



Curriculum vitae

Italian and Swedish nationality; talking fluently Italian, Swedish, English.

Current address

Dept. of Ecology and Genetics, Plant Ecology, Uppsala University, Norbyvägen 18D, SE-75236 Uppsala
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Education

2000	PhD in Forest Genetics Swedish University of Agricultural Sciences (SLU), Umeå, Sweden
1991	MSc in Agronomy University of Agricultural Sciences, Perugia, Italy
1989	BSc in Agronomy University of Agricultural Sciences, Perugia, Italy

Specialization

Ancient DNA research, Plant palaeogenetics and metagenomics, Biogeography and evolution of plants

Academic positions

2012- now	Associate Professor research position founded by the Swedish Research Council and 'Formas', Dept. of Ecology and Genetics, Uppsala University, Sweden
2012	Docent in Biology/Plant Ecology , Uppsala University, Sweden
2012	Research fellow , GeoGenetics Centre, University of Copenhagen, Denmark (three months)
2008 -2012	Assistant Professor researcher position founded by the Swedish Research Council, Dept. of Ecology and Genetics, Uppsala University, Sweden
2002-2007	Postdoc fellow , Dept. of Ecology and Genetics, Uppsala University, Sweden
1992-1994	Research assistant , Italian National Research Council, Italy

Maternity leaves

January-September 1996, 100%
December 2000-August 2001, 100%
December 2005-August 2006, 100%

Research grants

2017	<u>SciLifeLab</u> Sample processing and SCS sequencing support (Swedish Biodiversity Program 2017) (300 kSEK)
2016	<u>SciLifeLab</u> Bioinformatics Long-term Support (WABI) (500 hours)

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2017-2019	<u>Formas</u> : 2016-01236 (2904 kSEK)
2015-2017	The ScieLifeLab Stockholm, research and postdoctoral grants (total: 13150 kSEK)
2014-2017	<u>The Swedish Research Council</u> (VR): 2013-D0568401 (3600 kSEK)
2008-2011	<u>The Swedish Research Council</u> (VR): 2007-4490 (3600 kSEK)
2018-2019	<u>The Carl Trygger Foundation</u> : 18:351 (220 kSEK)
2015-2016	<u>The Carl Trygger Foundation</u> : 14:371 (133 kSEK)
2012-2013	<u>The Carl Trygger Foundation</u> : 11:353 (440 kSEK)
2009-2010	<u>The Carl Trygger Foundation</u> : 08:303 postdoc grant (310 kSEK)
2006-2008	<u>The Carl Trygger Foundation</u> : 05:373 (290 kSEK)
2004	<u>The Carl Trygger Foundation</u> : 03:253 postdoc grant (310 kSEK)

Review commissions

Ad hoc reviewer for *Science*, *Nature Communications*, *Nature Ecology and Evolution*, *Heredity*, *Annals of Botany*, *Quaternary Science Reviews*, *Journal of Biogeography*, *Journal of Quaternary Research*, *Molecular Ecology*, *Plant Species Biology*, *PlosOne*, *Trends in Ecology and Evolution*, *Plant Ecology*, *Applications in Plant Sciences*, *Geobiology*, *Science Reports*.

Associate Editor for *Paleoecology*, a specialty of the online journal *Frontiers in Ecology and Evolution*.

Associate Editor for the MDPI online journal *Quaternary*.

Evaluator for Grant Proposal for the National Science Foundation (NSF, USA), The European Research Council (ERC), The National Research Foundation (Australia, NRF), the Swiss National Science Foundation (SNSF), the Natural Environment Research (NERC, UK), the Hungarian Scientific Research Fund (OTKA), the Austrian Science Fund (FWF), the Bergen Research Foundation (Norway, BRS) and the Marsden Fund (NZ), the Icelandic research Funding (IRF).

