

Package: selectapref (via r-universe)

August 25, 2024

Title Analysis of Field and Laboratory Foraging

Version 0.1.2

Maintainer Jason Richardson <jcrichardson617@gmail.com>

Description Provides indices such as Manly's alpha, foraging ratio, and Ivlev's selectivity to allow for analysis of dietary selectivity and preference. Can accommodate multiple experimental designs such as constant prey number of prey depletion. Please contact the package maintainer with any publications making use of this package in an effort to maintain a repository of dietary selections studies.

Depends R (>= 3.2.3)

License GPL (>= 2)

Encoding UTF-8

LazyData true

RoxygenNote 6.1.1

NeedsCompilation no

Author Jason Richardson [aut, cre]

Date/Publication 2020-02-08 19:30:02 UTC

Repository <https://jcrichardson617.r-universe.dev>

RemoteUrl <https://github.com/cran/selectapref>

RemoteRef HEAD

RemoteSha 53d5ac51798b97a36238478bcff3f8c2bf94501b

Contents

FR	2
ivlev	2
manlyalpha	3

Index	4
--------------	----------

FR *Forage Ratio (Strauss 1979).*

Description

Returns forage ratio from vectors of consumed and available food items.

Usage

```
FR(available, consumed)
```

Arguments

available	A vector of food items available to the organism in the environment
consumed	A vector of food items consumed by the organism

Examples

```
availableprey <- c(10,10,10,10,10)
consumedprey <- c(9,0,0,1,5)
FR(available = availableprey, consumed = consumedprey)
```

ivlev *Ivlev's electivity (Ivlev 1961). Returns Ivlev's electivity index from vectors of consumed and available food items.*

Description

Ivlev's electivity (Ivlev 1961). Returns Ivlev's electivity index from vectors of consumed and available food items.

Usage

```
ivlev(available, consumed, jacob = FALSE)
```

Arguments

available	A vector of food items available to the organism in the environment
consumed	A vector of food items consumed by the organism
jacob	Converts to Jacob's electivity index? Defaults to FALSE.

Examples

```
availableprey <- c(10,10,10,10,10)
consumedprey <- c(9,0,0,1,5)
ivlev(available = availableprey, consumed = consumedprey, jacob = FALSE)
ivlev(available = availableprey, consumed = consumedprey, jacob = TRUE)
```

manlysalpha	<i>Manly's alpha feeding preference (Chesson 1978). Returns Manly's alpha index from vectors of initial and final food item counts.</i>
-------------	---

Description

Manly's alpha feeding preference (Chesson 1978). Returns Manly's alpha index from vectors of initial and final food item counts.

Usage

```
manlysalpha(initial, consumed, stand = FALSE, perc = FALSE,
            deplete = TRUE)
```

Arguments

initial	A vector of initial food items counts available to the organism in the environment
consumed	A vector of food items consumed by the organism
stand	Converts values with highest standardized to "1"? Defaults to FALSE.
perc	Converts values to percentages? Defaults to FALSE.
deplete	For use in experiments where food sources deplete? Defaults to TRUE.

Examples

```
initial_prey_count <- c(10,10,10,10,10,10)
number_prey_consumed <- c(9,8,1,3,5,9)
manlysalpha(initial = initial_prey_count, consumed = number_prey_consumed,
            stand = TRUE, perc = FALSE, deplete = TRUE)

manlysalpha(initial = initial_prey_count, consumed = number_prey_consumed,
            stand = TRUE, perc = TRUE, deplete = TRUE)
```

Index

- * **Manly's**
 - manlysalph, 3
 - * **alpha**
 - manlysalph, 3
 - * **forage**
 - FR, 2
 - * **ivlev**
 - ivlev, 2
 - * **preference**
 - manlysalph, 3
 - * **ratio**
 - FR, 2
 - * **selectivity**
 - ivlev, 2
 - manlysalph, 3
- FR, 2
- ivlev, 2
- manlysalph, 3