

Supplementary Online File 1

List of trace fossil and rock sample specimens from the Torneträsk Formation in the Lake Torneträsk area, Lappland, Sweden, held in the collections of the Swedish Museum of Natural History.

Catalogue ID	Genus/Taxa	Locality	Site and stratigraphic position	Age	Collector	Collection date
X00010161	Rock sample.	Luobákte	Lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010162a	<i>Laevicyclus</i> isp.	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010162b	cf. <i>Palaeophycus tubularis</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010163	cf. <i>Palaeophycus tubularis</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010164a	<i>Treptichnus pedum</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010164b	<i>Archaeonassa</i> isp.	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010164c	<i>Bergaueria perata</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010165	<i>Treptichnus pedum</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010166a	<i>Planolites montanus</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010166a	cf. <i>Palaeophycus tubularis</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010167	<i>Treptichnus pedum</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010168a	<i>Treptichnus pedum</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010168b	<i>Bergaueria perata</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010169	<i>Planolites montanus</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010170a	<i>Treptichnus pedum</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010170b	<i>Planolites montanus</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010171a	Bacterial mats (wrinkle structure)	Vakkejokk	upper sandstone, lower part below 4 th waterfall	Early Cambrian	McLoughlin, S.	2020-08-06
X00010171b	Bacterial mats (wrinkle structure)	Vakkejokk	upper sandstone, lower part below 4 th waterfall	Early Cambrian	McLoughlin, S.	2020-08-06
X00010172	<i>Archaeonassa</i> isp.	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010173a	<i>Treptichnus pedum</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010173b	<i>Bergaueria perata</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010173c	<i>Planolites montanus</i>	Luobákte	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09

X00010174	Large lobate grooved structure	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010175	cf. <i>Palaeophycus tubularis</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010176	<i>Treptichnus pedum</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010177	cf. <i>Palaeophycus tubularis</i>	Kaisepakte	Stream section unknown float	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010178	cf. <i>Trichophycus venosus</i>	Vakkejokk	1–4 Float below big waterfall	Early Cambrian	McLoughlin, S.	2020-08-06
X00010179	<i>Planolites montanus</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010180	cf. <i>Palaeophycus tubularis</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010181a	<i>Palaeophycus</i> isp.	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010181b	cf. <i>Palaeophycus tubularis</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010182a	cf. <i>Trichophycus venosus</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010182b	<i>Planolites montanus</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010183a	<i>Bergaueria perata</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010183b	<i>Treptichnus pedum</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010184	<i>Bergaueria</i> isp	Luobákta	Section 1 lower siltstone interval	Early Cambrian	McLoughlin, S.	2020-08-05, 07, 09
X00010184a	cf. <i>Palaeophycus tubularis</i>	Luobákta	Section 1 lower siltstone interval	Early Cambrian	McLoughlin, S.	2020-08-05, 07, 09
X00010184b	cf. <i>Palaeophycus tubularis</i>	Luobákta	Section 1 lower siltstone interval	Early Cambrian	McLoughlin, S.	2020-08-05, 07, 09
X00010185	<i>Treptichnus pedum</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010186a	cf. <i>Treptichnus</i> isp.	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010186b	<i>Treptichnus pedum</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010187a	Semi-concentric traces	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010187b	<i>Planolites montanus</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010187c	<i>Archaeonassa</i> isp.	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010188	<i>Treptichnus pedum</i>	Luobákta	Section 1 lower siltstone interval	Early Cambrian	McLoughlin, S.	2020-08-05, 07, 09
X00010189a	<i>Bergaueria perata</i>	Luobákta	Section 1 lower siltstone interval	Early Cambrian	McLoughlin, S.	2020-08-05, 07, 09
X00010189b	<i>Treptichnus pedum</i>	Luobákta	Section 1 lower siltstone interval	Early Cambrian	McLoughlin, S.	2020-08-05, 07, 09
X00010190	cf. <i>Teichichnus</i> isp.	Luobákta	Section 1 lower siltstone interval	Early Cambrian	McLoughlin, S.	2020-08-05, 07, 09
X00010191	<i>Treptichnus pedum</i>	Luobákta	Top of the lower siltstone interval	Early Cambrian	Skovsted et al.	2020-08-05, 07, 09
X00010192	<i>Treptichnus pedum</i>	Luobákta	Moberg's profile 2, layer 3	Early Cambrian	Jan Bergström	1978-08-11
X00010193	<i>Archaeonassa</i> isp.	Luobákta	Moberg's profile 2, layer 3	Early Cambrian	Jan Bergström	1978-08-11

