A SEMI-ANNOTATED BIBLIOGRAPHY OF BARRIER ISLAND STUDIES APPLICABLE TO GEORGIA BACK-BARRIER ISLANDS

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Produced with funding from the
Georgia Coastal Zone Management Program

20 July 2004

INTRODUCTION

This semi-annotated bibliography is a revision of the report "A Bibliography of Barrier Island Studies Applicable to Georgia Back-Barrier Islands", submitted to the Georgia Coastal Zone Management Program in June 2004. The database is substantially the same as that of the earlier report, although several of the original references have been removed as not pertinent upon a more careful reading and several new references have been added. The annotated entries are intended only to provide enough information so that users can determine if a reference is pertinent to and worth acquiring for a given investigation.

The literature in this report is divided into four groups: Geology, Hydrology, Biology and Ecology/Miscellaneous. Copies or originals of most documents listed are held at the Georgia Southern University Applied Coastal Research Laboratory. The Georgia Southern University Library and Skidaway Institute Library house a few materials as indicated. We were not able to acquire a small number of potentially useful items that are denoted with an asterisk (*).

CONTENTS

Geology

(1) Bartholomew, M.J., F.J. Rich, A.E. Whitaker, S.E. Lewis, B.M. Brodie and A.A. Hill. 2000. Preliminary Interpretation of Fracture Sets in Upper Pleistocene and Tertiary Strata of the Lower Coastal Plain in Georgia and South Carolina. A Compendium of Field Trips of South Carolina Geology. South Carolina Department of Natural Resources Geological Survey, p.17-27.

Data collected from coastal South Carolina and Georgia on directional orientation of fracture sets was used to describe the regional contemporary stress field.

(2) Booth, R.K., F.J. Rich and G.A. Bishop. 1999. Palynology and Depositional History of Late Pleistocene and Holocene Coastal Sediments From St. Catherines Island, Georgia, U.S.A. Palynology, 23:67-86.

Sediment cores were taken on St. Catherines Island, Georgia in order to determine ages, environment at time of deposition, and correlation with other coastal and inland locations.

(3) Brandau, B.L. and J.E. Noakes. 1972. University of Georgia Radiocarbon dates II. Radiocarbon, 14:486-497.

A collection of radiocarbon dates from several areas around Sapelo Island, Georgia. Locations are given descriptively and with latitude and longitude coordinates.

(4) Colquhoun, D.J. 1969. Coastal Plain Terraces in the Carolinas and Georgia, U.S.A. Quaternary Geology and Climate, Publication 1701, National Academy of Sciences, Washington D.C.

A discussion of the dynamics involved in coastal plain terrace formation including both terrestrial and marine processes.

(5) Couper, J.H. 1846. On the geology of a part of the seacoast of the State of Georgia. In: Hodgson, W.B., ed., Memoir on the Megatherium and other Extinct Gigantic Quadrapeds of the Coast of Georgia. New York: Bartlett and Welford., p. 31-50.

An early report on coastal Georgia geology with information specifically regarding fossil remains discovered around Brunswick and Skidaway Island, Georgia.

(6) Duc, A.W. 1981. Back-Barrier Stratigraphy of Kiawah Island, South Carolina. PhD Dissertation (Abstract). University of South Carolina.

Vibracores collected from back-barrier areas around Kiawah Island, South Carolina were used to describe the complex stratigraphy of the area. Specific data is presented related to depositional patterns and settings of the back-barrier environment.

(7) Duc, A.W. and R.S. Tye. 1987. Evolution and Stratigraphy of Kiawah Island, South Carolina. Sedimentology, 34:237-251.

The formation of Kiawah Island, South Carolina and the associated back-barrier environment is described from stratigraphic analysis of vibracore samples from around the island.

(8) *Farrell, K.M., V.J. Henry and S.V. Cofer-Shabica. 1993. Geomorphology, facies sequences and processes in back-barrier salt marshes, Cumberland Island, Georgia. In: Farrell, K.M., Hoffman, C.W. and Henry, V.J. (eds.). Geomorphology and facies relationships of Quaternary barrier island complexes near St. Mary's Georgia. Georgia Geological Society Guidebooks. V.13(1), Nov. 1993, p. 42-63.

Unable to acquire

(9) Flint, R.F. 1940. Pleistocene features of Atlantic Coastal Plain. American Journal of Science, 238:757-787.

A literature review and evaluation of theories regarding the origin of Pleistocene features along the Atlantic Coastal Plain.

(10) Frey, R.W. and J.D. Howard. 1969. A profile of biogenic sedimentary structures in a Holocene barrier island-salt marsh complex, Georgia. Trans. Gulf Coast Ass. Geol. Societies, 19:427-444.

Biogenic sedimentary structure is described as it occurs in the various regions of Holocene barrier islands and the associated salt marsh area. Preservation of biogenic sedimentary structure may be maintained in the rock record of earlier environments.

(11) Frey, R.W. and J.D. Howard. 1988. Beaches and beach related facies, Holocene Barrier Islands of Georgia. Geological Magazine, 125:621-640.

Provides a comprehensive discussion of how sedimentary features and depositional environments are distributed along the Georgia coast.

(12) Griffin, M. M. 1982. Geologic Guide to Cumberland Island National Seashore. Geologic Guide 6. Department of Natural Resources, Geologic and Water Resources Division, Atlanta, GA.

A geologic guide for Cumberland Island, Georgia with descriptions of overall processes as well as detailed information about specific locations on the island.

(13) Griffin, M.M. and V.J. Henry. 1984. Historical Changes in the Mean High water Shoreline of Georgia. Georgia Geological Survey, Bulletin 98.

The mean high water shoreline of Georgia was examined using a collection of historical topographic, hydrographic and orthophotographic maps and aerial photos. The study

identifies time periods during which the coast demonstrated erosion, progradation, as well as times of dynamic stability.

(14) Hails, J.R. and J.H. Hoyt. 1969. The Significance and Limitations of Statistical Parameters for Distinguishing Ancient and Modern Sedimentary Environments of the Lower Georgia Coastal Plain. Journal of Sedimentary Petrology, 39:559-580.

Barrier island and salt marsh lagoon sediments were collected from coastal Georgia to evaluate the ability of statistical parameters to discriminate among sedimentary environments with the goal of applying these techniques to the rock record.

(15) Hayes, M.O., S.J. Wilson, D.M. Fitzgerald, L.J. Hulmes and D.K. Hubbard. 1975. Coastal Processes and geomorphology: environmental inventory of Kiawah Island: Columbia South Carolina, Environmental Research Center, Inc., p. G1-G165.

Kiawah Island, South Carolina was evaluated prior to resort development for ecological features and coastal processes of the island to create a development model for barrier islands. Areas of the island designated as ecologically sensitive and areas designated as having a high risk of erosion were excluded from the development plan.

(16) Hayes, M.O., V.J. Henry, T.F. Moslow, A.M. Wojtal, G.A. Zarillo and L.F. Lens. 1980. Coastal Environments of Georgia and South Carolina. In: Frey, R.W. and Neathery, T.L. (eds.) Excursions in Southeastern Geology, Volume II: Geological Society of America 1980 Annual Meeting, Atlanta, Georgia. American Geological Institute, p. 281-310.

Holocene beach environments in Georgia and South Carolina are described in detail with specific features of interest identified for each island.

(17) Hayes, M.O. 1994. The Georgia Bight Barrier System. In: R.A. Davis, Jr. ed., Geology of Holocene Barrier Islands. Berlin, Germany: Springer-Verlag, p. 233-304.

An exhaustive summary of the geology of the barrier island system in Georgia and South Carolina presented in a textbook format. Other barrier systems are treated in separate chapters and are available for comparison.

(18) Hayden, B.P. and R. Dolan. 1979. Barrier Islands, lagoons and marshes. Journal of Sediment Petrology, 49:1061-1072.

This paper discusses the barrier island, lagoon and marsh complex found along the U.S. east coast between Long Island, New York and Miami, Florida.

(19) Henry, V.J., Giles, R. T. and J.R. Woolsey. 1973. Geology of the Chatham County area, Georgia. The Neogene of the Georgia Coast Guidebook. Georgia Geological Society, 8:67-80.

This paper provides a comprehensive overview of the geology of Chatham County, Georgia.

(20) Henry, V.J., Jr. and W.J. Fritz. 1985. Coastal Processes and Barrier Island Development, Jekyll Island, Georgia. Georgia Geological Society, 20th Annual Field Trip.

This field trip guidebook provides detailed information regarding the geology and physical processes associated with 11 locations around Jekyll Island, Georgia.

(21) Henry, V.J., C. Alexander and J. Crawford. 1996. Guidebook to the Mesotidal Barrier, Back Barrier and Inlet Environments of Sapelo Island, Georgia. International Association of Sedimentologists conference guidebook, Tidalites '96.

This field trip guidebook provides information about the geologic setting of coastal Georgia, and the physical processes affecting the coast. Specific information is presented for locations on Sapelo Island, Georgia.

(22) Herrick, S.M. 1965. A Subsurface Study of Pleistocene Deposits in Coastal Georgia. Georgia Geological Survey, Information Circular 31.

Pleistocene deposits were examined from well cuttings taken in 28 coastal Georgia counties. The data describes a general dip in the deposit toward the coast with the thickest deposit found in southeastern Charlton and Camden counties.

(23) Hill, R.L. 1966. Pleistocene Terraces in Georgia. Masters Thesis, University of Florida. Tallahassee.

Pleistocene age coastal terraces in Georgia were reviewed and examined with regard to the origin of these depositional features.

(24) Hippensteel, S.P. and R.E. Martin. 1999. Foraminifera as an indicator of overwash deposits, barrier island sediment supply and barrier island evolution: Folly Island,

South Carolina. Palaeogeography, Palaeoclimatology, Palaeoecology, 149:115-125.

Vibracores were taken from the back barrier marshes behind Folly Island, South Carolina to examine barrier island washover intervals. Foraminifera species found in the cores support the hypothesis that much of the sediment involved in barrier island migration comes from offshore.

(25) Howard, J.D. and R.W. Frey. 1980. Holocene Depositional Environments of the Georgia Coast and Continental Shelf. In: Howard, J.D., De Pratter, C.B. and Frey, R.W. (eds.) Excursions in Southeastern Geology: The Archaeology-Geology of the Georgia Coast, Georgia Geological Survey, Guidebook 20, p. 66-134.

