

BIOGRAPHICAL SKETCH: N. Barton

PERSONAL INFORMATION

Name: Nicholas Hamilton Barton
Researcher unique ID(s) ORCID [0000-0002-8548-5240](https://orcid.org/0000-0002-8548-5240)
Webpage: www.ist.ac.at/research/life-sciences/barton-group/

HIGHER EDUCATION

1976-1979 "A narrow hybrid zone in the alpine grasshopper *Podisma pedestris*".
Supervised by Dr. G.M. Hewitt, University of East Anglia, UK. (Ph.D. 1979).
1973-1976 Natural Sciences (Genetics) Cambridge Univ. B.A. (First Class).

APPOINTMENTS/ POSITIONS

2015 - Dean, IST Austria Graduate School
2008 – Professor, Institute of Science and Technology, Austria.
2000-2010 Personal Chair, Institute of Evolutionary Biology, University of Edinburgh.
1990 -2000 Darwin Trust Fellow, IEB, University of Edinburgh.
1982-1990 Lecturer/Reader, Dept. Genetics, University College London.
1979-1982 Research Fellowship, Girton College, Cambridge.

FELLOWSHIPS AND AWARDS

2013 Austrian Academy of Sciences, Erwin Schrödinger Prize
2013 Leopoldina , Mendel medal
2009 Linnean Society Darwin-Wallace Medal
2006 Royal Society Darwin Medal
2001 Elected President, Society for the Study of Evolution (on Council 2000-2002)
1998 American Society of Naturalists President's Award (joint with Mark Kirkpatrick)
1994 David Starr Jordan Prize (joint with S. Pacala)
1993 Genetical Society Balfour Lecturer.
1992 Zoological Society Scientific Medal.
1989 Elected Vice-President, Society for the Study of Evolution.
1985 Linnean Society Bicentennial Medal.

SELECTED MEMBERSHIPS

1995 Elected Fellow, Royal Society of Edinburgh
1994 Elected Fellow, Royal Society of London

SELECTED THIRD PARTY FUNDS/ONGOING PROJECTS

2010-2015 ERC Advanced Grant "Information and Evolution". €1.9m
2010-2014 Natural Selection in Spatially Structured Populations. (EPSRC 1013091 £215K).
With Alison Etheridge
2014-2018 FP7 FET grant SAGE "Speed of Adaptation in Population Genetics and Evolutionary Algorithms", grant with T. Paixao (IST), Per Kristian Lehre (Nottingham), Tobias Friedrich (Jena), Dirk Sudholt (Sheffield). (€366K)

SELECTED COLLABORATION PARTNERS

- Alison Etheridge, Statistics, Univ. Oxford: Population genetics theory
- Michael Turelli, Evolution & Ecology, UC Davis: Dengue biocontrol
- Frank Chan, MPI Tübingen: Mouse population genomics
- Enrico Coen, John Innes Inst., Norwich: *Antirrhinum* hybrid zone

PROFESSIONAL AND SCHOLARLY ACTIVITIES

2016- Senior Editor, *Genetics*
2013- Associate Editor, *Molecular Ecology*
2013- Associate Editor, *Genetics*

2013-2016	Human Frontiers Fellowship panel
2013-	ERC Starting Grants panel LS8 (chair from 2016)
2010-2015	Editorial Board, <i>Philosophical Transactions of the Royal Society B</i>
2008-2011	Handling Editor, <i>Evolution</i>
2009-2011	Co-Chair, Portuguese Foundation for Science and Technology (FCT) panel
2004 - 2007	Royal Society, Sectional Committee 9 (Chair, 2007)
2004 - 2006	Royal Society, Biological Sciences Awards Committee
2003 -	Editorial Board, <i>PLoS Biology</i>
1999-2001	Chair, Royal Society Research Grants Committee (Board H)
1997-2000	Editorial Board, <i>American Naturalist</i>
1995-1997	Royal Society Sectional Committee 9
1994-1997	Editorial Board, <i>Journal of Evolutionary Biology</i> .
1997-2000	Genetical Society Committee
1997	BBSRC Fellowships Panel
1995	Organised 5th Congress, European Society for Evolutionary Biology, Edinburgh, Sept. 4th - 8th.
1993 -1998	NERC Terrestrial Life Sciences committee.
1993 -	Editorial Board, <i>Genetical Research</i> .
1990 - 2007	Associate editor, <i>Theoretical Population Biology</i> .
1989 - 2007	Editorial Board, <i>Journal of Theoretical Biology</i> .
1985 - 1989	Advisory Board, <i>Journal of Theoretical Biology</i> .
1989 - 1992	SERC Molecular Biology and Genetics subcommittee.
1987 - 1989	Genetical Society Committee
1984 - 1989	Editorial Board, <i>Heredity</i> .

PUBLICATION SUMMARY

160 peer reviewed publications/proceedings, 22 reviews, 25 commentaries/book reviews, 1 textbook, 13 books/book chapters, cited 17345 times (without self-citations), h-index 61 (as of 4.2018, Scopus)

TOP 10 SELECTED PEER-REVIEWED PUBLICATIONS (*most relevant to proposal)

- *Barton, N.H., Etheridge, A.M., Veber, A. 2017. The infinitesimal model: definition, derivation and implications. *Theoretical Population Biology* 118: 50-73.
- Barton, N.H. 2017. How does epistasis influence the response to selection? *Heredity* 118.1 (2017): 96-109. doi:10.1038/hdy.2016.109
- *Charlesworth, D., Barton, N.H., Charlesworth, B. 2017. The sources of adaptive evolution. *Proc. Roy. Soc. (Lond.) B* 284: 2016.2864
- Paixao, T., Barton, N.H. 2016. The effect of gene interactions on the long-term response to selection. *PNAS* 113: 4422-4427
- Paixao, T., Badkobehe, G., Barton, N.H., Dolgan, C., Dang, D.C., Friedrich, T., Lehre, P.K., Sudholt, D., Trubenova, B. 2015. Towards a unifying framework for evolutionary processes. *J. Theor. Biol.* 383: 28-43.
- Barton, N.H. (2009) Why sex and recombination? *Cold Spring Harbor Symposia Quant. Biol.* 74
- Barton, N.H., Briggs, D.E.G., Eisen, J.A., Goldstein, D.B., Patel, N.H. (2007) *Evolution*. Cold Spring Harbor Laboratory Press.
- *Kirkpatrick, M., Johnson, T. & Barton, N.H. (2002) General models of multilocus evolution. *Genetics* 161: 1727-1750
- Coyne, J.A., N.H. Barton, and M. Turelli. (1997) A critique of Wright's shifting balance theory of evolution. *Evolution* 51: 643-671.
- Barton, N. H. 1995 Linkage and the limits to natural selection. *Genetics* 140: 821-841.