Package 'FnR'

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Title Inbreeding and Numerator Relationship Coefficients

Version 0.0.0.1

Description Compute inbreeding coefficients using the method of Meuwissen and Luo (1992) <doi:10.1186/1297-9686-24-4-305>, and numerator relationship coefficients between individuals using the method of Van Vleck (2007) <PMID:18050089>.

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Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.1

Imports ggroups

Suggests knitr, rmarkdown

VignetteBuilder knitr

URL https://github.com/nilforooshan/FnR

BugReports https://github.com/nilforooshan/FnR/issues

NeedsCompilation no

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FnR-package *FnR: Inbreeding and Numerator Relationship Coefficients*

Description

Compute inbreeding coefficients using the method of Meuwissen and Luo (1992) doi: 10.1186/12979686244305, and numerator relationship coefficients between individuals using the method of Van Vleck (2007) <PMID:18050089>.

Author(s)

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See Also

Useful links:

- https://github.com/nilforooshan/FnR
- Report bugs at https://github.com/nilforooshan/FnR/issues

dam_dam *Compute numerator relationship coefficients between two groups of dams*

Description

Compute numerator relationship coefficients between two groups of dams

Usage

```
dam_dam(ped, set1, set2)
```

Arguments

ped	: A data frame with integer columns corresponding to ID, SIRE, and DAM. IDs should be sequential, starting from 1. Missing parents (SIRE and DAM) are denoted as 0.
set1	: A set of dam IDs.
set2	: A set of dam IDs, distinct from set1.

Value

: Numerator relationship coefficients between set1 and set2 individuals in the form of a matrix.

Examples

```
message("TODO: Write example(s).")
```

notsire_notdam — *Compute numerator relationship coefficients between non-sires and non-dams*

Description

Compute numerator relationship coefficients between non-sires and non-dams

Usage

```
notsire_notdam(ped, notsire, notdam)
```

Arguments

ped	: A data frame with integer columns corresponding to ID, SIRE, and DAM. IDs should be sequential, starting from 1. Missing parents (SIRE and DAM) are denoted as 0.
notsire	: A set of individual IDs that cannot be found among ped$SIRE.
notdam	: A set of individual IDs (distinct from notsire) that cannot be found among ped$DAM.

Value

: Numerator relationship coefficients between notsire and notdam individuals in the form of a matrix.

Examples

```
message("TODO: Write example(s).")
```

sire_sire — *Compute numerator relationship coefficients between two groups of sires*

Description

Compute numerator relationship coefficients between two groups of sires

Usage

```
sire_sire(ped, set1, set2)
```

Arguments

ped	: A data frame with integer columns corresponding to ID, SIRE, and DAM. IDs should be sequential, starting from 1. Missing parents (SIRE and DAM) are denoted as 0.
set1	: A set of sire IDs.
set2	: A set of sire IDs, distinct from set1.

Value

: Numerator relationship coefficients between `set1` and `set2` individuals in the form of a matrix.

Examples

```
message("TODO: Write example(s).")
```

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