

## **Gunnhild Riise**

Professor: Water chemistry, limnology  
Scientific leader – Hydrology and limnology group

### **Contact information**

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### **Teaching**

VANN211 – Limnological methodology  
VANN220 – Water resources and water supply  
VANN300 – Water pollution I

### **Research interest**

Limnology, water pollution, organic matter, pesticides, trace metals, eutrophication, interaction between terrestrial and aquatic processes

### **Current research**

Eutrophication of lakes – influence of internal and external nutrient sources, impact of climate on nutrient dynamics in lakes

Impact of climate on runoff of pesticides – small scale field experiments

Accumulation of pollutants in lake sediments – importance of areal use and sediment properties for environmental status in freshwaters

Long term studies on factors influencing the transport and properties of organic matter (humic substances)

### **Supervisor activity**

#### **PhD students**

Ståle Haaland: “Effects of climate change on fluxes and quality of dissolved organic matter (DOM) – with emphasis on the effects of precipitation” - Norwegian University of Life Sciences

Thomas Hartnik: “Time dependent bioavailability of non-ionic pesticides to soil living organisms and its effect on Toxicity” - Norwegian University of Life Sciences

Present (2007-2011)

Aleksandra Trnic Romarheim: “Impact of climate on the eutrophication process, with special focus on phosphorus and phytoplankton production (2007-2011)

## Master students

1994-2008:

Main supervisor for about 25 M Sc. Students within the topics: Water chemistry, pollution and limnology

Present (2009)

In total 6 Master students are working within the field of eutrophication, lake sediments, environmental pollutants and lake water chemistry

## Publications 2004-2008

Riise, G. and Haugen, L.E. 2008. Influence of climate on runoff of pesticides. Nordic hydrological programme **NHP Report** 50: 528-537.

Haland, S., Austnes, K., Kaste, Ø., Mulder, J. Riise, G., Vestgarden, L.S. and Stuanes, A. 2008. Manipulation of Precipitation in Small headwater Catchments at Storgama, Norway: Effects of leaching of organic carbon and nitrogen Species. **Ambio** 37: 48-55

Stuanes, A., de Wit, H., Hole, L.R., Kaste, Ø., Mulder, J., Riise, G. Wright, R.F. 2008. Effect of Climate Change on Flux of N and C: Air-Land-Freshwater-Marine Links: Synthesis. **Ambio** 37: 2-8

Haaland, S., Riise, G. and Stuanes, A. 2006. Impact of precipitation on quality of dissolved organic carbon in runoff from a headwater area in Norway. **Verhandlungen – International Association of Theoretical and Applied Limnology**. 29: 2317-2320.

Riise, G., Wu, Q.,Lundekvam, H. and Mulder, J. 2006. Suspended sediments as carriers for the fungicide propiconazole in agricultural runoff. **Verhandlungen – International Association of Theoretical and Applied Limnology**. 29: 1296-1300.

Wu, Q., Riise, G., Pflugmacher, S., Greulich, K. and Steinberg, C.E.W., 2005. Combined effects of the fungicide propiconazole and agricultural runoff sediments on the aquatic bryophyte *Vesicularia Dubyana*. **Environ. Chem. Tox.** 24: 2285-2290.

Riise, G., Lundekvam, H., Wu, Q., Haugen, L.E. and Mulder, J., 2004. Loss of pesticides from agricultural fields in SE Norway – runoff through surface and drainage water. **Environ. Geochem. Health**. 26:

Hongve, D., Riise, G. and Kristiansen, J.F. 2004. Increased colour and organic acid concentrations in Norwegian forest lakes and drinking water – a result of increased precipitation? **Aquatic. Sci.** 66:231-238

Wu, Q., Riise, G., Lundekvam, H., Mulder, J. and Haugen, L.E., 2004. Influences of suspended particles on the runoff of pesticides from an agricultural field at Askim, SE Norway. **Environ. Geochem. Health** 26: