

# Blue land crabs in the Southeast: hidden in plain sight?



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# The Blue land crab - *Cardisoma guanhumi*





# Morphology

- “Fiddler crabs on steroids”





# Sex differences





# Blue Land Crab life-cycle





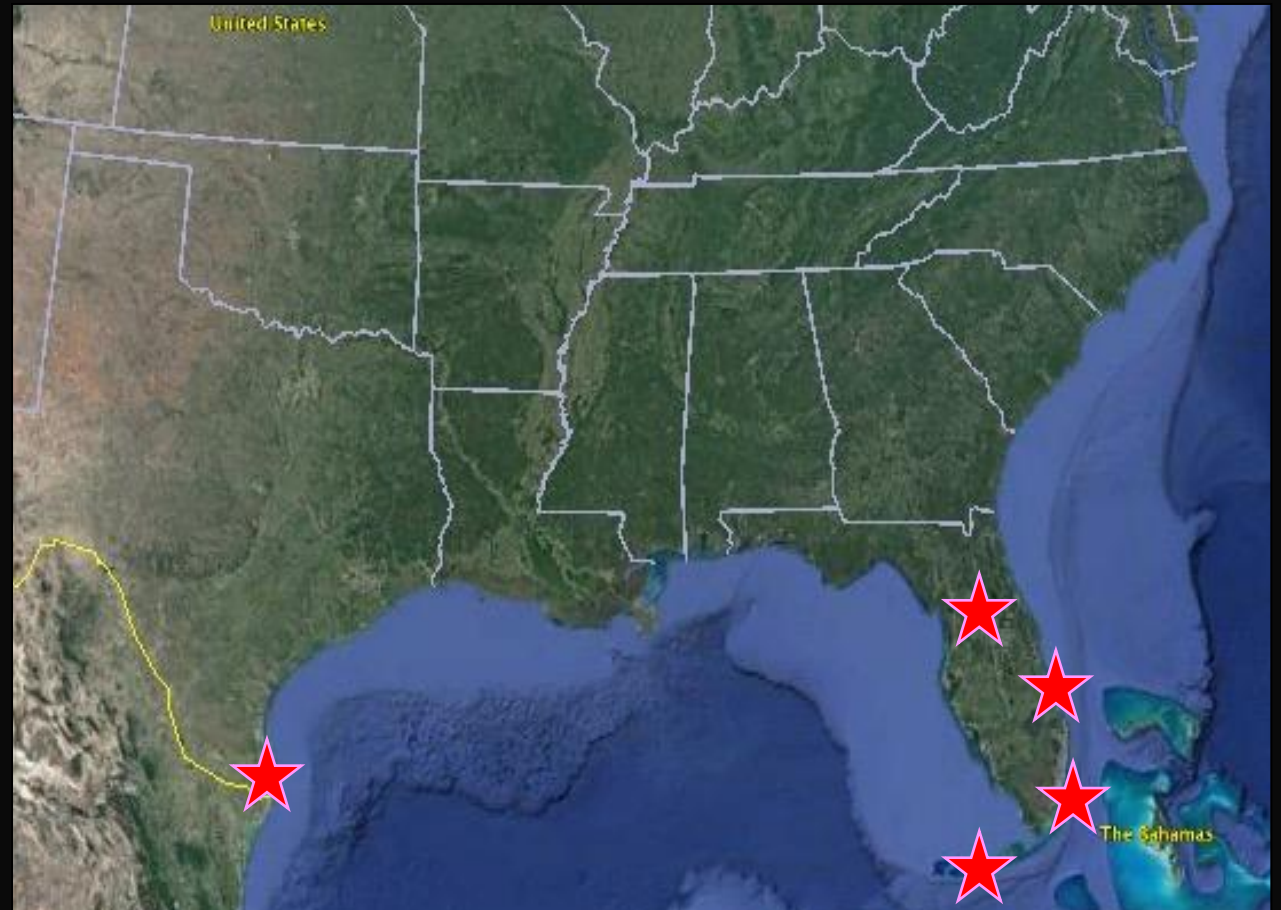
# Habitat





# Blue land crabs in the United States

- Historical reports pulled from museum specimens
- 1896—Key West, FL
- 1901—Miami, FL
- 1936—Silver Springs, FL
- 1944—Fort Pierce, FL
- 1963—Brownsville, TX





# Blue land crabs in the United States

- Reports pulled from iNaturalist
- 2006—Corpus Christi, TX
- 2008—Marineland, FL
- 2017—Elmer's Island, LA
- 2019—Brandenton, FL
- 2021—Galveston, TX
- 2021—Perdido Key, FL
- 2021—Fernandina Beach, FL





# History of blue land crabs in South Carolina

THE CHARLESTON MUSEUM  
ACCESSION SLIP

Object Land Crab - Honduras, Port  
Tils

Date received July 16, 1928

Collected by \_\_\_\_\_ Address \_\_\_\_\_  
 Donated by L. G. Schaeffer  
 Deposited by \_\_\_\_\_  
 Purchased from \_\_\_\_\_  
 Identified for \_\_\_\_\_

Price or value \_\_\_\_\_ Transp. \_\_\_\_\_

Acceptance } recommended by E. B. Chamberlain Curator  
 Rejection }  
 Purchase }  
 Approved } by Laura M. Briggs Director  
 Rejected }

Corres. file 1012 Photo. No. \_\_\_\_\_  
 Received by department EB  
 Returned by department \_\_\_\_\_

Date received July 16/28 Date returned \_\_\_\_\_  
 (Cataloging or identification data on reverse of this slip)

Receipt No. 306 Acc. No. 29.250.

28.250  
 Honduran Land Crab  
 Caught aboard fruit steamer, in port from  
 Spanish Honduras, July 16/28  
 Pres. by L. G. Schaeffer  
 In fluid  
 (To be identified)



Harvard University, Baker Library. Harvard Business School, W719694\_1



# History of blue land crabs in South Carolina



15 reports to SCDNR  
from 1997 - 2021

Blue land crab collected in Charleston 1979  
Picture from the NC Museum of Natural Sciences



# Blue land crabs in South Carolina now

- Influx of reports summer 2022
  - 5 unsolicited reports in August 2022 alone



□ What is the current distribution in South Carolina?



