BSgenome.Gaculeatus.UCSC.gasAcu1

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Gaculeatus	*Gasterosteus aculeatus (Stickleback) full genome (UCSC version gasAcu1)*

Description

Gasterosteus aculeatus (Stickleback) full genome as provided by UCSC (gasAcu1, Feb. 2006) and stored in Biostrings objects.

Note

This BSgenome data package was made from the following source data files:

```
sequences: chromFa.tar.gz + upstream*.fa.gz files
from http://hgdownload.cse.ucsc.edu/goldenPath/gasAcu1/bigZips/
AGAPS masks: http://hgdownload.cse.ucsc.edu/goldenPath/gasAcu1/database/gap.txt.gz
RM masks: http://hgdownload.cse.ucsc.edu/goldenPath/gasAcu1/bigZips/chromOut.tar.gz
TRF masks: http://hgdownload.cse.ucsc.edu/goldenPath/gasAcu1/bigZips/chromTrf.tar.gz
```

See ?BSgenomeForge and the BSgenomeForge vignette (vignette("BSgenomeForge")) in the BSgenome software package for how to make a BSgenome data package.

Author(s)

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See Also

BSgenome-class, DNAString-class, available.genomes, BSgenomeForge

Examples

```
Gaculeatus
seqlengths(Gaculeatus)
Gaculeatus$chrI # same as Gaculeatus[["chrI"]]

if ("AGAPS" %in% masknames(Gaculeatus)) {

  ## Check that the assembly gaps contain only Ns:
  checkOnlyNsInGaps <- function(seq)
  {
    ## Replace all masks by the inverted AGAPS mask
    masks(seq) <- gaps(masks(seq)["AGAPS"])
    unique_letters <- uniqueLetters(seq)
    if (any(unique_letters != "N"))
        stop("assembly gaps contain more than just Ns")
  }

  ## A message will be printed each time a sequence is removed
  ## from the cache:
  options(verbose=TRUE)

  for (seqname in seqnames(Gaculeatus)) {
    cat("Checking sequence", seqname, "... ")
    seq <- Gaculeatus[[seqname]]
    checkOnlyNsInGaps(seq)
    cat("OK\n")
  }
}

## See the GenomeSearching vignette in the BSgenome software
## package for some examples of genome-wide motif searching using
## Biostrings and the BSgenome data packages:
if (interactive())
    vignette("GenomeSearching", package="BSgenome")
```

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