This paper provides a detailed description of coastal depositional processes involved in Holocene coastline development in Georgia.

(26) Hoyt, J.H., V.J. Henry Jr. and J.D. Howard (Eds.). 1966. Pleistocene and Holocene Sediments, Sapelo Island, Georgia and Vicinity. The Geological Society of America, Southeastern Section Field Trip No. 1.

A collection of reprinted papers assembled for use as relevant background information about barrier islands in the form of a field trip guidebook for Sapelo Island, Georgia.

(27) Hoyt, J.H., R.J. Weimer and V.J. Henry Jr. 1966. Late Pleistocene and Recent Sedimentation, Central Georgia Coast, U.S.A. In: Pleistocene and Holocene Sediments, Sapelo Island, Georgia and Vicinity. The Geological Society of America, Southeastern Section Field Trip No. 1.

Coastal islands in Georgia were studied to describe the complex developmental history of the islands and associated depositional environments. Four ancient shorelines are described and discussed in terms of the major barrier island environments.

(28) Hoyt, J.H. and V.J. Henry Jr. 1966. Significance of Inlet Sedimentation in the Recognition of Ancient Barrier Islands. In: Pleistocene and Holocene Sediments, Sapelo Island, Georgia and Vicinity. The Geological Society of America, Southeastern Section Field Trip No. 1.

The islands along the Georgia coast provide excellent characteristics to study barrier island formation. Features and characteristics of these islands may be used to recognize ancient barrier islands in the geologic record.

(29) Hoyt, J.H. and R.J. Weimer. 1966. Comparison of Modern and Ancient Beaches, Central Georgia Coast. In: Pleistocene and Holocene Sediments, Sapelo Island, Georgia and Vicinity. The Geological Society of America, Southeastern Section Field Trip No. 1.

Internal stratigraphy in modern beaches was described from trenches established on Sapelo Island, Georgia and compared with the internal stratigraphy from Pleistocene beaches.

(30) Hoyt, J.H. and J.R. Hails. 1967. Pleistocene shoreline sediments in coastal Georgia: Depositional and Modification. Science, 155:1541-1543.

Pleistocene and Holocene sediments were compared with shoreline morphology in coastal Georgia to describe six major Pleistocene shorelines below 100 feet in elevation.

(31) Hoyt, J.H., V.J. Henry Jr. and R.J. Weimer. 1968. Age of Late-Pleistocene Shoreline Deposits, Coastal Georgia. In: R. B Morrison and H.E. Wright, Jr. (eds.) Means of Correlation of Quaternary Successions. University of Utah Press, Salt Lake City, p. 381-393.

Radiocarbon dating of shoreline sediments from coastal Georgia was used to correlate glacier development with sea-level position.

(32) Hulbert, R.C. and A.E. Pratt. 1998. New Pleistocene (Rancholabrean) Vertebrate Faunas From Coastal Georgia. Journal of Vertebrate Paleontology, 18:412-429

Describes and identifies several Pleistocene fossils found at back barrier locations in Coastal Georgia.

(33) Jol, H.M., D.G. Smith and R.A. Meyers. 1996. Digital Ground Penetrating Radar (GPR): A New Geophysical Tool for Coastal Barrier Research (Examples from the Atlantic, Gulf and Pacific Coasts, U.S.A.). Journal of Coastal Research, 12:960-968.

Ground penetrating radar is described as a new tool for stratigraphic studies of coastal barrier islands. Applications from several locations, including coastal Georgia, are described.

(34) Lens, L.F. 1981. Quaternary Stratigraphy and Sedimentary Framework of the Sapelo Island Area, Coastal Georgia. Masters Thesis, University of Georgia, Athens.

Core data was used to investigate and describe the detailed stratigraphy of Sapelo Island, Georgia.

(35) Linsley, D.M. 1993. Depositional environments of St. Catherines Island: Their relationship to late Quaternary sea-level change and application to late Paleozoic cyclic stratigraphy (Georgia). PhD Dissertation (Abstract), University of Pittsburgh.

Sediments obtained from vibracores around St. Catherines Island, Georgia were used to classify two distinct depositional systems: salt marsh tidal creeks and beach ridge complexes.

(36) MacNeil, F. S. 1949. Pleistocene Shore Lines in Florida and Georgia. U.S. Geological Survey, Professional Paper 221-F.

Pleistocene shorelines were examined in coastal Georgia and Florida for possible relationship with land pebble phosphate deposits of southern Florida. No relationship was found to support this claim.

(37) Markewich, H.W., C.M. Hacke and P.F. Huddlestun. 1992. Emergent Pliocene and Pleistocene sediments of Southeastern Georgia: An anomalous, fossil-poor, clastic section. In: Quaternary Coasts of the United States: Marine and Lacustrine Systems, SEPM Special Publication No. 48. p. 173-189.

This paper discusses paleontological analysis of sediments from Cape Fear, North Carolina to Cape Canaveral, Florida. Pliocene sediments from Georgia were found to produce very few fossils.

(38) Martinez, J.O. 1980. Neogene Stratigraphy and Sedimentary Environments of Cumberland Island, Georgia. Masters Thesis, University of Georgia, Athens.

A detailed investigation of the Geology of Cumberland Island, Georgia with information on the fauna, lithology, and sedimentary structures of individual sedimentary formations.

(39) McLemore, W.H., C.E. Swann, P.B Wigley, M.C. Turlington, V.J. Henry, J. Martinez, R.E. Carver and J.T. Thurmond. 1981. Geology as applied to land-use management on Cumberland Island, Georgia. Georgia Geological Survey, Atlanta, GA. 227 p.

A detailed study of the subsurface stratigraphy of Cumberland Island, Georgia for use in planning and applied management of the island.

(40) Moslow, T.F. 1980. Stratigraphy of Mesotidal Barrier Islands. PhD Dissertation (Abstract), University of South Carolina.

Data from sediment cores taken on Kiawah and Seabrook Islands, South Carolina was analyzed to provide a model for Holocene barrier island growth.

(41) Noakes, J.E. and B.L. Brandau. 1974. University of Georgia radiocarbon dates III. Radiocarbon, 16:131-141.

A collection of radiocarbon dates from several areas around Sapelo Island, Georgia. Locations are given descriptively and with latitude and longitude coordinates.

(42) Oertel, G.F. and M. Larsen. 1976. Developmental sequences in Georgia coastal dunes and dune plants. Bulletin of the Georgia Academy of Sciences, 34:35-48.

Coastal morphology and vegetation patterns are described for Pleistocene and Holocene beach complexes in Georgia.

(43) P.E. LaMoreaux & Associates, Inc. 1984. Geomorphic Analysis of Subsidence at Sea Island, Georgia. PELA File No. 452900 Prepared for The Sea Island Company, The Board of Directors of the Sea Island Property Owners Association and The Environmental Committee of the Sea Island Property Owners Association. P.E. LaMoreaux & Associates, Inc. Tuscaloosa, Alabama.

Shoreline change and subsidence on Sea Island, Georgia were studied to determine which factors were most significant. Excessive withdrawal of groundwater, erosion and accretion of shoreline, decreased sediment influx, sea level rise, and shifting longshore currents are the most important variables affecting the shoreline of the island.

(44) *Rigdon, T.A. and A.J. Green. 1980. Soil Survey of Camden and Glynn Counties, Georgia. U..S.A. Soil Conservation Service. 82 p.

Unable to acquire

(45) Sexton, W.J. and M.O. Hayes. 1996. Holocene deposits of reservoir-quality sand along the central South Carolina coastline. American Association of Petroleum Geologists Bulletin, 80:831-855.

The volume of reservoir quality sand was estimated from barrier islands, ebb tidal deltas, sand flats, tidal point bars, and tidal sand ridges along the South Carolina coast.

(46) Shadroui, J. M. 1990. Aeolian transport in a small dune field on St. Catherines Island, Georgia. Bulletin of the Georgia Geologic Society, 122:48-64.

Sand dunes on St. Catherines Island, Georgia were monitored for 15 months in order to describe erosion and accretion patterns.

(47) Stallins, J.A. 2000. Barrier island morphology and dune vegetation pattern and process in the Georgia bight. PhD Dissertation (Abstract), University of Georgia, Athens.

This study examines how vegetation and disturbance are related on two barrier islands: South Core Banks, North Carolina and Sapelo Island, Georgia.

(48) Stapor, F.W. and T.D. Mathews. 1983. Higher than present Holocene sea-level events recorded in wave cut terraces and scarps: Old Island, Beaufort County, South Carolina. Marine Geology, 52:M53-M60.

Wave cut terraces and scarps around Old Island, South Carolina were used to show at least two higher than present Holocene sea level events.

(49) Sullivan, J.D. 1988. Late Pleistocene – Holocene Transgressive Barrier Island Sequence: Evidence for a Fluctuating Sea Level, Hilton Head Island Area, South Carolina. Masters Thesis. Georgia State University, Atlanta.

Stratigraphic analysis of Hilton Head Island, South Carolina supports other evidence suggesting sea level fluctuations over the past 7000 years.

(50) Swanson, V.E. and J.G. Palacas. 1965. Humate in coastal sands of northwest Florida. U.S. Geological Survey, Bulletin 1214B. 27 p.

Layers of dune and beach sand impregnated and cemented with organic material are discussed in terms of their formation processes.

(51) Thom, B.G. 1967. Humate and Coastal Geomorphology. Louisiana State University Coastal Studies Series, Bulletin 1.

A brief description of humate soil layers present throughout the coastal plain of the southeastern United States.

(52) Veross, V.A., 1980. Supratidal and Intertidal Shell Deposits in a Back-Barrier Environment, Wassaw Sound, Chatham County, Georgia. Masters Thesis, University of Texas, Austin.

This study provides a detailed analysis of the components and formation of shell deposits near Wassaw and Cabbage Islands, Georgia.

(53) *Wojtal, A.M. and T.F. Moslow. 1980. Stratigraphy of barrier and back barrier facies, Kiawah Island, South Carolina. In: R.W. Frey (ed.), Coastal environments of Georgia and South Carolina. Geological Society of America Field Trip Guidebook 2, p. 284-310.

