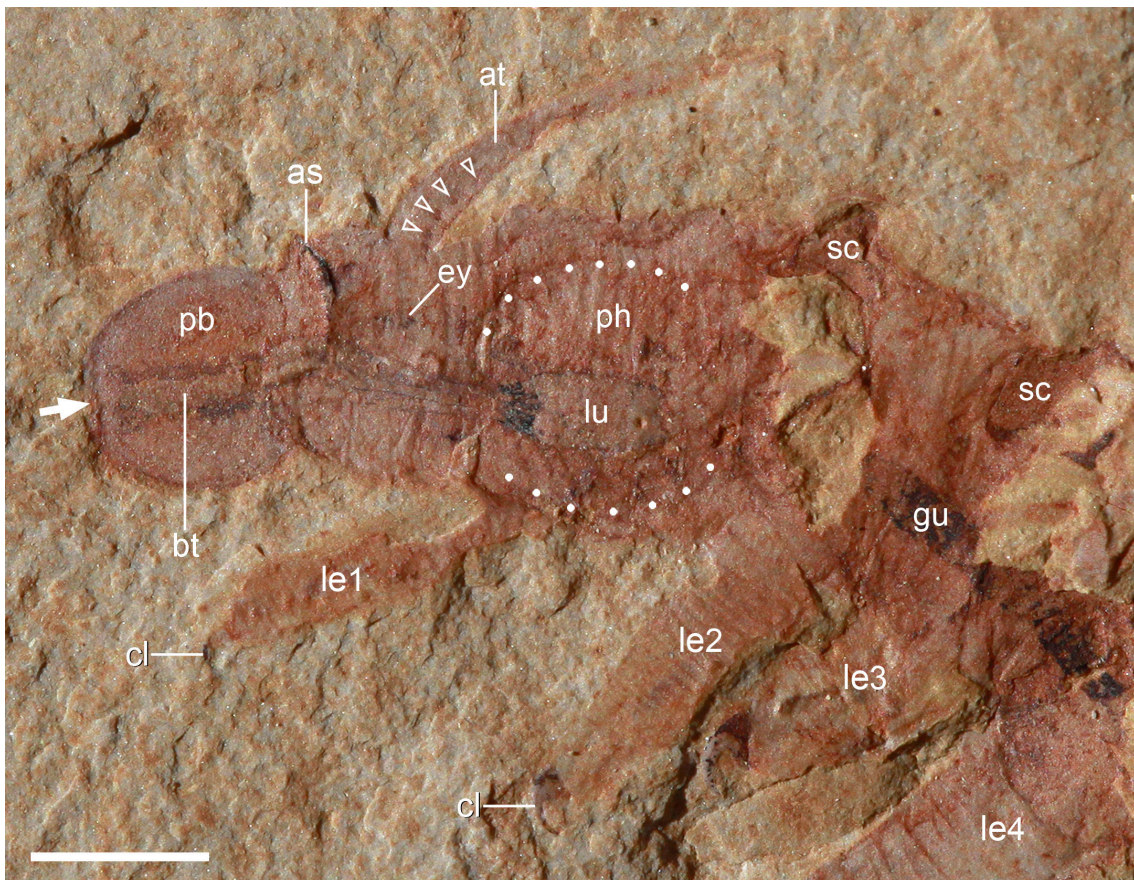


Supplementary Information

Cambrian lobopodians and extant onychophorans provide new insights into early cephalisation in Panarthropoda

