 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p style="text-align: center;">Joint Twelfth Meeting of the Seabird Bycatch Working Group and Eighth Meeting of the Population and Conservation Status Working Group</p> <p style="text-align: right;"><i>Lima, Peru, 8 August 2024</i></p> <p style="text-align: center;">Habitat preferences of <i>Phoebetria</i> albatrosses in sympatry and allopatry</p> <p style="text-align: center;"><i>Lily K. Bentley, Richard A. Phillips, Tegan Carpenter- Kling, Rob J.M. Crawford, Richard J., Cuthbert, Karine Delord, Ben J. Dilley, Azwianewi B. Makhado, Peter I. Miller, Steffen Oppel, Pierre Pistorius, Peter G. Ryan, Stefan Schoombie, Henri Weimerskirch and Andrea Manica</i></p>
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Attachment: Bentley, L.K., Phillips, R.A., Carpenter-Kling, T., Crawford, R.J.M., Cuthbert, R.J., Delord, K., Dilley, B.J., Makhado, A.B., Miller, P.I., Oppel, S., Pistorius, P., Ryan, P.G., Schoombie, S., Weimerskirch, H. and Manica, A. in press. Habitat preferences of *Phoebetria* albatrosses in sympatry and allopatry. *Journal of Biogeography*.
<https://doi.org/10.1111/jbi.14966>

SUMMARY

Aim: Competition is often proposed to drive niche segregation along multiple axes in speciose communities. Understanding spatial partitioning of foraging areas is particularly important in species that are constrained to a central place. We present a natural experiment examining variation in habitat preferences of congeneric Southern Ocean predators in sympatry and allopatry. Our aim was to ascertain consistency of habitat preferences within species, and to test whether preferences changed in the presence of the congener. Location: Southern Hemisphere. Taxon: Multiple colonies of both species within the genus *Phoebetria* (sooty albatrosses). Methods: The two *Phoebetria* albatrosses breed on islands located from ~37–55°S – sooty albatrosses (*P. fusca*) in the north and light-mantled albatrosses (*P. palpebrata*) in the south – with sympatric overlap at locations ~46–49°S. We analysed GPS and PTT tracks from 87 individuals and multiple remotely sensed environmental variables using GAMs, to determine and compare the key factors influencing habitat preference for each species at each breeding colony. Results: While foraging habitat preferences are consistent in light-mantled albatrosses, there is divergence of preferences in sooty albatrosses depending on whether they are in sympatry with their congener or in allopatry. Main Conclusions: This study represents the most comprehensive work on this genus to date and highlights how habitat preferences and behavioural plasticity may influence species distributions under different competitive conditions.

Habitat preferences of Phoebetria albatrosses in sympatry and allopatry

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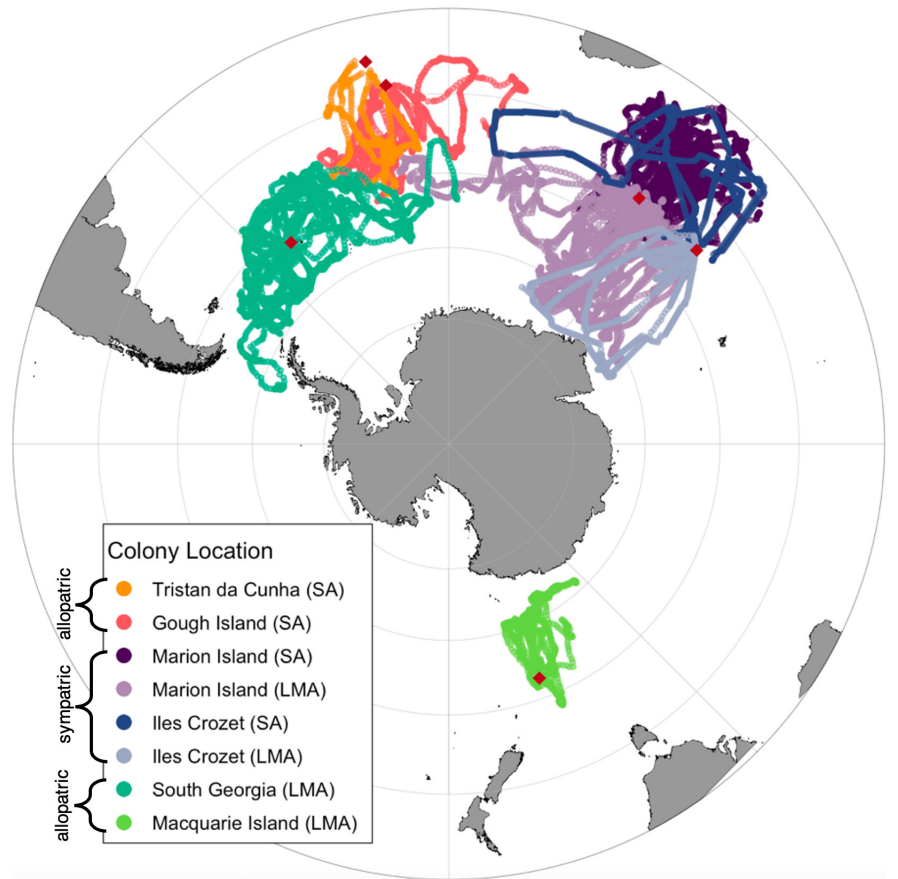
Funding information
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Abstract