X00010194	<i>Treptichnus pedum</i>	Luobákte	"Medusa"-level	Early Cambrian	Jan Bergström	
X00010194a	<i>Treptichnus pedum</i>	Luobákte	"Medusa"-level	Early Cambrian	Jan Bergström	
X00010195a	<i>Bergaueria perata</i>	Luobákte	Lower siltstone, block	Early Cambrian	Jan Bergström	1978-08-10
X00010195a	cf. <i>Palaeophycus tubularis</i>	Luobákte	Lower siltstone, block	Early Cambrian	Jan Bergström	1978-08-10
X00010196	<i>Treptichnus pedum</i>	Luobákte	Moberg's profile 2, layer 2	Early Cambrian	Jan Bergström	1978-08-11
X00010197	<i>Bergaueria perata</i>	Luobákte	1,2 m under middle sandstone	Early Cambrian	Jonas Hagström	
X00010197a	<i>Bergaueria perata</i>	Luobákte	1,2 m under middle sandstone	Early Cambrian	Jonas Hagström	
X00010198	<i>Bergaueria perata</i>	Luobákte	1,2 m under middle sandstone	Early Cambrian	Jonas Hagström	
X00010199	<i>Bergaueria perata</i>	Luobákte	Moberg's profile 2, layer 2	Early Cambrian	Jan Bergström	1978-08-11
X00010200	<i>Bergaueria perata</i>	Luobákte	"Med.samvän?"	Early Cambrian	Jan Bergström	1978-08-10
X00010201	<i>Bergaueria perata</i>	Luobákte	Moberg's profile 2, layer 7	Early Cambrian	Jan Bergström	1978-08-10
X00010202	<i>Bergaueria perata</i>	Luobákte	Moberg's profile 2, layer 7	Early Cambrian	Jan Bergström	1978-08-10
X00010203	<i>Treptichnus pedum</i>	Luobákte	Moberg's profile 2, layer 7	Early Cambrian	Jan Bergström	1978-08-10
X00010203a	<i>Treptichnus pedum</i>	Luobákte	Moberg's profile 2, layer 7	Early Cambrian	Jan Bergström	1978-08-10
X00010204	<i>Archaeonassa</i> isp.	Luobákte	East c. 150 cm above channel	Early Cambrian	Jan Bergström?	
X00010205	<i>Archaeonassa</i> isp.	Luobákte	upper sandstone 270 cm from top	Early Cambrian	Jan Bergström?	
X00010206	cf. <i>Protovirgularia</i> isp.	Luobákte	East sandstone 150 cm from top	Early Cambrian	Jan Bergström?	
X00010207	<i>Archaeonassa</i> isp.	Luobákte	East sandstone c. 150 cm above large channel. Moberg's layer 18.	Early Cambrian	Jan Bergström?	
X00010208a	cf. <i>Palaeophycus tubularis</i>	Luobákte	Erratic	Early Cambrian	Jonas Hagström	1987-01-01
X00010208b	<i>Treptichnus pedum</i>	Luobákte	Erratic	Early Cambrian	Jonas Hagström	1987-01-01
X00010208c	<i>Planolites montanus</i>	Luobákte	Erratic	Early Cambrian	Jonas Hagström	1987-01-01
X00010209	Sand-filled cracks	Luobákte	Erratic	Early Cambrian	Jonas Hagström	1987-01-01
X00010210a	cf. <i>Palaeophycus tubularis</i>	Oscar Kulling's excavation	Layer under Vakkejokk Breccia; Tjäurajokk, north side of Torneträsk	Early Cambrian	Jan Bergström	1978-08-08
X00010210b	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Layer under Vakkejokk Breccia; Tjäurajokk, north side of Torneträsk	Early Cambrian	Jan Bergström	1978-08-08
X00010210c	<i>Planolites montanus</i>	Oscar Kulling's excavation	Layer under Vakkejokk Breccia; Tjäurajokk, north side of Torneträsk	Early Cambrian	Jan Bergström	1978-08-08
X00010210d	Algae ('vendotaenids')	Oscar Kulling's excavation	Layer under Vakkejokk Breccia; Tjäurajokk, north side of Torneträsk	Early Cambrian	Jan Bergström	1978-08-08
X00010211a	Algae ('vendotaenids')	Oscar Kulling's excavation	Siltstone under Vakkejokk Breccia; Tjäurajokk Quarry	Early Cambrian	Jan Bergström	1978-08-09

