

Curriculum vitae

HANNAH EVA BLOSSOM

Bigelow Laboratory for Ocean Sciences, East Boothbay, Maine, USA

+1 207-315-2567 x421, hblossom@bigelow.org

ORCID iD: 0000-0002-4403-3408

EDUCATION

2018	PhD, Marine Biology	University of Copenhagen, Helsingør, Denmark
2011	MSc, Marine Biology	University of Copenhagen, Helsingør, Denmark
2007	BSc, Biology, <i>summa cum laude</i>	Northeastern University, Boston, MA, USA

PROFESSIONAL APPOINTMENTS AND RESEARCH EXPERIENCE

2026-present	BIGELOW LABORATORY FOR OCEAN SCIENCES, <i>East Boothbay, ME, USA</i> POSTDOCTORAL RESEARCHER, National Center for Marine Algae and Microbiota
Aug. 2022-2025	BIGELOW LABORATORY FOR OCEAN SCIENCES, <i>East Boothbay, ME, USA</i> POSTDOCTORAL RESEARCHER, Benthic Marine Ecology Lab
July 2019-Jun. 2022*	LUND UNIVERSITY, <i>Lund, Sweden</i> POSTDOCTORAL RESEARCHER, Aquatic Ecology Unit
Jan.-May 2019	UNIVERSITY OF COPENHAGEN, <i>Helsingør, Denmark</i> ACADEMIC ASSISTANT, Marine Biological Section
Nov. 2018-Feb. 2019	NATURAL HISTORY MUSEUM OF DENMARK, <i>Copenhagen, Denmark</i> INTERN, Section for Evolutionary Genomics
Dec. 2013- May 2018*	UNIVERSITY OF COPENHAGEN, <i>Helsingør, Denmark</i> PHD FELLOW, Marine Biological Section, Prof. Per Juel Hansen's Lab Thesis title: Mixotrophy and toxicity in harmful marine microalgae.
Jan. 2012-Nov. 2013	UNIVERSITY OF COPENHAGEN, <i>Helsingør, Denmark</i> RESEARCH ASSISTANT, Marine Biological Section, HABFISH project
May-Oct. 2011	NATURAL HISTORY MUSEUM OF DENMARK, <i>Copenhagen, Denmark</i> STUDENT HELPER, Botanical Garden and Museum
Nov. 2009-May 2010	NATURAL HISTORY MUSEUM OF DENMARK, <i>Copenhagen, Denmark</i> STUDENT HELPER, Molecular Systematics Lab
May-Jul. 2009	NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION, <i>Woods Hole, MA, USA</i> CONTRACTOR, Food Web Dynamics Program, Northeast Fisheries Science Center
Jan.-Mar. 2009	BOSTON UNIVERSITY, <i>Woods Hole, MA, USA</i> RESEARCH TECHNICIAN, Prof. Jelle Atema's Chemical Ecology Lab
Aug.-Oct. 2008	BIGELOW LABORATORY FOR OCEAN SCIENCES, <i>Darling Marine Center, Damariscotta, ME</i> INTERN, Dr. Rick Wahle's Lobster Ecology Lab
2007 & Mar.-Apr. 2008	WOODS HOLE OCEANOGRAPHIC INSTITUTION, <i>Woods Hole, MA, USA</i> GUEST STUDENT, Dr. Don Anderson's Harmful Algae Lab

* Maternity leaves Aug. 2015-Jul. 2016 & Jan.-Dec. 2020

TEACHING

Colby College

2026	Co-instructor, BI384, Biological Oceanography with lab, Fall, Sea Change Semester
2025	Co-instructor, BI384, Biological Oceanography with lab, Fall, Sea Change Semester
2024	Co-instructor, BI384, Biological Oceanography with lab, Fall, Sea Change Semester
Jan. 2026	Instructor, Biotechnology in Maine, Jan Plan course

