

## **Mountainous Section of Central Oregon Coast**

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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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**Mountainous Section of Central Oregon Coast.** This view of the Oregon coast is looking southwards from a promontory towards an eroding cliffy section that is fronted by gravel/cobble beaches and seaward small sea stacks, and growlers. Parts of the oceanic margins of the Oregon Coast Range Mountains are dominated by largely unconsolidated sedimentary rocks and basaltic intrusions such as the one here (lower foreground) that forms a large promontory that juts out into the Pacific Ocean. The Early Miocene (28.1 - 15.97 Ma) sediments along the coast are thick- to thin-bedded sandstone, conglomerate, and tuffaceous siltstone of deltaic origin. The conglomerates contain abundant clasts of pumice and dacitic volcanic rocks. The Late Eocene (37.8 - 33.9 Ma) subaerial lava flows of the promontory contain breccia of porphyritic basalt with minor basaltic andesite and dacite. The black colored gravel beaches shown here are derived from comminuted and winnowed basic rocks that are packed up against the cliff base. The back beach areas as shown here and also along the wide sandy dissipative beaches elsewhere along the coast commonly contain significant accumulations of driftwood that is mostly brought to the sea in coastal rivers that head inland in coniferous logging areas. The dark colored gravels of the berm and back beach areas provide a striking contrast with the piles of gray to white colored driftwood. Beach cusps and rip currents are also common in this type of coastal setup with gravel beaches at the foot of coastal cliffs. Recession of the shoreline has left the more resistant igneous rocks behind in the nearshore zone as small sea stacks and skerries or growlers that barely protrude above the sea surface. A sea arch and small cove is shown in the lower right hand corner of the image. This type of coast occurs in a Marine West Coast climatic regime and is typical of America's Pacific Northwest coastal region. (Photograph taken by Charles W. Finkl *circa.* 1963 while at Oregon State University, Corvallis, Oregon, 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 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 34 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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