



## Curriculum Vitae

### Personal information

First name / Surname **Donatella Cesaroni**  
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Nationality Italian  
Date of birth 20 September 1955

### Work experience

Dates **1998-to date**  
Occupation or position held Associate Professor (Zoology and Evolutionary Biology)  
Main activities and responsibilities Research, Teaching and Educational Management  
Name and address of employer University of Rome Tor Vergata (Mathematical, Physical and Natural Sciences), Dept. of Biology

Type of business or sector **Scientific activity**  
Main fields of research of DC are: evolutionary biology and microevolution (population genetic structure, geographical variation of biological characters, molecular divergence and animal phylogeny, hybridization and introgression between species), biodiversity (development of biodiversity databases, DNA barcoding of populations in animal species, citizen science), taxonomy in Lepidoptera (butterflies).

DC's scientific interest is mostly directed towards the study of microevolutionary processes in natural populations of several terrestrial and aquatic organisms and of biodiversity, chiefly at the gene level. The aim of the studies is the understanding the role played by evolutionary factors such as selection, genetic drifts and gene flow in speciation and adaptation both to natural environments and artificial situations manipulated by human beings. Recent researches have been focused on the genetic structure of populations analysed at different geographic scales and by different molecular tools. Different molecular markers and other character sets are used to improve empirical estimation of evolutionary parameters such as selective values, gene flow, and rates of cladogenetic events. Other relevant studies included comparative analyses of geographic variation in molecular and morphological characters also performed to elucidate patterns of natural hybridization in several organisms, and analysis of the genetic structure of organisms used in aquaculture to characterize genetic biodiversity in natural populations.

Present research activity is also in the fields of biodiversity monitoring, conservation and landscape genetics, especially focused on the development of biodiversity databases at different geographical scales to be used in interoperable networks.

DC was actively involved in CSMON-Life (Citizen Science MONitoring), one of the first Italian projects which focuses on using a citizen science approach on biodiversity. The project was funded by the European Commission under the LIFE+ programme, in order to stimulate the participation of the citizens, involving them in the study, management and conservation of biodiversity, hence creating an active collaboration between citizens, scientific community and institutions

DC was a member of the Tor Vergata University team, in the core group of partners, of the framework project "Sistema Ambiente 2010" (2010 Environment System), supported by the Italian Ministry of the Environment, Land and Sea Protection (MATTM), which promotes the planning and establishing of the National Network of Biodiversity (NNB) in Italy. In this context, DC also assembled the "DNA Barcode Database of Italian Nature 2000 animal species" accessible on the NNB portal ([www.naturaitalia.it](http://www.naturaitalia.it))

Type of business or sector **Research Projects**  
LIFE+ 2013 (LIFE13 ENV/IT/000842) (European Commission) - DC is the Project Manager for the Research Unit "Tor Vergata University", project title "CSMON-LIFE-Monitoring Biodiversity by a citizen science approach for solving environmental problems"