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t#b|rou|-m|bmv;1b;#-u;1om|u-bm;7|o-1;m|u-tt1;};ru;#m|-m-|#-t
;#ub|;m|;#bmbm#ub-|bombm_0b|-|ru;#m1;#om}m;ub1b|um1;-m
ru;7-|ou#b#r-|u#m7-#r-|u#b-b|%#-#u|-bm1omb|y#m1o#b|-
ru;#m1;#bmv;1b;#-m7|o|;#%#ru;#m1;#-m}7bm|ru;#m1;
o#1om}m;u
Location: b|um|bvru;
Taxon: t|brt;1otombv o#o|vr;1bv #b#m |;#m# Phoebetria Pvoof
-t0-#ovvvQ
Methods: #%# Phoebetria-t0-#ovvv0u;7ombvt-m7vto1-7#o# #K
#P P. fuscaOm #mou#m7tb# l-m;7-t0-#ovvvP P. palpebrataQ
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#b#b#
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Results:)t|e#-#m|-0| ru#m1y -u;1omv#v|m| bm tb#J l-m|t7 -t0 -
|uow|;u;b7b;u}m1;#e#;#m1;#m#o|e0-|uow;r;m7bm#m#%#
|;#u;b#r-|u#b;#b1om}m;uoubm-#r-|u#
Main Conclusions: #v|7#ruyv#v|lov|1olrumv#u#hom|b#v|n#
|o7-|;m7b|b|vo%#-|ru#m1y-m7#b#o#-trt-v|b1b|t-bm#
;m1;#;1b;#b|ub0|bom#7;u7b#;m|1olr|b|b;1om7b|bomv

KEY WORDS
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|t|u7v;#u7v7b|um1;m

Table 1.



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 |u-1hv%e]m;u-|;7 0x-m7olb|bm|]_7;r-u|t; 7bu;1|bom
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 ruob7;7S±%o

TABLE 2 Jmbuomlm|-tt-uv7bm-0|-|lo7tveutb| l-m|t7-m7voo|tQuovv:

Table with 5 columns: Variable (units), Data source, Temporal scale, Spatial scale, and Relevance. It contains four rows of data detailing variables like 'v0=1|iru-|0P3fQ', 'a|u-7bmQ', '-|uPIQ', and '0|77hbm|b1;m;uQ'.

TABLE 3 J0br1-u-1|ubv|b1vo#b| l-m|t7-tQuovvPQm7voo|tQuovvPQ;1xu|u-1h7:

Table with 7 columns: Season, Breeding site, Species, n, Mean trip length (days), Mean distance travelled (km), and Mean max displacement (km). It lists data for various years from 2002 to 2017 across different breeding sites.

