

# Package ‘brclimr’

July 22, 2025

**Title** Fetch Zonal Statistics of Weather Indicators for Brazilian Municipalities

**Version** 0.2.0

**Description** Fetches zonal statistics from weather indicators that were calculated for each municipality in Brazil using data from the BR-DWGD and TerraClimate projects. Zonal statistics such as mean, maximum, minimum, standard deviation, and sum were computed by taking into account the data cells that intersect the boundaries of each municipality and stored in Parquet files. This procedure was carried out for all Brazilian municipalities, and for all available dates, for every indicator available in the weather products (BR-DWGD and TerraClimate projects). This package queries on-line the already calculated statistics on the Parquet files and returns easy-to-use data.frames.

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**URL** <https://rfsaldanha.github.io/brclimr/>,  
<https://github.com/rfsaldanha/brclimr>

**Encoding** UTF-8

**RoxygenNote** 7.3.1

**Imports** checkmate, rlang, lobstr, magrittr, DBI, duckdb, glue

**Suggests** testthat (>= 3.0.0), spelling

**Config/testthat/edition** 3

**Depends** R (>= 2.10)

**LazyData** true

**Language** en-US

**NeedsCompilation** no

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|             |                                      |
|-------------|--------------------------------------|
| brdwgd_data | <i>BR-DWGD zonal statistics data</i> |
|-------------|--------------------------------------|

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**Description**

A list with BR-DWGD zonal indicators data.

**Usage**

brdwgd\_data

**Format**

An object of class list of length 7.

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|            |                               |
|------------|-------------------------------|
| fetch_data | <i>Fetch zonal statistics</i> |
|------------|-------------------------------|

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**Description**

Fetch zonal statistics from a product for given municipality code and dates.

**Usage**

fetch\_data(code\_muni, product, indicator, statistics, date\_start, date\_end)

**Arguments**

|            |                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------|
| code_muni  | numeric. IBGE municipality code number with 7 digits.                                                                      |
| product    | string. Zonal indicator product. Options are: brdwgd, terraclimate.                                                        |
| indicator  | string. Indicator name from the product. Check the available indicators with the <a href="#">product_info</a> function.    |
| statistics | string. Statistics name from the indicator. Check the available statistics with the <a href="#">product_info</a> function. |
| date_start | date, included in the selection.                                                                                           |
| date_end   | date, included in the selection, must be equal or greater than date_start.                                                 |

**Details**

For products with monthly data, like terraclimate, inform the start and end dates with the first day of the month. Example: `as.Date("2008-06-01")` for June, 2008.

**Value**

A tibble with date and value columns.

**Examples**

```
## Not run:
fetch_data(
  code_muni = 3304557,
  product = "brdwgd",
  indicator = "tmax",
  statistics = "mean",
  date_start = as.Date("2008-01-01"),
  date_end = as.Date("2008-01-10")
)

## End(Not run)
```

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|              |                                                                                |
|--------------|--------------------------------------------------------------------------------|
| product_info | <i>Print product information, indicators acronyms and available statistics</i> |
|--------------|--------------------------------------------------------------------------------|

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**Description**

Print product information, indicators acronyms and available statistics

**Usage**

```
product_info(product)
```

**Arguments**

|         |                                                             |
|---------|-------------------------------------------------------------|
| product | Zonal indicator product. Options are: brdwgd, terraclimate. |
|---------|-------------------------------------------------------------|

**Value**

Printed list tree on the console.

**Examples**

```
product_info("terraclimate")
```

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|                   |                                           |
|-------------------|-------------------------------------------|
| terraclimate_data | <i>TerraClimate zonal statistics data</i> |
|-------------------|-------------------------------------------|

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**Description**

A list with TerraClimate zonal indicators data.

**Usage**

```
terraclimate_data
```

**Format**

An object of class `list` of length 14.

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