

# Žilvinas Pūtys

## CONTACT INFORMATION

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## EDUCATION AND ACADEMIC DEGREE

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2007 – 2012 Ecology and environmental studies in the field of biomedical sciences (03 B) PhD (Vilnius University and Nature Research Centre (Institute of Ecology until 2010).  
Dissertation topic: “Great Cormorant *Phalacrocorax carbo sinensis* diet and its effect on the fish populations and their community in the eutrophic Curonian Lagoon ecosystem”, supervisor PhD L. Ložys.  
Research area: ichthyology, invasion impact on fish populations and community, cormorants and fishery interactions.

1989 – 1995 Vilnius University, Biology / MSc.  
Research topic: “The structure of *Hyalopterus pruni* Geoffr. consortia on Common Reed”.  
Research done at the Nature faculty, Vilnius University.  
Research area: entomology, food web structure.

## PROFESSIONAL EXPERIENCE

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2021 03 – until now **Senior researcher**  
Laboratory of fish ecology, Nature Research Centre

2015 06 – 2021 03 **Researcher**  
Laboratory of fish ecology (Laboratory of Marine Ecology until 2019), Nature Research Centre

2013 09 – 2015 05 **Intern researcher (post-doc project)**  
Laboratory of chemical and behavioural ecology, Nature Research Centre

2007 10 – 2011 10 **PhD student**  
Laboratory of marine ecology, Nature Research Centre (Institute of Ecology until 2010)

2006 06 – 2013 09 **Biologist**  
Laboratory of marine ecology, Nature Research Centre (Institute of Ecology until 2010)

## RESEARCH INTERESTS

Great cormorant diet and impact on fish populations and fishery; studies of water fauna populations, community abundance trends and trophic relations; conflicts in fisheries and their socioeconomic aspects; studies on invasive fish species; studies on fish chemical danger signaling.

## PUBLICATIONS

*Scientific articles published in journals (books), indexed in „Clarivate Analytics Web of Science“ database (with citation index):*

