

Thomas Doyle was raised in New Orleans along the Mississippi River south of Chalmette on oil refinery property. His career interests in science were forged by childhood experiences of exploring the batture lands and cypress swamps of southeast Louisiana, St. Bernard Parish. Doyle's professional resume highlights numerous plant-to-landscape scale studies and simulation models of natural systems with more than 30 years' experience in longleaf pine and cypress swamp ecosystems of the Gulf Coastal Plain and barrier islands. He received masters and doctorate degrees from the University of Tennessee, Knoxville, Graduate Program in Ecology, focused on tree ring science and ecosystems modeling. He has developed numerous forest and landscape scale simulation models to investigate effects of climate change and environmental disturbance related to hurricanes, floods, water quality, sea-level rise, elevated carbon dioxide and wastewater discharge that impact the development, degradation, and dynamics of coastal wetland systems. Doyle has been employed as a long-term government research scientist (1989-2007) and manager (2008-present) at the USGS National Wetlands Research Center engaged in field and modeling studies of wetland systems at park, regional, and continental scale. His training and experience as an ecosystem modeler is complemented with a specialty in dendrochronology and climate analysis. He has conducted many tree-ring applications of longleaf pine forests of the southeastern U.S. focused on tree age and forest-stand characteristics suitable to reintroduce and sustain red-cockaded woodpecker populations. Doyle has established long-term monitoring studies in bald cypress swamps that demonstrate how coincidental droughts and hurricane surge interact to elevate soil salinities in coastal settings leading to forest dieback and marsh migration upslope with progressive sea-level rise. Both species are prominent foundation species for their representative ecosystems dependent on disturbance events and cycles of fire and flood for sustainability.