Qiang Ou, Degan Shu & Georg Mayer

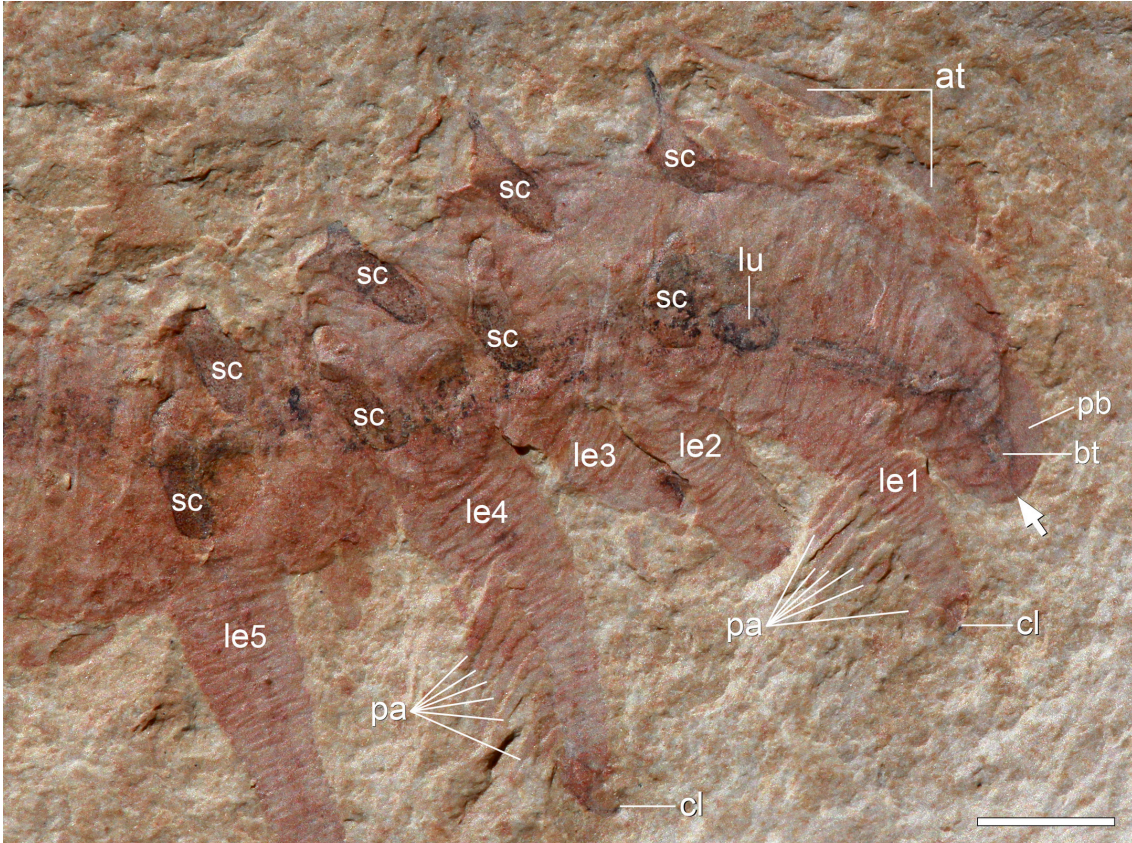
Supplementary figures



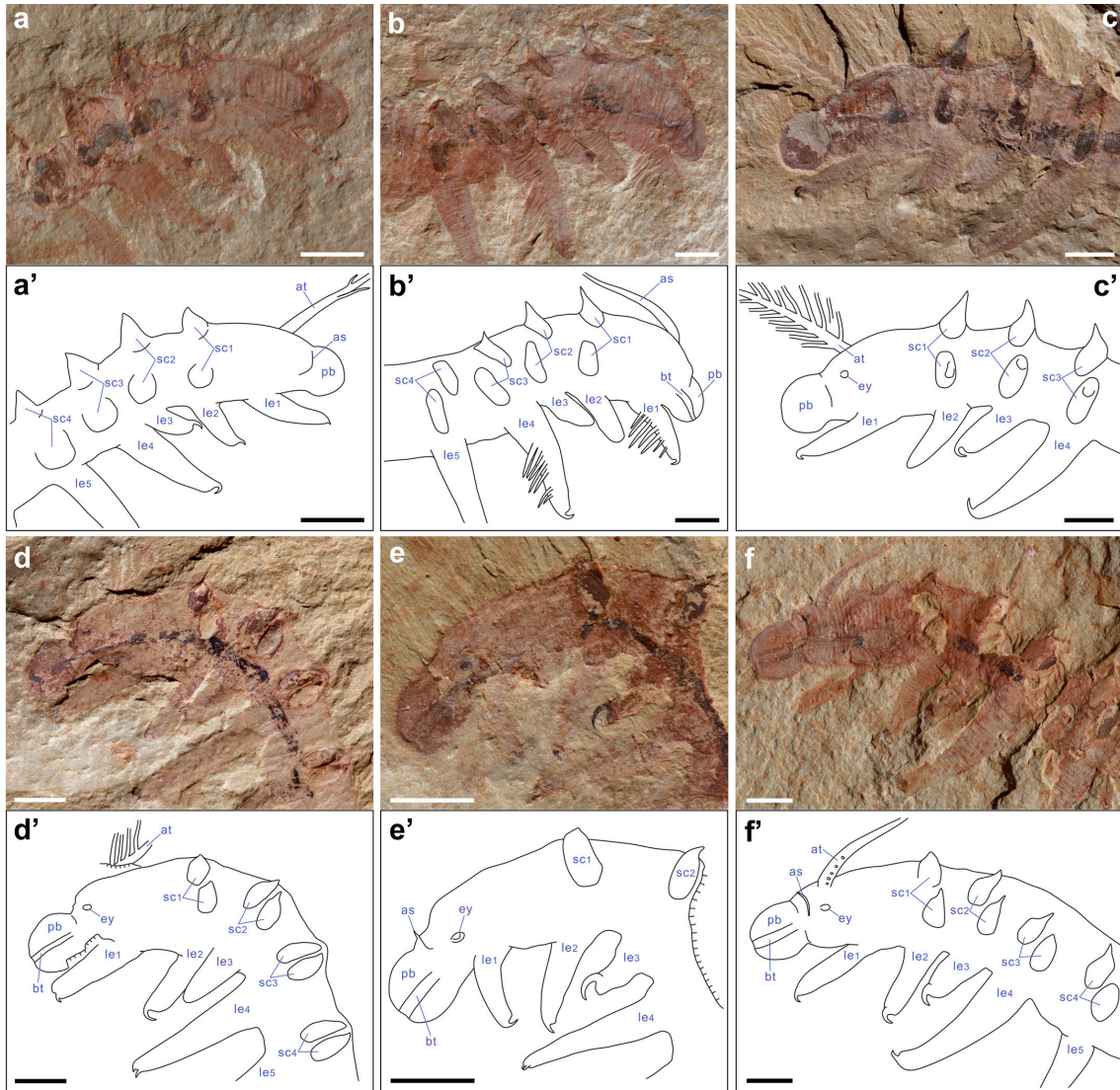
Supplementary Figure S1 | Anterior anatomy of *Onychodictyon ferox*. Laterally compressed specimen ELEL-SJ101888A showing terminal mouth (arrow), proboscis, arcuate sclerite, eye, antenniform appendage, attachment sites of antennal branches (arrowheads), and a bulbous pharynx (dotted lines). as, arcuate sclerite; at, antenniform appendage; bt, buccal tube; cl, claw; ey, eye; gu, gut; le1–4, walking lobopods 1–4; lu, pharyngeal lumen; pb, proboscis; ph, pharynx; sc, sclerotized plate. Scale bar: 2 mm.



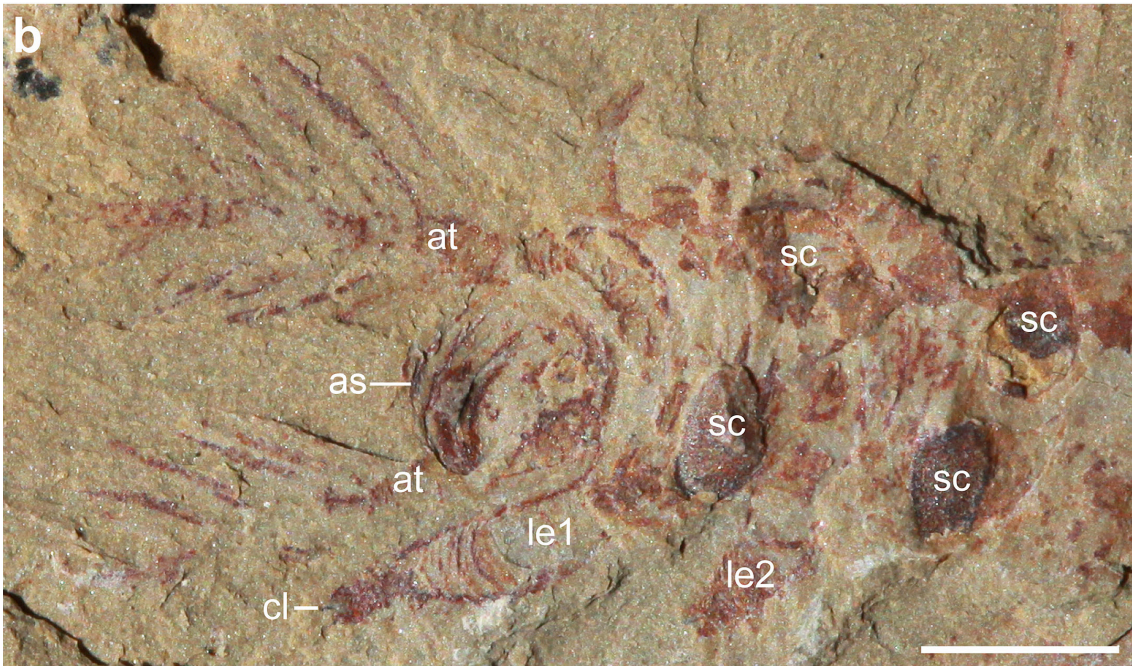
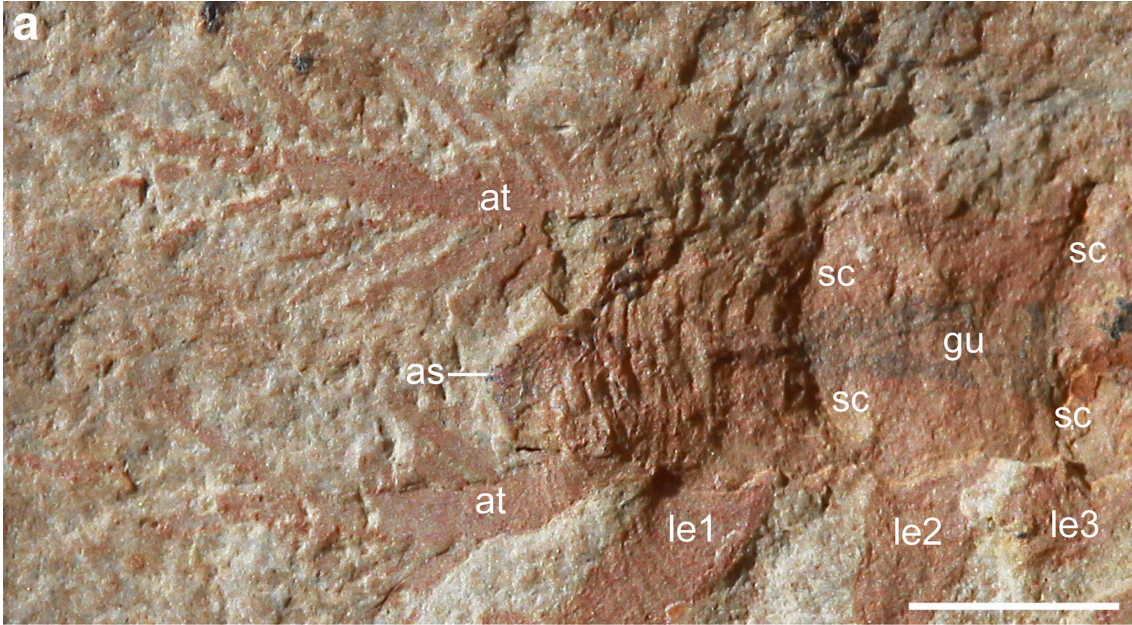
Supplementary Figure S2 | Anterior anatomy of *Onychodictyon ferox*. Dorsolaterally compressed specimen ELEL-SJ100272A showing terminal mouth (arrow), proboscis, antenniform appendage with branches (arrowheads), and attachment sites of papillae on the fourth lobopod. at, antenniform appendage; bt, buccal tube; cl, claw; ey, eye; gu, gut; le1–5, walking lobopods 1–5; lp, attachment sites of leg papillae; pb, proboscis; sc, sclerotized plate. Scale bar: 2 mm.



