

Sara FRATINI, UNIFI Local Coordinator

Bibliographic sketch narrative (max. 300 words)

Sara Fratini graduated in Biological Science at the University of Florence, where, currently, she is Associate Professor of Zoology at the Department of Biology. Since her PhD in Animal Behavior at the University of Florence, she has been interested in studying ecology and behavior of intertidal and marine invertebrates, mainly mangrove crabs and mollusks. Currently, her research is mainly focused on phylogenetic, phylogeographic and population genetic studies of Mediterranean and Indo-Pacific fauna. In the last 10 years, she has devoted her skills in genetics and ecology to conservation of nature and natural resources through a multidisciplinary approach. Among the ecosystems she has been most interested in are mangrove forests, which is why she is an invited member of the Mangrove Specialist Group of the International Union for Conservation of Nature (IUCN) founded in 2013. Recently, her research activities include the application of metabarcoding and genomics to the study of the evolution of species-specific traits in non-model animal species and biodiversity monitoring through environmental DNA collection.

1	Family name	Fratini		
2	First name	Sara		
3	Place and Date of birth	Florence (Italy), 22/04/1970		
4	Nationality	Italian		
5	E-mail	sara.fratini@unifi.it		
6	Education / Professional studies			
	Dates (from-to)	Institution	Degree/diploma	
	1998-2000	University of Florence	PhD in Animal Behaviour (Ethology)	
	1990-1995	University of Florence	Bachelor's degree in biology	
7	Language skills Grade skill 1-5 (1 = basic, 5 = excellent, * = mother tongue)			
	Language	Speaking	Reading	Writing
	Italian	*	*	*
	English	4	4	4
8	Membership of professional bodies			
	IUCN SSC Mangrove Specialist Group			

	Italian Society of Evolutionary Biology Italian Society of Ethology		
9	Other Skills		
	2021, National Scientific Qualification for University Full Professor position, scientific line 05/B1 (in Zoology and anthropology). 2013 and 2020, National Scientific Qualification for University Associate Professor position, scientific line 05/B1 (in Zoology and Anthropology). 2015-2025, Delegate <u>Teaching activities</u>: Behavioral Ecology, Conservation of Nature, Wildlife Forensic Science, Molecular Ecology and Conservation Genetics, Animal Phylogeography <u>Research interests</u>: conservation biology and genetics, wildlife forensic science, functional ecology; evolutionary biology, population genetics and phylogeography, systematics, behavioural ecology, <u>Technical skills</u>: genetic and genomic techniques, statistical analyses of behavioural, ecological and genetic data Responsible for the Department of Biology, Univ. of Florence, of the Memorandum of Understanding for Academic Exchange and Cooperation with the King Mongkut's University of Technology Thonburi (Bangkok, Thailand) <u>Technology transfer</u>: 2015-2022, Promoting partner of the Spin-off Ecolgene (company aiming at the characterization of animal and microorganism genomes in the fields of zootechny, forensic genetic and environmental diagnostic). <u>Lecture</u> for the Honours Field Course in <i>Aquatic Biology</i>, Mngazana (Sud Africa), organised by the South African Institute for Aquatic Biodiversity, SAIAB, March 2017 <u>Lecture</u> of the course <i>Introduction to molecular ecology, conservation genetics and phylogeography</i> for the Erasmus Mundus Masters Course in <i>Developing Curricula for biodiversity monitoring and conservation in Tanzania</i> (coordinated by the University of Florence, Italy, 2021-2022,). <u>Lecture</u> at the "Regional Mangrove Monitoring Training Workshop for the Arabian Gulf", Abu Dhabi (United Arab Emirates), April 2025 Supervisor and co-supervisor of more than 30 university theses (bachelor, master), five PhD students and three post-Doc.		
10	Name of organisation currently working for and Present position in the organisation	Department of Biology, University of Florence Associate Professor	
11	Years with the organisation	Seven years	
12	Long-term experience in selected countries/territories		
	Country	Date	Details
	Hong Kong (China)	2015-2022	Visiting researchers for a total of not consecutive 24 months
13	Professional experience record		
	Location	Date	Organisation
1	Florence, Italy	2002-2011	University of Florence
	Position	Post-doc	
	Responsibilities	Research activities on various projects	
2	Florence, Italy	2011-2015	Italian Ministry of Education

