It's all in the detail: a tribute to Hilary Birks and her contributions to palaeoecology

Anne E. Bjune · Kathy J. Willis

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It is a real pleasure to dedicate this special issue of *Vegetation History and Archaeobotany* to Professor Hilary H. Birks as a tribute to her on the occasion of her 70th birthday in April 2014. Throughout her scientific career Hilary has made a huge contribution to many aspects of ecology, palaeoecology, and palaeoclimatology. Hilary's main focus has always been plant macrofossils with a particular interest in arctic and alpine plants and ecosystems, and their responses to climate change. Hilary started working with macrofossils in 1970 and she has been involved in a number of important agenda-setting projects since that time. Research themes have varied from lake eutrophication and pollution, to ecosystem changes and biological responses, to tree-line and forest development, the spread and representation of plant remains, and the use and importance of macrofossils when interpreting flora and vegetation, as well as reconstructions of climate and environmental changes from different biological and geological proxies. The use and utilization of multiple proxies

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A. E. Bjune (✉)
Uni Climate, Uni Research AS and Bjerknes Centre for Climate
Research, Allégaten 55, 5007 Bergen, Norway
e-mail: anne.bjune@uni.no

K. J. Willis
Long-term Ecology Laboratory, Biodiversity Institute,
Department of Zoology, University of Oxford, South Parks
Road, Oxford OX1 3PS, UK

K. J. Willis
Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3DS, UK

K. J. Willis
Department of Biology, University of Bergen, PO Box 7803,
5020 Bergen, Norway

Hilary with a giant lobelia (*Lobelia rhynchopetalum*) in the Bale Mountains, Ethiopia, October 2007; photo: Harry Jans

to reconstruct past conditions has always been central in Hilary's work. Study sites have spanned a wide range of geographical locations from within Europe, to North American, African, and Tibetan sites. Most have focused on fossil records contained in lake sediment sequences spanning Late Glacial and Holocene time periods but the

stomach content from a Siberian mammoth is also on her list of publications. If one project should be highlighted, however, it must be the Kråkenes project. This is probably one of the best known, highest cited, and renowned palaeoecological and palaeoclimatological late-glacial research projects. This was a large multi-proxy study involving a huge number of scientists from many different countries, utilizing many different proxies aiming to reconstruct the late-glacial and early Holocene ecosystem responses to the environmental and climate changes at Kråkenes in western Norway. The high number of ^{14}C dates, the extremely precise age-model, and the identification of the Vedde and Saksunarvatn tephras as well as the dating and the exact position of the transition from the late-glacial to the early Holocene made this project an exceptional record and piece of research work; of which the vast majority of credit must go to Hilary.

As the expert on plant macrofossils in northern Europe Hilary has hosted a high number of students and

researchers coming to Bergen to learn and discuss with her. This is clearly reflected in her publication record and also the increasing use of plant macrofossils in palaeoecology and palaeoclimatology. The set of papers in this special issue represents a tiny fraction of the people that Hilary with the academic flair, drive and leadership has influenced over career. The papers in this special issue only represent a small portion of the topics that Hilary has been involved with during her long research career, but we hope we have captured some of her main interests.

We would like to thank everybody that has been involved in making this special issue by providing contributions, reviewing the articles and putting it into its present form. On a personal front we are both indebted to Hilary for her leadership, support and friendship over the years and we wish her a very happy retirement and good health for the future!