

# Package ‘GVS’

January 20, 2025

**Title** 'Geocoordinate Validation Service'

**Version** 0.0.1

**Description** The 'Geocoordinate Validation Service' (GVS) runs checks of coordinates in latitude/longitude format. It returns annotated coordinates with additional flags and metadata that can be used in data cleaning. Additionally, the package has functions related to attribution and metadata information. More information can be found at <https://github.com/ojalaquellueva/gvs/tree/master/api>.

**Depends** R (>= 3.5.0)

**License** MIT + file LICENSE

**Encoding** UTF-8

**RoxygenNote** 7.3.2

**LazyData** true

**Imports** jsonlite, httr

**Suggests** knitr, rmarkdown, testthat, devtools, BIEN, vcr (>= 0.6.0)

**VignetteBuilder** knitr

**NeedsCompilation** no

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GVS	<i>Check the validity of coordinates</i>
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### Description

GVS returns information on coordinate validity.

### Usage

```
GVS(occurrence_dataframe, ...)
```

### Arguments

occurrence\_dataframe  
 A properly formatted dataframe, see gvs\_testfile

...  
 Additional arguments passed to internal functions.

### Value

Dataframe containing GVS results.

### Examples

```
results <- GVS(occurrence_dataframe = gvs_testfile)
```

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GVS_citations	<i>Get citation information</i>
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### Description

Returns information needed to cite the GVS

### Usage

```
GVS_citations(...)
```

### Arguments

...  
 Additional arguments passed to internal functions.

**Value**

Dataframe containing bibtex-formatted citation information

**Note**

This function provides citation information in bibtex format that can be used with reference manager software (e.g. Paperpile, Zotero). Please do remember to cite both the sources and the GVS, as the GVS couldn't exist without these sources!

**Examples**

```
{
citation_info <- GVS_citations()
}
```

---

GVS\_collaborators      *Get collaborator information*

---

**Description**

Returns information on GVS collaborators

**Usage**

```
GVS_collaborators(...)
```

**Arguments**

...                      Additional arguments passed to internal functions.

**Value**

Dataframe containing bibtex-formatted citation information

**Examples**

```
{
collaborator_info <- GVS_collaborators()
}
```

---

GVS\_data\_dictionary    *Get data dictionary*

---

**Description**

Returns the GVS data dictionary

**Usage**

```
GVS_data_dictionary(...)
```

**Arguments**

...                    Additional arguments passed to internal functions.

**Value**

Dataframe containing bibtex-formatted citation information

**Examples**

```
{
  data_dictionary <- GVS_data_dictionary()
}
```

---

GVS\_metadata            *Get GVS metadata*

---

**Description**

Returns metadata on GVS including version and citation information

**Usage**

```
GVS_metadata(bibtex_file = NULL, ...)
```

**Arguments**

bibtex\_file            Optional output file for writing bibtex citations.  
...                    Additional arguments passed to internal functions.

**Value**

List containing: (1) bibtex-formatted citation information, (2) information about GVS data sources, and (3) GVS version information.

**Note**

This function provides citation information in bibtex format that can be used with reference manager software (e.g., Paperpile, Zotero). Please remember to cite both the sources and the GVS, as the GVS couldn't exist without these sources!

This function is a wrapper that returns the output of the functions `GVS_citations`, `GVS_sources`, and `GVS_version`.

**Examples**

```
{  
  metadata <- GVS_metadata()  
}
```

---

`GVS_sources`*Get information on sources used by the GVS*

---

**Description**

Return metadata about the current GVS sources

**Usage**

```
GVS_sources(...)
```

**Arguments**

... Additional arguments passed to internal functions.

**Value**

Dataframe containing information about the sources used in the current GVS version.

**Examples**

```
{  
  sources <- GVS_sources()  
}
```

---

`gvs_testfile`*Example GVS data*

---

**Description**

A sample dataset showing the proper formatting of GVS inputs.

**Usage**`gvs_testfile`**Format**

A data.frame with 27 observations of 2 variables:

**Latitude** Latitude, in decimal degrees

**Longitude** Longitude, in decimal degrees ...

**Source**

<https://biendata.org>

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`GVS_version`*Get metadata on current GVS version*

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**Description**

Return metadata about the current GVS version

**Usage**`GVS_version(...)`**Arguments**

... Additional arguments passed to internal functions.

**Value**

Dataframe containing current GVS version number, build date, and code version.

**Examples**

```
{  
NSR_version_metadata <- GVS_version()  
}
```

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