

Panagiotis Berillis

Associate Professor

Microscopy and Image Analysis in Histology and in Aquatic Organisms



School of Agricultural Sciences

Dept. of Ichthyology & Aquatic Environment

University of Thessaly

383 46 Nea Ionia, Magnisia

Hellas (Greece)

Tel.: 24210933248

E-mail : pveril@uth.gr

URL:<https://sites.google.com/site/panagiotisberillis/>

ORCID CODE: 0000-0001-5072-2245

Research Interest

Fish histology/histopathology, Mechanical properties of bone, Collagen, Aquaponics

Education

2004 Ph.D. in Biophysics, Medical Physics Lab, Medical School, University of Ioannina
2000 Degree in Physics, University of Ioannina

Professional experience

- 2020- Associate Professor, Department of Ichthyology & Aquatic Environment,
School of Agricultural Sciences, University of Thessaly, Greece.
2015-2020 Assistant Professor, Department of Ichthyology & Aquatic Environment,
School of Agricultural Sciences, University of Thessaly, Greece.
2011-2015 Lecturer, Department of Ichthyology & Aquatic Environment,
School of Agricultural Sciences, University of Thessaly, Greece.
2008-2010 Teaching and Research Fellow, Department of Ichthyology & Aquatic Environment,
School of Agricultural Sciences, University of Thessaly, Greece.
2006-2009 Teaching and Research Fellow, Medical School, University of Thessaly
2005-2009 Teaching and Research Fellow of the Department of medical laboratories of
Technological Institute of Larissa.
2005-2006 External research fellow of Ioannina University.
2004-2005 Laboratory of Medical Physics, Medical School of the University of Ioannina;
Postgraduate course.

Research Projects

- 2006 “**Study of cross-section collagen fibrils in different kinds of bones with electron microscopy techniques**”. Scientific Coordinator. Research Committee, University of Ioannina.
2005-2007 “**Immuno-Histochemistry detection of HPV and chlamydia in the female reproductive system**”. Research Committee, University of Thessaly. Research assistant.

- 2008-2009 "Cytological coatings study of immigrant women in Thessaly and the Western Macedonia". Research Committee, University of Thessaly. Research assistant.
- 2010-2011 "The (re)birth of the lake Karla". Funded by The John S. Latsis Public Benefit Foundation, Greece. Research assistant.
- 2011-2015 "Marine angiosperm tolerance on environmental stress: physiological-cellular-biochemical-molecular mechanisms related to species and habitat diversity". Funded by THALIS project. Research assistant.
- 2012-2015 "Aegean Sea sponges and edible snails as alternative sources of collagen and bioactive substances". Part of the national action COOPERATION 2011 - Partnerships of Production and Research Institutions in Focused Research and Technology Sectors. Research assistant.
- 2013- 2014 "EU 7th Framework Programme, Oxygenation by efficient air diffusion system for aquaculture farms (cages and earthen ponds)". Research assistant.
- 2014-2015 "Processed animal proteins in *Sparus aurata* diets". Founded by the Ministry of Rural Development and Food-European Fisheries Found. Research assistant.
- 2015-2016 "Study of skeletal deformity of scoliosis in farmed sea breams". Scientific Coordinator. Research Committee, University of Thessaly.
- 2018- "Future growth in sustainable, resilient and climate friendly organic and conventional European aquaculture". Coordinator NOFIMA, Norway. Founded by Horizon 2020. Research assistant.

Books

1. Berillis P. (Editor). Trends in Fisheries and Aquatic Animal Health. Bentham Science publishers, 2017
2. Berillis P., Mente E. Histology and physiology of fishes and crustaceans (in Greek). University of Thessaly Press, 2017.
3. Berillis P. Light and electron microscopy (in Greek). University of Thessaly Press, 2015.
4. Berillis P. Basic principles of light and electron microscopy (in Greek). University of Thessaly Press, 2009.
5. Berillis P. Instruments' technology theory (in Greek). Technological Institute of Larissa. 2008

