

Package: jaggr (via r-universe)

August 27, 2024

Type Package

Title Supporting Files and Functions for the Book Bayesian Modelling with 'JAGS'

Version 0.1.1

Description All the data and functions used to produce the book. We do not expect most people to use the package for any other reason than to get simple access to the 'JAGS' model files, the data, and perhaps run some of the simple examples. The authors of the book are David Lucy (now sadly deceased) and James Curran. It is anticipated that a manuscript will be provided to Taylor and Francis around August 2020, with bibliographic details to follow at that point. Until such time, further information can be obtained by emailing James Curran.

License GPL (≥ 2)

Depends R ($\geq 3.5.0$)

Imports formatR, glue, graphics, stats

Encoding UTF-8

LazyData true

RoxygenNote 7.2.3

Repository <https://jmcurran.r-universe.dev>

RemoteUrl <https://github.com/jmcurran/jaggr>

RemoteRef HEAD

RemoteSha 8c7e0bab89392c967704fc85d67fbf452924ac87

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acid.df	<i>Age estimation from aspartic acid concentration</i>
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Description

Aspartic acid data for modern upper and lower first pre-molars: taken from Gillard et al 1991

Usage

acid.df

Format

A data.frame with 37 rows and 3 columns:

age Age in years.

period Period of tooth, modern or victorian.

aspartic Percentage of D-aspartic acid.

Source

Gillard, R.D., Hardman, S.M., Pollard, A.M., Sutton, P.A. and Whittaker, D.K. (1991) 'Determinations of age at death in the archaeological populations using the D/L ratio of aspartic acid in dental collagen' in *Archaeometry* 90, eds. Pernicka, E. and Wagner, G.A., p.637-644, Birkhauser Verlag, Berlin.

activity.df

Energy requirements for different activities

Description

An experiment was conducted to compare the energy requirements of three physical activities: running, walking and bicycle riding. Eight subjects were asked to run, walk and bicycle a measured distance, and the number of kilocalories expended per kilometre was measured for each subject during each activity. The activities are run in random order with time for recovery between activities. Each activity was monitored exactly once for each individual.

Usage

activity.df

Format

A data.frame with 24 rows and 3 columns:

subject a subject ID.

activity running, walking, riding.

energy energy expended during activity, in kilocalories (Cal)

Source

Milton, J. S. (1992). *Statistical Methods in the Biological and Health Sciences* 2nd Edition, McGraw-Hill, New York, p. 316–319.

books.df

Books Data

Description

This data consists of 50 sentence lengths from each of 8 books. The books "Disclosure" and "Rising Sun" were written by Michael Crichton, whilst the others "Four Past Midnight", "The Dark Half", "Eye of the Dragon", "The Shining", "The Stand" and "The Tommy-Knockers" were written by Stephen King. The pages and sentences were chosen using a multistage design where the pages were selected at random, and then sentences within each page were selected at random. These data were collected by James Curran.

Usage

```
books.df
```

Format

The data frame consists of 400 observations on 2 variables.

length sentence length

book a factor with levels: 4.Past.Mid, Dark.Half, Disclosure, Eye.Drag,Rising.Sun, Shining, Stand, T.Knock.

author a factor with levels: MC, SK.

<code>bsort.df</code>	<i>Time taken to sort random vectors of various lengths using bubble sort.</i>
-----------------------	--

Description

Students learning to programme are often taught the bubble sort algorithm for several reasons. Firstly, sorting is a commonly used operation in programming, so having a way of sorting vectors into order is useful. Secondly, it lets the instructor talk about the order of the algorithm, and how it is very inefficient. In computer science, big O notation is used to classify algorithms according to how their run time or space requirements grow as the input size grows. The bubble sort algorithm is known to be $O(n^2)$. That is, the time taken to run the algorithm increases quadratically (with the square) with the size of the vector.

Usage

```
bsort.df
```

Format

A data.frame with 200 rows and 2 columns:

n Size of the random vector.

time Time in seconds taken to sort the vector using `bubbleSort`.

