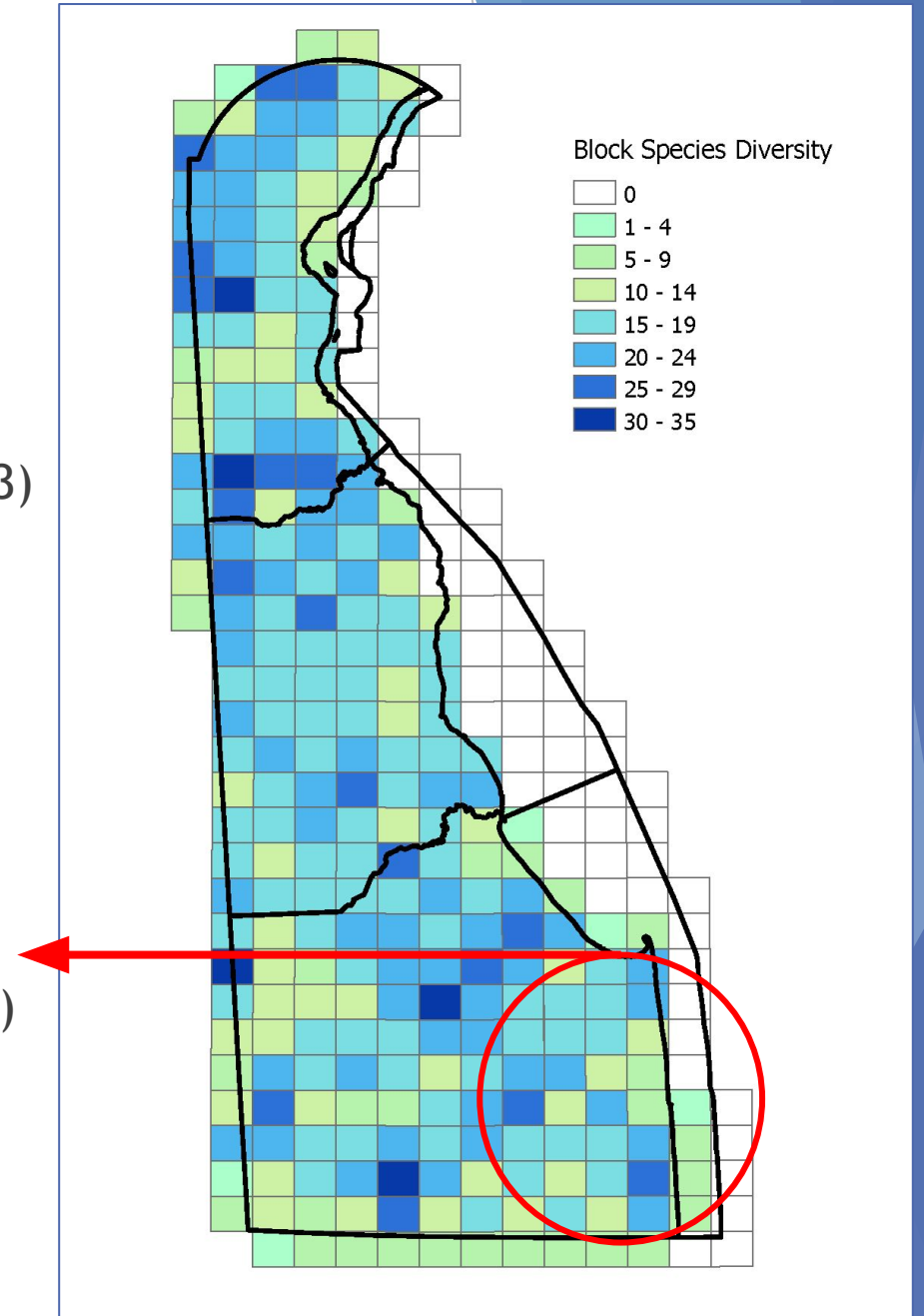
Delaware Herp Diversity

Statewide

- ▶ 66 species
- ▶ 28 Critically Imperiled (S1), Imperiled (S2), or Vulnerable (3)
- ▶ 8 endangered

