

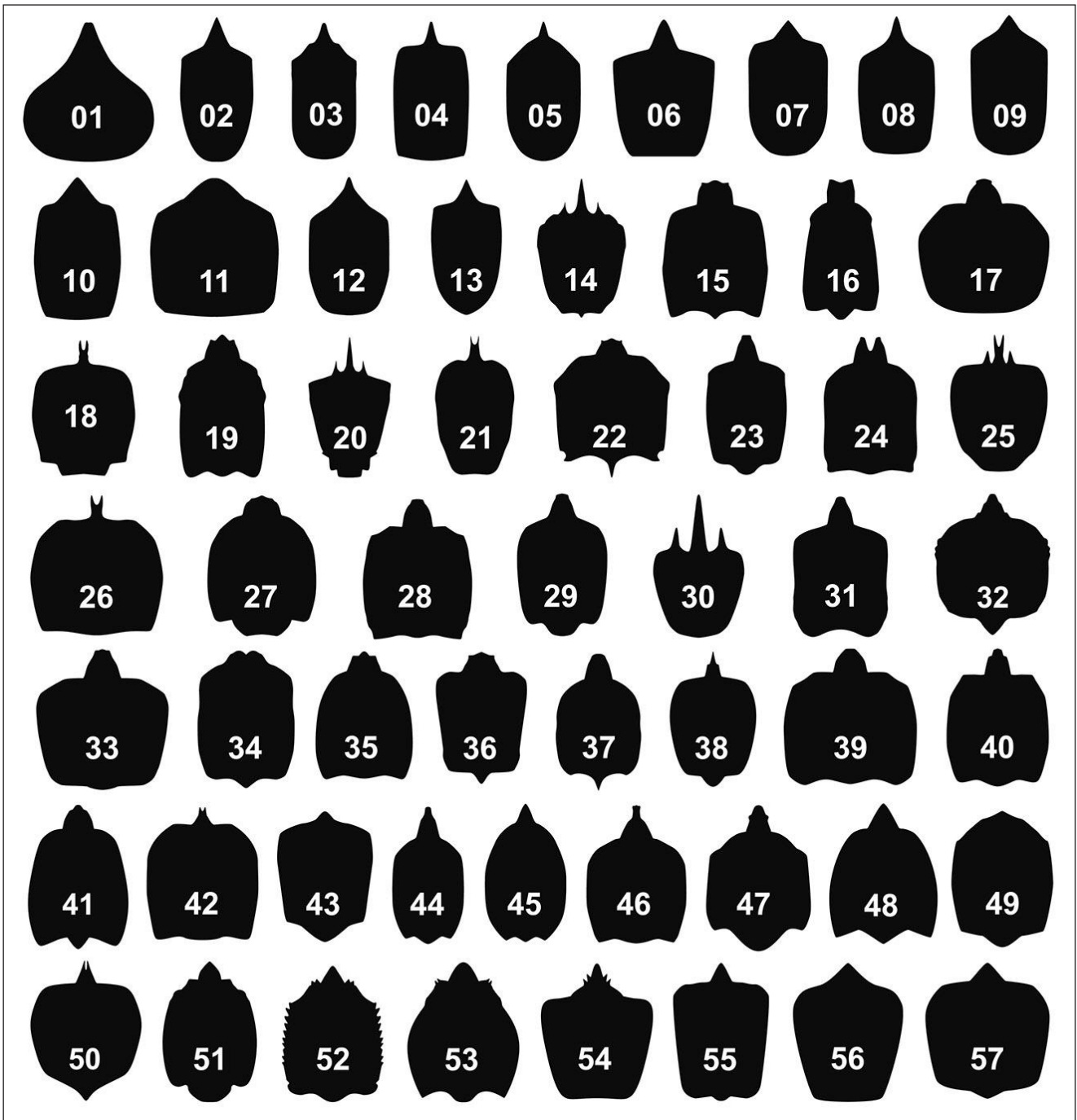
**YET ANOTHER UNUSUAL NEW TYPE OF LACEWING LARVA PRESERVED IN
100-MILLION-YEAR OLD AMBER FROM MYANMAR**

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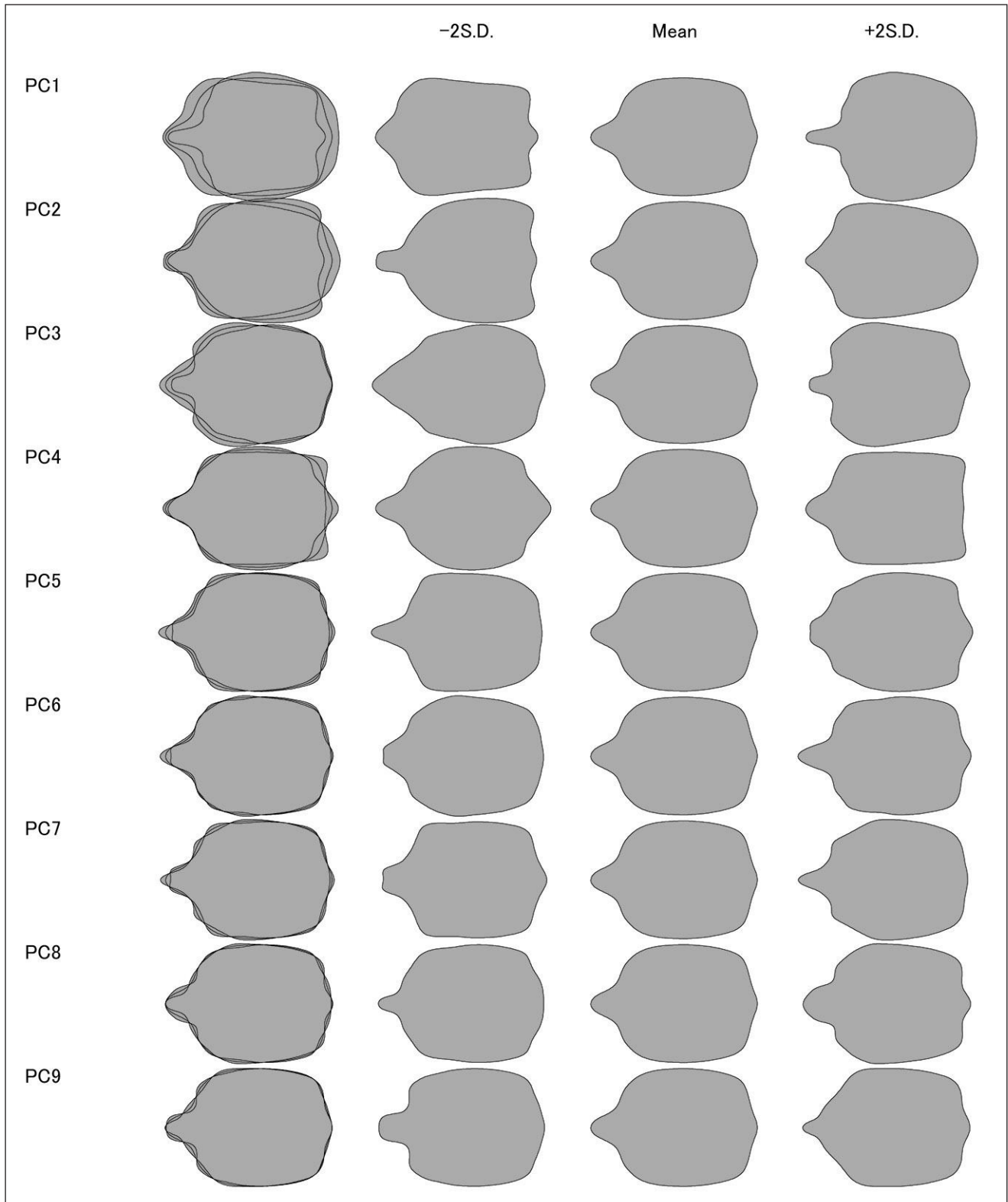
SUPPLEMENTARY MATERIAL

Specimen	Source/Specimen Identifier	Larger group	Age	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8	PC9
1	New specimen	Neuroptera, unclear	Cretaceous	7.06E-02	-1.42E-01	-7.67E-02	-4.67E-02	-2.20E-02	-2.38E-02	3.17E-02	-3.89E-03	1.22E-03
2	Aspöck & Aspöck 2010	Neurothidae	Modern	9.67E-03	5.14E-02	-1.20E-02	-1.88E-02	-2.32E-02	-1.31E-02	-3.27E-03	-3.83E-03	-6.20E-03
3	Beutel et al. 2010	Neurothidae	Modern	-9.32E-03	4.75E-02	-2.40E-02	4.58E-03	-9.54E-03	-9.76E-03	9.10E-04	-1.61E-02	4.54E-04
4	Grimaldi & Engel 2005	Neurothidae	Modern	-1.03E-02	3.22E-02	-1.73E-03	-3.43E-02	-2.11E-03	-1.09E-03	1.94E-02	-2.15E-02	-5.62E-03
5	Malicky 1984 specimen 1	Neurothidae	Modern	-1.52E-02	4.38E-02	-1.53E-02	-1.41E-02	-1.21E-02	-1.51E-02	4.55E-03	-1.50E-02	7.35E-03
6	Malicky 1984 specimen 2	Neurothidae	Modern	4.62E-02	1.68E-02	1.72E-02	3.65E-02	-4.59E-02	8.99E-03	-5.52E-03	6.68E-03	1.30E-03
7	Marković et al. 2016	Neurothidae	Modern	-3.13E-02	6.69E-02	-5.34E-03	3.04E-03	9.38E-03	1.25E-04	8.61E-03	-1.15E-02	-8.34E-03
8	Takahashi 1942	Neurothidae	Modern	9.18E-03	1.86E-02	-1.92E-02	1.02E-02	-2.60E-02	-1.27E-02	2.75E-03	-7.47E-03	-3.65E-04
9	Riek 1970	Neurothidae	Modern	-3.87E-02	6.01E-02	-1.05E-02	5.55E-03	-3.21E-03	-3.96E-03	5.17E-03	-9.25E-03	-4.47E-03
10	The Identification and Ecology of Australian Freshwater Invertebrates	Neurothidae	Modern	-3.41E-02	3.53E-02	-2.93E-02	2.57E-02	-3.21E-03	-3.96E-03	1.86E-02	-6.69E-04	-1.36E-02
