

# Package ‘ppendemic’

August 15, 2023

**Title** A Glimpse at the Diversity of Peru's Endemic Plants

**Version** 0.1.7

**Description** Introducing a novel and updated database showcasing Peru's endemic plants. This meticulously compiled and revised botanical collection encompasses a remarkable assemblage of over 7,249 distinct species. The data for this resource was sourced from the work of Govaerts, R., Nic Lughadha, E., Black, N. et al., titled 'The World Checklist of Vascular Plants: A continuously updated resource for exploring global plant diversity', published in *Sci Data* 8, 215 (2021) <[doi:10.1038/s41597-021-00997-6](https://doi.org/10.1038/s41597-021-00997-6)>.

**License** MIT + file LICENSE

**URL** <https://github.com/PaulESantos/ppendemic/>

**BugReports** <https://github.com/PaulESantos/ppendemic/issues/>

**Suggests** knitr, rmarkdown, testthat (>= 3.0.0)

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 7.2.3

**Depends** R (>= 3.5.0),

**Config/testthat/edition** 3

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**NeedsCompilation** no

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get_ppendemic_data	<i>Retrieve data for a list of species from the ppendemic_tab dataset.</i>
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**Description**

This function takes a list of species names, searches for their data in the ppendemic\_tab dataset, and returns a data frame containing the relevant information for each species.

**Usage**

```
get_ppendemic_data(splist, max_distance = 0.1)
```

**Arguments**

splist	A character vector containing the names of the species to search for.
max_distance	The maximum allowed distance for fuzzy matching of species names. Defaults to 0.1.

**Value**

A data frame containing the retrieved information for each species.

**Examples**

```
get_ppendemic_data(splist = c("Aa aurantiaca", "Aa aurantiaaia", "werneria nubigena"))
```

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is_ppendemic	<i>Check if species are endemic in the ppendemic database</i>
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**Description**

This function checks if a list of species names are endemic in the ppendemic database. Endemic species are those that are native and restricted to a specific geographic area, in this case, Peru. The function allows fuzzy matching for species names with a maximum distance threshold to handle potential typos or variations in species names.

**Usage**

```
is_ppendemic(splist, max_distance = 0.1)
```

**Arguments**

splist	A character vector containing the list of species names to be checked for endemism in the ppendemic database.
max_distance	A numeric value (default is 0.1) specifying the maximum distance for fuzzy matching. It should be a non-negative value.

**Value**

A character vector indicating if each species is endemic, not endemic, or if it is an endemic species found using fuzzy matching.

**Examples**

```
is_ppendemic(c("Aa aurantiaca", "Aa aurantiaaia", "Werneria nubigena"))
```

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 ppendemic\_tab

*ppendemic\_tab: Endemic Plant Database of Peru*


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**Description**

The ppendemic\_tab dataset is a tibble (data frame) that provides easy access to a comprehensive database of Peru's endemic plant species. It contains a total of 7,249 records with essential botanical information, including the accepted name, accepted family, accepted name author, publication author, place of publication, volume and page, and first published details.

**Usage**

```
ppendemic_tab
```

**Format**

A tibble (data frame) with 7249 rows and 7 columns:

**accepted\_name** Character vector. The accepted name of the endemic plant species.

**accepted\_family** Character vector. The family of the accepted name of the endemic plant species.

**accepted\_name\_author** Character vector. The author(s) of the accepted name of the endemic plant species.

**publication\_author** Character vector. The author(s) of the publication containing the endemic plant species information.

**place\_of\_publication** Character vector. The place of publication of the endemic plant species information.

**volume\_and\_page** Character vector. The volume and page number of the publication containing the endemic plant species information.

**first\_published** Character vector. The first published year of the publication containing the endemic plant species information.

**Details**

The dataset provides a curated and up-to-date collection of Peru's endemic plant species, gathered from reputable botanical sources and publications. The data for this database was extracted and compiled from the World Checklist of Vascular Plants (WCVP) database, which is a comprehensive and reliable repository of botanical information.

Researchers, botanists, ecologists, and nature enthusiasts can use this dataset to explore and study the unique and diverse flora exclusive to Peru. The dataset is particularly valuable for conducting studies related to biodiversity, conservation, and ecological research.

**Source**

The dataset has been carefully compiled and updated to offer the latest insights into Peru's endemic plant species. Original sources of the data include authoritative botanical publications and research articles available in the WCVP database.

**Examples**

```
# Load the package
library(ppendemic)

# Access the dataset
data("ppendemic_tab")
```

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