University of Copenhagen

Sep. 2017	Teaching Assistant, Marine Biology, University of Copenhagen, Master's course
Mar. 2014, 2015	Teaching Assistant, Marine Microbiology and Virology, University of Copenhagen, Master's course
Mar. 2014	Teaching Assistant, Organisms Diversity- Tree of Life, Algae, University of Copenhagen, Bachelor's course

High School

2025-2026	Instructor, Keller BLOOM program, 1-week in May intensive science program at Bigelow Labs for high school juniors from Maine
Oct. 2024	Guest Lecture, Oceanography, Lincoln Academy High School

Invited Guest Lectures

Feb. 2025	Guest Lecture, Metrics for Agriculture and Food Systems, University of Vermont
Jan. 2023	Guest Lecture, BIO351, Invertebrate Zoology, University of Southern Maine
Jan. 2023	Guest Lecture, BIO204, Molecules to Ecosystems, Bates College

MENTORSHIP AND SUPERVISION

Summer 2026	Kendall Gallagher, undergraduate , University of New England
	Grace Kirstner, undergraduate , University of New England
Fall 2025	Nicole Lin, undergraduate , project for Sea Change Semester, Colby College
Fall 2024	Sophie Donner, undergraduate , Northeastern University experiential education full-time co-op student, semi-independent research project on algal ecology and innovation
Fall 2023	Akshaya Venkateshwaran, undergraduate , Northeastern University experiential education full-time co-op student, semi-independent research project on algal ecology and innovation
Spring 2023	Kendall Schenck, undergraduate , Northeastern University experiential education full-time co-op student, semi-independent research project on algal ecology and innovation
2022	Nina Ahlers, Master Student , nine-month (45 ECTS) Master thesis project, in aquatic ecology, Lund University
2022	Fredrik Klinghammer, Master student , seven-month (30 ECTS) Master thesis project, in molecular biology, Lund University
2013	Tine Dencker Bædke, Master student , one year Master thesis project, University of Copenhagen

FUNDING AND AWARDS

2025	Maine Technology Institute Business Innovation Funding 20260323 Microalgae Bioactive Compound Exudate Capture Award. PI Price, CoPIs Blossom, Lomas. \$14,947 USD
2025	NSF Maine Algal Research Infrastructure Accelerator Kickstarter Award. AlgAntiox: Optimizing beta-carotene production in an exceptional <i>Chlorella</i> strain. PI Poulton, CoPIs Blossom, Price. \$49,994 USD
2025	Carbon2Sea Joint Learning Opportunity. Near-term impacts of an Ocean Alkalinity Enhancement field trial on an Icelandic fjord plankton community. PI Stamieszkin, CoPI Blossom. \$90,322 USD
2024	Sash A. and Mary M. Spencer Entrepreneurial Fund. Microalgae exudate Scale-up. PI Price, CoPIs Blossom, Schmedicke \$49,999 USD
2013	Biology Dept. PhD Scholarship Award, University of Copenhagen. Mixotrophy and toxicity in harmful microalgae. 3 years fully financed PhD stipend ~900,000 DKK
2012	Maureen Keller Student Award, 2 nd place, best student oral presentation at the International Conference on Harmful Algae, Changwon, Korea, October 2012
2012	The Oticon Foundation, William Demants og Hustru Ida Emilies Fond. 5,500 DKK
2011	Thorsons Fund Travel Grant. 5,000 DKK

INNOVATION

Patents Pending

Oct. 2024	US App. No. 63/545910 and 63/545912, co-inventor
Oct. 2025	US PCT/US2025/052475, lead inventor

Training	NSF I-Corps Hub New England Region. I-Corps Spark Cohort 2026: Blue Biotechnology, through University of Maine. Six-week program, conducted 12 interviews for customer discovery.
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SCIENTIFIC PUBLICATIONS

