



Dear Karine Delord,

Your article, entitled **The challenges of independence: ontogeny of at-sea behaviour in a long-lived seabird**, has now been reviewed.

The referees' comments and the recommender's decision are shown below. As you can see, the recommender found your article very interesting but suggests certain revisions.

We shall, in principle, be happy to recommend your article as soon as it has been revised in response to the points raised by the referees.

When revising your article, we remind you that your article must contain the following sections (see our Guide for Authors in the Help section of the PCIEcology website):

1) **Data, script and code availability (if applicable)**

- **Data, statistical scripts, command lines and simulation code must be made available to readers.** They should either be included in the article or deposited in an open repository such as Zenodo **with a DOI**. A perennial URL can be provided if no DOI is available; please note that GitHub URL are not perennial.
- **If deposited in** an open repository, a reference to **Data, statistical scripts, command lines and simulation code**, with a DOI or a perennial URL, must be provided in the reference list and in the "Data, script and code availability" section
- The "Data, script and code availability" section must clearly indicate **where and how** data can be accessed.
- Wherever possible, data, scripts and code should be provided in machine-readable formats. Avoid PDFs other than for textual supplementary information.
- Metadata should accompany the data, to make the data understandable and reusable by the reader.

2) **Supplementary information (if applicable)**

- Supplementary information (text, tables, figures, videos, etc.) can be referred to in the article. It must be available in an open repository (such as Zenodo, Dryad, OSF,

Figshare, Morphobank, Morphosource, Github, MorphoMuseum, Phenome10k, etc. or any institutional repository, etc...) with a DOI. A perennial URL can be provided if no DOI is available.

- A reference to the supplementary information, with a DOI or a perennial URL, must be provided in the reference list and in the "Supplementary information" section.
- List all documents attached to the manuscript as Supplementary Information in the "Supplementary Information" section.

3) Funding (mandatory)

- All sources of funding must be listed in a separate "Funding section". The absence of funding must be clearly indicated in this section.

4) Conflict of interest disclosure (mandatory)

- Authors should declare any potential non-financial conflict of interest (financial conflicts of interest are forbidden, see [the PCI code of conduct](#)).
- In the absence of competing interests, the authors should add the following sentence to the "Conflict of interest disclosure" section: "The authors declare they have no conflict of interest relating to the content of this article." If appropriate, this disclosure may be completed by a sentence indicating that some of the authors are PCI recommenders: "XXX is a recommender for PCI XX."

5) Materials and methods (mandatory)

- Details of experimental procedures and quantitative analyses must be made **fully available** to readers, in the text, as appendices, or as Supplementary Information deposited in an open repository, such as Zenodo, Dryad or institutional repositories with a DOI.
- For specimen-based studies, **complete repository information** should be provided and institutional abbreviations should be listed in a dedicated subsection (if applicable). Specimens on which conclusions are based **must be deposited in an accessible and permanent repository**.

When your revised article is ready, please:

1) Upload the new version of your manuscript onto your favorite open archive and **wait until it appears online**;

2) Follow this link https://ecology.peercommunityin.org/user/my_articles or logging onto the PCI Ecology website and go to 'For Contributors -> Your submitted preprints' in the top menu and **click on the blue 'VIEW/EDIT' button at the right end of the line** referring to the preprint in question.

3) Click on the black 'EDIT YOUR ARTICLE DATA' button (mandatory step). You can then edit the title, authors, DOI, abstract, keywords, disciplines, and DOI/URL of data, scripts and code. Do not forget to save your modifications by clicking on the green button.

4) Click on the blue 'EDIT YOUR REPLY TO THE RECOMMENDER' button (mandatory step). You could then write or paste your text, upload your reply as a PDF file, and upload a document with the modifications marked in TrackChange mode. If you are submitting the final formatted version ready to be recommended, you should only add a sentence indicating that you posted the final version on the preprint server. Do not forget to **save your modifications by clicking on the green button**.

5) Click on the green 'SEND RESUBMISSION' button. This will result in your submission being sent to the recommender.

Once the recommender has read the revised version, they may decide to recommend it directly, in which case the editorial correspondence (reviews, recommender's decisions, authors' replies) and a recommendation text will be published by PCIEcology under the license CC-BY.

Alternatively, other rounds of reviews may be needed before the recommender reaches a favorable conclusion. They may also reject your article, in which case the reviews and decision will be sent to you, but they will not be published or publicly released by PCIEcology. They will be safely stored in our database, to which only the Managing Board has access. You will be notified by e-mail at each stage in the procedure.

We thank you in advance for submitting your revised version.