Inland Bays Watershed

- ▶ 54 species (81%)
- ▶ 19 Critically Imperiled (S1), Imperiled (S2) or Vulnerable (3)
- ▶ 5 endangered
 - Barking treefrog, Carpenter Frog, Eastern Tiger Salamander, Red Cornsnake, Plain-bellied Watersnake





Threats

Growing Population and Land Use Changes

- Habitat loss
- Habitat fragmentation
- Road mortality

Climate Change & Sea-level Rise

Disease

Effects of Climate Change

Populations Improving

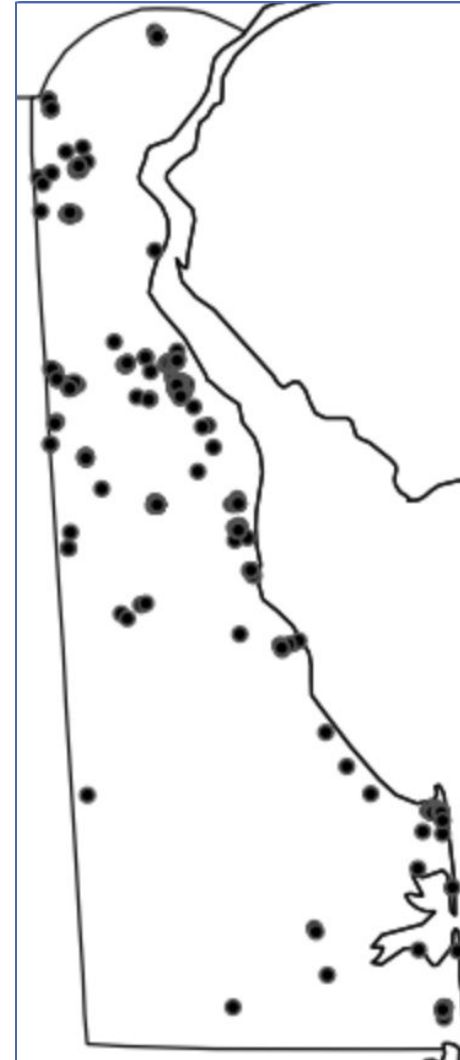
- ▶ Green Treefrog (S3→S4)
- ▶ Cope's Gray Treefrog (S2→S5)

