

## CV



## **Lorenzo Zane**

Born in Venice, Italy, 05/06/1970. Italian citizen.

Married, two kids.

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## Abstract

- Teacher of Ecology, Molecular Ecology, Population Ecology and Genetics of Marine Organisms.
- Awarded with the young researcher prize "Felice Ippolito" from the Accademia dei Lincei and the Italian Program for Research in Antarctica.
- Author of 78 papers on journals with Impact Factor, including *Nature*, *PNAS* and top journals of his field such as *Molecular Ecology*. Total IF more than 290, over 2500 citations on ISI journals, H index ISI = 20.
- The paper Zane et al. (*Mol Ecol* 2002) has been "Fast Breaking Paper" ISI in the field Environment/Ecology, with 1166 citations on March 2015.
- Reviewer for over 20 international journals and two International research foundations and MIUR. Top Reviewer for *Molecular Ecology* 2012 and 2014.
- PI or local PI of more than 10 National and International projects.

## Training

PhD in Evolutionary Biology (University of Padua, 2000).

Graduation *cum laude* in Biological Sciences (University of Padua, 1995).

## Positions

From March 2011: Associate professor in Ecology, University of Padua.

2001-2011. *Researcher in Ecology, University of Padua.*

2000-2001: *postdoc University of Padua;*

1999-2000: *postdoc University of Ferrara;*

1996-1999: *phD University of Padua;*

1995-1996: *mandatory National Service.*

## Research

LZ research is centered on the study of marine organisms by molecular markers. Research activity includes markers development, both at the genomic and transcriptomic level, and their application in studies ranging from molecular systematics to the study of mating systems of fish. Most of LZ studies have been, and are currently being, performed on populations, with a special focus on the inference of patterns of genetic structuring and on the estimation of the effective genetic population size and historical demography of marine organisms. Starting with the estimation of connectivity between populations, LZ recent research is currently moving to the integration of empirical genetic data in population modeling approaches to achieve a better comprehension of the relative importance of recent evolutionary events (paleoclimatic changes, biogeographic events) *versus* contemporary factors (current mediated larval dispersal, population size drops due to global changes or human harvesting) in shaping intra-specific patterns of genetic diversity.

Current research lines are:

- *Differentiation and connectivity among populations of Antarctic marine organisms (Chaenocephalus aceratus, Pleuragramma antarctica, Chionodraco spp., Euphausia superba).*
- *Differentiation and connectivity in estuarine and coastal organisms (Carcinus aestuarii, Chamelea gallina).*
- *Conservation genetics and ecology of the European eel.*
- *Transcriptomics and environmental genomics of non-model organisms.*
- *Population genetics, historical and contemporary processes in commercial fish species (Thunnus thynnus, Diplodus sargus sargus, Scomber scomber).*
- *Estimates of genetic connectivity among relevant organisms of marine protected areas and bioconstructions.*

## Research keywords

Fish, Fishery, Marine organisms, Antarctic, Genetic connectivity among populations, Effective population size, Historical and contemporary demography, High throughput sequencing, Gene expression profiling

## Teaching

LZ, starting from 2002 held classes of general and specialized content (**Table 1**) for more than 1300 hours. LZ supervised more than 30 graduate students and five PhD students.

