

I. INFORMATION ON SCIENTIFIC OR ARTISTIC ACHIEVEMENTS SET OUT IN ART. 219 PARA 1. POINT 2 OF THE ACT

Cycle of scientific articles related thematically, pursuant to art. 219 para 1. point 2b of the Act

1. **Jermacz Ł**, Kobak J. 2017. Keep calm and don't stop growing: Non-consumptive effects of a sympatric predator on two invasive Ponto-Caspian gammarids *Dikergammarus villosus* and *Pontogammarus robustoides*. PLoS One. 12(8):e0182481. doi:10.1371/journal.pone.0182481.

According to the Web of Science for the year of publication Q1, Impact Factor: 2.766; number of citations: 15 (8 excluding self-citations), MNiSW points from the year of publication: 35. Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript, obtaining financing

2. **Jermacz Ł**, Nowakowska A, Kletkiewicz H, Kobak J. 2020. Experimental evidence for the adaptive response of aquatic invertebrates to chronic predation risk. Oecologia. 192(2):341–350. doi:10.1007/s00442-020-04594-z.

According to the Web of Science for the year of publication Q2, Impact Factor: 3.225; number of citations: 11 (7 excluding self-citations), MNiSW points from the year of publication 100. Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript, obtaining financing

3. **Jermacz Ł**, Kletkiewicz H, Poznańska-Kakareko M, Klimiuk M, Kobak J. 2021. Chronic predation risk affects prey escape abilities through behavioral and physiological changes. Behav Ecol. 33(1): 298-306. doi: 10.1093/beheco/arab142.

According to the Web of Science for the year of publication Q1, Impact Factor: 3.087; number of citations: 0, MNiSW points from the year of publication 140. Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript, obtaining financing

4. **Jermacz Ł**, Kletkiewicz H, Krzyżyńska K, Klimiuk M, Kobak J. 2020. Does global warming intensify cost of antipredator reaction? A case study of freshwater amphipods. Sci Total Environ. 742:140474. doi:10.1016/j.scitotenv.2020.140474.

According to the Web of Science for the year of publication Q1, Impact Factor: 7.963; number of citations: 6 (3 excluding self-citation), MNiSW points from the year of publication 200. Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript, obtaining financing

II. INFORMATION ON SCIENTIFIC OR ARTISTIC ACTIVITY

A. The period before the award of the PhD degree

List of articles published in scientific journals (the articles not mentioned in section I.).

1. Kakareko T, Kobak J, Grabowska J, **Jermacz Ł**, Przybylski M, Poznańska M, Pietraszewski D, Copp GHG. 2013. Competitive interactions for food resources between invasive racer goby *Babka gymnotrachelus* and native European bullhead *Cottus gobio*. Biol Invasions. 15(11):2519–2530. doi:10.1007/s10530-013-0470-7.

According to Web of Science (2013) Q1, Impact Factor: 2.716; citation: 42, MNiSW points from the year of publication.

Contribution: Participation in the design, conducting experiments, analysis of the obtained results, participation in the preparation of the manuscript.

2. Kobak J, Kakareko T, **Jermacz Ł**, Poznańska M. 2013. The impact of zebra mussel (*Dreissena polymorpha*) periostracum and biofilm cues on habitat selection by a Ponto-Caspian amphipod *Dikerogammarus haemobaphes*. *Hydrobiologia*. 702(1):215–226. doi:10.1007/s10750-012-1322-7.

According to the Web of Science for the year of publication Q2, Impact Factor: 2.212; number of citations: 12, MNiSW points from the year of publication 30

Contribution: Participation in designing and carrying out experiments.

3. Kobak J, **Jermacz Ł**, Płachocki D. 2014. Effectiveness of zebra mussels to act as shelters from fish predators differs between native and invasive amphipod prey. *Aquat Ecol*. 48(4):397–408. doi:10.1007/s10452-014-9492-1.