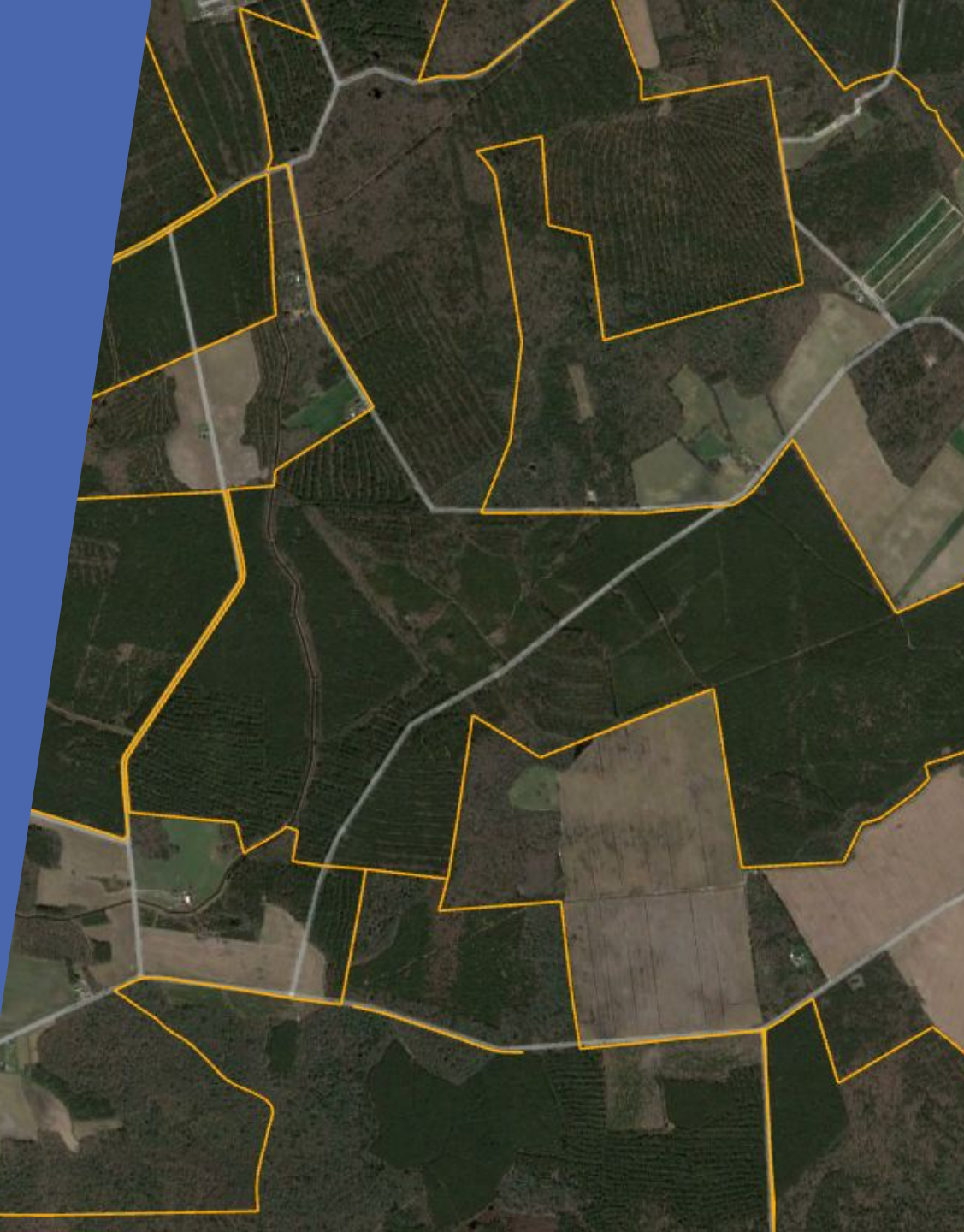
Populations Declining

- ▶ Gray Treefrog (S4→S3)

At risk for sea-level rise

- ▶ Common Ribbonsnake (S2S3)
- ▶ Spotted Turtle (S3)





Conservation Actions

Habitat protection

Habitat management/creation

Research and monitoring

Population augmentation

Working with partners

Eastern Tiger Salamander

Ecology and Habitat

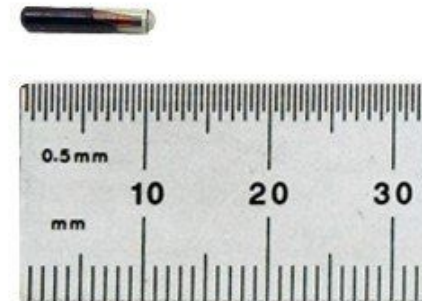
- ▶ Seasonally active Nov-Mar
- ▶ Fishless ponds



Eastern Tiger Salamander

DFW Projects

- ▶ Mark-recapture
- ▶ Population monitoring
- ▶ Radio-telemetry
- ▶ Assisted migration
- ▶ Fish removal/Habitat management



