

Review of: "Study of four families of the suborder Brachycera (Insecta: Diptera)"

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Potential competing interests: No potential competing interests to declare.

Paper review

Dear author,

This study provides an interesting account of the dipteran families Asteiidae, Lauxaniidae, Mydidae, and Neriidae. However, I found a lot of issues regarding the methodology and the analysis of results, which I am including here. The work should also be proofread again to address consistency and scientific accuracy issues. I also recommend that an English-speaking proofreader is consulted, as there are a large number of grammatical errors in your text, which were too many for me to address, although I did point out as many as I could find.

I believe that, unless these issues are addressed, the article is not yet fit for publication.

I wish you the best of luck.

1. Introduction: para 1, sentence 1:

Aren't hindwings in Diptera called balancers or halters? If yes, why not use the technical term?

Introduction, para 3, sentence 2:

Would it be relevant to add that they act as "enemies" by acting as parasitoids of some agriculturally important species?

2. Methods: para 1, sentence 1:

"In terms of the type of research source, we worked with scientific articles published in national and international journals"

This sentence is NOT clear! What did you get from these articles? And how did you use the material obtained? A more detailed explanation is required in order for the reader to follow how the research was carried out and what findings were obtained.

2. Methods: para 1, sentences 2 and 3:

This sentence is repeated word for word in the abstract. There are other sentences which are also repeated. Can the abstract be reworded to say the same thing but in a different way?

3. Family Asteiidae, para 1, sentence 3:

The “’s” of the possessive case is usually used only when referring to persons. It is better to reword the phrase *Fiji’s known fauna*” to “*the known fauna of Fiji*”.

3.1 Description para 1, sentence 1

The phrase “*They are very small, 2 mm or more, and inconspicuous flies ...*” should be changed to “*These are very small, inconspicuous species, usually measuring around 2mm or slightly more ...*”.

3.1 Description para 1, sentence 2

The sentence “*A similar, but not identical, feature is found in some Chloropidae*” needs elaborating on. How is this feature different in Chloropidae?

3.2 Biology, para 1, sentence 2

“*At these sites, one can easily capture the adults withthe vacuum cleaner.*” Change “the” to “a”.

3.3 Taxonomy, para 1, sentence 1

“*There are only 2 genera and 8 species reported for Costa Rica (antenna, expanse, and spinosa).*” This sentence does not make sense – do the words “antenna,” “expanse,” and “spinosa” refer to genus names? If yes, they should be italicised. If no, are these three words referring to features that distinguish between the mentioned genera? Also, numbers smaller than 10 should be written as words - so “eight,” not “8.”

4. Selected manuscripts

There is a big inconsistency here! If section 3 discusses a dipteran family, then all other family descriptions should follow. What is the link between sections 3 and 4? Do the species described in section 4 belong to the family Aestidae? None of these questions can be answered from this manuscript. Also, if the section is entitled “selected manuscripts,” how were these manuscripts selected? Surely others on the same subject exist. Why were those not chosen?

Moreover, if this section 4 speaks about works that describe the Aestidae, then the findings should be included as a **subsection** under this family. As it is, the data is very disorganized and unclear. The same applies for sections 6, 8, and 10.

4.1 Study 1

It is not clear what was done in study 1. Were these species described in the first paper? This should be made clear, as readers cannot follow exactly, so this jeopardizes the validity of the findings. An explanation of the method following study 1 is required in the Methods section.

4.2 Study 2, para 1, sentence 1

“A parasitological examination of sturgeons of the family at the external examination of an Amur sturgeon *Acipenser schrenckii* Brandt, 1869 (Pisces: Acipenseriformes; Acipenseridae) with a body length of 40 cm by Smith a small wound closed with skin was found on the ventral side of the body at the base of the 8th scute of the ventral row.” This is a long-winded sentence with an unclear meaning. Split it into shorter sentences, each mentioning a SINGLE point. The phrase “... with a body length of 40 cm by Smith ...” is SO confusing! Was the author of the study Smith? If yes, separate the author from the insect size. Split this into 3 sentences – one stating what the study involved and who the author was, the second stating the size of the specimens, and the third about the issue of the wound.

4.2 Study 2, para 3, sentences 1 and 2; para 4

Change “larvae’s ability” to “The ability of the larvae”. Also, in sentence 2, you mentioned “corps”; do you mean “corpses”? Lastly, para 4, sentence 1, should be added to para 3 as it speaks about the same issue. Para 4 should start with the sentence “*The Asteiidae Family includes...*”

4.2 Study, 2 Para 4, sentence 3

Change “*These are minute to small 1.0-3.0mm ...*” to “*These are minutes to small species measuring between 1.0-3.0mm in length ...*”.

