



Anita Tarandek

I am a 26 year old Master in Experimental biology from Croatia with an extensive field work and laboratory experience. My passions include discovering life and learning new skills both in and outside the lab.

Contact

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Education

2020-2023

**Master's degree in Experimental
biology, Zoology**

univ. mag. biol. exp., magna cum laude

University of Zagreb, Faculty of science,
Department of Biology, Zagreb, Croatia

2017-2020

Bachelor's degree in Biology

univ. bacc. biol., cum laude

University of Zagreb, Faculty of science,
Department of Biology, Zagreb, Croatia

2012-2016

„Josip Broz Tito“ High School,
Bitola, Macedonia

Experience

○ 2024 - today **Ruder Bošković Institute, Division for Marine and Environmental Research, Laboratory for Informatics and Environmental Modelling, Zagreb, Croatia**

Research Assistant

- HRZZ project – EcoOpen: „Empowering ecological research via open science and meta-research”

○ 2023 - 2024 **University of South Bohemia in České Budějovice, Faculty of Fisheries and Protection of Waters, Laboratory of Freshwater Ecosystems, Vodňany, Czech Republic**

Guest Researcher – Postgraduate intern

- Internship on the effects of chemical cues on the behaviour of invasive alien crayfish species
- Laboratory work: taking care of crayfish, ethological experiments *in vitro*, analysis of ethological data in EthoVision programme

○ 2022 **LOEWE Centre for Translational Biodiversity Genomics (TBG), Senckenberg Center for Biodiversity and Climate Research, Frankfurt am Main, Germany**

Guest Researcher – Student intern

- Internship on the noble crayfish immune response to the crayfish plague disease agent and its analogues
- Laboratory work: taking care of crayfish, sampling hemolymph, microscopy, RNA extraction, RT-qPCR, conducting infection experiments, *Aphanomyces astaci* culturing and sporulation
- Computer analysis in R

○ 2021 - 2023 **Ministry of Economy and Sustainable development of the Republic of Croatia, Sector for Biodiversity and Strategic Affairs, Service for Biodiversity, Zagreb, Croatia**

Student administrative assistant

- Damage assessment caused by strictly protected native species and drafting and reviewing arrangements for compensation of damage caused by strictly protected native species
- Reporting derogations data under the EU Birds and Habitats Directives, and the Bern Convention in HaBiDeS+ EU tool
- Drawing up orders for payment of compensation to certified experts for performing the procedure of determining and assessing damage from strictly protected native species

Languages

English A1 ●●●●●○ C2

Macedonian A1 ●●●●●● C2

French A1 ●●○○○○ C2

Skills and hobbies

- Laboratory Animal Science Course - category LabAnim A (FELASA), Driver's licence, MS Office, TIBCO Statistica, EthoVision XT (basics), GIS (basics), R
- Playing piano, Latin American and Standard dances, running, hiking and inline skating

Awards and scholarships

2024

Annual award by the Faculty of Science (Uni ZG) for outstanding scientific work of students on undergraduate, graduate and integrated studies

2021

Rector's Award for individual scientific work in the academic year 2020./2021.

„Comparison of the immune response of native and invasive alien species of decapod crayfish of the Korana river.“

2017-2021

- Scholarship for excellence (2020, 2021)
- STEM scholarship (2018, 2019)
- National scholarship (2017)

○ 2021-2022 SCOOOL d.o.o. - Kwizard.hr

Content developer

- Creating biology related assignments and lecture summaries in Kwizard learning assistant software

○ 2018, 2019 University of Zagreb, Faculty of Science, Department of Biology, Zagreb, Croatia

Student teaching assistant

- Courses: General Zoology and Invertebrates

Symposiums and workshops

○ 2023 CrayfIT - Regional european symposium of IAA- International Asossiation of Astacology, Pavia, Italy

- poster presentation: „Characterisation of the noble crayfish immune response to the crayfish plague disease agent and its analogues“
- oral presentation: „Immune response in crayfish is species-specific: differences between native and invasive alien crayfish species in the Korana River, Croatia“



