

WALTER AND ANDRÉE DE NOTTBECK FOUNDATION

Annual Report 2019

The Walter and Andrée de Nottbeck Foundation was established in 1970, and 2019 was thus the Foundation's 49 th year of activity.

The Foundation's Board of Directors consisted of D.Sc. (Tech.) h.c. **Ole Johansson** as the chairman, partner **Henrik Mattson** as the vice chairman, and Group CEO **Alexander Bargum**, prof. emer. **Jorma Kuparinen**, rector at the University of Helsinki, prof. **Jari Niemelä**, and Ph.D. h.c. **Carola Teir-Lehtinen** as other members.

The Foundation's scientific committee consisted of Ph.D. h.c. **Carola Teir-Lehtinen** as a chairperson, and the other scientific experts were prof. **Jorma Kuparinen**, environmental counsellor **Maria Laamanen** and two members from the Stockholm University, Sweden, prof. emer. **Ragnar Elmgren** and prof. **Christoph Humborg**. The expert group's main task is to evaluate the grant applications and together with the board of directors coordinate the foundations scientific policy.

The Foundation's Board of Directors held three meetings together with the Scientific Committee: on February 7 in Helsinki, on May 27 at Tvärminne and on November 11 in Helsinki. The Foundation's annual meeting was held at Tvärminne on May 27. The Scientific Committee had a strategic meeting in Helsinki in connection of the February Board meeting and a grant meeting on October 29, 2019.

RESEARCH IN 2019

The principal aim of the research supported by the Foundation is to investigate the function and the changes in the Baltic Sea ecosystem. The Foundation is jointly with the University of Helsinki funding the professor in Baltic Sea Research **Alf Norkko**, and from the beginning of 2018 the Foundations is also funding a tenure track professor, PhD **Aleksandra Lewandowska**, both of whom work at the Tvärminne Zoological Station.

In 2019 scholarships were granted to two senior research fellows, two postdoctoral researchers, four research projects, eleven Ph.D. students and two specific research tasks, as well as and three M.Sc. students. Besides personal grants, the Foundation also financed research related tasks, e.g. the Foundation supported several researchers' participation in international congresses and workshops abroad, as well as foreign researchers' visits at Tvärminne. The Foundation also paid for research related costs at the Tvärminne Zoological Station like laboratory costs, boating as well as travel to and lodging at the research station. These costs were mostly incorporated in the other costs of the projects. The grants are listed below.

1. Strategic investments

1.1 Alf Norkko – *Carbon dynamics across coastal seascapes – strengthening the strategic Baltic Bridge partnership between University of Helsinki and University of Stockholm* (a sum of 42 760 € was, however it was decided to postpone the project start until 2020, therefore none of the grant was used).

2. Postdoctoral grants, total sum **69 051 €** including 55 200 € for grants and 13 851 € for other costs.

2.1 Anna-Karin Almén – *Effect of plankton phenology on POC export* (12 months grant 27 600 € and other costs 2 352 €).

2.2 Kauppi Laura – *Chasing a moving target: From wriggling worms in the warming mud to ecosystem-level effects and management of our valuable seas* (12 months grant 27 600 € and other costs 11 499 €).

3. Research projects, total sum **64 609 €** including 5 850 € for grants and 58 759 € for other costs.

3.1 Rebecca Gladstone-Gallagher a – *Assessing the role of biodiversity in maintaining coastal ecosystem health in the Anthropocene* (a grant for postdoctoral work 10 442 €).

3.2 Alexandra Lewandowska – *Resource competitive ability of marine phytoplankton along salinity gradient and the consequences for stoichiometric variation in the sea* (research costs 8 500 €).

3.3 Joanna Norkko – Role of episodic events for biodiversity and ecosystem functioning in coastal waters (costs for a PhD student 5 850 € other costs 6 913 €).

3.4 Iván Rodil – *Baltic Sea eutrophication: the effects of increasing accumulations of drifting algal detritus on the functioning of shallow coastal habitats* (research costs 7 640 €).

3.5 Simon Thrush – *Ecology of Marine Sediments* (a book project for Oxford University Press together with Alf Norkko, Judi Hewitt and Conrad Pilditch; travel costs 2 943 €).