11	Wichard et al. 2009	Neurothidae	Modern	-6.19E-02	-2.60E-02	-5.94E-03	1.92E-02	2.82E-03	1.22E-02	-6.39E-03	2.38E-03	-3.97E-03
12	Zwick 1967	Neurothidae	Modern	-5.59E-03	2.93E-02	-1.54E-02	-2.95E-03	-2.07E-02	-1.19E-02	2.31E-03	-5.43E-03	3.15E-03
13	Gepp 1984	Neurothidae	Modern	-6.21E-03	6.67E-02	4.88E-03	-1.53E-03	-4.50E-03	-1.42E-03	3.33E-03	-8.72E-03	-1.04E-02
14	Badano et al. 2018	Psychopsidae	Cretaceous	1.39E-01	1.98E-02	3.05E-02	-7.52E-03	1.46E-02	8.92E-03	3.45E-02	1.14E-02	-1.08E-02
15	Haug et al. 2020b (BUB_3356)	Psychopsidae	Cretaceous	-5.35E-02	-4.80E-02	-6.94E-03	2.27E-02	6.63E-03	7.71E-03	-9.40E-03	1.80E-02	-1.30E-02
16	Haug et al. 2020b (BUB_3389)	Psychopsidae	Cretaceous	-2.74E-02	-2.18E-02	-5.45E-02	1.75E-02	1.98E-02	-1.50E-02	-1.65E-02	1.45E-02	-1.93E-02
17	Engel & Grimaldi 2008	Psychopsidae	Cretaceous	2.12E-02	-2.43E-02	2.29E-02	-5.45E-03	-3.83E-03	-1.66E-03	1.35E-02	9.74E-03	-1.80E-03
18	Haug et al. 2020b (GR_ARC_205)	Psychopsidae	Cretaceous	8.71E-02	-3.15E-02	4.80E-02	-3.99E-03	-9.43E-03	-1.98E-02	-2.73E-02	-1.97E-02	-1.16E-02
19	Makarkin 2018 specimen 1	Psychopsidae	Cretaceous	-4.94E-02	-1.14E-02	-2.75E-02	2.93E-02	1.59E-03	-9.34E-03	2.96E-03	2.02E-02	-8.43E-04
20	Makarkin 2018 specimen 2	Psychopsidae	Cretaceous	1.24E-01	4.20E-02	3.44E-02	-4.11E-02	9.69E-03	5.74E-03	3.77E-02	2.17E-02	1.16E-03
21	Haug et al. 2020b (PED 0039)	Psychopsidae	Cretaceous	6.46E-02	3.52E-02	2.08E-02	-6.15E-02	-1.22E-02	-3.66E-02	-1.43E-02	-6.22E-02	-1.55E-02
22	Haug et al. 2020b (PED 0045)	Psychopsidae	Cretaceous	-1.38E-01	-2.70E-02	2.91E-02	-7.18E-02	1.11E-03	1.78E-02	-2.21E-02	-5.85E-04	1.45E-02
