**Table S1.** Ornithopod cranial specimens examined first-hand for this study.

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| Registration | Material |
| CM 3392 | *Dryosaurus* *elderae*, cast of cranium |
| MCF-PVPH-74 | *Anabisetia saldiviai*, holotype, incomplete maxilla and dentary with dentition |
| MUCPv-208 | *Gasparinisaura cincosaltensis*,holotype, cranium |
| MUCPv-213 | *Gasparinisaura cincosaltensis*, incomplete dentary with dentition |
| NHMUK R2477 | *Hypsilophodon foxii*, cranium |
| NHMUK R3395 | *Zalmoxes robustus*, left maxilla |
| NHMUK R4901 | *Zalmoxes robustus*, left maxilla |
| NMV P157390 | *Atlascopcosaurus loadsi*, referred, incomplete left maxilla |
| NMV P160473 | *Dysalotosaurus lettowvorbecki*, referred, isolated block hosting 3 dentary teeth |
| NMV P160474 | *Dysalotosaurus lettowvorbecki*, referred, isolated worn (left?) dentary tooth |
| NMV P160475 | *Dysalotosaurus lettowvorbecki*, referred, isolated worn left maxillary tooth |
| NMV P166409 | *Atlascopcosaurus loadsi*, holotype, incomplete left maxilla |
| NMV P177934 | Isolated right dentary tooth |
| NMV P185991 | *Leaellynasaura amicagraphica*, holotype, cranial fragment |
| NMV P186426 | Isolated left dentary tooth |
| NMV P186440 | *Galleonosaura* *dorisae*, cranial fragment: incomplete left maxilla with dentition, complete left palatine and fragment of left lacrimal |
| NMV P197995 | *Kangnasaurus coetzeei*, cast of dentary tooth (SAM-PK-2732) |
| NMV P198962  | *Qantassaurus intrepidus*?, incomplete left dentary with partial dentition |
| NMV P199075 | *Qantassaurus intrepidus*, holotype, sub-complete dentary |
| NMV P199087  | *Qantassaurus intrepidus*?, incomplete right dentary with partial dentition |
| NMV P199135 | Complete, degraded right dentary with partial dentition |
| NMV P208113 | *Galleonosaura* *dorisae*, worn right maxillary tooth |
| NMV P208133 | cf. *Atlascopcosaurus loadsi*, incomplete right maxilla with partial dentition |
| NMV P208178 | *Galleonosaura* *dorisae*, incomplete left maxilla with partial dentition |
| NMV P208192  | Incomplete, degraded right dentary with partial dentition |
| NMV P208506  | Worn left dentary tooth with root |
| NMV P208523 | *Galleonosaura* *dorisae*, worn left maxillary tooth |
| NMV P209977 | *Galleonosaura* *dorisae*, nearly complete left maxilla with un-erupted dentition |
| NMV P210049  | Incomplete left dentary tooth |
| NMV P212845 | *Galleonosaura* *dorisae*, incomplete left maxilla with partial dentition |
| NMV P228408  | Complete left dentary with partial dentition |
| NMV P229196 | *Galleonosaura* *dorisae*, holotype, complete left maxilla with partial dentition |
| NMV P231182 | Incomplete, degraded right dentary lacking dentition |
| QM F12541 | *Muttaburrasaurus* sp., fragment of right dentary dentition  |
| QM F14921 | *Muttaburrasaurus* sp., cranium |
| QM F52774 | Isolated dentary tooth (Winton Formation, Queensland) |
| QM F6140 | *Muttaburrasaurus langdoni*, holotype, cranium |
| ROM 804  | *Parksosaurus warreni*, holotype, cranium |