Other academic commissions

2016-2019	Member at the board of the Swedish Plant Geographical Society (Svenska Växtgeografiska Sällskapet)
2017-2019	Member at the board of the Botanical Swedish Foundation 'Extensus' (Stiftelse Extensus)
2015-2021	Stand-in member at the board of the Swedish Gene Technology Advisory Board (Gentekniknämnden)

Evaluation Committee Member for PhD degrees

2019	Wentao Chen, University of Grenoble Alps, Biology
2018	Magdalena Fraser, Uppsala University, Archaeology
2014	Eleftheria Palkopoulou, Stockholm University, Biology
2013	Pontus Skoglund, Uppsala University, Biology
2012	Robert de Tex, Uppsala University, Biology

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2011 Annelee Kool, Uppsala University, Biology

Evaluation Committee Member for MSc degrees

2010 Kenneth Andersen, University of Copenhagen,
Geology/Biology

Current teaching and supervision

Course director and teacher for two courses in Biology at Uppsala University: Ecological effects of climate change (1BG417, 10 ECTS) and Biology debate (1BG424, 10 ECTS).

Organizer of two PhD courses at Uppsala University: Impacts of climate change on species, populations and communities (5 ECTS) (2009); Modeling species distribution under past and future climate (2 ECTS) (2015)

PhD students

2017-2021 Kevin Nota (main supervisor)
2014-2018 Mahmoudi Shamsabad Masoumeh (second supervisor)
2012-2016 Kathleen Crossen (second supervisor)

Postdoctoral researchers

2015-2017 Engy Ahmed
2015-2017 Lu Han
2010-2011 Sonia Fontana

MSc and Bachelor students

2011 Hasan Sahid (MSc)
2003 Linda Albinsson (MSc)

Research training students

2019 Alessandro Nobile
2018 Anne von Woerkom
2018 Giulia Ghirardello
2017 Katerina Günter
2017 Masoumeh Shamsabad
2015 Valerie Ambrosi
2012 Giulia Tuveri
2012 Grigorios Georgolopoulos
2011 Agathe Nowosielski
2010 Irina Matetovici
2010 Hasan Sahid
2010 Saba Mehrabanfar
2009 Kevin Fletcher

Pedagogical training

Participated to the following courses: Basic teacher training course, 1998 (4 weeks) SLU Univ.; Labor market competences, 1999 (1 week) Uppsala Univ.; Training your leadership, 1999 (1 week) SLU Univ.; Project leadership, 2000 (1 week) SLU Univ.; Supervisorship education, 2009 (1 week) Uppsala Univ.; Supervisor course for oral presentation, 2009 Uppsala Univ.; Subject-oriented pedagogy 2011 (3 weeks), Uppsala Univ.; Supervisor training course, 2017 (4 days) Uppsala Univ.

Ongoing collaborations

Barbara Wohlfarth and Tanja Slotte, Stockholm University
Cristiano Vernesi, Edmund Mach Foundation, Italy
KD Bennett, School of Geography & Geosciences, University of St Andrews, Scotland
Mikkel Winther Pedersen, GeoGenetics Centre, Copenhagen University, Denmark
Minna Välliranta, University of Helsinki, Finland
Christoph Sperisen and Felix Gugerli, Swiss Federal Research Institute WSL, Switzerland
Stephen Keller, University of Vermont, US
Dirk Sachse and Achim Brauer, Geoforschungszentrum (GFZ), Potsdam, Germany
Francesco Spada, La Sapienza University, Roma, Italy
Jonatan Klaminder, Umeå University, Sweden
Stefan Bertilsson, Uppsala University, Sweden

Presentations

A total of ca 10 oral and 8 poster presentations at conferences and workshops as presenting author.

Additional 14 **invited** seminars at various Universities:

Society for Experimental Biology Meeting (SEB), Göteborg, Sweden.
Plant ancient DNA research from lake sediments (2017)

Swiss Federal Research Institute WSL, Birmensdorf, Switzerland.
Plant aDNA workshop. Amplicon NGS sequencing from ancient wood (2015)

Kyoto University, Japan: 12th Forest Ecosystem Function Colloquium (FEFCO). *Ancient plant DNA of Nordic Environments* (2014)

Tromsø University Museum, Norway: The third Metabarcoding Workshop. *Ancient plant DNA of Nordic Environments* (2014)

