

# “TRYG i naturen” – research in risk and safety related to outdoor recreation and education (*friluftsliv*) in the coastal regions of Denmark

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## Background and aim

In Denmark there is a lack of research within risk and safety connected to the field of outdoor recreation and education – *friluftsliv*. Accidents are registered by different organizations but are not subject to further analysis, and focus seems to be on fatalities only. The general understanding and practices connected to risk and safety in the outdoors seem to be based on tradition, prejudices and common sense rather than on evidence.

Several newer studies indicate strong links between health and participation in leisure activities in the outdoors. Risks and accidents in the outdoors may on one hand be seen as an attraction especially for young people's participation and on the other hand as a constraint for participation.

The project “Safe in nature” aims to identify patterns of accidents, including near-misses, within three selected activities in the coastal regions – seakayaking, kitesurfing and dinghysailing. The three selected activities are selected as representatives of different cultures in outdoor recreation and education with different traditions and practices related to risk and safety.

## Design and methods

The study integrates quantitative and qualitative methods using document-study as well as case-studies with use of survey and qualitative interviews. The first part of the study aims to form an overview of risk and safety related to outdoor recreation and education in the coastal regions in Denmark. Already existing statistics and registrations from different organizations and institutions are being analyzed. The second and central part of the study is a case-study trying to identify the safety-culture or -profile of the selected activities – seakayaking, kitesurfing and dinghysailing. This part involves a quantitative survey among participants in the selected activities followed by qualitative interviews with groups of participants. The collection of data is being analyzed intending to identify a specific safety profile connected to the specific activity and culture of *friluftsliv*, which might on one hand help to understand patterns of accidents and on the other hand help form strategies to improve safety.

The third part of the study involves an international comparative perspective with a minor study focusing on organization, risk-management and strategies related to risk and safety in the outdoors in New Zealand and Australia. Results are being discussed in a Danish context. This part of the study will not be included in this presentation.

## Results

### First part

In the first part of the study we concentrate on the period of 2005–2010. The reason for this is simple and relates to the lack of consistent data related to accidents and rescues before this period. Results from the ongoing study indicate that the development in accidents does not follow the general development in outdoor recreation and education – *friluftsliv*. Patterns of accidents seem to be rather complex, involving socioeconomic standards and seem to be closely related to the culture of outdoor recreation and education – *friluftsliv*.

The results show a general decline in the numbers of near-misses but a stable level of accidents related to *friluftsliv* and outdoor activities in the coastal regions (bathing and swimming not included). Within the selected activities – seakayaking, kitesurfing and dinghysailing – there seems to be interesting differences in the proportions of incidents, near-misses and fatal accidents. There appears to be many accidents and near-misses related to sailing and fishing, and many false alarms especially related to kitesurfing.

### Second part

The three selected activities of *friluftsliv* – seakayaking, kitesurfing and dinghysailing – are different in a number of ways, – i.e. age, gender, education, socioeconomic status. Results from survey and interviews show that the three groups seem to have different consciousness, focus and behavior related to risk and safety.

The ability to perform a self-rescue in case of capsizing seems to be vital and to relate to the attitude and behavior related to safety. It is suggested to understand the results as a *chain of safety* involving 5 elements. The three selected activities seem to represent different safety profiles according to this chain (figure 1).

## Conclusions

The study points out that safety related to *friluftsliv* in the coastal regions cannot be related to or reduced to one single factor – but rather has to be understood as a *complex pattern*. The study points out the importance of taking a *holistic or cultural approach to risk-management* involving a deeper understanding of the traditions, the context and the taken for granted thinking and behaving related to a specific culture. The study is focusing on outdoor recreation and education – *friluftsliv* – in the coastal regions of Denmark.



Figure 1. Chain of safety

It can however be discussed whether the results can give indications or perspectives to other ways of understanding and managing risk and safety in *friluftsliv* in general.