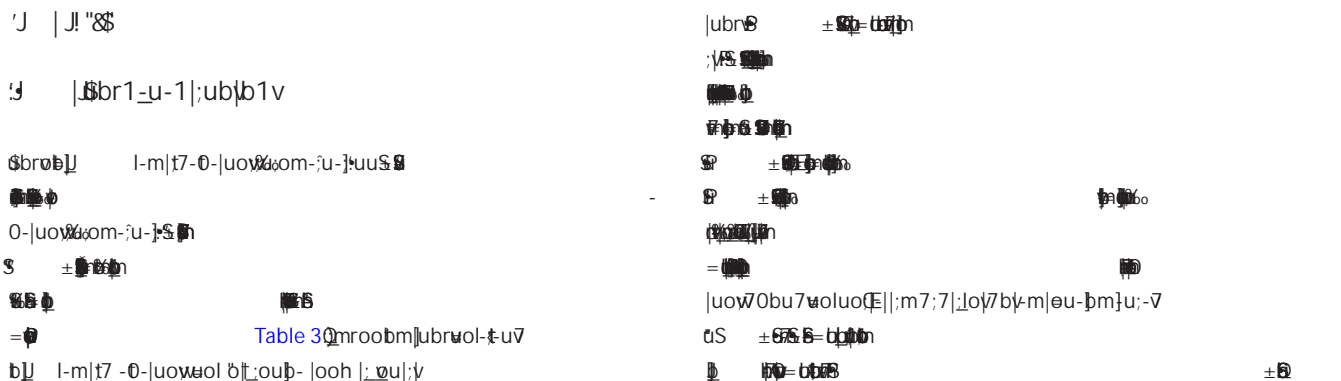
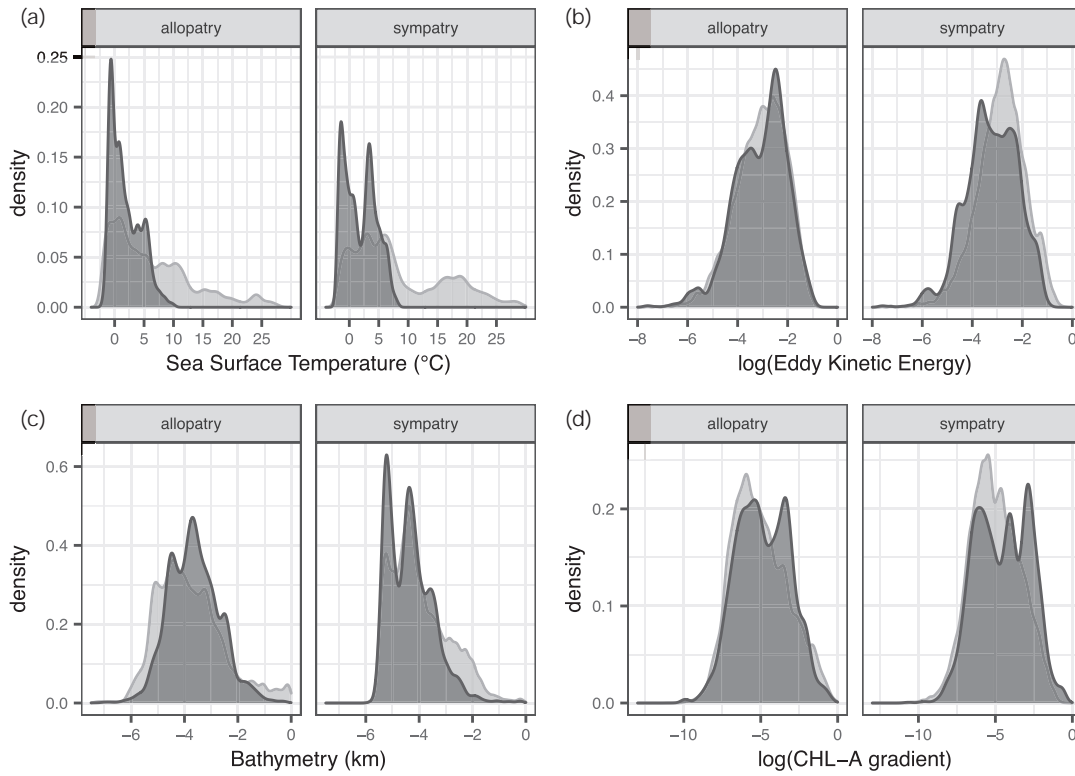


Table 3. Mean trip length, mean distance travelled and mean max displacement for different breeding sites and species across various years.

Light-mantled Albatross



Sooty Albatross