Details

This data set consists of 200 observations generated using the following code: ““ `set.seed(123)`
`N = 200` `bsort.df = data.frame(n = rep(0, N), time = rep(0, N))`

```
n = sample(100:1000, size = N, replace = TRUE)
```

```
pb = txtProgressBar(0, N, style = 3)
```

```
for(i in 1:N) x = rnorm(n[i]) bsort.df$n[i] = n[i] bsort.df$time[i] = system.time(bubbleSort(x))[1]
setTxtProgressBar(pb, i)
```

`close(pb)` ““ It consists of the times taken to sort 200 vectors of random length between 100 and 1,000. The vectors themselves are random samples of size `n[i]` from the standard normal distribution.

See Also[bubbleSort](#)

<code>bubbleSort</code>	<i>Bubble sort</i>
-------------------------	--------------------

Description

Sorts the vector `x` into ascending order using a very inefficient bubble sort algorithm

Usage

```
bubbleSort(x)
```

Arguments

`x` a vector of numbers

Value

the vector `x` sorted into ascending order

Examples

```
set.seed(123)
x = rnorm(10)
bubbleSort(x)
```

<code>calculus.df</code>	<i>Calculus marks</i>
--------------------------	-----------------------

Description

Calculus marks from the 2012 first year calculus course from the Department of Mathematics and Statistics at Lancaster University.

Usage

```
calculus.df
```

Format

A data.frame with 147 rows and two columns:

coursework final coursework mark out of 100.

examination final examination mark out of 100.

Source

George Moran, Department of Mathematics and Statistics at Lancaster.

`car.prices.df`*Car listings from trademe*

Description

This data set consists of 3,618 listings scraped from the New Zealand website [trademe](#). trademe is similar to [ebay](#) in that it is an online auction site which allows sellers to list new and used goods for sale. Goods may be purchased via auction, or outright if the seller has enabled that option. Many New Zealanders, including commercial car dealers, use the website to buy and sell cars. The listings gathered consist are mostly for Mazda 3 and Toyota Corolla vehicles, along with imported vehicles which may be the same car, but with different badging.

Usage

`car.prices.df`

Format

An object of class `data.frame` with 3618 rows and 13 columns.

Details

@format A `data.frame` with 3,618 rows and 14 columns:

obs The observation number, from 1 to 3618.

title The listing title - basically the make and model of the car.

year The year of manufacture of the vehicle.

age The age of the vehicle as of 2013 (when this data was collected). So a car manufactured in 2009 would have an age of 4, for example.

price The asking price, in NZD.

km The number of kilometres on the odometer—i.e. the "mileage."

cc The displacement of the engine in cubic centimetres.

fuel The fuel used by the vehicle: either Petrol (gasoline) or Diesel.

doors The number of doors in the car. Note 3 and 5 door cars are hatchbacks.

list.color The colour of the car given in the listing.

simple.color An attempt to standardise the colour to a reduced category. For example sky blue, and light blue would both get transformed to blue.

make The manufacturer of the car: either Mazda or Toyota

`carbon.df`*Carbon isotopes in trees*

Description

These observations were made by Robertson et. al. They are the mean delta 13 C compositions of several individual trees from two locations in Central England mean temperatures from the CET are also given

Usage`carbon.df`**Format**

A data.frame with 200 rows and 4 columns:

`year``iso``temp`

`cell_surv.df`*Cell survival data*

Description

The data comes from an experiment to measure the mortality of cancer cells under radiation under taken in the Department of Radiology, University of Cape Town. Four hundred cells were placed on a dish, and three dishes were irradiated at a time, or occasion. After the cells were irradiated, the surviving cells were counted. Since cells would also die naturally, dishes with cells were put into the radiation chamber without being irradiated, to establish the natural mortality. These data gives only these zero-dose data. these data are from ozDASL

Usage`cell_surv.df`**Format**

An object of class `data.frame` with 27 rows and 2 columns.

 chocolate.df

Energy and fat in chocolate bars

Description

The amount of fat (g) and energy (Cal) in 16 chocolate bars. Source is unknown, but we would be happy to give credit if someone tells us.

