

CURRICULUM VITAE

Personal Information

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1. Studies

2006-2010: Biology Degree (B.Sc.), Department of Biology, University of Crete, (Grade 7.94/10).

2010-2012: Master's Degree (M.Sc.) in the program “Environmental Biology - Management of Terrestrial and Marine Biological Resources”, Department of Biology, University of Crete (Grade 9.67/10).

2012-2017: Philosophiae Doctor (Ph.D.), Department of Biology, University of Crete.

2017-Present: Postdoctorate fellow in the Ancient DNA Lab, Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology – Hellas (FORTH) (Collaboration with Dr. Dimitris Kafetzopoulos).

2. Dissertations – Theses

2.1. Psonis N. (2010). Incorporation of genetic data in the biogeographical species-area relationship - a first approach. B.Sc. dissertation, Department of Biology, University of Crete [Supervisor: As. Prof. Nikos Poulakakis], (in Greek with an English abstract).

2.2. Psonis N. (2012). Molecular Phylogeny and Phylogeography of the two “close related” snail genera *Helicigona* & *Campylaea* (Gastropoda: Pulmonata) in Greece. M.Sc. dissertation, Department of Biology, University of Crete [Supervisor: As. Prof. Nikos Poulakakis], (in Greek with an English abstract, available at: <https://elocus.lib.uoc.gr/dlib/4/7/7/metadata-dlib-1352288746-953323-13067.tkl>).

3.3. Psonis N. (2017). Molecular Phylogenetics and Phylogeography of the «*Podarcis tauricus*» (Sauria: Lacertidae) species subgroup. Ph.D. thesis, Department of Biology, University of Crete [Supervisor: As. Prof. Nikos Poulakakis], (in Greek with an English abstract, available at: <https://elocus.lib.uoc.gr/dlib/d/4/b/metadata-dlib-1487666619-178524-24583.tkl>).

3. Excellence awards fellowships

- 3.1.** Excellence prize (ANEK corp.) during my first year of master graduate studies (2010/2011) in the Biology Department of the University of Crete.
- 3.2.** Academic Excellence Studentship (State Scholarships Foundation) during my second year of master graduate studies (2011/2012) in the Biology Department of the University of Crete.
- 3.3.** 2nd prize for the best poster at the 12o International Congress on the Zoogeography, Ecology and Evolution of Eastern Mediterranean (12th ICZEGAR), 18-22 June 2012, Athens, Greece.
- 3.4.** Academic Excellence Studentship (Manassaki Foundation) during my first year of doctorate studies (2012/2013) in the Biology Department of the University of Crete.

4. Publications in conference proceedings

- 4.1. Psonis, N.,** Vardinoyannis, K., Mylonas, M., Poulakakis, N. (2011). Incorporation of Genetic Diversity in the Species-Area Relationship: a first approach. *Proceedings of the 5th Biennial Conference of the International Biogeography Society*, [p.175](#), Heraklion, Crete, Greece, 7-11 January.
- 4.2.** Mylonas, M., Vardinoyannis, K., Demetropoulos, S., **Psonis, N.**, Demetropoulos, A. (2011). The genus *Turanena* (Gastropoda: Enidae) in the Eastern Mediterranean islands. *Proceedings of the 6th Congress of the European Malacological societies*, Vitoria-Gasteiz, Spain, 18-22 July.
- 4.3. Psonis N.,** Vardinoyannis K., Mylonas M. & Poulakakis N. (2012) Molecular Phylogeny of *Helix cincta* (Muller, 1774) and *Helix nucula* (Mousson, 1854) in the eastern Mediterranean. *Proceedings of the 12th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions*, [p.129](#), Athens, Greece, 18-22 June.
- 4.4. Psonis N.,** Vardinoyannis K., Mylonas M. & Poulakakis N. (2012) Molecular phylogeny of the two “close related” snail genera *Helicigona* & *Campylaea* (Gastropoda: Pulmonata) in Greece. *Proceedings of the 12th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions*, [p.128](#), Athens, Greece, 18-22 June.
- 4.5. Psonis N.,** Kukushkin V.O., Petrov B., Crnobrnja – Isailović J., Gherghel I., Lymberakis P. & Poulakakis N. (2013) Phylogeny and phylogeography of the *Podarcis tauricus* group; insights from mitochondrial and nuclear data. *Proceedings of the SEH 17th European Congress of Herpetology*, [p.157](#), Veszprém, Hungary, 22-27 August.
- 4.6. Psonis N.,** Antoniou A., Kukushkin O.V., Petrov B., Crnobrnja – Isailović J, Gherghel I., Jablonski D., Lymberakis P & Poulakakis N. (2014) Molecular Phylogeny and phylogeography of the *Podarcis tauricus* group (Sauria, Lacertidae). *Proceedings of the 7th Hellenic Ecological Congress*, [p.174](#), Mytilini, Greece, 9-12 October, [In Greek].
- 4.7. Psonis N.,** Dimopoulou A., Kapli P., Lymberakis P., Nikolaou C. & Poulakakis N. (2013) The genetic differentiation of the endemic *Hierophis cypriensis* (Squamata: Colubridae) in Cyprus. *Proceedings of the 7th Hellenic Ecological Congress*, [p.277](#), Mytilini, Greece, 9-12 October, [In Greek].

