

Contents

Preface	vii
Acknowledgements	viii
Chapter 1 STEPHENS, M. B. , Introduction to the lithotectonic framework of Sweden and organization of this Memoir	1
 Part I 2.0–1.8 Ga (Svecokarelian) orogeny, eastern Sweden	
Chapter 2 STEPHENS, M. B. , & BERGMAN, S. , Regional context and lithotectonic framework of the 2.0–1.8 Ga Svecokarelian orogen, eastern Sweden	19
Chapter 3 BERGMAN, S. , & WEIHED, P. , Archean (>2.6 Ga) and Paleoproterozoic (2.5–1.8 Ga), pre- and syn-orogenic magmatism, sedimentation and mineralization in the Norrbotten and Överkalix lithotectonic units, Svecokarelian orogen	27
Chapter 4 SKYTÄ, P. , WEIHED, P. , HÖGDAHL, K. , BERGMAN, S. , & STEPHENS, M. B. , Paleoproterozoic (2.0–1.8 Ga) syn-orogenic sedimentation, magmatism and mineralization in the Bothnia–Skellefteå lithotectonic unit, Svecokarelian orogen	83
Chapter 5 HÖGDAHL, K. , & BERGMAN, S. , Paleoproterozoic (1.9–1.8 Ga), syn-orogenic magmatism and sedimentation in the Ljusdal lithotectonic unit, Svecokarelian orogen	131
Chapter 6 STEPHENS, M. B. , & JANSSON, N. F. , Paleoproterozoic (1.9–1.8 Ga) syn-orogenic magmatism, sedimentation and mineralization in the Bergslagen lithotectonic unit, Svecokarelian orogen	155
Chapter 7 WAHLGREN, C.-H. , & STEPHENS, M. B. , Småland lithotectonic unit dominated by Paleoproterozoic (1.8 Ga) syn-orogenic magmatism, Svecokarelian orogen	207
Chapter 8 STEPHENS, M. B. , Outboard-migrating accretionary orogeny at 1.9–1.8 Ga (Svecokarelian) along a margin to the continent Fennoscandia	237
 Part II Far-field responses to accretionary tectonic activity at 1.7–1.4 Ga	
Chapter 9 RIPA, M. , & STEPHENS, M. B. , Continental magmatic arc and siliciclastic sedimentation in the far-field part of a 1.7 Ga accretionary orogen	253
Chapter 10 RIPA, M. , & STEPHENS, M. B. , Magmatism (1.6–1.4 Ga) and Mesoproterozoic sedimentation related to intracratonic rifting coeval with distal accretionary orogenesis	269
 Part III 1.5–1.4 Ga (Hallandian) orogeny, southeastern Sweden	
Chapter 11 WAHLGREN, C.-H. , & STEPHENS, M. B. , Reworking of older (1.8 Ga) continental crust by Mesoproterozoic (1.5–1.4 Ga) orogeny, Blekinge–Bornholm orogen, southeastern Sweden	291
 Part IV Intracratonic rifting at 1.27–1.25, c. 1.14 and 0.98–0.95 Ga	
Chapter 12 RIPA, M. , & STEPHENS, M. B. , Dolerites (1.27–1.25 Ga) and alkaline ultrabasic dykes (c. 1.14 Ga) related to intracratonic rifting	315
Chapter 13 RIPA, M. , & STEPHENS, M. B. , Siliciclastic sedimentation in a foreland basin to the Sveconorwegian orogen and dolerites (0.98–0.95 Ga) related to intracratonic rifting	325
 Part V 1.1–0.9 Ga (Sveconorwegian) orogeny, southwestern Sweden	
Chapter 14 STEPHENS, M. B. , BERGSTRÖM, U. , & WAHLGREN, C.-H. , Regional context and lithotectonic framework of the 1.1–0.9 Ga Sveconorwegian orogen, southwestern Sweden	337
Chapter 15 STEPHENS, M. B. , & WAHLGREN, C.-H. , Polyphase (1.9–1.8, 1.5–1.4 and 1.0–0.9 Ga) deformation and metamorphism of Proterozoic (1.9–1.2 Ga) continental crust, Eastern Segment, Sveconorwegian orogen	351
Chapter 16 BERGSTRÖM, U. , STEPHENS, M. B. , & WAHLGREN, C.-H. , Polyphase (1.6–1.5 and 1.1–1.0 Ga) deformation and metamorphism of Proterozoic (1.7–1.1 Ga) continental crust, Idefjorden terrane, Sveconorwegian orogen	397

CONTENTS

Chapter 17	STEPHENS, M. B. , & WAHLGREN, C.-H. , Accretionary orogens reworked in an overriding plate setting during protracted continent–continent collision, Sveconorwegian orogen, southwestern Sweden	435
Part VI Tonian–Cryogenian intracratonic rifting and passive margin sedimentation		
Chapter 18	WICKSTRÖM, L. M. , & STEPHENS, M. B. , Tonian–Cryogenian rifting and Cambrian–Early Devonian platformal to foreland basin development outside the Caledonide orogen	451
Part VII 0.5–0.4 Ga (Caledonian) orogeny, northwestern Sweden		
Chapter 19	GEE, D. G. , & STEPHENS, M. B. , Regional context and tectonostratigraphic framework of the early–middle Paleozoic Caledonide orogen, northwestern Sweden	481
Chapter 20	GEE, D. G. , & STEPHENS, M. B. , Lower thrust sheets in the Caledonide orogen, Sweden: Cryogenian–Silurian sedimentary successions and underlying, imbricated, crystalline basement	495
Chapter 21	GEE, D. G. , KLONOWSKA, I. , ANDRÉASSON, P.-G. , & STEPHENS, M. B. , Middle thrust sheets in the Caledonide orogen, Sweden: the outer margin of Baltica, the continent–ocean transition zone and late Cambrian–Ordovician subduction–accretion	517
Chapter 22	STEPHENS, M. B. , Upper and uppermost thrust sheets in the Caledonide orogen, Sweden: outboard oceanic and exotic continental terranes	549
Chapter 23	GEE, D. G. , Swedish Caledonides: key components of an early–middle Paleozoic Himalaya-type collisional orogen	577
Part VIII Post-Caledonian rifting, sedimentation and tectonic inversion		
Chapter 24	ERLSTRÖM, M. , Carboniferous–Neogene tectonic evolution of the Fennoscandian transition zone, southern Sweden	603
Index		621