**Supporting material: weight estimates and basis**

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| No. | **Name** | **Weiht(kg)** | **Length(m)** | **Basis of calculation** |
| Sauropoda |
| 1 | *“Gyposaurus” sinensis* Young, 1941) | 230 | ~5 | Its validity is controversial, and it may be a synonymof *Lufengosaurus huenei*, or a new species related to the latter (Wang, 2017). Therefore, its estimated weight is 1650 kg as *Lufengosaurus huenei.* |
| 2 | *Yunnanosaurus huangi* Young, 1941 | ~1200 | ~7 | Paul (2016) suggested a 5 m body length for *Y. huangi*, possibly due to confusion of juvenile and adult specimens. Adult *Yunnanosaurus* is about 7 m long. The weight is estimated based on the weight/length ratio of *Jingshanosaurus xinwaensis*. |
| 3 | *Lufengosaurus huenei* Young, 1941 | 230 | 5 | Estimation is based on the weight of 5 m *Y. huangi* suggested by Paul (2016). |
| 4 | *Lufengosaurus magnus* Young, 1941 | 1700 | 9 | Estimation is based on the data of 9 m *Lufengosaurus huenei* suggested by Paul (2016). |
| 5 | *Xixiposaurus suni* Sekiya, 2010 | 230 | ~5 | As its body size is similar to *Lufengosaurus huenei* (Sekiya, 2010), the weight may be similar too.  |
| 6 | *Xingxiulong chengi* Wang et al., 2017 | 230 | ~5 | As its body size is similar to *Lufengosaurus huenei* (Wang et al., 2017), the weight may be similar too. |
| 7 | *Chuxiongosaurus lufengensis* Lü et al., 2010 | 200  | 4 | Paul, 2016 |
| 8 | *Jingshanosaurus xinwaensis* Zhang et al., 1994 | 1600 | 9 | Paul, 2016 |
| 9 | *Yizhousaurus sunae* Zhang et al., 2018 | ~1200 | ~7 | As a medium-sized basal Sauropodomorphs (Zhang et al., 2018), its weight is estimated based on weight/length ratio of *Jingshanosaurus xinwaensis.*  |
| 10 | *Chuanjiesaurus a’naensis* Fang et al., 2000 | 11000 | 17 | Paul, 2016 |
| Theropoda  |
| 11 | *Eshanosaurus deguchiianus* Xu et al.,2001 | N/A | <1 | As a Therizinosaur, the left mandible which is about 11 cm long suggests a body length less than 1 m, therefore its biomass is negligible. |
| 12 | *Shidaisaurus jinae* Wu et al. , 2009 | 700 | 6 | Paul, 2016 |
| 13 | *Sinosaurus triassirus* Young, 1948 | 300 | 5.5 | Paul, 2016 |
| 14 | *Megapnosaurus* sp.*,* Irmis, 2004 | 13 | ~2 | The fossil is incomplete and may similar to *Coelophysis* (Ivie, 2001), so the estimated weight is consistent with *Coelophysis rhodesiensis* (Paul, 2016). |
| 15 | *Panguraptor lufengensis* You et al., 2014 | 13 | ~2 | According to its body length (You et al., 2014), its weight is consistent with *Megapnosaurus* sp. |
| Ornithischia |
| 16 | *Tatisaurus oehleri* Simmons, 1965 | 3 | 1.3 | Its body length and weight may be similar to *Scutellosaurus lawleri* according to the re-examination and plates conducted by Norman et al., 2007, so estimates of the latter are employed (Paul, 2016). |