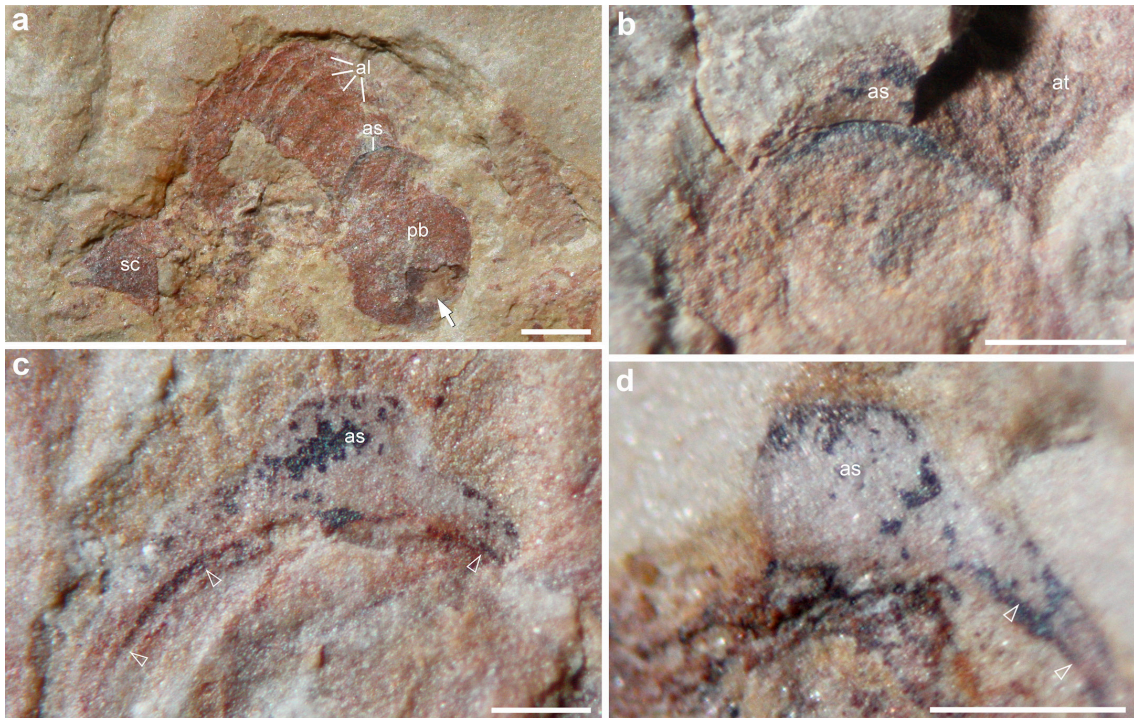
Supplementary Figure S3 | Head structures and leg papillae of *Onychodictyon ferox*. Dorsolaterally compressed specimen ELEL-SJ101703A showing terminal mouth (arrow), proboscis, antenniform appendage, and a row of long papillae on the first and the fourth lobopods. at, antenniform appendage; bt, buccal tube; cl, claw; le1–5, walking lobopods 1–5; lu, pharyngeal lumen; pa, leg papillae; pb, proboscis; sc, sclerite. Scale bar: 2 mm.