According to the Web of Science for the year of publication Q2, Impact Factor: 1.422; number of citations: 31, MNiSW points from the year of publication 25

Contribution: Participation in designing and carrying out experiments.

4. Błońska D, Grabowska J, Kobak J, **Jermacz Ł**, Bacela-Spychalska K. 2015. Feeding preferences of an invasive Ponto-Caspian goby for native and non-native gammarid prey. *Freshw Biol*. 60(10):2187–2195. doi:10.1111/fwb.12647.

According to the Web of Science for the year of publication Q1, Impact Factor: 2.933; number of citations: 26, MNiSW points from the year of publication 45

Contribution: Participation in designing and carrying out experiments.

5. **Jermacz Ł**, Dzierżyńska A, Kakareko T, Poznańska M, Kobak J. 2015. The art of choice: predation risk changes interspecific competition between freshwater amphipods. *Behav Ecol*. 26(2):656–664. doi:10.1093/beheco/arv009.

According to the Web of Science for the year of publication Q1, Impact Factor: 3.029; number of citations: 19, MNiSW points from the year of publication 35

Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript, obtaining financing

6. **Jermacz Ł**, Dzierżyńska A, Poznańska M, Kobak J. 2015. Experimental evaluation of preferences of an invasive Ponto-Caspian gammarid *Pontogammarus robustoides* (Amphipoda, Gammaroidea) for mineral and plant substrata. *Hydrobiologia*. 746(1):209–221. doi: 10.1007/s10750-014-1963-9.

According to the Web of Science for the year of publication Q2, Impact Factor: 2.051; number of citations: 18, MNiSW points from the year of publication 30

Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript, obtaining financing.

7. **Jermacz Ł**, Kobak J, Dzierżyńska A, Kakareko T. 2015. The effect of flow on the competition between the alien racer goby and native European bullhead. *Ecol Freshw Fish*. 24(3):467–477. doi:10.1111/eff.12162.

According to the Web of Science for the year of publication Q1, Impact Factor: 2.052; number of citations: 21, MNiSW points from the year of publication 30
Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript,

8. Kobak J, **Jermacz Ł**, Dzierżyńska-Białończyk A. 2015. Substratum preferences of the invasive killer shrimp *Dikerogammarus villosus*. *J Zool.* 297(1):66–76. doi:10.1111/jzo.12252.

According to the Web of Science for the year of publication Q1, Impact Factor: 1.819; number of citations: 24, MNiSW points from the year of publication 35
Contribution: Participation in designing and carrying out experiments.

9. Poznańska M, Goleniewska D, Gulanicz T, Kakareko T, **Jermacz Ł**, Kobak J. 2015. Effect of substratum drying on the survival and migrations of a freshwater pulmonate snail *Planorbis corneus* (Linnaeus, 1758). *Hydrobiologia.* 747(1):177–188. doi:10.1007/s10750-014-2130-z.

According to the Web of Science for the year of publication Q2, Impact Factor: 2,051; number of citations: 11, MNiSW points from the year of publication 30
Contribution: Participation in designing and carrying out experiments.

10. Poznańska M, Kakareko T, Gulanicz T, et al (2015) Life on the edge: survival and behavioural responses of freshwater gill-breathing snails to declining water level and substratum drying. *Freshw Biol* 60:2379–2391. doi: 10.1111/fwb.12664

According to the Web of Science for the year of publication Q1, Impact Factor: 2.933; number of citations: 18, MNiSW points from the year of publication 45
Contribution: Participation in designing and carrying out experiments.

11. Grabowska J, Kakareko T, Błońska D, Przybylski M, Kobak J, **Jermacz Ł**, Copp GH. 2016. Interspecific competition for a shelter between non-native racer goby and native European bullhead under experimental conditions – Effects of season, fish size and light conditions. *Limnologia.* 56:30–38. doi:10.1016/j.limno.2015.11.004.

According to the Web of Science for the year of publication Q3, Impact Factor: 1.427; number of citations: 25, MNiSW points from the year of publication 25
Contribution: Participation in designing and carrying out experiments.

