Qeios

Peer Review

Review of: "Feeding Ecology and Activity Rhythms of the Critically Endangered Hawksbill Turtle"

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Abstract

Might be helpful to state what type of camera was used

Habitat sampling revealed potential prey from six distinct families. Video recordings (selected prey) and habitat samples (potential prey) were compared to indicate prey selection. Aplysinidae was the most frequently observed family both as consumed and as potential prey. Aplysinidae and Irciniidae, both marine sponge families, represent new records in the hawksbill diet.

- I would re-write this section slightly. The first sentence listed is more results, and the second sentence follows more with methods. It might be as simple as just switching those two sentences

I would like to see more results in the abstract. Spongin content and brominated metabolites are proposed among the plausible factors. But why? Did your research reveal something to point to these factors?

Introduction

The first citation is a National Geographic article, but in the literature cited, there is no link to access the article. Also, could another article be used here, possibly a peer-reviewed journal article?

The hawksbill's worldwide population has decreased by 90% in the last century due to numerous threats such as residential and commercial development, overexploitation, pollution, energy production and mining, human intrusions and disturbance, bycatch, illegal trade, habitat destruction, and climate change

- The above sentence just links to the IUCN Red List web page, which does list various articles in its bibliography. I would find it more useful for the authors to list which citations refer to which factor. As a fellow researcher, this helps your reader key in on other papers that might be of significance for their work

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One of a large population of hawksbills can be found in the Caribbean, namely in the French West Indies, which constitute preferential distribution areas for hawksbills[9][7].

- Delete “one of” to start this sentence

In the French West Indies, local wildlife management, conservation structures, and a national action plan recommended studying the importance of feeding sites for hawksbills to determine the dynamics of the population and to identify the threats they face.

- Please cite the national action plan or any other relevant reports

In contrast, females undertake long-distance migrations between their nesting and foraging grounds, using specific feeding strategies to compensate for the energy costs of reproduction[26].

- The citation here is for leatherback sea turtles. It is confusing because you mention females in this sentence, so the reader assumes you mean female hawksbill turtles. Are there any citations related to hawksbills you could use?

Their population decline may have far-reaching ecological consequences, as reduced grazing allows palatable sponges—e.g., chemically defended sponges using secondary metabolites to protect themselves from predators, competitors, or pathogens[29]—and macroalgae to proliferate, outcompeting corals[2][3].

- Change i.e. to e.g. because you are providing examples of something. Also, start the sentence with hawksbill decline, because “their” could be referring to the last noun written: coral, marine sponges, or macroalgae

This shift limits coral and gorgonian, i.e., soft coral, recovery and undermines reef structure.

- Change i.e. to e.g.

Figure 1

- The top of the figure is not always clear. I see a plastic bag floating in the water, but is a turtle also stuck in a bag?
- In the bottom section, is the trash can supposed to represent more trash in the water?

Since the 1980s, researchers have studied hawksbills′ feeding ecology using techniques such as esophageal lavage, direct observation, fecal examination, stable isotope analysis (SIA), and video recordings[37]

- Change “started studying” to “have studied” to agree with the “Since” at the start of the sentence

However, this technique poses several challenges, including restricted study site access, limited underwater visibility, scuba-related depth constraints, and the problem of pseudo-replication due to unmarked individuals[39][38][38].

- This section seems to follow that it is difficult to observe hawksbills′ feeding ecology because they can

dive. However, citation 39 refers to toothed whales. While similar limitations are present, are there any citations specifically for turtles? Or can this be phrased to state the limitations persist across air-breathing marine organisms? Also, citation 38 is listed twice

It would be helpful to clearly list your study objectives before the methods section

Material and Methods

Time budget

Diet composition

Prey selection

Results

Capture and tag deployment

Table 1. Morphological data collected from each studied individual hawksbill (n=8)

- Is there a reason no CCW or Tail measurements were taken/provided for deployment #1

Diet composition

The number of bites considered in the diet assessment was 3,434 over 74 hours and 45 minutes of recordings, of which 39 hours and 52 minutes of sequences with feeding activity were extracted and analyzed.

- Make this your first sentence of this paragraph

From those 3,434 bites, 15% (n=531) involved Porifera. Twenty percent were categorized by the prey family (Fig. 13). Sixty-five percent (n=2,235) were noted in the category Unknown.

- There is no Figure 13
- Provide the n=___ for the “prey family”

Prey selection

Just for clarification, list that these were from your diver surveys

Figure 5

List the species seen in your transects as potential prey instead of “preys”

Discussion

No comments, well written and researched. Overall, a very important and timely addition to the literature regarding sea turtle diets.

Declarations

Potential competing interests: No potential competing interests to declare.