	Position	Secondary School teacher (Biology and Chemistry)	
	Responsibilities	Teaching	
3	Florence, Italy	2015-2018	University of Florence
	Position	Post-doc	
	Responsibilities	Research activities on various projects	
4	Florence, Italy	2018-2025	University of Florence
	Position	Assistant Professor in Zoology	
	Responsibilities	Research, teaching, tutoring, and student supervision.	
14	Publications		
	Number of publications in peer-reviewed journals		
	87 (on scopus); 94 in total		
	10 publications that are most representative in the field of tropical biodiversity and ecosystems (in the last ten years)		
	1. 2025, H. Bravo, C.L. Cheng, S. Fratini, P. Jimenez., S. Cannicci. Benthic functional diversity as a valuable tool to identify vulnerable mangrove forests. <i>Ecological Indicators</i>, 179, 114225. doi.org/10.1016/j.ecolind.2025.114225. 2. 2023, G. Bacci, S. Fratini, N. Meriggi, C.L.Y. Cheng, K.H. Ng, M. Pindo, A. Iannucci, A. Mengoni. D. Cavalieri, S. Cannicci. Conserved organ-specific microbial assemblages in different populations of a terrestrial crab. <i>Front. Microb.</i>, doi.org/10.3389/fmicb.2023.1113617 3. 2021, H. Bravo, C. L. Y. Cheng, A. Iannucci, C. Natali, A. Quadros, M. Rhodes, M. M. L Yip, S. Cannicci, S. Fratini. A DNA barcode library for mangrove gastropods and crabs of Hong Kong and the Greater Bay Area reveals an unexpected faunal diversity associated with the intertidal forests of Southern China. <i>BMC Ecol. Evol</i> 21: 1-15. doi.org/10.1186/s12862-021-01914-6. 4. 2021, S. Cannicci, S. Y. Lee, H. Bravo, J. R. Cantera-Kintz, F. Dahdouh-Guebas, S. Fratini, M. Fusi, P. J. Jimenez, I. Nordhaus, F. Porri, K. Diele. A functional analysis reveals extremely low redundancy in global mangrove invertebrate fauna. <i>PNAS</i> 118, https://doi.org/10.1073/pnas.2016913118. 5. 2020, S Cannicci, S. Fratini, N. Meriggi, G. Bacci, A. Iannucci, A. Mengoni, D. Cavalieri. To the land and beyond: crab microbiomes as a paradigm for the evolution of terrestrialsation. <i>Front. Microb.</i> 11, doi: 10.3389/fmicb.2020.575372 6. 2020, A. Shahdadi, S. Fratini, C.D. Schubart. Taxonomic reassessment of <i>Parasesarma</i> (Crustacea: Brachyura: Decapoda: Sesarmidae) based on genetic and morphological comparisons, with the description of a new genus. <i>Zool. J. Linn. Soc.</i>, 90: 1123-1158, doi/10.1093/zoolinnean/zlaa025/5825211. 7. 2020, D.A. Friess, E.S. Yando G.M.O. Abuchahla, J.B. Adams, S.Cannicci, S.W.J. Canty, K.C. Cavanaugh, R.M. Connolly, N.Cormier, F. Dahdouh-Guebas, K. Diele, I.C. Feller, S. Fratini, T.C. Jennerjahn, S.Y. Lee, D.E. Ogurcak, X. Ouyang, K. Rogers, J. K. Rowntree, S. Sharma, T. M. Sloey, A.K.S. Wee. Mangroves give cause for conservation optimism, for now. <i>Current Biology</i>, 30: R135-R138. 8. 2019, S. Fratini, S. Cannicci, F. Porri G. Innocenti. Revision of the <i>Parasesarma guttatum</i> species complex reveals a new pseudocryptic species in south-east African mangroves. <i>Invertebr. Syst.</i>, 33: 208-224.		

	9. 2018, S. Cannicci, M. Fusi. F. Cimò, F. Dahdouh-Guebas, S. Fratini. Interference competition as a key determinant for spatial distribution of mangrove crabs. BMC Ecol. 18:8, https://doi.org/10.1186/s12898-018-0164-1 10. 2018, S. Fratini, S. Cannicci, C. D. Schubart. Molecular phylogeny of the crab genus <i>Metopograpsus</i> H. Milne Edwards, 1853 (Decapoda: Brachyura: Grapsidae) reveals high intraspecific genetic variation and distinct evolutionarily significant units. Invertebr. Syst., 32: 215-223.		
15	Number of conference presentations (between brackets invited contributions)		
	International : 61, National : 60 & Invited talks : 3		
16	Most important awards		
	Award	Award date	Issuing organisation
1			
2			