

Warren River, Yeagarup Dunes, Western Australia

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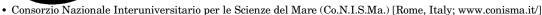
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Journal of Coastal Research, an International Forum for the Littoral Sciences, is dedicated to all aspects of coastal research. These include geology, biology, geomorphology (physical geography), climate, littoral oceanography, hydrography, coastal hydraulics, environmental (resource) management, engineering, and remote sensing. Although each field functions effectively within its own purview, the cross-disciplinary nature 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





Warren River, Yeagarup Dunes, Western Australia. Coastal features of the Warren River outlet in the region of the Yeagarup Dunes along the wave- and wind-dominated sandy southern coast of Western Australia. Evident in this image, from left to right, is (1) the steep front of the dune terrain of the mainland dune coast with the steep sandy slope formed by wave erosion during storms, and by the prevailing strong winds; this dune front forms the main shore along this sector of sandy coast; (2) a shore-parallel lagoon that is a river channel cut into the upper part of the beach, now impounded by a beach berm; the waters of the shore-parallel lagoon are fresh to weakly brackish and tannin-stained having been recently derived from river flooding; when his image was taken, the lagoon was two metres deep, its width some 75-100 m, and it was several hundred metres long – the lagoon was detached from the main more permanent river outlet; (3) to the far right is the beach berm that is barring the lagoon; seaward of the beach berm is seawater of the Southern Ocean with normal marine salinity.

This type of shore-parallel lagoon of berm-impounded river water results from the interplay of floodwater discharge of tannin-stained freshwater from the Warren River that meets a high-energy wave-dominated coast. Normally, the river would discharge its flood waters directly into the ocean but, under prevailing wave conditions, a bar-and-berm is continually being constructed at times sufficiently to bar the river discharge; river flow then is diverted laterally (usually westwards) for hundreds of metres and up to 2500 m along a depression leeward of a shore-parallel berm system, carving a channel until it reaches a location where it can cut across the berm and form a new outlet. With concomitant decreasing river flow (as hinterland flooding recedes) and the prevailing building of a beach berm, the new river outlet is sealed, and the recently carved linear channel with its riverine water is trapped between the main more permanent mouth and its recently formed diverted mouth to form the tannin-stained freshwater body. With ongoing building of the beach berm and aeolian transport, the connection between the lagoon and the more permanent river channel is lost and the lagoon becomes an isolated depression until beach processes and aeolian transport fill and bury it (Semeniuk and Semeniuk, 2011). (Photograph taken November 2009 by Vic Semeniuk, V & C Semeniuk Research Group, Warwick, Western Australia.)

LITERATURE CITED

Semeniuk, C.A. and Semeniuk, V., 2011. Dune slacks in coastal Western Australia. Journal of the Royal Society of Western Australia, 94, 503-532.

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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 and 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 33 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.

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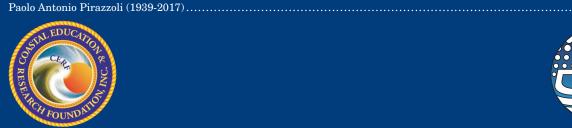
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