



**Figure S1.** The collection sites of three *Sinocyclocheilus* species in this study. ★: Sg (*S. grahami*), ▲: Sr (*S. rhinoceros*), ●: Sa (*S. anshuiensis*). The shaded area (about 270,000 km<sup>2</sup>) shows the entire distribution of the genus *Sinocyclocheilus* according to [1].