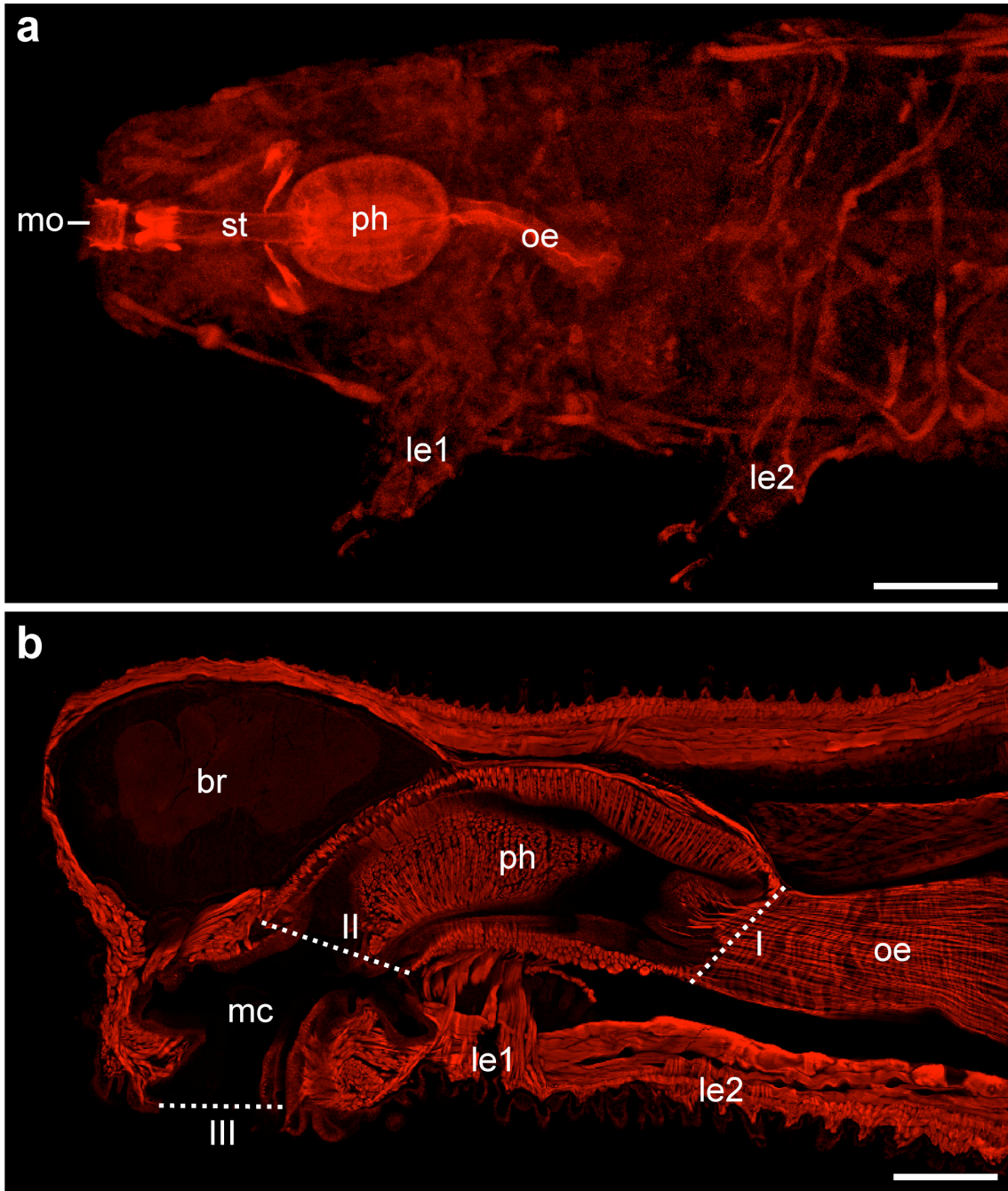
Supplementary Figure S4 | Anterior anatomy of *Onychodictyon ferox*. Note the lack of dorsal sclerotised plates in the first leg-bearing segment. (a–f) Micrographs of specimens ELEL-SJ101436A, ELEL-SJ101703A, ELEL-SJ100635, ELEL-SJ100272A, ELEL-SJ100307B and ELEL-SJ101888B. (a'–f') Interpretive line drawings of corresponding specimens. Alimentary canal is omitted for clarity. as, arcuate sclerite; at, antenniform appendage; ey, eye; le1–le5 walking lobopods 1–5; pb, proboscis; sc1–sc4, sclerotised plates 1–4; bt, buccal tube. Scale bars, 2 mm.



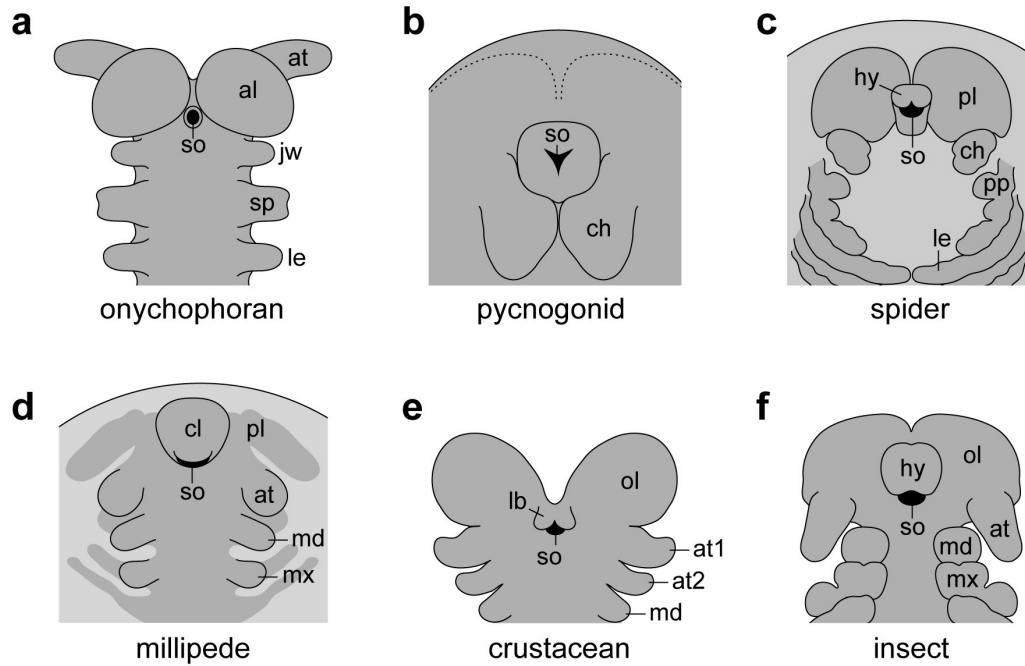
Supplementary Figure S5 | Paired, branched antenniform appendages in dorsoventrally compressed specimens of *Onychodictyon ferox*. Proboscis is not seen. (a) Specimen ELEL-SJ081201A. (b) Specimen ELEL-SJ100862A. as, arcuate sclerite; at, antenniform appendage; cl, claw; gu, gut; le1–le3, walking lobopods 1–3; sc, sclerotised plate; Scale bars, 2 mm.



Supplementary Figure S6 | Morphology and position of the arcuate sclerite in *Onychodictyon ferox*. (a) Anterior end of twisted specimen ELEL-SJ100910A showing dorsolateral aspect of arcuate sclerite and proboscis. Arrow points to the mouth. (b–d) Dorsoventrally compressed specimens ELEL-SJ101534A, ELEL-SJ100917A and ELEL-SJ101842B showing details of arcuate sclerite. Note dark color and arc-like shape of the inner border (arrowheads). al, body annulation; as, arcuate sclerite; at, antenna; pb, proboscis; sc, sclerotized plate. Scale bars, 1 mm in **a**; 200 μ m in **c**; 500 μ m in **b**, **d**.



Supplementary Figure S7 | Foregut structures in Tardigrada and Onychophora. Note the presence of a bulbous, sucrorial pharynx in both groups. Phalloidin-rhodamine labelling for f-actin; confocal micrographs. (a) Anterior end of the tardigrade *Macrobiotus* sp. in lateral view. (b) Vibratome section of the anterior end of the onychophoran *Euperipatoides rowelli*. Dotted lines with Roman numerals (I–III) indicate areas corresponding to the first (part of the blastopore), second (stomodaeum), and third embryonic mouth openings (=definitive mouth opening). br, brain; le1–le2, position of legs/lobopods 1–2; mc, mouth cavity; mo, mouth opening; oe, oesophagus; ph, pharynx; st, stylet. Scale bars, 25 μ m in a, 300 μ m in b.