Publications

1. Tsakoumis, E.; Tsoulia, T.; Feidantsis, K.; Mouchlianitis, F.A.; **Berillis, P.**; Bobori, D.; Antonopoulou, E. Cellular Stress Responses of the Endemic Freshwater Fish Species *Alburnus vistonicus* Freyhof & Kottelat, 2007 in a Constantly Changing Environment. *Appl. Sci.* 2021, 11, 11021.
2. Psofakis, P.; Meziti, A.; Berillis, P.; Mente, E.; Kormas, K.A.; Karapanagiotidis, I.T. Effects of Dietary Fishmeal Replacement by Poultry by-Product Meal and Hydrolyzed Feather Meal on Liver and Intestinal Histomorphology and on Intestinal Microbiota of Gilthead Seabream (*Sparus aurata*). *Appl. Sci.* 2021, 11, 8806.
3. Stathopoulou, P., Tsoumalakou, E., Levizou, E., Vanikiotis, T., Zaoutsos, S., & **Berillis, P.** (2021). Iron and Potassium Fertilization Improve Rocket Growth without Affecting Tilapia Growth and Histomorphology Characteristics in Aquaponics. *Applied Sciences*, 11(12), 5681
4. Stathopoulou P, **Berillis P**, Vlahos N, Nikouli E, Kormas KA, Levizou E, Katsoulas N, Mente E. 2021. Freshwater-adapted sea bass *Dicentrarchus labrax* feeding frequency impact in a lettuce *Lactuca sativa* aquaponics system. *PeerJ* 9:e11522 <https://doi.org/10.7717/peerj.11522>
5. Tsoumalakou, E., Papadimitriou, T., **Berillis, P.**, Kormas, K., & Levizou, E. (2021). Spray irrigation with microcystins-rich water affects plant performance from the microscopic to the

functional level and food safety of spinach (*Spinacia oleracea* L.). *Science of The Total Environment*, 147948.

