

Contact

University of Greifswald
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**Work experience**

- Apr 2022 – current Researcher, Greifswald University, Zoological Institute and Museum, Germany
 ✓ Research in aquatic animal ecology and physiology
- Apr 2020 – current Postdoctoral researcher, Stockholm University Baltic Sea Centre, Sweden
 ✓ Research in marine biology and biogeochemistry with focus on ecosystem modelling and benthic fauna
- Apr 2015 – Mar 2020 Doctoral researcher, University of Helsinki, Tvärminne Zoological Station, Finland
 ✓ Research in marine ecology and carbon cycling
- Feb 2011 – Mar 2015 Project planner, ELY-Centre for Southeast Finland, Finland
 ✓ Project management
 ✓ Designing, developing and implementing decision support tools for coastal management
 ✓ Planning and leading field inventories of underwater nature
 ✓ Environmental administration related to e.g. marine spatial planning
- May 2009 – Apr 2010 External researcher, Finnish Environment Institute, Finland
 ✓ Grant-funded research on forest restoration

Shorter academic work

- ✓ Aug – Sep 2010, ELY-Centre for Uusimaa. Field inventories of underwater nature
- ✓ Jun – Aug 2010, Metsähallitus Natural Heritage Services. Inventories of coastal lagoons, data management in GIS
- ✓ Aug – Sep 2008, University of Helsinki. Field surveys of butterfly metapopulations
- ✓ May – Aug 2008, Finnish Environment Institute. Developing management recommendations for red listed forest species, field surveys of endangered plants
- ✓ Aug – Sep 2007, University of Helsinki. Field surveys of the butterfly metapopulations
- ✓ Jun – Jul 2006, University of Helsinki. Lab and field experiments on genetics and behaviour of ants

Teaching experience

- ✓ 2 supervised Master's students
- ✓ 105 hours of teaching on Master's level

Education

Doctor of Philosophy. Feb 2020. University of Helsinki, Faculty of Biological and Environmental Sciences

Master of Science. Feb 2011. University of Helsinki, Faculties of Biosciences (main), Forestry and Agriculture, Law, Humane Sciences

Grants received

- ✓ *Helge Ax:son Johnsons stiftelse* (2019) Antipredator behaviour in the Caribbean reef squid *Sepioteuthis sepioidea*.
- ✓ *Helsinki University Alumni, Ympäristön ystävät-rahasto* (2010) Restoration of forests by creating dead birchwood
- ✓ *Metsämiesten säätiö* (2009) Restoration of forests by creating dead birchwood.
- ✓ *Nylands nation* (2009) Restoration of forests by creating dead birchwood.
- ✓ *Kansan sivistysrahasto* (2009) Restoration of forests by creating dead birchwood.

Positions of trust

- ✓ *Reviewer* for e.g. Biogeosciences, ICES Journal of Marine Research, Frontiers in Marine Science
- ✓ *Expert member*, Red List of Finnish Habitats Baltic Sea Group, 2014 – current
- ✓ *Board Member*, BioFoto Finland, 2012 – 2013
- ✓ *Committee Member*, Nylands Nation Grant Committee, 2010
- ✓ *Vice Chairman*, Svenska Naturvetarklubben r.f., 2007
- ✓ *Board Member*, Matlu r.y., 2007

Scientific outreach

- ✓ Participation in “Meet a scientist”-events for school children
- ✓ Interviews in TV, radio and written media
- ✓ Presentations at seminars and workshops aimed at managers and the general public

Skills

Language skills

Swedish, Finnish	Native
English	Fluent
German, French, Russian	Beginner

Programming and data management experience

Programming languages	FORTRAN, MATLAB, R
GIS programs	ArcGIS, QGIS
Data management	MATLAB, MS Excel & Access, Notepad++, postgresQL

Other skills

Driving skills	B car driving licence, experience driving motor boats
Diving skills	European Scientific Diver, S30 (SE), Forschungstaucher (DE), Rescue Diver (PADI), about 350 dives