Unable to acquire

(54) Woolsey, J.R., V.J. Henry and J.L. Hunt. 1975. Backshore Heavy-Mineral Concentration on Sapelo Island, Georgia. Journal of Sedimentary Petrology, 45:280-284.

Depositional processes involved with the concentration of heavy mineral were studied on Sapelo Island, Georgia. Moderate surf energy and aeolian processes were found to be the most efficient.

(55) Ziegler, J.M. 1959. Origin of the Sea Islands of the southeastern United States. Georgia Review, 49:222-237.

The southeastern coast between Winyah Bay, South Carolina and the Florida border were described and studied in terms of possible processes that may have formed the coastal islands. Islands along this area of the coast were characterized as either erosion remnant islands, marsh islands, or beach-ridge islands.

Hydrology

(56) Barnhart, E.L. 1992. Effluent disposal in a pristine environment. Water Science and Technology, 25:23-32.

Wastewater treatment problems on South Carolina barrier islands are an increasing concern as coastal populations continue to grow. Fripp Island, Hunting Island, and Harbor Island are described and compared for various treatment techniques and for

wastewater disposal strategies. Several alternatives are discussed for disposal to be environmentally satisfactory.

(57) Booth, R.K., F.J. Rich, G.A. Bishop and N.A. Brannen. 1999. Evolution of a freshwater barrier island marsh in coastal Georgia, USA. Wetlands, 19:570-577.

A sediment core taken from a freshwater pond on St. Catherines Island, Georgia was examined in order to reconstruct the paleoecology of the wetland. The palynology of the core demonstrates that the site had experienced several depositional environments during its formation.

(58) *Brown, D.P., 1984. Impact of development on availability and quality of ground water in eastern Nassau County, Florida and southeastern Camden County, Georgia, U.S. Geological Survey, Water-Resources Investigation Report 83-4190, 113 p.

Unable to acquire

(59) Bryson, H.C. 1988. Groundwater Management on Barrier Islands, Coastal Water Resources. Proceedings of a symposium held in Wilmington, NC. American Water Resources Association, Bethesda, Maryland, p. 561-573.

Groundwater problems associated with Atlantic coast barrier islands are discussed with case studies of specific locations and recommendations towards development.

(60) Bush, P.W. 1988. Simulation of saltwater movement in the Floridan Aquifer System, Hilton Head Island, South Carolina: U.S. Geological Survey, Water-Supply Paper 2331, 19 p.

Pre-development, recent, and future groundwater flow were modeled to simulate saltwater intrusion patterns on the north end of Hilton Head Island.

(61) Clark, J.R., M.A. Lewis and A.S. Pait. 1993. Pesticide inputs and risks in coastal wetlands. Environmental Toxicology and Chemistry, 12:2225-2233.

This paper discusses laboratory and field studies in which pesticide impact to coastal wetlands was assessed. Specific examples are provided from North Carolina, South Carolina, and Florida.

(62) Clarke, J.S., C.M. Hacke and M.F. Peck. 1990. Geology and ground water resources of the coastal area of Georgia. Georgia Geological Survey, Bulletin 113, 106 p.

This detailed report describes the overall geology and hydrogeology of Coastal Georgia with detailed plates.

(63) *Clarke, J.S. and R.E. Krause. 2000. Design, Revision and Application of Ground-Water Flow Models for Simulation of Selected Water-Management Scenarios in the Coastal Area of Georgia and Adjacent Parts of South Carolina and Florida. U.S. Geological Survey, Water Resources Investigations Report 00-4084.

Unable to aqcuire

(64) Cogger, C.G., L.M. Hajjar, C.L. Moe and M.D. Sobsey. 1988. Septic System Performance on a Coastal Barrier Island. Journal of Environmental Quality, 17:401-408.

Wastewater treatment by septic systems on Atlantic coastal barrier islands was evaluated to determine the effects of water table height and wastewater loading rate to groundwater.

(65) Collins, W.H. and D.H. Easley. 1999. Freshwater Lens Formation in an unconfined barrier island aquifer. Journal of the American Water Resources Association, 35:1-21.

Physical testing and computer models were used to study fresh water lens formation on barrier islands. Permeability was found to be the most dominant control in fresh water lens formation.

(66) *Cooper, H.H. Jr.,. 1964. A hypothesis concerning the dynamic balance of fresh water and salt water in a coastal aquifer. In: Sea Water in Coastal Aquifers, U.S. Geological Survey, Water Supply Paper 1613C, p. 1-12.

Unable to acquire

(67) *Fairchild, R.W. and C.B. Bentley. 1977. Saline-Water Intrusion in the Floridan Aquifer in the Fernandina Beach Area, Nassau County, Florida: U.S. Geological Survey, Water Resources Investigations Report 77-32. 27 p..

Unable to acquire

(68) Frick, E.A., M.B. Gregory, D.L. Calhoun and E.H. Hopkins. 2002. Water Quality and Aquatic Communities of Upland Wetlands, Cumberland Island National Seashore, Georgia, April 1999 to July 2000. U.S. Geological Survey, Water Resources Investigations Report 02-4082.

This report summarizes the results of several studies conducted on Cumberland Island, Georgia investigating groundwater, surface water and ecological features in 1999 and 2000.

(69) Gill, H.E. and G.D. Mitchell. 1979. Results of Colonels Island Deep Hydrologic test well, Appendix C of Georgia Geologic Survey, Investigations of Alternative Sources of Ground Water in the Coastal Area of Georgia: Georgia Department of Natural Resources, Open File Report 80-3, p. C1-C13.

A test well was located on Colonels Island, Georgia to gather data about vertical groundwater flow patterns and quality. Increased pumpage of the principal artesian aquifer allows vertical migration of saltwater.

(70) Gregg, D.O. 1966. An Analysis of ground-water fluctuations caused by ocean tides in Glynn County, Georgia. Groundwater, 4:24-32.

Tidal effect on artesian water wells was evaluated for several wells at different distances from tidal bodies of water. A formula was derived from this data to rapidly calculate tidal efficiency.

(71) Harris, William H.,. 1967. Stratification of Fresh and Salt Water on Barrier Islands as a Result of Differences in Sediment Permeability. Water Resources Research, 3:89-97.

The interface between fresh and salt water beneath Hatteras Island, North Carolina was investigated in terms of the permeability of sediments at depth. Permeable sediments were found to contain less chloride than non-permeable sediments.

(72) Herndon, J.G. 1991. The Hydrogeology of Southern Cumberland Island, Georgia. Masters thesis. Georgia State University, Atlanta, GA 183 p.

In order to determine how channel dredging may affect groundwater in the Pliocene-Miocene aquifer, 10 wells were installed at different cluster sites on Cumberland Island, Georgia. Data was collected from the Miocene sand aquifer, the Pliocene-Miocene

aquifer, and the surficial aquifer. Analysis of data suggest that saltwater intrusion into the Pliocene-Miocene aquifer was not significant.

(73) Jones, L.E., D. C. Powell and M.L. Maslia. 2002. Hydrogeology and Water Quality (1978) of the Floridan Aquifer System at U.S. Geological Survey Test Well 26, on Colonels Island, Near Brunswick, Georgia. U.S. Geological Survey, Water-Resources Investigations Report 02-4020.

To gain a more accurate understanding of the hydrogeology of coastal Georgia a test well was placed on Colonels Island, GA. This report provides information regarding the well logs and geochemistry of the water samples.

(74) Knott, J.L. Jr. 1995. New frontiers in wastewater treatment. Environmental Protection, 6:20, 23-24.

This article discusses a progressive wastewater management program in use on Dewees Island, South Carolina.

(75) Kozel, T.R. 1991. Surface water quality in three interdunal ponds, south end ponds ecosystem, Cumberland Island, Georgia. In: Hatcher, K.J. (ed.), Proceedings of the 1991 Georgia Water Resources Conference, 19-20 March, 1991, Univ. of GA, Athens, GA.

Baseline data on depth and 14 water chemistry characteristics was collected over a 5 year period for 3 interdunal ponds on Cumberland Island, Georgia. This study allows for seasonal as well as annual fluctuations in the ponds ecology to be considered.

(76) Krause, R.E. 1972. Effects of Groundwater Pumping in Parts of Liberty and Macintosh Counties, Georgia 1966-70. Georgia Geological Survey, Information Circular 45, 1972. 15 p.

This report discusses the impact on water levels at locations around Liberty and McIntosh counties as a result of increased pumping near Riceboro, Georgia.

(77) Krause, R.E. and Randolph, R.B. 1989. Hydrology of the Floridan aquifer system in southeast Georgia and adjacent parts of Florida and South Carolina. U.S. Geological Survey, Professional Paper 1403-D. (Located at Georgia Southern library).

This report provides a comprehensive overview of Floridan aquifer characteristics in Georgia, Florida, and South Carolina.

(78) Landmeyer, J.E. 1994. Description and application of capture zone delineation for a wellfield at Hilton Head Island, South Carolina. U.S. Geological Survey, Water-Resources Investigations Report 94-4012, 33 p.

Capture zone delineation for coastal wells was estimated using a combination of models designed to evaluate groundwater flow. Both analytical and numeric models indicate the current 100 foot radius of protection around a well underestimates the groundwater capture zone.

(79) Landmeyer, J.E. and P.A.Stone. 1995. Radiocarbon and $\delta^{13}C$ values related to ground-water recharge and mixing. Ground Water, 33:227-234.

Measurements taken during this study and others found radiocarbon and $\delta^{13}C$ values varied among different locations on Hilton Head Island, South Carolina. The differences suggest these types of data may be useful indicators of groundwater mixing from different sources and for determining recharge-discharge patterns.

(80) Landmeyer, J.E. and P.M. Bradley. 1998. Hydrologic and water-chemistry data from the cretaceous-aquifers test well (BFT-2055), Beaufort County, South Carolina. Southeastern Geology, 37:141-148.

A test well was installed to evaluate the potential of the Cretaceous aquifer beneath Hilton Head Island, South Carolina as a groundwater source. Results from the test showed the water to be non-potable.

(81) Mack, J.B. 1994. Field Investigation of Saltwater Intrusion – Cumberland Island, Georgia. Masters Thesis. Georgia State University, Atlanta. 103 p.

