BOUNDARIES OF SOILS USED AS CONTACTS FOR EOLIAN PINEHURST FORMATION, PATRICK, S.C. (1:24,000) GEOLOGIC MAP

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Carolina Sandhills: on Middendorf outcrop belt

Thanks to Chris Swezey, USGS Reston
Carolina Sandhills lie above Orangeburg Scarp

Thanks to Christopher Garrity, USGS Reston
Well-cemented Middendorf outcrops, Patrick S.C. Quadrangle
Typical Middendorf outcrops

Legend:
- Metasiltstone
- Quartz wacke
- Very fine, fine and medium sand
- Medium and coarse sand
- Very coarse and pebbly sand
- Iron cemented sandstone to pebbly sandstone
- Silts and Clays
Sand sheets over weathered Middendorf
Upland dunes, Patrick quad
Dunes built onto stream terrace, Patrick quad
Argillic soil profile in dune sand

33.8 ± 3.4 Ka
Ground-penetrating radar surveys

Thanks to Kerby Dobbs
Primary sedimentary structures are not visible in sand outcrops (bioturbation)...

... but GPR reveals SE-dipping cross-bedding at depth.
Blaney, S.C. (1:24,000) geologic map (Ridgeway et al. 1966)
SoilWeb: Google Earth application
Two truncated paleosols below dune sand

12.1 ± 2.1Ka

29.2 ± 4.9Ka

Thanks to Shannon Mahan, USGS Denver
Candor Sand soil with buried argillic horizon
Sandy soils (>2 m thick): Purple Pinehurst Formation (approx.)

Web Soil Survey

ApB: Alpin Sand

CaB: Candor Sand
Soils in Patrick, S.C. Quadrangle

Sandy soils >2m thick
Geology of Patrick, S.C. Quadrangle
Pinehurst Formation contact criteria:

Alpin or Candor series

OUTCROP • BORING • LIDAR • GPR

“Pinehurst”
Want more info?
Read SE GSA Field Trip guidebook