	<p>PRIN2009 (MIUR): DC came after Prof.V.Sbordoni as Project Manager for the Research Unit "Tor Vergata University", project title "Comparative phylogeography of butterflies from Apennines addressed to the development of descriptive and predictive bioclimatic models", general project manager P.Brandmayr (University of Calabria)</p> <p>PRIN2007 (MIUR)- DC was the Project Manager for the Research Unit "Tor Vergata University", project title "DNA barcoding, molecular taxonomy, and soil environmental sampling: ground beetles (Coleoptera, Carabidae) as a case study", general project manager M.Casiraghi (Milano Bicocca University)</p> <p>DC was also involved in many other scientific projects on Evolutionary and Population genetics, Biogeography and Biodiversity supported by the National Research Council (CNR), the Ministry for Education and Research (MIUR), and others.</p>
Type of business or sector	<p><b>Conferences planning and organization</b></p> <p>DC was member of the Organizing Committee of:</p> <ul style="list-style-type: none"> <li>- 7th Congress of the Italian Society for Evolutionary Biology (SIBE) - Rome, 28-31 August, 2017</li> <li>- 38th Congress of the Società Italiana di Biogeografia (SIB) "Spatial and temporal changes in biodiversity: assessments and reports of Italian biogeographers" - Rome, 14-17 December, 2011</li> <li>- 5th International Conference on Biology of Butterflies - Rome, 2-7 July, 2007</li> <li>- 66th Congress of the Unione Zoologica Italiana (UZI) - Rome, 19 - 22 September, 2005.</li> </ul> <p>DC play also a part in the organization of:</p> <ul style="list-style-type: none"> <li>- 34th Congress of the Società Italiana di Biogeografia (SIB) "Marine Biogeography of the Mediterranean" (Ischia, 2002)</li> <li>- 2nd Conference of the European Society for Evolutionary Biology (Rome, 1989)</li> </ul>
Type of business or sector	<p><b>Education</b></p> <p>DC currently teaches "<i>Evoluzione Biologica</i>" (Biological Evolution) (Master Degree Courses in Evolutionary Biology, Ecology and applied Anthropology) at Tor Vergata University</p> <p>DC was previously engaged in several courses for undergraduate and graduate students of the Faculty of Sciences at "Tor Vergata" University (Roma, Italy):</p> <ul style="list-style-type: none"> <li><i>Evoluzione Biologica</i> (Master Degree Courses in Evolutionary Biology and Ecology)</li> <li><i>Evoluzione e Biodiversità Animale</i> (Master Degree Course in Evolutionary Biology and Ecology)</li> <li><i>Analisi dati per la caratterizzazione genetica</i> (Master Degree Course in Ecology and Evolution)</li> <li><i>Analisi di processi microevolutivi</i> (Bachelor's Degree Course in Ecology),</li> <li><i>Biologia di popolazioni animali</i> (Bachelor's Degree Course in Ecology),</li> <li><i>Evoluzione biologica</i> ((Bachelor's Degree Course in Biotechnology),</li> <li><i>Metodologie Zoologiche</i> (Bachelor's Degree Course in Evolutionary Biology and Ecology)</li> </ul>
Type of business or sector	<p><b>Educational Management</b></p> <p>2006-2012: Vice President of the Council for Bachelor's Degree in Biological Sciences of the Faculty of Sciences at the University of Rome Tor Vergata</p> <p>2014-to date: Coordinator of the Master Degree (Laurea Magistrale) in Evolutionary Biology, Ecology and applied Anthropology at the University of Rome Tor Vergata</p>
Dates	<b>1984-1998</b>
Occupation or position held	Researcher
Main activities and responsibilities	Research and Teaching
Name and address of employer	University of Rome Tor Vergata, Faculty of Sciences, Dept. of Biology
Type of business or sector	<p><b>Scientific research</b></p> <p>DC's scientific interest continues consistently with researches previously undertaken</p> <p>Main research fields are:</p> <p>Population genetic structure, geographic variation analysis of biological characters, molecular divergence and phylogeny, hybridation and introgression, biodiversity, genetic characterization of animal species used in aquaculture</p>
Type of business or sector	<p><b>Education</b></p> <p>As researcher DC was engaged in university courses (Laurea in Scienze Biologiche) of the Faculty of Sciences at "Tor Vergata" University (Roma, Italy)</p>

## Education and training

Dates	<b>1969-1974</b>
Title of qualification awarded	Diploma di Maturità Scientifica - Grade 53/60
Name and type of organisation providing education and training	Liceo Scientifico "Augusto Righi", Roma, Italy
Level in national or international classification	High school degree (scientific oriented)
Dates	<b>1974-1978</b>
Title of qualification awarded	Laurea in Scienze Biologiche - Grade: 110/110 cum laude
Principal subjects/occupational skills covered	Graduation thesis in zoology (evolutionary biology), titled: "Variabilità genetica e selezione naturale in popolazioni cavernicole di <i>Dolichopoda</i> (Orthoptera, Rhaphidophoridae)"
Name and type of organisation providing education and training	"Sapienza" University, Roma, Italy
Level in national or international classification	5-year long <i>Biological Sciences</i> university degree
Dates	<b>1978-1983</b>
Principal subjects/occupational skills covered	A period of five years, after Laurea graduation, was spent at "La Sapienza" University (Roma, Italy) to carry on research activity concerning microevolutionary processes in natural populations, particularly in cave organisms; several papers was published on international and national scientific journals.
Name and type of organisation providing education and training	"Sapienza" University, Roma, Italy

## Publications

D.Cesaroni published more than 90 scientific contributions (in extenso or in abstract form) also on international journals or books, including *Evolution*, *Journal of Evolutionary Biology*, *Molecular Phylogenetics and Evolution*, *Molecular Biology and Evolution*, *Current Genetics*, *Biological Journal of the Linnean Society*, *Journal of Biogeography*, *Ecography*, *Marine Ecology - Progress Series*.