The Pliocene-Miocene confined aquifer beneath the southern end of Cumberland Island, Georgia was investigated for saltwater intrusion. Measurements of hydraulic head were taken every half hour for 3 days in order to construct potentiometric maps displaying groundwater flow orientation at various times of the tidal cycle. The dominant direction of flow to the west appears to serve as a barrier to saltwater intrusion.

(82) Mack, J.B. 1994. Field Investigation of Saltwater Intrusion Cumberland Island, Georgia. Kings Bay Environmental Monitoring Program Research/Resources Management Report KBRPT 94/01; NPS–D–61, 103 p.

A National Park Service report presenting data from a Masters thesis focused on salt-water intrusion (see entry #81).

(83) Nevils, F. M. and M.E. Meadows. 1988. A model of the surface water-groundwater interaction on a barrier island. Proceedings of the Symposium on Coastal Water Resources. Technical Publication Series of the American Water Resources Association (Abstract). p. 435-436.

A monitored watershed on a South Carolina barrier island was used to collect data regarding the relationship between surface water and groundwater.

(84) Nielsen, P. 1999. Groundwater Dynamics and Salinity in Coastal Barriers. Journal of Coastal Research, 15:732-740.

Groundwater patterns were examined and modeled for coastal barrier islands with a width less than 1 kilometer. These islands exhibit dynamics which differ from typical scenarios.

(85) Osgood, D.T. 2000. Subsurface Hydrology and nutrient export from barrier island marshes at different tidal ranges. Wetlands Ecology and Management, 8:133-146.

Young barrier island marshes were studied at two locations: Hog Island, Virginia, and Pritchards Island, South Carolina, for characteristics of hydrology and nutrient export using flux of water, ammonium and phosphate.

(86) Park, A.D. 1986. Saltwater Encroachment Study at Hilton Head Island, South Carolina. Proceedings of the Focus Conference on Southeastern Ground Water Issues. National Water Well Association, Dublin, OH. p. 450-461.

Several test wells were located on Hilton Head Island, South Carolina to determine how salt water intrusion may affect drinking water wells on the island. Test wells were nested with individual wells monitoring the upper and lower Floridan aquifer, the surficial aquifer and the Hawthorn formation. Studies include the evaluation of porosity and investigate inter-relationships between the various aquifers.

(87) Randolph, R.B. and R.E. Krause. 1990. Analysis of the Effects of Hypothetical Changes in Ground-Water Withdrawal From the Floridan Aquifer System in the Area of Glynn County, Georgia. U.S. Geological Survey, Water Resources Investigations Report 90-4027.

A model was created to evaluate hypothetical scenarios of increased and decreased pumping activity in and around Brunswick, Georgia. Increased withdrawal in areas near Brunswick, Georgia would result in a water-level decline in the city. A slight increase in

water-level was predicted when there was a decrease in public pumping supply in Brunswick.

(88) Reilly, T.E. and A.S. Goodman. 1985. Quantitative Analysis of Saltwater-Freshwater Relationships in groundwater systems – A historical perspective. Journal of Hydrology, 80:125-160.

This article provides a historical summary of existing and ongoing work dealing with the numerical analysis of saltwater-freshwater interactions. Specific discussion is presented dealing with the simplifications and assumptions necessary for analysis of these complex interactions.

(89) Ruppel, C., G. Shultz and S. Kruse. 2000. Anomalous Fresh Water Lens Morphology on a Strip Barrier Island. Groundwater, 38:872-881.

Several factors were investigated which may have influence on the particular shape of the freshwater lens beneath St. Georgia Island, Florida. A combination of site specific physical factors is the most likely cause for the asymmetrical shape of the freshwater lens. Results from this study demonstrate the need for caution when making assumptions about freshwater beneath barrier islands.

(90) Schultz, G. and C. Ruppel. 2002. Constraints on hydraulic parameters and implications for groundwater flux across the upland-estuary interface. Journal of Hydrology, 260:255-269.

Several methods of testing were applied to determine hydraulic parameters at the upland-estuary interface on Sapelo Island, Georgia. Results showed a significant difference in hydraulic conductivity on either side of this boundary.

(91) Serfes, M.E. 1991. Determining the mean hydraulic gradient of groundwater affected by tidal fluctuations. Groundwater, 29:549-555.

Tidal fluctuations are shown to influence the hydraulic magnitude and gradient in a confined aquifer in Atlantic City, New Jersey. Methods for calculating the mean hydraulic gradient in these environments are presented.

(92) Siple, G.E. 1956. Memorandum on the geology and groundwater resources of the Parris Island area, South Carolina. U.S. Geological Survey, Open File Report 57-100. 29 p.

Data were collected and interpreted regarding the geology and hydrogeology around Parris Island, South Carolina to supply basic water records for later studies.

(93) Speiran, G.K.and D.L. Belval. 1985. Selected Hydrologic Data from a Wastewater Spray Disposal Site on Hilton Head Island, South Carolina. U.S. Geological Survey, Open-File Report 85-189, 34 p.

A 14-acre wastewater disposal site on Hilton Head Island, South Carolina was studied to collect data on water level and quality of the surficial aquifer.

(94) Temples, T.J., and M.G. Waddell. 1996. Application of petroleum geophysical well logging and sampling techniques for evaluating aquifer characteristics. Ground Water, 34:523-531.

A test well on Hilton Head Island, South Carolina was drilled to evaluate the usefulness of the Upper Cretaceous as a possible groundwater source. A suite of petroleum-industry based logging and sampling techniques were used for analyses to reduce the expense of conventional coring, and flow testing of the well. Results of the testing found water quality to be higher than expected.

(95) Vacher, H.L. 1988. Ground water in barrier islands – theoretical analysis and evaluation of the unequal sea level problem. Journal of Coastal Research, 4:139-148.

The hydrology of barrier islands is modeled to include salt water head variation across the upland of the island.

(96) Wait, R.L. and J.T. Callahan. 1963. Relations of Fresh and Salty Groundwater along the Southeastern U.S. Atlantic Coast. In: Proceedings of the Annual Meeting of the Geological Society of America, November, 17-20, 1963.

This paper discusses the dynamics of fresh and salt water within coastal aquifers. Specific examples are presented from locations in North Carolina, South Carolina, Georgia, and Florida.

(97) Warren, M.A. 1944. Artesian water in southeastern Georgia with special reference to the coastal area, Georgia Geological Survey, Bulletin 49 and 49A. 140 p.

A detailed report discussing groundwater conditions at specific well locations throughout Southeast Georgia.

(98) *Wilson, S.K., 1990. Hydrogeology of southern Cumberland Island, Georgia. Kings Bay Environmental Monitoring Program Cumberland Island National Seashore. KBEMP-90/01; NPS-D-57, 1991, 105 p.

Unable to acquire

(99) Wilson, S.K., S. Rose, R. Arora, J. Herndon and S. Cofer-Shabica. 1991. Mixing Zone Hydrochemistry within a Confined Aquifer System: Cumberland Island, Georgia. Southeastern Geology, 32:29-35.

Water chemistry was sampled and analyzed on Cumberland Island, Georgia to understand the mixing dynamics of the confined aquifer with salt water.

Biology

(100) Albers, G. and M. Alber. 2003. A Vegetative Survey of Back-Barrier Islands Near Sapelo Island Georgia. In: J. Hatcher (ed.), Proceedings of the 2003 Georgia Water Resources Conference. Institute of Ecology, University of Georgia, Athens.

This study presents data on vegetation inventory and quantity for 11 back-barrier islands near Sapelo Island, Georgia. Vegetation surveys were conducted to evaluate the mean species richness for 4 size categories of islands. Data suggests a positive relationship between island area and vascular plant diversity.

(101) Andre, J.B. 1981. Habitat use and relative abundance of the small mammals of a South Carolina Barrier Island. Brimleyana, 5:129-134.

Small mammals were captured on Bulls Island, South Carolina to evaluate abundance and habitat use. Habitats sampled included, fore and rear sand dunes, salt spray forest, maritime live oak forest, freshwater marsh, salt marsh, old-field, and residential. 4 species of mammals were collected during the study. A relative abundance value is presented to reflect the degree to which a species uses a particular habitat.

(102) Baker, L.A., R.J. Warren, D.R. Diefenbach and W.E. James. 2000. Prey selection by Reintroduced Bobcats (Lynx rufus) on Cumberland Island, Georgia. American Midland Naturalist, 145:80-93.

Prey species for reintroduced bobcats on Cumberland Island, Georgia were evaluated for abundance and selection 3 times per year during a 2-year study. Several hypotheses were

examined with data collected from various habitats on the island. The results suggest diet optimization and functional responses are the most useful models for describing bobcat-prey relationships.

(103) Bildstein, K.L., W. Post, J. Johnston and P. Frederick. 1990. Freshwater wetlands, rainfall and the breeding ecology of white ibises in coastal South Carolina. Wilson Bulletin, 102:84-98.

A decline in White Ibis (Eudocimus albus) populations at two South Carolina nesting locations, Drum Island and Pumkinseed Island, from 1984 to 1985 was evaluated with respect to climate patterns and available prey. 1984 was a very wet year and 1985 a dry year. Declines in nesting numbers and hatching success were related to reduced freshwater wetlands and the associated reduction of crayfish for the ibises diet.

(104) Boczek J. and R. Davis. 1990. Three new species of Eriophyid mites from Georgia Coastal islands (Acari: Eriophyoidea). Journal of Entomological Science, 25:125-133.

This paper describes three new species of eriophyid mites collected on two back barrier coastal islands, in Georgia. Most mites were found on Wilmington Island, a residential suburb of Savannah, Georgia with a large variety of introduced non-native vegetation. Very few plant-feeding mites were found on McQueens Island perhaps due to the type of vegetation present or phase of faunal development.

(105) *Bowers, J.W., J.S. Simmons and D. Forster. 2000 (in progress). Relative occurrence of acorn and palmetto mast in the late-fall diets of white-tailed deer and feral swine on Ossabaw and Sapelo Islands, Georgia. Georgia Department of Natural Resources, Annual Performance Report, Atlanta.

Unable to acquire

(106) Bratton, S.P. 1985. The Vegetation History of Fort Frederica, St. Simons, Georgia. Castanea, 50:133-145.