# Blue land crabs in South Carolina now

On what date did you observe a blue land crab(s)?

11/14/2023

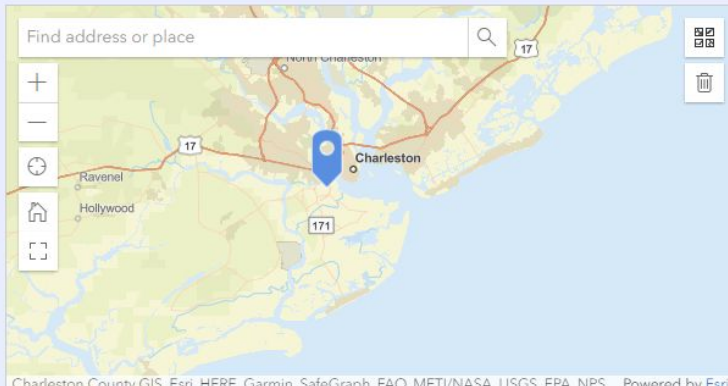
At what time of day did you observe it/them?

- Dawn  Morning  Afternoon  Evening  
 Dusk  Nighttime

In what state did you see the crab(s)?\*

- North Carolina  South Carolina  Georgia  
 Other

Where did you see the crab(s)?\*



Please provide a detailed description of location.\*

255

We are especially interested in gathering photos of blue land crab sightings. Please upload any photos you took of the animal here.

1 Upload image here or select image

Back

Submit

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--- NEWS RELEASE ---  
For Immediate Release



## Report sightings of non-native blue land crab



*Dr. Peter H. Hays, South Carolina Department of Natural Resources, holding a blue land crab (Fiddler crab) in his hands. (Photo: P. Hays/SCDNR)*

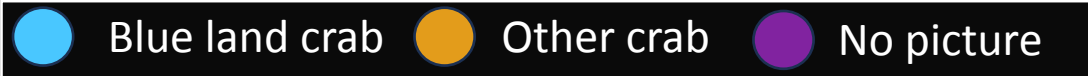
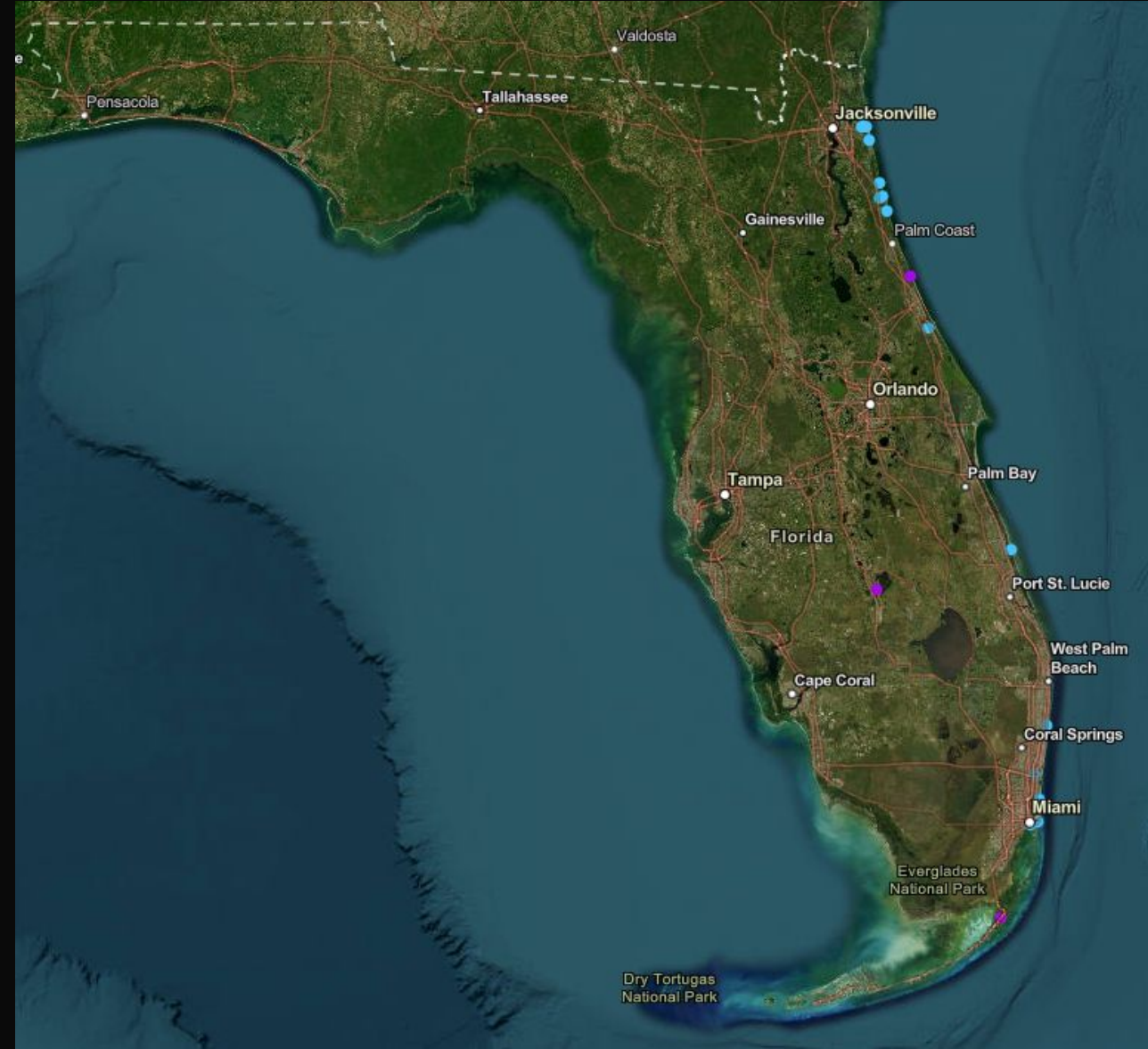
**CHARLESTON COUNTY, S.C. (September 2, 2022)** If you live near the South Carolina coast and encounter what looks like an enormous fiddler crab, South Carolina Department of Natural Resources (SCDNR) biologists want you to snap a photo.