Yours sincerely,

The Managing Board of PCIEcology



The challenges of independence: ontogeny of at-sea behaviour in a long-lived seabird

Karine Delord, Henri Weimerskirch, Christophe Barbraud

<https://doi.org/10.1101/2021.10.23.465439> version 5

Submitted by Karine Delord 26 Oct 2021 07:51

Abstract

The transition to independent foraging represents an important developmental stage in the life cycle of most vertebrate animals. Juveniles differ from adults in various life history traits and tend to survive less well than adults in most long-lived animals. Several hypotheses have been proposed to explain higher mortality including that of inadequate/inferior foraging skills compared to adults, young naïve individuals combining lack of experience and physical

immaturity. Thus a change in behaviour, resulting in an improvement of skills acquired from growing experience, is expected to occur during a period of learning through the immaturity phase. Very few studies have investigated the ontogeny of foraging behaviour over long periods of time, particularly in long-lived pelagic seabirds, due to the difficulty of obtaining individual tracking data over several years. We investigated the foraging behaviour, through activity patterns, during the three life stages of the endangered Amsterdam albatross by using miniaturized activity loggers on naïve juveniles, immatures and adults. Naïve juveniles during their first month at sea after leaving their colony exhibited lower foraging effort (greater proportion of time spent sitting on water, longer and more numerous bouts on water, shorter and fewer flying bouts). Patterns of activity parameters in juveniles after independence suggested a progressive change of foraging performances during the first two months after fledging. We found sex differences in activity parameters according to time since departure from the colony and month of the year, consistent with the important sexual dimorphism in the Amsterdam albatross. Regardless of life stage considered, activity parameters exhibited temporal variability reflecting the modulation of foraging behaviour. This variability is discussed in light of both extrinsic (i.e. environmental conditions such as variability in food resources or in wind) and intrinsic (i.e. energetic demands linked to plumage renew during moult) factors.

Keywords: activity data loggers; foraging behaviour; southern Indian Ocean; Amsterdam albatross; Diomedea amsterdamensis

Round #4

by Blandine Doligez, 02 Oct 2023 15:20

Manuscript: <https://doi.org/10.1101/2021.10.23.465439> version 5

Very minor revision

Dear authors,

Thank you for carefully editing the last version with the corrections suggested. I have still spotted a few additional ones that would need to be dealt with before final recommendation is made (as no further changes can be done later on). This should however be done very quickly... Sorry for the additional delay but this time it should be the last!

R: thank you for your careful checking of the manuscript. All the corrections suggest have been addressed in the revised version

Here are the edits needed:

I. 114-119: the separators need adjustment: the sentence should read as:

These included temporal (i.e. related to the month of the year) changes in activity parameters for all life-stages due (i) to environmental changes occurring throughout the seasons, (ii) to partial moulting which is suspected to occur outside the breeding period and to result in reduced activity for adults and immatures (i.e. more time 115 spent on the water; Weimerskirch et al. 2015, 2020), or (iii) to sex differences in flight performances (Shaffer 116 et al. 2001; Riotte-Lambert and Weimerskirch 2013; Clay et al. 2020).

R: this was changed accordingly

There are still a number of places where the double parentheses should be removed when a reference appears in a section that is already in parentheses (e.g. I. 66, I. 219). In these cases, the parentheses around the reference should be dropped. In the same way, I. 879, parentheses for the Smith reference should be around the year only.

R: following this comment double parentheses were removed throughout the ms in the revised version

Regarding the use of AICc: thanks for checking that results were unchanged with AICc instead of AIC. Thus I think there is no need to replace AIC by AICc in the ms. However, because readers may ask themselves the same question, I would simply add a short sentence to mention this clearly: "Using AICc to account for small sample sizes did not change model selection" (or something similar, when you mention AIC in methods, I. 238).

R: this was added in the revised version

I. 834: there is no Table S6 (?)

R: this was modified in the revised version

I. 252: I would delete the second "inter-individual variability"

R: this was deleted

I. 258: I would delete the second "variability"

R: this was deleted

I. 438: seems like permit number has been forgotten, but I am not sure whether this is compulsory (would be better to mention them I think).

R: we do not have a permit number for our project, but simply the fact that our demands are approved by the ethics committee

I. 348: add a "." after "sea"

R: this was added

I. 360: remove the “,” after “albatrosses”

R: this was removed

I. 428: add a “,” before “which”, and “which would still need” instead of “which still would need”

R: this was changed in the revised version

I. 490: remove the very first parenthesis (before i.e.)

R: this was removed

I. 491; replace “of” by “in”

R: this was modified