12. Kakareko T, Kobak J, Poznańska M, **Jermacz Ł**, Copp GH. 2016. Underwater evaluation of habitat partitioning in a European river between a non-native invader, the racer goby and a threatened native fish, the European bullhead. *Ecol Freshw Fish.* 25(1):60–71. doi:10.1111/eff.12191.

According to the Web of Science for the year of publication Q2, Impact Factor: 2.054; number of citations: 19, MNiSW points from the year of publication 30
Contribution: Participation in designing field research and creating the manuscript.

13. Kobak J, Poznańska M, **Jermacz Ł**, Kakareko T, Pradzynski D, Łodygowska M, Montowska K, Bacela-Spychalska K. 2016. Zebra mussel beds: An effective feeding ground for Ponto-Caspian gobies or suitable shelter for their prey? *PeerJ.* 2016(11):1–27. doi:10.7717/peerj.2672.

According to the Web of Science for the year of publication Q2, Impact Factor: 2.117; number of citations: 7, MNiSW points from the year of publication 35
Contribution: Participation in designing and carrying out experiments.

14. **Jermacz Ł**, Andrzejczak J, Arczyńska E, Zielska J, Kobak J. 2017. An enemy of your enemy is your friend: Impact of predators on aggregation behavior of gammarids. *Ethology*. 123(9):627–639. doi:10.1111/eth.12635.

According to the Web of Science for the year of publication Q2, Impact Factor: 1.697; number of citations: 10, MNiSW points from the year of publication 30
Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript, obtaining financing.

15. **Jermacz Ł**, Dzierżyńska-Białończyk A, Kobak J. 2017. Predator diet, origin or both? Factors determining responses of omnivorous amphipods to predation cues. *Hydrobiologia*. 785(1):173–184. doi:10.1007/s10750-016-2917-1.

According to the Web of Science for the year of publication Q2, Impact Factor: 2.165; number of citations: 13, MNiSW points from the year of publication 30
Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript, obtaining financing.

16. Kobak J, **Jermacz Ł**, Marcińczyk J, Bartoszyńska E, Rutkowska D, Pawłowska K. 2017. Abiotic factors affecting habitat selection by two invasive gammarids *Dikerogammarus villosus* and *Pontogammarus robustoides*. *Hydrobiologia*. 797(1):247–263. doi:10.1007/s10750-017-3185-4

According to the Web of Science for the year of publication Q2, Impact Factor: 2.165; number of citations: 9, MNiSW points from the year of publication 30
Contribution: Participation in designing and carrying out experiments.

17. Kobak J., **Jermacz Ł**, Rutkowska D, Pawłowska K, Witkowska L, Poznańska M. 2017. Impact of predators and competitors on the depth selection by two invasive gammarids. *J Zool*. 301(3):174–183. doi:10.1111/jzo.12409.

According to the Web of Science for the year of publication Q1, Impact Factor: 1.955; number of citations: 7, MNiSW points from the year of publication 35
Contribution: Participation in designing and carrying out experiments.

18. Poznańska-Kakareko M, Budka M, Żbikowski J, Czarnecka M, Kakareko T, **Jermacz Ł**, Kobak J. 2017. Survival and vertical distribution of macroinvertebrates during emersion of sandy substratum in outdoor mesocosms. *Fundam Appl Limnol*. 190(1):29–47. doi:10.1127/fal/2017/1017.

According to the Web of Science for the year of publication Q3, Impact Factor: 1.361; number of citations: 6, MNiSW points from the year of publication 25
Contribution: Participation in designing and carrying out experiments.

Information on presentations given at national or international scientific or arts conferences, including a list of lectures delivered upon invitation and plenary lectures.

