

Professor Louis Legendre
Summary *Curriculum Vitae* - December 2013

Professor emeritus, Pierre and Marie Curie University Paris 6 (France)
Professor emeritus, Laval University (Québec City, Canada)
Fellow of the Royal Society of Canada (Academy of Science)

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Present. Louis Legendre is Professor emeritus at the Pierre and Marie Curie University Paris 6 (France), whose main campus is located in Paris, and which operates three marine stations including that of Villefranche-sur-Mer where he works. He is also Professor emeritus at Laval University (Québec City, Canada) and a fellow of the Royal Society of Canada (Academy of Science). He chairs the Scientific Council of the Oceanographic Institute (France and Monaco).

Degrees. After obtaining his first university degrees in liberal arts (B.A.) and sciences (B.Sc., zoology) at the University of Montreal in 1964 and 1967, respectively, Louis Legendre completed a doctorate in oceanography (Ph.D.) at Dalhousie University (Halifax, Canada) in 1971.

Career. After two years of postdoctoral research at the Villefranche-sur-Mer Marine Station, France (1971-1973), Louis Legendre was hired as Faculty member by Laval University in 1973 (Full Professor in 1981). In 2000, he left Laval University to join the French National Centre for Scientific Research (CNRS), and became director of the Villefranche Oceanography Laboratory (Laboratoire d'oceanographie de Villefranche, LOV) from 2001 through 2010. He joined the Pierre and Marie Curie University Paris 6 as professor in 2009.

Research. Professor Legendre's fields and topics of research are biological oceanography and marine biogeochemistry, numerical ecology, and philosophy of science. His work is a blend of theoretical studies, laboratory research, and fieldwork. He had field experience in the Atlantic, Pacific and Arctic Oceans, and in the Mediterranean and Okhotsk Seas. Over the course of his career, he conducted research in tropical, temperate and polar waters. He has lectured in more than 25 countries.

Awards. Professor Legendre has received numerous prizes and honours, which include knighthood in the Order of Saint Charles (Principality of Monaco), the International Ecology Institute Prize, the G. Evelyn Hutchinson Award (American Society of Limnology and Oceanography), recognition as Highly Cited Researcher (Institute for Scientific Information), Honorary Doctorate from the University of Liege (Belgium), the Quebec Prize in Pure and Applied Sciences, and two awards from the Association canadienne-française pour l'avancement des sciences (Acfas) for Biological and Medical Sciences and for Environmental Sciences (the latter with Prof. Pierre Legendre), respectively.

Publications. Professor Louis Legendre has published 234 refereed papers, 7 full books, and 12 book chapters. Follow examples of his publications. His h-index is 42.

Professor Louis Legendre
Representative publications

Refereed papers and chapters (10 out of 246)

Legendre, Louis & Nathalie Niquil. 2013. Large-scale regional comparisons of ecosystem processes: methods and approaches. *J. Mar. Syst.* 109-110: 4-21.

Sakka Hlaili, Asma, Nathalie Niquil & Louis Legendre. 2013. Planktonic food webs revisited: reanalysis of results from the linear inverse approach. *Progr. Oceanogr.* <http://dx.doi.org/10.1016/j.pocean.2013.09.003>

Beaugrand, Gregory, Martin Edwards & Louis Legendre. 2010. Marine biodiversity, ecosystem functioning and carbon cycles. *Proc. Natl. Acad. Sci. U S A.* 107 : 10120-10124.

Legendre, Louis & Richard B. Rivkin. 2005. Integrating functional biodiversity, food-web processes and biogeochemical carbon fluxes into a conceptual approach for modeling the upper ocean in a high-CO₂ world. *J. Geophys. Res.*, 110, C09S17, doi:10.1029/2004JC002530.

Rivkin, Richard & Louis Legendre. 2001. Biogenic carbon cycling in the upper ocean: effects of microbial respiration. *Science* 291: 2398-2400.

Rivkin, Richard B., Louis Legendre, et al. 1996. Vertical flux of biogenic carbon in the ocean: is there food web control? *Science* 272: 1163-1166.

Legendre, Louis & Jacques Le Fèvre. 1995. Microbial food webs and the export of biogenic carbon in oceans. *Aquat. Microb. Ecol.* 9: 69-77.

Legendre, Louis 1990. The significance of microalgal blooms for fisheries and for the export of particulate organic carbon in oceans. *J. Plankton Res.* 12: 681-699.

Legendre, Louis & Serge Demers. 1984. Towards dynamic biological oceanography and limnology. *Can. J. Fish. aquat. Sci.* 41: 2-19.

Legendre, Louis. 1981. Hydrodynamic control of marine phytoplankton production: the paradox of stability, 191-207. In: *Ecohydrodynamics* (J.C.J. Nihoul, Ed.), Elsevier, Amsterdam, xii + 359 p.

Books (3 out of 7)

Legendre, Pierre & Louis Legendre. 2012. *Numerical Ecology*, 3rd Ed. Elsevier, Amsterdam, xvi + 990 p.

Legendre, Louis. 2008. *Scientific Research and Discovery: Process, Consequences and Practice*. Electronic edition. In: Excellence in Ecology. Book 16 (Kinne, O., Ed.), International Ecology Institute, Oldendorf-Luhe, xv + 157 p. <http://www.int-res.com/book-series/excellence-in-ecology/ee16/>

Legendre, Louis. 2004. *Scientific Research and Discovery: Process, Consequences and Practice*. In: Excellence in Ecology. Book 16 (Kinne, O., Ed.), International Ecology Institute, Oldendorf-Luhe, xxix + 235 p.