4.8. Psonis N., Dimopoulou A., Lymberakis P., Blosat B., & Poulakakis N. (2014) Study of the genetic diversity of *Natrix natrix* (Squamata: Colubridae) in Cyprus. *Proceedings of the 7th Hellenic Ecological Congress*, [p.278](#), Mytilini, Greece, 9-12 October, [In Greek].

4.9. Psonis N., Antoniou A., Kukushkin V.O., Petrov B., Crnobrnja – Isailović J., Gherghel I., Jablonski D., Lymberakis P. & Poulakakis N. (2015) Investigating the phylogeography and population structure of the *Podarcis tauricus* group. *Proceedings of the 7th Biennial Conference of the International Biogeography Society*, [p.179](#), Bayreuth, Germany, 8-12 January.

4.10. Psonis N., Karameta E., Antoniou A., Kotsakiozi P., Sagonas K., Lymberakis P., Pavlidis P., Stamatakis A. & Poulakakis N. (2015) Molecular Phylogeny of the Balkan *Podarcis* (Sauria, Lacertidae) using ddRAD-tag genomic data. *Proceedings of the 13th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions*, [p.72](#), Heraklion, Crete, Greece, 07-11 October.

4.11. Kotsakiozi P., Antoniou A., Karameta E., **Psonis N.**, Sagonas K., Lymberakis P., Pavlidis P., Stamatakis A. & Poulakakis N. (2015) Phylogeography of the *Mediodactylus kotschy* (Reptilia: Gekkonidae) in the Eastern Mediterranean region using ddRAD-tag genomic data. *Proceedings of the 13th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions*, [p.57](#), Heraklion, Crete, Greece, 07-11 October.

4.12. Spilani L., Bougiouri K., Antoniou A., Lymberakis P., **Psonis N.** & Poulakakis N. (2016) Molecular Systematics and Species Delimitation of *Podarcis cretensis*, *P. lewendis* and *P. peloponnesiacus* of the south Aegean region. *Proceedings of the 9th Symposium on the Lacertids of the Mediterranean Basin & 1st Symposium on Mediterranean Lizards*, [p.36](#), Limassol, Cyprus, 20-23 June.

4.13. Bougiouri K., Spilani L., Antoniou A., Lymberakis P., **Psonis N.** & Poulakakis N. (2016) Examining the Population Structure and Phylogeography of *Podarcis cretensis* in Crete, Greece. *Proceedings of the 9th Symposium on the Lacertids of the Mediterranean Basin & 1st Symposium on Mediterranean Lizards*, [p.9](#), Limassol, Cyprus, 20-23 June.

4.14. Karakasi D., Antoniou A., **Psonis N.**, Gkiokas S., Vardinoyannis K., Mylonas M., & Poulakakis N. (2018) Investigating the phylogenetic relationships within the snail genus *Albinaria*. *Proceedings of the 7th Hellenic Ecological Congress*, p.XXX, Heraklion, Crete, Greece, 4-7 October, [In Greek].