Supplementary Figure S8 | Position of the stomodaeum in embryos of Onychophora and Arthropoda. Diagrams of anterior ends in ventral view. **(a)** Onychophoran *Euperipatoides rowelli* (cf. Fig. 3b). **(b)** Pycnogonid *Pseudopallene* sp. (after a confocal micrograph in Brenneis et al. 2011, *Dev. Genes Evol.* 221:309–328). **(c)** Spider *Latrodectus geometricus* (after a scanning electron micrograph in Liu et al. 2009, *Arthropod Struct. Dev.* 38:401–416). **(d)** Millipede *Glomeris marginata* (after a drawing by Dohle 1964, *Zool. Jb. Anat.* 81:241–310). **(e)** Crustacean *Gammarus pulex* (after a drawing by Weygoldt 1959, *Zool. Jb. Anat.* 77:51–110). **(f)** Cricket *Gryllus assimilis* (after a scanning electron micrograph in Liu et al. 2010, *Arthropod Struct. Dev.* 39:382–395). al, antennal lobe; at, antenna; at1–at2, first and second antenna (in crustaceans only); ch, chelifere/chelicera; cl, clypeus; hy, hypostome; jw, jaw; lb, labrum; le, leg; md, mandible; mx, maxilla; ol, optic lobe; pl, protocerebral lobe; pp, pedipalp; so, stomodaeum; sp, slime papilla.

Supplementary table

Supplementary Table S1 | Specimens of the Early Cambrian lobopodian *Onychodictyon ferox* studied. Preserved head structures are indicated by “+”.

#	ID	Proboscis	Mouth opening	Buccal tube	Pharyngeal bulb ¹	Eye	Antennal rachis	Antennal branches	Arcuate sclerite	Brief description
1	ELEL-SJ 080756	–	–	–	–	–	–	–	–	Incomplete, compressed dorsoventrally, with paired sclerotised plates
2	ELEL-SJ 080903	–	–	–	–	–	–	–	–	Incomplete (head missing), compressed dorsolaterally, with distinct body annulation, paired sclerotised plates and dermal papillae
3	ELEL-SJ 080947	–	–	–	–	–	–	–	–	Incomplete, compressed laterally, with dermal papillae and legs with paired claws
4	ELEL-SJ 080995	–	–	–	–	–	+	+ ²	–	Incomplete, compressed dorsoventrally, with ten pairs of sclerotised plates
5	ELEL-SJ 081005	–	–	–	–	–	–	–	–	Incomplete, compressed dorsoventrally, with paired sclerotised plates
6	ELEL-SJ 081007	–	–	–	–	–	–	–	–	Incomplete, compressed laterally, with dermal papillae, legs with paired claws
7	ELEL-SJ 081051	+	–	–	–	–	–	–	+	Nearly complete, compressed laterally, with distinct body annulation, dermal papillae, twelve pairs of legs and ten pairs of sclerotised plates
8	ELEL-SJ 081052	+	–	–	+	+	–	–	+	Nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates, gut with dark fossilised content in positive relief
9	ELEL-SJ 081053	+	–	–	–	–	–	–	+	Incomplete, compressed laterally, with attachment site of one antenna preserved
10	ELEL-SJ 081054	+	–	–	–	–	–	–	+	Nearly complete, compressed laterally, with distinct body annulation and ten pairs of sclerotised plates, legs with paired claws
11	ELEL-SJ 081056	–	–	–	–	–	–	–	–	Incomplete, compressed laterally, with preserved dermal papillae
12	ELEL-SJ 081072	–	–	–	–	–	+	+	–	Incomplete, compressed laterally, with distinct body annulation and dermal papillae, legs with paired claws
13	ELEL-SJ 081074	–	–	–	–	–	+	–	–	Incomplete, compressed laterally, with distinct body annulation and dermal papillae, legs with paired claws
14	ELEL-SJ 081081	+	+	+	–	–	+	+ ²	+	Incomplete, compressed laterally, with preserved dermal papillae and ten pairs of sclerotised plates
15	ELEL-SJ 081105	–	–	–	–	–	–	–	–	Nearly complete, compressed laterally, with distinct body annulation and sclerotised plates, legs with claws

16	ELEL-SJ 081134	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with distinct body annulation
17	ELEL-SJ 081137	-	-	-	-	-	+	+	-	Incomplete, compressed dorsoventrally, with distinct body annulation, legs with paired claws
18	ELEL-SJ 081157	-	-	-	-	+	+	+	-	Nearly complete, compressed laterally, with distinct body annulation and ten pairs of sclerotised plates, legs with paired claws, antennal annuli preserved
19	ELEL-SJ 081165	+	-	-	-	-	+	+	+	Nearly complete, compressed laterally, with distinct body annulation, legs with claws
20	ELEL-SJ 081166	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with dermal papillae and ten pairs of sclerotised plates and long spines
21	ELEL-SJ 081183	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with preserved dermal papillae
22	ELEL-SJ 081184	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally
23	ELEL-SJ 081185	-	-	-	-	-	-	-	+	Incomplete, compressed dorsoventrally, with distinct body annulation
24	ELEL-SJ 081201	-	-	-	-	-	+	+	+	Nearly complete, compressed dorsoventrally, most likely a juvenile, with prominent antennae
25	ELEL-SJ 081209	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with distinct body annulation
26	ELEL-SJ 081210	+	-	+	-	+	+	+	+	Nearly complete, compressed laterally, with distinct body annulation and ten pairs of sclerotised plates, gut with dark fossilised content in positive relief
27	ELEL-SJ 100226	+	-	-	-	-	+	-	+	Incomplete, compressed laterally, with distinct body annulation and dermal papillae
28	ELEL-SJ 100227	-	-	-	-	-	+	+	+	Incomplete, compressed dorsoventrally, paired legs with claws, paired sclerotised plates
29	ELEL-SJ 100230	-	-	-	-	+	+	-	-	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates and paired legs with claws
30	ELEL-SJ 100231	-	-	-	-	-	-	-	+	Incomplete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and legs with paired claws
31	ELEL-SJ 100234	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, paired legs, paired sclerotised plates, dermal papillae, distinct body annulation
32	ELEL-SJ 100235	-	-	-	-	-	-	-	-	Incomplete (head missing), compressed laterally, paired sclerotised plates, with distinct body annulation
33	ELEL-SJ 100236	+	-	-	-	+	+	+	+	Incomplete, compressed laterally, with distinct body annulation, sclerotised plates and legs with claws