The vegetation history of Fort Fredrica is examined with regard to aboriginal and colonial use of the land, examining how human disturbance has affected the current vegetation structure.

(107) * Bratton, S.P. 1988. Wood stork use of fresh and saltwater habitats on Cumberland Island National Seashore. U.S. National Park Service, Cooperative

Studies Unit, Technical Report No. 50. Institute of Ecology, University of Georgia, Athens.

Unable to acquire

(108) Bratton, S.P. 1993. Survivorship of Evergreen Hardwoods after wildfire in Maritime forest, Cumberland, Island National Seashore, GA. Castanea, 58:34-44.

Live oak, laurel oak, and red bay trees were assessed for post burn survivorship following three natural fires on Cumberland Island, Georgia. Amount of crown scorch for oaks and degree of basal scorch for red bay trees were used as indicators for mortality rates. Data indicates that prescribed fire would probably have little effect on forest structure.

(109) *Bryan, A.L. Jr. 1996. The foraging ecology of Wood Storks nesting in the coastal zone of Georgia and South Carolina in 1995. Report to the Georgia Department of Natural Resources, Nongame-Endangered Species Program, Brunswick, Georgia.

Unable to acquire

(110) Carter, T.C., M.A. Menzel, D.M. Krishon and J. Laerm. 1998. Prey selection by five species of vespertilionid bats on Sapelo Island, Georgia. Brimleyana, 25:158-170.

Data was obtained on prey selection of five species of bats with fecal samples of 132 individuals. Four orders of insects dominated the diet of these bats: Coleoptera, Hymenoptera, Lepidoptera, and Hemiptera. All fives bat species exhibited significant selection for and against certain insect orders.

(111) Chamberlain, W.D. and E.B. Chamberlain. 1975. Avifauna of Kiawah Island. In: W.M. Campbell, J.M. Dean and W.K. Chamberlain (eds.), Environmental inventory of Kiawah Island, Environmental Research Center, Inc., Columbia, SC. p. AV1-AV106.

Kiawah Island, South Carolina was studied for 13 months to document the status and distribution of bird life on the island. Detailed information is provided for each species observed including behavior traits and preferred habitats.

(112) Chamberlain, W.D. 1982. Avian Population Density in the Maritime Forest of Two South Carolina Barrier Islands. Birds, 36:142-145.

This study documents avian density in maritime forest on two South Carolina barrier islands. Capers Island experiences light recreational use and Kiawah Island experiences greater developmental pressure and recreational use. Transects crossed each island through a variety of habitats and were sampled bi-weekly between March and September.

(113) Coker, W.C. 1905. Observations on the flora of Isle of Palms, Charleston, South Carolina. Torreya, 5:135-145.

This early report identifies the vegetation present on the Isle of Palm, South Carolina. Vegetation is grouped into several habitat categories: upper beach, dunes, fresh marsh, forest, hammocks, salt flats and marshes.

(114) Cox, J. 1988. The influence of forest size on transient and resident bird species occupying maritime hammocks of northeastern Florida. Florida Field Naturalist, 16:25-34.

Using point count surveys small and large maritime hammocks in northeastern Florida were studied to evaluate use of habitat by migrating, resident, and over-wintering birds. Large hammocks exhibited the greatest species richness and many species showed preference for either large or small hammocks. The forested areas of large hammocks appears to be important habitat for migrating warbler species.

(115) Davis, A. H. Jr. 1981. Ecological and Physiological parameters of mercury and cesium-137 accumulation in the raccoon. PhD Dissertation (Abstract). University of Georgia, Athens.

This study provides data regarding mercury and cesium-137 levels in raccoons sampled from 4 southeastern locations.

(116) Davison, D. and S.P. Bratton. 1988. Vegetation response and regrowth after fire on Cumberland Island National Seashore, Georgia. Castanea, 53:47-65.

Patterns of response and re-growth were monitored following a natural fire on Cumberland Island, Georgia. The proportion of most species post-fire growth resembled that of pre-fire composition within 2 years.

(117) Davison, K.L. 1984. Vegetation response and regrowth after fire on Cumberland Island National Seashore, Georgia. U.S. Department of the Interior, National Park Service, Research/Resource Management Report SER-69. 121 pp.

Vegetation surveys and soil samples were surveyed for 2 years following a fire on Cumberland Island, Georgia. Data was compared with measurements taken from unburned, old burn, and prescribed burn locations. Mature hardwood species were little affected by the fire. Mature pine species exhibited high mortality rates. All species of scrub vegetation was present among the regrowth.

(118) Duncan, W.H. 1982. The Vascular Vegetation of Sapelo Island, Georgia. Botany Department, University of Georgia and Georgia Department of Natural Resources, Atlanta. 75 pp.

This study provides information about the vegetation types and species occurring on Sapelo Island, Georgia.

(119) Ehrenfeld, J.G. 1990. Dynamics and processes of barrier island vegetation. Reviews in Aquatic Sciences, 2:437-480.

Barrier island vegetation is examined with regard to the complex environmental conditions of maritime forests. Emphasis is placed on the ways barrier island vegetation responds to abiotic and biotic factor interaction.

(120) Ewins, P.J. 1997. Osprey (pandion haliaetus) populations in forested areas of North America: changes, their causes and management recommendations. Journal for Raptor Research, 31:138-150.

Although not specific to southeast coast, this paper recommends relevant management strategies for osprey habitat.

(121) Fabrizio, L., and M.S. Calvi. 2003. Georgia's Marsh Hammocks A Biological Survey. Southern Environmental Law Center, 200 West Franklin St., Suite 330, Chapel Hill, NC 27516

Biological surveys of marshland hammock islands in Georgia were conducted between October 2001 and September 2002. Data was collected pertaining to habitat use by various species of plants and animals. Small hammocks were found to support a wide diversity of plants and animals.

(122) Ford, C.R. 1987. Spotlight survey for white-tailed deer population trends on Cumberland Island National Seashore. National Park Service, Cooperative Park Studies Unit, Technical Report Number 42. National Park Service, Athens, GA. 11 p.

Survey techniques and protocols are described for estimating deer herd size through driving and spotlighting animals. The survey involves a driver and two observers who attempt to identify deer by age class and sex. Combining spotlight survey data with data from managed hunts will improve information for deer herd management decisions.

(123) Gaddy, Laurie. 1983. Notes on the autumnal northward migration of the cloudless sulphur, Phoebis sennae (Pieridae), along the South Carolina coast. Journal of the Lepidopterists' Society, 37:166-167.

This article presents data regarding cloudless sulphur migration patterns along the South Carolina coast. The preferred area of travel appears to be over saltmarsh just inland of the barrier islands.

(124) Gaines, K.F., A.L. Bryan, Jr. and P.M. Dixon. 2000. The effects of drought on foraging habitat selection of breeding wood storks in coastal Georgia. Waterbirds, 23:64-73.

Wood stork habitat use and breeding success was examined at 3 coastal Georgia locations for 1 dry season and 2 normal rainfall years. During the dry season wood storks used estuarine habitats much more than freshwater habitats for foraging. The dry season breeding success was found to be less than half of a normal rainfall year.

(125) Griffin, J.C. 2001. Bobcat ecology on developed and less-developed portions of Kiawah island, South Carolina. Masters Thesis (Abstract), University of Georgia, Athens.

14 radio-collared bobcats were monitored for several attributes on Kiawah Island, South Carolina. The attributes were compared between bobcats that used the developed portion of the island versus the bobcats that used the undeveloped portion of the island. Bobcats in the developed portion of the island were found to have larger home and core range sizes, and increased movement rates.

(126) Helm, A.C., N.S. Nicholas, S.M. Zedaker and S.T. Young. 1991. Maritime forest on Bull Island, Cape Romaine, South Carolina. Bulletin of the Torrey Botanical Club, 118:170-175.

This study documents the maritime forest of Bull Island, South Carolina. Permanent plots were created in pine stands, and oak/tallow stands. Measurements were taken for three classes, overstory, understory, and herbaceous layer strata.

(127) *Hough, W.A. 1968. Carbohydrate reserves of Saw-Palmetto: Seasonal Effects of Burning. Forest Science, 14:4.

Unable to acquire

(128) Hunt, K.W. 1947. The Charleston Woody Flora. American Midland Naturalist, 37:670-756.

An inventory of woody species of flora identified in the Charleston, South Carolina area have been grouped and listed as to the habitat type where they were located.

(129) *Johnson, A.S., I.L. Brisbin, J. McCollum and V.F. Nettles. 1992. Report of the Committee on Ossabaw Island Hogs. 1 July 1992. Georgia Department of Natural Resources, Wildlife Resource Division, Brunswick (report on file). 5pp.

Unable to acquire

(130) Johnson, S.R. and D.R. Young. 1992. Variation in tree ring width in relation to storm activity for mid-Atlantic barrier island populations of Pinus taeda. Journal of Coastal Research, 8:99-104.

Tree cores were collected from Loblolly pine trees at coastal locations in Virginia, North Carolina, and South Carolina to compare growth ring width with storm occurrence. Association was observed in all sites of ring width and coastal storms, as well as increased ring width with lower latitudes. Assessment of tree ring width may be useful in evaluating storm impact to barrier island plant communities.

(131) Kinsey, A.A., L.A. Durden and J.H. Oliver Jr. 2000. Tick infestations of birds in coastal Georgia and Alabama. Journal of Parasitology, 86:251-254.

Several species of birds were mist-netted during fall migration on Jekyll Island, Georgia and Fort Morgan, Alabama. Tick infestations were found to be concentrated among specific species at both locations. Efforts to identify the primary agent for Lyme borreliosis among Ixodes species were unsuccessful.

(132) Laerm, J. 1981. Systematic Status of the Cumberland Island Pocket Gopher, Geomys cumberlandius. Brimleyana, 6:141-151.

Statistical analyses were performed comparing the Cumberland Island Pocket Gopher with 5 mainland species of pocket gophers. Results indicate coastal inland populations

are more similar to the Cumberland Island Pocket Gopher than to more inland populations.