2. prize for best student oral presentation

○ 2022 23rd Symposium of the International Asossiation of Astacology, Hluboká nad Vltavou, Czech Republic

- oral presentation: „Characteristics of stone crayfish populations along a disturbance gradient – a case study of Kustošak Stream, Croatia“

○ 2021 4. Croatian Symposium on Invasive Species, Zagreb

- oral presentation: „Comparison of the immune response of native and invasive alien species of decapod crayfish of the Korana River“

○ 2019 24th University fair, University of Zagreb

- volunteer: presenting the work of the Faculty of Science, consulting future students

○ 2019 3. Symposium of Freshwater Biology, Zagreb

- oral presentation: „The effects of three psychoactive compounds on behavior of the invasive signal crayfish, *Pacifastacus leniusculus* (Dana, 1852)“

○ 2018, 2019, 2021 „Night of Biology“ workshop at the Department of Biology

- participant: organizing workshops, presenting science work to students and adults

Associations

2024 - today

regular member of SORTEE – Society for open, reliable and transparent Ecology and Evolutionary biology

2023 - today

regular member of Mensa Croatia

2022

Supervisory board of BIUS – Biology Students Association, Zagreb, Croatia

- supervising the work of the Management Board

2022

regular member of IAA – International Association of Astacology

2021

President of BIUS – Biology Students Association, Zagreb, Croatia

- legal representation of the association, acquiring permits and documentation, coordinating project finances, organizing workshops, symposiums, projects, field work and events, promoting science on radio and television

2019-2022

Leader of Astacology section in BIUS – Biology Students Association, Zagreb, Croatia

- presentations about Crustacean related topics, field work organisation, conducting field work, teaching members and fellow students, organising science projects

2018-2023

regular member of BIUS - Biology Students Association, Zagreb, Croatia

Projects

- 2021 **Research-educational project „Stone crayfish - Kustošak 2021.“**
(BIUS - Biology Students Association)

Project leader

- Writing the project, applying for grants and providing funds for the research, conducting permits, purchase of equipment, training students
- Field work (capturing crayfish, measuring crayfish, taking water and tissue samples)
- Dissemination (workshops for participants and primary school students)

- 2020 - 2021 **Changes in microbial communities and the role of immune response in the range expansion of the invasive signal crayfish *Pacifastacus leniusculus* (Dana, 1852)**

(Department of Biology, Faculty of Science)

Student intern

- Laboratory work (dissecting crayfish, microscoping, spectrophotometry), computer work (analysing data in ImageJ and MS Excel, statistical analysis in TIBCO Statistica)

- 2020 - 2021 **Research-educational project „Žumberak 2020.“ and „Žumberak 2021.“**

(BIUS - Biology Students Association)

Participant and leader of the Astacology group

- Organization of the project and research, purchase of equipment, training students, field work (capturing crayfish, measuring crayfish, taking cuticle samples, taking water samples for eDNA), lab work (DNA isolation, PCR)

- 2018 - 2019 **The effects of pollution on invasion success of a freshwater crustacean invader**

(Department of Biology, Faculty of Science)

Student intern

- Field work (capturing crayfish), laboratory work (feeding crayfish, assisting during dissections), computer work (using EthoVision camera, analysing data)

Dissemination

- 2023 – Alfa d. d. publishing house

- **presenter:** „Research on freshwater crayfish and oomycets in Croatia”

- 2023 – Bioteka Association

- **co-organiser of PANDA6 workshop:** „Crayfish and the crayfish plague” - intended for gifted pupils

- 2021 – mimi.hr

- **interview guest:** „Student projects: the future of studying?”

- 2021 – BIOcast

- **podcast guest:** season 3, episode 2

- 2021 – Sesvetska Sopotnica School, Zagreb

- **lecture presenter:** „Stone crayfish population in Kustošak Stream”

- 2021 – VG Fest 2021

- **workshop organiser:** „What is it like to be a biologist or a young ecologist?”

- 2021 – HRT1 (30.3.2021)

- **radio show guest:** „Burdock”, topic: Day and night on Faculty of Science 2021

- 2020 – HRT1 (7.10.2020.)

