

Colin Levings was born in Victoria British Columbia (BC), Canada, went to high school in Surrey, BC and as a youth spent a lot of time fishing in the lower Fraser River. He began his career in marine science in 1962 working for the International Pacific Halibut Commission as a sea-going technician in the Gulf of Alaska and Bering Sea. After completing his B.Sc. in 1965 and his M Sc in 1967 at the University of BC's (UBC) Institute of Fisheries with Norman J. Wilimovsky, he worked at the Fisheries Research Board's (FRB) Pacific Biological Station in the marine fish division. In 1968 Colin moved to the east coast of Canada to complete his Ph D in Biological Oceanography at Dalhousie University in Halifax.

In 1972, Colin was hired by the FRB to work at the Pacific Environment Institute at West Vancouver (now known as the Department of Fisheries and Oceans (DFO)/UBC Centre for Aquaculture and Environmental Research) where he is still based. Colin researches estuarine ecosystems and salmon habitats in coastal British Columbia to provide advice to DFO ocean and habitat managers and conservation units. He is currently a senior scientist in DFO Pacific Region Science Branch and was a Section Head with administrative and budget responsibilities in the Marine Environment and Habitat Science Division or its predecessors from 1982 to 2004. In addition to ongoing research on marine invasive species, he is currently writing a major review article on the ecology of salmon in estuaries around the world. Colin has been awarded several commendations and awards for his ecological research in support of aquatic habitat management and conservation.

Colin has served on peer review groups and committees involved in project selection, program review, and identification of research priorities for the Natural Science and Engineering Research Council of Canada, the Puget Sound Technical Advisory Committee, DFO (Regional and National), and NOAA, EPA, and Sea Grant. He has been a member of Canadian fisheries delegations to NATO, Norway, Russian Far East, Korea, and PICES (North Pacific Marine Science Organization). He co-chaired and coordinated a highly successful Practical Workshop that studied marine environmental quality in Vancouver BC harbour and involved scientists from all PICES countries. He has served as an Associate Editor for several international journals including Marine Ecology (Progress Series), Canadian Journal of Fisheries and Aquatic Sciences, Estuaries, Journal of Oceanography (Japan) and has reviewed papers for numerous additional journals. Colin is a founding member and past President of the Pacific Estuarine Research Society. Over the years he has participated in numerous scientific meetings, workshops and discussions on estuarine ecology of salmonids in BC, Washington, Oregon, and California, usually by invitation. Colin has also conducted collaborative work as a visiting researcher in Norway, Korea, and Japan and has hosted overseas scientists as well.

He has published over 200 scientific papers, conference proceedings papers, technical reports, and books including the co-editorship of a definitive volume on fjord oceanography. Although he has specialized in salmon and estuarine ecosystems, he has also worked on benthic ecology in fjords, discovered chinook wintering rearing habitat in the upper Fraser River, researched off channel habitat use by juvenile chinook and coho in Fraser River tributaries, initiated the first studies on Canada's Pacific coast on ballast water as a pathway for exotic species, and published papers on marine protected areas and coastal biodiversity, critical habitat, habitat mapping and GIS methodology, climate change and other topics. Colin has conducted applied studies on estuary and river habitat disruption, marine riparian ecology, estuarine habitat restoration, pollution from pulp mills, sewage, oil spills, ocean dumping and dredging, wood waste and log booms, acid mine drainage, and fish farms. Some of the estuaries he has worked on in BC include those on the Fraser, Campbell, Squamish, Cowichan, Homathko, Somass, Yakoun, and Chemanius Rivers. He has published papers on the use of estuarine or coastal ecosystems by chinook, coho, chum, sockeye, pink, Atlantic salmon, white sturgeon, lamprey, herring, and flatfish, usually focusing on their juvenile stages. Colin has also contributed papers on lower trophic level ecology in estuaries including studies on vascular plants and invertebrates important as fish food.

Colin is an Adjunct Professor at the Institute for Resources, Environment and Sustainability and an Honourary Research Associate in the Department of Zoology at UBC. He works with faculty and graduate students in Zoology, Botany, Oceanography, and Agricultural Sciences and has supervised or co-supervised more than 25 graduate students and mentored numerous younger colleagues. Colin has also co-supervised students at the University of Victoria and Simon Fraser University and has served as a visiting Professor at universities in Japan and Korea.

## Representative recent publications

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Levings, C.D., Cordell, J.R., Ong, S, and G.E. Piercey, 2004. The origin and identity of invertebrate organisms being transported to Canada's Pacific coast by ballast water. *Can J Fish Aquat Sci* 61:1-11

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