

# 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](mailto:Pierre.Legendre@umontreal.ca)  
WWW page: <http://numericaledcology.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.

## Scientific production

- 11 books on numerical ecology;
- 19 contributions to other books (chapters);
- 309 papers published or in press in refereed journals; 7 other papers submitted;
- 24 refereed conference proceedings and field data papers;
- 1 English-French vocabulary of numerical ecology and statistics
- 96 versions of packages in the R language;
- 296 papers presented at scientific conferences (58 keynote);
- 356 research seminars in universities and research institutes;
- 79 short courses in 18 countries, in 47 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/~numericaledcology/Reprints/>

## Honours

### Scientific prizes

- 1986 – *Michel-Jurdant* prize for Environment Sciences, *Association canadienne-française pour l'avancement des sciences* (Acfas). Montréal, 12 May 1986.
- 1994 – Laureate of the *Distinguished Statistical Ecologist Award* of the *International Congress of Ecology* (INTECOL). Manchester, England, 22 August 1994.
- 1995 – Laureate (2<sup>nd</sup> recipient) of the Romanowski Medal (environmental science) of the *Royal Society of Canada*. Saint Paul University, Ottawa, 16 June 1995.
- 1999 – Laureate of the *Twentieth Century Distinguished Service Award* “for outstanding contribution to the synergistic development and direction of statistics, ecology, environment and society”, awarded by the Ninth Lukacs Symposium “*Frontiers of Environmental and Ecological Statistics for the 21st Century*”. Bowling Green State University, Bowling Green, Ohio, 24 April 1999.
- 2005 – Laureate of *Prix Marie-Victorin*, the annual prize of the Government of Québec for highest achievements in research in natural sciences and engineering. Québec, 8 November 2005.
- 2012 – Laureate of the Canadian Council of University Biology Chairs *Career Achievement Award*. University of Waterloo, 16 November 2012.
- 2013 – Laureate of the Canadian Society for Ecology and Evolution (CSEE) *President's Award*. Kelowna, British Columbia, 14 May 2013, during the CSEE annual meeting.
- 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* (AFS), 15 May 2015. Award announced during the 145<sup>th</sup> annual conference of the AFS in Portland, Oregon, 16–20 August 2015.
- 2015 – Laureate of the *Adrien-Pouliot Prize* (for scientific cooperation with France), *Association francophone pour le savoir*<sup>1</sup> and the French Consulate in Québec City and Ministère des Relations internationales et de la Francophonie du Québec. Award presented in Montréal, 22 October 2015.
- 2019 – Laureate (5<sup>th</sup> recipient) of the *2019 Alexander von Humboldt Medal for Excellence in Vegetation Science* of the International Association for Vegetation Science (IAVS), “for his valuable contributions in the field of numerical ecology”. Medal presented on 16 July 2019 during the 62<sup>th</sup> Annual IAVS Symposium in Bremen, Germany.

### Teaching prizes

- 2011 – Laureate of Université de Montréal *Excellence in Teaching Award*, *Full Professor* category. Award presented on 27 May 2011.
- 2011 – Laureate of the *Excellence in Teaching Award* of the Faculty of Arts and Science, Université de Montréal, Science Sector. Award presented on 14 June 2011.

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

## **Other distinctions**

- 1989-1991 – *Killam Research Fellow*, Canada Council for the Arts.
- 1992 – Elected *Fellow of the Royal Society of Canada (Academy of Science)*. Presentation of insignia: Ottawa, 21 May 1992.
- 2001-2002 – *ISI Highly Cited Researcher 2001 in Ecology/Environment*, Institute for Scientific Information, USA (<http://ISIHIGHLYCITED.COM/>).
- 2007 – Officer of the *National Order of Québec*. Presentation of insignia: Québec, 18 June 2008.
- 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 – *Thomson Reuters Highly Cited Researcher 2015 in Environment/Ecology* (<http://highlycited.com>), 8 September 2015.
- 2016 – Elected *Corresponding Member* of Academia Mexicana de Ciencias (AMC), 5 February 2016. Officially inducted in México City 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* in the Sociedad Ibérica de Ecología, a new scientific society which brings together ecologists from the whole Iberian Peninsula. In Barcelona, 7 February 2019.
- 2019 – *Web of Science Highly Cited Researcher 2019 in Environment/Ecology* (<https://clarivate.com/hcr/>), 13 September 2019.

## **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*: **76** (36 538 citations, not counting citations of my books, 14 September 2019).

***h-index*** on *Google Scholar*: **106** (105 019 citations, including 23 676 citations of my books, 14 September 2019). See <https://scholar.google.ca/citations?user=VGGBqAUAAAAJ&hl=fr>.

Among the top ecologists worldwide, Google Scholar presently ranks Pierre Legendre fifth 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](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 two scientists worldwide, all environmental specialties included, who have been listed as *Web of Science Highly Cited Researchers* in all seven lists that have been published to this day (in 2001, then in 2014 to 2019).