Peer Reviewed Manuscripts

11. Tudó À, **HE Blossom**, M Pinder, M Svensson, B Andersson, M Svensson-Coelho, C Cornwallis, and K Rengefors. 2025. Adaptation increases priority effects of first colonizers in the microalga *Chlamydomonas reinhardtii*. Submitted manuscript.
10. Pinder M, B Andersson, K Rengefors, **H Blossom**, M Svensson, and M Töpel. 2024. Bamboozle: A bioinformatic tool for identification and quantification of intraspecific barcodes. Molecular Ecology Resources. <https://doi.org/10.1111/1755-0998.14067>
9. **Blossom HE** and PJ Hansen. 2020. The loss of mixotrophy in *Alexandrium pseudogonyaulax*: implications for trade-offs between toxicity, mucus trap production, and phagotrophy. Limnology and Oceanography. <https://doi.org/10.1002/lno.11621>
8. Altenburger A, **HE Blossom**, L Garcia-Cuentos, HH Jakobsen, J Carstensen, N Lundholm, PJ Hansen, Ø Moestrup, and L Haraguchi. 2020. Dimorphism in cryptophytes- The case of *Teleaulax amphioxieia/Plagioselmis prolunga* and its ecological implications. Science Advances. <https://doi.org/10.1126/sciadv.abb1611>
7. **Blossom HE**, B Markussen, N Daugbjerg, B Krock, A Norlin and PJ Hansen. 2019. The cost of toxicity in microalgae: direct evidence from the dinoflagellate *Alexandrium* spp. Frontiers in Microbiology. <https://doi.org/10.3389/fmicb.2019.01065>
6. **Blossom HE**, TD Bædke, U Tillmann and PJ Hansen. 2017. A search for mixotrophy and mucus trap production in *Alexandrium* species and the dynamics of mucus trap production in *Alexandrium pseudogonyaulax*. Harmful Algae. <https://doi.org/10.1016/j.hal.2017.03.004>
5. Rasmussen SA, S Meier, NG Andersen, **HE Blossom**, JØ Duus, KF Nielsen, PJ Hansen, TO Larsen. 2016. Chemodiversity of ladder-frame prymnesin polyethers in *Prymnesium parvum*. Journal of Natural Products. <https://doi.org/10.1021/acs.jnatprod.6b00345>
4. **Blossom HE**, NG Andersen SA Rasmussen and PJ Hansen. 2014. Stability of the intra- and extracellular toxins of *Prymnesium parvum*. Harmful Algae. <https://doi.org/10.1016/j.hal.2013.11.006>
3. **Blossom HE**, SA Rasmussen, NG Andersen, TO Larsen, KF Nielsen and PJ Hansen. 2014. *Prymnesium parvum* revisited: relationship between allelopathy, ichthyotoxicity, and chemical profiles in 5 strains. Aquatic Toxicology 157. <https://doi.org/10.1016/j.aquatox.2014.10.006>
2. **Blossom HE**, N Daugbjerg and PJ Hansen. 2012. Toxic mucus traps: A novel mechanism that mediates prey uptake in the mixotrophic dinoflagellate *Alexandrium pseudogonyaulax*. Harmful Algae 17. <https://doi.org/10.1016/j.hal.2012.02.010>

Book Chapters

1. Hansen PJ, R Anderson, DK Stoecker, J Decelle, A Altenburger, **H Blossom**, K Drumm, A Mitra and KJ Flynn. 2019. Mixotrophy among freshwater and marine protists. Encyclopedia of Microbiology 4. <https://doi.org/10.1016/B978-0-12-809633-8.20685-7>

PRESENTATIONS

Contributed presentations

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| 2026 | Algal Biomass Organization Summit, (Tempe, AZ; unable to attend, presented by Michael Lomas) |
| 2024 | Bigelow Laboratories Seminar Series (East Boothbay, Maine) |
| 2024 | Comparative Nutrition Society Symposium (Jay Peak, Vermont) |
| 2024 | Bigelow Laboratory Science Symposium (East Boothbay, Maine) |
| 2018 | 18 th International Conference on Harmful Algae (Nantes, France) |
| 2017 | ASLO Aquatic Sciences Meeting (Honolulu, Hawaii, USA) |
| 2017 | 19 th Danish Ocean Research Meeting (Helsingør, Denmark) |
| 2014 | 16 th International Conference on Harmful Algae (Wellington, New Zealand) |
| 2013 | Øresund Plankton Meeting (Lund, Sweden) |
| 2013 | 17 th Danish Ocean Research Meeting (Roskilde, Denmark) |
| 2012 | 15 th International Conference on Harmful Algae (Changwon, Korea) |