Barking Treefrog

Ecology and Habitat

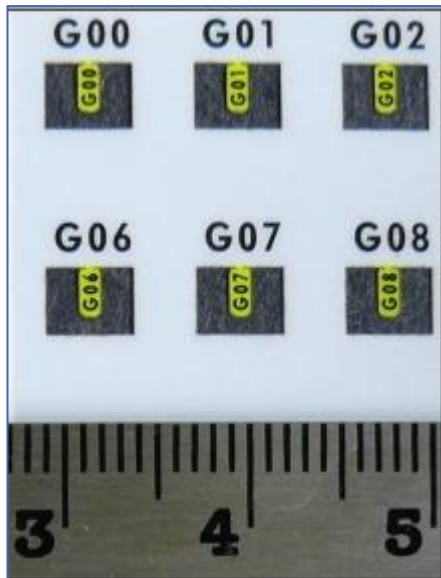
- ▶ Breeding Season May-Jun
- ▶ Fishless ponds



Barking Treefrog

DFW Projects

- ▶ Mark-recapture



Spotted Turtle

Ecology and Habitat

- ▶ Active Feb-Jul
- ▶ Seasonally wet forests and vernal pools



Spotted Turtle

DFW Projects

- ▶ Mark-recapture
- ▶ Radio-telemetry



Diamond-backed Terrapin

Ecology and Habitat

- Estuaries and tidal creeks



Diamond-backed Terrapin

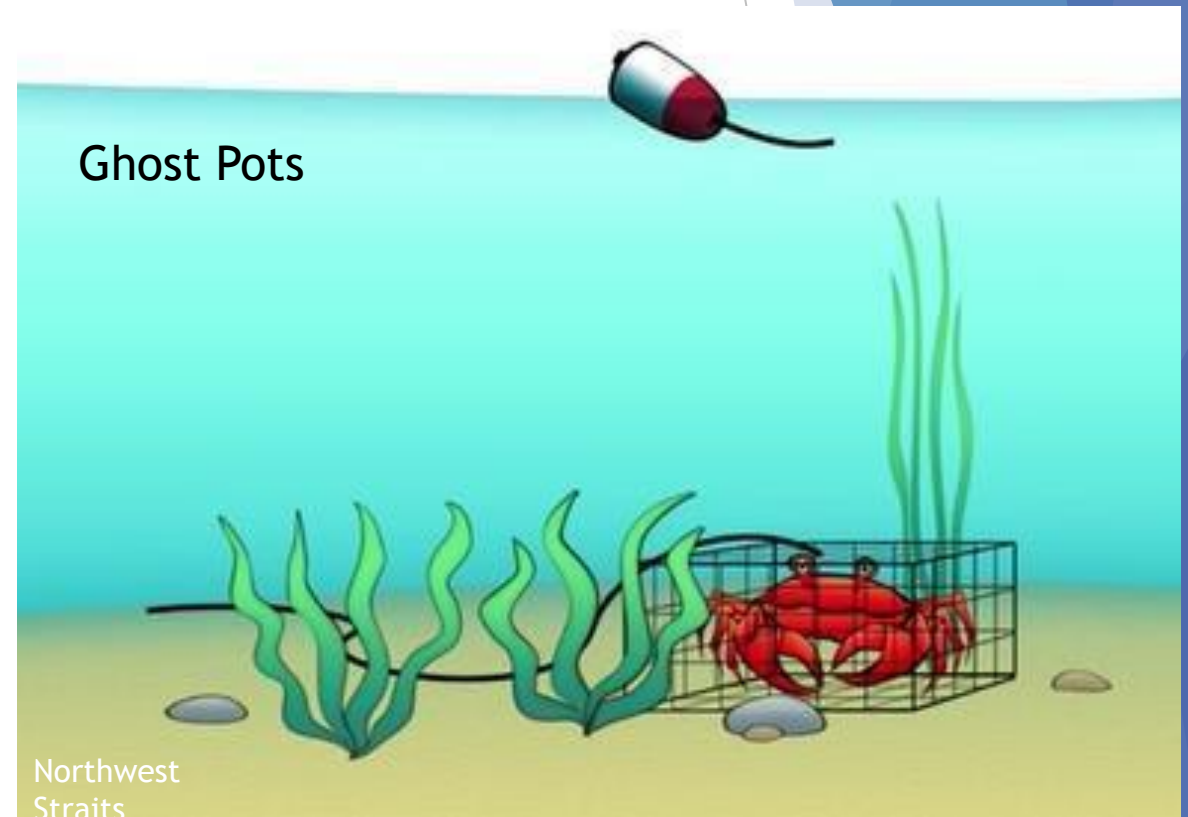
DFW Projects

