

Aging gracefully: Diving seabirds shed light on declines with age

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Thick-billed murre were studied into old age in a recent study, including this individual that was at least 28 years old at the time the photo was taken. Credit: Kyle Elliott

Scientists who studied long-lived diving birds, which represent valuable models to examine aging in the wild, found that blood oxygen stores, resting metabolism and thyroid hormone levels all declined with age, although diving performance did not. Apparently, physiological changes do occur with age in long-lived species, but they may have no detectable

effect on behavioral performance.

The *Functional Ecology* findings suggest that reductions in metabolism with [age](#) can be viewed as strategic restraint on the part of individuals who are likely to encounter energy-related senescence.

"As a graduate student, it was humbling to study seabirds older than me. Despite expending more energy for their body size when flying than any other animal, living in cold, harsh Arctic environments, diving over 100 meters in depth, and having to search for unpredictable food, even old birds return year after year to rear their chicks with no discernible change in their [performance](#)," said lead author Dr. Kyle Elliott. "By understanding how seabirds can cope with high metabolic demands with no effect on longevity, we may learn how old humans can reduce their chance of being impacted by [metabolic diseases](#)."

More information: Elliott, K. H., Hare, J. F., Le Vaillant, M., Gaston, A. J., Ropert-Coudert, Y., Anderson, W. G. (2014), Ageing gracefully: physiology but not behaviour declines with age in a diving seabird. *Functional Ecology*. [DOI: 10.1111/1365-2435.12316](https://doi.org/10.1111/1365-2435.12316)

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