The rest of the paragraph needs checking of punctuation and adding of articles to complete some sentences.

5. Familia Lauxaniidae (If the manuscript is in English, it should be translated to *Family Lauxaniidae*) para 1, sentences 1 and 3

“*The Lauxanioidea are a superfamily of flies that includes the two large families, the Lauxaniidae and Chamaemyiidae, and the small family Celyphidae.*” This sentence is not consistent with the section title. If the title refers to the family, then the argument of the topic should be the family. Reword the sentence as follows: “*The large family Lauxaniidae, together with another large family, the Chamaemyiidae, and a smaller family Celyphidae, belong under the superfamily Lauxanoidea.*”

Reword “*The family Celyphidae looks like beetles*” to “*Species belonging to the family Celyphidae typically look like beetles*”.

5.1 Description, para 1, sentence 1:

Reword “... small to medium in size, 1.5 to 8.0 mm” to “... small to medium in size, measuring between 1.5 to 8.0 mm in length”.

5.2 Biology, para 1, sentences 1 and 4

Change “*Adult Lauxiniidae is sedentary and like shaded places*” to “*Adult Lauxiniidae are sedentary and like shaded places*”.

“Many adults are scraper fungi found on leaves”. Explain the term “scraper fungi.”

Paras. 3 and 4 discuss overlapping issues concerning feeding modes in larvae. Merge into one paragraph and reword to remove any redundancies.

5.3 Biological cycle: Para 1, sentence 1

If the duration of the life cycle is described for the Nearctic region, it should be compared to that in the Palaearctic region if such species occur within this region. If not, then delete the phrase “in the Nearctic Region”.

5.4 Habitat and distribution Geographic (should read “*Habitat and Geographical Distribution*”). Revise all similar subheadings for other families), para 2, sentence 1.

“*The Lauxiniidae with distribution in all the main biogeographical regions of the world*” The sentence is written in bad English and is not clear. Does it mean “*The Lauxaniidae have been recorded in all biogeographical regions of the world*”?

5.5 Taxonomy: para 1, sentence 1

Reword “*The family of Acalyptate dipterans, Lauxaniidae, is one of the largest of the division Schizophora*” to “*The family Lauxaniidae is one of the largest of the division Schizophora amongst Acalyptate dipteran families*”.

6. Selected Studies

I cannot understand the difference between sections 4 and 6 (which should have the same title – either “*selected studies*” or “*selected manuscripts*”). Any methodological descriptions in these sections should have been included in the “methods,” and only the findings and perhaps trends included here. See further notes on a similar section under section 4.

7. Family Mydidae: Para 1, sentence 3

Reword “*These are dipterans medium to large size 9 – 60 mm*” to “*These are medium to large dipteran species measuring 9 – 60 mm in length*”.

7.1 Description

Whenever referring to body segments, e.g., terga, the numbers of the segments should be IN LATIN, e.g., Tergum IX, NOT tergum 9.

7.2 Biology, para 1, sentence 2

“The measured ones move quickly over the sand, running backward so easily like forwards, and they are fast fliers.” What species/ specimens are you referring to? It is not clear. And if these measurements were taken from literature, this must be cited!

8: The following studies were selected

1. Subheading consistency with other similar sections is needed.
2. See notes on section 4 regarding these sections.

9.1 Nerioidea is a superfamily of Acalyptratae flies

Other similar sections were named “description.” This is not consistent and can be confusing to the reader. Perhaps this subheading (which can, in fact, be included in the main text) can be omitted, and section 9.2 renamed as 9.1.

10. Manuscripts selected

See notes on previous similar sections. Please revise your English. E.g., The expression *Entomology forensic*” should read “*Forensic Entomology*.”

11. Conclusion

It is NOT clear how the conclusions regarding the feeding modes of the larvae/adults of different families were reached, particularly to readers who are not experts in Diptera (most readers would NOT, in fact, be dipteran experts). Also, no proper explanation of the trends found in the literature was given, only a mere list of the individual findings which, at times, was too brief or not clearly explained.

Moreover, when conducting taxonomic studies and revisions, dichotomous or other forms of keys are usually constructed to show clear differences between the species, genera, or at least families. No such exercise was conducted here.

Another issue lies in the fact that in the abstract and methods you claimed that *Considering only this section constitutes a limitation of the study since articles belonging to journals that integrate other sections of the electronic library could also contribute to the discussion of knowledge production and the writing of interpretative syntheses of each of them.*” This limitation is a **crucial** aspect in the validity of your findings and must be discussed somewhere.

The lack of discussion of the findings and the absence of keys make this study non-reader-friendly and also rather superficial. I strongly advise in favour of the addition of these sections in your work.