

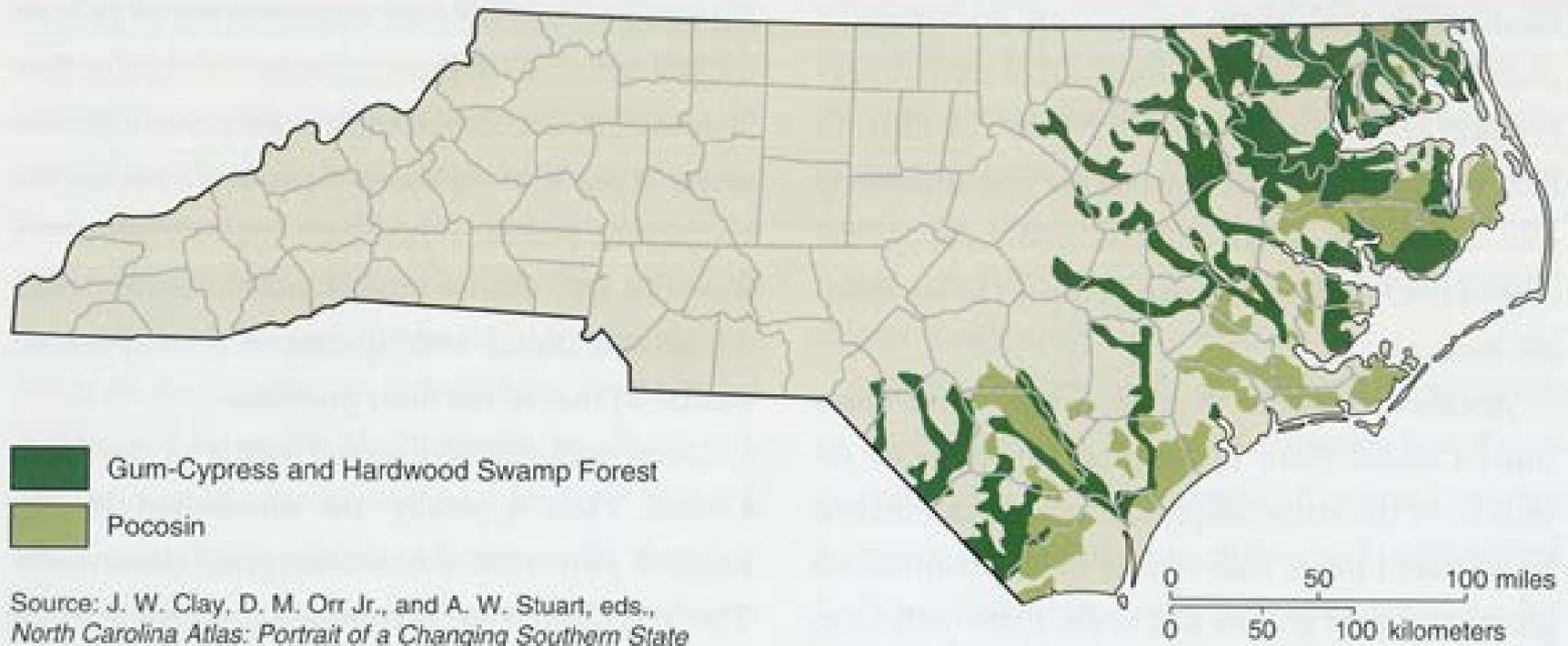
Woody Biomass Production in Lowlands

Al Lucier, NCASI

Lowlands

- There are many kinds of lowlands.
- Lowlands occupy substantial portions of landscapes in eastern NC.
- Agriculture and forestry in lowlands are very important parts of the economy in eastern NC.

Figure 2.21. Pocosin, Gum-Cypress, and Hardwood Swamp Forests



Source: J. W. Clay, D. M. Orr Jr., and A. W. Stuart, eds.,
North Carolina Atlas: Portrait of a Changing Southern State
(Chapel Hill: University of North Carolina Press, 1975).