Usage

```
chocolate.df
```

Format

A data.frame with 16 rows and 2 columns:

energy energy, in Calories = kilocalories

fat fat content, in grams

Source

Source is unknown, but we would be happy to give credit if someone tells us.

 cooling.df

Does insulation make a difference?

Description

This data arose from an experiment conducted by David to testing the insulation of the ground floor bedroom of his house–The Spinney. The idea was that the better the insulation the slower the rate cooling, so for some exponential model $y(t) = y(0) \exp(-\lambda t)$ - the value of λ should go down for a better insulated room In the experiment, David ran two extension cords into the room through a service port to power two electric heaters and a fan. He then sealed up the room by shutting windows and door. The heaters were left to heat up the room as much as they could. This happened to be about 24.6 C. He then turned the heaters and fan off and the recorded the rate of cooling by observing a temperture probe from outside the room for about two hours. Standard theory says that the rate of cooling is proportional to the temperature differential between the indoor and outdoor temperatures. To control for this days were selected which had approximately the same external temperatures. The room has walls which are external and internal. It was assumed that the outside and internal house (no heating) had reached an equilibrium so that we only need to know the outside room, but inside house temperature rather than both

Usage

```
cooling.df
```


Format

A data.frame with 47 rows and 3 columns:

time The time since turning off the heaters and fan

uninsulated The recorded temperature with absolutely no insulation in the room whatsoever— outside temperature 8.0 C.

insulated The recorded temperature with part of a wall and the floor insulated— outside temperature 8.1 C

Source

David Lucy

<code>extractValues</code>	<i>Extract sampled parameter values from an mcmc.list</i>
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Description

This function makes it easy to extract sampled values of one or more parameters. The function can extract multiple parameters from multiple chains

Usage

```
extractValues(x, params, chain = NULL, drop = TRUE, ...)
```

Arguments

<code>x</code>	an object of class <code>mcmc.list</code> - usually from <code>coda.samples</code>
<code>params</code>	a vector of one or more strings OR regular expressions which identifies the parameters we want to extract from the chain
<code>chain</code>	the chain, or chains we want to extract the parameters from. If <code>chain</code> is <code>NULL</code> then the values will be extracted from all chains.
<code>drop</code>	used to preserve the dimensions of an array. If a single parameter is requested, then the results will be returned as a vector rather than a matrix if <code>drop == TRUE</code> .
<code>...</code>	any other arguments. Not used yet.

Value

If there is only one chain or the user asks for results from exactly one chain, then a matrix with class `mcmc` will be returned containing only the parameters of interest in the columns. The column names of the matrix will correspond to the parameter. If there is more than one chain, and the user asks for results from more than one chain, or alternatively leaves `chain` as `NULL`, then a list of matrices with class `mcmc` will be returned where each matrix contains only the parameters of interest in the columns. The column names of each of the matrices will correspond to the parameter.

<code>fingerprints.df</code>	<i>Height, weight and fingerprint measurements collected from 200 participants</i>
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Description

This dataset contains the height, weight and 4 fingerprint measurements (length, width, area and circumference), collected from 200 participants. This data was collected with the intention of performing regression analysis to assess whether a significant relationship exists between fingerprint size and physical stature.

Usage

`fingerprints.df`

Format

a data.frame with 200 rows and 11 columns:

number participant number

gender self-declared gender of participant `female` or `male`

age age in years

hand dominant hand `left` or `right`

height height in centimetres, average of three measurements

weight weight in kilograms, average of three measurements

temp fingerprint temperature in degrees Celsius

fpheight fingerprint height in millimetres

width fingerprint width in millimetres

area fingerprint area in squared millimetres

circumference fingerprint circumference in millimetres

Source

McMurchie, Beth; Torrens, George; Kelly, Paul (2019). Height, weight and fingerprint measurements collected from 200 participants. Loughborough University. [Dataset](<https://doi.org/10.17028/rd.lboro>).

getModel	<i>Get a JAGS model file</i>
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Description

This function provides an easy way for readers to get the JAGS model files used in the book. The `modelID` is the 4-5 character identifier used in the book. For example to get 'model-001.bugs.R', you would use `getModel("001")`.