- **radio show guest:** „Always First – Education and Science”, topic: Research-educational project Žumberak

List of publications

(Anita Tarandek, *univ. mag. biol. exp.*)

Scientific articles

Boštjančić Lj. L., Dragičević P., Bonassin L., Francesconi F., **Tarandek A.**, Schardt L., Rutz C., Hudina S., Schwenk K., Lecompte O., Theissing K. (2024). Expression of C/EBP and Kr-h1 transcription factors under immune stimulation in the noble crayfish. [under review]

Tarandek, A., Lovrenčić, L., Židak, L., Topić, M., Grbin, D., Gregov, M., Čurko, J., Hudina, S., Maguire, I. (2023). Characteristics of the Stone Crayfish Population along a Disturbance Gradient—A Case Study of the Kustošak Stream, Croatia. *Diversity*, 15(5), p.591. <https://doi.org/10.3390/d15050591>.

Kasalo, N., Topić, M., **Tarandek, A.** (2021). The first record of the peacock fly *Callopietromyia annulipes* Macquart, 1855 (Diptera: Ulidiidae) in Croatia revealed by social media. *Natura Croatica*, 30(2), pp.523–528. <https://doi.org/10.20302/NC.2021.30.36>.

Dragičević, P., Grbin, D., Maguire, I., Blažević, S.A., Abramović, L., **Tarandek, A.**, Hudina, S. (2021). Immune Response in Crayfish Is Species-Specific and Exhibits Changes along Invasion Range of a Successful Invader. *Biology*, 10(11), p.1102. <https://doi.org/10.3390/biology10111102>.

Professional articles

Drmić, J., **Tarandek, A.** (2023) Monitoring of stone crayfish populations in Nature Park Žumberak and Samoborsko gorje 2021. In: A Collection of scientific studies of “Žumberak 2020.” and “Žumberak 2021.” Biology student association – BIUS. Klarin A, Vizec P, Dupanović A, Požarić F (eds.), pp. 152-166. Zagreb, Croatia. <https://drive.google.com/file/d/1KVODe4Uk5cmddLxuPZ2JGmqfk9QJpdTR/view>

Bonassin, L., **Tarandek, A.** (2023) Monitoring of stone crayfish populations in Nature Park Žumberak and Samoborsko gorje 2020. In: A Collection of scientific studies of “Žumberak 2020.” and “Žumberak 2021.” Biology student association – BIUS. Klarin A, Vizec P, Dupanović A, Požarić F (eds.), pp. 139-151. Zagreb, Croatia. <https://drive.google.com/file/d/1KVODe4Uk5cmddLxuPZ2JGmqfk9QJpdTR/view>

Tarandek, A. (2021) Invasive invertebrates in Croatian freshwater ecosystems as a teaching context. *Educatio biologiae: časopis edukacije biologije*, 7(7.), pp.83–91. <https://doi.org/10.32633/eb.7.9>.

Master thesis

Tarandek, A. (2023). Noble crayfish immune response to the crayfish plague disease agent and its analogues. Master thesis, University of Zagreb, Faculty of Science, Department of Biology, Zagreb, Croatia. <https://urn.nsk.hr/urn:nbn:hr:217:134246>

Scientific article awarded with the Rector's Award of the University of Zagreb

Tarandek, A. (2021). Comparison of the immune response of native and invasive alien species of decapod crayfish of the Korana River. Scientific article awarded with the Rector's Award of the University of Zagreb, Faculty of Science, Department of Biology, Zagreb, Croatia. <https://apps.unizg.hr/rektorova-nagrada/javno/radovi/1120/preuzmi>

Bachelor thesis

Tarandek, A. (2020). Marbled crayfish as a model organism for examining the impacts of organic pollutants on freshwater invertebrates. Bachelor thesis, University of Zagreb, Faculty of Science, Department of Biology, Zagreb, Croatia. <https://urn.nsk.hr/urn:nbn:hr:217:944324>

