

T-VS 35

Biomonitoring:
General and applied aspects on
regional and global scales

edited by
C.A. Burga and A. Kratochwil

Tasks for vegetation science 35

SERIES EDITORS

A. Kratochwil, *University of Osnabrück, Germany*

H. Lieth, *University of Osnabrück, Germany*

The titles published in this series are listed at the end of this volume.

Biomonitoring: General and Applied Aspects on Regional and Global Scales

Edited by

C.A. BURGA

*University of Zürich,
Department of Geography,
Zürich, Switzerland*

and

A. KRATOCHWIL

*University of Osnabrück,
Department of Biology/Ecology,
Osnabrück, Germany*



KLUWER ACADEMIC PUBLISHERS

DORDRECHT / BOSTON / LONDON

Chapter C Aspects of global change in the Alps and in the high arctic region	153
Long-term monitoring of mountain peaks in the Alps <i>G. Grabherr, M. Gottfried & H. Pauli</i>	153
Monitoring of Eastern and Southern Swiss Alpine timberline ecotones <i>C.A. Burga & R. Perret</i>	179
Observed changes in vegetation in relation to climate warming <i>G. Carraro, P. Gianoni, R. Mossi, F. Klötzli & G.-R. Walther</i>	195
Laurophyllisation - A sign of a changing climate? <i>G.-R. Walther</i>	207
Changes of plant community patterns, phytomass and carbon balance in a high arctic tundra ecosystem under a climate of increasing cloudiness <i>I. Möller, C. Wüthrich & D. Thannheiser</i>	225

BIOMONITORING:
GENERAL AND APPLIED ASPECTS ON REGIONAL AND GLOBAL SCALES

edited by C.A. Burga and A. Kratochwil

This volume contains a selection of 14 articles dealing with different aspects of biomonitoring and their relation to questions of global change. The first part concerns general aspects of biomonitoring, the second part gives examples of applied biomonitoring in Germany and Switzerland (changes in species composition phenologies, vegetation restoration, changes in soil conditions, heavy metal concentrations). The third part deals with climate-related monitoring studies of arctic-alpine and temperate regions of the northern hemisphere (mountain peaks and timberline ecotones of the Alps, spread of exotic evergreen broad-leaved plants, phytomass and carbon balance in Svalbard).

ISBN 0-7923-6734-0



9 780792 367345