

**Figure 3S.** Photographs at outcrop scale of the occurrence of sedimentary rocks of the Galembó Member. (a) Well-laminated organic-rich claystone with carbonate concretions. (b) Carbonate concretions in organic-rich claystones; several broken concretions reveal the presence of rare fish bones and teeth (c) and common ammonites (d). (e) A typical outcrop of phosphoric rock.