34	ELEL-SJ 100237	+	+	+	-	-	+	-	+	Nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
35	ELEL-SJ 100238	+	-	-	-	-	+	+	+	Incomplete, compressed laterally, with distinct body annulation, dermal papillae and legs with paired claws
36	ELEL-SJ 100239	+	+	+	+	+	+	-	+	Incomplete, compressed laterally, with distinct body annulation and legs with paired claws
37	ELEL-SJ 100244	-	-	-	-	-	+	-	+	Nearly complete, compressed dorsoventrally, with distinct body annulation and ten pairs of sclerotised plates
38	ELEL-SJ 100245	+	-	-	-	-	+	-	+	Nearly complete, compressed dorsoventrally, with distinct body annulation
39	ELEL-SJ 100249	-	-	-	-	-	-	-	-	Incomplete (head missing), compressed dorsolaterally, paired sclerotised plates, distinct body annulation
40	ELEL-SJ 100250	+	-	+	+	+	+	-	+	Incomplete, compressed laterally, with distinct body annulation, dermal papillae and sclerotised plates with elongated spines
41	ELEL-SJ 100255	+	-	-	+	-	-	-	+	Complete, compressed laterally, legs with paired claws, paired sclerotised plates, distinct body annulation
42	ELEL-SJ 100256	+	-	+	+	-	-	-	+	Nearly complete, curled up and compressed laterally, with distinct body annulation
43	ELEL-SJ 100257	-	-	-	-	-	-	-	-	Incomplete (head missing), compressed laterally, paired sclerotised plates, distinct body annulation, dermal papillae, legs with claws
44	ELEL-SJ 100260	+	-	+	+	+	+	-	+	Nearly complete, compressed laterally, with distinct body annulation, dermal papillae and legs with claws
45	ELEL-SJ 100268	-	-	-	-	-	+	-	-	Incomplete, compressed laterally, with distinct body annulation and dermal papillae
46	ELEL-SJ 100272	+	+	+	+	+	+	+	+	Incomplete, compressed laterally, with dermal papillae and legs with paired claws
47	ELEL-SJ 100307	+	+	+	+	+	+	-	+	Incomplete, compressed laterally, with distinct body annulation, an eye with a lens-like structure and legs with paired claws
48	ELEL-SJ 100329	-	-	-	-	-	+	+	+	Nearly complete, compressed dorsoventrally, with twelve pairs of legs and ten pairs of sclerotised plates
49	ELEL-SJ 100335	-	-	-	-	-	+	-	+	Nearly complete, compressed laterally, paired legs with claws, paired sclerotised plates, distinct body annulation
50	ELEL-SJ 100336	-	-	-	-	-	+	-	+	Incomplete, compressed laterally, with preserved dermal papillae and legs with paired claws
51	ELEL-SJ 100340	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with paired sclerotised plates, distinct body annulation and dermal papillae

52	ELEL-SJ 100383	-	-	-	-	-	-	-	-	Incomplete (anterior part missing), compressed laterally, with paired sclerotised plates and distinct body annulation
53	ELEL-SJ 100438	+	+	+	+	-	-	-	+	Incomplete, compressed laterally, with distinct body annulation, sclerotised plates and legs with claws
54	ELEL-SJ 100469	+	-	+	-	-	+	-	+	Incomplete, compressed laterally, with distinct body annulation (five annuli in each interpedal region between each two pairs of sclerotised plates), legs with paired claws
55	ELEL-SJ 100471	+	+	+	-	-	+	+	-	Incomplete, compressed laterally, gut with dark fossilised content in positive relief
56	ELEL-SJ 100471	+	-	-	+	-	+	+	+	Nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
57	ELEL-SJ 100475	+	-	+	-	-	+	+	+	Nearly complete, compressed laterally, with distinct body annulation, dermal papillae and legs with claws
58	ELEL-SJ 100479	+	-	-	-	-	+	+	-	Nearly complete, compressed laterally, with distinct body annulation, dermal papillae and legs with claws
59	ELEL-SJ 100545	+	-	-	-	-	-	-	-	Nearly complete, compressed laterally, with distinct body annulation and dermal papillae
60	ELEL-SJ 100546	+	-	-	-	+	+	+	+	Nearly complete, compressed laterally, with ten pairs of sclerotised plates, gut with dark fossilised content in positive relief
61	ELEL-SJ 100555	-	-	-	-	-	+	+	+	Incomplete, compressed dorsoventrally, most likely a juvenile, with distinct body annulation, sclerotised plates and prominent antennae
62	ELEL-SJ 100559	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with paired sclerotised plates, distinct body annulation and legs with paired claws
63	ELEL-SJ 100561	+	+	+	+	-	-	-	+	Incomplete, compressed laterally, with paired sclerotised plates, distinct body annulation and legs with paired claws
64	ELEL-SJ 100563	+	-	-	-	-	+	-	+	Nearly complete, compressed laterally, with distinct body annulation, twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
65	ELEL-SJ 100564	-	-	-	-	-	+	-	+	Nearly complete, compressed dorsolaterally, with distinct body annulation, sclerotised plates and paired legs with claws
66	ELEL-SJ 100565	+	-	-	-	-	-	-	+	Nearly complete, curled up and compressed laterally, with distinct body annulation
67	ELEL-SJ 100571	+	-	-	-	-	+	-	+	Incomplete, compressed laterally, with distinct body annulation and sclerotised plates with long spines
68	ELEL-SJ 100575	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, dermal papillae and legs with claws
69	ELEL-SJ 100581	-	-	-	-	-	-	-	-	Incomplete (head missing), compressed dorsolaterally, with distinct body annulation and sclerotised plates

70	ELEL-SJ 100591	+	-	-	-	-	-	-	+	Incomplete, compressed laterally, with distinct body annulation and legs with claws
71	ELEL-SJ 100602	+	+	+	+	+	+	+	+	Nearly complete, curled up and compressed laterally, with distinct body annulation, sclerotised plates with long spines and legs with paired claws
72	ELEL-SJ 100625	+	-	-	-	-	+	+	+	Nearly complete, compressed dorsoventrally, with distinct body annulation, twelve pairs of legs and ten pairs of sclerotised plates
73	ELEL-SJ 100627	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and legs with paired claws
74	ELEL-SJ 100635	+	+	+	+	+	+	+	+	Incomplete, compressed laterally, with distinct body annulation and dermal papillae
75	ELEL-SJ 100736	+	+	+	+	+	-	-	+	Nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates
76	ELEL-SJ 100737	+	+	+	-	+	+	+	+	Incomplete, compressed laterally, with distinct body annulation and preserved attachment site of the right antenna
77	ELEL-SJ 100743	+	+	+	+	-	+	-	+	Nearly complete, compressed laterally, with distinct body annulation, twelve pairs of legs and ten pairs of sclerotised plates
78	ELEL-SJ 100745	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates and paired legs
79	ELEL-SJ 100759	+	-	+	-	+	+	-	+	Nearly complete, compressed laterally, with distinct body annulation, twelve pairs of legs and ten pairs of sclerotised plates
80	ELEL-SJ 100782	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates and paired legs
81	ELEL-SJ 100808	+	-	-	-	-	-	-	+	Incomplete, compressed laterally, with sclerotised plates and legs with claws
82	ELEL-SJ 100815	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and legs with paired claws
83	ELEL-SJ 100821	-	-	-	-	-	-	-	-	Incomplete (head missing), compressed laterally, with distinct body annulation, paired sclerotised plates and intestine
84	ELEL-SJ 100823	-	-	-	-	-	+	-	+	Nearly complete, compressed laterally, with distinct body annulation, paired sclerotised plates and paired legs with claws
85	ELEL-SJ 100859	-	-	-	-	-	+	+	+	Incomplete, compressed laterally, with distinct body annulation, sclerotised plates and legs with claws
86	ELEL-SJ 100862	-	-	-	-	-	+	+	+	Nearly complete, compressed dorsoventrally, with anteriorly directed antennae
87	ELEL-SJ 100864	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with paired sclerotised plates and paired legs with claws

