

## Dr. Georgios A. Gkafas

### Associate Professor

Molecular Biology and Conservation of Marine Mammals and Fish Stocks  
Department of Ichthyology and Aquatic Environment  
School of Agricultural Sciences  
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## Degrees

- 2007 - 2011 PhD in **Molecular Ecology and Fitness of striped (*Stenella coreuleoalba*, M.) and common (*Delphinus delphis*, L.) dolphins**  
Durham University, School of Biological and Biomedical Sciences, Durham, UK
- 2003 - 2006 Master of Science in **Fisheries and Aquatic Animal Production**  
School of Agricultural Sciences, University of Thessaly, Volos, Hellas
- 1998 - 2003 Bachelor Degree  
Department of Animal Production and Aquatic Environment, School of Agricultural Sciences, University of Thessaly, Volos, Hellas

## Professional Experience

- 2019 - σήμερα **Coordinator and Principal Investigator**, Educational Program “Biomonitoring of Marine Life”, Training and Lifelong Learning Centre, University of Thessaly
- 2022 - σήμερα **Associate Professor**  
Department of Ichthyology and Aquatic Environment  
School of Agricultural Sciences, University of Thessaly, Volos, Greece
- 2021 - 2022 **Tenured Assistant Professor**  
Department of Ichthyology and Aquatic Environment  
School of Agricultural Sciences, University of Thessaly, Volos, Greece
- 2017 - 2021 **Assistant Professor**  
Department of Ichthyology and Aquatic Environment  
School of Agricultural Sciences, University of Thessaly, Volos, Greece
- 2015 and 2017 Teaching Fellow  
Department of Ichthyology and Aquatic Environment  
School of Agricultural Sciences, University of Thessaly, Volos, Greece
- 2016 Post-doctoral Researcher, Durham University, School of Biosciences, Durham, UK
- 2012 - 2015 Post-doctoral Researcher  
Department of Ichthyology and Aquatic Environment  
School of Agricultural Sciences, University of Thessaly, Volos, Hellas

## Published Papers in SCI International Refereed Journals

1. Kougiagka E , Gkafas GA, Exadactylos A, Hatzioannou M (2022) Morphology and Genetic Structure Profile of Farmed Snails *Cornu aspersum aspersum* and *Cornu aspersum maximum* in Greece. Sustainability, 14, 15965. <https://doi.org/10.3390/su142315965>
2. Feidantsis K, **Gkafas GA**, Exadactylos A, Michaelidis B , Staikou A , Hatzioannou M , Apostologamvrou C, Sarantopoulou J, Vafidis D (2022)

