Contents

Dedication vi
Introduction 1

Background and context

**Shumilovskikh, L., O’Keefe, J. M. K. and Marret, F.** An overview of the taxonomic groups of non-pollen palynomorphs 13

**Pound, M. J., O’Keefe, J. M. K. and Marret, F.** An overview of techniques applied to the extraction of non-pollen palynomorphs, their known taphonomic issues and recommendations to maximize recovery 63

**O’Keefe, J. M. K., Nuñez Otaño, N. B. and Virginia Bianchinotti, M.** Nomenclature: how do we designate NPP taxa? 77

The major groups of NPPs

**Nuñez Otaño, N. B., Virginia Bianchinotti, M. and Saparrat, M. C. N.** Palaeomycology: a modern mycological view of fungal palynomorphs 91

**McCarthy, F. M. G., Pilkington, P. M., Volik, O., Heyde, A. and Cocker, S. L.** Non-pollen palynomorphs in freshwater sediments and their palaeolimnological potential and selected applications 121

**Andrews, L. O., Payne, R. J. and Swindles, G. T.** Testate amoebae as non-pollen palynomorphs in pollen slides: usefulness and application in palaeoenvironmental reconstruction 151

**Mudie, P. J., Marret, F., Gurdebeke, P. R., Hartman, J. D. and Reid, P. C.** Marine dinocysts, acritarchs and less well-known NPP: tintinnids, ostracod and foraminiferal linings, copepod and worm remains 159

Application of NPPs to a variety of problems

**Gauthier, E. and Jouffroy-Bapicot, I.** Detecting human impacts: non-pollen palynomorphs as proxies for human impact on the environment 233

**van Asperen, E. N., Perrotti, A. and Baker, A.** Coprophilous fungal spores: non-pollen palynomorphs for the study of past megaherbivores 245

**Denison, C. N.** Stratigraphic and sedimentological aspects of the worldwide distribution of *Apectodinium* in Paleocene/Eocene Thermal Maximum deposits 269

**Wellman, C. H. and Ball, A. C.** Early land plant phytodebris 309

**Agić, H. and Cohen, P. A.** Non-pollen palynomorphs in deep time: unravelling the evolution of early eukaryotes 321

Index 343