

# Common swifts make mysterious twilight ascents

February 21 2013

---

Common swifts climb to altitudes of up to 2.5 km both at dawn and dusk. This unexpected behaviour was discovered by geo-ecologist Dr Adriaan Dokter of the University of Amsterdam's (UvA) Institute for Biodiversity and Ecosystem Dynamics (IBED) together with colleagues from the Royal Netherlands Meteorological Institute (KNMI), the Royal Netherlands Air Force and Lund University. The research results were published as a featured article in the March issue of the scientific journal *Animal Behaviour*.

In the summer, swifts make their presence felt in the city, especially because of the screaming sound they make. These common urban [birds](#) appear to have unusual [movement patterns](#). Besides a short breeding period under urban roofing tiles, these birds spend all year on the wing: foraging, mating and even sleeping are all performed in flight. Using a novel radar technique, Dokter and his colleagues studied the nocturnal flight behaviour of the common swift with the assistance of a weather radar belonging to the KNMI.

Dokter explains: 'We always assumed that common swifts ascended in the evening as part of their sleeping cycle. However, now that we have observed the bird perform ascents at both the start and the end of night-time periods, this interpretation seems to be incorrect. The ascents must have a different function, with the birds making use of the unique opportunities offered by the twilight period.'

## Common swifts as weather predictors?

Twilight is rich in information: it is the only period allowing simultaneous detection of [landscape features](#), polarization patterns, stars and magnetic cues. This information is used by many different animals for navigational and orientation purposes. Common swifts also seem to choose the twilight to obtain specific information during their ascents. An appealing possibility is that during the ascents, the birds investigate characteristics of the atmosphere in relation to their current location and orientation, such as temperature and wind at various altitudes. This may enable the birds to predict future weather conditions. An adequate response to meteorological conditions is crucial to common swifts, as when foraging they are fully dependent on aerial insects, which are most common in good weather conditions.

**More information:** Dokter, A. et al. Twilight ascents by Common Swifts, *Apus apus*, at dawn and dusk: acquisition of orientation cues? *Animal Behaviour*. [dx.doi.org/10.1016/j.anbehav.2012.12.006](https://doi.org/10.1016/j.anbehav.2012.12.006)

Provided by University of Amsterdam

Citation: Common swifts make mysterious twilight ascents (2013, February 21) retrieved 20 September 2024 from <https://phys.org/news/2013-02-common-swifts-mysterious-twilight-ascents.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.