- Different Interspecies Demographic Histories within the Same Locality: A Case Study of Sea Cucumbers, Cuttlefish and Clams in Greek Waters. *Sustainability* 14, 14380. <https://doi.org/10.3390/su142114380>
3. Kotsanopoulos K, Martsikalis PV, **Gkafas GA**, Exadactylos A (2022): The use of various statistical methods for authenticity and detection of adulteration in fish and seafood, *Critical Reviews in Food Science and Nutrition*, DOI:10.1080/10408398.2022.2117786
  4. Giovos I, Aga-Spyridopoulou RN, Serena F, Soldo A, Barash A, Doumpas N, **Gkafas GA**, Katsada D, Katselis G, Kleitou P, et al. (2022) An Updated Greek National Checklist of Chondrichthyans. *Fishes*, 7, 199 <https://doi.org/10.3390/fishes7040199>
  5. Robinson BJO, Morley SA, Rizouli A, Sarantopoulou J, **Gkafas GA**, Exadactylos A, Küpper FC (2022) New confirmed depth limit of Antarctic macroalgae: *Palmaria decipiens* found at 100 m depth in the Southern Ocean. *Polar Biology*
  6. Xenidis VA, Martsikalis PV, Kotsanopoulos KV, Palaiokostas C, **Gkafas GA**, Parlapani FF, Boziaris IS, Exadactylos A (2022): The use of telomeric length as authenticity marker in fish and seafood - a new perspective in the detection of adulteration, *Critical Reviews in Food Science and Nutrition*, DOI:10.1080/10408398.2022.2103643
  7. Konstantinidis I, **Gkafas GA**, Papathanasiou V, Orfanidis S, Küpper FC, Arnaud-Haond S, Exadactylos A (2022) Biogeography pattern of the marine angiosperm *Cymodocea nodosa* in the eastern Mediterranean Sea related to the quaternary climatic changes. *Ecology and Evolution*, 12:e8911.
  8. Koitsanou E, Sarantopoulou J, Komnenou A, Exadactylos A, Dendrinou P, Papadopoulos E, **Gkafas GA** (2022) First Report of the Parasitic Nematode *Pseudoterranova* spp. Found in Mediterranean Monk Seal (*Monachus monachus*) in Greece: Conservation Implications. *Conservation*, 2, 122-133. <https://doi.org/10.3390/conservation2010010>
  9. Tsioli S, Koutalianou M, **Gkafas GA**, Exadactylos A, Papathanasiou V, Katsaros CI, Orfanidis S, Küpper FC (2022) Responses of the Mediterranean seagrass *Cymodocea nodosa* to combined temperature and salinity stress at the ionomic, transcriptomic, ultrastructural and photosynthetic levels. *Marine Environmental Research* 175: 105512. <https://doi.org/10.1016/j.marenvres.2021.105512>
  10. Komnenou A, **Gkafas GA**, Kofidou E, Sarantopoulou J, Exadactylos A, Tounta E, Koemtzopoulos K, Dendrinou P, Karamanlidis AA, Gulland F, Papadopoulos E (2021) First Report of *Uncinaria hamiltoni* in Orphan Eastern Mediterranean Monk Seal Pups in Greece and its Clinical Significance. *Pathogens* 10, 1581. <https://doi.org/10.3390/pathogens10121581>
  11. Pardalis SV, Komnenou A, Exadactylos A, **Gkafas GA** (2021) Small Scale Fisheries, Dolphins and Societal Challenges: A Case Study in the City of Volos, Greece. *Conservation* 1, 7. <https://doi.org/10.3390/conservation1020007>
  12. Kotsanopoulos KV, Exadactylos A, **Gkafas GA**, Martsikalis PV, Parlapani FF, Boziaris IS, Arvanitoyannis IS (2021) The use of molecular markers in the verification of fish and seafood authenticity and the detection of adulteration. *Compr Rev Food Sci Food Saf.* 20: 1584-1654. <https://doi.org/10.1111/1541-4337.12719>
  13. Kampouris TE, **Gkafas GA**, Sarantopoulou J, Exadactylos A, Batjakas IE (2021) An American in the Aegean: first record of the American lobster *Homarus americanus* H. Milne Edwards, 1837 from the eastern Mediterranean Sea. *BioInvasions Records* 10(1): 170 - 180
  14. **Gkafas GA**, de Jong M, Exadactylos A, Aznar FJ, Raga JA, Hoelzel (2020) Sex-specific impact of inbreeding on pathogen load in the striped dolphin. *Proceedings of the Royal Society B* 287: 20200195
  15. Karamitros G, **Gkafas G**, Giantsis IA, Martsikalis PV, Kavouras M, Exadactylos A (2020) Model-Based Distribution and Abundance of Three

