

# WALTER AND ANDRÉE DE NOTTBECK FOUNDATION

## Annual Report 2016

The Walter and Andrée de Nottbeck Foundation was established in 1970, and 2016 was thus the Foundation's 46th year of activity.

The professor in Baltic Sea Research, **Alf Norkko**, works at Tvärminne Zoological Station, and the professorship was jointly funded by the Foundation, the Finnish Environment Institute and the University of Helsinki. The Foundation's expert group, consisted of prof. **Jari Niemelä**, Ph.D. h.c. **Carola Teir-Lehtinen**, prof. **Allan Johansson**, prof. **Jorma Kuparinen**, and two members from Stockholm university, Sweden, prof. **Ragnar Elmgren** and prof. **Christoph Humborg**. Its main task is in the policy-making and implementing the Foundation's goals for the support of marine science.

The Foundation's Board of Directors held three meetings together with the Scientific Committee: on February 11 in Helsinki, on May 12 at Tvärminne and on November 9 in Helsinki. The Foundation's annual meeting was held at Tvärminne on May 12. The Scientific Committee had a meeting in Helsinki, on October 26, 2016.

## RESEARCH IN 2016

The principal aim of the research supported by the Foundation is to investigate the function and the changes in the Baltic Sea ecosystem. In 2016 scholarships were held by two senior researchers, four postdoctoral researchers, ten Ph.D. students and three researchers with project grants, as well as and ten M.Sc. students. Besides research projects, the Foundation also financed research related tasks, e.g. purchase of equipment, etc. The grants are listed below.

### 1. Project leaders' grants, total sum 8 000 €

Prof. **Alf Norkko**, 2 000 € for extraordinary project management. The project leaders PhD **Janne-Markus Rintala** and PhD **Kristian Spilling**, 2 000 € each and PhD **Anke Kremp** and PhD **Sanna Suikkanen**, 1 000 € each for project management.

### 2. Senior research fellow grants, total sum 9 519,53 €, including 5 600 € for grants and 3919,53 € for other expences

**2.1. Ronnie Glud** (one month's grant 2 800 €, other expenses 2592,72 €) – *The breathing seabed: Linking benthic community structure to biogeochemical function*

**2.2 Kay van Damme** (one month's grant 2 800 €, other expenses 1326,81 €) – *The Baltic Sea Cladocera (Crustacea: Branchiopoda)*

### 3. Postdoc. grants, total sum 103 975,95 €, including 85 100.00 € for the grants and 18 875,95 € for other expenses.

**3.1 Karl Attard** (month's grant 25 300 €; other expences 9 245.77 €) – *The breathing seabed: respiration and primary production by benthic habitats in the Baltic Sea*

**3.2. Guillaume Bernard** (six months' grant, 13 800 €; other expenses 3 259.47 €) – *Context-dependent bioturbation processes in the Baltic Sea: interactions between benthic fauna activities and nutrient fluxes along habitat gradients in the Tvärminne archipelago and the Roskilde Fjord (Denmark)*

**3.3 Maria Degerlund** (six months' grant, 27 600 €) – *The role of cell death in phytoplankton growth and population dynamics*

**3.4 Matias Scheinin** (eight months' grant, 18 400 €; other expenses 6 370.71 €). – *Effects of ocean acidification and eutrophication on evolutionary adaptation.*

**4. Work on Doctoral theses**, total sum **246 120.79 €**, including 214 500.99 € for the grants and € 31 620.79 for other expenses.

**4.1. Charlotte Angove** (twelve months' grant, 23 400 €). – *Relationships between aquatic plant traits and ecosystem processes along environmental gradients in diverse plant communities.*

**4.2. María Teresa Camarena Gómez** (five months' grant, 9 750 €). – *Changes in spring bloom community composition and its effects on nutrients flux in the Baltic Sea.*

**4.3. Samu Elovaara** (twelve months' grant, 23 400 €). – *Cycling of dissolved and particulate organic matter in the pelagic marine environment: Impact of phytoplankton community mortality and microbial degradation.*

**4.4. Sara Enberg** (twelve months' grant, 23 400 €). – *Winter ecology: Microbial assemblages and their benthic-pelagic coupling during and after the occurrence of sea ice.*

**4.5. Johanna Gammal** (twelve months' grant, 23 400 €, other expenses 7 271.25 €). – *Benthic macrofaunal communities and ecosystem function relationships in the heterogeneous coastal zone*

**4.6. Jacqueline Jerney** (twelve months' grant, 23 400 €, other expenses 4 092.90 €). – *Ecological and evolutionary significance of seed banks for the expansion of phytoplankton blooms in the Baltic Sea.*

**4.7. Mari Joensuu** (twelve months' grant, 23 400 €, other expenses 5 423.91 €). – *Sediment resuspension and nutrient fluxes across habitat gradients of the Baltic Sea*

**4.8. Henri Jokinen** (nine months' grant, 17 550 €). – *Population characteristics and bottlenecks in population maintenance of flounder at the edge of its distribution range.*

**4.9. Anne-Mari Luhtanen** (twelve months' grant, 23 400 €, other expenses 4 805.80 €). – *Significance of viruses and factors influencing viral reproduction on Baltic sea ice communities.*

**4.10. Pankaj Pant** (twelve months' grant, 23 400 €, other expenses 10 026.93 €). – *Coping with global warming: Potential and limits of epigenetic transgenerational effects in the three-spined stickleback.*

**5. Other research projects**, total sum **50 953.23 €**, including 13 800 € for the grants and 37 153.23 € for other expenses.

