

Max Lindmark

Curriculum vitae

Contact

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Education

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| Ph.D. Ecology, Swedish University of Agricultural Sciences. <i>Temperature- and body size scaling: effects on individuals, populations and food webs.</i> | 2016–2020 |
| MRes. Applied Marine and Fisheries Ecology (Distinction), University of Aberdeen. <i>Predicting spatial distribution of fish stocks by updating informative survey-based priors with commercial data in a Bayesian framework</i> | 2014–2015 |
| BSc. Biology, University of Gothenburg | 2011–2014 |

Professional experience

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| Post-doctoral researcher Swedish University of Agricultural Sciences, Institute of Marine Research | 2020–2022 |
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Awards

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| Lindsay Laird Prize In recognition of all-round performance in the Applied Marine and Fisheries Ecology program throughout the year. Awarded jointly with another student | 2015 |
| Fishmongersâ Award, Scholarship recipient Full fees payment (Â£3400) awarded to 1 MRes/MSc student on academic merit by the Fishmongersâ Company | 2014 |
| Stipend from Gothenburg Biological Society For well accomplished bachelorâs thesis: By-catch in pelagic fisheries: A study on by-catch in Swedish herring fisheries on the west coast in the winter of 2013/2014 | 2014 |
| Stiftelsen Hvitfeldtska gymnasiets samfond Stipend awarded for academic achievement (top 10% of science students in class) | 2010 |

Publications

[Preprints]

Lindmark, M., Anderson, S. C., Gogina, M., and Casini, M. 2022. Evaluating drivers of spatiotemporal individual condition of a bottom-associated marine fish. *BioRxiv*. <https://doi.org/10.1101/2022.04.19.488709>

Lindmark, M., Karlsson, M., and Gårdmark, A. 2022. Higher mortality rates leave heated ecosystem with similar size-structure despite larger, younger, and faster growing fish. *BioRxiv*. <https://doi.org/10.1101/2022.04.13.488128>

[Publications]

6. **Lindmark, M.**, Audzijonyte, A., Blanchard, J. L. and Gårdmark, A. 2022. Temperature impacts on fish physiology and resource abundance lead to faster growth but smaller fish sizes and yields under warming. *Global Change Biology*, early view <https://doi.org/10.1111/gcb.16341>
5. **Lindmark, M.**, Ohlberger, J., and Gårdmark, A. 2022. Optimum growth temperature declines with body size within fish species. *Global Change Biology*, 28(7), pp. 2259â2271, <https://doi.org/10.1111/gcb.16067>
4. Thunell, V., **Lindmark, M.**, Huss, M., and Gårdmark, A. 2021. Effects of warming on intraguild predator communities with ontogenetic diet-shifts. *The American Naturalist*. 196(6). 706â718, <https://doi.org/10.1086/716927>
3. Huss, M., **Lindmark, M.**, Jacobson, P., van Dorst, R., Gårdmark, A. 2019. Experimental evidence of gradual size-dependent shifts in body size and growth of fish in response to warming. *Global Change Biology*, 25(7), pp. 2285â2295, <https://doi.org/10.1111/gcb.14637>
2. **Lindmark, M.**, Ohlberger, J., Huss, M. and Gårdmark, A. 2019. Size-based ecological interactions determine effects of warming on food web stability. *Ecology Letters*, 22(5), pp. 778â786, <https://doi.org/10.1111/ele.13235>
1. **Lindmark, M.**, Huss, M., Ohlberger, J. and Gårdmark, A. 2018. Temperatureâdependent body size effects determine population responses to climate warming. *Ecology letters*, 21(2), pp. 181â189, <https://doi.org/10.1111/ele.12880>

Reports

Havs- och vattenmyndigheten 2019. Fisk- och skaldjursbestånd i hav och sötvatten 2018. Resursöversikt. Havs- och vattenmyndighetens rapport 2019:4. Göteborg, 305 s.

Havs- och vattenmyndigheten 2018. Fisk- och skaldjursbestånd i hav och sötvatten 2017. Resursöversikt. Göteborg, 273 s.

Havs- och vattenmyndigheten 2016. Fisk- och skaldjursbestånd i hav och sötvatten 2016. Resursöversikt

Grants

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| Sven och Dagmar Salmons stiftelse (Travel grant) (5 616 SEK) | 2019 |
| Knut and Alice Wallenbergs foundation (Travel grant) (24 000 SEK) | 2018 |
| SLU funds for internationalization of graduate education (Travel grant) (28 000 SEK) | 2016 |

Invited presentations

Gulf of Maine Research Institute May Seminar (GMRI) (video) May 2021
Understanding the effects of climate warming on food webs via individual-level physiology

Conferences

ICES ASC (Remote talk) 2022
Higher mortality rates leave heated ecosystem with similar size structure despite larger, younger, and faster growing fish

ICES/PICES Early Career Scientist Conference (Talk) 2022
Evaluating drivers of spatiotemporal changes in the condition of Eastern Baltic cod

Swedish Oikos Meeting, Online (Talk) 2021
Evaluating drivers of spatiotemporal changes in the condition of Eastern Baltic cod

Baltic Sea Science Congress, Stockholm (Talk) 2019
Warming alters the effect of fishing on the size spectra of an exploited temperate food web

Society for Experimental Biology, Seville (Talk) 2019
 In Satellite: Is global warming causing animals to shrink? evidence, mechanisms and models
Physiological constraints to growing large in warm waters?