### Selected papers :

- CESARONI, D., De Felici, S., Riccarducci, G., Ciambotta, M., Ventura, A., Bianchi, E., Sbordoni, V. (2017) DNA Barcodes of the animal species occurring in Italy under the European "Habitats Directive" (92/43/EEC): a reference library for the Italian National Biodiversity Network. *Biogeographia-The Journal of Integrative Biogeography*, 32 (2017):5-23. <https://doi.org/10.21426/B632131365>
- Todisco V, Nazari V, CESARONI D, Sbordoni V (2017) Preliminary molecular phylogeny and biogeography of the monobasic subfamily Calinaginae (Lepidoptera, Nymphalidae). *Zoosystematics and Evolution* 93(2): 255-264. <https://doi.org/10.3897/zse.93.10744>
- Marta, S., Lacasella, F., Gratton, P., CESARONI, D. and Sbordoni, V. 2016. Deciphering range dynamics: effects of niche stability areas and post-glacial colonization on alpine species distribution. *J.Biogeogr.* 43: 2186–2198. <https://doi.org/10.1111/jbi.12771>
- Bozano, G.C., Coutsis, J., Heřman, P., Allegrucci, G., CESARONI, D., Sbordoni, V. 2016. Guide to the butterfly of the Palearctic region. Pieridae part III. Omnes Artes, Milano. ISBN 978-88-87989-20-5, ISSN 1723-459X
- Gratton, P., Trucchi, E., Trasatti, A., Riccarducci, G., Marta, S., Allegrucci, G., CESARONI, D. and Sbordoni, V. 2016. Testing classical species properties with contemporary data: how 'bad species' in the brassy ringlets (*Erebia tyndarus* complex, Lepidoptera) turned good. *Syst.Biol.* 65(2): 292-303. <https://doi.org/10.1093/sysbio/syv087>
- Allegrucci, G., Sbordoni, V. and CESARONI, D. 2015. Is radon emission in caves causing deletions in satellite DNA sequences of cave-dwelling crickets? *PLoS ONE* 10(3): e0122456. <https://doi.org/10.1371/journal.pone.0122456>
- Sbordoni V, Allegrucci G, CESARONI D. 2012. Population structure. In: W.B.White & D.C.Culver(Eds). *Encyclopedia of Caves*, 2nd Edition. p. 608-618, Elsevier Inc.,
- Martellos, S., Attorre, F., De Felici, S., CESARONI, D., Sbordoni, V., Blasi, C. and Nimis, P.L. 2011. Plant sciences and the Italian National Biodiversity Network. *Plant Biosystems*: 145 (4): 758-761