**5.1. Camilla Gustafsson** (other expenses 16 807.22 €) – *Identifying relationships between plant traits and ecosystem processes along environmental gradients in diverse temperate plant communities.*

**5.2. Katariina Koho** (3100 €) – *Seasonal environmental changes recorded in the eukaryotic ribosomal DNA*

**5.3. Janne-Markus Rintala** (six months' grant, 13 800 €, other expenses 1 506.21 €). – *The Winter Ecology (WE) project.*

**5.4. Sanna Suikkanen and Anke Kremp** (other expenses 2 261.81 €) – *Ecological and evolutionary significance of seed banks in toxic dinoflagellate expansion*

**5.5. Tobias Tamelander** (other expenses 13 477.99 €). – *Phytoplankton mortality in marine ecosystems: Feedbacks to the pelagic detritus pool and biogeochemical cycling in a changing environment.*

**6. Pro gradu theses** (MSc theses) were supported with **19 062,58 €**, of which 18 000 € were grants and 1 062.58 € were used for other expenses.

**Elina Ek** (grant 2000 €) – *Pattern and process of adoption in eiders*

**Sara Goncalves** (grant 2000 €) – *Influence of early social experience on offspring development in a growing threespine stickleback population*

**Johanna Hellman** (grant 2000 €) – *The effect of environmental factors and female traits on hatching success in eiders (*Somateria mollissima*)*

**Hans-Peter Huhtala** (grant 2000 €) – *Factors influencing the early development of the common Eider (*Somateria mollissima*)*

**Laura Kaikkonen** (grant 2000 €) – *Phenologies of pelagial and sympagic VLP (Virus Like Particles), bacteria and nanoflagellates in the inner and outer archipelago, GoF (Gulf of Finland), Baltic Sea*

**Katja Koli** (grant 2000 €, other expenses 599.40 €) – *How does eutrophication affect evolutionary adaptation in plankton communities?*

**Saana Railo** (grant 2000 €, other expenses 300.80 €) – *Microplastics in Northern Baltic Sea bivalves*

**Timo Tikka** (grant 2000 €, other expenses 163.10 €) – *Experimental study of the impacts of shipping noise on fish behavior in the Baltic Sea*

**Mari Vanharanta** (grant 2000 €) – *Dead or alive? Variability of the physiological condition of phytoplankton communities in the Baltic Sea*

## 7. Other research costs

The Foundation supported several researchers' participation in international congresses and workshops abroad, as well as foreign researchers' visits at Tvärminne. Most of these costs were paid by the projects. The Foundation also paid for laboratory equipment, travelling, lodging at the Tvärminne Zoological Station, etc. These costs have been paid by the separate projects.

Prof. **Alf Norkko** used **5 445,26 €** for research expenses, his own travel costs and the costs of guest researchers' visits at Tvärminne. Congress expenses were separately granted to Pinja Näkki, totalling **996.80 €**. David Thomas' work at Tvärminne was supported with **1 651.71 €** and Mikael Kilpi's work with **1 557.75 €**. The publishing costs of Maija Heikkilä and Susanne Müller was supported with **1 472.67 €** in total. Support for the Tvärminne Zoological Station, including updating and servicing equipment was **8 798.00 €**. The experts' costs, including the two Swedish experts' travel costs amounted to **5 059.76 €**. The administration costs, including the Foundation's meeting at Tvärminne in May, were **408.62 €**. The cost for home page, including maintenance and total updating was **1 897.20 €**. The Foundation's homepage ([www.nottbeck.org](http://www.nottbeck.org)) is maintained by Fonecta.

## TOTAL BUDGET for 2016

The total sum of the grants was **345 000 €** (317 000 € for research grants, 8 000 € for project leaders' grants and 20 000 € for M.Sc. grants). The cost for the professorship was **31 713.70 €**. The Foundation has supported the research work by subsidising research visits, participating meetings and congresses, laboratory chemicals, equipment and analyses, research vessel costs, etc. with the total sum of **112 554.27 €**. Administrative costs covering the expert group meetings and the Foundation's home page, amounted to **7 365.58 €**. The secretary's and assistant secretary's remuneration was **18 675.96 €** in total. Other costs, including bank costs, accountancy, auditing, etc. was **16 269,63 €**. The grants and the secretaries' remuneration were paid via the bank SEB. The cost for the professorship was paid to the University of Helsinki.

January 31, 2017

Elina Leskinen  
Secretary