Swedish Oikos Meeting, Uppsala (Talk) 2019
Physiological constraints to growing large in warm waters?

Models in Population Dynamics, Ecology, and Evolution, Leicester (Talk) 2018
Species interactions determine effects of warming on stability in a stage-structured food chain

Nordic Oikos Meeting, Trondheim (Talk) 2018
Species interactions determine effects of warming on stability in a stage-structured food chain

Swedish Oikos Meeting, Lund (Talk) 2017
Climate change and size-structured populations. Temperature dependent allometry and ontogenetic asymmetry shape warming responses of size structured populations

Research visits

University of Washington, School of Aquatic and Fishery Sciences Mar 2017-Jun 2017
 Research visit and collaboration with Dr. Jan Ohlberger

University of Tasmania, Institute for Marine and Antarctic Studies Nov 2018-Dec 2018
 Research visit and multispecies food web modelling workshop with Dr. Julia Blanchard

Working Groups

WGGRAFY Member 2020-present
 Joint ICES/PICES Working Group on Impacts of Warming on Growth Rates and Fisheries Yields (WGGRAFY)

Reviewing

ICES Journal of Marine Science (6) · *Oikos* (2) · *Nature Communications* (1) · *Ecology* (1) · *Scientific Reports* (1) · *Functional Ecology* (1) · *PLOS ONE* (1) · *Proceedings of the Royal Society B* (1)

Teaching

All lab material written by me is available on this github repository:

<https://github.com/maxlindmark/comp-labs-ecology>

- Sustainability perspectives on contemporary fisheries. Where have all the fishes gone?* 2019
Teaching assistant. Lecture on climate impacts on global fisheries.
- Ecology for fish management and conservation* 2016-2019
Teaching assistant. Wrote R lab Population dynamics and harvesting, lecture on fish morphology, physiology, and energetics, supervising and grading student projects, exam questions and marking.
- Principles in Fisheries Science* 2018-2019
Teaching assistant. Wrote R lab Impacts of fishing in an ecological context.
- LunchR* 2018
A department wide R course in data wrangling and plotting (4x1 hour). Solely initiated and organized together with student colleague Philip Jacobson. Material: <https://github.com/maxlindmark/LunchR>

Supervision

MSc students

- Malin Karlsson, Swedish University of Agricultural Sciences 2019-2020
Main supervisor for project: *The effect of temperature on life history traits of perch (Perca fluviatilis) in a large scale natural climate change experiment and its implications for population age- and size structure?*
- Mattias Grunander, Swedish University of Agricultural Sciences 2016
Co-supervisor for project: *Effects of global warming on Eurasian perch (Perca fluviatilis) in the Baltic Sea. - Does the growth response to increased temperatures differ along a latitudinal gradient?*

Workshops

- Making graphics in R for popular report on status of fishes in Swedish* 2019
- Modelling population dynamics with MatCont* 2018
Organized a session on numerical continuation analysis of a predator-prey model

University Services

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| PhD Representative Department of Aquatic Resources, SLU | 2019 |
| Class representative Applied Marine and Fisheries Ecology I represented studentsâ opinions and views on the program in regular meetings with course- and program coordinators at the University of Aberdeen | 2014-2015 |
| Student Ambassador Applied Marine and Fisheries Ecology I communicated with prospective students, mostly through social media | 2014-2015 |

Outreach

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| Co-managing research groupâ s Instagram account @fishinfoodwebs | 2016-2020 |
| SLU 40th Anniversary, Uppsala (Poster) <i>Climate change and size-structured populations. Temperature dependent allometry and ontogenetic asymmetry shape warming responses of size structured populations</i> | 2017 |
| Science evenings (high school), Å sthammar municipality (Talk) <i>Effects of warming on fishes</i> | 2017 |
| Gothenburg Biological Society Popular talk at the Gothenburg Museum of Natural History on bycatch in small scale pelagic fisheries on the west coast of Sweden | 2014 |
| Swedish Society for Nature Conservation I have given public talks (presenting on the topic of toxins in the Baltic herring in 2014) at local festivals (go: TO SEA and VÃ ¤sterhavsveckan) | 2011-2014 |
| Gothenburg Museum of Natural History Arranged seminar (4*2 per year) with invited speakers, covering all things marine | 2011-2014 |

Other

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| Initiator and admin of department wide R-users mailing list. (w. P. Jacobson) | 2018-present |
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