**Table 1. Summary of the teaching activity (translated from Italian, alphabetical order)**

Course	Degree	Hours	A.A. <sup>1</sup>
<i>Ecology</i>	<i>FL Biology</i> <sup>2</sup>	56	2009/2010
<i>Ecology</i>	<i>FL Biotechnologies</i>	32	2005/2006
		32	2004/2005
		32	2003/2004
		32	2002/2003
<i>Ecology</i>	<i>FL Molecular Biology</i>	24	2003/2004
		24	2002/2003
<i>Ecology</i>	<i>FL Natural Sciences</i>	<b>36</b>	<b>2014/2015</b>
		36	2013/2014
<i>Ecology</i>	<i>SL Science and Technology for the Environment and Territory</i> <sup>3</sup>	10	2007/2008
		10	2006/2007
		10	2005/2006
<i>Elements of demography and molecular ecology of marine organisms, former "Ecology and Population Genetics"</i>	<i>SL Marine Biology</i>	<b>48+16</b>	<b>2014/2015</b>
		48+16	2013/2014
		48+16	2012/2013
		48+16	2011/2012
		48+16	2010/2011
		48+16	2009/2010
		48+16	2008/2009
<i>General Ecology</i>	<i>FL Science and Technology for the Environment</i>	<b>24*</b>	<b>2014/2015</b>
		48+24	2013/2014
		48+24	2012/2013
		48+24	2011/2012
<i>Molecular Ecology</i>	<i>SL Science and Technology for the Environment and Territory</i>	32	2011/2012
		32	2010/2011
		32	2009/2010
		32	2008/2009
<i>Phylogeography</i>	<i>SL Evolutionary Biology</i>	32	<b>2013/2014</b>
		32	2012/2013
<i>Population Biology</i>	<i>SL Evolutionary Biology</i>	32 + 16	2006/2007
<i>Population Ecology (laboratory)</i>	<i>FL Science and Technology for the Environment</i>	36	2003/2004
		36	2002/2003
<i>Population Ecology</i>	<i>SL Marine Biology</i>	48	2007/2008
		48	2006/2007
		48	2005/2006
		56	2004/2005
<i>Sustainable Yield Models</i>	<i>Master in "Evaluation and management of Marine Resources"</i>	24	2003/2004
		24	2002/2003

<sup>1</sup>A.A.= Academic Year: October 1<sup>st</sup> to September 30<sup>th</sup>.

<sup>2</sup>FL = First Level degree: three year program.

<sup>3</sup>SL = Second Level degree: additional two years program to access Master and PhD programs.

\*Exercises part only

## Activity abroad

**January 1997 - July 1997:** visitor student in J.C. Avise lab, University of Georgia, Athens, GA (USA). Isolation and application of microsatellites in the peccid *Gambusia holbrooki*.

**November 1997 - December 1997:** research activity in Antarctica. *Geneflow cruise*, British Antarctic Survey.

**February 2002 - March 2002:** research activity in Antarctica. *ANTXIX/3 cruise* Alfred Wegener Institut für Polar und Meeresforschung.

## Prizes

**July 2004:** awarded with the prize "**Felice Ippolito**" from Accademia dei Lincei and the Italian Program for Research in Antarctica to young researchers for research activity in Antarctica.

## Research projects

**1995-2007:** member of the Padova Research Unit of the Italian program for Research in Antarctica.

**2002-2015:** local grants from Padova University (ex60%).

**2001:** young researcher grant from Padova University. Title: "Messa a punto di metodologie molecolari per l'identificazione genetica di specie di acipenseridi utilizzate in acquacoltura e nel ripopolamento".

**2003:** tutor for post-doc project. Title: "Caratterizzazione genetica dello storione cobice, *Acipenser naccarii*".

**2003:** participation to EEC project "Determining the genetic sex in sturgeon: application in the production of caviar" (CRAFT – 1999 - 72183).

**2004:** young researcher grant from Padova University: "Studio del sistema d'accoppiamento e delle strategie riproduttive di *Zosterisessor ophiocephalus* (Gobiidae, Perciformes), mediante marcatori microsatellite"

**2004:** PI for the research line "Bioindicatori genetici, indici di popolazione e condizioni ambientali" all'interno del progetto "Indicatori ed indici di qualità ambientale per la laguna di Venezia" from "Consorzio per la gestione del centro di coordinamento delle attività di ricerca inerenti il sistema lagunare di Venezia (CORILA)."

**2005:** tutor for post-doc project. Title: "Time/space patterns of microsatellite DNA variabilità in the Southern Ocean krill (*Euphausia superba*) and some of its Notothenioid predators."

**2006:** local PI for the project "Population genetics of the European Eel (*Anguilla anguilla*) with EST-linked microsatellites"; Italian Ministry for University and Research PRIN2006.

**2007:** Marine Genomics Europe consumable grant.

**2008:** local grant "Linking environment to genes. Genomic and transcriptomic response to pollution and parasitism in the endangered European eel."

**2008:** tutor for post-doc project. "A transcriptomic approach for investigating molecular mechanisms of cold adaptation in Antarctic fish (Perciformes, Notothenioidea)."