6. Nikiforidou V., Zaoutsos S., Vlahos N., **Berillis P.** Vertebrae morphometric measurement and Ca/P levels of different age sea bass (*Dincentrarchus labrax*). *Fishes* 2020, 4, 37.
7. N. Vlahos, E. Levizou, P. Stathopoulou, **P. Berillis**, E. Antonopoulou, V. Bekiari, N. Krigas, K. Kormas, E. Mente. A brackish aquaponic system using gilthead sea bream (*Sparus aurata*) and rock samphire (*Critchmum maritimum*). *Sustainability* 2019, 11, 4820.
8. V. Boursiaki, C. Theochari, S. P. Zaoutsos, E. Mente, D. Vafidis, C. Apostologamvrou and **P. Berillis**. Skeletal Deformity of Scoliosis in Gilthead Seabreams (*Sparus aurata*): Association with Changes to Calcium-Phosphor Hydroxyapatite Salts and Collagen Fibers. *Water* 2019, 11, 257; doi:10.3390/w11020257.
9. Stathopoulou P, **Berillis P**, Levizou E, Sakellariou-Makrantonaki M, Kormas AK, Aggelaki A, Kapsis P, Vlahos N and Mente E. Basil and Nile tilapia Production in a Small Scale Aquaponic System. *Journal of Fisheries Sciences.com*, 2018, 12(4): 001-003.
10. Xaxiri N. A., Nikouli E., **Berillis P.**, Kormas K. A. Bacterial biofilm development during experimental degradation of *Melicertus kerathurus* exoskeleton in seawater. *AIMS Microbiology*, 4(3): 397–412.
11. **P. Berillis**, E. Mente. Histology of Goblet Cells in the Intestine of the Rainbow Trout Can Lead to Improvement of the Feeding Management. Image article. *Journal of Fisheries Sciences.com*, 2017, 11(4): 32-33.
7. E. Papaioannou, E. D. Giaouris, **P. Berillis**, I. S. Boziaris. Dynamics of biofilm formation by *Listeria monocytogenes* on stainless steel under mono-species and mixed-culture simulated fish processing conditions and chemical disinfection challenges. *International Journal of Food Microbiology*, 2018, 267: 9–19.
8. **Berillis P.**, Mente E., Kormas K. The use of copper alloy in aquaculture fish net pens. Mechanical, economic and environmental advantages. *Journal of Fisheries Sciences.com*, 2017, 11(4): 001-003.
9. Stathopoulou E., Apostologamvrou C., Vafidis D., Mente E., **Berillis P.** Sex differentiation in the histology of the digestive gland of *Nephrops norvegicus* from Pagasitikos gulf during spring. *Aquatic Living Resources*, 2017, 30, 28.
10. Tziveleka L. A., Ioannou E., Tsiorvas D., **Berillis P.**, Foufa E., Roussis V. Collagen from the marine sponges *Axinella cannabina* and *Suberites carnosus*: Isolation and morphological, biochemical and biophysical characterization. *Marine Drugs*, 2017, 15, 152.
11. **Berillis P.**, Martin S. and Mente E. Histological methods to assess the effect of diet and a single meal on the liver and intestine of rainbow trout: fishmeal and fishoil replacement with plant protein and oil. In: P. Berillis (Ed). *Trends in Fisheries and Aquatic Animal Health*. Bentham Science publishers, 2017.
12. Pappa V.A., Kapsis P., Mente E. and **Berillis P.** Aquaponics Software in Greece. *Journal of Fisheries Sciences.com*, 2017, 11 (3): 1-4.
13. J. Castritsi-Catharios, S.P. Zaoutsos, **P. Berillis**, G.D. Zouganelis, G. Ekonomou, E. Kefalas, J. Pantelis. Kalymnos, the island which made history in sponge fishery. Data on physical parameters, elemental composition and DNA barcode preliminary results of the most common bath sponge species in Aegean Sea. *Regional Studies in Marine Science*, 2017, 13: 71-79.
14. **Berillis P.** Skeletal deformities in seabreams. Understanding the genetic origin can improve production? *Journal of Fisheries Sciences.com*, 2017, 11 (2): 57-59.
15. **Berillis P.**, Mente E., Nikouli E., Makridis P., Grundvig H., Bergheim A. and Gausen M. Improving aeration for efficient oxygenation in sea bass sea cages. Blood, brain and gill histology. *Open Life Sciences*, 2016, 11: 270–279

