

# World's longest-winged birds go easy on older partners

December 19 2022

---



Credit: Pixabay/CC0 Public Domain

A new study led by the University of Liverpool has found that wandering albatrosses with older partners spend less time on foraging trips than those with more sprightly partners so that their mate has a shorter wait

without food.

These enormous birds hold the record for the world's longest wingspan (3 meters on average) and can reach 50 years of age. Found gliding above the southern Indian and Antarctic Oceans, wandering albatrosses generally mate for life, breeding with the same [partner](#) every two years.

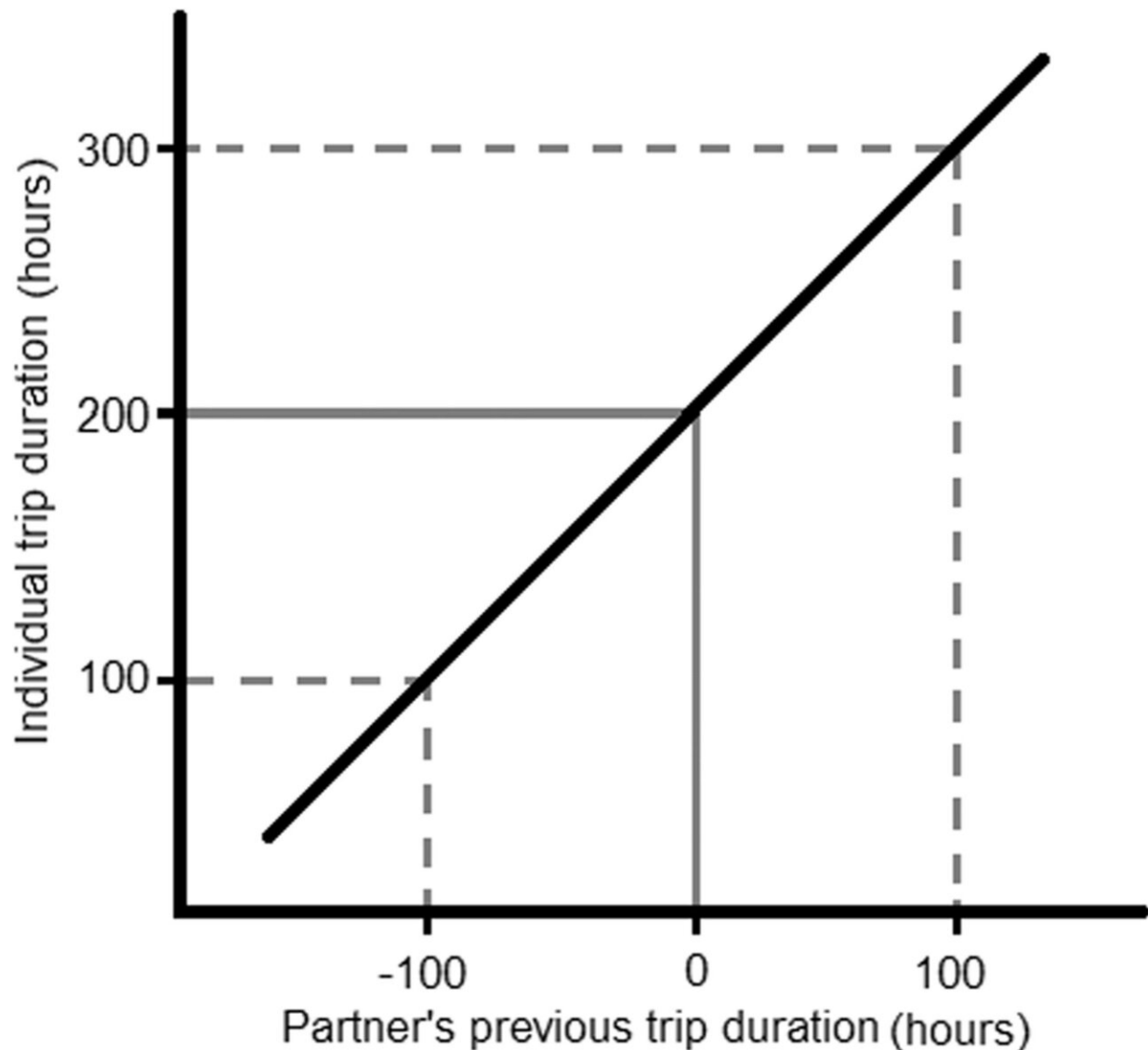
After the female lays her single egg, the [prospective parents](#) embark on one of the longest incubation periods amongst birds. They spend the next 78 days taking it in turns to incubate, while their mate goes to sea to feed.