**2009:** responsible for genetic analyses in "Progetto CLODIA: interventi di formazione ambientale e riconversione della pesca per lo sviluppo sostenibile degli ambienti costieri", PI Maria Berica Rasotto, Veneto Region.

**2010:** local PI for the project "Genetic estimates of population connectivity in white seabream (*Diplodus sargus sargus*) populations at two different geographic scales." Italian Ministry for University and Research PRIN2008.

**2012:** task leader, on behalf of CONISMA, in the project "Towards COast to COast NETWORKS of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential" FP7-Environment project ref. #287844.

**2013:** local PI for the project "Biocostruzioni costiere: struttura, funzione, e gestione"; Italian Ministry for University and Research PRIN2010.

**2015:** local grant "Implementing Population Genomics of non-model marine

species to enhance identification and characterization of Sites of Community Importance (SCI)".

## Other

Reviewer for: Proceedings of Royal Society London: Biological Sciences, Marine Ecology Progress Series, Marine Biology, Journal of Applied Ichthyology, Heredity, Molecular and General Genetics, Transactions of the American Fisheries Society, Journal of Sea Research, Scientia Marina, Molecular Ecology Resources, Molecular Ecology, Canadian Journal of Fisheries and Aquatic Sciences, Crustaceana, Estuarine and Coastal Shelf Science, Deep Sea Research II, Genetica, PLoS ONE, BMC Evolutionary Biology, Biological Invasions, Marine Genomics, Nature Communications, Hydrobiologia.

Top Reviewer for Molecular Ecology 2012 and 2014.

Academic Editor for PLoS ONE since 2014.

Referee for proposals of National Science Foundation (USA), New Zealand Antarctic program and for the Italian Ministry of University and Research (MIUR).

## ISI articles

### **Selected ISI articles on Antarctic species**

\*corresponding author

1. Agostini C, Patarnello T, Ashford JR, Torres JJ, Zane L\*, Papetti (2015). Genetic differentiation in the ice-dependent fish *Pleuragramma antarctica* along the Antarctic Peninsula. *Journal of Biogeography*, early view, DOI: 10.1111/jbi.12497.
2. Agostini C, Papetti C, Patarnello T, Mark FC, Zane L\*, Marino IAM (2013). Putative selected markers in the *Chionodraco* genus detected by interspecific outlier tests. *Polar Biology* 36(10):1509-18.
3. Marino IAM, Benazzo A, Agostini C, Mezzavilla M, Hoban SM, Patarnello T, Zane L\*, Bertorelle G (2013). Evidence for past and present hybridization in three Antarctic icefish species provides new perspectives on an evolutionary radiation. *Molecular Ecology* 22(20):5148-5161.
4. Coppe A<sup>+</sup>, Agostini C<sup>+</sup>, Marino IAM, Zane L, Bargelloni L, Bortoluzzi S, Patarnello T (2013). Genome evolution in the cold: Antarctic icefish muscle transcriptome reveals selective duplications increasing mitochondrial function. *Genome Biology and Evolution* 5(1):45-60.<sup>+</sup>Equally contributing
5. Papetti C, Pujolar JM, Mezzavilla M, La Mesa M, Rock J, Patarnello T, Zane L (2012). Population genetic structure and gene flow patterns between populations of the Antarctic icefish *Chionodraco rastrospinosus*. *Journal of Biogeography* 39:1361-1372, doi: 10.1111/j.1365-2699.2011.02682.x
6. Near TJ, Dornburg A, Kuhn KL, Eastman JT, Pennington JN, Patarnello T, Zane L, Fernandez DA, Jones CD (2012). Ancient climate change, antifreeze, and the evolutionary diversification of Antarctic fishes. *Proceedings of the National Academy of Sciences, USA* 109:3434-3439, doi: 10.1073/pnas.1115169109
7. Mark FC, Lucassen M, Strobel A, Barrera-Oro E, Koschnick N, Zane L, Patarnello T, Portner HO, Papetti C (2012). Mitochondrial Function in Antarctic Nototheniids with ND6 Translocation. *PLOS ONE* 7:e31860, doi: 10.1371/journal.pone.0031860
8. Papetti C, Marino IAM, Agostini C, Bisol PM, Patarnello T, Zane L (2011). Characterization of novel microsatellite markers in the Antarctic silverfish *Pleuragramma antarcticum* and cross species amplification in other Notothenioidei. *Conservation Genetics Resources* 3:259-262, doi: 10.1007/s12686-010-9336-9
9. Patarnello T, Verde C, Di Prisco G, Bargelloni L, Zane L (2011). How will fish that evolved at constant sub-zero temperatures cope with global warming? Notothenioids as a case study. *Bioessays* 33:260-268, doi: 10.1002/bies.201000124