Peer-reviewed articles

- Tomczak, M. T., Müller-Karulis, B., Blenckner, T., **Ehrnsten, E.**, Eero, M., Gustafsson, B. G., Norkko, A., Otto, S. A., Timmermann, K., Harding, K. C., Humborg, C. 2022. Reference state, structure, regime shifts, and regulatory drivers in a coastal sea over the last century: the Central Baltic Sea case. *Limnology & Oceanography* 67:S266-S284. [doi:10.1002/lno.11975](https://doi.org/10.1002/lno.11975)
- Hyytiäinen, K., Bauer, B., Bly Joyce, K., **Ehrnsten, E.**, Eilola, K., Gustafsson, B. G., Meier, H. E. M., Norkko, A., Saraiva, S., Tomczak, M., Zandersen, M. 2021. Provision of aquatic ecosystem services as a consequence of societal changes. *Population Ecology* 63:61-74. [doi:10.1002/1438-390X.12033](https://doi.org/10.1002/1438-390X.12033)
- Ehrnsten, E.**, Norkko, A., Müller-Karulis, B., Gustafsson, E., Gustafsson, B. G. 2020. The meagre future of benthic fauna in a coastal sea – benthic responses to recovery from eutrophication in a changing climate. *Global Change Biology* 26:2235-2250. [doi:10.1111/gcb.15014](https://doi.org/10.1111/gcb.15014)
- Ehrnsten, E.**, Gustafsson, B.G., Humborg, C., Norkko, A., Savchuk, O., Slomp, C. P., Sun X., Timmerman, K. 2020. Understanding environmental changes in coastal seas: linking benthic biology to models of nutrient fluxes. *Frontiers in Marine Science* 7:450. [doi:10.3389/fmars.2020.00450](https://doi.org/10.3389/fmars.2020.00450)
- Wikström, S. A., Hedberg, N., Kautsky, N., Kumblad, L., **Ehrnsten, E.**, Gustafsson, B. G., Humborg, C., Norkko, A., Stadmark, J. 2020. Letter to editor regarding Kotta et al. 2020: Cleaning up seas using blue growth initiatives: Mussel farming for eutrophication control in the Baltic Sea. *Science of the Total Environment* 727:138665. [doi:10.1016/j.scitotenv.2020.138665](https://doi.org/10.1016/j.scitotenv.2020.138665)
- Hedlund, J., **Ehrnsten, E.**, Lehmann, P., Hayward, C., Eckrich, C., Crestiaan, C., Hayward, A. 2020. New records of the Paleotropical migrant *Hemianax ephippiger* in the Caribbean and a review of its status in the Neotropics. *International Journal of Odonatology* 23:315-325. [doi:10.1080/13887890.2020.1787237](https://doi.org/10.1080/13887890.2020.1787237)
- Ehrnsten, E.**, Bauer, B., Gustafsson, B. G. 2019. Combined effects of environmental drivers on marine trophic groups – a systematic model comparison. *Frontiers in Marine Science* 6:492. [doi:10.3389/fmars.2019.00492](https://doi.org/10.3389/fmars.2019.00492)
- Ehrnsten, E.**, Norkko, A., Timmermann, K., and Gustafsson, B. G. 2019. Benthic-pelagic coupling in coastal seas – Modelling macrofaunal biomass and carbon processing in response to organic matter supply. *Journal of Marine Systems* 196:36–47. [doi:10.1016/j.jmarsys.2019.04.003](https://doi.org/10.1016/j.jmarsys.2019.04.003)
- Altartouri, A., **Ehrnsten, E.**, Helle, I., Venesjärvi, R., and Jolma, A. 2013. Geospatial web services for responding to ecological risks posed by oil spills. *Photogrammetric Engineering & Remote Sensing* 79:905-914. [doi:10.14358/PERS.79.10.905](https://doi.org/10.14358/PERS.79.10.905)

Articles in review

- Ehrnsten, E.**, Savchuk, O. P., Gustafsson, B. G. 2022. Large-scale effects of benthic fauna on carbon, nitrogen, and phosphorus dynamics in the Baltic Sea. *Biogeosciences Discussions* [doi:10.5194/bg-2022-31](https://doi.org/10.5194/bg-2022-31)
- Hayward, A., Jaitly, R., **Ehrnsten, E.**, Hedlund, J., Cant, M., Lehmann, P., Predator avoidance in cephalopods: a triumph of brain over brawn?

Book chapters and reports

- Kotilainen, A., Kiviluoto, S., Kurvinen, L., Sahla, M., **Ehrnsten, E.**, Laine, A., Lax, H.-G., Kontula, T., Blankett, P., Ekebom, J., Hällfors H., Karvinen, V., Kuosa, H., Laaksonen, R., Lappalainen, M., Sirpa Lehtinen, S., Lehtiniemi, M., Leinikki, J., Leskinen, E., Riihimäki, A., Ruuskanen, A., Vahteri, P. 2020: Threatened habitat types in Finland 2018: the Baltic Sea. Red List of habitats. Part II: Descriptions of habitat types. 98 p. The Finnish Environment 23/2020. [ISBN:978-952-361-256-3](https://doi.org/10.1007/978-952-361-256-3)
- Kotilainen, A., Kiviluoto, S., Kurvinen, L., Sahla, M., **Ehrnsten, E.**, Laine, A., Lax, H.-G., Kontula, T., Blankett, P., Ekebom, J., Hällfors H., Karvinen, V., Kuosa, H., Laaksonen, R., Lappalainen, M., Sirpa Lehtinen, S., Lehtiniemi, M., Leinikki, J., Leskinen, E., Riihimäki, A., Ruuskanen, A., Vahteri, P. 2019: Baltic Sea. pp. 49-60 in: Kontula, T. & Raunio, A. (eds). 2019. Threatened Habitat Types in Finland 2018. Red List of Habitats – Results and Basis for Assessment. The Finnish Environment 2/2019. [ISBN:978-952-11-5110-1](https://doi.org/10.1007/978-952-11-5110-1)

