

Package: mudnester (via r-universe)

October 3, 2026

Title Surveillance Data Cleaning and Preparation for Public Health

Version 0.7.2

Description Clean, prepare, and aggregate surveillance data for public health analysis. Provides structural data cleaning and standardisation ('clean_the_nest()'), age categorisation against ~50 published schemes with publication-ready labelling ('preening()'), time-unit aggregation with zero-filling and seasonal awareness ('roost()'), joint aggregation of several linked event dates (e.g. onset, admission, ICU, complication, fatality) into one table of comparable rate columns ('flyway()'), under-ascertainment correction via a stratified, time-varying multiplier factor supplied directly, derived by the ratio (multiplier) method, or derived by inverting an externally sourced severity rate (e.g. an infection-fatality-rate anchor) against an observed severity ratio ('corncrake()'), comorbidity detection from ICD-10-AM clinical coding ('plumage()'), vaccine coverage data construction ('brood()'), hash-based de-identification ('molting()'), and relinking of de-identified data ('homing()'). 'brood()' produces a 'brood_df' object supporting two population models: pre-aggregated denominators ('population_model = ``pre\_aggregated"') and record-level cohort designs ('population\_model = ``cohort"'). The cohort model handles single time-point coverage snapshots, interrupted time series analysis via a built-in sweep returning monthly coverage rates ('time_series = TRUE'), and birth cohort designs with person-time computation. Both wide format (one row per person with dose columns, from 'starling::murmuration()') and long format (one row per dose) are accepted. 'corncrake()' returns both a point-corrected count and uncertainty bounds wherever they can be derived, including the inverse relationship between a severity-anchored factor and its reference rate's own bounds. Built for Australian public health surveillance practice but not specific to it -- see individual function documentation for notes on non-Australian use (e.g. Northern Hemisphere season boundaries).

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Depends R (>= 4.1)

Imports dplyr (>= 1.1.0), tidyr (>= 1.3.0), lubridate (>= 1.9.0),
stringr (>= 1.5.0), rlang (>= 1.1.0), tibble (>= 3.2.0), digest
(>= 0.6.30), janitor (>= 2.2.0), utils, stats

Suggests testthat (>= 3.0.0), knitr (>= 1.42), rmarkdown (>= 2.20),
usethis (>= 2.1.0), gtsummary, ggplot2

Config/testthat/edition 3

Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 8.0.0

VignetteBuilder knitr

URL <https://github.com/nrsmoll/mudnester>

BugReports <https://github.com/nrsmoll/mudnester/issues>

NeedsCompilation no

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Config/pak/sysreqs libicu-dev

Repository <https://nrsmoll.r-universe.dev>

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RemoteUrl <https://github.com/nrsmoll/mudnester>

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