

# WALTER AND ANDRÉE DE NOTTBECK FOUNDATION

## Annual Report 2020

The Walter and Andrée de Nottbeck Foundation, established in 1970, reached in 2020 its 50<sup>th</sup> year of activity. Due to Covid-19 pandemic, all festivities planned had to be cancelled. Moreover, the global epidemic restricted research in many ways due to governmental recommendations to avoid travel and any larger public gatherings. Luckily, the most important experiments could, however, be conducted.

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 as other members Group CEO **Alexander Bargum**, rector at the University of Helsinki, prof. **Jari Niemelä**, Ph.D. h.c. **Carola Teir-Lehtinen** and prof. emer. **Jorma Kuparinen**, who was in February succeeded by Senior Ministerial Adviser, Professor of Practice at the Åbo Akademi University **Maria Laamanen**.

The Foundation's scientific committee was led by Ph.D. h.c. **Carola Teir-Lehtinen** as a chairperson, and the other scientific experts consisted of two members from the Stockholm University, Sweden, prof. emer. **Ragnar Elmgren** and prof. **Christoph Humborg**, and from Finland Senior Ministerial Adviser, Professor of Practice at the Åbo Akademi Univ, **Maria Laamanen** and prof. **Jorma Kuparinen** (Univ. of Helsinki), who was succeeded by prof. (Univ. of Turku) **Veijo Jormalainen** in June. 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 10 in Helsinki, on May 28 using distant contact and on November 3 with some members gathered at Helsinki university locations and the rest using distant contact. The Foundation's annual meeting was held on May 28 with distant contact. The Scientific Committee had a grant meeting on October 27, 2020 at Helsinki university, with some members using distant contact.

## RESEARCH IN 2020

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 in addition the Foundation is alone funding a tenure track professor, PhD **Aleksandra Lewandowska**. Both professors work at the Tvärminne Zoological Station.

For 2020 scholarships were granted to one strategic investment, seven research projects, four postdoctoral researchers, eight Ph.D. students and two specific research tasks, as well as two M.Sc. students. Besides personal grants, the Foundation also financed research related tasks, e.g. participation in international congresses and workshops, 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 realized are listed below.

### 1. Strategic investments, total sum 29 362 €

**1.1 Alf Norkko** – Carbon dynamics across coastal seascapes – strengthening the strategic Baltic Bridge partnership between University of Helsinki and University of Stockholm (employment of postdoc Florian Roth, 29 362 €).

**2. Research projects, total sum for other research costs 39 241 €**

**2.1 Eero Asmala** – Quantification of plankton community respiration with non-intrusive oxygen measurements (other research costs 5 332 €)

**2.2 Ulrika Candolin** – The growth of threespine stickleback populations in the Baltic Sea: causes and consequences (other research costs 4 014 €).

**2.3 Aleksandra Lewandowska** – Resource competitive ability of marine phytoplankton along a salinity gradient and the consequences for stoichiometric variation in the sea (other research costs 6 383 €).

**2.4 Joanna Norkko** – Role of episodic events for biodiversity and ecosystem functioning in coastal waters (other research costs 87 87 €).

**2.5 Iván Rodil** – Baltic Sea eutrophication: the effects of increasing accumulations of drifting algal detritus on the functioning of shallow coastal habitats (other research costs 1 211 €).

**2.6 Kristian Spilling**– Asking the microbes: What do you do with the excess Phosphorus? (other research costs 11 539 €).

**2.7 Mats Westerborn** – Causes of change in key habitats in the Tvärminne archipelago: A research project on spatial and temporal dynamics among Baltic Sea character species (other research costs 1 976 €).

**3. Postdoctoral grants, total sum 98 798 € including 55 200 € for grants and 43 598 € for other costs.**

**3.1 Rebecca Gladstone-Gallagher**– Assessing the role of biodiversity in maintaining coastal ecosystem health in the Anthropocene (other costs 11 656 €).

**3.2 Dana Hellemann** – Elucidating seasonal substrate limitation of benthic nitrate reduction in the coastal Baltic Sea (12 months personal grant 27 600 €, other costs 21705 €).

**3.3 Laura Kauppi**– Chasing a moving target: From wriggling worms in the warming mud to ecosystem-level effects and management of our valuable seas (half of postdoc personal grant for 8 months, 9 200 € and other costs 1 949 €)

**3.4 Camilla Lienart** – Exploring the trophic status of a key species, the Baltic blue mussel, in a rapidly changing ecosystem using stable isotopes (8 months personal grant 18 400 €, other costs 8287 €).

**4. Work on Doctoral theses, total sum 116 821 € including 103 350 € for the grants and 13 471 € for other expenses.**

**4.1 Norman Göbeler** – The role of episodic events for biodiversity and ecosystem functioning in coastal waters (12 months' grant, 23 400 €).

**4.2 Tuomas 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 €).

**4.3 Bertille Mohring** – Boon or bane? The adaptive significance of individual stress coping in female Eiders (*Somateria mollissima*) (other costs 244 €).

**4.4 Pinja Näkki** – The fate and impacts of microplastics in seafloor habitats (12 months' grant, 23 400 € other expenses 769 €).

**4.5 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 1 958 €).

**4.6 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 9 062 €).

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

**4.8 Leena Virta** – A trait-based approach for diatom functional biogeography in the Baltic Sea (5 months' grant, 9 750 €, other expenses 1 439 €).

**5. Pro gradu theses (MSc theses) were supported with 2 650 €**

**5.1 Sini Bäckström** – Influence of aquatic eutrophication on female ornaments and male mate choice (grant 650 €).

**5.2 Steffaney Wood** – Cyano-archive: Cyanobacteria akinete survival and germination from N Baltic Sea sediment (grant 2 000 €).

**6. Other research support**, total sum **18 €** for expenses.

**6.1 Anna Villnäs** – Elemental stoichiometry of benthic invertebrates as driver of coastal biogeochemical cycles (research costs 18 €, rest of the grant could not be used due to covid pandemic).

**6.2 Sanna Suikkanen** – Workshop – Microbial life cycles in a changing ocean (the grant could not be used due to covid pandemic).

**7. Other research costs**

Prof. **Alf Norkko** used **4 737 €** and the guest professors **Christoph Humborg** and **Bo Gustafsson** **1 760 €** for research expenses, their own travel costs and the costs of guest researchers' visits at Tvärminne. Support for the Tvärminne Zoological Station, employment of a laboratory technician, **7 063 €**, and updating and servicing equipment was **2 604 €**

**TOTAL BUDGET for 2020**

The Foundation's share of the cost for the two professorships was **116 661 €**. The total sum of personal grants was **237 362 €**. 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 **112 492 €**. Administrative costs totalled **47 872 €**, covering the expert group meetings, the remuneration of experts and a secretary, electronic grant administration, home page costs and other costs, including bank costs, accountancy and auditing.

January 27, 2021

Elina Leskinen  
Secretary