- Kotilainen, A., Kiviluoto, S., Kurvinen, L., Sahla, M., **Ehrnsten, E.**, Laine, A., Lax, H.-G., Kontula, T., Blankett, P., Ekeboom, J., Hällfors H., Karvinen, V., Kuosa, H., Laaksonen, R., Lappalainen, M., Sirpa Lehtinen, S., Lehtiniemi, M., Leinikki, J., Leskinen, E., Riihimäki, A., Ruuskanen, A., Vahteri, P. 2018: Baltic Sea. *pp. 47-62 in:* Kontula, T. & Raunio, A. (eds.) Threatened habitat types in Finland 2018. Red List of Habitats - Part I: Results and Basis for Assessment. The Finnish Environment 5/2018. [In Finnish] [ISBN:978-952-11-4816-3](#)
- Kotilainen, A., Kiviluoto, S., Kurvinen, L., Sahla, M., **Ehrnsten, E.**, Laine, A., Lax, H.-G., Kontula, T., Blankett, P., Ekeboom, J., Hällfors H., Karvinen, V., Kuosa, H., Laaksonen, R., Lappalainen, M., Sirpa Lehtinen, S., Maiju Lehtiniemi, M., Leinikki, J., Leskinen, E., Riihimäki, A., Ruuskanen, A., Vahteri, P. 2018: Baltic Sea. *pp. 15-98 in:* Kontula, T. & Raunio, A. (eds.) Threatened habitat types in Finland 2018. Red List of Habitats - Part II: Descriptions of Habitat Types. The Finnish Environment 5/2018. [In Finnish] [ISBN:978-952-11-4819-4](#)
- Ehrnsten, E.**, 2013: Liite rantojen öljyntorjuntaoppaisiin: Suosituksia rannikon herkkien alueiden puhdistamiseen öljystä. Kaakkois-Suomen elinkeino-, liikenne- ja ympäristökeskus, Raportteja 18/2013. [Recommendations for oil cleanup in sensitive coastal areas, in Finnish]
- Storgårds, J., Viljanen, K.-M., Reunamo, A., Haavisto, F., **Ehrnsten, E.** 2012: Satamat ja vedenalainen luonto. Turun yliopiston merenkulkualan koulutus- ja tutkimuskeskuksen julkaisuja B 189. [Report on ports' effects on underwater nature, in Finnish] [link](#)

Theses

- Ehrnsten, E.** 2020. Quantifying macrozoobenthic biomass and carbon processing in a coastal sea – past, present and future. PhD thesis. University of Helsinki. *Dissertationes Schola Doctoralis Scientiae Circumiectalis, Alimentariae* 1/2020. [ISBN:978-951-51-5629-7](#)
- Ehrnsten, E.** 2010. Different methods of producing dead wood as a means of forest restoration [In Swedish]. MSc thesis. Faculty of Biosciences, University of Helsinki.
- Ehrnsten, E.** 2009. Boreal forest restoration [In Swedish]. BSc thesis. Faculty of Biosciences, University of Helsinki.

Conference contributions and invited talks

- ✓ *The Baltic Sea food web in a changing environment* Baltic Breakfast Seminar 26.1.2022. [videolink](#)
- ✓ *Large-scale effects of benthic fauna on carbon, nitrogen and phosphorus cycling.* Baltic Sea Science Congress, Aarhus, Denmark 18.-22.10.2021 (oral)
- ✓ *Climate change and recovery from eutrophication reduce benthic fauna and carbon processing in a coastal sea.* EGU General Assembly, Vienna, Austria 3.-8.5.2020 (oral - moved online) [doi:10.5194/egusphere-egu2020-19063](#)
- ✓ *Modelling biomass and carbon processing of benthic fauna in response to organic matter supply.* Baltic Sea Science Congress, Stockholm, Sweden 20.-23.9.2019 (oral)
- ✓ *Modelling benthic biomass and metabolism in Baltic Sea coastal areas.* Departmental Seminar, Department of Ecology, Environment and Plant Sciences, Stockholm University, Sweden 18.10.2019 (oral, invited)
- ✓ *Benthic-pelagic coupling in coastal seas – modelling macrofaunal biomass production in response to organic matter input.* 3rd BONUS Symposium, Gdansk, Poland 14.-16.3.2018 (poster)
- ✓ *Wellbeing from the Baltic Sea – applications combining natural science and economics.* Baltic Sea ecosystem models and their applications for management - International workshop, Tvärminne, Finland 13.-16.9.2015 (oral)
- ✓ *Tool to support oil spill combating and on-shore cleaning: OILRISK Map.* OILRISK project final conference, Kotka, Finland 7.2.2013 (oral)
- ✓ *Oil spill combatting and underwater nature.* Marine management seminar, County Administrative Board, Stockholm, Sweden 16.3.2012 [In Swedish] (oral)
- ✓ *Managing effects of harbours on underwater nature.* NANNUT project road show. Kotka, Helsinki, Tammisaari, Turku and Mariehamn, Finland 5.-14.3.2012 [In Finnish and Swedish] (oral)