These feeding trips last for around 12 days on average, during which time the nest-bound parent must stay put without food. This can have significant negative impacts on their body condition, which get worse the longer their partner is away.

In a study published in the journal *Ecology and Evolution*, researchers analyzed data from the foraging trips of 71 pairs nesting in the remote Crozet Archipelago in the southern Indian Ocean.

The data, collected from small devices fitted to the legs of wandering albatrosses, enabled the team to measure the amount of time they spent at sea. This revealed that birds mated to older partners took shorter feeding trips and so returned to the nest sooner than those with younger partners.

This might be because the birds are able to assess how long their partner can go without food. As older birds may struggle to withstand the pressure of a long fast, their partners choose to relieve them sooner. This ultimately benefits both parents, who rely on one another to rear their young.



Demonstration of how the relationship between individual trip duration and partner's previous trip duration is indicative of coordination. In this hypothetical scenario, a pair of birds are exhibiting perfect coordination (slope represented by the black line). The partner bird's average trip duration is 200 h. Because there is perfect coordination within the pair, when the partner birds behave according to this average, the focal bird matches this trip duration exactly (solid gray line). In the event that the partner bird takes a foraging trip with is longer or shorter than average (e.g.,  $\pm 100$  h, dashed gray lines), we would expect the focal bird to adjust their trip duration accordingly. Thus, a positive slope between individual

trip duration and partner's previous trip duration suggests that the focal bird is responding to its partner's previous behavior and coordination exists within the pair. Credit: *Ecology and Evolution* (2022). DOI: 10.1002/ece3.9621

Lead paper author of the paper and Ph.D. student in the University's School of Environmental Sciences, Finn McCully said, "On paper, this behavior looks very caring: one parent gives up feeding time to help protect the other. In reality, this behavior benefits both parents. Albatrosses cannot be single parents; the conditions are too harsh. If one parent runs the other one ragged by making them do too much work, they will lose the chick which is disastrous for both partners."

"Our findings suggest that the birds have a way of telling how much pressure their partner is able to take. This familiarity may develop over the years they spend breeding together, as they get to know each other's limits, but more research is required to test this theory."

"So if you are a wandering albatross and your partner is that little bit older and less able to recover from a long fast, it's in your best interests to take extra steps to help keep them fighting fit".

Although previous work has indicated that wandering albatrosses adjust their own foraging behavior as they get older, this is the first study to suggest that their partner's age might also be important.

Finn McCully added, "We thought that birds would care more about their own age than that of their partner when making decisions, so these results were truly unexpected."

"Our results just go to show how complicated the lives of animals can be and how nature is full of surprises!"

Wandering [albatrosses](#) in this population have been actively studied since 1966. Threats, particularly that of being caught in [fishing gear](#), caused their numbers to decline steeply in the 1970s leading to the International Union for Conservation of Nature (IUCN) labeling this species as 'vulnerable'.

**More information:** Fionnuala R. McCully et al, Partner intrinsic characteristics influence foraging trip duration, but not coordination of care in wandering albatrosses *Diomedea exulans*, *Ecology and Evolution* (2022). [DOI: 10.1002/ece3.9621](https://doi.org/10.1002/ece3.9621)

Provided by University of Liverpool

Citation: World's longest-winged birds go easy on older partners (2022, December 19) retrieved 24 June 2024 from <https://phys.org/news/2022-12-world-longest-winged-birds-easy-older.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.