- Delphinidae in the Mediterranean. *Animals* **10**(2): 260 DOI: 10.3390/ani10020260
16. Pool R, Nilani Chandradeva, **Gkafas G**, Raga JA, Fernández M, Aznar FJ (2020) Transmission and Predictors of Burden of Lungworms of the Striped Dolphin (*Stenella coeruleoalba*) in the Western Mediterranean. *Journal of Wildlife Diseases* **56**(1): 186 - 191
  17. **Gkafas GA**, Hatzioannou M, Malandrakis EE, Tsigenopoulos CS, Karapanagiotidis IT, Mente E, Vafidis D, Exadactylos A (2019) Heterozygosity-Fitness Correlations and Generation Interval of the Norway lobster in the Aegean Sea, eastern Mediterranean. *Journal of Biological Research-Thessaloniki* **26**: 14 DOI: 10.1186/s40709-019-0103-0
  18. Exadactylos A, Vafidis D, Tsigenopoulos C, **Gkafas G** (2019) High Connectivity of the White Seabream (*Diplodus sargus*, L. 1758) in the Aegean Sea, Eastern Mediterranean Basin. *Animals* **9**(11):979, DOI: 10.3390/ani9110979
  19. Gaither M, **Gkafas G**, de Jong M, Sarigol F, Neat F, Regnier T, Moore D, Grocke D, Hall N, Liu X, Kenny J, Lucaci A, Hughes M, Haldenby S, Hoelzel AR (2018) Genomics of habitat choice and adaptive evolution in a deep-sea fish. *Nature Ecology and Evolution* **2**: 680–687
  20. Konstantinidis I, **Gkafas GA**, Karamitros G, Lolos A, Antoniadou C, Vafidis D, Exadactylos A (2017) Population structure of two benthic species with different larval stages in the eastern Mediterranean sea. *Journal of Environmental Protection and Ecology* **18**(3): 930-939
  21. Martsikalos PV, Kavouras M, **Gkafas GA**, Apostolidis AP, Bozianis IS, Exadactylos A (2017) Morphological and free amino acid profile variability, as a tool for stock identification among farmed rainbow trout *Oncorhynchus mykiss* of different origin. *Aquaculture Research*, 1-10
  22. **Gkafas GA**, Exadactylos A, Rogan E, Raga JA, Reid R and Hoelzel (2017) Biogeography and temporal progression during the evolution of striped dolphin population structure in European waters. *Journal of Biogeography*, **00**:1-11
  23. **Gkafas GA**, Orfanidis S, Vafidis D, Panagiotaki P, Küpper FC, Exadactylos A (2016) Genetic diversity and structure of *Cymodocea nodosa* meadows in the Aegean sea, eastern Mediterranean. *Applied Ecology and Environmental Research*, **14**(1):145-160. DOI:10.15666/aeer/1401\_145160
  24. **Gkafas GA**, Megalofonou P, Batzakas G, Apostolidis AP, Exadactylos A (2015) Molecular phylogenetic convergence within Elasmobranchii revealed by cytochrome oxidase subunits. *Biochemical Systematics and Ecology*, **61**:510-515. DOI:10.1016/j.bse.2015.07.025
  25. Golomazou E, Exadactylos A, Malandrakis EE, Karatzinos T, **Gkafas GA**, Dadali O, Panagiotaki P (2014) Early diagnosis of enteromyxosis in intensively reared sharpsnout seabream, *Diplodus puntazzo*. *Aquatic Living Resources*, **27**(2):99-106. DOI:10.1051/alr/2014010
  26. Martsikalos P, **Gkafas GA**, Apostolidis AP, Exadactylos A (2014) Genetic Structure Profile of Rainbow Trout (*Oncorhynchus mykiss*) Farmed Strains in Greece. *Turkish Journal of Fisheries and Aquatic Sciences*, **14**(3):749-757. DOI:10.4194/1303-2712-v14\_3\_17
  27. **Gkafas GA**, Tsigenopoulos CS, Magoulas A, Panagiotaki P, Vafidis D, Mamuris Z, Exadactylos A (2013) Population subdivision of saddled seabream *Oblada melanura* in the Aegean Sea revealed by genetic and morphometric analyses. *Aquatic Biology*, **18**:69-80. DOI:10.3354/ab00490