1. Dainys J., Jakubavičiūtė E., Gorfine H., Kirka, M., Raklevičiūtė A., Morkvėnas A., **Pūtys Ž.**, Ložys L., Audzijonyte A. 2022. Impacts of Recreational Angling on Fish Population Recovery after a Commercial Fishing Ban. *Fishes* 7(5): 232. <https://doi.org/10.3390/fishes7050232>
2. Dainys J., Jakubavičiūtė E., Gorfine H., **Pūtys Ž.**, Virbickas T., Jakimavičius D., Šarauskienė D. Meilutytė-Lukauskienė D., Povilaitis A., Bukantis A., Kažys J., Ložys L. 2019. Predicted climate change effects on European perch (*Perca fluviatilis* L.) - A case study from the Curonian Lagoon, south-eastern Baltic. *Estuarine, Coastal and Shelf Science* 221: 83–89. <https://doi.org/10.1016/j.ecss.2019.03.020>.
3. Lesutienė, J., Ložys, L., Dainys, J., Karosienė, J., Pilkaitytė, R., **Pūtys, Ž.**, Bukaveckas, P.A., Gasiūnaitė, Z. R. 2018. Migratory patterns and cyanotoxin concentrations of pikeperch (*Sander lucioperca*) in the coastal waters of the Baltic Sea. *Boreal Environment Research* 23: 314-327.
4. Dainys J., Gorfine H., Šidagytė E., Jakubavičiūtė E., Kirka M., **Pūtys Ž.**, Ložys L. 2018. Are Lithuanian Eels Fat Enough To Reach The Spawning Grounds? *Environmental Biology of Fishes* 101(1): 127-136. DOI: 10.1007/s10641-017-0686-y
5. Dainys, J., **Pūtys, Ž.**, Jakubavičiūtė, E., Ložys, L., Bacevičius, E., Shiao, J.-C., Iizuka, Y. 2017. First record of tub gurnard, *Chelidonichthys lucerna* (Linnaeus, 1758), from the south-eastern Baltic Sea (Lithuania). *Journal of Applied Ichthyology*\_2017(6): 1223–1225. DOI: 10.1111/jai.13491.
6. Ložys L., Shiao J.-C., Iizuka Y., Minde A., **Pūtys Ž.**, Jakubavičiūtė E., Dainys J., Gorfine H., Tzeng W.-N. 2017. Habitat use and migratory behaviour of pikeperch *Sander lucioperca* in Lithuanian and Latvian waters as inferred from otolith Sr:Ca ratios. *Estuarine, Coastal and Shelf Science* 198: 43-52. DOI: 10.1016/j.ecss.2017.08.020
7. Bukaveckas, P.A., Lesutienė J., Gasiūnaitė Z. R., Ložys L., Olenina I., Pilkaitytė R., **Pūtys Ž.**, Tassone S. and Wood J. 2017. Microcystin in aquatic food webs of the Baltic and Chesapeake Bay regions. *Estuarine, Coastal & Shelf Science* 191: 50-59. DOI: 10.1016/j.ecss.2017.04.016
8. Dainys, J., Gorfine, H., Šidagytė, E., Jakubavičiūtė, E., Kirka, M., **Pūtys, Ž.**, Ložys, L. 2017. Do young on-grown eels, *Anguilla anguilla* (Linnaeus, 1758), outperform glass eels after transition to a natural prey diet? *Journal of Applied Ichthyology* 33(3): 361-365. DOI: 10.1111/jai.13347.
9. **Pūtys, Ž.**, Ložys, L., Būda, V. 2015. Respiratory response to the chemical cues of injured conspecifics and histology of skin in round goby, *Neogobius melanostomus* (Actinopterygii: Perciformes: Gobiidae). *Acta Ichthyologica et Piscatoria* 45 (4): 411–415. DOI: 10.3750/AIP2015.45.4.10.
10. Troynikov, V. S., Whitten, A. R., Gorfine, H. K., **Pūtys, Ž.**, Jakubavičiūtė, E., Ložys, L., Dainys, J. 2013. Cormorant catch concerns for fishers: estimating the size-selectivity of a piscivorous bird. PLoS ONE 8(11): e77518. DOI: 10.1371/journal.pone.0077518.
11. Rakauskas V., **Pūtys Ž.**, Dainys J., Lesutienė J., Ložys L., Arbačiauskas K. 2013. Increasing population of the invader round goby, *Neogobius melanostomus* (Actinopterygii: Perciformes: Gobiidae), and its trophic role in the Curonian Lagoon, SE Baltic Sea. *Acta Ichthyologica et Piscatoria* 43(2): 95–108. DOI: 10.3750/AIP2013.43.2.02.
12. Troynikov, V. S., Gorfine, H. K., Ložys, L., **Pūtys, Ž.**, Jakubavičiūtė, E. and Day, R. W. 2011. Parameterization of European perch *Perca fluviatilis* length-at-age data using stochastic Gompertz growth models. *Journal of Fish Biology* 79: 1940–1949. DOI: 10.1111/j.1095-8649.2011.03135.x.
13. Jakubavičiūtė, E., **Pūtys, Ž.**, Dainys, J. and Ložys, L. 2011. Perch (*Perca fluviatilis*) growth, mortality and stock exploitation by 40–45 mm mesh-sized gillnet fishery in the Curonian Lagoon. *Acta Zoologica Lituanica* 21 (3): 215-220. DOI: 10.2478/v10043-011-0026-y.
14. Švažas, S., Chukalova, N., Grishanov, G., **Pūtys, Ž.**, Sruoga, A., Butkauskas, D., Raudonikis, L. and Prakas, P. 2011. The role of great cormorant (*Phalacrocorax carbo sinensis*) for fish

stock and dispersal of helminthes parasites in the Curonian Lagoon area. *Veterinarija ir zootechnika* 55(77): 79-85.

