

## **SUPPLEMENTARY INFORMATION (SI)**

### **An early Cambrian agglutinated tubular lophophorate with brachiopod characters**

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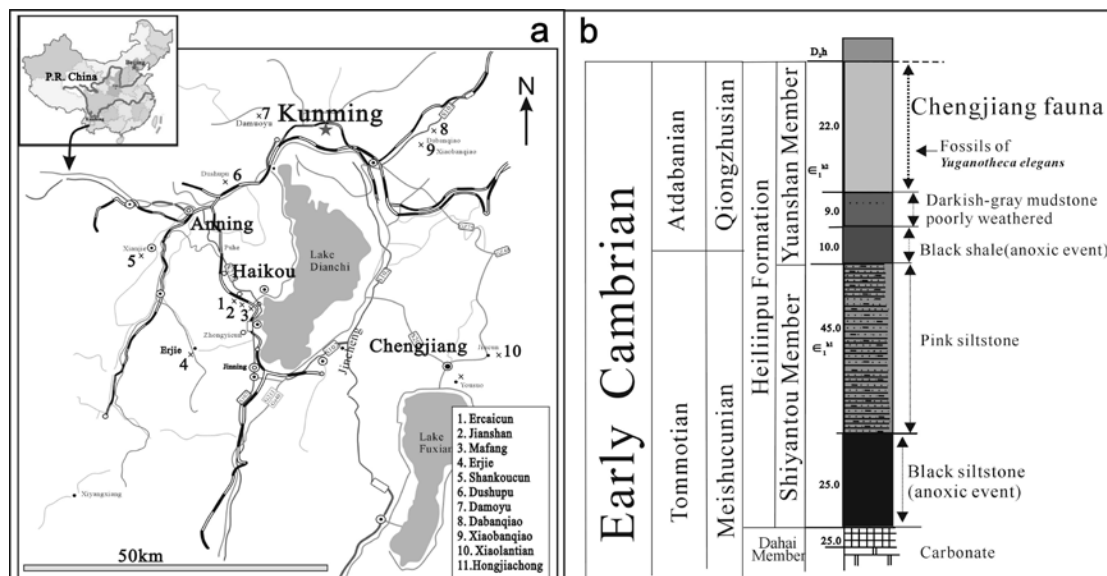
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**Taxonomic remarks on *Yuganotheca*.** *Yuganotheca* is an abundant component in the Chengjiang fauna. It occurs in at least 10 localities in Chengjiang, Jinning, Anning counties and as well as in Haikou southwest of Kunming (Fig. S1), suggesting that *Yuganotheca* was a generalist adapted to a range of environmental settings in early Cambrian marine environments. Due to its typical occurrence as fragmented yellowish-brown arenaceous pieces, even in large clusters on single slabs (Fig. S2), *Yuganotheca* did not attract attention of Chengjiang research scientists<sup>1-4</sup> until the specimens with pedicles were recovered<sup>5,6</sup>. Nevertheless, this bizarre animal has not formally been described up to this point. In earlier publications<sup>5-7</sup>, *Y. elegans* was informally referred to as “*Wangyuia chengjiangensis* Jin et al. 2004”, but the genus name was found to be preoccupied by a Silurian orthid<sup>8</sup>; “*Wangyuia chengjiangensis*” has never been formally established and therefore represents a *nomen nudum*.



**Figure S1. a**, map showing localities where *Yuganotheca elegans* gen. et sp. nov. has been collected. **b**, stratigraphic column showing the mud-rich deposits yielding the Chengjiang fauna including *Y. elegans* in the Jianshan section at Haikou, Kunming, China. The map image and stratigraphic column was created using CorelDraw 9.0 and converted to TIF format by Z. Zhang.