10. Bortolotto E, Bucklin A, Mezzavilla M, Zane L, Patarnello T (2011). Gone with the currents: lack of genetic differentiation at the circum-continental scale in the Antarctic krill *Euphausia superba*. *BMC Genetics* 12:32, doi: 10.1186/1471-2156-12-32
11. Papetti C, Susana E, Patarnello T, Zane L (2009). Spatial and temporal boundaries to gene flow between *Chaenocephalus aceratus* populations at South Orkney and South Shetlands. *Marine Ecology Progress Series* 346:269-281.
12. Papetti C, Susana E, La Mesa M, Kock KH, Patarnello T, Zane L (2007). Microsatellite analysis reveals genetic differentiation between year-classes in the icefish *Chaenocephalus aceratus* at South Shetlands and Elephant Island. *Polar Biology* 30:1605-1613..
13. Susana E, Papetti C, Barbisan F, Bortolotto E, Buccoli S, Patarnello T, Zane L (2007). Isolation and characterization of eight microsatellite loci in the icefish *Chaenocephalus aceratus* (Perciformes, Notothenioidea, Channichthyidae). *Molecular Ecology Notes* 7:791-793.
14. Papetti C, Zane L, Patarnello T (2006) Isolation and characterization of microsatellite loci in the icefish *Chionodraco rastrospinosus* (Perciformes, Notothenioidea, Channichthyidae). *Molecular Ecology Notes* 6 (1): 207-209.
15. Zane L, Marcato S, Bargelloni L, Bortolotto E, Papetti C, Simonato M, Varotto V, Patarnello T (2006). Demographic history and population structure of the Antarctic silverfish *Pleuragramma antarcticum*. *Molecular Ecology* 15 (14): 4499-4511.
16. Patarnello T, Marcato S, Zane L, Varotto V, Bargelloni L (2003). Phylogeography of the *Chionodraco* genus (Perciformes, Channichthyidae) in the Southern Ocean. *Molecular Phylogenetics and Evolution* 28: 420-429.
17. Bargelloni L, Zane L, Derome N, Lecointre G and Patarnello T (2000). Molecular zoogeography of Antarctic euphausiids and notothenioids: from species phylogenies to intraspecific patterns of genetic variation. *Antarctic Science* 12: 259-268.
18. Bargelloni L, Marcato S, Zane L and Patarnello T (2000). Mitochondrial phylogeny of notothenioids: a molecular approach to Antarctic fish evolution and biogeography. *Systematic Biology* 9 (1): 114-129.
19. Zane L, Patarnello T (2000). Krill: a possible model for investigating the effects of ocean currents on the genetic structure of a pelagic invertebrate. *Canadian Journal of Fisheries and Aquatic Sciences* 57: 16-23.
20. Zane L, Ostellari L, Maccatrozzo L, Bargelloni L, Battaglia B, and Patarnello T (1998). Molecular evidence for genetic subdivision of Antarctic krill (*Euphausia superba* DANA) populations. *Proceedings of the Royal Society, London: Biological Sciences* 265: 2387-2391.

#### **Other ISI articles**

21. Marino IAM, Riginella E, Cariani A, Tinti F, Farrell ED, Mazzoldi C, Zane L (2015). New Molecular Tools for the Identification of 2 Endangered Smooth-Hound Sharks, *Mustelus mustelus* and *Mustelus punctulatus*. *Journal of Heredity* 106 (1): 123-130
22. Schiavina M, Marino IAM, Zane L\*, Melià P (2014). Matching oceanography and genetics at the basin scale. Seascape connectivity of the Mediterranean shore crab in the Adriatic Sea. *Molecular Ecology* 23 (22), 5496-5507
23. Churcher AM, Pujolar JM, Milan M, Hubbard PC, Martins RST, Saraiva JL, Huertas M, Bargelloni L, Patarnello T, Marino IAM, Zane L, Canário AVM (2014). Changes in the gene expression profiles of the brains of male European eels (*Anguilla anguilla*) during sexual maturation. *BMC Genomics* 15 (1), 799
24. Aglieri G, Papetti C, Zane L, Milisenda G, Boero F, Piraino S (2014). First