23	Haug et al. 2020b (PED 0051)	Psychopsidae	Cretaceous	1.34E-03	2.28E-02	-4.07E-03	4.81E-04	3.17E-02	3.08E-03	-7.98E-03	6.83E-03	-1.16E-02
24	Haug et al. 2020b (PED 0055)	Psychopsidae	Cretaceous	2.39E-02	-5.76E-02	-3.87E-03	5.04E-02	3.16E-02	4.88E-02	-4.19E-02	5.78E-03	1.91E-02
25	Haug et al. 2020b (PED 0060)	Psychopsidae	Cretaceous	2.02E-01	6.75E-03	1.88E-02	-1.22E-02	6.55E-02	-1.72E-02	4.86E-03	1.17E-02	-1.27E-02
26	Haug et al. 2020b (PED 0063)	Psychopsidae	Cretaceous	8.29E-02	-8.82E-02	6.08E-02	2.84E-02	7.90E-03	-2.85E-03	-1.10E-02	-2.55E-02	-1.39E-02
27	Haug et al. 2020b (PED 0080)	Psychopsidae	Cretaceous	-4.98E-02	-1.73E-02	-1.93E-02	-3.74E-02	-3.55E-03	-1.96E-03	-3.31E-03	-9.96E-02	-1.49E-02
28	Haug et al. 2020b (PED 0082)	Psychopsidae	Cretaceous	-1.16E-03	-5.72E-02	9.52E-03	4.72E-02	-1.63E-02	2.11E-02	3.87E-03	5.82E-03	-1.36E-02
29	Haug et al. 2020b (PED 0125)	Psychopsidae	Cretaceous	-2.31E-02	1.48E-02	-1.25E-03	-1.62E-02	-6.66E-03	1.70E-03	-6.69E-03	6.03E-03	-5.99E-03
30	Haug et al. 2020b (PED 0127)	Psychopsidae	Cretaceous	2.44E-01	3.76E-02	-1.09E-01	5.62E-03	6.09E-03	6.94E-02	-3.26E-02	-1.46E-02	8.22E-03
31	Haug et al. 2020b (PED 0128)	Psychopsidae	Cretaceous	-8.96E-03	-2.20E-02	2.76E-02	3.69E-02	-2.68E-02	4.79E-03	9.12E-04	8.29E-03	-3.31E-03
32	Haug et al. 2020b (PED 0131)	Psychopsidae	Cretaceous	-1.49E-02	-2.51E-03	2.91E-02	-5.02E-02	-4.33E-03	1.63E-02	-6.26E-03	8.49E-03	1.17E-02
33	Haug et al. 2020b (PED 0133)	Psychopsidae	Cretaceous	3.60E-02	-2.75E-02	3.38E-02	9.85E-03	-2.17E-02	-3.26E-03	8.25E-02	2.83E-02	2.83E-03
34	Haug et al. 2020b (PED 0137)	Psychopsidae	Cretaceous	-7.12E-02	2.27E-02	-1.33E-02	1.46E-02	3.05E-02	1.66E-02	-1.18E-02	6.89E-03	-4.97E-03