(133) *Laerm, J., R.A. Moulis, M.A. Menzel, G.K. Williamson, N.L. Callough, J. Jensen, B. Winn and M.J. Harris. 1997. Bibliography of Amphibians and Reptiles of the Georgia Sea Islands. University of Georgia Museum of Natural History, Unpublished Report to Georgia Department of Natural Resources (Manuscript on File), Athens.

Unable to acquire

(134) Lambert, C.L. 1992. Spatial Vegetation Dynamics of Lake Whitney – A Freshwater Wetland on Cumberland Island, Georgia. Masters Thesis, University of Georgia, Athens.

Lake Whitney on Cumberland Island, Georgia was used to investigate the characteristics, succession patterns, and long-term stability of freshwater wetlands on barrier islands. Aerial photographs were used with a GIS for the construction of historic vegetation maps and spatial analysis of vegetation.

(135) Magnarelli, L.A., K.C. Stafford III, J.W. Ijdo, E. Fikrig, J.H. Oliver Jr., H.J. Hutcheson and J.L. Boone. 1999. Antibodies to Granulocytic Ehrlichiae in White-footed and Cotton Mice in Eastern United States. Journal of Wildlife Diseases, 35:259-265.

Cotton mice from Sapelo Island, Georgia were included in a study comparing samples from other regions to test for antibodies to Human Granulocytic Ehrlichiae (HGE). Tests may indicate endemic areas for the presence of HGE.

(136) Martof, B.S. 1963. Some observations of the herpetofauna of Sapelo Island, Georgia. Herpetologica, 19:70-72.

A brief description of collected species of herpetofauna found on Sapelo Island, Georgia. Collection includes 38 species of reptiles and amphibians.

(137) McIntyre, K. 1998. Breeding birds of maritime forest patches in the southeastern United States. Masters Thesis. University of Florida.

Avian species richness and abundance data was collected from several naturally occurring maritime forest patches of various sizes. Collected measurements were compared with similar measurements from a large contiguous maritime forest. Patch size

was found to be a significant factor in both species richness and abundance of breeding birds in this environment.

(138) McPherson, G.R. 1988. Boundary Dynamics on Cumberland Island National Seashore. University of Georgia Institute of Ecology. National Park Service, Cooperative Park Studies Unit Technical Report 49. 112 pp.

Historical and recent aerial photographs, vegetation and soil descriptions, as well as soil fertility measurements were interpreted to determine the role of disturbance in controlling boundary environments on Cumberland Island, Georgia. Disturbance was found to be a minor factor in the community dynamics, suggesting that wildfires in scrub and marsh environments should not be suppressed.

(139) *Menzel, M.A., T.C. Carter and D.M. Krishon. 1995. Roosting, foraging and habitat use by bats of Sapelo Island, Georgia. Final Report to the Georgia Nongame Wildlife Program, Georgia Department of Natural Resources.

Unable to acquire

(140) Odom, R.R., 1976. Heron Survey of the Georgia Coast. Oriole, 41:19-35.

The Georgia coast east of Interstate 95 was searched for locations of heronries. Twenty-five active sites were located and mapped. Data on species composition, approximate abundance, stages of reproduction, nesting habitats, disturbance and colony size were collected from site visits.

(141) Odum, R.R. 1978. Wood storks nesting on the Georgia Coast. Oriole, 43:1-5.

This paper documents the presence of a Wood Storks nesting colony in Camden County, Georgia.

(142) Osborn, R.G. and T.W. Custer. 1978. Herons and their allies: Atlas of Atlantic Coast colonies, 1975 and 1976. United States Fish and Wildlife Service FWS/OBS-77/08.

This atlas provides maps and species information about 291 colonies of egrets, and herons along the Atlantic United States Coast.

(143) Pearson, S.M., J.M. Walsh and J. Pickering. 1992. Wood stork use of wetland habitats around Cumberland Island, Georgia. Colonial Waterbirds, 15:33-42.

Data from wetland inventory maps was used in a geographic information system to classify feeding and roosting locations of wood storks on Cumberland Island, Georgia. The area near wood stork locations displayed differences in patch size and habitat diversity for both fresh and salt water wetlands. Habitat use by wood storks was found to be influenced by landscape level differences.

(144) Pence, D.B., T.J. Warren and C.R. Ford. 1988. Visceral helminth communities of an insular population of feral swine. Journal of Wildlife Diseases, 24:105-112.

A reduction of the feral swine population on Cumberland Island, Georgia provided opportunity to collect data about species of the helminth communities present among the host population and compare with previously acquired data. 20 male and 28 female feral swine were collected between October 1984 and June 1986. This study recovered 9 species of helminthes.

(145) Permar, T.A. and, R.F. Fisher. 1983. Nitrogen fixation and accretion by wax myrtle (myrica cerifera) in slash pine (pinus elliottii) plantations. Forest Ecology Management, 5:39-46.

Wax myrtle trees were evaluated for nitrogen fixation qualities as a possible alternative for biological forest fertilization. Experiments were conducted in a slash pine plantation near Gainesville, FL. Result indicate that wax myrtle significantly contributes to the nutrient cycle of forest soil by increasing nitrogen fixation.

(146) Poer, L.D. Jr. 1967. A Herpetological Survey The Isle of Palms, A South Carolina Coastal Island. Masters Thesis, University of South Carolina, Columbia.

Amphibians and reptiles were collected and identified from The Isle of Palms, South Carolina. Island Specimens were compared with mainland specimens to determine if there were differences between the populations.

(147) Rayner, D.A. 1974. An analysis of Maritime closed dunes vegetation in South Carolina. Masters Thesis. University of South Carolina, Columbia.

Vegetation communities were identified and inventoried on 5 barrier islands and 1 mainland location in South Carolina. Site locations were relatively undisturbed and without significant development. Transect and quadrat sampling methods were used for data collection.

(148) Rayner, D.A. and W.T. Batson. 1976. Maritime closed dunes vegetation in South Carolina. Castanea, 41:58-70.

Five South Carolina islands and one mainland location were sampled for closed dune vegetation. Using transect and quadrat methods on the islands data was collected on vegetation type and vegetation community.

(149) Rodgers, J.C. III. 1999. The effects of human disturbance on alien plant distributions and primary dune vegetation of the Georgia Sea Islands. PhD Dissertation (Abstract), University of Georgia, Athens.

Vegetation was compared between two developed and two undeveloped Georgia barrier islands. Human disturbance was found to have a significant effect on the distribution of alien plant species.

(150) Ruckdeschel, C. and C.R. Shoop. 1987. Aspects of Wood Stork nesting ecology on Cumberland Island, Georgia. Oriole, 52:21-27.

Wood stork nesting was documented and observed between the years 1985 and 1987 on Cumberland Island, Georgia. Data is provided on nesting behavior and nesting success.

(151) Schacher, W.H. and M.R. Pelton. 1979. The mammals of Kiawah Island, South Carolina. Proceedings South Carolina Endangered Species Symposium, 1(1976):184-195.

This study identifies species of mammals that were trapped or observed between June 1974 and May 1975 among the various habitats of Kiawah Island, South Carolina.

(152) Sharp, H.F. Jr. 1967. Food Ecology of the Rice Rat, Oryzomys palustris (Harlan), in a Georgia Salt Marsh. Journal of Mammalogy, 48:557-563.

Diets of rice rats collected from Georgia saltmarshes were compared with laboratory reared animals to examine what portion of their diet was composed of animal food and what portion was composed of plant food. The study found a dominance of animal food in rats collected in the summer and fall. Conclusions indicate that rice rats serve as carnivores in saltmarsh ecosystems during the summer season.

(153) Shepherd, P., T. Crockett, T.L. De Santo and K.L. Bildstein. 1991. The Impact of Hurricane Hugo on the Breeding Ecology of Wading Birds at Pumpkinseed Island, Hobcaw Barony, South Carolina. Colonial Waterbirds, 14:150-157.

This study looks at the changes in nesting bird activity before and after the 1989 Hurricane Hugo event in coastal South Carolina. The 1990 breeding season saw decreases in nesting numbers for Great Egrets and Tri-colored Herons but very little change in nesting numbers for Snow Egrets or Glossy Ibises. Most notably there was a dramatic change in nesting numbers of White Ibis from 10,000 pair in 1989 to 0 nesting pair in 1990.

(154) Shoop, C.R. and C.A. Ruckdeschel. 1990. Alligators as predators on terrestrial mammals. American Midland Naturalist, 124:407-412.

This study examines the role large alligators play in the structure of their ecological community. Observations made on Cumberland Island, Georgia showed regular predation on deer and other mammals.

(155) Smith, G.F., N.S. Nicholas and S.M. Zedacker. 1997. Succession Dynamics in a maritime forest following Hurricane Hugo and fuel reduction burns. Forest Ecology and Management, 95:275-283.

Permanent vegetation plots on Bull Island, South Carolina were studied following Hurricane Hugo. Investigation of succession patterns associated with this large disturbance show Live Oak tree structure changed very little while Loblolly Pine and Chinese Tallow were significantly impacted.

(156) Somes, H.A. Jr. and T.R. Ashbaugh. 1973. Vegetation of St. Catherine's Island, Georgia. J. McCormick and Associates, Devon, PA. Unpublished report prepared for the American Museum of Natural History, New York. 47 pp.

Vegetation on St.Catherines Island was examined and classified into 6 different physiognomic types. Area was calculated for each vegetation type, grasslands (8,032 acres), savanna (399 acres), scrub (245 acres), forest (5,537 acres), herbland (8 acres), and aquatics (18 acres). Species occurrence and abundance is discussed for each region of the island.

(157) Stallins, J.A. 2001. Soil and vegetation patterns in barrier-island dune environments. Physical Geography, 22:79-98.

This study looks at the biogeographic interactions of landforms, geomorphic processes, and vegetation distributions on barrier islands. Data was collected from two islands with different soil properties and geomorphic processes. Soil variance structure was found to be a useful identifier of the influence landforms have on vegetation patterns.

(158) Stalter, R. 1971. The Summer and Fall Flora of Huntington Beach State Park, Georgetown County, South Carolina. Castanea, 36:167-174.

This paper is a list of the specific species of flora identified and collected from Huntington Beach State Park, South Carolina.

(159) Stalter, R. 1972. The Flora of Outer Otter Island, Colleton County, South Carolina. Castanea, 37:298-300.

This paper is a list of the specific species of flora identified and collected from Outer Otter Island, South Carolina.