1. Komnenou A, Drougas A, Sarris P, Kofidou E, Pezaros P , Greventopoulou E, Gkafas GA, Sarantopoulou J, Exadactylos A , Hartmann MG (2022) Alive stranding of a rough-toothed dolphin (*Steno bredanensis*) in Salamina island, greece. First documented sighting in Mediterranean Sea. 15o Hellenic Veterinary Symposium, 4-6 November, Athens, Greece, pp 21 – 22
2. Akritopoulou E, Koitsanou E, Dimou, Mpanias I, Oikonomidou Z, Komnenou A, Exadactylos A, Gkafas GA (2022) A citizen science study on marine mammals in pagasitikos gulf (greece); preliminary results. Marine and Inland Waters Research Symposium 16-19 September, Argolida, Greece, pp 281 – 285
3. Koitsanou E, Akritopoulou E, Athinaiou N, Sarantopoulou J, Komnenou A, Dendrinou P, Exadactylos A, Gkafas GA (2022) Molecular identification of a parasitic mite found in the respiratory system of a stranded mediterranean monk seal in the area of pagasitikos gulf. Marine and Inland Waters Research Symposium, pp 469 – 472
4. Drougas A, Akritopoulou E, **Gkafas G**, Kofidou E, Komnenou A (2021) False Killer Whales (*Pseudorca crassidens*) Presence in Greece ,east Mediterranen: Old and New Developments. HydroMediT 2021, 4th International Congress on Applied Ichthyology, Oceanography & Aquatic Environment, 4-6 November, pp 554-555
5. Spiliopoulou E, Pardalis S, Komnenou A, Exadactylos A, Dendrinou P, Tounta E, **Gkafas GA** (2021) A small scale study on fisheries-dolphins interactions in the Korinthiakos Gulf, eastern Mediterranean sea. HydroMediT 2021, 4th International Congress on Applied Ichthyology, Oceanography & Aquatic Environment, 4-6 November, pp 524-525
6. Vakouli E, Pardalis S, Komnenou A, Exadactylos E, **Gkafas GA** (2021) Preliminary accesement of interactions between dolphins and fishers in Zakynthos island. HydroMediT 2021, 4th International Congress on Applied Ichthyology, Oceanography & Aquatic Environment, 4-6 November, pp 610-611
7. Binia M, Mainou A, Manolouli E, Nikolopoulos A, Sarantopoulou J, Chatziioannou M, Exadactylos A, **Gkafas GA** (2021) Molecular phylogeny of land snail species of Greece, families Helicidae and Geomitridae. HydroMediT 2021, 4th International Congress on Applied Ichthyology, Oceanography & Aquatic Environment, 4-6 November, pp 622-623
8. Komnenou A, **Gkafas G**, Drougas A, Sarris P, Kofidou E, Sarantopoulou E, Exadactylos A, Garcia-Hartman M (2021) First documented alive stranding of a *Steno bredanensis* in Salamina island, Aegean Sea, Greece. European Cetacean Society, Ashdod, Israel, pp 84
9. Koitsanou E., Sarantopoulou J., Komnenou A., Exadactylos A., Dendrinou P., **Gkafas G.A.** (2021) Molecular identification of a parasitic nematode found in the digestive system of a stranded mediterranean monk seal (*Monachus monachus*) in the area of pagasitikos gulf. HydroMediT 2021, 4th International Congress on Applied Ichthyology, Oceanography & Aquatic Environment, 4-6 November, Virtual, pp 288 – 292.
10. Feidantsis K., Michaelidis B., Raitzos D.E., Exadactylos A., **Gkafas G.A.**, Staikou A., Hatzioannou M., Vafidis D. (2021) Seasonal oxidative and cellular stress responses of commercially important invertebrates at different habitats of the north Aegean sea. HydroMediT 2021, 4th International Congress on Applied

