

EKIN TILIC

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RESEARCH INTERESTS Annelid phylogeny, biodiversity and taxonomy. Life history evolution. Invertebrate morphology, anatomy, especially chaetal arrangement and chaetogenesis in annelids.

SCIENTIFIC SKILLS Ultrastructure (serial TEM). Advanced bioimaging techniques (LM, SEM, CLSM, immunohistochemistry and 3D modelling).

Molecular phylogenetics. RNA & DNA extraction and library preparation for Next-Gen Sequencing. Transcriptome assembly and phylogeny reconstruction using gene and species tree interference.

EDUCATION Rheinische Friedrich-Wilhelms-Universität Bonn, Germany

Dr. rer. nat. (PhD Equivalent), Zoology, **18/12/2015**

Thesis Title: Ultrastructure, Formation and Evolution of Chaetae in Annelids

Advisor: Prof. Dr. Thomas Bartolomaeus

MSc., Organismic Evolutionary and Paleobiology, **20/07/2012**

Thesis Title: Histological Analysis of Cnidocysts in the Digestive Tracts of *Cratena peregrina* and *Flabellina affinis* (Aeolidioidea, Nudibranchia) and a Molecular Barcode Analysis of Selected *Flabellina* Species

Advisor: Prof. Dr. Heike Wägele

BSc., Biology, **10/09/2010**

Thesis Title: Relation of Digestive Gland and Zooxanthellae in Dorsal Appendices of Phyllodesmium Species” -A Case Study Using Surface Measurements with the Programme Reconstruct™

Advisor: Prof. Dr. Heike Wägele

PROFESSIONAL APPOINTMENTS **starting March 2021** Marie Curie Fellow at the University of Copenhagen, PI: Katrine Worsaae

May 2019 — present scientific assistant at Institute of Evolutionary Biology and Zooecology, University of Bonn

April 2017 — May 2019 postdoctoral fellow at Scripps Institution of Oceanography, UC San Diego. PI: Greg Rouse

January 2016 — March 2017 scientific assistant at Institute of Evolutionary Biology and Zooecology, University of Bonn

GRANTS **Marie Skłodowska-Curie Individual Fellowship** (H2020 – European commission) University of Copenhagen. Research Topic: Chaetogenesis in Annelids.207,312 €

2017 — 2019 DFG postdoctoral research fellowship (Scripps Institution of Oceanography, UC San Diego) Research Topic: A comprehensive molecular phylogeny of Sabellidae (Annelida) using a targeted gene capture approach and implications for the evolution of life history strategies.....90,000 €

2014 Short-Term Fellowship of DAAD for Ph.D. research studies in Scripps Institution of Oceanography, UC San Diego.....5,606 €

AWARDS & HONORS **2016 Reinhard Rieger-Award in Zoomorphology** — for the Paper: Phylogenetic Significance of Chaetal Arrangement and Chaetogenesis in Maldanidae (Annelida). ZOOMORPHOLOGY 134: 383-401 (2015)

2014 Poster Award for “Chaetal type diversity increases during evolution of Eunicida (Annelida).” at the 22nd International Symposium Biodiversity and Evolutionary Biology in Dresden, Germany.

other awards **2019 Image of Distinction - Nikon Small World Photomicrography Competition**
2018 Honorable Mention - Nikon Small World Photomicrography Competition
2017 1st Prize VBIO-Photography Competition

TEACHING EXPERIENCE June 2020 Practical Course on Electron Microscopy (OEP Free 3G, University of Bonn) — course instructor

April 2020 DNA barcoding: Identifying and Describing Biodiversity (OEP Free 3K) — course instructor

October – December 2019 Morphology and Evolution of Animals (BP02, University of Bonn) — course instructor

May - June 2019 Practical Course on Electron Microscopy (OEP Free 3G, University of Bonn) — course instructor

January 2017 Practical Course on Electron Microscopy (OEP Free 3G, University of Bonn) — course instructor

Thesis supervision 2020 BSc.-Thesis by Nina Neunzig “Ultrastruktur des Borstenfilzes von *Aphrodite* spp. (Annelida)”

2020 BEd.-Thesis by Alicia Gerarz “Ultrastruktur der Spinndrüsen von *Sthenelanelia uniformis* (Sigalionidae, Annelida)”

2019 BEd.-Thesis by Anja Schumacher “Topologie und Genese der Borsten bei *Euphrosine foliosa* (Amphinomida, Annelida)”

2016 BSc.-Thesis by Benedikt Pauli “Topologie und Genese der Borsten bei *Eurythoe complanata* (Amphinomida, Annelida)”

2016 BSc.-Thesis by Julian Müller “Topologie und Genese der Borsten bei *Glycera gigantea* (Glyceridae) und *Nephtys hombergii* (Nephtyidae), (Annelida)”

2016 BSc.-Thesis by Tim Herkenrath “Topologie und Genese der Borsten bei *Platynereis* (Nereididae) und *Eulalia viridis* (Phyllodocidae), (Annelida)”

2016 BEd.-Thesis by Schabnam Sermelwall “Topologie und Genese der Borsten bei den Chrysopetalidae (Annelida)”

PUBLICATIONSPublications: **12**First Author: **9**Citations: **43**h-index: **4**i-10 index: **2**

Tilic, E. & 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., 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*, *Science Advances* 6: eaay8562. .