35	Haug et al. 2020b (PED 0153)	Psychopsidae	Cretaceous	-5.04E-02	-4.45E-02	-2.61E-02	1.90E-02	1.20E-02	-4.77E-03	6.52E-03	4.25E-03	-3.24E-03
36	Haug et al. 2020b (PED 0205)	Psychopsidae	Cretaceous	-5.29E-02	5.41E-02	1.86E-02	1.25E-02	6.78E-03	1.23E-02	-1.91E-02	2.44E-02	-8.59E-03
37	Zhang 2017	Psychopsidae	Cretaceous	-3.95E-02	-3.16E-02	-1.06E-02	-5.05E-02	-9.49E-03	9.98E-03	-1.66E-02	2.29E-02	-1.73E-03
38	Groehn 2015	Psychopsidae	Eocene	2.18E-02	2.14E-02	2.71E-02	-1.69E-02	-1.35E-02	1.51E-03	-3.54E-04	2.34E-03	2.16E-03
39	Haug et al. 2020b (Groehn_2994)	Psychopsidae	Eocene	-3.80E-02	-9.56E-02	3.44E-02	2.22E-02	-2.56E-04	3.79E-02	4.14E-03	-1.11E-02	-4.41E-03
40	Haug et al. 2020b (Groehn_7639)	Psychopsidae	Eocene	-2.56E-03	-2.16E-02	1.56E-02	1.66E-02	4.94E-03	9.97E-03	7.03E-03	3.81E-03	-9.95E-03
41	Haug et al. 2020b (Jonas Danzen)	Psychopsidae	Eocene	-7.36E-02	-4.69E-02	-1.57E-02	-1.43E-02	9.99E-03	8.88E-03	9.21E-03	9.42E-03	-6.77E-04
42	Haug et al. 2020b (WBI_5648)	Psychopsidae	Eocene	-3.41E-02	-4.30E-02	4.04E-02	4.09E-02	8.93E-03	8.22E-03	1.36E-02	-3.55E-02	1.87E-02
43	Haug et al. 2020b (MCPale_18004)	Psychopsidae	Eocene	-7.09E-02	8.07E-02	1.47E-02	-1.15E-02	2.95E-02	7.20E-03	-5.38E-03	-8.14E-03	5.28E-03
44	Haug et al. 2020b (RMV_01)	Psychopsidae	Eocene	6.11E-03	4.12E-03	-2.74E-02	-9.47E-03	-2.06E-02	-1.65E-02	1.38E-03	1.21E-02	7.47E-03
45	Haug et al. 2020b (RMV_02)	Psychopsidae	Eocene	-2.25E-02	8.68E-03	-2.68E-02	-8.91E-03	-6.86E-03	-1.42E-02	1.90E-02	-1.24E-03	6.62E-03
46	Haug et al. 2020b (RMV_03)	Psychopsidae	Eocene	7.26E-03	-4.64E-02	-6.54E-03	7.01E-03	-2.05E-02	-4.96E-03	3.17E-03	6.56E-03	1.22E-02
