**S1 Table. Sedimentary sequence of the Boseong fossil site.**

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| **Main Petrology** | | Epiclastic, pyroclastic, and intermediate to acidic volcanic rocks |
| **Sedimentary sequence**  **(in descending order)** | | Docheonri Rhyolite |
| Obongsan Brecciated Tuff (has the widest distribution in the local area) |
| Mudeungsan Flow |
| Pilbong tuff (or Pilbong Rhyolite) |
| Seonso Formation (fossiliferous sedimentary layer) |
| Seonso Conglomerate (fossiliferous sedimentary layer) |
| Lapilli tuff |
| **Fossiliferous sedimentary layers – Seoso Formation and Seonso Conglomerate** | **Petrology** | Primarily clastic |
| Conglomerates, sandstones, mudstones, and alternating sandstones and mudstones |
| **Inferred paleoenvironment** | Alluvial environments such as alluvial fan, meandering river, and braided river based on upwards-fining units |
| Semiarid paleoclimate based on calcic and vertic paleosols formed by alternating dry and wet periods |
| **Factors involved in egg and bone fossil preservation** | Rapid burial likely due to river floodplains |
| Sheetflooding considered as the dominant process |
| Calcic palaeosols may have also aided fossil preservation |