1. **Jermacz Ł**, Józefowicz S, Kobak J. Eksperymentalna ocena preferencji siedliskowych pontokaspijskiego kielża *Pontogammarus robustoides*. XX Polish Bentological Workshop, Zakopane, 9-11 May 2013. (poster)
2. **Jermacz Ł**, Kobak J. The experimental evaluation of habitat preferences of the Ponto-Caspian gammarid *Pontogammarus robustoides*. 18th International Conference on Aquatic Invasive Species - ICAIS 2013, Niagara Falls, Ontario, Canada, 21-25 April 2013. (poster)
3. **Jermacz Ł**, Dzierżyńska A, Kobak J. The impact of substratum granulometry, plant species and the presence of competing *Dikerogammarus villosus* on habitat selection by Ponto-Caspian gammarid *Pontogammarus robustoides*. 15th International Colloquium on Amphipoda (ICA), Szczawnica, Poland, 2-7 September 2013. (oral presentation)
4. **Jermacz Ł**, Kobak J. Wpływ kairomonów wydzielanych przez potencjalne drapieżniki na behavior pontokaspijskich kielży *Dikerogammarus villosus* i *Pontogammarus robustoides*: inwazyjnych gatunków w wodach Europy. XXI Polish Bentological Workshop, Sztutowo, Poland, 8-10 May 2014. (oral presentation)
5. **Jermacz Ł**, Kobak J, Dzierżyńska A, Kakareko T. The effect of flow on the competition between the alien racer goby and native European bullhead. Neobiota 2014, From understanding to action: 8th International Conference on Biological Invasions, Antalya-Turkey, 03-08 November 2014. (oral presentation)
6. **Jermacz Ł**, Szatkowska B, Kobak J. Density of prey as a factor modifying the anti-predator behaviour of amphipods. 16th International Colloquium on Amphipoda, Aveiro, 7-11 September 2015. (oral presentation)
7. **Jermacz Ł**, Kobak J, Rutkowska D, Pawłowska K, Witkowska L, Poznańska M. Wpływ drapieżnictwa i konkurencji na wertykalne oraz horyzontalne rozmieszczenie dwóch inwazyjnych kielży *Dikerogammarus villosus* i *Pontogammarus robustoides*. XXIII Polish Bentological Workshop, Lasy Janowskie, Poland, 19-21 May 2016. (poster)
8. **Jermacz Ł**, Szatkowska B, Zielska J, Kobak J. Density of prey as a factor modifying the anti-predator behaviour of amphipods. Neobiota 2016, Biological invasions: interactions with environmental change: 9th International Conference on Biological Invasions, Vianden, Luxembourg, 14-16 September 2016. (poster)
9. **Jermacz Ł**, Kobak J. Is the "killer shrimp" resistant to non-consumptive effects of predators? Global action against aquatic invasive species, 20th International Conference on Aquatic Invasive Species, Florida, USA, October 22-26, 2017. (oral presentation)
10. **Jermacz Ł**, Poznańska-Kakareko M, Kobak J. Czy odporność na pośrednie oddziaływanie drapieżnika promuje gatunki inwazyjne? XXIV Polish Bentological Workshop, Łukęcin, Poland 24-27 May 2017. (poster)

In addition to the presentations presented above, in the years 2012-2017 I was a co-author of 13 national and 20 international conference presentations

Information on participation in organizational and scientific committees at national or international conferences, including the applicant's function.

1. Member of the Organizing Committee: XIX Polish Bentological Workshop, Toruń – Zacisze, Poland, 17-19 May 2012.

Information on participation in the works of research teams realizing projects financed through national and international competitions, including the projects which have been completed and projects in progress, and information on the function performed in the team.