(160) Stalter, R. 1973. The Flora of Turtle Island, Jasper County, South Carolina. Castanea, 38:35-37.

This paper is a list of the specific species of flora identified and collected from Turtle Island, South Carolina.

(161) Stalter, R. 1974. Vegetation in Coastal Dunes of South Carolina. Castanea, 39:95-103.

Vegetation was sampled in 5 zones of coastal dunes in order to determine the dominant species in each zone.

(162) Stalter, R. 1978. The Plant communities of South Carolina's barrier islands. In: Proceedings of the Fifth Annual Conference of the Restoration of Coastal Vegetation in Florida. p. 207-244.

Species of flora identified from surveys on 12 barrier islands in South Carolina are listed with identification of important habitats found on these islands.

(163) Stalter, R. and S.C. Dial. 1984. Hammock vegetation of Little Talbot Island State Park, Florida. Bulletin of the Torrey Botanical Club, 111:494-497.

Quadrats were established to identify and document the vegetation types and species found on Little Talbot Island State Park, Florida. Live oak trees were the dominant canopy tree species and red bay trees were the dominant subcanopy species. Vegetation patterns here are thought to be similar to those found on other coastal islands of the Southeast.

(164) Stalter, R. 1984. The Flora of Bull Island, Charleston County, South Carolina. Bartonia, 50:27-30.

Bull Island, South Carolina was categorized into 3 major plant communities, salt marsh, oak forest, and sand dune, as well as 2 minor communities, freshwater marsh and scrub. Species of vegetation in each community was documented.

(165) Stratton, D.A., S.P. Bratton and D.M. Simon. 1984. An inventory of Forest Fire Fuels at Cumberland Island National Seashore, Georgia. University of Georgia Institute of Ecology. National Park Service, Cooperative Park Services Unit Technical Report 6. 33 pp.

Woody fuel biomass was measured and evaluated for several sites on Cumberland Island National Seashore. Fuel loads were measured as one-hour, ten-hour, one hundred-hour, and thousand-hour estimates. Highest fuel loads were found in 5-year old regrowth forests and lowest fuel loads were found in 1-year old regrowth forests.

(166) *Teal, J.M. 1959. The birds of Sapelo Island and vicinity. The Oriole, 24:1-14.

Unable to acquire

(167) Tainter, F.H., T.M. Williams and J.B. Cody. 1983. Drought as a cause of oak decline and death on the South Carolina coast. Plant Disease, 67:195-197.

This study describes the investigation of two periods of oak decline along the South Carolina coast in the early 1980's. Drought was considered the primary climatic trigger for oak mortality. The species most effected were red oaks.

(168) Tolliver, K.S., D.W. Martin and D.R. Young. 1997. Freshwater and saltwater flooding response for woody species common to barrier island swales. Wetlands, 17:10-18.

This study examines the response of 5 species of vegetation found in barrier island swale habitat to fresh and salt water flooding. Of the vegetation sampled only Baccharis halimifolia was significantly affected by freshwater flooding. Saltwater flooding had variable affects on all vegetation at low, mid-range, and high salinity levels.

(169) Turner, S. and S.P. Bratton. 1987. The recent fire history of Cumberland Island, Georgia. Castanea, 52:300-303.

Data was collected from Cumberland Island, Georgia indicating the island had burned several times in the 20th century. Fire rotations were related to drought cycles, and lightning is likely the cause of ignition. This fire rotation may have influence on typical vegetation succession patterns.

(170) Turner, S. 1984. The Fire History of Cumberland Island National Seashore 1900-1983. National Park Service, Cooperative Park Studies Unit Technical Report 7. Institute of Ecology, University of Georgia. 113 p.

Historic land use and climatic factors were examined to determine historic fire patterns on Cumberland Island, Georgia. Fire rotation for susceptible communities was estimated at 20 to 30 year cycles correlating with regional drought cycles.

(171) Turner, M.G. and S.P. Bratton. 1987. Fire, grazing and the landscape heterogeneity of a Georgia barrier island. In: M.G. Turner (ed.), Landscape Heterogeneity and Disturbance: Ecological Series 64, Springer-Verlag, New York. p. 85-101.

Using fire and grazing as disturbance examples 3 conceptual hypotheses are discussed relating to the ways large scale landscape heterogeneity may influence disturbance patterns.

(172) *Urban, E.K., L.L. Urban, J.H. Patterson and R.H. Hayes, Jr. 1997. The birds of St. Catherines Island, a checklist. Unpublished pamphlet of the St. Catherines Island Foundation.

Unable to acquire

(173) *Walsh, J.M. 1993. Habitat Use and Productivity of Wood Storks on Cumberland Island National Seashore. Kings Bay Environmental Monitoring Program Report, KBEMP–90/02; NPS–D–64. 70p.

Unable to acquire

(174) Whitlock, J.E., Q.Q. Fang, L.A. Durden and J.H. Oliver, Jr. 2000. Prevalence of Ehrlichia chaffeensis (Rickettseales:Rickettsiaceae) in Amblyomma americanum (Acari:Ixodidae) from the Georgia Coast and Barrier Islands. Journal of Medical Entomology, 37:276-280.

Lone star tick samples were collected from Sapelo Island, St. Catherines Island, and Fort McAllister, Georgia to test for the prevalence of Ehrlichia chaffeensis. The Sapelo

samples showed infection prevalence was 0.0%, St. Catherines samples showed infection prevalence was 0.9%, and Ft. McAllister samples showed an infection prevalence of 9.3%. Geographic isolation, human disturbance, and availability of suitable host species may all be factors influencing infection prevalence.

(175) Young, D.R., D.L. Erickson and S.W. Semones. 1994. Salinity and the small-scale distribution of three barrier island shrubs. Canadian Journal of Botany, 72:1365-1372.

Three species of small shrubs found on coastal barrier islands at the saltmarsh-upland boundary were examined for distribution patterns related to salinity. Groundwater salinity and soil chlorides both showed considerable spatial and seasonal variation.

(176) Zingmark, R.G. (ed.). 1978. An Annotated checklist of the biota of the coastal zone of South Carolina. University of South Carolina Press, Columbia. (Foreward and Table of Contents on file). 357 pp.

This checklist provides a detailed inventory of the flora and fauna found along South Carolina's coast.

(177) *Zweifel, R.G. and C.J. Cole. 1974. An Annotated checklist of the Amphibians and Reptiles of St. Catherines Island, Georgia. American Museum of Natural History, New York. 32 pp.

Unable to acquire

Ecology and Miscellaneous

(178) * Bellis, V.J. 1992. Floristic Continuity Among the Maritime Forests of the Atlantic Coast of the United States. In: C.A. Cole and F.K. Turner, (eds.). Barrier Island Ecology of the Mid-Atlantic Coast: A Symposium. U.S. Department of the Interior, National Park Service, Atlanta, GA. p. 21-29.

Unable to acquire

(179) Bellis, V.J. and J.R. Keough. 1995. Ecology of maritime forests of the southern Atlantic coast: A community profile. Biological Report of the National Biological Service no. 30. 95 pp.

The maritime forest community is described as occurring on barrier islands and adjacent mainland from North Carolina to Florida. This publication serves as a synopsis of

existing literature aimed towards understanding the unique character of maritime forest ecology. These habitats are described with regard to geology, flora, fauna, and management needs.

(180) Bratton, S.P. 1986. Experimental Control of Tung Trees at Cumberland Island National Seashore. National Park Service, Cooperative Park Studies Unit Technical Report 29. Institute of Ecology, University of Georgia. 18 pp.

Various methods were assessed for removal of exotic tung trees. This report provides data on the survivorship percentage of each of the methods for different sized trees. Hand pulling was found to be most effective for small plants, and prescribed fire with subsequent hand pulling and girdling for larger stands.

(181) Campbell, W.M. and J..M. Dean, (eds.). 1975. Environmental Inventory of Kiawah Island. Environmental Research Center Inc., Columbia, S.C. 692 p.

A detailed compilation of research in 13 scientific disciplines was conducted on Kiawah Island, South Carolina to inventory the environmental characteristics of the island and examine relationships among the different ecosystems.

(182) *Chalmers, A.G. 1997. The Ecology of Sapelo Island National Estuarine Research Reserve. NOAA Report NA470R414, 138 p.

Unable to acquire

(183) Clayton, T.D., L.A. Taylor Jr., W.J. Cleary, P.E. Hosier, P.H.F. Graber, W.J. Neal and O.H. Pilkey, Sr. 1992. Living With the Georgia Shore. Duke University Press, Durham and London.

A comprehensive book describing the physical setting and processes, particularly erosion from hurricanes, storms and waves, affecting each of the barrier islands of Georgia.

(184) Dame, R., M. Alber, D. Allen, M. Mallin, C. Montague, A. Lewitus, A. Chalmers, R. Gardner, C. Gilman, B. Kjerfve, J. Pinckney and N. Smith. 2000. Estuaries of the South Atlantic Coast of North America: Their Geographical signatures. Estuaries, 23:793-819.

Estuaries from North Carolina through Florida along the South Atlantic coast are classified into broad descriptive categories based on structure and composition. The status of these estuaries is discussed with respect to climate, productivity, natural phenomena, and human habitation.

(185) Daniels, R.C., T.W. White and K.K. Chapman. 1993. Sea-level rise: Destruction of threatened and endangered species habitat in South Carolina. Environmental Management, 17:373-385.

Rising sea level is expected to have an impact on the available habitat for many threatened and endangered species of plants and animals. This paper examines the impact at the regional, state and local scale.

(186) Davison, K.L. 1983. Cumberland Island Fire Effects Study. Park Science, 4:20-22.

This article describes fire effects on Cumberland Island, Georgia and how fire management can be an important component of the resource management plan on the island.

(187) *DePratter, C.B. 1974. Archeological survey of Ossabaw Island, Chatham County, Georgia: preliminary report: University of Georgia Laboratory of Archeological Research. Masters Thesis. 244, 48 p.

Unable to acquire

(188) DePratter, C.B. 1975. An Archeological survey of P.H. Lewis property, Skidaway Island, Chatham County, Georgia: University of Georgia Laboratory of Archeological Research. Masters Thesis 243, 165p.