- ▶ Derelict Crab Pot Removal
- ▶ Nesting Habitat Creation

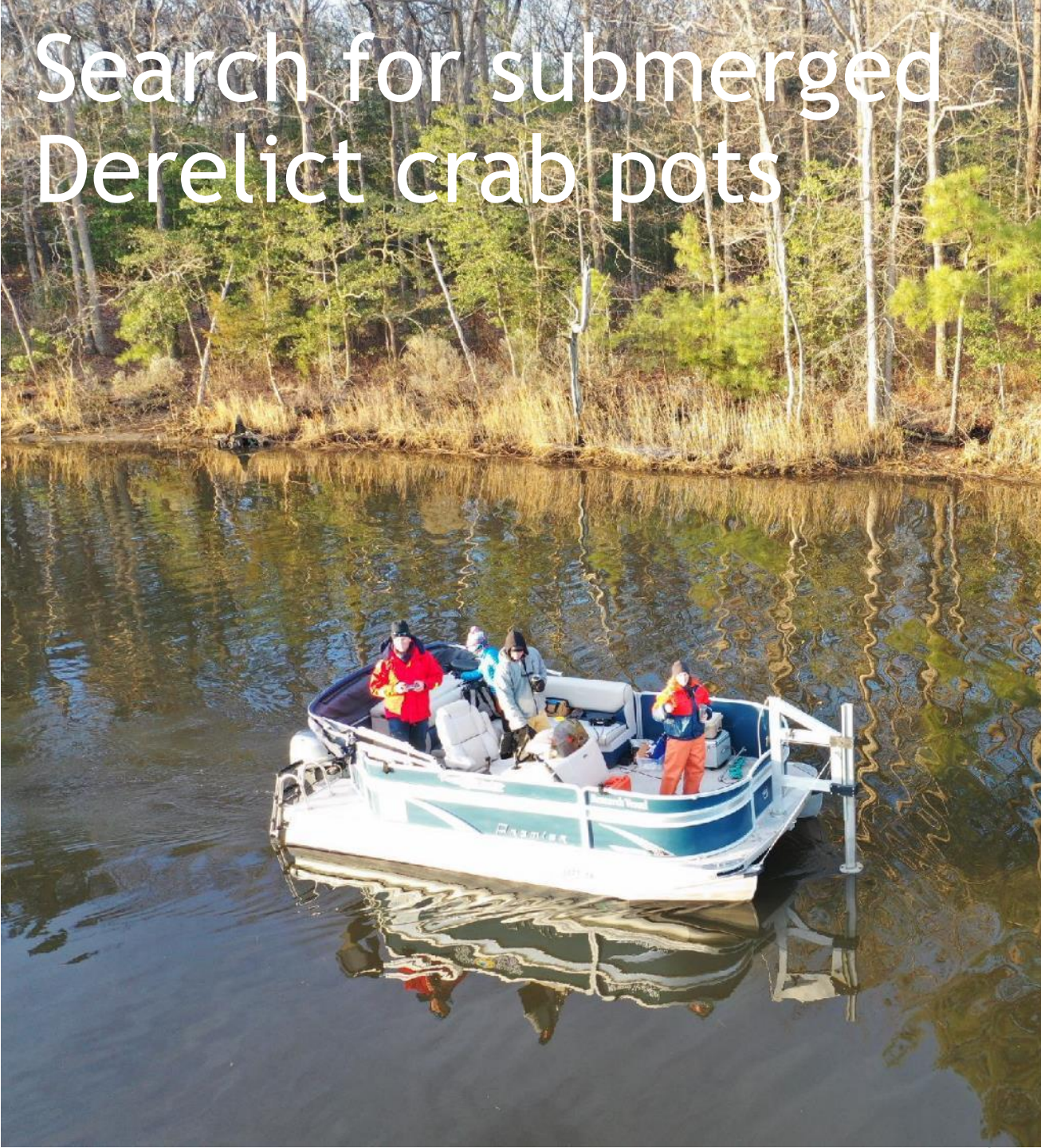


Derelict Crab Pot Removal

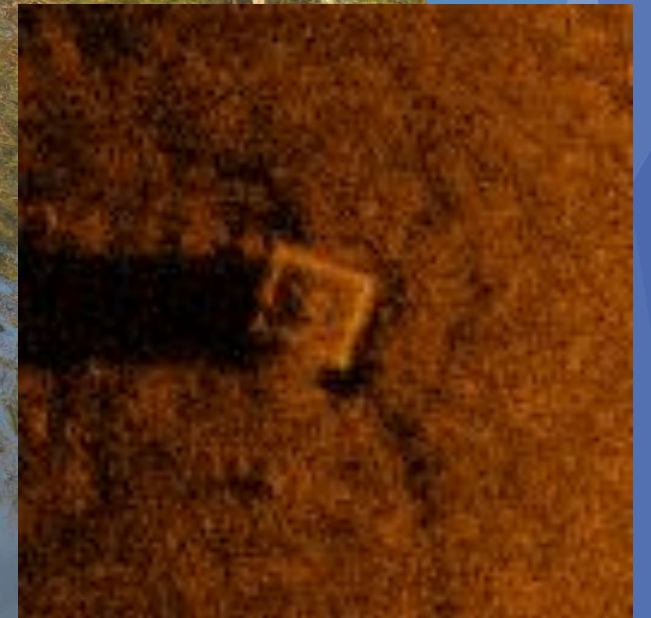
- ▶ Fish & Wildlife Natural Resources Police
- ▶ Delaware Sea Grant, University of Delaware