**Scientific articles published in journals (books), indexed in „Clarivate Analytics Web of Science“ database (without citation index):**

1. Jakubavičiūtė E., Heather F., Višinskienė G., Morkvėnas A., Gorfine H., **Pūtys Ž.**, Ložys L., Audzijonyte A. 2022. Historical fish survey datasets from productive aquatic ecosystems in Lithuania. *Data in Brief* 41. <https://doi.org/10.1016/j.dib.2022.107990>
2. Butkauskas, D., Chaika, K., Švažas, S., Grishanov, G., Paulauskas, A., **Pūtys, Ž.** 2016. Genetic diversity of Great Cormorants *Phalacrocorax carbo* in the eastern Baltic region. *Biologija* 62(3): 180-188.
3. Jakubavičiūtė, E., **Pūtys, Ž.**, Dainys, J. and Ložys, L. 2011. Perch (*Perca fluviatilis*) growth, mortality and stock exploitation by 40–45 mm mesh-sized gillnet fishery in the Curonian Lagoon. *Acta Zoologica Lituanica* 21 (3): 215-220. DOI: 10.2478/ v10043-011-0026-y.
4. **Pūtys, Ž.** and Zarankaitė, J. 2010. Diet composition of Great Cormorant *Phalacrocorax carbo sinensis* at the Juodkrantė colony, Lithuania. *Acta Zoologica Lituanica* 20(3): 179-189. DOI: 10.2478/v10043-010-0031-6.

**Other reviewed scientific publications (books, books' chapters, collections of articles, articles, textbooks and etc.):**

1. HELCOM, 2013. Tytti Kontula and Jannica Haldin (Eds.). HELCOM Red List of Baltic Sea species in danger of becoming extinct. Baltic Sea Environment Proceedings 140: 1-106. ISSN 0357-2994

**Reviewed scientific articles, published in Lithuania:**

1. Lutovinovas E., **Pūtys Ž.** 2022. *Psilota atra* (loew, 1817) – new to the fauna of Lithuania (Diptera: Syrphidae). *Bulletin of the Lithuanian Entomological Society* 6(34): 97-101.
2. Višinskienė G., **Pūtys Ž.**, Piterāns U. 2022. *Parasetodes respersellus* (Rambur 1842) – a new caddisfly (Trichoptera, Leptoceridae) species to Lithuanian and Latvian fauna. *Bulletin of the Lithuanian Entomological Society* 6(34): 87-91.
3. Ferenc R., Tamutis V., Martinaitis K., **Pūtys Ž.** 2021. Species of true bugs (Hemiptera: Heteroptera) new for Lithuanian fauna. *Bulletin of the Lithuanian Entomological Society* 5(33): 9-16.
4. Ivinskis P., Rimšaitė J., **Pūtys Ž.** 2020. Data on new and rare for Lithuanian fauna Lepidoptera, a report of 2020. *Bulletin of the Lithuanian Entomological Society* 4(32): 25-34.
5. Ivinskis P., Rimšaitė J., **Pūtys Ž.**, Paznekaitė V. 2019. Rare and new for the Lithuanian fauna species of Lepidoptera. *Bulletin of the Lithuanian Entomological Society* 3(31): 48-56.
6. Lutovinovas E., **Pūtys Ž.** 2019. *Callicera aenea* (Fabricius, 1781) – new to the fauna of Lithuania (Diptera: Syrphidae). *Bulletin of the Lithuanian Entomological Society* 3(31): 114-117.

**PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS**

**International Projects:**

- 2013-2015      **Researcher** EU LIFE - Nature programme LIFE+ project “ DENOFLIT - Inventory of marine species and habitats for development of NATURA 2000 network in the offshore waters of Lithuania“

- 2010-2012 **Researcher** „Evaluation of nuclear power impact on Perch (*Perca fluviatilis*) populations by means of genetic based analysis and application of fish otoliths as natural recorders of radiocontamination and thermal pollution“. (Lithuania, Latvia, Taiwan);
- 2009-2011 **Researcher**“A system for the sustainable management of Lithuanian marine resources using novel surveillance, modeling tools and an ecosystem approach“;
- 2006-2009 **Researcher** EU LIFE - Nature programme ”LITCOAST - Natura 2000 site conservation and management on the Lithuanian coast”
- 2006-2008 **Researcher** EU LIFE - Nature programme ”Marine Protected Areas in the Eastern Baltic Sea”
- 2006-2008 **Researcher** ES COST programme project “INTERCAFE: Conserving Biodiversity – Interdisciplinary Initiative to Reduce pan-European Cormorant-Fisheries Conflicts”