16. Rumbos C.I., Sakka M., **Berillis P.** and Athanassiou C.G. Insecticidal potential of zeolite formulations against three stored-grain insects, particle size effect, adherence to kernels and influence on test weight of grains. *Journal of Stored Products Research*, 2016, 68: 93-101.
17. **Berillis, P.** Factors that can lead to the development of skeletal deformities in fishes. A review. *Journal of Fisheries Sciences.com*, 2015, 9 (3): 17-23.
18. **Berillis, P.**, Panagiotopoulos, N., Boursiaki, V., Karapanagiotidis, I.T., Mente, E. Vertebrae length and ultra-structure measurements of collagen fibrils and mineral content in the vertebrae of lordotic gilthead seabreams (*Sparus aurata*). *Micron*, 2015, 75: 27-33.
19. **Berillis, P.** Marine Collagen: Extraction and Applications. In: M. Saxena (Ed). *Research Trends in Biochemistry, Molecular Biology and Microbiology*. 2015. SM Group open Access eBooks.
20. Karapanagiotidis, I.T., Mente, E., **Berillis, P.**, and Rotllant G. Measurement of the feed consumption of *Nephrops norvegicus* feeding on different diets and its effect on body nutrient composition and digestive gland histology. *Journal of Crustacean Biology*, 2014, 35(1): 11-19.
21. Daoud, D., Fairchild, W., Comeau, M., Bruneau, B., Mallet, M. D., Jackman, P., Benhalima, K., **Berillis, P.** and Mente, E. Impact of an acute sublethal exposure of endosulfan on early juvenile lobster (*Homarus americanus*). *Aquatic Science and Technology*, 2014, 2:14-40.
22. **Berillis P.**, Papadimitriou Th., Petridou E., Kormas K.A., Kagalou I. Brain and liver histopathological examination of *Carassius gibelio* from a newly reconstructed lake with toxic cyanobacteria. *Turkish Journal of Fisheries and Aquatic Sciences*, 2014, 14:213-219.
23. Valaroutsou E., Voudanta E., Mente E., **Berillis P.** A microscope and image analysis study of the liver and exocrine pancreas of sea bream *Sparus aurata* fed different diets. *International Journal of Zoology Research*, 2013, 3(1):54-58.
24. Nikouli, E., Kormas, K.A., **Berillis, P.**, Karayanni, H., Moustaka-Gouni, M. Harmful and parasitic unicellular eukaryotes persist in a shallow lake under reconstruction (L. Karla, Greece). *Hydrobiologia*, 2013, 718:73–83.
25. Mitsoura, A., Kagalou, I., Papaioannou, N., **Berillis, P.**, Mente E., and Papadimitriou, T. The presence of microcystins in fish *Cyprinus carpio* tissues: an histopathological study. *International Aquatic Research*. 2013, 5:8.DOI: 10.1186/2008-6970-5-8.
26. **Berillis, P.**, Hatzioannou, M., Panagiotopoulos N., and Neofitou, C. Similar shell features between rear and wild *Cornu aspersum* snails. *World Journal of Agricultural Research*, 2013, 1: 1-4.
27. **Berillis P.** The role of collagen in the aorta's structure. The open circulation and vascular journal, 2013, 6: 1-8.
28. **Berillis, P.**, Simon, C., Mente, E., Sofos F., and Karapanagiotidis, I. T. A novel image processing method to determine the nutritional condition of lobsters. *Micron*, 2013, 45: 140-145.
29. **Berillis, P.**, Hatzioannou, M., Karapanagiotidis, I. T., and Neofitou, C. Morphological study of muscular tissue collagen of wild and reared *Cornu aspersum* (Müller, 1774). *Molluscan Research*, 2013, 33(1): 6-13.
30. **Berillis, P.**, Mente, E., and Nengas, I. Collagen Fibrils in Cultured and Wild Sea Bream (*Sparus aurata*) Liver. An Electron Microscopy and Image Analysis Study. *TheScientificWorldJOURNAL*, 2011, 11: 917-929.
31. Βερίλλης Π., Λιώσσης Α. Συνεργεία του ραδονίου στην εμφάνιση καρκίνου στον πνεύμονα. Τρόποι αντιμετώπισης. C.V.P. Ιατρικής 2008.
32. **Berillis P.**, Emfietzoglou D., Tzaphlidou M. Collagen fibril diameter in relation to bone site and to calcium/phosphorus ratio. *ScientificWorldJournal*, 2006, 6:1109-13.
33. M. Tzaphlidou and **P. Berillis**. Collagen fibril diameter at different cortical bone sites. *BONE*, 36, 198, 2005
34. Tzaphlidou, M., **Berillis, P.**, and Matthopoulos, D. Bone calcium-phosphorus detection by Auger electron spectroscopy. *Micron*, 36, 706-709, 2005.

35. Tzaphlidou, M. and **Berillis, P.** Collagen fibril diameter in relation to bone site. A quantitative ultrastructural study. *Micron*, 2005, 36: 703-705.
36. Tzaphlidou, M. and **Berillis, P.** Effect of lithium administration on collagen and breaking pressure of the rat thoracic descending aorta. *The Journal of Trace Elements in Experimental Medicine*, 2004, 17: 151-160.
37. Tzaphlidou, M. and **Berillis, P.** Structural alterations caused by lithium in skin and liver collagen using an image processing method. *Journal of Trace and Microprobe Techniques*, 2002, 20: 493-504.