Role in the project – principal investigator

1. 2014-2017 grant NCN PRELUDIUM, no 2013/09/N/NZ8/03191, „Experimental evaluation of predator-induced defence mechanisms in selected species of invasive Ponto-Caspian gammarids” (project completed)
2. 2017-2021 grant NCN OPUS, no 2016/21/B/NZ8/00418, „Ecology of fear of invasive organisms. Are Ponto-Caspian gammarids (Crustacea, Amphipoda) less susceptible to predator-induced stress?” (project completed)

Role in the project – investigator

1. 2010-2013 grant MNiSW no N N304 371539, „Impact of the alien fish species, the racer goby (*N. gymnotrachelus*) on the distribution of the European bullhead (*C. gobio*).” (principal investigator: Tomasz Kakareko, Nicolaus Copernicus University). (project completed)
2. 2012-2017 grant NCN SONATA, no 2011/03/D/NZ8/03012, „Testing invasional meltdown hypothesis with the Ponto-Caspian exotic community in inland Polish waters as a model system”. (principal investigator : dr Karolina Bącela-Spychalska, University of Łódź). (project completed)
3. 2013-2017 grant NCN OPUS, no 2012/05/B/NZ8/00479, „Habitat preferences of Ponto-Caspian gammarids (Crustacea, Amphipoda), invasive in European waters”. (principal investigator: dr hab. Jarosław Kobak, Nicolaus Copernicus University). (project completed)
4. 2016-2019 grant NCN PRELUDIUM no 2015/17/N/NZ8/01653, „Impact of environmental factors on valve movements of the zebra mussel *Dreissena polymorpha* (Bivalvia).” (principal investigator: Anna Dzierżyńska-Białończyk, Nicolaus Copernicus University). (project completed) – project started before the award of my PhD degree and continued later
5. 2017-2022 grant NCN OPUS no 2016/23/B/NZ8/00741, „Anti-predator defence as a competitive advantage of invasive fish species over natives: a case study of Ponto-Caspian Gobiidae ” principal investigator dr hab. Tomasz Kakareko, UMK Toruń). (project completed) – project started before the award of my PhD degree and continued later

Information on scientific or artistic works reviewed, in particular those published in international journals.

Reviewer in such journals as: Italian Journal of Zoology (1), Limnologica (1), Marine Biology Research (1), Zoology and Ecology (1), Zoology in the Middle East (1)

Information on membership in the teams assessing applications for financing of research projects, applications for scientific awards, applications in other competitions of scientific or didactic character.

1. Reviewer of the project submitted to 2017 FONDECYT Regular Grant Competition, Chile

expert opinions or other studies made on request :

Zubel P., Płachocki D., Krawiac A., Kamiński D., Szpila K., Poznańska M., **Jermacz Ł.**, Janik M., Michalska D., Ślebioda K., 2012. Raport o oddziaływaniu na środowisko przedsięwzięcia pn.: „Budowa zbiornika wodnego w km 39+120 rzeki Dunajec, zapory powłokowej piętrzącej wodę powierzchniową w zbiorniku wodnym, przepławki dla ryb, śluzy dla przeprawy kajaków, linii

przesyłowej dla zasilania zapory przeponowej oraz modernizacji ujęcia wody pitnej dla miasta Brzeska i instalacji odnawialnego źródła energii”. ECO-ANALYSE Biuro Analiz Środowiska, Toruń.

B. period after the conferment of the PhD degree

List of articles published in scientific journals (including the articles not mentioned in section I.2).

1. Dzierżyńska-Białończyk A, **Jermacz Ł**, Maćkiewicz T, Gajewska J, Kobak J. 2018. Mechanisms and impact of differential fouling of the zebra mussel *Dreissena polymorpha* on different unionid bivalves. *Freshw Biol.* 63(7):687–699. doi:10.1111/fwb.13107.

According to the Web of Science for the year of publication Q1, Impact Factor: 3.404; number of citations: 13, MNiSW points from the year of publication 45/100
Contribution: Participation in designing and carrying out experiments.
2. **Jermacz Ł**, Kobak J. 2018. The Braveheart amphipod: a review of responses of invasive *Dikerogammarus villosus* to predation signals. *PeerJ* 6:e5311. doi:10.7717/peerj.5311.