5. Publications in peer-reviewed journals

h-index: 3

Citations: 29 according to Google Scholar, 27 according to ResearchGate, 17 according to Scopus

IF: The Impact Factor of each journal according to the Journal Citation Reports of 2017, as well as the citations of each publication.

5.1. Psonis N., Vardinoyannis K., Mylonas M. & Poulakakis N. (2015) Evaluation of taxonomy of *Helix cincta* (Muller, 1774) and *Helix nucula* (Mousson, 1854); insights using mitochondrial DNA sequence data. *Journal of Natural History* [49:5-8, 383-392](#). (IF: 0.875, Citations: 9)

5.2. Psonis N., Vardinoyannis K., Mylonas M. & Poulakakis N. (2015) Unraveling the evolutionary history of the genus *Chilostoma* Fitzinger, 1833 (Mollusca, Gastropoda, Pulmonata) in Greece. *Molecular Phylogenetics and Evolution* [91, 210-225](#). (IF: 4.412, Citations: 7)

- 5.3.** Psonis N., Lymberakis P., Poursanidis D. & Poulakakis N. (2016) Contribution to the study of *Acanthodactylus* (Sauria: Lacertidae) mtDNA diversity focusing on the *A. boskianus* species group. *Mitochondrion* [30](#), 78–94. (IF: 3.226, Citations: 1)
- 5.4.** Hedman H.D., Kapsalas G., Karameta E., Psonis N., Poulakakis N., Foufopoulos J. & Pafilis P. (2016) First record of *Podarcis peloponnesiacus* (Bibron & Bory, 1833) from outside the Peloponnese. *Herpetozoa* [29](#) (3/4). (IF: 1.194, Citations: 2)
- 5.5.** Psonis N., Antoniou A., Kukushkin V.O., Jablonski D., Petrov B., Crnobrnja – Isailović J., Gherghel I., Sotiropoulos K., Lymberakis P. & Poulakakis N. (2017) Hidden diversity in the *Podarcis tauricus* (Sauria, Lacertidae) species subgroup in the light of multilocus phylogeny and species delimitation. *Molecular Phylogenetics and Evolution*, [106](#), 6-17. (IF: 4.412, Citations: 10)
- 5.6.** Psonis N., Antoniou A., Karameta E., Leaché A.D., Kotsakiozi P., Darriba D., Kozlov A., Stamatakis A., Poursanidis D., Kukushkin V.O., Jablonski D., Crnobrnja – Isailović J., Gherghel I., Lymberakis P. & Poulakakis N. (2018) Resolving complex phylogeographic patterns in the Balkan Peninsula using closely related wall-lizard species as a model system. *Molecular Phylogenetics and Evolution*, [125](#), 100-115. (IF: 4.412)

6. Work experience

I have worked as a biologist (evolutionary biologist) in the following research programs:

- 6.1.** Digital Cataloguing of Biological Collections of the Natural History Museum of Crete. Under the European program “Hellenic Network for Biodiversity Research: Construction and operation of the national Lifewatch research infrastructure (ESFRI)”. (Duration: 12/2013 – 9/2014)
- 6.2.** Participation in field work, lab analyses and phylogenetic analyses concerning one of the target species under the European program “Adding more Ecology and Genomics in understanding of the biological Diversity: the role of islands as natural laboratories (EcoGenoDiv)”. (Duration: 10/2014 – 7/2015)
- 6.3.** Study of the evolutionary diversification of the common gecko (*Mediodactylus kotschyi*) in the Aegean area using Next Generation Sequencing data (RAD – tags) under the European program “Adding more Ecology and Genomics in understanding of the biological Diversity: the role of islands as natural laboratories (EcoGenoDiv)”. (Duration: 8/2015 – 10/2015)
- 6.4.** Monitoring and evaluation of the conservation status of amphibian / reptile species with Community interest under the Greek program "Inventory and Monitoring of Habitat types and Species of Flora and Fauna of Directives 92/43 and 79/409 of the Management Agency Evros Delta". (Duration: 04/2015 – 11/2015)
- 6.5.** Preservation of Cultural Heritage (Bioarcheology and Ancient DNA analysis) under the program ARCHERS funded by Stavros Niarchos Foundation. (Duration: 08/2017 – 07/2018)
- 6.6.** Development of ancient DNA extraction, enrichment and analysis protocols, development and application of bioinformatics analyses of ancient DNA (Next Generation Sequencing) data manipulation, development of and application of bioinformatics analyses of genetic sex determination and molecular species identification, participation in seminar and workshop organization under the Greek program POLITEIA II (KRYPTIS II). (Duration: 08/2018 – 07/2019)