- Ichthyology, Oceanography & Aquatic Environment, 4-6 November, Virtual, pp 416 – 420.
11. Karamitros G, **Gkafas G**, Giantsis IA., Martsikalis PV, Kavouras M, Exadactylos A (2019) Design-based and model-based estimations of distribution and abundance of dolphin populations in Gulf of Corinth, Hellas. 16th International Conference on Environmental Science and Technology (CEST 2019), 00604At: Cos island, Hellas
  12. Karachaliou E, Hatzopoulos P, Exadactylos A, **Gkafas GA**, Megalofonou P (2018) Cytochrome oxidase subunit I (COI) gene - A method for species identification of the blackmouth catshark (*Galeus melastomus*). 3rd International Congress on Applied Ichthyology and Aquatic Environment - HydroMediT 2018: pp. 235-237, Volos, Hellas
  13. Kougiagka E, **Gkafas GA**, Exadactylos A, Hatzioannou M (2018) Preliminary results on polymorphism study of farmed snails *Cornu aspersum maximum* based on morphological markers. 3rd International Congress on Applied Ichthyology and Aquatic Environment - HydroMediT 2018: pp. 731-732, Volos, Hellas
  14. **Gkafas GA**, de Jong M, Exadactylos A, Raga JA, Balbuena JA, Aznar FJ, Hoelzel AR (2018) Genome-wide screening and functional MHC components reveals susceptibility to lungworms in female striped dolphins. 13th European Wildlife Disease Association (EWDA) Conference, Larissa, Hellas
  15. **Gkafas GA**, Konstantinidis I, Arnaud-Haond S, Exadactylos A (2016) Biogeography pattern of the marine angiosperm *Cymodocea nodosa* in the eastern Mediterranean Sea related to the Quaternary climatic changes. First Meeting of the International Marine Connectivity Network - iMarCo. University of St. Andrews. 27 - 29 June 2016
  16. Matsiori S, Matouzi A, Golomazou E, Malandrakis EE, Dadali O, Karamitros G, **Gkafas GA**, Kavouras M, Fleris G, Exadactylos A, Panagiotaki P (2015) Modern sustainable fish farming: growth compensation as a tool for aquaculture development. 3rd Hellenic Conference on Natural Resources Environmental Economics, Abstract, October Volos, Hellas
  17. **GA Gkafas** (2015) Population structure and Heterozygosity Fitness Correlations of a highly mobile delphinid species (*Stenella coeruleoalba*) in European waters. 5th Annual Meeting of the GDR MarCo "Marine Connectivity" . 16-18 September 2015, Montpellier - Aquarium Mare Nostrum.
  18. Papaioannou V, Bakalou A, Golomazou E, Malandrakis EE, Dadali O, **Gkafas GA**, Karamitros G, Kavouras M, Psochiou E, Exadactylos A, Panagiotaki P (2015) Growth compensation following restricted feeding in sea bream: preliminary results. 37th Scientific Conference of the Hellenic Society of Biological Sciences, Volos, Hellas, Poster.
  19. Kavouras M, Malandrakis EE, **Gkafas GA**, Blonk RJW, Anastassiadis K, Panagiotaki P, Exadactylos A (2014) Hox genes polymorphism in early life history of *Solea solea*. 9th International Flatfish Symposium, Washington, USA, Abstract.
  20. Arabatzi-Ziamou D, Golomazou E, **Gkafas GA**, Malandrakis EE, Panagiotaki P, Exadactylos A (2014) Lymphocystis Disease Virus (LCDV) detection in gilthead seabream eggs and larvae. 1st International Congress on Applied Ichthyology and Aquatic Environment-HydroMedit 2014, UTh, pp. 68-71, Volos, Hellas.