Conferences

38. Andreopoulou, S., **Berillis, P.**, Michail, G., Vlahos, N. Histopathological and hematological examination of fish after treatment with nitrofurazone. Proceedings of HydroMedit 2021, November 4-6, Greece.
39. Nikouli E., Stathopoulou P., **Berillis P.**, Vlachos N., Mente E., Kormas K. The impact of feeding frequency on the gut microbiota of freshwater adapted seabass (*Dicentrarchus labrax*) in a coupled aquaponics system with lettuce (*Lactuca sativa*). Proceedings of HydroMedit 2021, November 4-6, Greece.
40. Kotsarinis S., Siapazis C., Vlachos N., **Berillis P.**, Mente E. Reproduction and behavior of red hybrid tilapia *Oreochromis mossambicus*. Proceedings of HydroMedit 2021, November 4-6, Greece.
41. Stathopoulou P., **Berillis P.**, Levizou E., Vlahos N., Katsoulas N., Rumbos, C., Mente, E. Fishmeal protein replacement by *Zophobas morio* larvae affects *Dicentrarchus labrax* growth performance in an aquaponics system. Proceedings of HydroMedit 2021, November 4-6, Greece.
42. Vlahos N., Stefanou Ch., Agapitos A., **Berillis P.**, Levizou E., Krigas N., Kormas K., Mente E. The effect of salinity on the growth performance and survival rate of gilthead seabream (*Sparus aurata*) and rock samphire (*Critchmum maritimum*) in an experimental brackish aquaponic system. Proceedings of HydroMedit 2021, November 4-6, Greece.
43. Sakorafas S., Papaefstathiou K., **Berillis P.**, Vlahos N., Levizou E., Mente E. The effect of fish stocking density on growth performance of european sea bass (*Dicentrarchus labrax*) and lettuce (*Lactuca sativa* var. green towers). Proceedings of HydroMedit 2021, November 4-6, Greece.
44. Papaefstathiou K., Sakorafas S., **Berillis P.**, Vlahos N., Levizou E. and Mente E. Multitrophic-aquaponic system for sustainable food production. Proceedings of HydroMedit 2021, November 4-6, Greece.
45. Nikiforidou V., Zaoutsos S., Vlahos N., **Berillis P.** Morphometric measurement and ca/p levels of sea bass (*Dicentrarchus labrax*) vertebrae. Proceedings of HydroMedit 2021, November 4-6, Greece.
46. Asimaki A., Katouni A., Psofakis P., Mente E., **Berillis P.**, Rumbos C.I., Athanassiou C.G., Henry M., Fountoulaki E., Karapanagiotidis I.T. The effects of fishmeal replacement by dietary *Zophobas morio* larvae meal on liver and intestinal histology of gilthead seabream (*Sparus aurata*). Proceedings of HydroMedit 2021, November 4-6, Greece.
47. Ellina M., Niakas K., Gkikas P., Stathopoulou P., Vlahos N., **Berillis P.**, Mente E. The effect of feeding frequency on seabass daily food consumption co-cultured with lettuce in an aquaponic system. Proceedings of HydroMedit 2021, November 4-6, Greece.

