A new species of freshwater crab of the genus Qianguimon Huang, 2018 (Decapoda: Brachyura: Potamidae) from Guangxi, Southern China (#45664)

Basic Reporting

Clear and unambiguous, professional English used throughout.

The article must be written in English and must use clear, unambiguous, technically correct text. The article must conform to professional standards of courtesy and expression.

Almost no comments, good quality.

42 China is the global center (cenre) of freshwater …

113 Material examined. Holotype: male (21.3 × space 18.2 mm) …

117 (NCU MCP 415703), 2 males (18.7 × 16.0 mm, 20.3 mm × 16.6 space mm) …

Literature references, sufficient field background/context provided.

The article should include sufficient introduction and background to demonstrate how the work fits into the broader field of knowledge. Relevant prior literature should be appropriately referenced.

Missing references to evolution models. GTR (Tavaré 1986) and HKY (Hagesawa et al. 1985)

Missing publication references for the GB sequences in table 2.

Professional article structure, figures, tables. Raw data shared.

The structure of the article should conform to an acceptable format of 'standard sections' (see our Instructions for Authors for our suggested format). Significant departures in structure should be made only if they significantly improve clarity or conform to a discipline-specific custom.

Figures should be relevant to the content of the article, of sufficient resolution, and appropriately described and labeled.

All appropriate raw data have been made available in accordance with our Data Sharing policy.

FIg. 4:

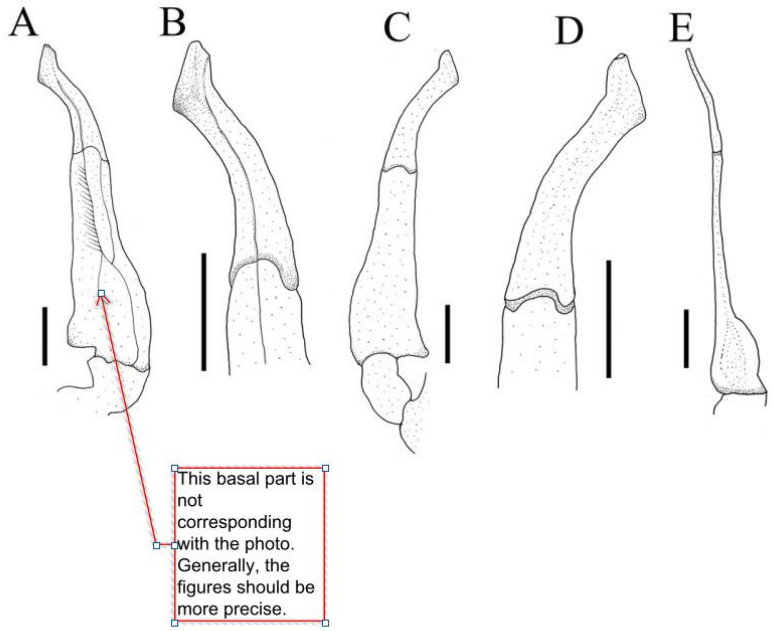

Fig. 5:

The left G1s of the five species of *Qianguimon*.

(A) *Q. yuzhouense* n. sp., NCU MCP 415701; (B) *Q. rongxianense* Wang, Huang & Zou, 2019, NCU MCP 118401; (C) *Q. aflagellum*, Huang, 2018, SYSBM 0014033; (D) *Q. elongatum*, Huang, 2018, SYSBM 001421 dorsal view of the terminal segment of right G1; (E) *Q.splendidum*, Huang, 2018, SYSBM 001597. Photo credit: Chao Huang.

Scales are misssing

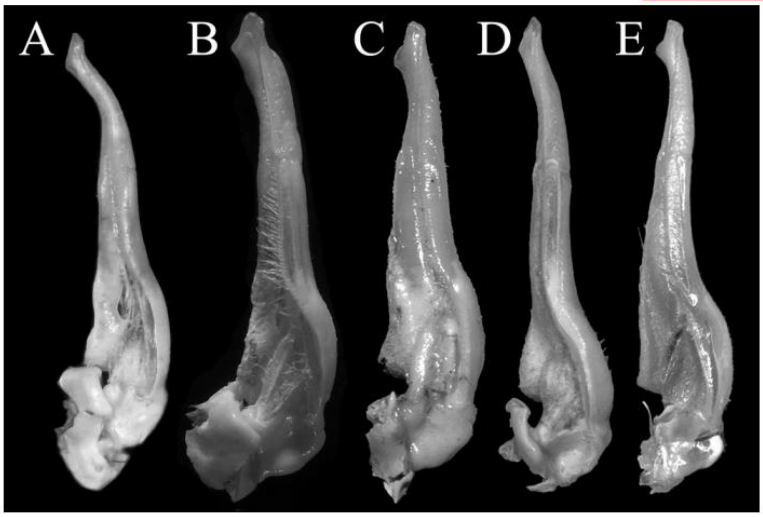

Table 2: The landscape orientation should be much better.

Self-contained with relevant results to hypotheses.

The submission should be 'self-contained,' should represent an appropriate 'unit of publication', and should include all results relevant to the hypothesis.

Coherent bodies of work should not be inappropriately subdivided merely to increase publication count.

No comments.

Experimental design and Validity of the Findings

The methodology is clear and confirms the hypothesis by morphology comparison and molecular analysis. There is surely the new congener for four valid species of *Qianguimon* genus.

I mean the robust phylogenetic tree is needless in this case. Especially when it is based on one (relatively short) genetic marker. The basal supports for *Qianguimon* and the other relative genera are low or missing and their position has no informative character. The tree should be maybe collapsed with visible branches with the support over 50 only.

The Qianguimon clade also points on the possibility of the existence of three isolated genera (not discussed). The genetic comparison of new species with Qianguimon congeners and some relative genera represented by more species should be much better.

I suggest to substitute or add the reduced phylogeny analysis.

Summary

The authors provided the MS of very good quality. The description fulfils the requirements of scientific standards. The language, structure, morphological and molecular data are on a very good level. There are a few typographical errors and some references missing. My personal opinion is that for some improvement of the study is necessary:

1) editing the G1 figures

2) reduce the genetic dataset to provide the more clear phylogenetic tree with the position of new taxa among the relative species and genera.

I suggest accepting the MS after minor changes.

Milan Koch