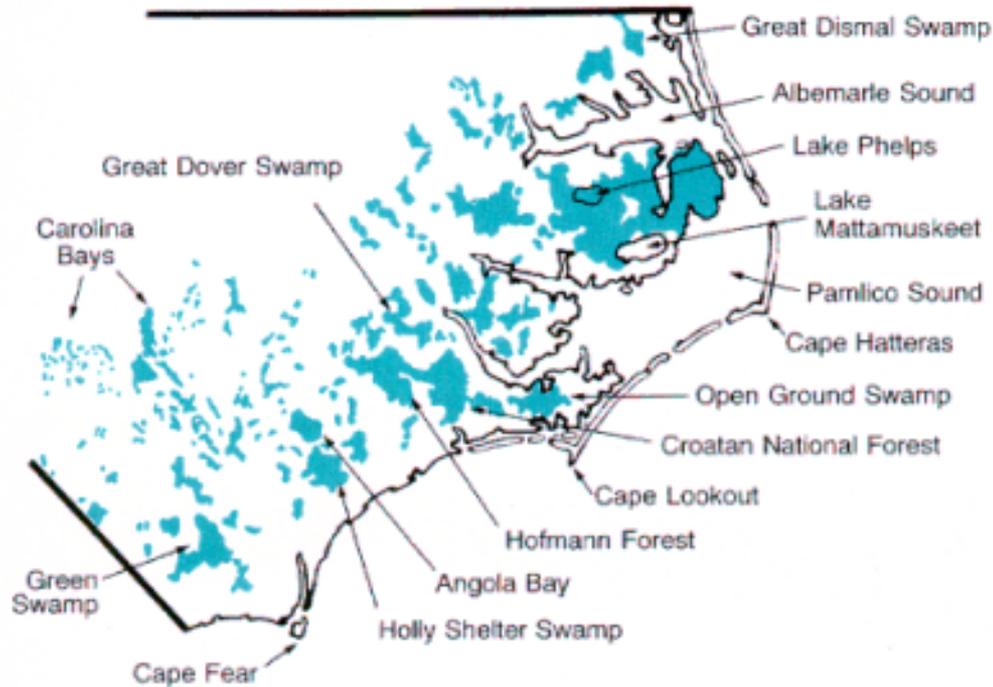
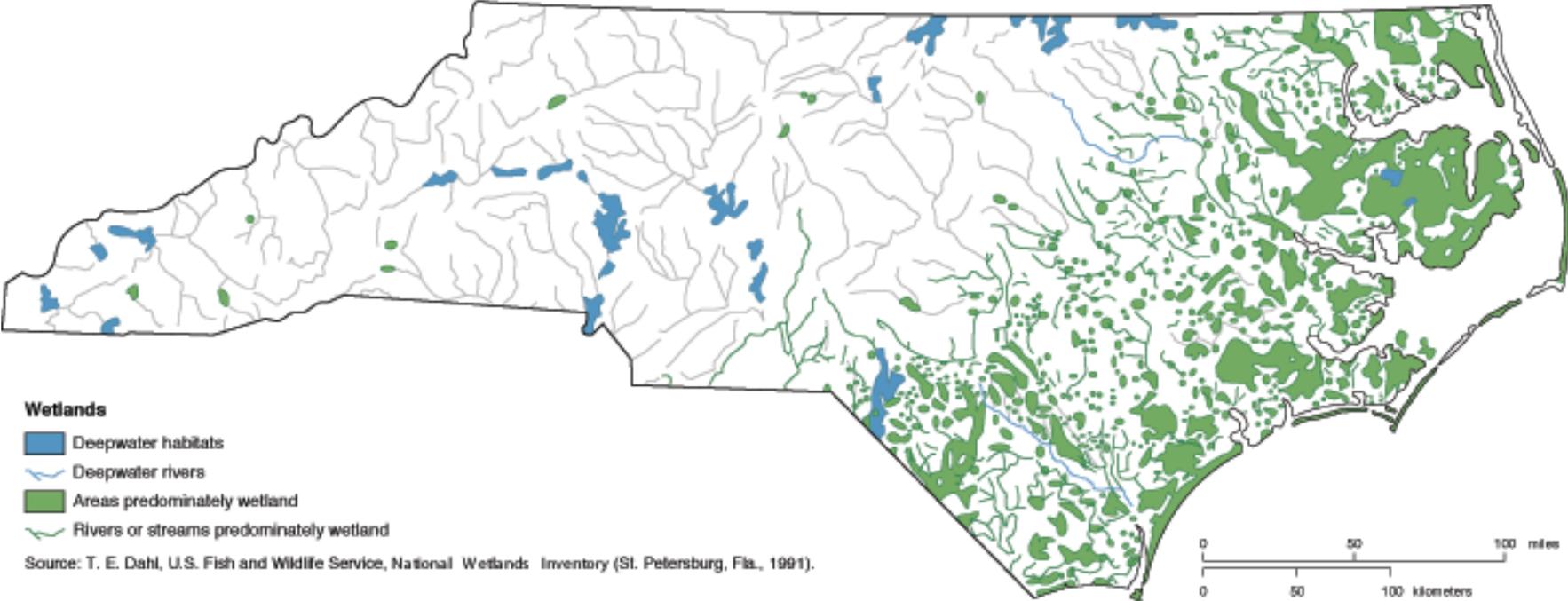


Figure 2. Major area of Histosols (organic soils) and dark-surfaced mineral soils in North Carolina.

<http://www.soil.ncsu.edu/publications/Soilfacts/AG-439-26/>

Figure 4. Wetlands



Environmental Effects of Woody Biomass Production

Effects

- Hydrology
- Water Quality
- Biodiversity
- T&E Species
- Soil Productivity
- C Sources / Sinks

Practices

- Road Building
- Water Management
- Harvest
- Site Prep / Planting
- Fertilization
- Weed Control

Regulatory Constraints

- ***Waters of the United States*** (WOTUS)
 - ***Traditional Navigable Waters*** (TNW) and other waters and wetlands with a “significant nexus” to TNW
 - WOTUS are subject to Clean Water Act regulations
- Many lowlands contain WOTUS.
 - Are ditches WOTUS?
- Some lowlands **are** WOTUS.
 - Which ones?
- WOTUS definitions interact with other regulations and have major practical effects on ***where and how*** woody biomass can be produced.