Swedish University of Agricultural Sciences, Umeå, Sweden. *Ancient plant DNA of Nordic Environments* (2014)

Royal Society Discussion Meeting, UK: Ancient DNA: the first three decades; The Royal Society of London. *Ancient Environments* (2013)

PAGE workshop, Oxford University; UK. *Genetic approaches in the analysis of palaeoecological data* (2012)

International Palaeobotany Conference (IPC), Tokyo, Japan. *Glacial Survival of Boreal Trees in Northern Scandinavia* (2012)

XVIII INQUA Congress (International Union of Quaternary Science), Bern, Switzerland. Title of the talk: *Survival of boreal trees in glacial refugia of Northern Scandinavia revealed by modern and ancient DNA* (2011)

International Botanical Conference (IBC), Melbourne, Australia. Title of the talk: *Molecular reconstruction of Holocene vegetation in Scandinavia based on pollen and sediment ancient DNA analysis* (2011)

European Palaeobotany Palynology Conference (EPPC), Budapest, Hungary. Title of the talk: *Mitochondrial DNA signal from fossil pollen and sedDNA suggests a complex postglacial history of Picea abies in Scandinavia* (2010)

Ancient DNA Workshop, Borrowdale, UK. Title of the talk: *Ancient DNA from pollen* (2009)

Euro Science Open Forum (ESOF), Stockholm. Title of the talk: *Ancient DNA in pollen: insights in the recent history of plant*

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populations (2004)
International Palynological Congress (IPC) Granada, Spain. Title of the talk: *Ancient Dna In Pollen genotyping - Genetic analysis in two Holocene scots pine populations from Sweden*(2004)

Conference session organizer

- INQUA Dublin 2019
- IPAL/IAL Stockholm 2018
- SEB Gothenburg 2017

Scientific Outreach

- Artistic exhibition on biodiversity change through time using DNA data from lake sediments with Jill Pelto (<http://www.jillpelto.com>) planned at Uppsala University in 2020
- Presentation on Plant migration at the Annual Meeting of the Swedish Society of Phytogeography in Uppsala (2011)
- Explaining evolution for high-school students in Uppsala (2009)
- Plant research exhibition at the Linné Botanical Garden fest in Uppsala (2016 and 2018)
- Plant research exhibition at the Scifest in Uppsala (2019)

Social media activities and responsibilities

- Responsible for creating and maintaining academic Twitter accounts for Uppsala University departmental/program (@PlantEcoEvo_UU) and the Swedish Plant Geographical Society (@SVS_PlantGeogr)
- Sharing responsibilities for maintaining and updating academic homepages for Uppsala University departmental/program homepage (<http://www.ieg.uu.se/plant/>) and the Swedish Plant Geographical Society homepage (<http://www.vaxtbio.uu.se/svs/>)

Complete list of publications

Total citations 1229 with an h-index of 16 (Google Scholar 07/01-2019)

Google: <https://scholar.google.com/citations?user=HVO6qjoAAAAJ>

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=6602210140>

Peer-reviewed articles - Published

* Authors contributed equally to the work

2019

Parducci L, Alsos Greve I, Unneberg P, Pedersen Winther M, Han L, Lammers Y, Salonen S, Välranta M, Slotte T, Wohlfarth B. Shotgun sequencing ancient DNA from Lateglacial lake sediment from southern Sweden. Submitted

2018

Mahmoudi Shamsabad M, Assadi M, **Parducci** L. Impact of climate change implies the northward shift in distribution of the Irano-Turanian subalpine species complex *Acanthophyllum squarrosum*. *J Asian-Pacific Biodiv.* In print

Ahmed E*, **Parducci** L*, Unneberg P, Ågren R, Schenk F, Rattray J, Han L, Yamoah KA, Muschitiello F, Pedersen MW, Smittenberg RH, Slotte T, Wohlfarth B. Archaea community changes in Lateglacial lake sediments: evidence from ancient DNA. *Quaternary Science Reviews*, 181, 19-29