Watson, C., **Tilic, E.**, & 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.

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.

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. (2016). Chaetal type diversity increases during evolution of Eunicida (Annelida). *Organisms Diversity & Evolution* 16(1): 105—119.

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

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.

CONFERENCES

- Tilic, E.** & Rouse, G.W. (2020)
Phylogeny of Sabellida (Annelida) Talk, 21st Annual Meeting of the Society for Biological Systematics. Hamburg, Germany.
- Tilic, E.**, Sayyari, E., Stiller J., Mirarab, S. & Rouse, G.W. (2019)
Phylogeny and life-history evolution of Sabellidae (Annelida) Talk, 13th International Polychaete Conference in Long Beach.
- Bartolomaeus, T. and **Tilic, E.** (2018). Significance of chaetae in the light of the new annelid phylogeny. Poster, 19th Annual Conference of GfBS in Vienna, Austria
- Bartolomaeus, T. and **Tilic, E.** (2017) Segment-wise coding in annelids enhances resolution of morphology based phylogenies—a case study from Arenicolidae and Maldanidae (Annelida). Poster, 3rd BioSyst.EU meeting in Gothenburg, Sweden
- Beckers, P. and **Tilic, E.** (2017). Characters of the nervous system support sipunculid and amphinomid affinity. Poster, 110th annual meeting of the German Zoological Society in Bielefeld, Germany.
- Tilic, E.** and Beckers, P. (2016). Next-generation histology as a tool in Annelid morphology. Talk, 12th International Polychaete Conference in Cardiff UK.
- Tilic, E.**, Pauli, B. and Bartolomaeus, T. (2016). Chaetal arrangement of the fireworm *Eurythoe complanata* (Amphinomida) (Pallas, 1766). Poster, 12th International Polychaete Conference in Cardiff UK.
- Tilic, E.** and Bartolomaeus, T. (2016). Revisiting the Homology of Annelid Hooks. Poster, 12th International Polychaete Conference in Cardiff UK.
- Tilic, E.** and Bartolomaeus, T. (2016). Another kind of annelid hook: on the fine structure of sipunculan introvert hooks. Poster, 17th Annual Conference of GfBS in Munich, Germany.
- Tilic, E.** and Bartolomaeus, T. (2014). Chaetal type diversity increases during evolution of Eunicida (Annelida). Talk, 3rd International Congress on Invertebrate Morphology in Berlin, Germany.
- Bartolomaeus, T., Lehrke, J. and **Tilic, E.** (2014). Homology and evolution of the chaetae in Echiura. Poster, 22nd International Symposium Biodiversity and Evolutionary Biology in Dresden, Germany.

PEER REVIEW

PEER REVIEW		Invertebrate Biology (x2)
2020	4	Invertebrate Systematics
2019	3	African Zoology
2017	1	Journal of Zoological Systematics and Evolutionary Research
2016	1	Systematics and Biodiversity
		Zootaxa
		Zoological Science
		Zoosymposia

FIELD EXPERIENCE

Nov- Dec 2018	R/V Falkor Cruise FK181031 ROV Subastian Interdisciplinary investigation of a new hydrothermal vent field
Oct — Nov 2018	Deep Sea Expedition: AT42-03: Cordes "Costa Rica Seeps" R/V Atlantis HOV Alvin
2012—2016 (yearly sampling trips)	Brittany France Station Biologique de Concarneau Station Biologique de Roscoff
April 2012	Banyuls-sur-Mer, France
June 2011	Giglio, Italy
Sept 2011	Biologische Anstalt Helgoland -AWI
Oct 2010	Banyuls-sur-Mer, France

DIVING

NAUI - Advanced Diver	PADI - Open Water Diver
NAUI - Rescue Diver	Scripps Oceanography - Scientific Diver
	NAUI - Nitrox Diver
	PADI - Advanced Open Water Diver

MEMBERSHIPS

International Polychaete Association
International Society for Invertebrate Morphology
German Society of Biological Systematics (GfBS)
German Zoological Society (DZG)

LANGUAGES

Turkish (native speaker)
German (native speaker)
English (near native, TOEFL iBT: 116, DAAD Language Assessment: CEFR Level C2)
Spanish (intermediate, B1)

JOURNAL COVERS