- Todisco, V., P. Gratton, D. CESARONI and V. Sbordoni. 2010. Phylogeography of *Parnassius apollo*: hints on taxonomy and conservation of a vulnerable glacial butterfly invader. *Biol. J. Linn. Soc.*, 101: 169–183.
- Deodati, T., D. CESARONI and V. Sbordoni. 2009. Molecular phylogeny, classification, and biogeographic origin of *Callerebia* and other related Sino-Himalayan genera (Insecta: Lepidoptera: Nymphalidae: Satyrinae) In Hartmann, M. (ed.) Biodiversity and natural heritage of the Himalaya III. p475-482.
- Sbordoni, V., G. Allegrucci and D. CESARONI. 2000. Population genetic structure, speciation and evolutionary rates in cave dwelling organisms. Chapter 24, pp. 453-477 In: H. Wilkens, D.C. Culver & W.F. Humphreys (Ed.s), "Subterranean Ecosystems", Ecosystems of the World 30. 2000 Elsevier, Amsterdam
- Villani, F., A. Sansotta, M. Cherubini, D. CESARONI and V. Sbordoni. 1999. Genetic structure of natural populations of *Castanea sativa* in Turkey: evidence of a hybrid zone. *J. Evol. Biol.* 12: 233-244.
- CESARONI D., F. Venanzetti, G. Allegrucci and V. Sbordoni, 1997. Mitochondrial DNA length variation and heteroplasmy in natural populations of the European sea bass, *Dicentrarchus labrax*. *Mol. Biol. Evol.*, 14: 560-568.
- CESARONI, D., P. Matarazzo, G. Allegrucci and V. Sbordoni. 1997. Comparing pattern of geographic variation in cave crickets by combining geostatistic methods and Mantel tests. *J. Biogeogr.*, 24: 419-431
- CESARONI, D., M. Lucarelli, P. Allori, F. Russo and V. Sbordoni. 1994. Patterns of evolution and multidimensional systematics in graylings (Lepidoptera: *Hipparchia*). *Biol. J. Linn. Soc.*, 52: 101- 119.
- Venanzetti, F., F. Cecconi, M. Giorgi, D. CESARONI, V. Sbordoni and P. Mariottini. 1994. Cloning and characterization of the European seabass, *Dicentrarchus labrax*, mitochondrial genome. *Curr. Genet.*, 26:139-145.
- Venanzetti, F., D. CESARONI, P. Mariottini and V. Sbordoni. 1993. Molecular phylogenies in *Dolichopoda* cave crickets and mtDNA rate calibration. *Mol. Phylogenetics Evol.*, 2: 275-280.
- CESARONI, D., G. Allegrucci and V. Sbordoni. 1992. A narrow hybrid zone between two crayfish species from a Mexican cave. *J. Evol. Biol.* 5: 643-659.
- Allegrucci, G., F. Baldari, D. CESARONI, R.S. Thorpe and V. Sbordoni. 1992. Morphometric analysis of interspecific and microgeographic variation of crayfish from a Mexican cave. *Biol. J. Linn. Soc.* 47: 455-468.
- Allegrucci, G., A. Caccone, D. CESARONI and V. Sbordoni. 1992. Evolutionary divergence in *Dolichopoda* cave crickets: a comparison of single copy DNA hybridization data with allozymes and morphometric distances. *J. Evol. Biol.*, 5: 121- 148.
- Sbordoni, V., G. Allegrucci and D. CESARONI. 1991. A multidimensional approach to the evolution and systematics of *Dolichopoda* cave crickets, p. 171-199. In: G.M. Hewitt et al. (eds.), "Molecular techniques in taxonomy", NATO ASI Series, Vol. H 57. Springer Verlag, Berlin, Heidelberg. 420pp
- CESARONI, D., G. Allegrucci, M.C. Angelici, T. Racheli and V. Sbordoni. 1989. Allozymic and morphometric analysis of populations in the *Zygaena purpuralis* complex (Lepidoptera, Zygaenidae). *Biol. J. Linn. Soc.*, 36:271-280
- Allegrucci, G., D. CESARONI and V. Sbordoni. 1987. Adaptation and speciation of *Dolichopoda* cave crickets (Orthoptera, Rhabdophoridae) geographic variation of morphometric indices and allozyme frequencies. *Biol. J. Linn. Soc.*, 31: 151-160.
- Sbordoni, V., G. Allegrucci, A. Caccone, G. Carchini and D. CESARONI. 1987. Microevolutionary studies in Dolichopodinae cave crickets. pp.514-540. In "Evolutionary Biology of Orthopteroid Insects", In: B. Baccetti (ed.), Horwood Ltd. Publ., Chichester, U.K
- CESARONI, D., G. Allegrucci, A. Caccone, M. Cobolli Sbordoni, E. De Mattheais, M. Di Rao and V. Sbordoni. 1981. Genetic variability and divergence between populations and species of *Nesticus* cave spiders. *Genetica*, 56: 81-92.
- Sbordoni, V., G. Allegrucci, A. Caccone, D. CESARONI, M. Cobolli Sbordoni and E. De Mattheais. 1981. Genetic variability and divergence in cave populations of *Troglophilus cavicola* and *T. andreinii* (Orthoptera, Rhabdophoridae). *Evolution*, 35: 226-233.