Active participation in conferences

1. **Tarandek A**, Boštjančić LjL, Francesconi C, Bonassin L, Hudina S, Lecompte O, Theissinger K (2023) Characterisation of the noble crayfish immune response to the crayfish plague disease agent and its analogues. *CrayfIT - Book of Abstracts*. pp 78-78. Pavia, Italy.
2. **Tarandek A**, Dragičević P, Grbin D, Maguire I, Blažević SA, Abramović L, Hudina S (2023) Immune response in crayfish is species-specific: differences between native and invasive alien crayfish species in the Korana River, Croatia. *CrayfIT - Book of Abstracts*. pp 46-46. Pavia, Italy.
3. **Tarandek A**, Pavić D, Grbin D, Maguire I, Hudina S (2022) Characteristics of stone crayfish populations along a disturbance gradient – a case study of Kustošak Stream, Croatia. *23rd Symposium of the International Association of Astacology Book of Abstracts.*, pp. 20-20. Hluboká nad Vltavou, Czech Republic.
4. **Tarandek A**, Dragičević P, Grbin D, Maguire I, Blažević SA, Abramović L, Hudina S (2021) Comparison of the immune response of native and invasive alien species of decapod crayfish of the Korana River. *Book of Abstracts of the 4th Croatian symposium on invasive species*. Jelaska SD (eds.), pp. 45-45. Zagreb, Croatia.
5. **Tarandek A**, Topić M, Krsnik J, Razić M, Klobučar G, Martinović-Weigelt D, Hudina S (2019) The effects of three psychoactive compounds on behavior of the invasive signal crayfish, *Pacifastacus leniusculus* (Dana, 1852). *Book of Abstracts (3rd Symposium of Freshwater Biology)*. Ivković M, Stanković I, Matoničkin Kepčija R, Gračan R (eds.), pp. 31-31. Zagreb, Croatia.

Passive participation in conferences

1. Boštjančić LjL, Francesconi C, Bonassin L, **Tarandek A**, Jussila J, Kokko H, Lecompte O, Theissinger K (2023) Can transcriptomic tools revolutionise our understanding of the noble crayfish immune response to crayfish plague pathogen? Facts, hopes and dreams. *CrayfIT - Book of Abstracts*. pp. 30-30. Pavia, Italy.
2. Hudina S, Dragičević P, Maguire I, Gračan R, **Tarandek A**, Abramović L, Blažević SA, Bekavac A, Beck A (2023) Determinants of invasion success in a freshwater invader: exploring the occurrence of hepatopancreatitis and changes in the immune response in signal crayfish population in Croatia. *Book of abstracts (4th Symposium on Freshwater Biology with international participation)*. Mičetić Stanković V, Ivković M, Matoničkin Kepčija R, Sertić Perić M, Miliša M, Vilenica M (eds.), pp. 17-17. Zagreb, Croatia.
3. Dragičević P, Grbin D, Maguire I, Blažević SA, Abramović L, **Tarandek A**, Hudina S (2022) Imunosni odgovor slatkovodnih desetonožnih rakova: što ga oblikuje? *Book of abstracts of the 14th Croatian biological congress with international participation*. Caput Mihalić K, Mičetić Stanković V, Urlić I, Mešić A, Kružić P (eds.), pp. 54-55. Pula, Croatia.
4. Krsnik J, Razić M, **Tarandek A**, Radić Brkanac S, Blažević SA, Klobučar G, Martinović-Weigelt D, Hudina S (2019) Effects of pharmaceutical pollutants on physiology of the invasive signal crayfish, *Pacifastacus leniusculus* (Dana, 1852). *Book of Abstracts (3rd Symposium of Freshwater Biology)*. Ivković M, Stanković I, Matoničkin Kepčija R, Gračan R (eds.), pp. 16-16. Zagreb, Croatia.
5. Krsnik J, Razić M, **Tarandek A**, Miholić L, Rogošić M, Topić M, Belamarić A, Martinović-Weigelt D, Klobučar G, Hudina S (2018) Effects of antidepressant citalopram on aggressive behavior of the signal crayfish (*Pacifastacus leniusculus*). *Book of abstracts of the 3rd Croatian Symposium on invasive species*. Jelaska SD (eds.), pp. 60-60. Zagreb, Croatia.