

Supplementary Dataset 1. List of carapace and cheliped measurements, gender, and handedness for 415 (374 measured) specimens of fossil †*Uca* aff. *U. ornata* from Bahia Bique, Panama. Measurements in mm. Analysis of size and shape of carapace and asymmetry of eye orbits (Fig. 6).

Supplementary Dataset 2. NEXUS file of the character dataset for 78 adult morphological characters scored for 14 fiddler crab terminals included in the phylogenetic analysis. Base character list modified from Domínguez Alonso (2008), which was modified after Rosenberg (2001).