

Package: distanceMCMC (via r-universe)

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Title Functions to Fit Distance Sampling Models Via MCMC Using Nimble

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Description Functions for Bayesian distance sampling models for use within nimble.

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Encoding UTF-8

Depends R (>= 4.1.0), nimble

Suggests Distance

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.3

Config/pak/sysreqs libglpk-dev make libxml2-dev

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

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 ddist

Distance sampling distributions that can be used in nimble models

Description

ddist distance sampling distributions for half-normal and hazard rate models.

Usage

```
ddist_hn(x, sigma, w, log = 0)
```

```
ddist_hr(x, sigma, b, w, log = 0)
```

```
hr_integrand(x, pars)
```

```
rdist_hn(n, sigma, w)
```

```
rdist_hr(n, sigma, b, w)
```

```
esw_dist_hn(sigma, w, prob = 0)
```

```
esw_dist_hr(sigma, b, w, prob = 0)
```

Arguments

x	distance observations. either a single value (dHN) or a vector of values (dHN_V)
sigma	scale parameter for detection models
w	right truncation distance for integration of the likelihood function
log	if TRUE, return the log-likelihood
b	Power parameter for hazard rate model.
pars	Parameters for hazard rate function. Used in hr_integrand(). Not intended for practitioner use.
n	number of random values to generate
prob	Logical. Should the function return the marginal detection probability instead of effective strip width (ESW)

Author(s)

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