- Evidence of Inbreeding, Relatedness and Chaotic Genetic Patchiness in the Holoplanktonic Jellyfish *Pelagia noctiluca* (Scyphozoa, Cnidaria). *PLoS One* 9(6): e99647.
25. Polgar G, Zane L, Babbucci M, Barbisan F, Patarnello T, Rüber L, Papetti C (2014). Phylogeography and demographic history of two widespread Indo-Pacific mudskippers (Gobiidae: *Periophthalmus*). *Molecular Phylogenetics and Evolution* 73(1):161-176.
  26. Pujolar JM, Schiavina M, Di Franco A, Melià P, Guidetti P, Gatto M, De Leo GA, Zane L (2013). Understanding the effectiveness of marine protected areas using genetic connectivity patterns and Lagrangian simulations. *Diversity and Distributions* 19(12):1531-1542.
  27. Agostini C, Albaladejo RG, Aparicio A, ... Zane L, Zhang S-W (2013). Permanent genetic resources added to Molecular Ecology Resources database 1 April 2013-31 May 2013. *Molecular Ecology Resources* 13(5):966-968.
  28. Pujolar JM, Jacobsen MW, Frydenberg J, Als TD, Larsen PF, Maes GE, Zane L, Jian JB, Cheng L, Hansen MM (2013). A resource of genome-wide single-nucleotide polymorphisms generated by RAD tag sequencing in the critically endangered European eel. *Molecular Ecology Resources* 13(4):706-714.
  29. Pujolar JM, Milan M, Marino IAM, Capoccioni F, Ciccotti E, Belpaire C, Covaci A, Malarvannan G, Patarnello T, Bargelloni L, Zane L\*, Maes GE (2013). Detecting genome-wide gene transcription profiles associated with high pollution burden in the critically endangered European eel. *Aquatic Toxicology* 132-133:157-164.
  30. Papetti C, Di Franco A, Zane L, Guidetti P, De Simone V, Spizzotin M, Zorica B, Keč VC, Mazzoldi C (2013). Single population and common natal origin for Adriatic *Scomber scombrus* stocks: Evidence from an integrated approach. *ICES J Mar Sci* 70(2):387-398.
  31. Di Franco A, Coppini G, Pujolar JM, de Leo GA, Gatto M, Lyubartsev V, Melià P, Zane L, Guidetti P (2012). Assessing dispersal patterns of fish propagules from an effective Mediterranean marine protected area. *PLoS ONE* 7(12):e52108. doi: 10.1371/journal.pone.0052108
  32. Pujolar JM, Marino IAM, Milan M, Coppe A, Maes GE, Capoccioni F, Ciccotti E, Bervoets L, Covaci A, Belpaire C, Cramb G, Patarnello T, Bargelloni L, Bortoluzzi S, Zane L (2012). Surviving in a toxic world: Transcriptomics and gene expression profiling in response to environmental pollution in the critically endangered European eel. *BMC Genomics* 13:507. doi:10.1186/1471-2164-13-507
  33. Coppe A, Bortoluzzi S, Murari G, Marino IAM, Zane L\*, Papetti C (2012). Sequencing and characterization of striped venus transcriptome expand resources for clam fishery genetics. *PLOS ONE* 7:e44185, doi: 10.1371/journal.pone.0044185.
  34. Pujolar JM, Locatello L, Zane L\*, Mazzoldi C (2012). Body Size Correlates with Fertilization Success but not Gonad Size in Grass Goby Territorial Males. *PLOS ONE* 7: e46711, doi: 10.1371/journal.pone.0046711
  35. Pujolar JM, Zane L, Congiu L (2012). Phylogenetic relationships and demographic histories of the Atherinidae in the Eastern Atlantic and Mediterranean Sea re-examined by Bayesian inference. *Molecular Phylogenetics and Evolution* 63:857-865, doi: 10.1016/j.ympev.2012.02.027
  36. Arias MC, Arnoux E, ..., Zane L, Zannato B, Zemlak TS, Zhang CX, Zhao Y, Zhou X, Zhu LL (2012). Permanent Genetic Resources added to Molecular Ecology Resources Database 1 December 2011-31 January 2012. *Molecular Ecology Resources* 12:570-572, doi:10.1111/j.1755-0998.2012.03133.x
  37. Marino IAM, Pujolar JM, Zane L (2011). Reconciling Deep Calibration and Demographic History: Bayesian Inference of Post Glacial Colonization