X00010211b	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Siltstone under Vakkejokk Breccia; Tjåurajokk Quarry	Early Cambrian	Jan Bergström	1978-08-09
X00010212a	cf. <i>Protovirgularia</i> isp.	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjåurajokk Quarry	Early Cambrian	Jan Bergström	1978-08-08
X00010212b	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010212c	<i>Planolites montanus</i>	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010213	Imbricate-ridged trace	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-09
X00010214	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Shale under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-09
X00010215	cf. <i>Palaeophycus tubularis</i>	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010216a	cf. <i>Palaeophycus tubularis</i>	Oscar Kulling's excavation	Layer under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010216b	<i>Planolites montanus</i>	Oscar Kulling's excavation	Layer under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010217	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	?Shale under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-09
X00010218a	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Layer under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010218b	<i>Planolites montanus</i>	Oscar Kulling's excavation	Layer under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010219	<i>Archaeonassa</i> isp.	Oscar Kulling's excavation	Directly under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-09
X00010220a	cf. <i>Monomorphichnus</i> isp.	Oscar Kulling's excavation	Shale under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-09
X00010220b	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Shale under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-09
X00010221	<i>Bergaueria perata</i>	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjåurajokk quarry	Early Cambrian	Jan Bergström	1978-08-09
X00010222	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010223	Algae ('vendotaenids')	Tjåurajokk	Under part of middle siltstone	Early Cambrian	Jan Bergström	1978-08-09
X00010224a	<i>Bergaueria perata</i>	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjåurajokk	Early Cambrian	Jan Bergström	1978-08-08

X00010224b	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjäurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00003532	cf. <i>Palaeophycus tubularis</i>	Oscar Kulling's excavation	Tjäurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010225a	<i>Bergaueria perata</i>	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjäurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010225b	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjäurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010226	<i>Bergaueria perata</i>	Oscar Kulling's excavation	Under Vakkejokk Breccia, Tjäurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010227	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Siltstone under Vakkejokk Breccia, Tjäurajokk	Early Cambrian	Jan Bergström	1978-08-09
X00010228a	Radiating and looped burrows	Oscar Kulling's excavation	Siltstone under Vakkejokk Breccia, Tjäurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010228b	<i>Treptichnus pedum</i>	Oscar Kulling's excavation	Siltstone under Vakkejokk Breccia, Tjäurajokk	Early Cambrian	Jan Bergström	1978-08-08
X00010229	<i>Palaeophycus tubularis</i>	Oscar Kulling's excavation	Siltstone under Vakkejokk Breccia, Tjäurajokk	Early Cambrian	Jan Bergström	1978-08-09
X00010230	Radiating and looped burrows	Oscar Kulling's excavation	Siltstone under Vakkejokk Breccia, Tjäurajokk	Early Cambrian	Jan Bergström	1978-08-09
X00010231	Rock sample	Tjäurajokk	Basal conglomerate	Early Cambrian	Jan Bergström	1978-08-09
X00010232	Rock sample	Tjäurajokk	Vakkejokk Breccia	Early Cambrian	Jan Bergström	1978-08-08
X00010233	<i>Sabellidites cambriensis</i>	Luobákta	Moberg's profile 2, layer 1 (upper part of 'lower siltstone interval')	Early Cambrian	Oscar Kulling	1958-08-01
X00010234	<i>Sabellidites cambriensis</i>	Luobákta	Moberg's profile 2, layer 1 (upper part of 'lower siltstone interval')	Early Cambrian	Oscar Kulling	1958-08-01
X00010298	? <i>Platysolenites antiquissimus</i>	Luobákta	'Middle siltstone interval'?	Early Cambrian	Jan Bergström	1978