

The manuscript entitled: “Validating a non-invasive method for assessing cortisol concentrations in scraped epidermal skin from bottlenose dolphins and beluga whales”, by Agusti et al., investigates the ability to measure cortisol with a commercially available EIA kit in the sloughed skin of bottlenose dolphins and beluga whales. Overall, the paper is well thought out and well written and lays the foundation for further work with this technique to assess physiological status. The following minor edits and addressing the following queries will help to improve the manuscript.

Simple Summary:

Line 12: add the word “professional” before human care

Line 13: change “gentle” to “non-invasive”

Line 14: suggest to not use the word “stress” but “to study the response to stressors in these animals”.....

Line 19: delete “on” and “from”

Abstract:

Line 23: Suggest to change to “Society is showing a growing concern....”; delete “kept” and add “as well as cetaceans in the wild threatened by”.

Line 38: Last sentence – to what end? Why significant to advance standardizing skin hormone assessments in cetaceans? Need strong summary statement.

Introduction: Well done!

Methods:

Suggest to show the instrument (i.e. plastic card) as Figure 1a) and current figure 1 and Figure 1b). Or need more description on the plastic card- is it a playing card from a deck of cards? What exactly is it if someone wanted to carry skin collection out? Where does one get it from?

When the card is being used, isn't it only dead skin coming off? How deep are you able to go? Please clarify.

Line 164: Delete “A” and start sentence with “New”

Line 166: insert “The” before the word “skin”

Was the skin frozen placed on ice or dry ice before taken to the lab? Clarify.

Line 233: It is not clear how many EIA kits were tried? It says multiple but it looks like only one is listed? Please clarify. “by using a competitive EIA Kit”

Results:

Line 284- delete “the” before 71.74%

Line 293- delete “the” before 94.87%

Discussion:

Line 360- Again need better description of “semi-rigid plastic card”

Line 378- delete “with”

What about discussion on sloughing of skin annually for beluga whales? What about seasonal differences? Please clarify.

Line 407- change to “economical”

Line 409- change to “researchers studying wildlife”

Lines 414-416- This is confusing. Please clarify.

Line 424- Change “have” to “has”

Why would cortisol be higher is smaller sample sizes of skin? Please clarify. Your suggestion is just to measure the same amount of skin each time?

Line 482- delete “the” before passive

Line 547- change from “Stressors” to “Stressor”

Line 548- change to “should be recorded as accurately as possible”

Line 571- What to you mean by the sentence in Lines 570-571? “However.....confusion”.