Contents

SMITH, A. B. & McGowan, A. J. The ties linking rock and fossil records and why they are important for palaeobiodiversity studies 1

CHERNS, L. & WRIGHT, V. P. Skeletal mineralogy and biodiversity of marine invertebrates: size matters more than seawater chemistry 9

HANNISDAL, B. Detecting common-cause relationships with directional information transfer 19

O’CONNOR, A., MONCRIEFF, C. & WILLS, M. A. Variation in stratigraphic congruence (GER) through the Phanerozoic and across higher taxa is partially determined by sources of bias 31

WALL, P. D., IVANY, L. C. & WILKINSON, B. H. Impact of outcrop area on estimates of Phanerozoic terrestrial biodiversity trends 53


PETERS, S. E. & HEIM, N. A. Macrostratigraphy and macroevolution in marine environments: testing the common-cause hypothesis 95

CRAMPTON, J. S., FOOTE, M., COOPER, R. A., BEU, A. G. & PETERS, S. E. The fossil record and spatial structuring of environments and biodiversity in the Cenozoic of New Zealand 105

ZUSCHIN, M., HARZHAUSER, M. & MANDIC, O. Disentangling palaeodiversity signals from a biased sedimentary record: an example from the Early to Middle Miocene of Central Paratethys Sea 123

LAZARUS, D. B. The deep-sea microfossil record of macroevolutionary change in plankton and its study 141

LLOYD, G. T., SMITH, A. B. & YOUNG, J. R. Quantifying the deep-sea rock and fossil record bias using coccolithophores 167

BARNOSKY, A. D., CARRASCO, M. A. & GRAHAM, R. W. Collateral mammal diversity loss associated with late Quaternary megafaunal extinctions and implications for the future 179

BENSON, R. B. J. & BUTLER, R. J. Uncovering the diversification history of marine tetrapods: ecology influences the effect of geological sampling biases 191

UPCHURCH, P., MANNION, P. D., BENSON, R. B. J., BUTLER, R. J. & CARRANO, M. T. Geological and anthropogenic controls on the sampling of the terrestrial fossil record: a case study from the Dinosauria 209

Index 241