88	ELEL-SJ 100868	-	-	-	-	-	-	-	-	Nearly complete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and paired legs
89	ELEL-SJ 100872	+	+	-	+	-	-	-	+	Nearly complete, compressed laterally, with distinct body annulation, dermal papillae, paired sclerotised plates and paired legs with paired claws
90	ELEL-SJ 100873	-	-	-	-	-	-	-	+	Incomplete, compressed dorsoventrally, with paired sclerotised plates and paired legs
91	ELEL-SJ 100898	+	-	-	-	+	+	-	+	Incomplete, compressed laterally, with distinct body annulation and legs with claws
92	ELEL-SJ 100899	+	-	-	-	-	+	-	+	Incomplete, compressed laterally, with distinct body annulation, sclerotised plates and legs with claws
93	ELEL-SJ 100900	+	+	+	+	+	-	-	+	Nearly complete, compressed laterally, with dermal papillae, twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
94	ELEL-SJ 100910	+	+	-	-	-	-	-	+	Incomplete, compressed laterally (head in an exceptional, nearly frontal view), with preserved dermal papillae
95	ELEL-SJ 100917	-	-	-	-	-	+	+	+	Nearly complete, compressed dorsoventrally, shape of arcuate sclerite clearly distinguishable
96	ELEL-SJ 100919	+	+	+	+	-	-	-	+	Incomplete, compressed laterally, with distinct body annulation, dermal papillae and legs with paired claws
97	ELEL-SJ 100941	+	-	+	-	-	+	+	+	Nearly complete, compressed laterally, with distinct body annulation, dermal papillae and legs with paired claws
98	ELEL-SJ 100944	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, dermal papillae and paired sclerotised plates
99	ELEL-SJ 100953	+	-	-	-	-	+	+	+	Nearly complete, compressed laterally, with distinct body annulation, dermal papillae, twelve pairs of legs and ten pairs of sclerotised plates
100	ELEL-SJ 100969	-	-	-	-	-	-	-	-	Incomplete (head missing), compressed laterally, with distinct body annulation, dermal papillae and paired sclerotised plates
101	ELEL-SJ 100996	+	-	-	-	-	+	-	+	Nearly complete, curled up and compressed laterally, with preserved dermal papillae and legs with paired claws
102	ELEL-SJ 101011	-	-	-	-	-	-	-	+	Nearly complete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and paired legs
103	ELEL-SJ 101017	-	-	-	+	+	-	-	+	Incomplete, compressed laterally, with twelve pairs of legs, ten pairs of sclerotised plates, dermal papillae and legs with paired claws
104	ELEL-SJ 101020	-	-	-	-	-	-	-	-	Incomplete, with distinct body annulation, paired sclerotised plates and legs with paired claws
105	ELEL-SJ 101166	-	-	-	-	-	+	+	+	Incomplete, preserved laterally, with distinct body annulation and legs with claws

106	ELEL-SJ 101189	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with dermal papillae, paired sclerotised plates and paired legs
107	ELEL-SJ 101206	-	-	-	-	-	+	-	+	Incomplete, compressed dorsoventrally, with distinct body annulation and dermal papillae
108	ELEL-SJ 101223	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation and dermal papillae
109	ELEL-SJ 101232	+	-	-	-	-	-	-	+	Incomplete, compressed laterally, with distinct body annulation and legs with claws
110	ELEL-SJ 101236	-	-	-	-	-	+	+ ²	-	Nearly complete, compressed laterally, with ten sclerotised plates and dermal papillae, legs with paired claws
111	ELEL-SJ 101245	+	-	-	-	-	+	+	+	Incomplete, compressed laterally, with distinct body annulation and preserved attachment site of the right antenna
112	ELEL-SJ 101248	+	-	-	-	-	-	-	+	Incomplete, compressed laterally, with distinct body annulation and dermal papillae, co-preserved with a specimen of <i>Cardiodictyon catenulum</i>
113	ELEL-SJ 101278	+	-	-	-	-	-	-	+	Nearly complete, compressed laterally, with distinct body annulation, paired sclerotised plates and legs with paired claws
114	ELEL-SJ 101311	-	-	-	-	-	+	-	-	Nearly complete, compressed dorsolaterally, with distinct body annulation, paired sclerotised plates and legs with paired claws
115	ELEL-SJ 101320	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with preserved dermal papillae and legs with paired claws
116	ELEL-SJ 101323	+	-	-	-	-	+	+ ²	+	Nearly complete, compressed laterally, with distinct body annulation, twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
117	ELEL-SJ 101329	+	-	-	-	-	+	-	+	Incomplete, compressed dorsolaterally, with distinct body annulation, paired sclerotised plates and paired legs
118	ELEL-SJ 101334	+	+	-	+	-	+	+	+	Incomplete, compressed laterally, with distinct body annulation and dermal papillae
119	ELEL-SJ 101372	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and paired legs with claws
120	ELEL-SJ 101398	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, prominent ventral papillae and curved legs
121	ELEL-SJ 101408	-	-	-	-	-	+	-	+	Incomplete, compressed laterally, with sclerotised plates and legs with claws
122	ELEL-SJ 101426	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with paired sclerotised plates, paired legs with claws, dermal papillae and intestine
123	ELEL-SJ 101427	-	-	-	-	-	+	+	+	Incomplete, compressed laterally, with body annulation (five annuli in each interpedal region), legs with paired claws

124	ELEL-SJ 101432	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates and paired legs
125	ELEL-SJ 101435	-	-	-	-	-	+	+	-	Nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
126	ELEL-SJ 101436	+	-	+	+	+	+	+ ²	+	Nearly complete, compressed dorsoventrally, with twelve pairs of legs and ten pairs of sclerotised plates
127	ELEL-SJ 101437	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and paired legs with claws
128	ELEL-SJ 101467	-	-	+	-	+	+	+	+	Nearly complete, compressed laterally, with a preserved attachment site of one antenna
129	ELEL-SJ 101489	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with paired sclerotised plates
130	ELEL-SJ 101490	-	-	-	+	-	+	+	+	Fragmented, compressed dorsoventrally, with distinct body annulation and paired sclerotised plates
131	ELEL-SJ 101508	-	-	-	-	-	+	+	+	Nearly complete, compressed dorsoventrally, with anteriorly directed antennae
132	ELEL-SJ 101534	+	-	-	-	-	+	+	+	Juvenile (associated with an adult), Dorsal view, prominent antennae with branches
133	ELEL-SJ 101599	+	+	+	-	-	+	+ ²	+	Nearly complete, compressed laterally, legs with paired claws
134	ELEL-SJ 101602	+	-	-	+	+	+	+	+	Nearly complete, curled up and compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
135	ELEL-SJ 101606	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with attachment sites of dermal papillae
136	ELEL-SJ 101610	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation and preserved dermal papillae, co-preserved with a specimen of <i>Cardiodictyon catenulum</i>
137	ELEL-SJ 101624	+	+	+	-	-	-	-	+	Nearly complete, compressed laterally, with distinct body annulation, paired sclerotised plates and legs with paired claws
138	ELEL-SJ 101630	-	-	-	-	-	-	-	-	Incomplete (head missing), compressed laterally, with distinct body annulation and paired sclerotised plates
139	ELEL-SJ 101637	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, legs with claws and intestine
140	ELEL-SJ 101701	+	-	-	-	+	-	-	+	Nearly complete, compressed laterally, most likely a juvenile, with twelve pairs of legs and ten pairs of sclerotised plates
141	ELEL-SJ 101703	+	+	+	+	+	+	+	+	Nearly complete, compressed laterally, with distinct body annulation, dermal papillae, twelve pairs of legs and ten pairs of sclerotised plates

