

BIO **Date of Birth:** 23.08.1989 **Languages:** German (native), Turkish (native), English (near native, TOEFL iBT: 116, C2), Spanish (intermediate, B1)
Place of Birth: Ankara, Turkey
Nationality: Germany / Turkey

EDUCATION

Rheinische Friedrich-Wilhelms-Universität Bonn, Germany

- 18 Dec 2015** **Dr. rer. nat.** Zoology.
Thesis Title: Ultrastructure, Formation and Evolution of Chaetae in Annelids
Advisor: Prof. Dr. Thomas Bartolomaeus
- 20 Jul 2012** **MSc.** Organismic Evolutionary and Paleobiology.
Thesis Title: Histological Analysis of Cnidocysts in the Digestive Tracts of *Cratena peregrina* and *Flabellina affinis* (Aeolidoidea, Nudibranchia) and a Molecular Barcode Analysis of Selected *Flabellina* Species.
Advisor: Prof. Dr. Heike Wägele
- 10 Sept 2010** **BSc.** Biology.
Thesis Title: Relation of Digestive Gland and Zooxanthellae in Dorsal Appendices of *Phyllodesmium* spp. (Aeolidoidea, Nudibranchia) - A Case Study Using Surface Measurements with the Programme Reconstruct™ -
Advisor: Prof. Dr. Heike Wägele

EMPLOYMENT

- Jan 2023 –** **Curator of Marine Invertebrates**
Section Head of Mar. Inv. II at Senckenberg Natural History Museum Frankfurt
- Mar 2021 – Dec 2022** **Marie Curie fellow** at the University of Copenhagen. PI: Katrine Worsaae
- May 2019 – Feb 2021** **scientific assistant** at the Institute of Evolutionary Biology, University of Bonn
- Apr 2017 – May 2019** **postdoctoral fellow** at Scripps Institution of Oceanography, UCSD. PI: Greg Rouse
- Jan 2016 – Mar 2017** **scientific assistant** at the Institute of Evolutionary Biology, University of Bonn

GRANTS & FUNDING

2020 as team-member	International Network Grant Danish Ministry of Higher Education and Science Advancing developmental biology - combining cutting-edge techniques & non-model organisms — PI: Katrine Worsaae	270.573 DKK
2020	Marie Skłodowska-Curie Individual Fellowship (H2020 – European commission) University of Copenhagen. Research Topic: Molecular and Morphological Characterization of Chaetogenesis in <i>Osedax japonicus</i>	207.312 €
2017	DFG postdoctoral research fellowship Scripps Institution of Oceanography, UCSD Research Topic: Phylogenomics of Sabellidae	90.000 €
2014	Short-term PhD exchange fellowship of DAAD Scripps Institution of Oceanography, UCSD	5.606 €

AWARDS

- 2021 **Reinhard Rieger-Award in Zoomorphology**
for the Paper: Comparative ultrastructure of the radiolar crown in Sabellida (Annelida).
Zoomorphology. 140: 27—45.
- 2016 **Reinhard Rieger-Award in Zoomorphology**
for the Paper: Phylogenetic significance of chaetal arrangement and chaetogenesis in
Maldanidae (Annelida). *Zoomorphology* 134 (3): 383—401.

TEACHING EXPERIENCE as main instructor

- SS 2020, SS 2019,
WS 2016-17 Practical Course on Electron Microscopy (OEP Free 3G, University of Bonn)
- SS 2020 DNA barcoding: Identifying and Describing Biodiversity (OEP Free 3K)
- WS 2019-20,
WS 2020-21 Morphology and Evolution of Animals (BP02, University of Bonn)

SUPERVISION

- 1 MSc (co-supervisor), 1 PhD (co-supervisor)
2021 Pernille Fornitz Marloth, University of Copenhagen, 2022 Julian Müller, University of Bonn
- 2016—2020 8 undergraduate research projects supervised, all resulting in scientific publications
2020 Nina Neunzig, 2020 Alicia Gerarz, 2019 Anja Schumacher, 2018 Kathryn Feerst, 2016 Benedikt Pauli,
2016 Julian Müller, 2016 Tim Herkenrath, 2016 Schabnam Sermelwall

EXPEDITIONS

- Nov — Dec 2018 **R/V Falkor Cruise FK181031 ROV Sebastian**
Interdisciplinary investigation of a new hydrothermal vent field
- Oct — Nov 2018 **R/V Atlantis HOV Alvin AT42-03**
Exploration of Costa Rican methane seeps