2017

Lendvay B, Hartmann M, Brodbeck S, Nievergelt D, Reinig F, Zoller S. **Parducci** L, Gugerli F, Buntgen U, Sperisen C. Improved recovery of ancient DNA from subfossil wood - application to the world's oldest Late Glacial pine forest. *New Phytologist*, 217, (4) 1737-1748

Parducci L, Bennett KD (2017) The real significance of ancient DNA. *American Journal of Botany*, 104 (6), 800-802, doi: [ajb.17000](https://doi.org/10.1111/ajb.17000)73v1104/6/800

Parducci L Bennett KD, Wood JR, Suyama Y, Alsos Greve I, Ficetola GF, Winther Pedersen M (2017) Ancient plant DNA from lake sediments. *New Phytologist*, Tansley Review, 214 (3), doi: [10.1111/nph.14470](https://doi.org/10.1111/nph.14470)

Ribeiro MM, Piotti A, Ricardo A, Gaspar D, Costa R, **Parducci** L, Vendramin GG (2017) Influence of Wildfire and Gene Flow on *Arbutus unedo* L. (Ericaceae) Genetic Diversity. *PlosOne*, 12:e0175239

2016

Tsuda Y, Chen J, Stocks M, Källman M, Sønstebo JH, **Parducci** L, Semerikov V, Sperisen C, Politov D, Ronkainen T, Välranta M, Vendramin GG, Tollefsrud MM, Lascoux M (2016) The extent and meaning of hybridization and introgression between Siberian spruce (*Picea obovata*) and Norway spruce (*P. abies*): cryptic

refugia as stepping stones to the west? *Molecular Ecology*, 25 (12), 2773–2789, doi: 10.1111/mec.13654

Parducci, L & Tollefsrud, MM (2016) Gran och tall kan ha överlevt i Skandinavien under istiden. [Glacial survival of pine and spruce in northern Scandinavia.] *Svensk Botanisk Tidskrift*, 110(6), 381–387

Georgolopoulos G, **Parducci** L, Drouzas AD (2016) A short phylogenetically informative cpDNA fragment for the identification of *Pinus* species. *Biochemical Systematics and Ecology*, 66, 166–172

2015

Parducci L, Väiliranta M, Salonen J S, Ronkainen T, Matetovici S, Fontana S L, Eskola T, Sarala P, Suyama Y (2015) Proxy comparison in ancient peat sediments: pollen, macrofossil and plant DNA. *Philosophical Transactions of the Royal Society of London*, 370 (1660), doi 10.1098/rstb.2013.0382

2014

Bella E, Liepelt S, **Parducci** L, Drouzas AD (2014) Genetic insights into the hybrid origin of *Abies x borisii-regis* Mattf. *Plant Systematic and Evolution*, doi 10.1007/s00606-014-1113-x

Källman T, De Mita S, Larsson H, Gyllenstrand N, Heuertz M, **Parducci** L, Suyama Y, Lagercrantz U, Lascoux M (2014) Patterns of nucleotide diversity at photoperiod related genes in Norway Spruce [*Picea abies* (L.) Karst. *PlosOne*, 9(5): e95306

2013

Parducci L, Matetovici I, Fontana SL, Bennett KD, Suyama Y, Haile J, Kjær KH, Krog Larsen N, Drouzas AD, Willerslev E (2013) Molecular and pollen-based vegetation analysis in lake sediments from central Scandinavia. *Molecular Ecology*, 22, 3511–3524

2012

Parducci L, Jørgensen T, Tollefsrud MM, Elverland E, Alm A, Fontana SL, Bennett KD, Haile J, Matetovici I, Suyama Y, Edwards ME, Andersen K, Rasmussen M, Boessenkool S, Coissac E, Brochmann C, Taberlet P, Houmark-Nielsen M, Krog Larsen N, Orlando L, Gilbert MTP, Kjær KH, Greve Alsos I, Willerslev E (2012) Glacial Survival of Boreal Trees in Northern Scandinavia. *Science*, 335, 1083–1086

Parducci L, Edwards ME, Bennett KD, Alm T, Elverland E, Tollefsrud MM, Jørgensen T, Houmark-Nielsen M, Krog Larsen N, Kjær KH, Fontana SL, Greve Alsos I, Willerslev E (2012) Response to Comment on "Glacial Survival of Boreal Trees in Northern Scandinavia". *Science*, 338, 742–743

