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Cover illustration *Chlamydomonas nivalis* on Shackleton Glacier in the Canadian Rockies. Photo credit: Hester Jiskoot.

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PREFACE

Annals of Glaciology is a peer-reviewed thematic journal published by Cambridge University Press on behalf of the International Glaciological Society. The themes of this issue were the subject of the International Symposium on Cryosphere and Biosphere held in Kyoto from Wednesday 14th March through Monday 19th March, 2018. The local organising team, headed by Nozomu Takeuchi, were charming, courteous and helpful in the extreme. The team pulled off the rare feat of running the meeting in a thoroughly organised and professional manner, yet left the delegates feeling relaxed and able to interact and talk together in an unrushed and informal manner throughout.

The programme contained some great sessions, reflecting how biological processes are being integrated into the thinking and structure of our mother subject, glaciology, which has historically an emphasis on physical processes. The recent growth in the areas covered by the sessions enable one to appreciate just how much biology is influencing glaciological thought. By contrast, it is encouraging to learn how biologists appreciate and perceive the physical glaciological processes, which impact on the structure and nature of terrestrial, marine and freshwater ecosystems, can shape biological communities and interactions. The key sessions included Cryosphere, Ecosystems and Climate Change; Microbes and Biogeochemistry in Glaciers and Ice Sheets; Permafrost and Terrestrial Biota; Interaction between Snow Cover and Forest; Biomarkers and Biogeochemistry in Ice Cores and Frozen Ground; The Role of Sea Ice, Icebergs and Glacier Calving Fronts in Marine Ecosystems; and Biological Ice Nucleation.

The fifteen papers in this volume come from the first four sessions. They are authored by a spectrum of talented early career scientists and dependable old stagers. They examine the microbiology and microbiological effects on cryoconite holes and proglacial plains, the production and export of DOC, microbial and fungal variations in a range of cryospheric environments, and the interactions between forests, avalanches and meteorological conditions. The range of ice masses covered is impressive, including studies from Antarctica, Greenland, the Himalayas and Central Asia, the European Alps and Svalbard.

We are grateful to delegates and the wider glaciological community for providing expert advice and commentary on the manuscripts, which helped to improve the final text.

Alexandre M. Anesio
Andrew Hodson
Martyn Tranter

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