

Curriculum Vitae et Studiorum

Giuseppe BUCCIARELLI

Born in Firenze (Italy) the 5th of July, 1969

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Giuseppe is a biologist with more than ten years of research experience in molecular biology, fish population genetic, speciation, foreign species invasion and genome evolution. He lived on board his 6.7 meters yacht "Maruzza" for three years, between 2002 and 2005, sailing all over the Mediterranean Sea, from Corsica Island to the Suez Canal, ending up in the Middle East, where he spent several months traveling Syria, Lebanon and Israel. He spent the winter months of these years between North Africa, the Pacific Ocean, and the southern regions of Venezuela, where he explored the rivers and the cultures spreading along Orinoco river and Rio Negro river. Those inspiring experiences led him to film making.

EDUCATION

1992-1994 Master of Science in Animal Ecology: "Application of LOGIT models to the niche separation analysis between two co-occurring species of Echinoderma Echinoidea (*Arbacia lixula* and *Paracentrotus lividus*)". University of Florence, Italy, *cum laude*.

1989-1992 Enrolled at the College of Mathematical, Physical and Natural sciences (Universita' di Firenze), Bachelor's degree in Biological sciences, majoring in Ecology.

Specialization courses

1998 Marine Ecology, University of California, Santa Cruz
1997 Kelp Forest Ecology, University of California, Santa Cruz
1997 Ichthyology, University of California, Santa Cruz

2. AFFILIATIONS:

2007- present

Invited member of CEC (Commission for Education and Communication), IUCN (World Conservation Union).

3. RESEARCH:

2005- 2008 (May)

Genome organization, adaptation at high temperature and positive selection on two congeneric species of Mexican fishes, *Gillichthys seta* and *Gillichthys mirabilis*.
Stazione Zoologica "Dohrn", Naples, Italy.

November-December, 2004

Scientific SCUBA diver for NRAS-Conservation (Natural Resources Assessment Surveys) in collaboration with the College of the Marshall Islands (CMI) and the Marshall Islands Marine Resources Authority (MIMRA) in accomplishing the annual biodiversity coral reef assessment project (Majuro and Namu atolls).

June, 2002

Presentation at the "Molecular Evolution" meeting (Sorrento, Italy) titled "Inter-island genetic divergence in three Galapagos fish species." G. Bernardi, G. Bucciarelli and N. Crane

- June, 2001 Presentation at the 3rd Anton Dohrn Workshop "Fish Genomics: Structural and Functional Aspects" (Ischia, Italy) titled "GC-rich isochores in fishes adapted to high temperatures." G. Bucciarelli, G. Bernardi and G. Bernardi.
- March, 2001 Scientific collaboration with the University of California Santa Cruz (UCSC) on fish adaptation at high temperature (advisor: Prof. Giacomo Bernardi, UC Santa Cruz; Prof. Giorgio Bernardi, Stazione Zoologica "A. Dohrn", Naples, Italy).
- May, 2000 Scientific collaboration with the University of California Santa Cruz (UCSC) on Galapagos fish population genetic and vertebrates genome organization (advisor: Prof. Giacomo Bernardi, UC Santa Cruz; Prof. Giorgio Bernardi, Stazione Zoologica "A. Dohrn", Naples, Italy).
- 1997-1998 Visiting researcher at the University of California Santa Cruz, USA:
- fish population genetic, speciation and foreign species invasion.
 - field activity team leader on a Great White Shark (*Charcharodon charcharias*) ecology project. Field activity organization, shark radio tracking and shark tagging.
 - Scientific SCUBA diver on Kelp Forest ecology projects; algae and marine invertebrate collection.
 - Scientific SCUBA diver on Alaskan starfish taxonomy project.

4. JOBS:

2005– 2008 (May)

Hired by the Stazione Zoologica "Anton Dohrn" (Naples, Italy) as a researcher on vertebrates genome organization, evolution and adaptation of fish at high temperature using DNA and RNA manipulation techniques (DNA extraction, amplification, sequencing, hybridization and preparative/analytical ultra-centrifugation techniques, mRNA extraction, cDNA preparation and cloning and cDNA library screening).

2003 (December to March)

Hired by the Stazione Zoologica "Anton Dohrn" (Naples, Italy) as a researcher on vertebrate genome organization, evolution and adaptation of fish at high temperature.

1999 (December)-2002 (January)

Hired by the Stazione Zoologica "Anton Dohrn" (Naples, Italy) as a researcher on vertebrate genome organization and evolution.

1998-1999 Hired by BIOLINKSrl to work as a researcher at the Stazione Zoologica "ANTON DOHRN" (Naples, Italy) on vertebrate genome organization and evolution.