Invited presentations

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| 2026 | Flash-talk Highlights Maine Algal Research Infrastructure and Accelerator (MARIA) Project All-Hands Meeting & Workshop, (Bigelow Labs, East Boothbay, Maine) |
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- 2025 Flash-talk for Kickstarter Science Awardees, Maine Algal Research Infrastructure and Accelerator (MARIA) Project All-Hands Meeting & Workshop, (Bigelow Labs, East Boothbay, Maine)
- 2020 Panelist, Crafoord Academy Lecture Scientific Panel Discussion, The Royal Swedish Academy of Sciences (Lund, Sweden)
- 2018 Aquatic Ecology Seminars, Lund University (Lund, Sweden)
- 2014 Danish Society for Marine Biology (Copenhagen, Denmark)
- 2014 Centre for Ocean Life Annual Meeting (Roskilde, Denmark)
- 2014 Centre for Ocean Life Seminars, Technical University of Denmark (Charlottenlund, Denmark)

PROFESSIONAL SOCIETIES AND COMMITTEES

- 2025-2026 Postdoc representative, Education Committee, Bigelow Laboratory for Ocean Sciences
- 2017-present Association for the Society of Limnology and Oceanography (ASLO)
- 2012-2021 International Society for the Study of Harmful Algae (ISSHA)
- 2016-2019 Phytoplankton Journal Club, Copenhagen-Area Universities student club
- 2013-2015 Organizing committee for the Marine Biological Section Seminars, University of Copenhagen
- 2012-2015 Marine Biological Section Social Event Planning Committee Member

PEER REVIEW EXPERIENCE

Peer reviewer for scientific journals: *Aquatic Toxicology*, *Harmful Algae*, *Ecology Letters*, *Chemistry and Ecology*, and *Limnology and Oceanography*

FIELDWORK AND SEATIME

- Jul.-Nov. 2019 & Jan.-Jun. 2021 **Plankton Sampling, Krageholmssjön, Sweden.** Bi-weekly lake sampling using a small motorboat. Collected water samples using a tube sampler and plankton net samples. Sampling continued during winter ice cover using ice drills.
 - Jul. 2011 **Arctic Biology Field Course, Queqertarsuaq, Greenland, R/V Porsild.** Project on harmful algae diversity and abundance in the Arctic.
 - Jul.-Nov. 2008 **Lobster Settlement Surveys, Coasts of Rhode Island and Maine, USA, Bigelow Laboratory for Ocean Sciences.** Surveys using scuba diving and settlement traps. Over 2 weeks sea time on fishing vessels.
 - Oct. 8-18, 2007 **Research Cruise, R/V Oceanus, Gulf of Maine and Bay of Fundy, Woods Hole Oceanographic Institution.** Research cruise, collected and processed sediment samples for isolation and germination of dinoflagellate cysts.
 - Jul. 16-31, 2007 **Research Project, Hawaii Institute of Marine Biology, Kanehoe Bay, Hawaii, USA.** Investigated interactions between macroalgae and coral.
 - Sept. 2005-Jun. 2006 **Three Seas Program, Northeastern University, Nahant MA, Moorea, French Polynesia, and Catalina Island, CA.** Intensive field-based marine biology program. Learned various marine field and lab techniques through experiential coursework in three different marine ecosystems.
 - Jun. 26-Aug. 2, 2004 **Marine Conservation and Research Expedition, Global Visions International, Cap Terney National Marine Park, Seychelles.** Assisted in developing the methodology for monitoring coral reef bleaching recovery through SCUBA. Developed site maps for characterization surveys of the marine environment.
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