Pierre Legendre

Département de sciences biologiques, Université de Montréal, C.P. 6128, succursale Centre-ville, Montréal, Québec, Canada H3C 3J7 Phone 514-343-7591 Fax 514-343-2293 E-mail: Pierre.Legendre@umontreal.ca WWWeb page: http://numericalecology.com

Teaching pages: http://biol09.biol.umontreal.ca/

Career summary

M.Sc. (zoology), McGill University, 1969; Ph.D. (biology), University of Colorado, 1971. Postdoctoral fellow at *Genetiska Institutionen*, Lunds Universitet, Sweden, in 1971-72. Research associate, then Research director at Université du Québec à Montréal, and finally Professor in the *Département de physique*. In 1980, moved to *Département de sciences biologiques*, Université de Montréal (rank: Associate Professor). Full Professor in 1984.

Scientific interests

Pierre Legendre is a specialist of *Numerical ecology*, a sub-discipline of community ecology that he founded and to which he has contributed extensively over the past 40 years. His research concerns in particular the ecological and biogeographic processes that generate and organize biodiversity through space and time. An important component of his research in fundamental ecology is the development of quantitative methods to analyse multivariate ecological data. He works at the moment on adapting and transferring the methods developed in spatial community ecology to landscape genetics, in particular for the study of genetic beta diversity.

Honours

- 1986 Michel-Jurdant prize for Environment Sciences, Association canadienne-française pour l'avancement des sciences (Acfas).
- 1989-1991 Killam Research Fellow, Canada Council for the Arts.
- 1992 Elected Fellow of the Royal Society of Canada (Academy of Science).
- 1994 Laureate of the *Distinguished Statistical Ecologist Award* of the *International Congress of Ecology (INTECOL)*.
- 1995 Laureate (2nd recipient) of the Romanowski Medal (environmental science) of the *Royal Society of Canada*.
- 1999 Laureate of the *Twentieth Century Distinguished Service Award* "for outstanding contribution to the synergistic development and direction of statistics, ecology, environment and society", by the Ninth Lukacs Symposium "*Frontiers of Environmental and Ecological Statistics for the 21st Century*".
- 2002 *ISI Highly Cited Researcher 2001 in Ecology/Environment*, Institute for Scientific Information, USA (http://ISIHighlyCited.com/).
- 2005 Laureate of *Prix Marie-Victorin*, the annual prize of the Government of Québec for highest achievements in research in natural sciences and engineering.
- 2007 Officer of the National Order of Québec.

Pierre Legendre 2

• 2011 – Laureate of Université de Montréal Excellence in Teaching Award, Full Professor category.

- 2011 Laureate of the *Excellence in Teaching Award* of the Faculty of Arts and Science, Université de Montréal, Science Sector.
- 2012 Laureate of the Canadian Council of University Biology Chairs Career Achievement Award.
- 2013 Laureate of the Canadian Society for Ecology and Evolution *President's Award*.
- 2014 *Thomson Reuters Highly Cited Researcher 2014 in Environment/Ecology* (http://sciencewatch.com/sites/sw/files/sw-article/media/worlds-most-influential-scientific-minds-2014.pdf).
- 2015 Legend in Canadian Fisheries Science and Management "in recognition and appreciation of contributions to fisheries science". Presented to Pierre Legendre by the Canadian Aquatic Resources Section of the American Fisheries Society, 15 May 2015.
- 2015 Thomson Reuters Highly Cited Researcher 2015 in Environment/Ecology (http://highlycited.com), 8 September 2015.
- 2015 Laureate of the *Adrien-Pouliot* Prize (for scientific cooperation with France), *Association francophone pour le savoir*¹ and the French Consulate in Québec City, 22 October 2015.
- 2016 Elected *Corresponding Member* of Academia Mexicana de Ciencias (AMC), 5 February 2016. Officially inducted on 6 March 2018.
- 2016 Web of Science Highly Cited Researcher 2016 in Environment/Ecology (http://highlycited.com), 7 September 2016.
- 2017 Web of Science Highly Cited Researcher 2017 in Environment/Ecology (https://clarivate.com/hcr/), 6 September 2017.
- 2018 Web of Science Highly Cited Researcher 2018 in Environment/Ecology (https://clarivate.com/hcr/), 5 September 2018.
- 2019 Honorary life membership of the *Sociedad Ibérica de Ecología*, a new scientific society which brings together ecologists from the whole Iberian Peninsula.
- 2019 Laureate (5th recipient) of the 2019 Alexander von Humboldt medal for Excellence in Vegetation Science of the International Association for Vegetation Science (IAVS).

Scientific production

- 11 books on numerical ecology;
- 18 contributions to other books (chapters);
- papers published or in press in refereed journals; 8 other papers submitted;
 - 22 refereed conference proceedings;
 - 1 English-French vocabulary of numerical ecology and statistics
 - 93 versions of packages in the R language;
- 294 papers presented at scientific conferences (57 keynote);
- research seminars in universities and research institutes;
- short courses in 18 countries, in 46 universities and research institutes around the world;
- 18 participations to international working groups.

Reprints of papers for which PDF files are available: http://adn.biol.umontreal.ca/~numericalecology/Reprints/

¹ Acfas was formerly called *Association canadienne-française pour l'avancement des sciences*; despite its new name, the Society kept the acronym Acfas.

Pierre Legendre 3

Education

B.A., Collège Saint-Viateur, Outremont, 1965 (College affiliated to Université de Montréal). Two years of B.Sc. in biological sciences, Université de Montréal, 1965–1967.

M.Sc., McGill University, 1969 (Zoology).

Ph.D., University of Colorado (Boulder), USA, 1971 (Biology).

Positions held

- 1971–72: Postdoctoral fellow (CNRC), Genetiska Institutionen, Lunds Universitet, Sweden.
- 1972–73: Research associate, Centre de recherche écologique, Univ. du Québec à Montréal.
- 1973–80: Research director, Centre de recherche en sciences de l'environnement, Université du Québec à Montréal. NSERC Research Associate, 1977-80.
- 1980: Professor, Département de physique, Université du Québec à Montréal.
- 1980–84: Associate professor, Département de sciences biologiques, Université de Montréal.
- 1984- : Full professor, Département de sciences biologiques, Université de Montréal.

Impact factors

h-index on Web of Knowledge: **75** (34 807 citations, not counting citations of my books, 9 May 2019).

h-index on *Google Scholar*: **105** (100 046 citations, including 22 554 citations of my books, 9 May 2019). See http://scholar.google.ca/citations?user=VGGBqAUAAAAJ.

Among the top ecologists worldwide, Google Scholar presently ranks Pierre Legendre fourth in terms of the number of citations by his peers. See https://scholar.google.com/citations?view_op=search_authors&hl+en&mauthors=label:ecology

In the field of Environment/Ecology, he is one of only four scientists worldwide, all environmental specialties included, who have been listed as *Web of Science Highly Cited Researchers* in all six lists that have been published to this day.