## Supplementary File S1 Pollen morphology of extant Saururaceae

## CONTENT

This supplement file provides micrographs of extant Saururaceae pollen under light (LM)and scanning electron microscopy (SEM).



Figure S1. LM micrographs of extant Saururaceae.

A) *Anemopsis californica* Hook & Arn. [WU: Mexico, Baja California, Rancho La Suerte; coll. R.F. Thorne, s.n.]. B) *Gymnotheca chinensis* Decne. [WU 0039758]. C) *Houttuynia cordata* Thunb. [WU 0039759; WU 0062658]. D) *Saururus cernuus* L. [WU 0039743]. E) *Saururus chinensis* (Lour.) Baill. [WU 0039752]. Scale bars: 10 μm.





A-C) Pollen in distal polar view, showing sulcus and sulcus membrane.

**D–E**) Pollen in distal polar view, showing sulcus area.

**F–H**) Pollen in proximal polar view.



**Figure S3.** SEM micrographs of *Anemopsis californica* Hook & Arn. [WU: Mexico, Baja California, Rancho La Suerte; coll. R.F. Thorne, s.n.]. IPUW 7513/126.

A–C) Close-ups of sulcus membrane.

**D–H**) Close-ups of sculpture on proximal side of pollen.



Figure S4. SEM micrographs of *Gymnotheca chinensis* Decne. [WU 0039758]. IPUW 7513/127.

A–C) Pollen in distal polar view, showing sulcus and sulcus membrane.

**D–E**) Pollen in equatorial view.

**F–H**) Pollen in proximal polar view.



Figure S5. SEM micrographs of *Gymnotheca chinensis* Decne. [WU 0039758]. IPUW 7513/127.

A–E) Close-ups of sulcus membrane.

**F–H)** Close-ups of sculpture on proximal side of pollen.



Figure S6. SEM micrographs of *Houttuynia cordata* Thunb. [WU 0039759]. IPUW 7513/128.

A–D) Pollen in distal polar or oblique view, showing sulcus and sulcus membrane.

**E**) Pollen in equatorial view.

**F–H**) Pollen in proximal polar view.



Figure S7. SEM micrographs of *Houttuynia cordata* Thunb. [WU 0039759]. IPUW 7513/128.

A–C) Close-ups of sulcus membrane.

**D–H**) Close-ups of sculpture on proximal side of pollen.



Figure S8. SEM micrographs of Saururus cernuus L. [WU 0039743]. IPUW 7513/129.

A–C) Pollen in distal polar view, showing sulcus and sulcus membrane.

**D–H**) Pollen in equatorial view.



Figure S9. SEM micrographs of *Saururus cernuus* L. [WU 0039743]. IPUW 7513/129.A–H) Pollen in proximal polar view.Scale bars: 1 µm.



Figure S10. SEM micrographs of *Saururus cernuus* L. [WU 0039743]. IPUW 7513/129.A–H) Close-ups of sulcus membrane.Scale bars: 1 μm.



Figure S11. SEM micrographs of *Saururus cernuus* L. [WU 0039743]. IPUW 7513/129.
A–H) Close-ups of sculpture on proximal side of pollen.
Scale bars: 1 μm.



Figure S12. SEM micrographs of *Saururus chinensis* (Lour.) Baill. [WU 0039752]. IPUW 7513/130.A–F) Pollen in distal polar view, showing sulcus and sulcus membrane.G–H) Pollen in equatorial view.



Figure S13. SEM micrographs of *Saururus chinensis* (Lour.) Baill. [WU 0039752]. IPUW 7513/130.
A–C) Pollen in equatorial view.
D–H) Pollen in proximal polar view.



Figure S14. SEM micrographs of *Saururus chinensis* (Lour.) Baill. [WU 0039752]. IPUW 7513/130.
A–F) Close-ups of sulcus membrane.
G–H) Close-ups of sculpture on proximal side of pollen.
Scale bars: 1 μm.



Figure S15. SEM micrographs of *Saururus chinensis* (Lour.) Baill. [WU 0039752]. IPUW 7513/130.
A–F) Close-ups of sculpture on proximal side of pollen.
Scale bars: 1 μm.