Usage

```
getModel(modelID)
```

Arguments

`modelID` a string containing a valid model ID

Value

a string containing the model. The intention is that this can be written to disk.

Examples

```
getModel("001")
```

<code>gustafson.df</code>	<i>Age estimation based on changes in dental characteristics</i>
---------------------------	--

Description

Age estimation based on changes in dental characteristics

Usage

```
gustafson.df
```

Format

a data.frame with 759 rows and 10 columns:

sex sex of subject, female or male.

age age, in years.

quadrant location in mouth of tooth

tooth tooth identifier

attrition

recession

dentine qualitative assessment of remaining dentine

`hedgehog.growth.df` *Hedgehog growth*

Description

Hedgehog growth

Usage

`hedgehog.growth.df`

Format

a data.frame with 77 rows and 2 columns:

date Date in DD-Month-YYYY format

weight weight of the hedgehog, in grams

Source

David Lucy

`hedgehog.survival.df` *Hedgehog survival*

Description

The Bunnell Index (or BI) is a measurement of how tightly the hedgehog are curled into a ball. One measurement is taken round the middle of the animal to cross at the point where the nose ends ("A," latitudinal circumference). The other measurement, using a second tape measure already secured underneath the animal, is taken round the hedgehog from head to tail ("B," longitudinal circumference). Care must be taken with both measurements to ensure that the ends of the tape measure meet easily without altering the shape/positioning of the hedgehog. When obtaining measurement A, the positioning of the tape measure is crucial; a measurement taken lower down toward the tail can result in a lower (inaccurate) reading. Repeatedly measuring many hedgehogs over several consecutive days demonstrated consistent BI values and hence the reliability of the method. A is divided by B to give a value for the BI. It is important to determine the BI value to two decimal places (i.e., a value of 0.794, becomes 0.79, while a value of 0.805 becomes 0.81).

Usage

`hedgehog.survival.df`

Format

A data.frame with 31 observations and 2 columns:

BI The Bunnell Index (BI) of the hedgehog at the time of admission.

survived A logical variable recording whether the hedgehog survived or died.

Source

Bunnell, T. (2002) The Assessment of British Hedgehog (*Erinaceus europaeus*) Casualties on Arrival and Determination of Optimum Release Weights Using a New Index *Journal of Wildlife Rehabilitation* 25 (4):11-21

insulation.df	<i>Impact strength of insulation cuts in foot-pounds.</i>
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Description

Impact strength of insulation cuts in foot-pounds.

Usage

```
insulation.df
```

Format

a data.frame with 100 rows and 3 columns:

Lot Lot of insulating material

Cut Lengthwise (Length) or crosswise (Cross)

Strength Impact strength, in foot-pounds (ft-lb)

Source

Ostle, B. (1963). *Statistics in Research: Basic Concepts and Techniques for Research*. Ames, Iowa. Iowa State University Press.

jaggR	<i>jaggR: Supporting files and functions for the book Bayesian Modelling with JAGS</i>
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Description

A set of functions used in teaching STATS 201/208 Data Analysis at the University of Auckland. The functions are designed to make parts of R more accessible to a large undergraduate population who are mostly not statistics majors.

Author(s)

James Curran, David Lucy

lightspeed.df *Michelson's speed of light data*

Description

Michelson's speed of light data

Usage

lightspeed.df

Format

a data.frame with 43 rows and 2 columns:

speed The scaled speed of light measured in a single experiment. The scaling is the measurement minus 299,000 km/s. E.g. the first entry in the data.frame is 850, which is 299,850 km/s.

year The year in which the experiment was conducted, either 1879 or 1882.

