

## CV Dr. Paolo Gratton

**Affiliation** Dipartimento di Biologia, Università di Roma "Tor Vergata"  
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### Studies

2006 **PhD (Dottorato di Ricerca) in Evolutionary Biology and Ecology**  
Università di Roma "Tor Vergata". Thesis: Phylogeography and conservation genetics of *Parnassius mnemosyne* L., 1758 (Lepidoptera, Papilionidae)

2002 **Master (Laurea, vecchio ordinamento) in Biological Sciences**,  
Università di Roma "Tor Vergata". Thesis: Variazione genetica in popolazioni naturali e allevate di Zebrafish (*Danio rerio*): un confronto tra marcatori allozimici e microsatelliti.

### Research experience

May 2014 - Nov 2019 **PostDoc Researcher, Max Planck Institute for Evolutionary Anthropology, Department of Primatology – Leipzig, Germany**  
Development of bioinformatic methods for large-scale comparative phylogeography from DNA data banks. Phylogeographic synthesis of sub-Saharan African mammals. Population genomics of wild chimpanzees. Data analysis for behavioral primatology.

Jun 2012 – Apr 2014 **Post Doc (Assegno di Ricerca), Università di Roma "Tor Vergata", Dipartimento di Biologia - Roma, Italia**  
Species delimitation and phylogenetic reconstructions using RAD sequencing data, with the recent radiation of the *Erebia tyndarus* group as a biological model.

Apr 2009 – Nov 2011 **Post Doc Researcher, IASMA Research and Innovation Center, Fondazione Edmund Mach – San Michele all'Adige (TN), Italia**  
Evolutionary patterns in autochthonous Salmonid populations of the Italian peninsula. Assembling of a large genetic dataset (mtDNA and nDNA sequences and microsatellite markers). Simulation-based Bayesian approaches (ABC) to disentangle the complex evolutionary history of Mediterranean trouts.

Jun 2006 – Mar 2009 **Post Doc (Assegno di Ricerca), Università di Roma "Tor Vergata", Dipartimento di Biologia - Roma, Italia**

Phylogeography and conservation genetics of *Parnassius* butterflies. "Time - dependency" of mtDNA substitution rates. Development of microsatellite DNA markers. Conservation and speciation genetics in Salmonid populations in Central Italy. Phylogeny and biogeography of cave crickets..

**Referee** Nature Communications, Molecular Ecology, Journal of Biogeography, PLoS One, Molecular Phylogenetics and Evolution, Biological Journal of the Linnean Society

**Teaching** 2020: "Ornithology", Università di Roma "Tor Vergata" (3 CFU)

2016: High school professor in Sciences (Scienze Naturali, Chimica e Geografia, A060) Istituto Gramsci, Valmontone (RM) (currently on leave).

2006-2014: Informal supervision of Doctoral and Master students. Università di Roma "Tor Vergata".

2006-2009: Thematic lectures within Populations biology (held by Prof. Donatella Cesaroni & Prof. Giuliana Allegrucci), Biodiversity and Evolution (held by Prof. Valerio Sbordoni), Università di Roma "Tor Vergata".

## Publications

### International, peer-reviewed journals

**Gratton, P.**, Mundry R. (2019). Accounting for pseudo-replication is not possible when the source of non-independence is unknown. *Animal Behaviour* 154 (2019): e1-e5.

van Pinxteren, B. O., Sirianni, G., **Gratton, P.**, Despres-Einspenner, M.-L., Egas, M., Kühl, H. S., Lapuente, J., Meier, A., & Janmaat, K. (2018). Sooty mangabeys scavenge on nuts cracked by chimpanzees and red river hogs: An investigation of inter-specific interactions around tropical nut trees. *American Journal of Primatology*, 80(8): e22895.

Fabiani, A., **Gratton, P.**, Zappes, I. A., Seminara, M., D'Orsi, A., Sbordoni, V., & Allegrucci, G. (2018). Investigating the genetic structure of trout from the Garden of Ninfa (central Italy): Suggestions for conservation and management. *Fisheries Management and Ecology*, 25(1), 1-11.