142	ELEL-SJ 101717	+	+	+	-	-	-	-	+	Nearly complete, compressed laterally, with distinct body annulation, paired sclerotised plates and legs with paired claws
143	ELEL-SJ 101728	-	-	-	-	+	-	-	+	Incomplete, compressed laterally, with distinct body annulation and legs with paired claws
144	ELEL-SJ 101729	+	-	-	-	-	+	+ ²	+	Nearly complete, compressed laterally, with distinct body annulation, dermal papillae and legs with claws
145	ELEL-SJ 101731	-	-	-	-	-	+	-	-	Nearly complete, compressed laterally, with distinct body annulation, twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
146	ELEL-SJ 101735	+	-	+	-	-	+	+	+	Nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
147	ELEL-SJ 101745	+	+	+	+	-	+	+ ²	+	Incomplete, compressed laterally, with dermal papillae and distinct body annulation (five annuli in each interpedal region), legs with claws
148	ELEL-SJ 101749	-	-	-	-	-	+	+	-	Incomplete, compressed dorsoventrally, with sclerotised plates
149	ELEL-SJ 101759	-	-	-	-	-	-	-	+	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates and paired legs with paired claws
150	ELEL-SJ 101763	-	-	-	-	-	+	-	+	Nearly complete, compressed laterally, with distinct body annulation, twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
151	ELEL-SJ 101774	+	+	+	-	+	+	+ ²	+	Nearly complete, compressed laterally, with distinct body annulation, twelve pairs of legs and ten pairs of sclerotised plates, legs with claws
152	ELEL-SJ 101781	+	+	+	+	-	+	-	+	Three individuals, nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
153	ELEL-SJ 101801	+	+	+	-	+	+	+	+	Incomplete, compressed laterally, with distinct body annulation and dermal papillae, one antenna directed posteriorly
154	ELEL-SJ 101822	+	-	-	-	-	-	-	+	Incomplete, compressed laterally, with distinct body annulation and dermal papillae
155	ELEL-SJ 101842	-	-	-	-	-	+	+	+	Nearly complete, compressed laterally, with distinct body annulation, paired sclerotised plates and legs with paired claws
156	ELEL-SJ 101848	-	-	-	-	-	+	+	-	Incomplete, compressed laterally, with distinct body annulation, gut with dark fossilised content in positive relief
157	ELEL-SJ 101888	+	+	+	-	+	+	+ ²	+	Nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates
158	ELEL-SJ 101891	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation and dermal papillae
159	ELEL-SJ 101907	+	+	+	+	-	-	-	+	Incomplete, compressed laterally, with distinct body annulation and dermal papillae

160	ELEL-SJ 101917	+	-	-	-	-	+	+	+	Nearly complete, curled up and compressed laterally, with preserved attachment site of the left antenna and legs with paired claws
161	ELEL-SJ 101956	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, dermal papillae and legs with claws
162	ELEL-SJ 101973	+	+	+	+	+	+	-	+	Nearly complete, compressed laterally, with distinct body annulation, dermal papillae, twelve pairs of legs and ten pairs of sclerotised plates
163	ELEL-SJ 101980	-	-	-	+	-	-	-	-	Incomplete (head missing), compressed laterally, with distinct body annulation, paired sclerotised plates and intestine
164	ELEL-SJ 101997	+	-	-	-	-	+	-	+	Nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates with elongated spines
165	ELEL-SJ 102001	+	-	-	-	-	+	+	+	Nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
166	ELEL-SJ 102010	+	-	+	-	-	+	+	+	Incomplete, compressed laterally, with distinct body annulation, dermal papillae and one anteriorly directed antenna
167	ELEL-SJ 102011	+	-	+	-	-	+	+	+	Incomplete, compressed laterally, with an annulated antenna
168	ELEL-SJ 102013	-	-	-	-	-	-	-	-	Incomplete, compressed dorsolaterally, with distinct body annulation, paired sclerotised plates and highly curved legs with paired claws
169	ELEL-SJ 102015	+	+	+	-	+	-	-	+	Nearly complete, compressed laterally, with distinct body annulation (five annuli in each interpedal region), legs with paired claws
170	ELEL-SJ 102016	-	-	-	+	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, dermal papillae and legs with paired claws
171	ELEL-SJ 102021	-	-	-	-	-	+	+	+	Nearly complete, compressed laterally, with twelve pairs of legs and ten pairs of sclerotised plates, legs with paired claws
172	ELEL-SJ 102040	+	+	+	+	-	-	-	+	Incomplete, compressed laterally, with distinct body annulation, sclerotised plates and legs with claws
173	ELEL-SJ 102042	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and paired legs with paired claws
174	ELEL-SJ 102043	-	-	-	-	-	+	+	+	Incomplete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and paired legs with paired claws
175	ELEL-SJ 102044	-	-	-	-	-	-	-	-	Incomplete, compressed dorsoventrally, with paired sclerotised plates, paired legs with paired claws and intestine in the positive relief
176	ELEL-SJ 102045	+	+	+	+	-	+	+	+	Incomplete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and dermal papillae
177	ELEL-SJ 102046	-	-	-	-	-	-	-	-	Incomplete (head missing), compressed laterally, with distinct body annulation, paired sclerotised plates and dermal papillae

178	ELEL-SJ 102047	-	-	-	-	-	+	+	+	Incomplete, compressed dorsoventrally, with distinct body annulation, paired sclerotised plates and paired legs with paired claws
179	ELEL-SJ 102048	-	-	-	-	+	+	+	-	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates and prominent ventral papillae
180	ELEL-SJ 102049	-	-	-	+	-	-	-	+	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates and paired legs with claws
181	ELEL-SJ 102050	-	-	-	+	-	-	-	+	Incomplete, compressed dorsolaterally, with distinct body annulation and paired sclerotised plates
182	ELEL-SJ 102051	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates and paired legs with claws
183	ELEL-SJ 102052	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates and paired legs with claws
184	ELEL-SJ 102053	-	-	-	-	-	-	-	-	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates and paired legs with claws
185	ELEL-SJ 102054	+	+	+	+	-	+	+ ²	+	Incomplete, compressed laterally, with distinct body annulation, paired sclerotised plates, dermal papillae and paired legs with claws
186	ELEL-SJ 102055	+	+	+	+	+	+	+	+	Fragmented, compressed laterally, with distinct body annulation, anterior end and first leg pair with claws preserved
Total³		84	34	44	36	32	95	63	114	

¹Expanded pharyngeal lumen is considered as part of the pharyngeal bulb, even if the pharyngeal walls are not seen.

²Only the attachment imprints of the antennal branches on the rachis are seen.

³Ten additional, highly fragmented or poorly preserved specimens were not included in the table.