47	Weischat & Wichard 1998	Psychopsidae	Eocene	1.11E-02	-3.07E-02	-4.63E-03	-5.65E-02	-1.13E-02	1.88E-03	-1.27E-02	-1.82E-02	-6.87E-03
48	Aspöck & Aspöck 1999	Psychopsidae	Modern	-6.97E-02	-6.49E-02	-1.06E-02	-2.59E-02	9.51E-02	6.93E-03	6.93E-03	-1.51E-02	-1.00E-03
49	Badano et al. 2017	Psychopsidae	Modern	-7.62E-02	3.25E-02	-1.94E-02	-1.50E-02	2.41E-02	-5.83E-03	-9.06E-03	5.35E-03	9.82E-03
50	Froggat 1907	Psychopsidae	Modern	5.87E-02	4.69E-03	5.54E-03	-3.99E-02	3.63E-03	-6.62E-02	-2.48E-02	-1.33E-02	2.89E-03
51	McLeod 1964	Psychopsidae	Modern	-3.41E-02	9.88E-03	-9.54E-03	-3.56E-02	1.23E-02	5.97E-04	2.64E-03	-1.72E-02	9.73E-04
52	New 1989	Psychopsidae	Modern	3.90E-03	3.08E-02	-4.97E-02	3.15E-02	1.02E-02	-4.11E-03	-2.89E-03	-6.37E-02	1.79E-02
53	New 1991	Psychopsidae	Modern	-2.71E-02	-4.92E-02	-1.40E-02	-6.28E-03	4.53E-02	1.65E-03	2.86E-02	5.52E-04	1.89E-02
54	Tillyard 1918 specimen 01 (early stage 1)	Psychopsidae	Modern	-4.10E-01	4.95E-03	2.20E-02	1.93E-02	-1.77E-02	-1.47E-02	-1.41E-03	1.27E-02	4.79E-02
55	Tillyard 1918 specimen 02 (late stage 1)	Psychopsidae	Modern	-4.42E-02	7.35E-02	1.47E-02	2.44E-02	-1.60E-02	-2.81E-04	8.62E-03	1.21E-02	4.99E-03
56	Tillyard 1918 specimen 03 (stage 2)	Psychopsidae	Modern	-4.23E-02	5.64E-02	2.73E-02	3.77E-02	3.76E-03	1.00E-02	1.13E-02	-9.28E-03	4.37E-03
57	Tillyard 1918 specimen 04 (stage 3)	Psychopsidae	Modern	-5.06E-02	2.17E-02	3.69E-02	-4.62E-03	1.04E-02	1.51E-02	4.20E-03	1.69E-04	1.17E-02

Suppl. Tab. 1 - Information on the specimens used for the shape analysis, including their PC values.



Suppl. Fig. 1 - Drawings of all heads included in the shape analysis, information for each number in Supplementary Table 1.



Suppl. Fig. 2 - Factor loadings of the shape analysis.