

Package ‘nomads’

May 30, 2026

Title Nomadic Pectoral Sandpiper Movement Data

Version 0.0.1

Description Provides satellite tracking data from nomadic pectoral sandpipers published in Kempenaers and Valcu (2017) <[doi:10.1038/nature20813](https://doi.org/10.1038/nature20813)>. The data can also serve as benchmark data for clustering movement tracks.

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Encoding UTF-8

RoxygenNote 8.0.0

Depends R (>= 4.0)

Suggests data.table

LazyData true

NeedsCompilation no

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Repository CRAN

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Contents

pesa	2
Index	4

pesa

Satellite telemetry locations of male pectoral sandpipers

Description

A processed dataset of Argos satellite telemetry locations for male pectoral sandpipers, *Calidris melanotos*, tracked during the Arctic breeding season.

Usage

pesa

Format

A data.table with 129536 rows and 7 variables. If data.table is installed when the dataset is loaded, pesa is returned as a keyed data.table.

id Individual male identifier.

time Timestamp of the Argos location fix, as POSIXct in UTC.

latitude Latitude in decimal degrees.

longitude Longitude in decimal degrees.

site_id Residency site identifier. Non-site id points are NA

locationClass Argos location class.

Details

Use-sites were identified in the original analysis using density-based spatial clustering (DBSCAN). This dataset provides a useful benchmark because the original DBSCAN parameters, ϵ and MinPts, were tuned using a subset of males for which the expected classification was known. Additionally all identified use-sites were also checked visually, with a small number of manual corrections applied where needed. See Kempnaers and Valcu (2017) [doi:10.1038/nature20813](https://doi.org/10.1038/nature20813) for details.

Source

Kempnaers, B. and Valcu, M. (2017). Breeding site sampling across the Arctic by individual males of a polygynous shorebird. *Nature*. [doi:10.1038/nature20813](https://doi.org/10.1038/nature20813)

Data and analysis code were made available at [doi:10.17605/OSF.IO/VX2MK](https://doi.org/10.17605/OSF.IO/VX2MK) under an Open Data Commons Open Database License.

References

Kempnaers, B. and Valcu, M. (2017). Breeding site sampling across the Arctic by individual males of a polygynous shorebird. *Nature*. [doi:10.1038/nature20813](https://doi.org/10.1038/nature20813)

Examples

```
data(pesa)

head(pesa)
dim(pesa)
names(pesa)

# Number of locations per bird
table(pesa$id)

# Time span covered by the dataset
range(pesa$time)
```

Index

* **datasets**
pesa, [2](#)

pesa, [2](#)