Before 2011

Magyari EK, Major A, Bálint M, Nédli J, Braun M, Rácz I, **Parducci** L. (2011) Population dynamics and genetic changes of *Picea abies* in the South Carpathians inferred from pollen and ancient DNA analyses. *BMC Evolutionary Biology*, 11, 11:66

Mac Donald GM, Bennett KD, Jackson ST, **Parducci** L, Smith FA, Smol JP, Willis KJ (2008) Impacts of climate change on species,

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populations and communities: palaeobiogeographical insights and frontiers. *Progress in Physical Geography*, 32 (2), 139-17

Suyama Y, Gunnarsson U, **Parducci** L (2008) Analysis of short DNA fragments from Holocene peat moss samples. *The Holocene*, 18 (6), 1003-1006

Bennett KD, **Parducci** L (2006) DNA from pollen: principles and potential. *The Holocene*, 16, 1031-1034

Parducci L, Suyama Y, Lascoux M, Bennett KD (2005) Ancient DNA from pollen: a genetic record of plant population history. *Molecular Ecology*, 14, 2873-2882

Parducci L, Bennett KD (2005) Ancient DNA research. *Bioscience-explained* 2, (2)

Gugerli F, **Parducci** L, Petit RJ (2005) Ancient plant DNA - review and prospects. Review article. *New Phytologist*, 166, 409-418

Parducci L, Petit RJ (2004) Ancient DNA - unlocking plants' fossil secrets. *New Phytologist*, 161, 335-339

Parducci L, Szmidt AE, Ribeiro MM, Drouzas AD (2001) Taxonomic position and origin of the endemic Sicilian fir *Abies nebrodensis* (Lojac.) Mattei based on allozyme analysis. *Forest Genetics*, 8 (2), 119-127

Parani M, Rajesh K, Lakshmi M., **Parducci** L, Szmidt AE, Parida A (2001) Species identification in seven small millet species using PCR-RFLP of *trnS-psbC* gene region. *Genome*, 44, 495-499

Parducci L, Szmidt A, Madaghiele A, Anzidei M, Vendramin GG (2001) Genetic variation at chloroplast microsatellites (cpSSR) in *Abies nebrodensis* (Lojac.) Mattei and three neighboring *Abies* species. *Theoretical and Applied Genetics* 102 (5), 733-740

Parducci L, Szmidt AE (1999) PCR-RFLP analysis of cpDNA in the genus *Abies*. *Theoretical and Applied Genetics*, 98 (5), 802-808

Parducci L, Szmidt AE, Villani F, Wang XR, Cherubini M (1996) Genetic variation of *Abies alba* in Italy. *Hereditas*, 125 (1), 1-18

Giannini R, **Parducci** L, Rossi P, Villani F. (1994) Genetic structure and mating system of silver fir in the Campolino reserve (North Apennines). *Journal of Genetics and Breeding*, 335-338

* Authors contributed equally to the work

Peer-reviewed articles - In preparation or submitted

Parducci L. Quaternary DNA: an ancient DNA revolution. *Quaternary MDPI*

PhD thesis

Parducci L (2000) Genetics and Evolution of the Mediterranean *Abies* species. The Swedish University of Agricultural Sciences (SLU), Umeå, Sweden.

Book chapters

Parducci L, Wood J (2018) Reconstructing past vegetation communities using ancient DNA from lake sediments. In: *Paleogenomics*. Springer, Berlin, Heidelberg.

Parducci L, Bennett KD (2012) Ancient DNA studies in plant populations. In: *Molecular Markers, PCR, Bioinformatics and Ancient DNA Technology, Troubleshooting and Applications*. New York: Gabriel Dorado (eds), ISBN: 978-84-691-5272-0.

Parducci L, Suyama Y (2010). Single-pollen genotyping of Holocene lake sediments. In: *Single pollen genotyping*. Yokyo: Isagi Y, Suyama Y (eds). ISBN: 978-4-431-53901-8.