Sirianni, G., Wittig, R. M., **Gratton, P.**, Mundry, R., Schöler, A., & Boesch, C. (2018). Do chimpanzees anticipate an object's weight? A field experiment on the kinematics of hammer-lifting movements in the nut-cracking Tai chimpanzees. *Animal Cognition*, 21(1), 109-118.

**Gratton, P.**, Marta, S., Bocksberger, G., Winter, M., Keil, P., Trucchi, E., & Kühl, H. (2017). Which latitudinal gradients for genetic diversity? *Trends in Ecology & Evolution*, 32(10), 724-726.

**Gratton P.**, Marta S., Bocksberger G., Winter M., Trucchi E., Kühl H. (2017) A world of sequences: can we use georeferenced nucleotide databases for a robust automated phylogeography?. *Journal of Biogeography*, 44, 475-486.

- Marta, S., Lacasella, F., **Gratton, P.**, Cesaroni, D., Sbordoni, V. (2016) Deciphering range dynamics: effects of niche stability areas and post-glacial colonization on alpine species distribution. *Journal of Biogeography*, 43, 2186-2198.
- Trucchi E., Facon B., **Gratton P.**, Mori E., Stenseth N.C., Jentoft S. (2016) Long live the alien: is high genetic diversity a pivotal aspect of crested porcupine (*Hystrix cristata*) long-lasting and successful invasion?. *Molecular Ecology*, 25, 3527-3539.
- Gratton P.**, Trucchi E., Trasatti A., Riccarducci G., Marta S., Allegrucci G., Cesaroni D., Sbordoni V. (2016) Testing Classical Species Properties with Contemporary Data: how 'Bad Species' in the Brassy Ringlets (*Erebia tyndarus* complex, Lepidoptera) Turned Good. *Systematic biology*, 65, 292-303.
- Trucchi E., **Gratton P.**, Whittington J.D., Cristofari R., Le Maho Y., Stenseth N. C., Le Bohec C. (2014). King penguin demography since the last glaciation inferred from genome-wide data. *Proceedings of the Royal Society of London B: Biological Sciences*, 281, 20140528.
- Gustavino B., Meschini R., Franzetti G., **Gratton P.**, Allegrucci G., & Sbordoni V. (2014). Genotoxicity testing for radon exposure: *Dolichopoda* (Orthoptera, Rhabdiphoridae) as potential bio-indicator of confined environments. *Current Zoology*, 60, 299-307.
- Gratton P.**, Allegrucci G., Sbordoni V., & Gandolfi A. (2014). The evolutionary jigsaw puzzle of the surviving trout (*Salmo trutta* L. complex) diversity in the Italian region. A multilocus Bayesian approach. *Molecular Phylogenetics and Evolution*, 79, 292-304.
- Gratton P.**, Allegrucci G., Gandolfi A., Sbordoni V. (2013) Genetic differentiation and hybridization in two sympatric allochthonous trouts from a small karstic Italian lake. *Journal of Fish Biology*, 82, 637-657
- Meraner A., **Gratton P.**, Baraldi F., Gandolfi A. (2013) Nothing but a trace left? Autochthony and conservation status of Northern Adriatic *Salmo trutta* inferred from PCR multiplexing, mtDNA control region sequencing and microsatellite analysis. *Hydrobiologia*, 702, 201-213
- Todisco V.\*, **Gratton P.\***, Zakharov E., Wheat C.W., Sbordoni S., Sperling F.A.H. (2012) Mitochondrial phylogeography of the Holarctic *Parnassius phoebus* complex supports a recent refugial model for alpine butterflies. *Journal of Biogeography*, 39, 1058 – 1072 \*I due autori hanno contribuito in modo equivalente.
- Todisco V., **Gratton P.**, Cesaroni D., Sbordoni V. (2010) Phylogeography of *Parnassius apollo*: hints on taxonomy and conservation of a vulnerable glacial butterfly invader. *Biological Journal of the Linnean Society*, 101, 169-183
- Allegrucci G., Rampini M., **Gratton P.**, Todisco V., Sbordoni V. (2009) Phylogenetic hypotheses testing to reconstruct the evolutionary history of the *Dolichopoda* cave crickets in the eastern Mediterranean region. *Journal of Biogeography*, 36, 1785-1797
- Gratton P.**, Sbordoni V. (2009) Isolation of novel microsatellite markers for the Clouded Apollo (*Parnassius mnemosyne* Linnaeus, 1758; Lepidoptera, Papilionidae). *Conservation Genetics*, 10, 1141-1143.
- Gratton P.**, Konopinski M., Sbordoni V. (2008) Pleistocene evolutionary history of *Parnassius mnemosyne*: genetic signatures of climate cycles and a “time-dependent” mitochondrial substitution rate. *Molecular Ecology*, 17, 4248–4262.