According to the Web of Science for the year of publication Q2, Impact Factor: 2.353; number of citations: 6, MNiSW points from the year of publication 35/100
Contribution: Contribution: Concept and methodology of the work, analysis of the results, preparation and submission of the manuscript,
3. Czarnecka M, Kakareko T, **Jermacz Ł**, Pawlak R, Kobak J. 2019. Combined effects of nocturnal exposure to artificial light and habitat complexity on fish foraging. *Sci Total Environ.* 684:14–22. doi:10.1016/j.scitotenv.2019.05.280.

According to the Web of Science for the year of publication Q1, Impact Factor: 6.551; number of citations: 17, MNiSW points from the year of publication 200
Contribution: Participation in designing and carrying out experiments.
4. Dzierżyńska-Białończyk A, **Jermacz Ł**, Zielska J, Kobak J. 2019. What scares a mussel? Changes in valve movement pattern as an immediate response of a byssate bivalve to biotic factors. *Hydrobiologia.* 841(1):65–77. doi:10.1007/s10750-019-04007-0.

According to the Web of Science for the year of publication Q1, Impact Factor: 2.385; number of citations: 15, MNiSW points from the year of publication 100
Contribution: Participation in designing and carrying out experiments.
5. Kletkiewicz H, Maliszewska J, Jaworski K, **Jermacz Ł**, Smoliński DJ, Rogalska J. 2019. Thermal conditions during neonatal anoxia affect the endogenous level of brain-derived neurotrophic factor. *J Neurosci Res.* 97(10):1266–1277. doi:10.1002/jnr.24486.

According to the Web of Science for the year of publication Q1, Impact Factor: 4.699; number of citations: 1, MNiSW points from the year of publication 70
Contribution: Participation in designing and carrying out experiments.
6. Rachalewski M, **Jermacz Ł**, Bącela-Spychalska K, Podgórska MM, Kobak J. 2019. Friends or enemies? Chemical recognition and reciprocal responses among invasive Ponto-Caspian amphipods. *Aquat Invasions.* 14(4):667–683. doi:10.3391/ai.2019.14.4.07.

According to the Web of Science for the year of publication Q2, Impact Factor: 1.856; number of citations: 4, MNiSW points from the year of publication 100
Contribution: Participation in designing and carrying out experiments.

7. **Jermacz Ł**, Kletkiewicz H, Nowakowska A, Dzierżyńska-Białończyk A, Klimiuk M, Kobak J. 2020. Continuity of chronic predation risk determines changes in prey physiology. *Sci Rep.* 10(1):6972. doi:10.1038/s41598-020-64000-9.

According to the Web of Science for the year of publication Q1, Impact Factor: 4.380; number of citations: 4, MNiSW points from the year of publication 140

Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript, obtaining financing.

8. **Jermacz Ł**, Balogh C, Kobak J. 2021. Behavioural differences and interactions between two sessile bivalves forming mixed-species assemblages. *Anim Behav.* 171:13–28. doi:10.1016/j.anbehav.2020.11.001.

According to the Web of Science for the year of publication Q1, Impact Factor: 2.844; number of citations: 3, MNiSW points from the year of publication 140

Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript.

9. Poznańska-Kakareko M, Wiśniewski K, Szarmach D, Witkowska A, Kakareko T, **Jermacz Ł**, Kobak J. 2021. Importance of substratum quality for potential competitive niche overlap between native and invasive unionid mussels in Europe. *Sci Total Environ.* 799:149345. doi:10.1016/j.scitotenv.2021.149345.

According to the Web of Science for the year of publication Q1, Impact Factor: 7.963; number of citations: 2, MNiSW points from the year of publication 200

Contribution: Participation in designing and carrying out experiments.

10. Stanicka A, Migdalski Ł, Szopieray K, Cichy A, **Jermacz Ł**, Lombardo P, Żbikowska E. 2021. Invaders as Diluents of the Cercarial Dermatitis Etiological Agent. *Pathogens.* 10(6):740. doi:10.3390/pathogens10060740.

According to the Web of Science for the year of publication Q2, Impact Factor: 3.492; number of citations: 3, MNiSW points from the year of publication 100

Contribution: Participation in designing and carrying out experiments.