MEMBERSHIPS

Deep-Sea Biology Society, International Polychaete Association, International Society for Invertebrate Morphology, German Society of Biological Systematics (GfBS), German Zoological Society (DZG), Global Invertebrate Genomics Alliance (GIGA), European Reference Genome Atlas (ERGA)

PEER-REVIEW ACTIVITY

47 manuscripts (29 in 2021 - 22): Frontiers in Marine Science (4), Molecular Phylogenetics and Evolution (4), Nature Scientific Reports (2), Marine Biodiversity (2), Zootaxa (2), Biodiversity Data Journal (1), European Journal of Taxonomy (1), Invertebrate Systematics (2), Journal of Zoological Systematics and Evolutionary Research (1), Plos One (1), Mitochondrial DNA Part B (5), Invertebrate Biology (2), Zoologica Scripta (2), African Zoology (1), Diversity (2), Gene (2), Journal of Natural History (1), Marine Biology Research (1), Zoosymposia (1), Systematics and Biodiversity (2), Zoological Science (1), Zoology (1), Organisms Diversity and Evolution (3), Journal of Marine Science and Engineering (1), Zookeys (1)

PUBLICATION

PROFILE

ORCID ID: 0000-0003-0463-322X

overview 26 peer-reviewed publications

17 as first author(1 under review), 4 as last author

3 issue covers

citations: 242, h-index: 10 (google scholar)

BOOK Rouse, G.W., Pleijel F. and **Tilic, E.** (2022) *Annelida*. Oxford University Press.

JOURNAL ARTICLES

- under review** **Tilic, E.**, Herkenrath, T., Kirfel, G., Bartolomaeus, T. The cellular 3D printer of a marine bristle worm — Chaetogenesis in *Platynereis dumerillii* (Audouin & Milne Edwards, 1834) (Annelida). *Cell and Tissue Research*.
- in press** Sagorny, C., von Döhren, J., Rouse, G.W. and **Tilic, E.** Cutting the ribbon: Bathyal Nemertea from seeps along the Costa Rica margin, with descriptions of 2 new genera and 10 new species. *European Journal of Taxonomy*.
- 2022** **Tilic, E.**, Stiller, J., Campos, E., Pleijel F. and Rouse G.W. Phylogenomics resolves ambiguous relationships within Aciculata (Errantia, Annelida). *Molecular Phylogenetics and Evolution* Müller, J., Bartolomaeus, T. and **Tilic, E.** Formation and degeneration of scaled capillary notochaetae in *Owenia fusiformis* Delle Chiaje, 1844 (Oweniidae, Annelida). *Zoomorphology*. 141 (1): 43-56.
- 2021** Müller, J., Schumacher, A., Borda, E., Rouse, G.W., Bartolomaeus, T. and **Tilic, E.** “Brittleworms”: Ultrastructure and arrangement of the calcified chaetae of *Euphosine* (Amphinomida, Annelida). *Invertebrate Biology*
- Tilic, E.**, Neunzig, N. and Bartolomaeus, T. (2021) Hairy and iridescent chaetae of the sea mouse *Aphrodita* (Annelida, Errantia). *Acta Zoologica*. 00: 1–13.
- Beckers, P. and **Tilic, E.** (2021) Fine structure of the brain in Amphinomida (Annelida). *Acta Zoologica*. 00: 1–13.
- Geisberger, S., Bartolomaeus, H., Neubert, P., Willebrand, R., Zasada, C., Bartolomaeus, T., McParland, V., Swinnen, D., Geuzens, A., Maifeld, A., Krampert, L., Vogl, M., Mähler, A., Wilck, N., Marko, L., **Tilic, E.**, Forslund, S.K., Binger, K.J., Stegbauer, J., Dechend, R., Kleinewietfeld, M., Jantsch, J., Kempa, S., Müller, D.N. (2021) Salt transiently inhibits mitochondrial energetics in mononuclear phagocytes. *Circulation*. 144:144–158.
- Tilic, E.**, Geratz, A., Rouse, G.W. and Bartolomaeus T. (2021) Notopodial “spinning glands” of *Sthenelanella* (Annelida: Sigalionidae) are modified chaetal sacs. *Invertebrate Biology*. e12334.
- Goffredi, S.K., Motooka, C., Fike, D.A., Gusmão, L.C., **Tilic, E.**, Rouse, G.W., Rodríguez, E. (2021) Mixotrophic chemosynthesis in a deep-sea anemone from hydrothermal vents in the Pescadero Basin, Gulf of California. *BMC Biology*. 19: 8.
- Tilic, E.**, and Bartolomaeus, T. (2021) Commentary on: “Unravelling the ultrastructure and mineralogical composition of fireworm stinging bristles” by Righi et al. 2020. *Zoology*, 144: 125890.
- Tilic, E.**, Rouse, G.W. and Bartolomaeus, T. (2021) Comparative ultrastructure of the radiolar crown in Sabellida (Annelida). *Zoomorphology*. 140: 27—45.
- 2020** **Tilic, E.**, Atkinson, S. and Rouse, G.W. (2020) Mitochondrial genome of the freshwater annelid *Manayunkia occidentalis* (Sabellida: Fabriciidae). *Mitochondrial DNA Part B*, 5(3): 3313—3315.