### *National Projects:*

- 2015-2018 **Researcher** Assessment of the impact of climate change and other abiotic environmental factors on aquatic ecosystems
- 2014-2016 **Researcher, supervisor of Nature Research Centre project activities** Cyanotoxins in the food web of the Curonian Lagoon and their distribution in coastal waters
- 2013-2015 **Researcher** PostDoc project „Chemical alarm cues of Round goby *Neogobius melanostomus*“
- 2010-2011 **Researcher** Assessment and forecast of the impact of cormorants on the structure and resources of fish populations in the Curonian Lagoon
- 2008-2009 **Researcher** Preparation of the European eel resource management and resource restoration plan for Lithuania in accordance with the requirements of the European Commission regulation

## **INTERNSHIP AND TRAINING**

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- 2015.03-05 Internship: Macquarie University, Laboratory of Fish Behavior, Ecology and Evolution. Sydney, Australia.

## **PARTICIPATION IN SCIENTIFIC CONFERENCES**

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### *International scientific conferences:*

1. Jakubavičiūtė J., Dainys J., Ložys L., **Pūtys Ž.**, Morkvėnas A., Raklevičiūtė A., Kirka M., Gorfine H., Audzijonytė A. Can recreational fishing change a reservoir ecosystem? Insights about commercial and recreational fishing impacts on a productive water reservoir in Europe. American Fisheries Society 151st Annual Meeting, November 6-10, Baltimore, 2021.
2. Audzijonyte A., Dainys J., Jakubavičiūtė E., Ložys L., **Pūtys Ž.**, Morkvėnas A., Raklevičiūtė A. Can angling change a lake ecosystem? Ecology Across Borders 2021. British Ecological Society, Liverpool, UK, December 12-15, 2021.
3. Nalivaikienė, R., Kalcienė, V., Rybakovas, A., **Pūtys, Ž.**, Višinskienė, G., Butrimavičienė, L., 2021. Geno- and cytotoxic responses in flounder (*Platichthys flesus*) from the Lithuanian coastal zone (Baltic sea). Open Readings 2021, abstract book p. 337.
4. Dainys J., Jakubavičiūtė E., **Pūtys Ž.**, Ložys L. 2016. Water salinity influence on perch (*Perca fluviatilis*) growth and behaviour. Percis IV: The fourth international percid fish symposium, Tartu, Estonia.

5. Ložys L., Shiao J.C., Lizuka Y., Minde A., **Pūtys Ž.**, Jakubavičiūtė E., Dainys J., Tzeng W.N. 2016. Habitat use and migratory behaviour of pikeperch *Sander lucioperca* in Lithuanian and Latvian waters as inferred from otolith Sr:Ca ratios. Percis IV: The fourth international percid fish symposium, Tartu, Estonia.
6. Lesutienė, J., Bukaveckas, P. A., Gasiūnaitė, Z. R., Ložys, L., Pilkaitytė, R., **Pūtys, Ž.**, Tassone, S. 2015. Use of stable isotopes to track the fate of cyanobacteria production in estuarine food webs. 10th Baltic Sea Science Congress, Ryga, Latvija.
7. **Pūtys, Ž.**, Ložys, L. and Būda, V. 2015. Chemical alarm cues of round goby *Neogobius melanostomus*. International Conference on Marine Science & Aquaculture 2015 (ICOMSA), Kota Kinabalu, Malaizija.
8. Ložys L., Dainys J., Statkus R., Fedotova J., Nika N., **Pūtys Ž.** 2014. Inventory of offshore waters in Lithuania for development of NATURA 2000 network (DENOFLIT): diversity and distribution of demersal fish. 12th international conference Littoral 2014, Klaipėda, Lithuania.
9. Gorfine, H. K., Troynikov, V. S., Ložys, L., **Pūtys, Ž.**, Jakubavičiūtė E. and Day, R. W. 2011. Fish cohort response to gear selectivity - a stochastic framework. 2011 World Conference on Natural Resource Modeling, Ottawa, Canada.
10. Jakubavičiūtė, E., **Pūtys, Ž.**, Ložys, L., Gorfine, H., Repečka, R. and Bukontaitė, R. 2011. Perch (*Perca fluviatilis*) stock exploitation by great cormorants (*Phalacrocorax carbo sinensis*) and fishery in the Curonian Lagoon. Open Readings 2011, Vilnius, Lithuania.
11. Rakauskas, V., Bacevičius, E., **Pūtys, Ž.** and Ložys, L. 2009. Expansion, feeding and parasites of the round goby, *Neogobius melanostomus* (Pallas, 1811)), a recent invader in the Curonian Lagoon, Lithuania. 13th European Congress of Ichthyology 13-asis Europos Ichtiologijos Kongresas, Klaipėda, Lithuania.
12. Livdane, L. and **Pūtys, Ž.** 2009. Feeding of juvenile perch in the Curonian Lagoon. 7th Baltic Sea science congress, Tallinn, Estonia.