11. Kłosiński P, Kobak J, Augustyniak M, Pawlak R, **Jermacz Ł**, Poznańska-Kakareko M, Kakareko T. 2021. Behavioural responses to con- and heterospecific alarm cues by an alien and a coexisting native fish. *Hydrobiologia.* doi:10.1007/s10750-021-04761-0.

According to the Web of Science for the year of publication Q2, Impact Factor: 2.694; number of citations: 1, MNiSW points from the year of publication 100

Contribution: Participation in designing and carrying out experiments.

12. Czarnecka M, **Jermacz Ł**, Glazińska P, Kulasek M, Kobak J. 2022. Artificial light at night (ALAN) affects behaviour, but does not change oxidative status in freshwater shredders. *Environmental Pollution.* 306:119476.

According to the Web of Science for the year of publication Q1, Impact Factor: 9.988; number of citations: 0, punktacja MNiSW 100

Contribution: Participation in the design and carrying out of experiments, physiological determinations and the preparation of the manuscript..

13. **Jermacz Ł**, Kobak J. 2022. On the importance of concomitant conditions: light and conspecific presence modulate prey response to predation cue. *Curr Zool*. doi:10.1093/cz/zoac043.

According to Web of Science dla roku opublikowania Q1, Impact Factor: 2.734; liczba cytowań: 0, punktacja MNiSW 100

Contribution: Concept and methodology of work, carrying out experiments, analysis of the results, preparation and submitting the manuscript.

14. Augustyniak M., Kołacka K., Kobak J., Hliwa P., Kłosiński P., Poznańska-Kakareko M., **Jermacz Ł**, Kakareko T. 2022. Differences in predator-avoidance behavior between two invasive gobies and their native competitors. *Curr Zool* doi:10.1093/cz/zoac082

According to Web of Science dla roku opublikowania Q1, Impact Factor: 2.734; liczba cytowań: 0, punktacja MNiSW 100

Contribution: Participation in designing and carrying out experiments.

Information on presentations given at national or international scientific or arts conferences, including a list of lectures delivered upon invitation and plenary lectures

1. **Jermacz Ł**, Nowakowska A, Kletkiewicz H, Kobak J. The ecology of fear: impact of short and chronic predation risk on the physiology of native and invasive gammarids. 3rd Central European Symposium for Aquatic Macroinvertebrate Research, CESAMIR, Lodz, Poland, 8-13.07.2018
2. **Jermacz Ł**, Kletkiewicz H, Nowakowska A, Dzierżyńska-Białończyk A, Kobak J. What doesn't kill you, makes you stronger: frequency of chronic predation risk determines changes in physiology of aquatic prey 11th Symposium for European Freshwater Sciences, SEFS 11, 30.06-05.07.2019, Zagreb, Croatia
3. **Jermacz Ł**, Kletkiewicz H, Poznańska-Kakareko M, Kobak J. Do invasive species respond to predators like their native counterparts? Effect of predation-induced stress on native and invasive gammarids. 22nd International Conference on Aquatic Invasive Species 18-24.04.2022, Ostende, Belgium

In addition to the presentations presented above, in the years 2018-2022 I was the co-author of 4 national and 15 international conference presentations

Information on participation in organizational and scientific committees at national or international conferences, including the applicant's function.

1. Member of the Organizing Committee: XXXIV Polish Malacological Seminar 13-15 September 2018 Torun

Information on participation in the works of research teams realizing projects financed through national and international competitions, including the projects which have been completed and projects in progress, and information on the function performed in the team.