Source

Stigler, S. M. (1977), "Do robust estimators work with real data?", *The Annals of Statistics* 5:1055-1098.

mortality.df *Mortality rates for different species*

Description

Ecologists Michael McCoy and James Gillooly were interested in predicting mortality rates for different species based on a number of variables including body mass, temperature. In their paper (McCoy and Gillooly, 2008) they explore the hypothesis that the natural logarithm of temperature-corrected mortality rate should be a linear function of the natural logarithm of body mass. The temperature-corrected mortality rate is based upon previous work which draws on results from biology, biochemistry, and thermodynamics. Users are encouraged to read the original source for a deeper explanation.

Usage

mortality.df

Format

a data.frame with 2117 rows and 4 columns:

group a factor indicating which one of the six taxonomic groups the observation belongs to: bird, fish, invertebrate, mammal, multicellular plant, and phytoplankton.

species the species of the observation.

mass the body mass in grams (g).

mortality the mortality rate.

temp the average body temperature in degrees Celcius.

E average activation energy of heterotrophic respiration in animals (0.65 eV) or photosynthesis in plants (0.32 eV).

mort.corrected mortality corrected by a Boltzmann-Arrhenius factor, specifically, divided by $\exp(-E/k * (1 / T - 1 / T20))$, where k is Boltzmann constant 8.62×10^{-5} , T20 is 20 degrees Celcius in degrees Kelvin, i.e. 293, and T is average body temperature temp in degrees Kelvin.

Source

McCoy, M.W. and Gillooly, J.F. (2008), Predicting natural mortality rates of plants and animals. Ecology Letters, 11: 710-716. <https://doi-org.ezproxy.auckland.ac.nz/10.1111/j.1461-0248.2008.01190.x>

planes.df

Distance travelled by paper planes

Description

A group from Queensland University of Technology conducted an experiment where they recorded the distance flown by paper aeroplanes. The experimenters used a sealed corridor at the University, and controlled the design of the aeroplane, the weight of the paper from which each aeroplane was constructed, and the angle of incidence at launch for each paper plane. The data and further notes for this experiment can be found at [OzDASL - Australasian Data and Story Library](#).

Usage

planes.df

Format

A data.frame with 16 rows and 6 columns:

distance Distance travelled in mm.

paper Paper weight in grams per square metre (gsm), either 50 gsm or 80 gsm.

angle Angle of launch, horizontal (0 degrees) or 45 degrees.

- design** Design of the plane, either simple or advanced.
- treat** The treatment number used in the experiment. There are eight combinations of the levels of the factors, so the treatment number corresponds to one of these unique combinations.
- rep** Replicate number within treatment. Each treatment is repeated twice so **rep** is either 1 or 2.

Source

Mackisack, M. S. (1994). What is the use of experiments conducted by statistics students? *Journal of Statistics Education*, 2(1).

References

Smyth, G. K. (2011). [Australasian Data and Story Library \(OzDASL\)](#).

`print.summary.mcmc` *S3 print method for objects of type `summary.mcmc`*

Description

This function overrides the hidden method in the `coda` package that provides a print method for the output of the `coda{summary}` function. The idea is to be able to suppress some of the output so that only the summary statistics of interest are shown. This is primarily used in the preparation of the book.

Usage

```
## S3 method for class 'summary.mcmc'
print(
  x,
  digits = max(3, .Options$digits - 3),
  runDetails = FALSE,
  means = FALSE,
  quantiles = TRUE,
  ...
)
```

Arguments

<code>x</code>	an object of type <code>summary.mcmc</code> .
<code>digits</code>	The number of digits to print.
<code>runDetails</code>	if TRUE print the details of the sampling.
<code>means</code>	if TRUE print the posterior means.
<code>quantiles</code>	if TRUE print the posterior quantiles.
<code>...</code>	other arguments passed to <code>print</code> .