After a spate of recent reports of the blue land crab (*Grapsus grapsus*), SCDNR



# Blue land crab reports in Florida

- 18 total reports





# Blue land crab reports in Florida

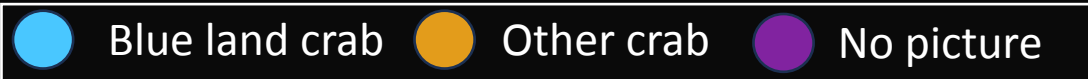
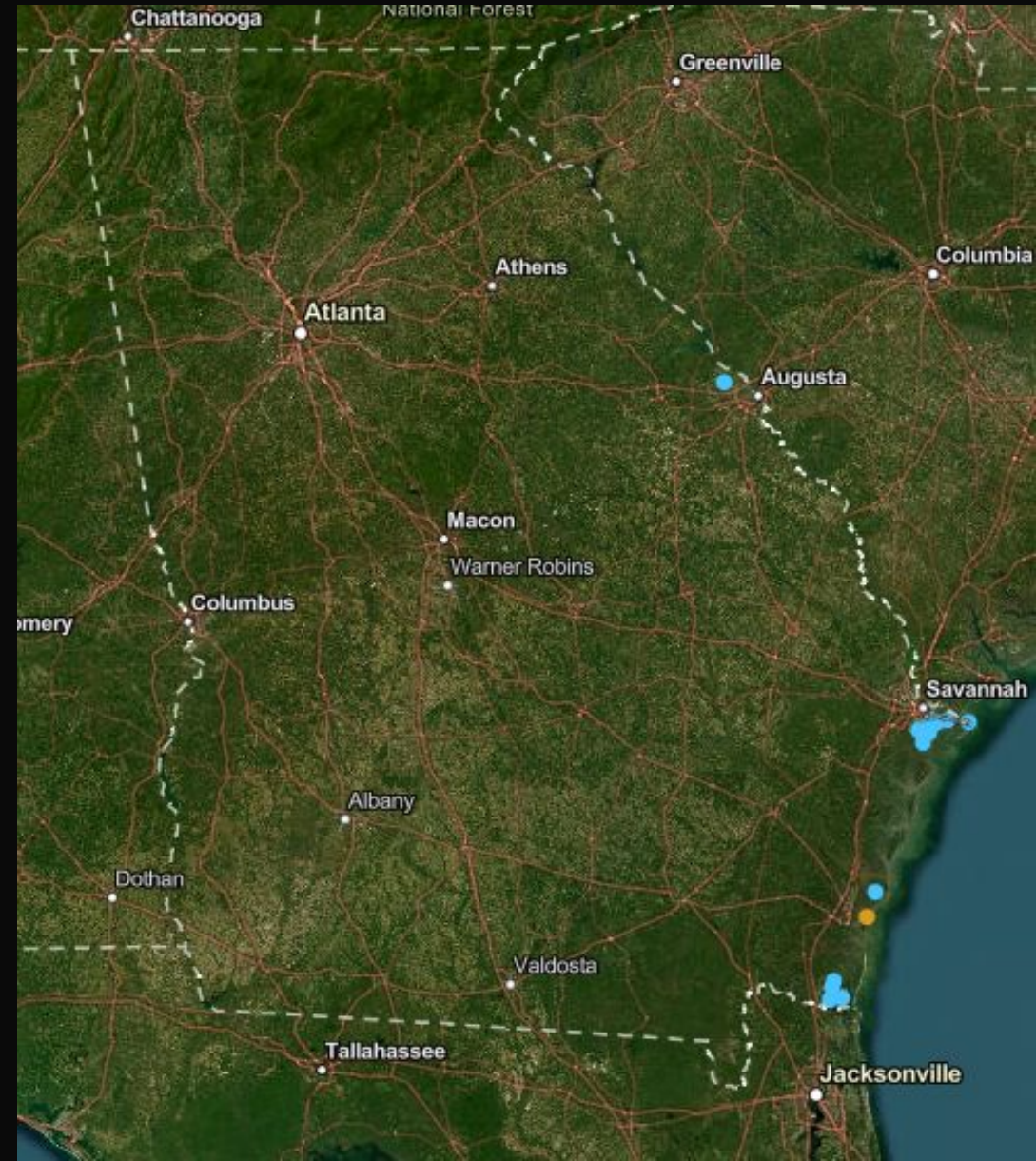
- 18 total reports
- 15 confirmed sightings
- Expansion on northern range





