Package 'MNNPC'

November 26, 2025

Title Minnesota Native Plant Community Classification System data

Version 0.1.0

Description Minnesota Native Plant Community Classification System objects for RMAVIS.

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Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.1

Depends R (>= 4.4)

LazyData true

Config/testthat/edition 3

Contents

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mnnpc_accepted_taxa   *Accepted taxon names*

Description

A data frame containing the accepted taxon names following MNTaxa: The State of Minnesota Vascular Plant Checklist as present in the `MNNPC::mnnpc_taxonomic_backbone` object.

Usage

```
mnnpc_accepted_taxa
```

Format

A data frame with 8483 rows and 1 columns, the definitions of which are:

taxon_name Taxon names.

Details

`mnnpc_accepted_taxa`

`mnnpc_community_attributes`

Attributes for each MNNPC community.

Description

Selected attributes for each MNNPC community.

Usage

`mnnpc_community_attributes`

Format

A data frame with 275 rows and 11 columns, the definitions of which are:

fullname The full name of the MNNPC unit.

name The name of the MNNPC unit.

npc_code The code for the MNNPC unit.

npc_code_parent The parent unit for the MNNPC unit.

basal A boolean (TRUE/FALSE) indicating whether the MNNPC unit. is at the lowest rank and has no

rank The rank of the community, one of: system, class, type, subtype.

num_samples The number of plots/samples which constitute the MNNPC unit.

min_species The minimum number of species recorded in the plots which constitute the MNNPC unit.

max_species The maximum number of species recorded in the plots which constitute the MNNPC unit.

mean_species The mean number of species in the plots which constitute the MNNPC unit.

species_count The total number of species recorded in the plots which constitute the MNNPC unit.

Details

`mnnpc_community_attributes`

---

mnnpc_example_data *Example vegetation plot data*

Description

A selection of example vegetation plot datasets, currently included are:

Usage

```
mnnpc_example_data
```

Format

A list of 2 data frames with rows and columns, the definitions of which are:

Site The name of the site.

Year The year the quadrat was sampled in.

Group The group containing the quadrat.

Quadrat The quadrat name.

Species The taxon name, see MNNPC::mnnpc_accepted_taxa and MNNPC::mnnpc_taxonomic_backbone.

Cover The cover of the taxon in the quadrat.

Details

- St. Croix State Forest
- Earthworm-Invaded Forests

```
mnnpc_example_data
```

---

mnnpc_floristic_tables
Floristic Tables

Description

The floristic tables for each MNNPC unit.

Usage

```
mnnpc_floristic_tables
```

Format

A data frame with 40398 rows and 8 columns, the definitions of which are:

npc_code The code for the MNNPC unit.

npc_taxon_name The taxon name, see `MNNPC::mnnpc_accepted_taxa` and `MNNPC::mnnpc_taxonomic_backbone`.

constancy The constancy of occurrence across the plots constituting the MNNPC unit.

absolute_frequency The number of occurrences in the plots constituting the MNNPC unit.

relative_frequency The proportion of plots constituting the MNNPC unit that the taxon is present in.

minimum_cover The minimum cover of the taxon in the plots constituting the MNNPC unit.

mean_cover The mean cover of the taxon in the plots constituting the MNNPC unit.

maximum_cover The maximum cover of the taxon in the plots constituting the MNNPC unit.

Details

`mnnpc_floristic_tables`

---

mnnpc_pquads   *Pseudo-quadrats*

Description

Pseudo quadrats for each MNNPC unit.

Usage

`mnnpc_pquads`

Format

A data frame with 254540 rows and 3 columns, the definitions of which are:

npc_code The code for the MNNPC unit.

psq_id The pseudo-quadrat ID.

taxon_name The taxon name, see `MNNPC::mnnpc_accepted_taxa` and `MNNPC::mnnpc_taxonomic_backbone`.

Details

`mnnpc_pquads`

---

mnnpc_taxa_conv *Taxon name conversion*

Description

A data frame containing all taxon names present in `MNNPC::taxa_lookup` and the taxa and taxon groups that should be used for MNNPC analysis. For example, Oxalis stricta, Oxalis dillenii, Oxalis montana, and Oxalis acetosella are all lumped into the 'Oxalis ecological group' analysis group. The `MNNPC::mnnpc_pquads`, `MNNPC::mnnpc_floristic_tables`, and `MNNPC::example_data` objects only include taxa and taxon froups from the 'analysis_group' column in this object and `RMAVIS` will only match based on these groups.

Usage

```
mnnpc_taxa_conv
```

Format

A data frame with 8483 rows and 2 columns, the definitions of which are:

taxon The taxon name, see `MNNPC::taxa_lookup`

analysis_group The taxon or group of taxa used for analysis in the MNNPC and RMAVIS.

Details

```
mnnpc_taxa_conv
```

---

mnnpc_taxa_lookup *A lookup between the accepted MNTaxa taxa and their synonyms*

Description

A lookup between the accepted MNTaxa taxa and their synonyms, with additional information.

Usage

```
mnnpc_taxa_lookup
```

Format

A data frame with 8483 rows and 2 columns, the definitions of which are:

taxon_name The taxon concept name, includes both accepted/recommended taxa and their synonyms.

recommended_taxon_name The accepted/recommended taxon name, see `MNNPC::mnnpc_accepted_taxa` and `MNNPC::mnnpc_taxonomic_backbone`.

Details

```
mnnpc_taxa_lookup
```

mnnpc_taxonomic_backbone

The taxonomic backbone for the MNNPC

Description

The taxonomic backbone for the MNNPC, containing the recommended/accepted taxon names and associated taxonomic information.

Usage

```
mnnpc_taxonomic_backbone
```

Format

A data frame with 24837 rows and 18 columns, the definitions of which are:

informal_group The informal taxonomic group in which the taxa belongs.

recommended_taxon_name The taxon concept name, includes accepted or recommended taxa only.

taxa_included The taxon names of the taxa included in taxon_name.

taxa_ids The ids of the taxa present in the taxa_included column.

rank The taxonomic rank of the taxon recorded in taxon_name.

hybrid The hybrid status of the taxon_name: 0 = non-hybrid, 1 = hybrid.

full_name The full name of the taxon concept, which is equivalent to a concatenation of the taxon_name, qualifier, and authority.

publication The parent publication containing the taxon_name description.

common_name The common name associated with the taxa_included.

origin The nativeness status of the taxon_name.

species The name of the species taxon associated with the taxon_name.

genus The name of the genus taxon associated with the taxon_name.

family The name of the family taxon associated with the taxon_name.

order The name of the order taxon associated with the taxon_name.

class The name of the class taxon associated with the taxon_name.

phylum The name of the phylum taxon associated with the taxon_name.

kingdom The name of the kingdom taxon associated with the taxon_name.

lineage_source The source of the parent taxa.

Details

```
mnnpc_taxonomic_backbone
```

---

mnnpc_vc_types *MNNPC system code types/prefixes*

Description

A vector of codes for the MNNPC community system which are prefixes for all child community classes, types, and sub-types.

Usage

```
mnnpc_vc_types
```

Format

A data frame with 12 which contains ...

Details

```
mnnpc_vc_types
```

---

mnnpc_vc_types_named *MNNPC system code types/prefixes with full names*

Description

A vector of named codes for the MNNPC community system which are prefixes for all child community classes, types, and sub-types.

Usage

```
mnnpc_vc_types_named
```

Format

A data frame with 12 which contains ...

Details

```
mnnpc_vc_types_named
```

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