# Research school for teachers focusing on Natural Hazards

Stockholm University
Bolin Centre for Climate Research

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## Background

The Swedish government has launched state funded research schools for teachers to improve the education and study results in schools. The research school for teachers focusing on Natural Hazards has brought together 12 teachers from all over Sweden to improve their knowledge and skills in geoscience while they continue with their ordinary educational assignment. The different projects range from volcanoes, landslides, earthquakes to palaeoclimatic changes. Involvement in the research process increases critical thinking and the goal is to bring a more scientific way of working back to our schools together with the specific knowledge in our research areas.

## Objective

The aim of the study that I am a part of is to reconstruct lake status changes and to evaluate whether the extent of these changes are linked to known shifts in monsoon intensity and variability.

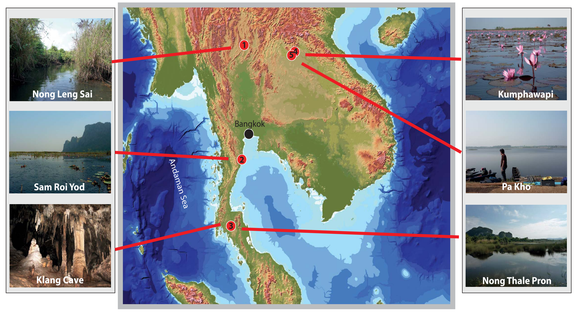


*Figure 1: Location of the sites in Thailand that form part of the Thailand Monsoon Project*

## Collaborations with high schools and Stockholm University

*Figure 2: Pictures clockwise from upper left show 1) The smallest geological museum in the world, Gotland, 2) Students collecting fossils at Gotland 3) Students out at the mire Abisko, 4) Students analysing green house gases in the lab 5) Students mesuring methan gas in Abisko, 6) Teacher feeling the permafrost with a metal rod*

## Results and conclusions

*What has the research school for teachers focusing on Natural hazards brought so far?*

Teachers have acquried a deeper knowledge in geological sciences.

Teachers have learned how to communicate the scientific process in an evidence based way. In addition, as we learn the scientific process we continue parallel teaching to our students about of what we are learning.

Our students have been able to leave the classroom and go from the abstract to the real environment. By being out in the field and, for example, sticking a metallic rod into the ground at the mire, they can actually feel the permafrost.

*Figure 3. Fieldwork in collaboration with Stockholm University, Department of Geological Sciences, Prof. Jan Backman, Hildred Crill, Prof. Patrick Crill, Chris Hemmingsson, Associate prof. Otto Hermelin and Silvie Harder McGill University Montreal, Canada and Blackebergs gymnasium, Kunskaps skolan, Lundellska skolan, Väsby nya gymnsium..*

We are on Youtube and on Vimeo: Under the Eyes of the Buddha I – Traveling North: http://www.youtube.com/user/GeologicalSciences
Under the Eyes of the Buddha II – Traveling South: http://vimeo.com/36974808
Under the Eyes of the Buddha III – in White Coats: https://www.youtube.com/watch?v=Vel9dP_DXO0