21. Arabatzi-Ziamou D, Golomazou E, **Gkafas GA**, Malandrakis EE, Panagiotaki P, Exadactylos A (2013) Early molecular detection of Lymphocystis Disease Virus (LCDV) in intensively reared gilthead sea bream (*Sparus aurata*). 15th Hellenic Conference of Ichthyologists, pp 335-337, Thessaloniki, Hellas.
22. Ekonomou G, Zambounis A, Megalofonou P, Batzakas I, **Gkafas GA**, Malandrakis EE, Kavouras M, Martsikalis P, Dadali O, Panagiotaki P, Vafidis D, Exadactylos A (2010) Molecular phylogenetic species-specific interrelations of the Elasmobranchii subclass. 14th Hellenic Conference of Ichthyologists, pp 111-114, Piraeus, Hellas.
23. Kapetanios N, Papageorgiou V, **Gkafas GA**, Antoniadou C, Vafidis D, Exadactylos A (2007) Genetic diversity stock assessment of two benthic invertebrates in Hellas. 13th Hellenic Conference of Ichthyologists, pp 213-216, Mytilini, Hellas.
24. **Gkafas GA**, Podiadis V, Tsigenopoulos CS, Reid B, Karpouzli E, Verriopoulos G, Mamuris Z, Magoulas A, Exadactylos A (2007) Genetic polymorphism and population structure of the striped dolphin, *Stenella coeruleoalba*, and the common dolphin, *Delphinus delphis*, within the ACCOBAMS area. 10th International Conference on Environmental Science and Technology (CEST), pp 426-431, Cos island, Hellas.
25. Vafidis D, Antoniadou C, Kapetanios N, **Gkafas GA**, Exadactylos A (2007) Stock assessment and genetic diversity of the edible ascidian *Microcosmus sabatieri* (Roule, 1885) in the Aegean Sea. The Mediterranean Science Commission, 38th CIESM Congress, Istanbul, Turkey, Rapp. Comm. Int. Mer. Médit. 38, p630.
26. Antoniadou C, Vafidis D, Voultziadou E, Chintiroglou C, Papageorgiou V, **Gkafas GA**, Exadactylos A (2007) Density, dispersion and genetic structure of *Paracentrotus lividus* (Lamarck, 1816) natural stocks in the Aegean Sea. The Mediterranean Science Commission, 38th CIESM Congress, Istanbul, Turkey, Rapp. Comm. Int. Mer. Médit. 38, p418.
27. Kapetanios N, **Gkafas GA**, Chatzipli K, Dadali O, Panagiotaki P, Mamuris Z, Exadactylos A (2006) Morphological population structure of the saddled seabream, *Oblada melanura* (L) in the Aegean and Ionian Seas. 3rd International Conference on Aquaculture, Fisheries Technology and Environmental Management, AquaMedit, 6p, Athens, Hellas.
28. **Gkafas GA**, Nousia M, Tsalavouta M, Tsigenopoulos CS, Magoulas A, Neofitou C, Exadactylos A (2006) Genetic polymorphism of *Diplodus sargus* (L), in the Aegean and Ionian Seas revealed by microsatellites. 10th International Congress on the Zoogeography and Ecology of Greece and adjacent regions (ICZEGAR), Patras, Hellas.
29. **Gkafas GA**, Tsalavouta M, Tsigenopoulos CS, Magoulas A, Neofitou C, Exadactylos A (2006) Genetic population structure of *Oblada melanura* L, using microsatellites. 8th Hellenic Symposium on Oceanography and Fisheries, HCMR, pp 393-397, Thessaloniki, Hellas.

## Research Projects

- |             |   |
|-------------|---|
| 2020 - 2022 | <u>Member</u> : Detection of fish authenticity and adulteration in greek market using molecular identification tools - FISH MID. Hellenic Ministry of Rural Development and Food-EU |
| 2018-2019   | <u>Principal Investigator</u> : Heterozygosity Fitness Correlations in striped dolphin. Special Account for Research Grants, University of Thessaly                                 |

- 2016 Post-doctoral Researcher: Adaptation in the deep - sea. School of Biosciences, Durham University
- 2012- 2015 Post-doctoral Researcher: THALIS (Marine angiosperm tolerance on environmental stress: physiological-cellular-biochemical-molecular mechanisms related to species and habitat diversity). Hellenic Ministry of Education and Religions, Culture and Sports-EU
- 2014- 2015 Post-doctoral Researcher: EPAL (Growth compensation: a novel and friendly to the environment practice towards cost reduction in Hellenic pisciculture). Hellenic Ministry of Rural Development and Food-EU
- 2014- 2015 Post-doctoral Researcher: EPAL (The use of Modified Animal Proteins in aquaculture foodration of *Sparus aurata*). Hellenic Ministry of Rural Development and Food-EU
- 2005- 2008 Post Graduate Researcher: PYTHAGORAS II (Population conservation genetics of the striped dolphin, *Stenella coeruleoalba* within the ACCOBAMS area). Hellenic Ministry of Life Education and Religious Affairs-EU

### Research visitor

- 2008 Unidad de Zoología Marina, Instituto Cavanilles de Biodiversidad y Biología Evolutiva, Universitat de València, Aptdo 22085, E-46071-Valencia, Spain
- 2010 Department of Zoology and Animal Ecology, University College Cork, Cork, Ireland

### Workshops - Summer schools

- 2014 Next Generation Sequencing Workshop, 03-06 March 2014, European Bioinformatics Institute, Hinxton, Cambridgshire, UK

### Distinctions

- 2007 Scholar of the Hellenic National Scholarship Foundation