

## GIS Modeling – Mini Exercise

In 1993 Dr. Publis R. Parish made a trip to the Virginia Barrier Islands. After a walk down the beach, he concluded that “Most of the adults, with the exception of Terns and Skimmers, nest on the beach in the barrier island/lagoonal marsh system.”

Is he right? What percentage of the adult birds in 1993 nested on the beach (bare/sand)?

To answer this question the Northampton County GIS dataset (available from the downloads section of the web site) has two coverages that can help.

- **Birds** – a point layer containing the nest site locations recorded by a survey, broken down by Common Name and general taxonomic group.
- **Land\_Cover** (also known as nhtm93s3) – a polygon layer containing information on land cover – broken down into:
  - Bare Land/Sand (which we will take to be equivalent to beach)
  - Forest/Shrub
  - Cropland/Planted/Grassland
  - Salt Marsh
  - Water

Challenges:

- What percentage of adult birds whose nests were found on the beach?
- How does the percentage vary if only Terns and Skimmers were considered?