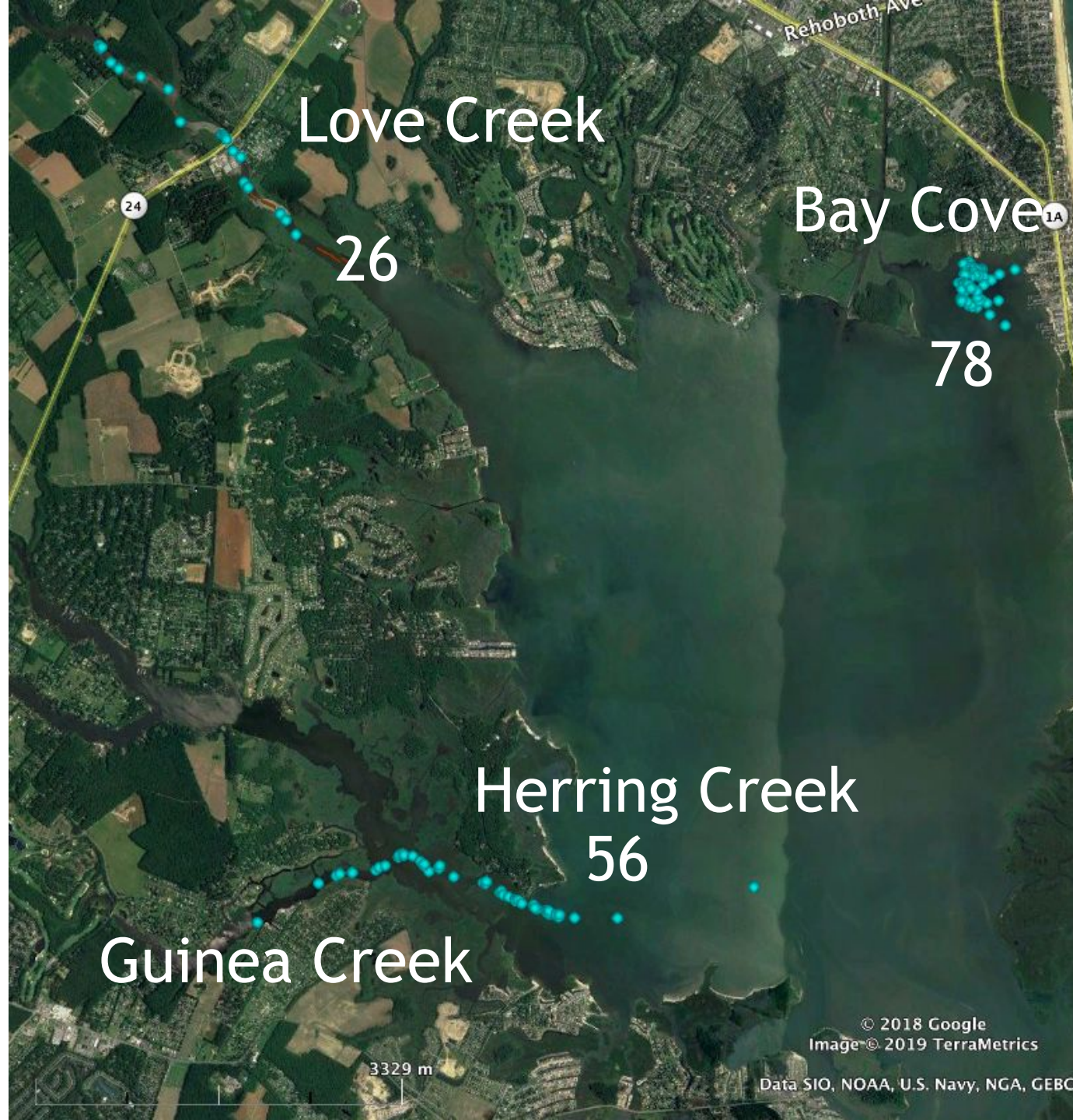
Search for submerged Derelict crab pots



UD CEOE

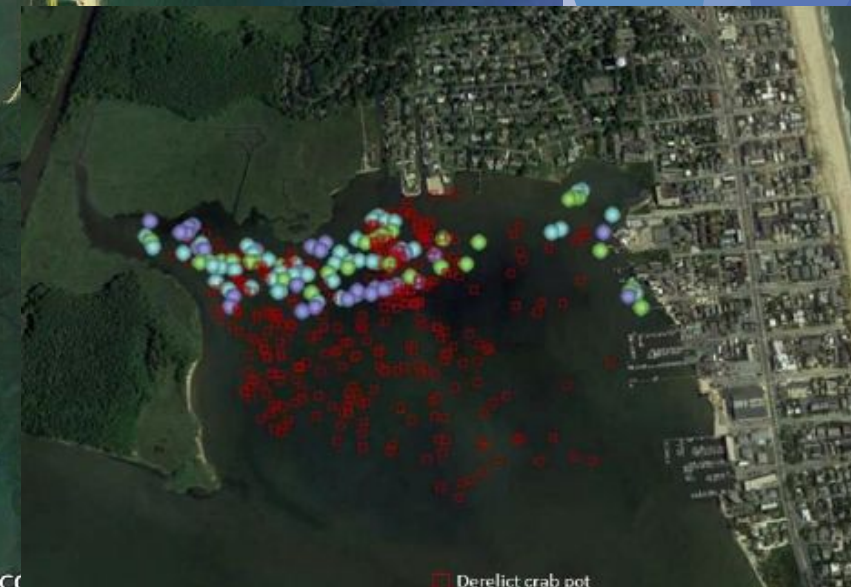


Art Trembanis



2.3 pots/acre

~20,000 acres
in Rehoboth
and Indian
River Bay



Nesting Habitat Creation



1,115 tons - Concrete-grade sand



0.25 acres



4.5'-5.0' high



Sep 22 2002 1:53:04 PM

Questions???