# Blue land crab reports in Georgia

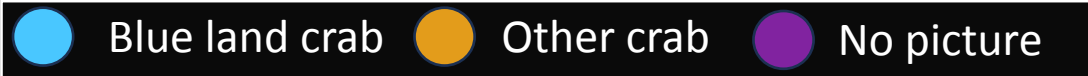
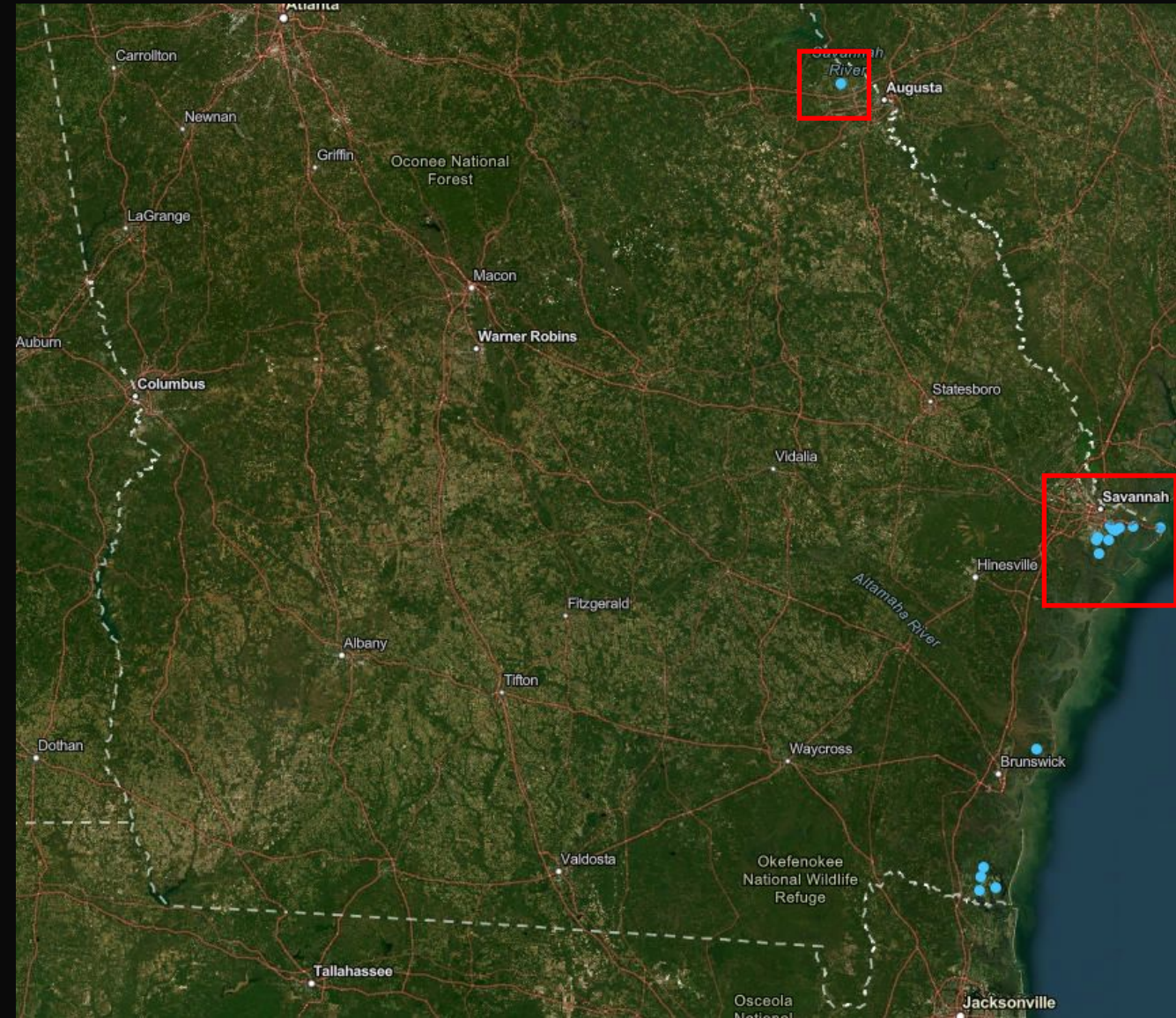
- 17 total reports





# Blue land crab reports in Georgia

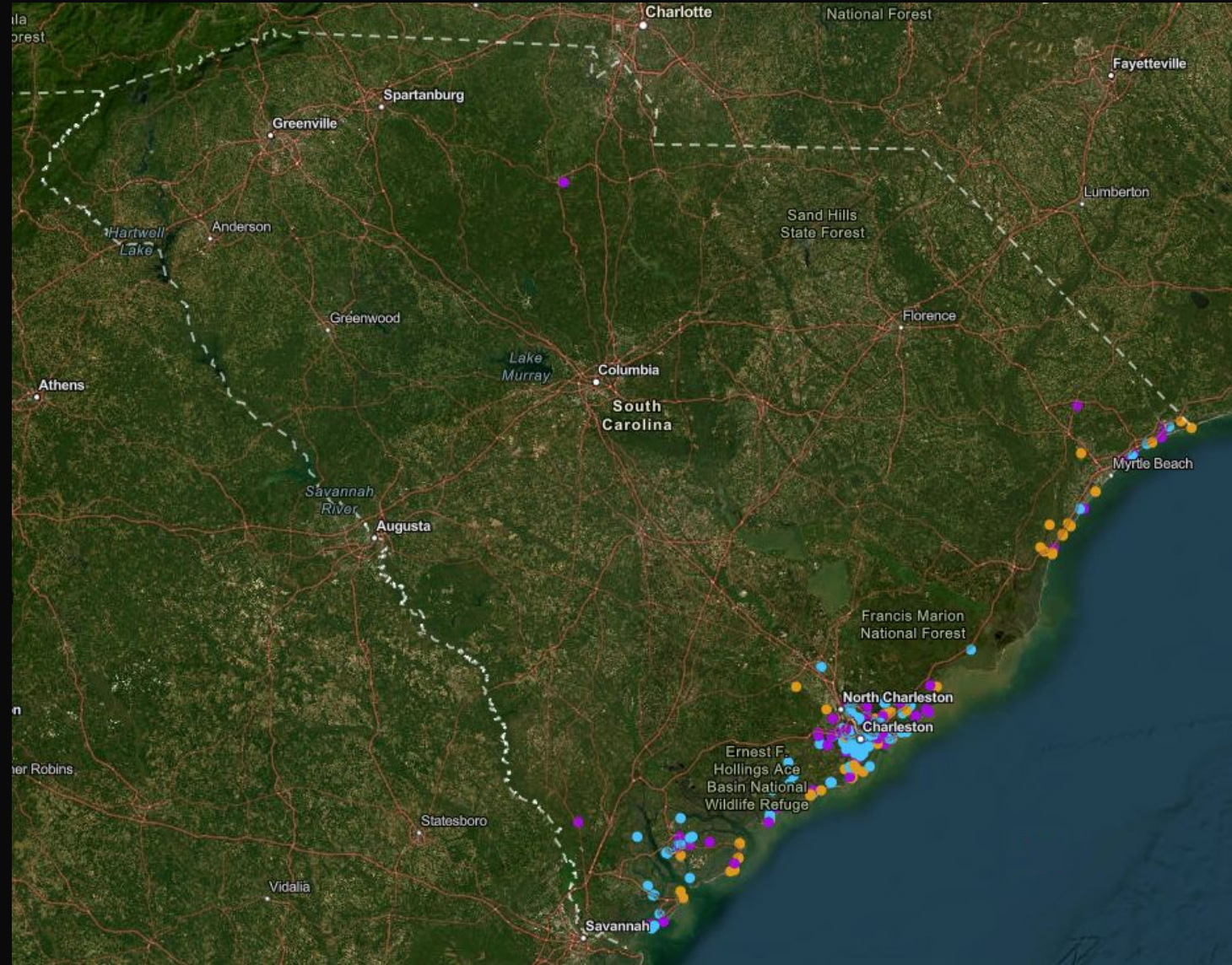
- 17 total reports
- 16 confirmed sightings
- Concentrated around Savannah
- One from Augusta!





