

 <p data-bbox="233 548 475 589">Agreement on the Conservation of Albatrosses and Petrels</p>	<p data-bbox="544 241 1386 338"><b>Twelfth Meeting of the Advisory Committee</b> <i>Virtual meeting, 31 August – 2 September 2021 (UTC+10)</i></p> <p data-bbox="572 414 1342 456"><b>Report of the Taxonomy Working Group</b></p> <p data-bbox="544 533 1374 660"><b><i>Taxonomy Working Group: Mark Tasker (convenor), Mike Brooke, Geoff Chambers, Mike Double, Peter Ryan, Paul Scofield, Alan Tennyson</i></b></p>
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## SUMMARY

A summary of progress by the Taxonomy Working Group is provided.

## RECOMMENDATIONS

The Taxonomy Working Group recommends that:

1. Advisory Committee members consider the nomination of additional experts to TWG.
2. Advisory Committee asks TWG to formally consider the taxonomy of Buller's and Short-tailed Albatrosses
3. Advisory Committee to take note of TWG's progress and to comment if required.

## 1. MEMBERSHIP

There have been no changes in membership since the eleventh meeting of the Advisory Committee. Geoff Chambers has continued to assist the Working Group on an ad hoc basis. The Taxonomy Working Group would be happy for further experts to be nominated.

## 2. TERMS OF REFERENCE

The Taxonomy Working Group was asked to carry out the following actions in the current (2019-21, extended to 2022) triennium.

1. Keep the Taxonomy Working Group's bibliographic database updated.
2. Continue the establishment of a morphometric and plumage database.

3. Maintain a database of site-specific information on the availability of samples relevant to studies of population genetics of ACAP species.
4. Consider taxonomic issues relating to species proposed for addition to Annex 1 of the Agreement.
5. Respond to queries on taxonomic issues relating to ACAP species, including maintenance of a species reference table with scientific and common names across multiple languages.

### **2.1. Bibliographic database**

There is not a separate ACAP bibliographic database for taxonomy issues, though all members have their own databases or access to resources. The Secretariat maintains a searchable database of references accessible via the data portal (<https://data.acap.aq>) that includes many relevant taxonomic sources. TWG has supplied suitable references to the Secretariat for uploading. TWG has considered how a very large bibliography developed by the late John Warham covering all albatrosses and petrels could be made available for ACAP use, but has yet to solve technical difficulties in translating to modern software.

### **2.2. Morphometric and plumage database**

A pilot database of samples from dead birds was established a few years ago using Australian information, but this database has not been developed further. TWG notes that if a central database of morphometrics were to be established, there would be a need to ensure standardisation of methods for conducting measurements as there is evidence of considerable variation between scientists carrying out such measurements. TWG agree that it would be very useful to have a catalogue of standardised images of known-age and sex birds from various populations, ideally tracking the same individuals over time, so that it might finally be possible make some headway on field identification of difficult taxa, for example *Diomedea dabbenena* and *D. antipodensis* in relation to *D. exulans*.

### **2.3. Genetic samples database**

Following a lack of progress on the issue in the past, PaCSWG decided at AC9 that ACAP should just produce a list of nodes/contact institutions that people could use to find samples/dead birds. This became Task 2.14 in the AC Work Programme. It is unclear to TWG if this task should be dropped from TWG's work given that it has been taken over by PaCSWG.

### **2.4. Additions to Annex 1**

There have been no proposals for Addition to Annex 1.

### **2.5. Queries on taxonomic issues**

Following the adoption of the IOC standard taxonomy by ACAP, TWG has followed developments published by the IOC (see [Petrels, albatrosses – IOC World Bird List \(worldbirdnames.org\)](http://worldbirdnames.org)).

The following changes have been considered since the start of 2018.

1. A proposed split of Whenua Hou Diving Petrel from South Georgia Diving Petrel *Pelecanoides georgicus* based primarily on slight phenotypic differences (Fischer et

- al. 2018). This proposal was not accepted at present and the taxon is being treated as a subspecies (*whenuahouensis*) of *georgicus* pending vocal and genetic diagnoses.
2. A proposed split of Pacific Fulmar from Northern Fulmar based primarily on deep mtDNA divergence and minor morphological differences was not accepted.
  3. The *Oceanodroma* storm petrels have been merged into Hydrobatidae.

### 3. OTHER ISSUES

#### 3.1. Buller's Albatross

Research on differences between the northern *Thalassarche bulleri platei* and southern *T. b. bulleri* forms of Buller's Albatross has now been published (Wold 2017, Wold *et al.* 2018, Wold *et al.* 2021). TWG recommends that it should be asked to review this issue, and to make a recommendation to the Advisory Committee.

#### 3.2. Short-tailed Albatross

A paper arguing for the separation of the two main breeding populations (Torishima and Senkaku Islands) of Short-tailed Albatross has been published (Eda *et al.* 2020). An initial view of TWG members is that there is insufficient evidence to separate two full species but may be enough to suggest sub-species. TWG recommends that it should be asked to review this issue, and to make a recommendation to the Advisory Committee.

#### 3.3. World Register of Marine Species (WoRMS)

This is a standard list of all marine taxa. The convenor of TWG is an editor of WoRMS for birds. The taxonomic nomenclature in WoRMS does not at present follow that of ACAP (or any other standard taxonomy – e.g. IOC) and requires considerable work to update. This is an issue for ACAP as other international organisations (e.g. CCAMLR) follow WoRMS taxonomy. It is the intention of the convenor to at least update the ACAP relevant species nomenclature in the near future.

### References

- Eda, M., Yamasaki, T., Izumi, H., Tomita, N., Konno, S., Konno, M., Murakami, H and Sato, F. 2020. Cryptic species in a Vulnerable seabird: short-tailed albatross consists of two species. *Endangered Species Research*, 43: 375-386. <https://doi.org/10.3354/esr01078>
- Fischer, J.H., Debski, I., Miskelly, C.M., Bost, C.A., Fromant, A., Tennyson, A.J.D., Tessler, J., Cole, R., Hiscock, J.H., Taylor, G.A., and Wittmer, H.U. 2018. Analyses of phenotypic differentiations among South Georgian Diving Petrel (*Pelecanoides georgicus*) populations reveal an undescribed and highly endangered species from New Zealand. *PLoS ONE* 13(6): e0197766. <https://doi.org/10.1371/journal.pone.0197766>
- Wold, J.R. 2017. Phylogenetic relationships, population connectivity, and the development of genetic assignment testing in Buller's albatross (*Thalassarche bulleri*). Thesis submitted to

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Wold, J.R., Robertson, C.J.R., Chambers, G.K. and Ritchie, P.A. 2018. Phylogeographic structure and a genetic assignment method for Buller's albatross ssp. (*Thalassarche bulleri* ssp.). *Notornis* 65: 152–163.

Wold, J.R., Robertson, C.J.R., Chambers, G.K., Van Stijn, T. and Ritchie, P.A. 2021. Genetic connectivity in allopatric seabirds: lack of inferred gene flow between Northern and Southern Buller's albatross populations (*Thalassarche bulleri* ssp.), *Emu - Austral Ornithology*. <https://doi.org/10.1080/01584197.2021.1894406>