- Patterns in *Carcinus aestuarii* (Nardo, 1847) and *C. maenas* (Linnaeus, 1758). *PLOS ONE* 6: e28567, doi: 10.1371/journal.pone.0028567
38. Agostini C, Agudelo PA, Ba K, Barber PA, Bisol P, ... , ... , ... Zane L, Zhu L, Zhuang Z-M, Zulahia AR (2011). Permanent Genetic Resources added to Molecular Ecology Resources Database 1 October 2010–30 November 2010. *Molecular Ecology Resources* 11:418-421, doi: 10.1111/j.1755-0998.2010.02970.x
  39. Pujolar JM, Bevacqua D, Andrello M, Capoccioni F, Ciccotti E, De Leo GA, Zane L (2011). Genetic patchiness in European eel adults evidenced by molecular genetics and population dynamics modelling. *Molecular Phylogenetics and Evolution* 58:198-208, doi: 10.1016/j.ympev.2010.11.019
  40. Pujolar JM, Bevacqua D, Capoccioni F, Ciccotti E, De Leo GA, Zane L (2011). No apparent genetic bottleneck in the demographically declining European eel using molecular genetics and forward-time simulations. *Conservation Genetics* 12: 813-825, doi: 10.1007/s10592-011-0188-y
  41. Pujolar JM, Vincenzi S, Zane L, Jesenenk D, DeLeo GA, Crivelli AJ (2011) The Effect of Recurrent Floods on Genetic Composition of Marble Trout Populations. *PLOS ONE* 6: e23822, doi: 10.1371/journal.pone.0023822.
  42. Coppe A, Pujolar JM, Maes GE, Larsen PF, Hansen MM, Bernatchez, L, Zane L, Bortoluzzi S (2010). Sequencing, de novo annotation and analysis of the first *Anguilla anguilla* transcriptome: EelBase opens new perspectives for the study of the critically endangered European eel. *BMC Genomics* 11:635. doi:10.1186/1471-2164-11-635.
  43. Zane L, Papetti C, Patarnello T (2010). Genetics of Northern krill. *Advances in Marine Biology* 57:41-57.
  44. Pujolar JM, Marčeta T, Saavedra C, Bressan M, Zane L (2010). Inferring the demographic history of the Adriatic *Flexopecten* complex. *Molecular Phylogenetics and Evolution* 57: 942-947.
  45. Babbucci M, Buccoli S, Cau A, Cannas R, Goni R, Diaz D, Marcato S, Zane L, Patarnello T (2010). Population structure, demographic history, and selective processes: Contrasting evidences from mitochondrial and nuclear markers in the European spiny lobster *Palinurus elephas* (Fabricius, 1787). *Molecular Phylogenetics and Evolution* 56: 1040-1050.
  46. Marino IAM, Barbisan F, Gennari M, Giomi F, Beltramini M, Bisol PM, Zane L (2010). Genetic heterogeneity in populations of the Mediterranean shore crab, *Carcinus aestuarii* (Decapoda, Portunidae), from the Venice Lagoon. *Estuarine, Coastal and Shelf Science* 87:135-144.
  47. Riccioni G, Landi M, Ferrara G, Milano I, Cariani A, Zane L, Sella M, Barbujani G, Tinti F (2010). Spatio-temporal population structuring and genetic diversity retention in depleted Atlantic Bluefin tuna of the Mediterranean Sea. *Proceedings of the National Academy of Sciences, USA* 107: 2102-2107.
  48. Pujolar JM, Bevacqua D, Capoccioni F, Ciccotti E, De Leo GA, Zane L (2009). Genetic variability is unrelated to growth and parasite infestation in natural populations of the European eel (*Anguilla anguilla*). *Molecular Ecology* 18: 4604-4616.
  49. Kerdelhue C and Zane L (equally contributing), Simonato M, Salvato P, Rousselet J, Roques A, Battisti A (2009). Quaternary history and contemporary patterns in a currently expanding species. *BMC Evolutionary Biology*. Doi: 10.1186/1471-2148-9-220 Highly accessed BioMed Central 2009.
  50. Pujolar JM, De Leo GA, Ciccotti E, Zane L (2009). Genetic composition of Atlantic and Mediterranean recruits of European eel *Anguilla anguilla* based on EST-linked microsatellite loci. *Journal of Fish Biology* 74: 2034-2046.
  51. Pujolar JM, Maes GE, Van Houdt JKJ, Zane L (2009). Isolation and characterization of EST-linked microsatellite loci for the European Eel