An archeological survey was conducted in 1974 on 1500 acres of Skidaway Island, Georgia prior to development of the property. Over 100 archeological sites were located, nineteen test pits were excavated, and several sites were mapped.

(189) DePratter, C.B. 1977. Report on an archaeological survey of portions of Wassaw Island National Wildlife Refuge, Chatham County, Georgia and Blackbeard Island National Wildlife Refuge, McIntosh Count, Georgia: University of Georgia Laboratory of Archeological Research. Masters Thesis 342, 41p.

Prehistoric sites surrounding and associated with Wassaw Island National Wildlife Refuge and Blackbeard Island National Wildlife Refuge were described and characterized in order to determine rates of shoreline progradation. This report provides maps with preliminary lines representing approximate placement of shoreline between 4500 years B.P. and 100 years B.P.

(190) DePratter, C.B. 1979. The Shellmound Archaic on the Georgia Coast. South Carolina Antiquities, 11:1-69.

A detailed account of the pre-historic occupation patterns along the Georgia coast. Information is presented describing the natural setting of the coast as well as site descriptions from islands of various ages.

(191) DePratter, C.B. and J.D. Howard. 1980. Indian occupation and geologic history of the Georgia coast: a 5,000 year summary. In: Howard, J.D., DePratter, C.B. and Frey, R.W.(eds.), Excursions in Southeastern Geology; Archeology of the Georgia Coast. Georgia Department of Natural Resources, Atlanta, GA. p. 1-65.

A comprehensive summary of Indian use and occupation along the Georgia coast based on geologic and archaeological evidence.

(192) DePratter, C.B. and J.D. Howard. 1981. Evidence for a sea level lowstand between 4500 and 2400 years B.P. on the Southeast Coast of the United States. Journal of Sedimentary Petrology, 51:1287-1295.

Archeological sites along the Georgia coast and the associated pottery found in those sites is used to suggest a regression in mean sea level at approximately 3000 years before present.

(193) Fillman-Richards, J.E. 1990. Three scenarios of rural land use: A hypothetical comparison of traditional and non-traditional rural land use of a mainland area adjacent to a barrier island in the southeastern United States. PhD Dissertation (Abstract). University of Florida.

Development pressure along the southeast coastal mainland is instigating a change from traditional forestry and agricultural uses to non-traditional recreational and residential uses. This study examines the consequences of three scenarios of coastal development.

(194) Finley, M. 1985. Structure of the Feral Horse Population, 1985: Cumberland Island National Seashore, Camden County, Georgia. National Park Service Cooperative Park Studies Unit, University of Georgia. Technical Report 17.

Cumberland Island was divided into 4 sections and surveyed to determine the size and structure of the feral horse population. The survey consisted of both ground and aerial observations. At the time of the survey the horse population was calculated to be at least 181 animals operating in 55 herds.

(195) Francisco, W., L.T. Jenkins Jr., M. McWilliams and J. Rathman. 1970. Wassaw Island Study. University of Georgia, Environmental Design Services 1, Athens. 129 pp.

This report describes many aspects of the natural and cultural history of Wassaw Island, Georgia. Information is provided regarding landscape and vegetation characteristics as well as some of the implications of development on the island.

(196) Georgia Department of Natural Resources. 2002. Report of the Coastal Marsh Hammocks Advisory Council. Georgia Department of Natural Resources. Atlanta

This report presents the work of the marsh hammocks advisory council. Topics discussed include definition of a marsh hammock, maps of hammocks, importance of hammocks for wildlife, development concerns, and research recommendations.

(197) Georgia Department of Natural Resources. 2000. Ossabaw Island Comprehensive Management Plan. Georgia Department of Natural Resources. Brunswick.

The management plan for Ossabaw Island, Georgia provides detailed descriptions of the managing departments and entities, descriptions and policies for the historical and natural resources, and management criteria for people and infrastructure.

(198) Georgia Tech EAS Field Group. 1998. Environmental characterization at the island-estuary interface, Sapelo Island, Georgia. Unpublished report.

This study provides data regarding aspects of the surficial aquifer on Sapelo Island, Georgia. Collection of data included monitoring wells and several geophysical techniques. Aspects of the study look at interactions of tidal creeks with the surficial aquifer, tidal pumping, freshwater input to the estuary, and salt water infiltration adjacent to the creek banks.

(199) Godfrey, P.J. 1976. Comparative ecology of East Coast barrier islands: Hydrology, vegetation, soils. In: Barrier Islands and Beaches: Technical Proceedings of the 1976 Barrier Island Workshop. Annapolis, MD. The Conservation Foundation, p. 5-34.

Barrier islands along the east coast of the United States are described focusing on similarities and differences in their ecological characteristics.

(200) Hayes, M.O. 1978. Development of Kiawah Island, South Carolina. Coastal Sediments '77: Fifth Symposium of the Waterway, Port, Coastal and Ocean Division of ASCE. Waterway, Port, Coastal and Ocean Division, American Society of Civil Engineers, New York, NY (USA). p. 828-847.

As a possible model for barrier island development, Kiawah Island, South Carolina was evaluated pre-development for the ecological features and coastal processes of the island. Areas of the island designated as ecologically sensitive and areas designated as having a high risk of erosion were excluded from the development plan.

(201) Hillestad, H.O., J.R. Bozeman, A.S. Johnson, C.W. Berisford. 1975. The ecology of the Cumberland Island National Seashore, Camden County, Georgia. National Park Service Technical Report No. 75-5, May 1975. 299 p. SG 04-5-158-4, NPS 1910P21157.

The ecology of Cumberland Island, Georgia is described in a comprehensive text summarizing several research projects.

(202) *Howett, C.M. 1975. Coastal Georgia's Cultural Resources. In: The Value and Vulnerability of Coastal Resources. Georgia Department of Natural Resources Report No. GADNR/OPR-75/1, p. 183-199.

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(203) Jack McCormick & Associates. 1971. Amelia Island, Nassau County, Florida: A Preliminary Ecological Inventory, with recommendations for protection of the native animal and plant population in an area to be developed as a new community. A Report to The Amelia Island Company, Fernandina Beach, Florida. Prepared for Wallace, McHarg, Robert and Todd, Inc.

Prior to the development of Amelia Island, Florida detailed investigations were conducted by natural scientists to provide guidelines and recommendations for the application of sound ecological principles for this specific site.

(204) Johnson, A.S., H.O. Hillestad, S.F. Shanholzter and G.F. Shanholzter. 1974. An ecological survey of the coastal region of Georgia, National Park Service Science Monograph Number 3. Washington, D.C.

The ecology of the Georgia and South Carolina coast are presented in a comprehensive format examining features over a wide range of scales.

(205) Lenarz, M.S. 1983. Population Size, Movements, Habitat Preferences and Diet of the Feral Horses of Cumberland Island National Seashore. National Park Service National Park Service, Cooperative Park Studies Unit. University of Georgia. Technical Report no. 3.

The horse population of Cumberland Island was monitored to determine seasonal differences in diet and habitat preferences. Salt marsh and lawn areas were most heavily utilized during the spring, summer, and fall seasons. During winter months the horses used grasslands and inter-dune meadows.

(206) *Mathews, T.D., F. W. Stapor, C.R. Richter, J.V. Miglarese, M. D. McKenzie and L.A. Barclay. 1980. Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia, Volume 1. U.S. Fish and Wildlife Service, Department of the Interior, Washington D.C.

Unable to Acquire

(207) Noss, R.F., E.T. Laroe III and M. Scott. 1995. Patterns and trends of land use and land cover on Atlantic and Gulf Coast barrier islands. In: Endangered Ecosystems of the U.S.: A preliminary assessment of loss and degradation. U.S. Dept. of the Interior, Biological Report 28. 59 pp.

Ecosystems around the country were reviewed and assessed for their environmental status. This analysis identified 30 ecosystems as critically endangered, 58 as endangered, and over 38 as threatened ecosystems. Conservation strategies are suggested for various eco-regions around the United States.

(208) *Oosting, H.J. 1954. Ecological Processes and vegetation of the Maritime Strand in the Southeastern United States. Botanical Review, 20:226-262.

Unable to Acquire

(209) Sandifer, P.A., J.V. Miglarese, D.R. Calder, J.J. Manzie and L.A. Barclay (eds). 1980. Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia, vol. 3. Biological Features of the Characterization area. Marine Resources Division, South Carolina Wildlife and Marine Resources Department, Charleston. 150 p.

A detailed description of the individual ecosystems associated with the Georgia and South Carolina coast. Ecosystem processes are described as well as species inventories for specific locations.

(210) *United States Fish and Wildlife Service. 1979. Ecological Characterization of the sea island coastal region of South Carolina and Georgia. Directory of information sources (Dec. 1979), 41 p., Biological Services Program, U.S. Fish and Wildlife Service. (Located at Georgia Southern library)

Unable to acquire

(211) Wallace, McHarg, Roberts and Todd. 1971. A report on the Master Planning Process For a New Recreational Community, Amelia Island, Florida. Prepared for the Sea Pines Company, Hilton Head, South Carolina.

A final report summarizing the results of ecological studies on Amelia Island, Florida.

(212) *Weigert, R.G. and B.J. Freeman. 1990. Tidal salt marshes of the southeastern Atlantic coast: A community profile. Biological Report of the U.S. fish and Wildlife Service, 78pp.

Unable to Acquire

(213) Wharton, C.H. 1978. The Natural Environments of Georgia. Georgia Department of Natural Resources, Environmental Protection Division, Geological Survey Bulletin 114, Atlanta, GA.

Coastal environments of Georgia barrier islands are described in this survey of the natural communities and regions of Georgia.

(214) Worthington, J.S. 1972. An Evaluation of Environmental Impact: Little Cumberland Island, Georgia. M.S. Thesis, University of Massachusetts, Amherst.

Small scale residential development on Little Cumberland Island, Georgia was evaluated to determine the associated environmental impacts. Analysis of vegetation through aerial photographs indicate very little disturbance associated with residential development.

(215) Zucchino, L.R. 1981. Development planning for barrier island maritime forests. Carolina Planning, 6:14-21.

The structure and function of the maritime forest community is considered with regard to development and planning management of barrier islands. Specific locations are presented as case studies of potential land management alternatives for barrier island developments.