7. Lab experience

2009 – 2016: Member of the Molecular Systematics Lab, Natural History Museum of Crete

- Wet lab (DNA Extraction, PCR, Sanger Sequencing, Gene Cloning, Genotyping).
- Sampling (many expeditions in the Greek mainland area, in Crete and on Ionian and Aegean Islands).
- Morphological identification of Lacertidae specimens. In collaboration with the Vertebrates lab, Natural History Museum of Crete.
- Bioinformatics (phylogeny reconstruction, divergence times estimation, species delimitation, biogeographic analyses, statistical tests, model selection, demographic analyses).

30/01/2015 – 15/02/2015: Scientific guest in the Molecular Systematics and Conservation Genetics (MSCG) center of the Yale Institute for Biospheric Studies (YIBS), Yale University, Connecticut, USA

- Pipeline for genomic (ddRADseq) “library” preparation (Next Generation Sequencing).

01/09/2016 – 31/11/2016: Scientific guest in the Exelixis Lab, Heidelberg Institute of Theoretical Studies (HITS), Heidelberg, Germany.

- Illumina sequencing data manipulation and phylogenomic analyses using computer clusters.

08/2017 – Present: Member of the Ancient DNA Lab, Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology – Hellas (FORTH).

- Ancient DNA Wetlab (Handling and processing of archaeological – paleontological biological material, aDNA extraction, aDNA genomic library preparation).
- Ancient DNA data analysis (raw data handling and filtering, mapping to reference genome, damage patterns and contamination estimation, sex determination, among samples kinship detection, molecular identification of species, phenotypic imputation (hair – eyes color), mtDNA and Y-chr haplogroup assignment, ancient pathogen detection via metagenomics).

8. Participation in workshops, practical courses, seminars, lectures and other meetings

8.1. Workshop on *Genomics in Biodiversity*, 16 September 2011, Institute of Marine Biology and Genetics, Hellenic Centre for Marine Research, Gouves, Heraklion, Crete, Greece.

8.2. Workshop on *Microbial Diversity, Genomics and Metagenomics* in the context of MARBIGEN project (FP7-REGPOT-2010-11), 14-16 December 2011, Institute of Marine Biology and Genetics, Hellenic Centre for Marine Research, Gouves, Heraklion, Crete, Greece.

8.3. Course on *The basic principles of Coalescent theory and Applications*, in the context of MARBIGEN project (FP7-REGPOT-2010-11), 20-24 February 2012, Institute of Marine Biology and Genetics, Hellenic Centre for Marine Research, Gouves, Heraklion, Crete, Greece.

8.4. Workshop on *Next-Generation Sequencing technologies and Informatics tools for studying Marine Biodiversity and Adaptation* in the context of MARBIGEN project (FP7-REGPOT-2010-11), 01-03 October 2012, Institute of Marine Biology and Genetics, Hellenic Centre for Marine Research, Gouves, Heraklion, Crete, Greece.

8.5. *Second Metabarcoding Spring School in Crete* in the context of MARBIGEN project (FP7-REGPOT-2010-11), 13-17 May 2013, Institute of Marine Biology and Genetics, Hellenic Centre for Marine Research, Gouves, Heraklion, Crete, Greece.

8.6. EMBO Practical Course on *Computational Molecular Evolution*, 5 - 14 May 2014, Institute of Marine Biology and Genetics, Hellenic Centre for Marine Research, Gouves, Heraklion, Crete, Greece

8.7. *Data Management Workshop* in the context of the European program “Hellenic Network for Biodiversity Research: Construction and operation of the national Lifewatch research infrastructure (ESFRI)”, 30 June - 2 July 2014, Institute of Marine Biology and Genetics, Hellenic Centre for Marine Research, Gouves, Heraklion, Crete, Greece.

8.8. Pre-conference tutorial on *Phylogenomics* during the 10th Annual Hellenic Bioinformatics Conference, 6-9 September 2017, Foundation for Research and Technology – Hellas (FORTH), Heraklion, Crete, Greece.