1998-2002 (February)

Editorial Assistant for the *Journal of Molecular Evolution* (Springer-Verlag New York, Inc.).

5. SCHOLARSHIPS

1997 Universita' degli Studi di Firenze, Italy, 12,000 US dollars.

6. PEER-REVIEWED PUBLICATIONS:

Giacomo BERNARDI, Marina RAMON, Yvette ALVA-CAMPBELL, John E McCOSKER, Giuseppe BUCCIARELLI, Lauren E GARSKE, Benjamin C VICTOR, Nicole CRANE
 "Darwin's fishes: Phylogeography of Galapagos Islands reef fishes"
 Bulletin of Marine Science; 2013; <http://dx.doi.org/10.5343/bms.2013.1036>

Giuseppe BUCCIARELLI, Domenico COSTAGLIOLA, Miriam De FILIPPO, Giacomo BERNARDI and Giorgio BERNARDI
 "Environmental genomics: a tale of two fishes"
 MOLECULAR BIOLOGY AND EVOLUTION; 2009; vol. 26; 1235-1243

Ernesto AZZURRO, Daniel GOLANI, Giuseppe BUCCIARELLI, Giacomo BERNARDI
 "Genetics of the early stages of invasion of the Lessepsian rabbitfish *Siganus luridus*"
 JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY; 2006; vol. 333, pp 190-201

Vera S. DOMINGUES, Giuseppe BUCCIARELLI, Vitor C. ALMADA and Giacomo BERNARDI
 "Historical colonization and demography of the Mediterranean damselfish, *Chromis chromis*"
 MOLECULAR ECOLOGY; 2005, vol. 14, pp 4051-4063

G. BERNARDI, G. BUCCIARELLI, D. COSTAGLIOLA, D.R. ROBERTSON, G.B. HEISER
 "Evolution of coral reef fish *Thalassoma* spp. (Labridae). Molecular phylogeny and biogeography"
 MARINE BIOLOGY; 2004, vol.144, pp369-375

CLAY, O., DOUADY, C., CARELS, N., HUGHES, S., BUCCIARELLI, G. and BERNARDI, G.
 "Using analytical ultracentrifugation to study compositional variation in vertebrate genomes."
 EUROPEAN BIOPHYSICS JOURNAL; 2003, vol. 32, pp 418-426

Giuliana de LUCA di ROSETO, Giuseppe BUCCIARELLI, Giorgio BERNARDI
 "An analysis of the genome of *Ciona intestinalis*"
 GENE; 2002, vol 295, pp 311-316

Giuseppe BUCCIARELLI, Giacomo BERNARDI, Giorgio BERNARDI
 "An ultracentrifugation analysis of two hundred fish genomes"
 GENE; 2002, vol. 295, pp153-162

Giuseppe BUCCIARELLI, Daniel GOLANI and Giacomo BERNARDI
 "Genetic cryptic species as biological invaders: the case of a Lessepsian fish migrant, the hardyhead silverside *Atherinomorus lacunosus*"
 JOURNAL of EXPERIMENTAL MARINE BIOLOGY and ECOLOGY; 2002, vol. 273, pp143-149

Astrid TERRY, Giuseppe BUCCIARELLI and Giacomo BERNARDI
 "Restricted gene flow and incipient speciation in disjunct Pacific Ocean and sea of Cortez population of a reef fish species, *Girella Nigricans*"
 EVOLUTION ; 2000; vol 54, pp.652-659,

Giacomo BERNARDI and Giuseppe BUCCIARELLI
 "Molecular phylogeny and speciation of Surfperches (Embiotocidae, Pesciformes)"
 MOLECULAR PHYLOGENETICS and EVOLUTION; October 1999, vol. 13, pp.77-81

Guido CHELAZZI, Gianluca SERRA and Giuseppe BUCCIARELLI
 "Zonal recovery after experimental displacement in two sea urchins co-occurring in the Mediterranean"
 JOURNAL of EXPERIMENTAL MARINE BIOLOGY and ECOLOGY; May 1997, 212 (1), pp.1-7

7. LANGUAGES

Mother tongue: ITALIAN

Other languages:	<u>speaking</u>	<u>reading</u>	<u>writing</u>
-ENGLISH	excellent	excellent	excellent
-SPANISH	excellent	good	basic

8. REFERENCES:

Prof. Giacomo Bernardi
Professor of Ichthyology
Dept of Ecology and Evolutionary Biology
University of California Santa Cruz
Long Marine Laboratory
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Santa Cruz, CA 95060
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