# Blue land crab reports in South Carolina

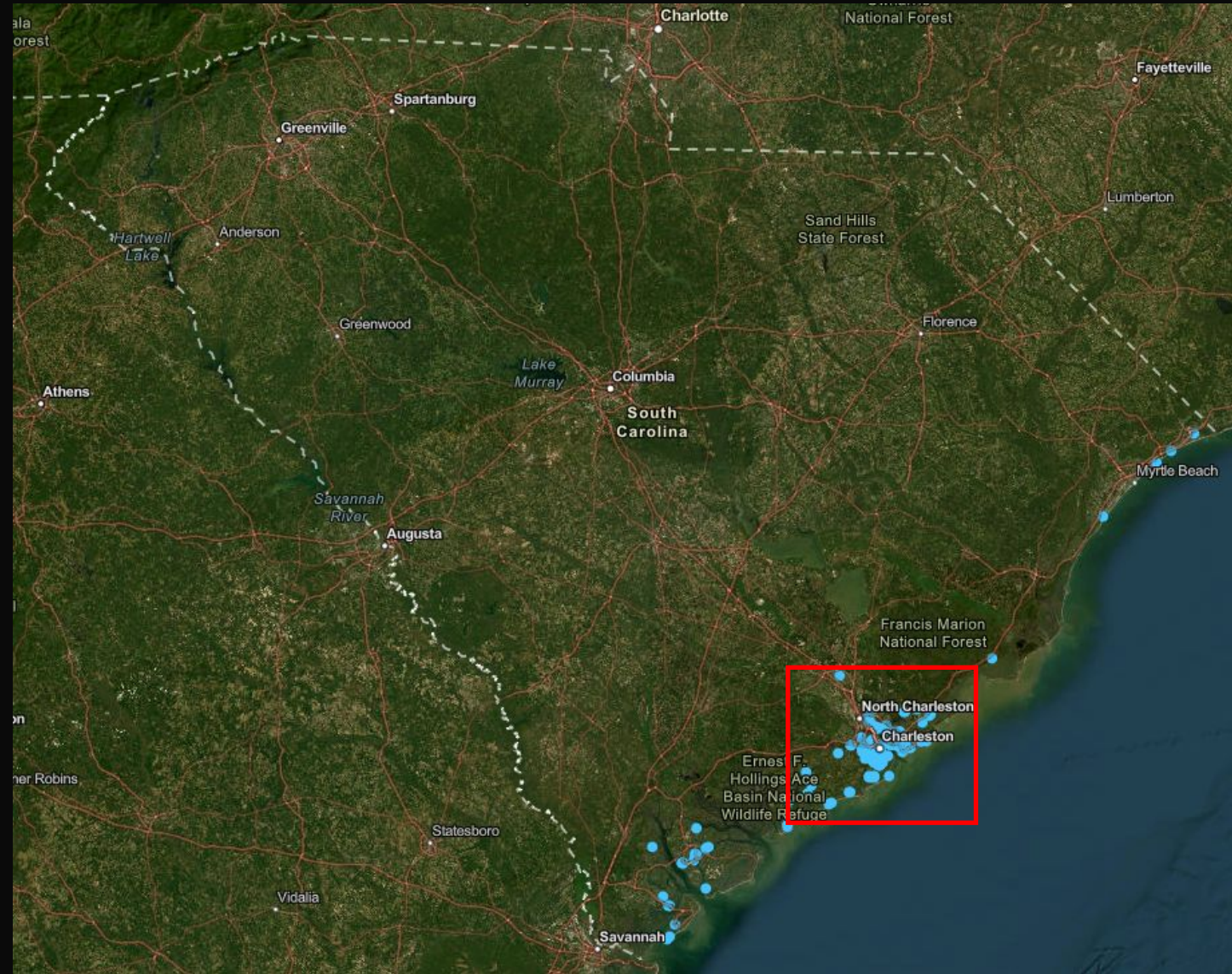
• 269 total reports

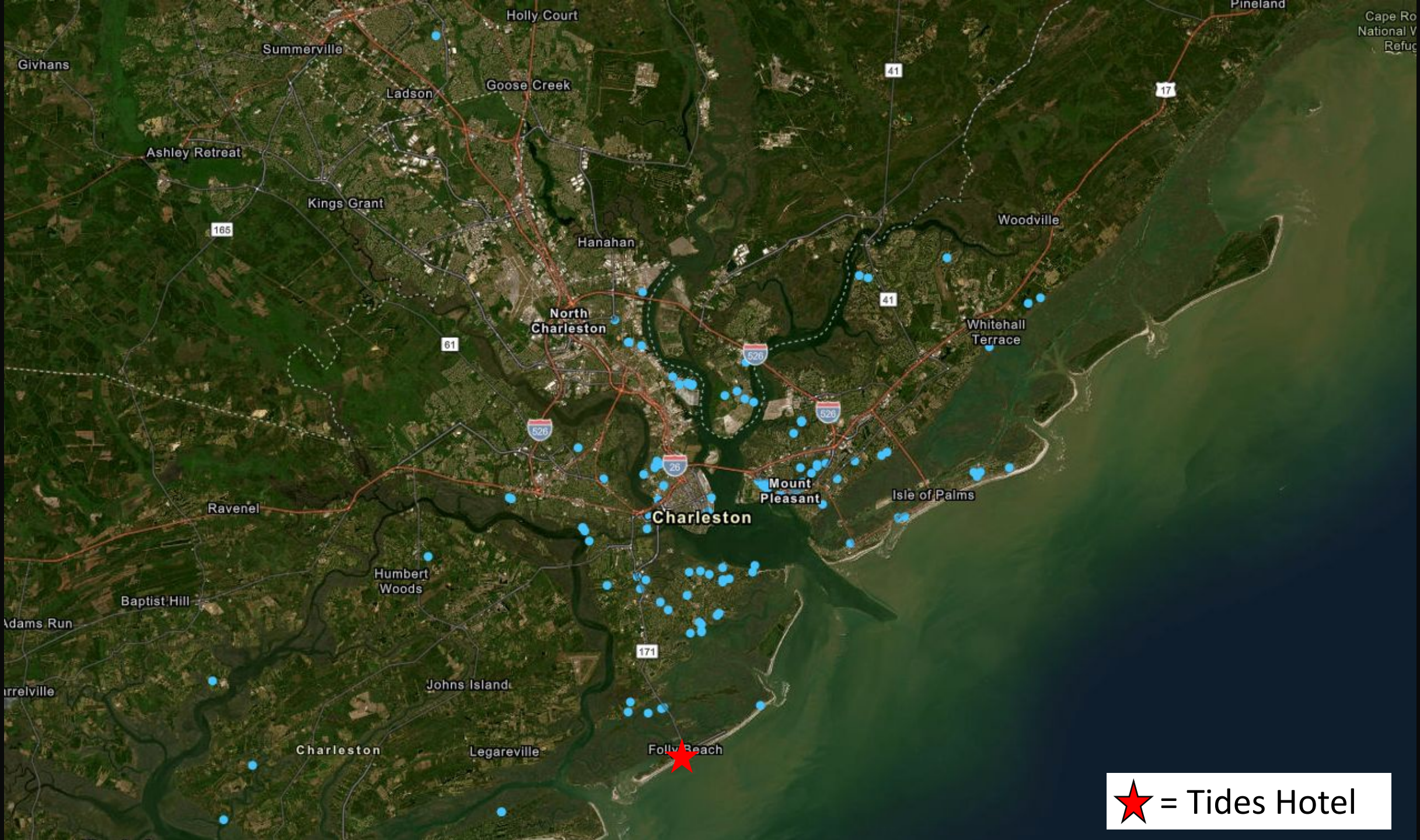




# Blue land crab reports in South Carolina

- 269 total reports
- 151 confirmed sightings
- Hilton Head to Myrtle Beach
- Concentrated in Charleston area