8.9. Physalia Practical Course on *Introduction in Population Genomics*, 14 - 18 May 2018, Berlin Botanical Garden, Berlin, Germany.

9. Teaching experience

i) As a lab teaching assistant volunteer:

- 1) “Description of the Respiratory System in Mammals” lecture in the context of the course *Animal Physiology*, University of Crete, Department of Biology, 29 April 2012.
- 2) “DNA extraction” practical lab course in the context of the course *Evolutionary Ecology*, University of Crete, Department of Biology, 30 April 2014.

ii) As a lecturer

- 1) “Analysis of ancient DNA” one-day computational practical course in the context of the *Aegean Seminars For Computational Ecology And Evolution*, Izmir, Turkey, 16-22 September 2018.
- 2) “Ancient DNA Analysis” workshop in the context of the *26th annual CIDOC - ICOM Conference*, Heraklion, Crete, Greece, 30 September 2018.

Furthermore, I have supervised (unofficially) several bachelor and master students in the Molecular Systematics Lab, Natural History Museum of Crete during 2009-2017.

10. Research interests

- Phylogenetic relationships and Phylogeography of animal species distributed in the Eastern Mediterranean and adjacent regions
- Molecular Systematics
- Population Genetics/Genomics
- Palaeogenomics of extinct Mediterranean mammals
- Archaeogenetics of ancient humans of the Greek area

11. Member of Scientific Societies

- Hellenic Evolutionary Society
- Hellenic Zoological Society

- Hellenic Ecological Society
- Hellenic Herpetological Society
- International Biogeography Society
- Societas Europaea Herpetologica

12. Reviewer in international peer-reviewed journals

- Molecular Phylogenetics and Evolution (Reviews: 2)
- Asian Herpetological Research (Reviews: 1)
- Italian Journal of Zoology (Reviews: 1)
- BMC Zoology (Reviews: 1)
- Russian Journal of Herpetology (Reviews: 1)
- Mitochondrial DNA Part A (Reviews: 1)
- Herpetological Monographs (Reviews: 1)

13. Editorials

- Editor of the *Proceedings of the 13th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions*, Heraklion, Crete, Greece, 07-11 October 2015, Hellenic Zoological Society, 203 pages.

14. Translations

- Colorbook *Adventures in Archaeological Science*, Christina Warinner (editor), Max Planck Institute for the Science of Human History, 24 November 2017, Jena, Germany, 15 pages. [From English to Greek].

15. Languages

- **Greek:** Native
- **English:** C1 level - International English Language Testing System (IELTS), University of Cambridge Local Examinations Syndicate (UCLES), The British Council – IDP Education Australia IELTS, Australia (2016)

16. Computer skills

- Good knowledge of Microsoft Office™ (Word, Power Point, Excel)
- Basics in design applications (PhotoShop™, CorelDRAW, Inkscape)
- Good knowledge of several molecular phylogenetic and population genetics applications (Adegenet, Arlequin, BayesAss, BEAST, BEAST 2., BP&P, ClustalX, Clump, CLUMPAK, CodonCode Aligner, Dendroscope, DensiTree, Distruct, DNAsp, ExaML, ExaBayes, FinchTV, FigTree, Fstat, Geneland, Genepop, kgtests, Lagrange, MAFFT, MEGA, ML-relate, Modeltest, MrBayes, Network, PAML, PartitionFinder, PAUP, PGDSpider, Phase, Phylocom, pyRAD, RAxML, RASP, Seaview, Sequencher, Sequin, SPLITS, STACEY, TCS, Tracer, TreeView)

- Good knowledge of several ancient DNA computational tools (AdapterRemoval, angsd, BCFtools, BEAGLE, BWA, cutadapt, depth-cover, EAGER, GATK, mapDamage, picard, qualimap, MEGAN, MALT, SAMtools, schmutzi, seqtk, Tablet, Yfitter)
- Basics in statistic applications (SPSS)
- Good knowledge in bibliography organizers (EndNote, ReadCube)
- Moderate knowledge in Unix systems and some familiarity with bash scripting
- Basics in Python language
- Some familiarity with R language