48. Kapetanios E., Vlahos N., **Berillis P.**, Mente E. Preliminary results of brackish aquaponics with sea bass (*Dicentrarchus labrax*) and opposite-leaved saltwort plant or agretti (*Salsola soda*). Proceedings of HydroMedit 2021, November 4-6, Greece.
49. P. Stathopoulou, E. Tsoumalakou, T. Vanikiotis, E. Levizou and P. Berillis. Comined cultivation of Oreochromis mossambicus and Eruca vesicaria in an aquaponic system. AE 2020, Aquaculture Europe 2020, April 12-15, pp 550-551.
50. E. Tsoumalakou, E. Mente, N. Katsoulas, K.A. Kormas, **P. Berillis**, N. Vlahos, P. Kapsis, P. Stathopoulou and E. Levizou. Nutrient input in a small scale aquaponic system: effect on lettuce functional responses and tilapia growth. AE 2019, Aquaculture Europe 2019, Berlin, October 7-10, pp 1537-1538.
51. Vlahos N., Kapetanios E., Frangou S., Stathopoulou P., **Berillis P.**, Kormas K., Mente E. A brackish aquaponic system using mediterranean fish and plant species. Proccedings of the 14th Scientific Conference of Hellenic Hydrotechnic Union. Volos, May 16-17, 2019, p. 114-123.
52. Vlahos N., Babouklis K., Mitsopoulos I., Kormas K., **Berillis P.**, Mente E. Bacterial abundance in aquaponics under two salinities 20 ppt and 8 ppt. Proccedings of the 41th Scientific Conference of Hellenic Association for Biological Sciences. Katerini, May 9-11, 2019, pp. 67.
53. Spiliopoulou E., Stathopoulou P., Vlachos N., Mente E. and **Berillis P.** Erythrocytes and leucocytes morphology in tilapia blood. Proccedings of the 41th Scientific Conference of Hellenic Association for Biological Sciences. Katerini, May 9-11, 2019, pp. 241.
54. Boursiaki V., Theochari C., Zaoutsos S.P., Mente E., Apostologamvrou C., Vafidis D., **Berillis P.** Collagen ultrastructure and x-ray analysis of vertebrae of gilthead seabreams (*Sparus aurata*) with the scoliosis deformity. Proceedings of HydroMedit 2018, November 8-11, Volos, Greece, pp. 71-75.
55. Metsoviti M.N., Lachanidou G., Manolios A., **Berillis P.**, Katsoulas N., Papapolymerou G., Karapanagiotidis I.T. The effect of fishmeal and fish oil replacement by dietary microalgae species on liver histology in gilthead seabream (*Sparus aurata*). Proceedings of HydroMedit 2018, November 8-11, Volos, Greece, pp. 148-151.
56. Stathopoulou P., **Berillis P.**, Levizou E., Sakellariou-Makrantonaki M., Kormas A.K., Aggelaki A., Kapsis P., Vlahos N., Mente E. Aquaponics: a mutually beneficial relationship of fish, plants and bacteria. Proceedings of HydroMedit 2018, November 8-11, Volos, Greece, pp. 191-195.
57. Vlachos N., **Berillis P.**, Karapanagiotidis I.T., Kormas K., Korakis A., Maglavera S., Mente E. Future growth in sustainable, resilient and climate friendly organic and conventional european aquaculture (FutureEUAqua). Proceedings of HydroMedit 2018, November 8-11, Volos, Greece, pp. 623-624.
58. Tsoumalakou E., Papadimitriou T., **Berillis P.**, Kormas K.A., and Levizou E. Cyanotoxins-rich irrigation water causes extensive toxins bioaccumulation in spinach indicating considerable health risk. EFSA conference, Parma, Italy, September 18-21, 2018.
59. **P. Berillis.** Building on Scientific Research to Promote the Growth of Greek Aquaculture to International Distinction. Aquaculture Congress, Athens, 22-23 June, 2018.
60. Theochari, C., Boursiaki, V., **Berillis, P.**, Zaoutsos, S.P., Mente, E. Vafidis, D. Apostologamvrou, C. (2017). Stoichiometric analysis and compressive strength of vertebrae from gilthead sea bream (*Sparus aurata*) with scoliosis. AE2017, Aquaculture Europe 2017, Dubrovnic 18-19 October.
61. Xaxiri N., **Berillis P.**, Kormas K. Microscopic investigation of the marine biofilm development on the *Penaeus kerathurus* shrimp exoskeleton. Proccedings of the 39th Scientific Conference of Hellenic Association for Biological Sciences. Lamia, May 25-27, 2017, pp. 201.
62. Stathopoulou E., Apostologamvrou C., Vafidis D., Mente E. , **Berillis P.** Sex Differentiation and seasonal changes in the histology of the digestive gland of *Nephrops norvegicus* from pagasitikos gulf. Full paper, Proceedings of HydroMedit 2016, November 10-12, Messolonghi, Greece, pp. 277-355.