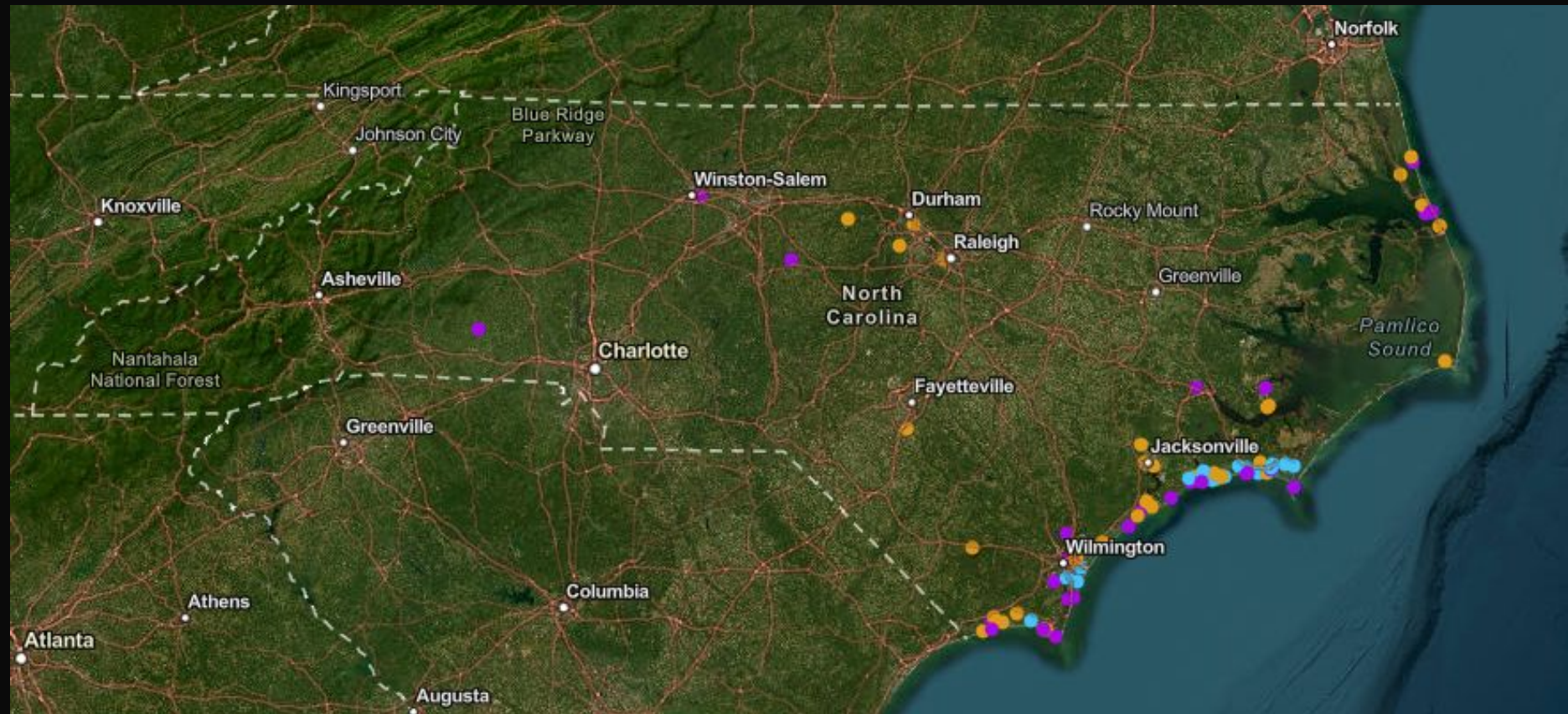


★ = Tides Hotel



# Blue land crab reports in North Carolina

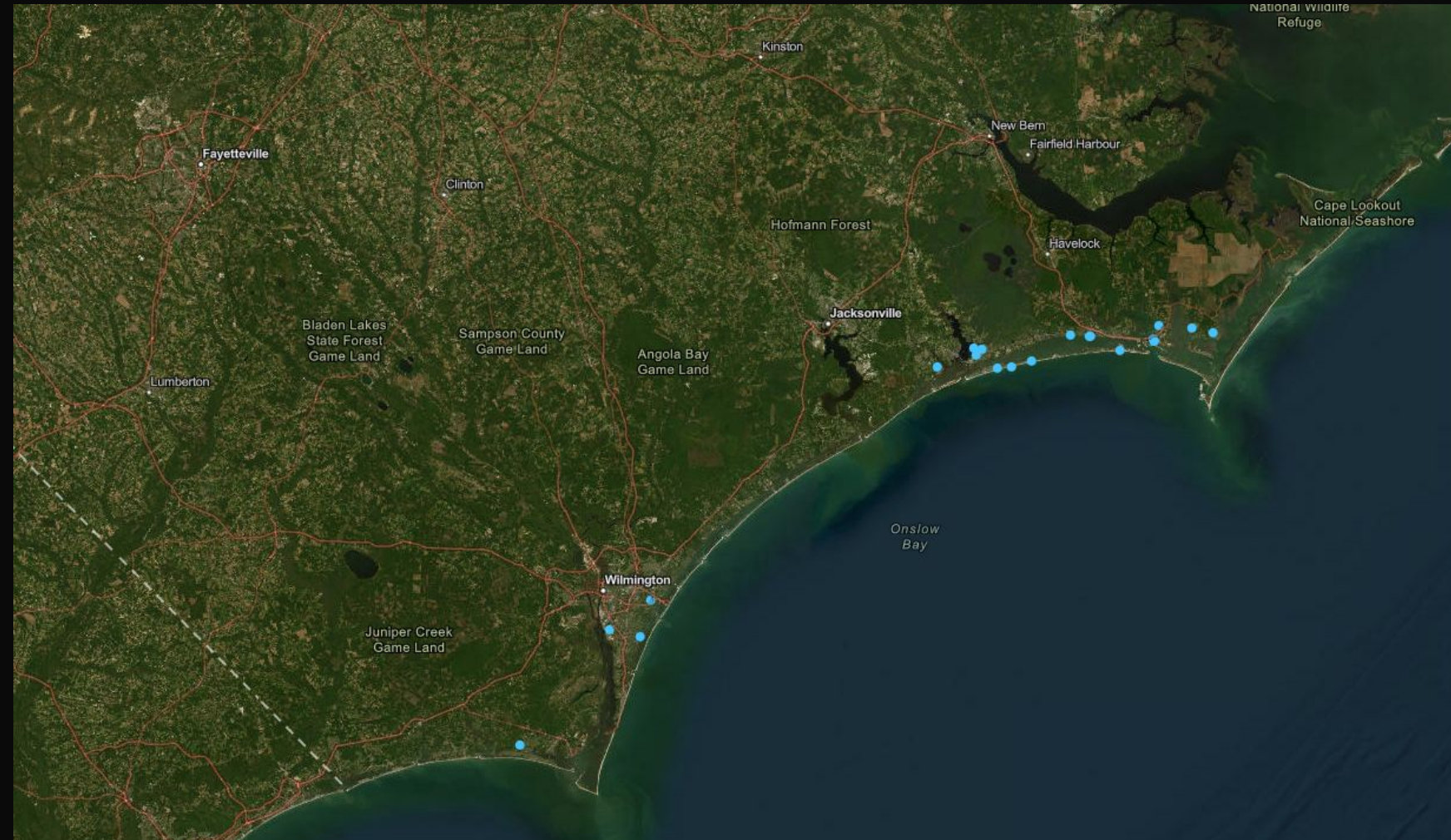
- 93 total reports





# Blue land crab reports in North Carolina

- 93 total reports
- 21 confirmed sightings
- Concentrated around Emerald Isle

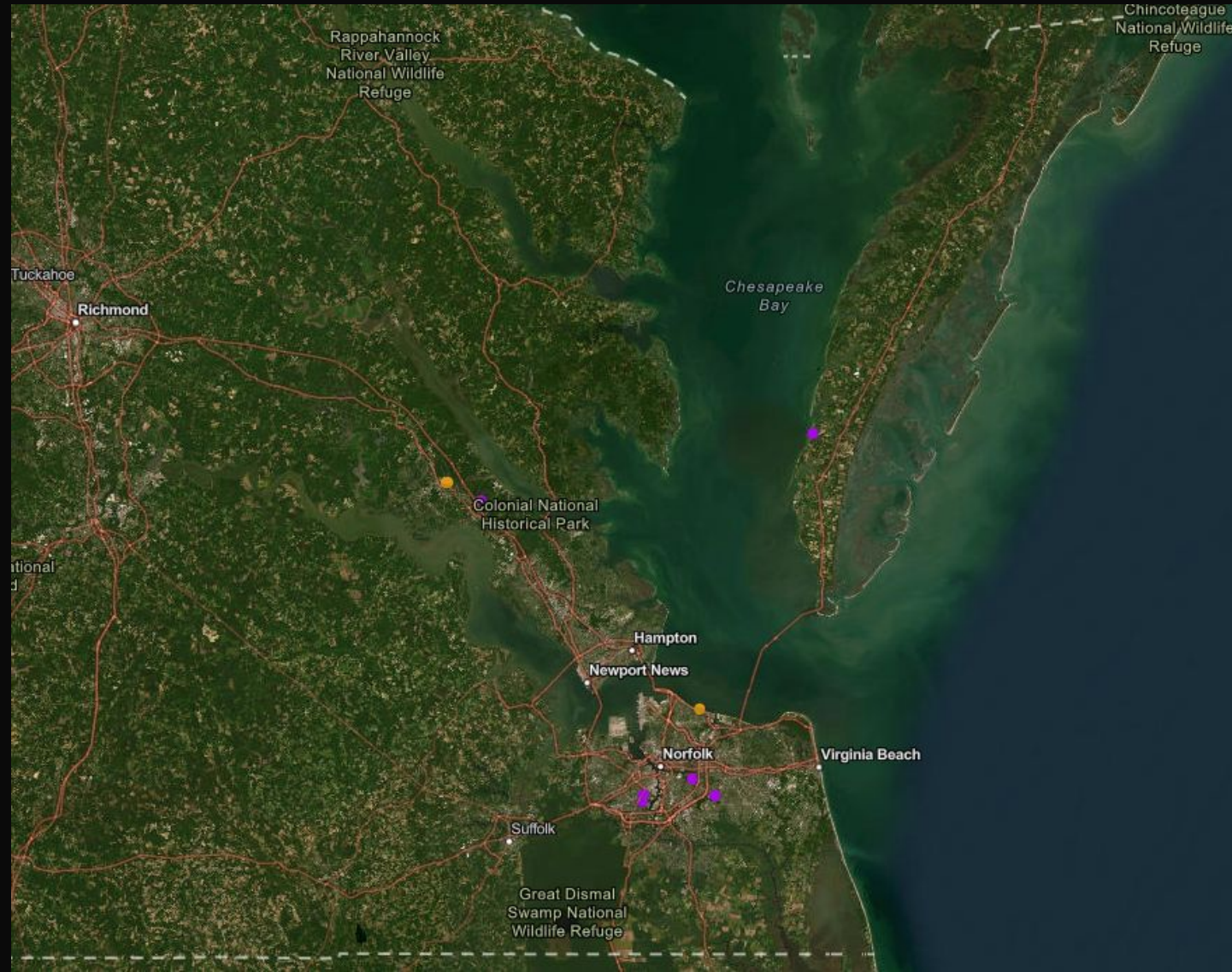


● Blue land crab ● Other crab ● No picture



# Blue land crab reports in Virginia

- 10 total reports
- Concentrated around Norfolk
- But no confirmed sightings yet