Role in the project – principal investigator

1. 2017-2021 grant NCN OPUS, no 2016/21/B/NZ8/00418, „Ecology of fear of invasive organisms. Are Ponto-Caspian gammarids (Crustacea, Amphipoda) less susceptible to predator-

induced stress??" (project completed) – project started before award of the PhD degree and continued later

2. 2021-2024 grant NCN SONATA no 2020/39/D/NZ8/01226, „Effect of global warming on interactions between alien and native ectothermic species of prey and predators” (ongoing project)

Role in the project - investigator

1. 2019-2022 grant NCN SONATA no 2018/31/D/NZ8/03061, „Can bad become worse? Experimental evaluation of success of two genetically distinct fronts of invasion of the crustacean *Dikerogammarus villosus* and higher invasive potential of putative superhybrids” (principal investigator dr Tomasz Rewicz, University of Łódź, ongoing project)
2. 2017-2022 grant NCN OPUS no 2016/23/B/NZ8/00741, „ Anti-predator defence as a competitive advantage of invasive fish species over natives: a case study of Ponto-Caspian Gobiidae ” principal investigator dr hab. Tomasz Kakareko prof. UMK, Toruń). (project completed) – project started before award of the PhD degree and continued later
3. 2016-2020 “GINOP Sustainable use of ecosystem services - research for mitigating the negative effect of climate change, land use change and biological invasion” project financed by the European Regional Development Fund and the Hungarian government. (project completed)

Information on internships completed in scientific or artistic institutions, also abroad, including the place, time and duration of the internship and its character

15.10.2019 – 15.12.2019 postdoctoral fellowship at the Balaton Limnological Research Institute (Hungary) - The entire cooperation was to last at least 6 months, but due to the pandemic, the possibilities of continuing research in the Hungary were limited. The result of the fellowship is a publication: Jermacz, Ł. Balogh, C. & Kobak, J. (2021). Behavioural differences and interactions between two sessile bivalves forming mixed-species assemblages. *Animal Behaviour* 171: 13-28. My stay was integrated with the implementation of the tasks set out in the project GINOP-2.3.2-15-2016-00019 “Sustainable use of ecosystem services - research for mitigating the negative effect of climate change, land use change and biological invasion” principal investigator dr András Báldi

19.09.2022-02.10.2022 research stay at the Balaton Limnological Research Institute (Hungary) focused on the continuation of previously started research on the ecology of invasive mussels

Information on scientific or artistic works reviewed, in particular those published in international journals.

Reviewer in such journals as *Acta Oecologica* (2), *Aquatic Invasions* (1), *Biological Invasions* (1), *Canadian Journal of Zoology* (1), *Ecology* (1), *Ecology and Evolution* (3), *Ecology of Freshwater Fish* (2), *Ecosphere* (1), *Environmental Pollution* (1), *Hydrobiologia* (2), *Journal of Experimental Biology* (1), *Journal of Fish Biology* (1), *Limnologica* (2), *Marine and Freshwater Physiology* (1), *Plos One* (1), *Polish Polar Research* (1), *Scientific Reports* (1), *The European Zoological Journal* (1), *Current Zoology* (1).

III. INFORMATION ON COOPERATION WITH SOCIAL AND ECONOMIC ENVIRONMENT

The period before the award of the PhD degree

2016 - 2017 grant NCBiR - POIR.01.01.01-00-1043/15-00 „Development of a technology for the production of a nanostructured surface layer with superhydrophobic properties for use in industrial water filters resistant to biological fouling. (investigator, project completed).

IV. SCIENTOMETRIC INFORMATION

A. The period before the award of the PhD degree

Information on the Impact Factor (in the fields and disciplines in which this parameter is commonly used as a scientometric index): according to Web of Science: 40.925

Information on the number of points awarded by the Ministry of Science and Higher Education: 615.

B. the period between the conferment of the PhD degree and the award of the post-doctoral degree of doctor habilitated

Information on the Impact Factor: according to Web of Science: 76.314

Information on the number of points awarded by the Ministry of Science and Higher Education: 1970.

Jointly A B

Information on the Impact Factor: 117.239

Information on the number of citations of the applicant's publications, including a separate list of self-citations according to Web of Science: 416 (including self-citation), 318 (excluding self-citation)

Information on h-index according to Web of Science: 13

Information on the number of points awarded by the Ministry of Science and Higher Education: 2585.