3.6 Kristian Spilling – *Asking the microbes: What do you do with the excess Phosphorus?* (research costs 12 923 €).

3.7 Anna Villnäs – *Elemental stoichiometry of benthic invertebrates as driver of coastal biogeochemical cycles* (research costs 9398 €).

4. Work on Doctoral theses, total sum **185 658 €** including 161 850 € for the grants and 23 808 € for other expenses.

4.1 Charlotte Angove – *Relationships between aquatic plant traits and ecosystem processes along environmental gradients in diverse plant communities* (5 months' grant, 9 750 € other expenses 178 €).

4.2 Samu Elovaara – *Cycling of dissolved and particulate organic matter in the pelagic marine environment: Impact of phytoplankton community mortality and microbial degradation* (3 months' grant, 5 850 €).

4.3 Jacqueline Jerney – *Ecological and evolutionary significance of seed banks for the expansion of phytoplankton blooms in the Baltic Sea* (3 months' grant, 5 850 € other expenses 1 897 €).

4.4 Ilmari Kahma – *The effects of increasing accumulations of algal detritus on the fate of organic carbon in shallow coastal habitats from the Baltic Sea* (12 months' grant, 23 400 €).

4.5 Pinja Näkki – *The fate and impacts of microplastics in seafloor habitats* (12 months' grant, 23 400 € other expenses 5 153 €).

4.6 Iris Orizar – *Resource competitive ability of marine phytoplankton along a salinity gradient and the consequences for stoichiometric variation in the sea* (12 months' grant, 23 400 € other expenses 2 514 €).

4.7 Roxana Preston – *The origin and regeneration of free-living populations of *Fucus vesiculosus* in the northern Baltic Sea* (12 months' grant, 23 400 € other expenses 9 739 €).

4.8. Mari Vanharanta – *Asking the microbes: What do you do with the excess Phosphorus?* (12 months' grant, 23 400 €).

4.9 Leena Virta – *A trait-based approach for diatom functional biogeography in the Baltic Sea* (12 months' grant, 23 400 € other expenses 4 327 €).

5. Pro gradu theses (MSc theses) were supported with **6 486 €** of which 6 000 € were grants and 486 € were used for other expenses.

5.1 Viivi Halonen – *Associated benthic macrofauna of free-living *Fucus vesiculosus* in the Baltic Sea* (grant 2 000 € other expenses 486 €).

5.2 Teija Isotalo – *Effects of climate change on stickleback reproduction: behavioural responses and fitness consequences* (grant 2 000 €).

5.3 Sara Newton – *Effects of salt induced flocculation on biogeochemical transformation of nutrients in estuarine environments* (grant 2 000 €).

6. Other research support, total sum **13 779 €** for expenses.

6.1 Kay van Damme – *Cladocera of the Baltic Sea - Taxonomy and Diversity* (research costs 4 919 €).

6.2 Jilbert Tom – *Size distribution and elemental composition of suspended particulate matter in an estuarine flocculation zone* (research costs 3 177 €).

6.3 Westerbom Mats – *Causes of change in key habitats in the Tvärminne archipelago: a research project on spatial and temporal dynamics among Baltic Sea character species* (research costs 5 683 €).

7. Other research costs

Prof. **Alf Norkko** used **4 996 €** and the quest professors **Christoph Humborg** and **Bo Gustafsson** **9 719 €** for research expenses, their own travel costs and the costs of guest researchers' visits at Tvärminne. Support for the Tvärminne Zoological Station, including purchasing, updating and servicing equipment was **4 402 €**. The experts' remunerations and secretary's salary costs was totally **22 875 €**. Costs of meetings including the two Swedish experts' travel costs amounted to **3 760 €**. The cost for maintenance of a program for administration of the grants **4 266 €** and the cost for home page maintenance **372 €**.

TOTAL BUDGET for 2018

The total sum of personal grants was **228 900 €**. The Foundation's share of the cost for the two professorships was **116 165 €**. The Foundation supported research work by subsidising research visits, participating meetings and congresses, laboratory chemicals, equipment and analyses, research vessel costs, etc. with the total sum of **129 797€**. Administrative costs totalled **62 102 €**, covering the expert group meetings and the experts' and the secretary's remuneration, electronic grant administration, home page costs and other costs, including bank costs, accountancy, auditing and cost for managing the stock portfolio.

January 17, 2020

Elina Leskinen
Secretary