Casale P., Freggi D., **Gratton P.**, Argano R., Oliverio M. (2008) Mitochondrial DNA reveals regional and interregional importance of the central Mediterranean African shelf for loggerhead sea turtles (*Caretta caretta*) *Scientia Marina*, 72, 541-548.

**Gratton P.**, Allegrucci G., Gallozzi M., Fortunato C., Ferreri F., Sbordoni V. (2004) Allozyme and microsatellite genetic variation in natural samples of zebrafish, *Danio rerio*. *Journal of Zoological Systematics and Evolutionary Research*, 42, 54-62.

### Other publications

Sirianni, G., Luncz, L. V., & Gratton, P. (2019) An energetic model of foraging optimisation: Wild chimpanzee hammer selection for nut-cracking. In C. Boesch, & R. M. Wittig (Eds.), *The Tai Chimpanzees: 40 years of Research*. Cambridge: Cambridge University Press. ISBN: 9781108674218.

Gratton P., Allegrucci G., Sbordoni V. (2008). Analisi genetica delle popolazioni di Salmonidi del Lago di Posta Fibreno. In "Atti della Prima Giornata di Studio: Tutela e conservazione dell'ecosistema acquatico Lago di Posta Fibreno area SIC/ZPS IT6050015". Roma, 26 gennaio 2008.

Gratton P., Allegrucci G., Sbordoni V. (2007). Caratterizzazione genetica della popolazione. In: Riserva Naturale Regionale Gole di San Venanzio. Indagini sulle trote presenti nella Riserva Naturale Regionale Gole di San Venanzio. Fiume Aterno, Raiano (AQ) Abruzzo. (pp. 25-41). RAIANO (AQ): ATI B.A.S.E. (ITALY).

Gratton P., Todisco V., Sbordoni V. (2006) Filogeografia comparata di *Parnassius apollo* e *P. mnemosyne*. Un contributo genetico-molecolare alla biogeografia dell'Appennino. *Biogeographia*, 27, 277-289. In Italian. English version available at <http://iasma.academia.edu/PaoloGratton/Papers>.

Gratton P. (2006) Phylogeography and conservation genetics of *Parnassius mnemosyne* L., 1758 (Lepidoptera, Papilionidae). Università degli Studi di Roma "Tor Vergata". Doctoral dissertation. Dottorato in Biologia Evoluzionistica ed Ecologia, XVIII ciclo – Anno Accademico 2005/2006.

Gratton P., Sbordoni V. (2005) Conservation genetics and Phylogeography of *Parnassius mnemosyne*. In: E. Kühn, R. Feldmann, J.A. Thomas, J. Settele (Eds) *Studies on the Ecology and Conservation of Butterflies in Europe. Vol. 1: General Concepts and Case Studies*. Sofia, Pensoft. ISBN-10: 9546422479.

Gratton P., Allegrucci G., Sbordoni V. (2005) Studio molecolare dell'introggressione nelle popolazioni di trote del lago di Posta Fibreno. Università degli studi di Roma "Tor Vergata", Riserva Naturale "Lago di Posta Fibreno".