

# Review of: "Food and Feeding of Atlantic Mudskipper *Periophthalmus Barbarus* in Ogbo-Okolo Mangrove Forest of Santa Barbara River, Bayelsa State Niger Delta, Nigeria"

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Potential competing interests: No potential competing interests to declare.

The work is interesting; however, major correction is needed.

The text needs to be revised. It has repetitions of phrases and confusing sentences. Species names must be uniform throughout the text (not all are in italics); the first time the species is mentioned, it should come with the scientific name authority.

In the title, or in the introduction, the first time the species is referred to, it should indicate the order and the family, or just the family (e.g., *Periophthalmus barbarus* (Linnaeus, 1766) (Gobiiformes: Gobiidae). See

<https://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> or

<https://www.marinespecies.org/aphia.php?p=taxdetails&id=277973> to verify correct taxonomy!

## Step by step

### Abstract:

There is too much information; it is not necessary to include all the results, just the main ones (e.g., what are the most important items).

### Introduction:

Information on the etymology of the species is completely unnecessary for the work in question. Also, information like "... their eyes are adapted closely together and can move independently of about 360 degrees, their eyes are also positioned further up on the head, enabling the eyes to remain above the water surface while their body is submerged underwater (Ansari et al., 2014). Cup-like structures that hold water are located beneath the eye which aids in lubricating the eyes when it is on land." is completely unnecessary to study the feeding ecology of the species.

The *Periophthalmus* genus includes 19 species, not 12 (<https://www.marinespecies.org/aphia.php?p=taxdetails&id=205192>)

All this information could be replaced by something more appropriate to the work, like: a) what other similar species exist in the area; b) other food ecology work carried out in the same region and with similar species.

### Materials and Methods, Sample collection:

Why the use of that fishing technique (should come in the discussion)? Why the use of that bait (should come up in the discussion)? Why did you weigh the contents and did not use this information to calculate the importance in weight (weight of the contents in relation to the weight of the fish)? Why 350 specimens? Is this number sufficient to characterize the species' diet? Would more specimens be needed? A species accumulation curve will be necessary to validate that number of fishes (should be addressed in the discussion).

### Results:

Table 1 - is presented, as food items, Crustacean appendages, Crustacean gills and eggs, other crustacean parts; and the same for fish scales, fish eggs and gills, I ask what is the reason for this? What is the guarantee that the fish scales found in the stomachs did not originate from the ingested fish? Or they ingest scales separately. If, for example, 10 fish scales are counted, how many fish does this correspond to? 10, 3, 1.... what is the digestive capacity of the species, is it able to digest fish scales? How long have these scales been on your stomach?

The same for crustaceans and items classified as crustacean appendages and other crustacean parts; Didn't these originate from ingested crustaceans? Or was it possible to identify them as belonging to other species?

Unless you can guarantee that the origin of these crustacean parts or fish scales came from a previous meal, they cannot be considered for analysis.

The same for the data presented in table 2!

### Discussion:

"The stomach content of 350 specimens of Atlantic mudskippers *Periophthalmus barbarus* generally showed twenty-two (22) items of food using the frequency of occurrence method." The frequency of occurrence method is not used to show the number of food items consumed, but rather the frequency with which they are ingested. The number of items is shown by the numerical abundance method.

Results should not be repeated/included in the discussion. The main results can and should be highlighted, with the respective reasons / hypotheses regarding how they were obtained.

It is not necessary to present the results of other studies. Just highlight the similarities and differences between this study and others and discuss the possible reasons for the differences.

I don't think it's appropriate to compare this with a study on the diet of the species *Epinephelus aeneus*. This species has very different characteristics from the species studied here.

### References:

The formatting of bibliographic references is not uniform. They need revision.