- (*Anguilla anguilla*). *Molecular Ecology Resources* 9: 233-235.
52. Baratti M, Filippelli M, Messina G, Papetti C, Patarnello T, Zane L (2009). Characterization of polymorphic microsatellite loci in the marine isopod *Sphaeroma terebrans*. (Crustacea, Isopoda). *Molecular Ecology Resources* 9: 1229-1231.
  53. Hoareau TB, Barbisan F, Dubois S, Zane L, Berrebi P (2009). Polymorphic microsatellite loci in the widespread amphidromous goby *Sicyopterus lagocephalus* and cross-genus amplification among Sicydiinae. *Molecular Ecology Resources* 9:607-609.
  54. Fratini S, Zane L, Ragionieri L, Tannini M, Cannicci M. (2008). Relationship between heavy metal and arsenic accumulation and genetic variability decrease in the intertidal crab *Pachygrapsus marmoratus*.(Decapoda; Grapsidae). *Estuarine, Coastal and Shelf Science* 79:679-686.
  55. Marino IAM, Barbisan F, Gennari M, Bisol PM, Zane L (2008). Isolation and characterization of microsatellite loci in the Mediterranean shore crab *Carcinus aestuarii* (Decapoda, Portunidae). *Molecular Ecology Resources*. 8: 370-372.
  56. Zane L (2007). Adaptive peaks in a flat-fish. *Heredity*. 99:565-566.
  57. Simonato M, Mendel Z, Kerdelhue C, Rousselet J, Magnoux E, Salvato P, Roques A, Battisti A, Zane L (2007). Phylogeography of the pine processionary moth *Thaumetopoea wilkinsoni* in the Near East *Molecular Ecology* 16:2273-2283
  58. Bisol PM, Gallini A, Prevedello S, Rianna E, Bernardinelli E, Franco A, Zane L (2007). Low variation at allozyme loci and differences between age classes at microsatellites in grass goby (*Zosterisessor ophiocephalus*) populations. *Hydrobiologia* 577: 151-159.
  59. Fratini, S; Ragionieri, L; Papetti, C; Pitruzzella, G; Rorandelli R, Barbaresi S, Zane L (2006). Isolation and characterization of microsatellites in *Pachygrapsus marmoratus* (Grapsidae; Decapoda; Brachyura). *Molecular Ecology Notes* 6 (1): 179-181.
  60. Berrebi P, Lasserre B, Barbisan F, Zane L (2006). Isolation of microsatellite loci and cross-species amplifications in three gobiid fish of the genus *Pomatoschistus*. *Molecular Ecology Notes* 6 (3): 724-727.
  61. Wuertz S, Gaillard S, Barbisan F, Carle S, Congiu L, Forlani A, Aubert J, Kirschbaum F, Tosi E, Zane L, Grillasca JP (2006). Extensive screening of sturgeon genomes by techniques revealed no sex-specific random screening marker. *Aquaculture* 258 (1-4): 685-688.
  62. Babbucci M, Zane L, Andaloro F, Patarnello T (2006). Isolation and characterization of microsatellite loci from yellowtail *Seriola dumerilii* (Perciformes : Carangidae). *Molecular Ecology Notes* 6 (4): 1126-1128.
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In faith,

  
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