Tilic, E., Sayyari, E., Stiller, J., Mirarab, S. and Rouse, G.W. (2020) More is needed — Thousands of loci are required to elucidate the relationships of the ‘flowers of the sea’ (Sabellida, Annelida). *Molecular Phylogenetics and Evolution*, 151: 106892.

Tilic, E. and Rouse G.W. (2020) Hidden in plain sight, *Chaetopterus dewysee* sp. nov. (Chaetopteridae, Annelida) — A new species from Southern California. *European Journal of Taxonomy*, 643.

Stiller, J., **Tilic, E.**, Rousset, V., Pleijel, F. and Rouse, G.W. (2020). Spaghetti to a tree: A robust phylogeny for Terebelliformia (Annelida) based on transcriptomes, molecular and morphological data. *Biology*, 9: 73.

Goffredi, S.K., **Tilic, E.**, Mullin, S.W., Dawson K.S., Keller, A., Lee, R.W., Wu, F., Levin, L.A., Rouse, G.W., Cordes, E.E. and Orphan, V.J. (2020). Methanotrophic bacterial symbionts fuel dense populations of deep-sea feather duster worms (Sabellida, Annelida) and extend the spatial influence of methane seepage. *Science Advances* 6: eaay8562.

2019 Watson, C., **Tilic, E.** and Rouse G.W. (2019) Revision of *Hyalopale* (Chrysopetalidae; Phyllodocida; Annelida): an amphi-Atlantic *Hyalopale bispinosa* species complex and five new species from reefs of the Caribbean Sea and Indo-Pacific Oceans. *Zootaxa* 4671(3).

Tilic, E., Feerst, K. and Rouse, G.W. (2019) Two new species of *Amphiglena* (Sabellidae, Annelida), with an assessment of hidden diversity in the Mediterranean. *Zootaxa* 4648(2).

Tilic, E., Sermelwall, S. and Bartolomaeus, T. (2019) Formation and structure of paleae and chaetal arrangement in Chrysopetalidae (Annelida). *Zoomorphology* 138(2): 209—220.

2017 **Tilic, E.**, Pauli, B. and Bartolomaeus, T. (2017) Getting to the root of fireworms' stinging chaetae — chaetal arrangement and ultrastructure of *Eurythoe complanata* (Pallas, 1766) (Amphinomida). *Journal of Morphology* 278:865–876.

2016 **Tilic, E.** and Bartolomaeus, T. (2016). Structure, function and cell dynamics during chaetogenesis of abdominal uncini in *Sabellaria alveolata* (Sabellariidae, Annelida). *Zoological Letters* 2:1.

Tilic, E., Bartolomaeus, T. and Rouse, G.W. (2016). Chaetal type diversity increases during evolution of Eunicida (Annelida). *Organisms Diversity & Evolution* 16(1): 105—119.

2015 **Tilic, E.**, von Döhren, J., Quast, B., Beckers, P. and Bartolomaeus, T. (2015). Phylogenetic significance of chaetal arrangement and chaetogenesis in Maldanidae (Annelida). *Zoomorphology* 134 (3): 383—401.

Tilic, E., Lehrke, J. and Bartolomaeus, T. (2015). Homology and evolution of the chaetae in Echiura (Annelida). *PLoS ONE* 10 (3): e0120002.

2014 **Tilic, E.**, Hausen, H. and Bartolomaeus, T. (2014). Chaetal arrangement and chaetogenesis of hooded hooks in *Lumbrineris (Scoletoma) fragilis* and *Lumbrineris tetraura* (Eunicida, Annelida). *Invertebrate Biology* 133 (4): 354—370.

