

Package ‘DNAZooData’

June 6, 2023

Title DNA Zoo data package

Version 1.0.0

Date 2023-02-09

Description DNAZooData is a data package giving programmatic access to genome assemblies and Hi-C contact matrices uniformly processed by the [DNA Zoo Consortium](https://www.dnazoo.org/). The matrices are available in the multi-resolution ‘.hic’ format. A URL to corrected genome assemblies in ‘.fastq’ format is also provided to the end-user.

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URL <https://github.com/js2264/DNAZooData>

BugReports <https://github.com/js2264/DNAZooData/issues>

Depends R (>= 4.2), HiCExperiment

Imports BiocFileCache, S4Vectors, rjson, utils, tools

Suggests dplyr, testthat, methods, BiocStyle, knitr, rmarkdown

biocViews ExperimentData, SequencingData

Encoding UTF-8

VignetteBuilder knitr

LazyData false

Roxygen list(markdown = TRUE)

RoxygenNote 7.2.3

git_url https://git.bioconductor.org/packages/DNAZooData

git_branch RELEASE_3_17

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Author Jacques Serizay [aut, cre]

Maintainer Jacques Serizay <jacquesserizay@gmail.com>

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Description

Fetches files from the DNAZoo data portal and caches them using the BiocFileCache system.

Arguments

species Any species processed by the DNA Zoo (check <https://www.dnazoo.org/assemblies>)
for a browser-based explorer.

Value

DNAZooData() returns a HicFile object, which can then be imported in memory using `HicExperiment::import()`. Metadata also points to a URL to directly fetch the genome assembly corrected by the DNA Zoo consortium.

Examples

```
#####  
## Importing DNAZoo `.hic` files ##  
#####  
  
head(DNAZooData())  
hf <- DNAZooData(species = 'Anolis_carolinensis')  
hf
```

DNAZooDataCache	<i>Manage cache / download files from the DNAZoo data portal</i>
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Description

Managing DNAZoo data downloads via the integrated BiocFileCache system.

Usage

```
DNAZooDataCache(...)
```

Arguments

... Arguments passed to internal `.setDNAZooDataCache` function

Value

BiocFileCache object

Examples

```
bfc <- DNAZooDataCache()  
bfc  
BiocFileCache::bfcinfo(bfc)
```

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