#### *National scientific conferences:*

1. Dainys J., Pūtys Ž., Ložys L. 2021. Žuvų ženklimas fluorescenciniais dažais įžuvinimo efektyvumo vertinimui. Jūros ir krantų tyrimai 2021. Konferencijos medžiaga. Klaipėda, p. 27-31.
2. **Pūtys Ž.**, Ložys L., Dainys J., Jakubavičiūtė E., 2020. Žuvų bendrijos ir jų eksploatavimo poveikis didelio produktyvumo vandens telkinkuose: Kuršių ir Kauno marios. Jūros ir krantų tyrimai 2020. Konferencijos medžiaga. Klaipėda, p. 188-191.
3. Dainys J., Ložys L., **Pūtys Ž.**, Jakubavičiūtė E. 2020. Kuršių marių žuvų bendrijos būklė. Jūros ir krantų tyrimai 2020. Konferencijos medžiaga. Klaipėda, p. 35-38.
4. Ložys L., Dainys J., **Pūtys Ž.**, Jakubavičiūtė E. 2020. Kuršių marių žuvų bendrijos būklė. Jūros ir krantų tyrimai 2020. Konferencijos medžiaga. Klaipėda, p. 122-125.
5. Dainys J., Stakėnas S., Jakubavičiūtė E., **Pūtys Ž.**, Ložys L. 2018. Įžuvintų Europinių ungurių (*Anguilla anguilla* L.) migracija Lietuvoje: mirtingumas hidroelektrinių turbinose ir migracijos sėkmė. Jūros ir krantų tyrimai 2018. Konferencijos medžiaga. Klaipėda, p. 34.
6. **Pūtys Ž.**, De Blick, Y., Dainys J., Jakubavičiūtė E., Ložys L. 2018. Verslinės stintų žvejybos įrankių selektyvumas ir poveikis išteklių pasipildymui. Jūros ir krantų tyrimai 2018. Konferencijos medžiaga. Klaipėda, p. 95.
7. Pūtys, Ž., Jakubavičiūtė, E., Dainys, J. ir Ložys, L. 2013. Didžiųjų kormoranų ir verslinės žvejybos konkurencija Kuršių mariose. 7-oji nacionalinė jūros mokslų ir technologijų konferencija „Jūros ir krantų tyrimai – 2013“. Konferencijos medžiaga. Klaipėda, p. 204-206.
- Pūtys, Ž.** 2009. Juodkrantės kolonijoje perinčių didžiųjų kormoranų *Phalacrocorax carbo sinensis* mityba. 3-os mokslinės-praktinės konferencijos „Jūros ir krantų tyrimai – 2009“ tezės. Klaipėda, p.195.

8. Ložys, L., Repečka, R. ir Pūtys, Ž. 2009. Ichtiologinių tyrimų ir alternatyvių verslinės žvejybos metodų vertinimo Lietuvos priekrantėje rezultatai. 3-os mokslinės-praktinės konferencijos „Jūros ir krantų tyrimai – 2009“ tezės. Klaipėda, p.151.

## **PARTICIPATION IN THE STUDY PROCESS**

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### ***Member of the PhD Defense Council:***

Area of science: Nature sciences (N000). Science direction: Biology (N010)

Artūras Skabeikis      Dissertation topic: „Role of the round goby (*Neogobius melanostomus*) in the food web of the south-east Baltic sea coastal waters“      2019 06

### ***Supervision of bachelor and master students:***

Orestas Šinkevičius      Bachelor topic: „Kauno bei Kuršių marių ešerių (*Perca fluviatilis* L.) populiacijos ir amžinė struktūra“ (Vilnius University Life Sciences Center, Biology studies programme)      2019 – 2020