

COVER PHOTOGRAPH AND FRONT MATTER: COCOHATCHEE RIVER ESTUARY, COLLIER COUNTY, FLORIDA, U.S.A.

Source: Journal of Coastal Research, 31(5)

Published By: Coastal Education and Research Foundation

URL: https://doi.org/10.2112/1551-5036-31.5.ii

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ISSN 0749-0208

Journal of

Coastal Research

VOL. 31, NO. 5 • CERF • September 2015







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An International Forum for the Littoral Sciences



JOURNAL OF COASTAL RESEARCH

An International Forum for the Littoral Sciences

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Journal of Coastal Research, an International Forum for the Littoral Sciences, is dedicated to all aspects of coastal research. These include geology, biology, geomorphology (physical geography), climate, littoral oceanography, hydrography, coastal hydraulics, environmental (resource) management, engineering, and remote sensing. Although each field functions effectivelywithin itsownpurview, the cross-disciplinarynature of coastal studies requires familiarity with other fields as well. Hence, the scope of topics is necessarily broad in order to address the complexity of coastal biophysical and socio-economic interactions. Because of the wide range of interrelated topics, the journal invites original contributions and manuscripts dealing with theory, methodology, techniques, and field or applied topic studies on interdisciplinary coastal issues.

The journal encourages the dissemination of knowledge and understanding of the coastal zone by promoting cooperation and communication between specialists in different disciplines. Natural scientists, for example, are encouraged to collaborate with professionals in other fields to prepare contributions relating to the coastal zone that foster increased appreciation of coastal environments and processes. By means of this journal, with its scholarly and professional papers, systematic review articles, book and symposia reviews, communications and news, and special topical issues, an international forum for the development of integrated coastal research is provided.

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COVER PHOTOGRAPH





Cocohatchee River Estuary, Collier County, Florida, U.S.A. The Cocohatchee River estuary is a tidal-dominated, brackish conduit that provides access out to the Gulf of Mexico through Wiggins Pass. Eastern oysters (*Crassostrea virginica*) are among the many estuarine species that utilize this subtropical ecosystem as a settling habitat. Shown just below the water's surface at low tide, these sporadic oyster reefs located throughout the estuary allow for a highly-efficient filtering of the brackish water. Through this specialized filtration, the improved water quality then benefits keystone vegetative species, such as manatee grass (*Syringodium filiforme*), shoal grass (*Halodule wrightii*), and turtle grass (*Thallasia testudinum*). Additionally, the oyster reefs provide refuge for commercially-important species, including the blue crab (*Callinectes sapidus*), red drum (*Sciaenops ocellatus*), and the stone crab (*Menippe mercenaria*), as well as, provide a source of food for the American Oystercatcher (*Haematopus palliates*), which is currently listed as threatened.

The banks of the estuary are flanked by dense forests of red mangrove trees (*Rhizophora mangle*). Red mangroves are distinguished by the visible network of aerial prop roots extending from the trunk and lower branches to the submerged soil below. The prop roots are important adaptations to living in anaerobic hydric soils and provide a mechanism for gas exchange. Within the soils, microroots stabilize fine silts and coarser sands, which help maintain water clarity and quality. The leaves are shiny, deep green on the surface, with a paler underside. Like other types of mangroves, *R. mangle* can live in brackish water by exuding excess salt in 'sacrificial leaves' that are constantly shed. Cocohatchee is the Seminole Native American term meaning *brown water*, the color created by the endless dropping of tannin-rich leaves from the red mangroves lining the banks. (Photograph taken in July 2009 by Christopher Makowski, Coastal Education and Research Foundation, Inc. *(CERF)*, Coconut Creek, Florida, U.S.A.)

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Because CERF is concerned with broad environmental issues, our efforts concentrate on significant problems such as maintenance of good quality (potable) water with adequate supply, and hazards associated with potential beach erosion, flooding, and susceptibility of developed shorelines to storm surge and wave attack. By focusing attention on these potential man-made and natural hazards, it is hoped that our research efforts will help others improve the quality of life in diverse coastal areas. CERF thus aims to stimulate awareness of coastal (marine and freshwater shorelines) land and water problems; initiate and foster research and innovation to promote long-term coastal productivity; establish an educational forum for the debate of contentious coastal issues; and develop new principles and approaches for enlightened coastal management, and encourage their adoption and use.



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Dr. Charles W. Finkl is President and Executive Director of the Coastal Education & Research Foundation /CERF/, publisher of the JCR. Charlie, a founding editor of the Journal of Coastal Research. has served as Editor-in-Chief for the past 30 years. He is a Research Professor in the Department of Geosciences at Florida Atlantic University in Boca Raton, Florida. He received his Bachelor and Master of Science degrees from Oregon State University and the Ph.D. from the University of Western Australia. He is a member of more than 20 professional societies and has published more than 200 professional papers, books, and reports. He is a Chartered Marine Scientist (CMarSci) [Institute of Marine Engineering, Science and Technology], Certified Professional Geological Scientist (CPGS) [American Institute of Professional Geologists (AIPG)], Certified Professional Soil Scientist (CPSSc) [American Registry of Certified Professionals in Agronomy, Crops, and Soils], and a Professional Wetland Scientist (PWS) [Society of Wetland Scientists]. Charlie has field experience in parts of the USA, Caribbean area, Brazil, Honduras, Russia, South Africa, Western Europe, Australasia, and South Pacific islands. He is also the Series Editor of the Encyclopedia of Earth Sciences Series that is published by Springer (Germany). There are more than twenty-eight volumes in the Series and about twenty-five are available online. Charlie also serves on the Editorial Board of the International Journal of Environmental Studies (Routledge) and is an occasional peer reviewer for many other professional journals.

Charlie has interests and expertise in the general areas of surficial geology, coastal and marine geomorphology (including coastal classification), coastal/marine biophysical environments, exploration geochemistry, soils and weathering (regolith geology), coastal zone management and engineering applications or impacts on natural systems (including erosion control and shore protection), coastal hydrology including submarine freshwater and mineralized seeps, subaerial and marine structural geology, natural hazard mitigation in coastal zones, marine environments and coastal wetland protection and restoration, and remote sensing (e.g., land cover classification in coastal wetlands, advection-diffusion turbidity plumes in coastal waters, delineation of bottom types and sand resources), effluent disposal and pollution of wetlands and estuaries, water resources mapping and conservation, time series studies of wetland hydroperiod and soil moisture.

Official Meeting of CERF International Coastal Symposium (ICS)

The International Coastal Symposium (ICS) was originally set up by Per Bruun (deceased) and Charlie Finkl as the official meeting of the Coastal Education & Research Foundation (CERF), with one of the first meetings being held in Hilton Head, South Carolina, in 1993. After the repeated success of these meetings, CERF moved the ICS to the international scene holding these conferences in conjunction with local sponsors in Australia, Brazil, Iceland, New Zealand, Northern Ireland, Poland, and Portugal. The ICS brings together delegates from all over the world to collaborate and discuss the most current coastal research studies and projects. During the ICS 2014, which was held in Durban, South Africa, a grand celebration took place to mark the 30th Anniversary of CERF and the JCR. Our next ICS meeting is scheduled for March of 2016 in Sydney, New South Wales, Australia. For more information, please visit www.cerf-jcr.org.

Journal of Coastal Research

VOL. 31, NO. 5 (pages 1041-1294)

September 2015

ISSN 0749-0208

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