# Locations of observations



Estuaries



Roads



Forests



Beach



Lawns



Indoors



# Unconfirmed reports – mistaken identity



Ghost crabs



# Unconfirmed reports – mistaken identity



Fiddler crabs



# Unconfirmed reports – mistaken identity



Stone crabs



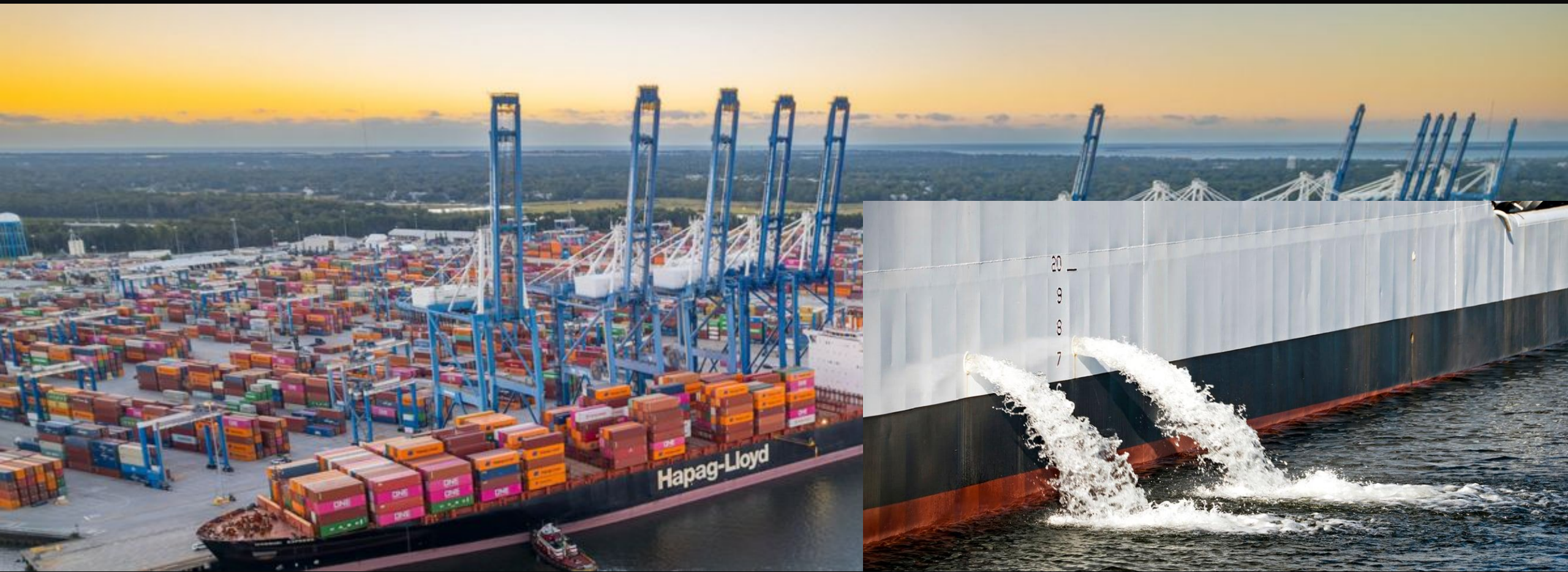
# Unconfirmed reports – mistaken identity



Blue crabs



# How did they get here?



High concentration of observations in port cities



# How did they get here?





# What are their physiological tolerances?



Carmella's Café, downtown Charleston





# What are their potential impacts?

- Shoreline destabilization?
- Effect on native species?
- Habitat overlap with species of conservation concern?





But what you all want to know: how do they taste?



CATCH + COOK



# Summary

- More abundant than we realized and seemingly established
- Lots still to learn about their impacts and how they got here
- Every report helps!



Report sightings here!



# Acknowledgments



SCDNR Crustacean Research and Monitoring Section