63. Castritsi-Catharios J., Zaoutsos S.P., Ekonomou G., **Berillis P.** Physical parameters and chemical composition of four sponge species. Preliminary results. Full paper, Proceedings of HydroMedit 2016, November 10-12, Messolonghi, Greece, pp. 156-159.
64. Psوفakis P., **Berillis P.**, Karapanagiotidis I.T. The effect of poultry meal and hydrolyzed feathermeal on liver and intestinal histology in the diet of gilthead seabream (*Sparus aurata*). Full paper, Proceedings of HydroMedit 2016, November 10-12, Messolonghi, Greece, pp. 372-377.
65. Tsakoumis E., Tsoulia T., Feidantsis K., Apostologamvrou C., Bobori D.C., **Berillis P.**, Antonopoulou E. Environmental response of the gills in the freshwater endemic fish *Alburnus vistonicus*. Full paper, Proceedings of HydroMedit 2016, November 10-12, Messolonghi, Greece, pp. 206-210.
66. Zindrili R., Apostologamvrou C., Mente E. and Berillis P. Intestinal histology of rainbow trout fed with an organic and a conventional diet. Procedings of the 38th Scientific Conference of Hellenic Association for Biological Sciences. Kavala, May 26-28, 2016, pp. 67.
67. Castritsi-Catharios J., Zouganelis G. D., **Berillis P.**, Pandelis G., Ekonomou G. & Kefalas E. Kalymnos, the island which made history in the sponge fishery. Data on the identification of *Spongia officinalis officinalis* & *Hippocampus communis*, the most common species in Aegean Sea. ISISA Islands of the World XIV Conference, 23 - 27 May 2016, Mytilene, Lesvos Island, Greece, pp. 72.
68. Rumbos, C.I., **Berillis, P.**, Sachinoglou, A. and Athanassiou, C.G. Investigation of the mode of action of zeolite against *Sitophilus oryzae* using scanning electron microscopy (SEM). 16th Panhellenic entomological congress 2015. Heraklion Crete, October 22-23, pp. 86.
69. Mente, E., **Berillis, P.** Intestinal histological response after a meal in rainbow trout (*Oncorhynchus mykiss*). Water and Fish 2015, June 10-12, Belgrade, pp. 369-372.
70. Tsoumalakou Evangelia, Kormas Konstantinos, Berillis Panagiotis. Development of biofilm into filter tips after being exposed to seawater. Procedings of the 37th Scientific Conference of Hellenic Association for Biological Sciences. Volos, May 21-23, 2015, pp. 411.
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73. **Berillis P.**, Karapanagiotidis I.T., Mente E. Gilthead seabreams (*Sparus aurata*) with lordosis deformity. What about vertebrae's collagen fibrils? Full paper, Proceedings of HydroMedit 2014, November 13-15, Volos, Greece, pp. 348-350.
74. Karapanagiotidis I.T., Bouzianas A., Fountas S., Papagiannopoulos N., **Berillis P.**, Boziaris I.S., Mente E. the effect of dried citrus extract on growth, body proximate composition, liver histology and fillet shelf life of gilthead sea bream (*Sparus aurata*). Full paper, Proceedings of HydroMedit 2014, November 13-15, Volos, Greece, pp. 351-355.
75. **Berillis, P.** and Panagiotopoulos N. Ca, P and collagen fibrils period measurements in the vertebrae of lordotic *Sparus aurata*. Full paper, Proceedings of the InterM2014, Oludeniz, October 16-19 2014.
76. Boursiaki V., Panagiotopoulos N.T., Karapanagiotidis I.T., **Berillis P.** Preliminary results of lordosis study in gilthead seabream (*Sparus aurata*). Procedings of the 36th Scientific Conference of Hellenic Association for Biological Sciences. Ioannina May 8-10 2014, pp. 253.
77. Valaroutsou E., Voudanta E, Mente E, **Berillis P.** Liver morphology of sea bream *Sparus aurata* fed with different diets. Procedings of the 35th Scientific Conference of Hellenic Association for Biological Sciences. Nafplio May 23-25 2013, pp. 35.

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80. **Berillis P.**, Petridou E., Kormas K.A., Kagalou I. Brain and liver histopathological study of Lake Karla's Carassius gibelio individuals. The possible affects of the cyanobacterial toxins. 10th Panhellenic Symposium of Oceanography and Fishery. Athens May 7-11 2012.
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