Value

x is invisibly returned

radiation.df	<i>from the Commission facility in Hanford, Washington. One of the major safety problems encountered there has been the storage of radioactive wastes. Over the years, significant quantities of these substances - including strontium 90 and cesium 137 - have leaked from their open-pit storage areas into the nearby Columbia River, which flows along the Washington-Oregon border, and eventually empties into the Pacific Ocean.</i>
--------------	--

Description

To measure the health consequences of this contamination, an index of exposure was calculated for each of the nine Oregon counties having frontage on either the Columbia River or the Pacific Ocean. This particular index was based on several factors, including the county's stream distance from Hanford and the average distance of its population from any water frontage. As a covariate, the cancer mortality rate was determined for each of these same counties. The data give the index of exposure and the cancer mortality rate during 1959-1964 for the nine Oregon counties affected. Higher index values represent higher levels of contamination.

Usage

radiation.df

Format

An object of class `data.frame` with 9 rows and 3 columns.

Source

Fadeley, R. C. (1965). Oregon malignancy pattern physiographically related to Hanford, Washington, Radioisotope Storage. *Journal of Environmental Health* 27, 883-897.

ratmaze.df	<i>Times taken for a rat to navigate through a maze</i>
------------	---

Description

Times taken for a rat to navigate through a maze

Usage

ratmaze.df

Format

A data.frame with 135 rows and 4 columns:

subject An ID for each rat

treatment The treatment administered to the subject: control/none, thouriracil, thyroxin.

test A maze number.

time time, in seconds taken for the rat to navigate the maze.

rdt.df

Age estimation by root dentine translucency

Description

Root dentine translucency is, in humans, an age related physiological feature. In the dentine of teeth in adult humans the tubecular microstructures fill with a highly crystalline substance making them become nearly invisible when looked at in normal light. This process starts from the apical foramen in early adulthood, and progresses up the tooth into advanced old age. Solheim (Lucy et al., 1996) collected data on age, root dentine translucency for 71 maxillary second incisors from a Norwegian population. The sex of each individual was also noted.

Usage

rdt.df

Format

A data.frame with 71 rows and 3 columns:

age Age of subject, in years

sex Sex of subject, female or male

rdt root dentine translucency

Source

Lucy, D., Aykroyd, R.G., Pollard, A.M. and Solheim (1996), T., "A Bayesian approach to adult human age estimation from dental observations by Johanson's age changes", Journal of Forensic Sciences 41(2):189-194.

```
reorder.mcmc.list      Reorder the columns of mcmc objects in an mcmc.list
```

Description

Reorders the output from `rjags{coda.samples}` to match the preferred order of the user. The function will stop if one or more of the specified variable names does not match the variable names in the first `mcmc` object of `x`.

Usage

```
## S3 method for class 'mcmc.list'
reorder(x, variable.names, ...)
```

Arguments

```
x                an object of type mcmc.list
variable.names   a vector of variable names in user order.
...              other arguments. Currently ignored.
```

Value

an object of type `mcmc.list`

```
setPlotPrefs      Set Plotting Preferences
```

Description

Set Plotting Preferences

Usage

```
setPlotPrefs(
  mar = c(3, 4, 1, 1),
  cex = 1,
  oma = c(0, 0, 0, 0),
  tcl = -0.35,
  mgp = c(1.5, 0.5, 0),
  las = 1,
  cex.lab = 1,
  font.lab = 1,
  lwd = 1,
  on.graph.line = 3,
```

```

    shading.density = 8,
    arrow.length = 0.1,
    on.graph.cex = 1,
    margin.cex = 1.2,
    ...
)

```

Arguments

<code>mar</code>	plot margings
<code>cex</code>	character expansion factor
<code>oma</code>	outer margins
<code>tcl</code>	tick length
<code>mgp</code>	somethen
<code>las</code>	text rotation on axes
<code>cex.lab</code>	plot labels cex
<code>font.lab</code>	font of plot labels
<code>lwd</code>	line width
<code>on.graph.line</code>	no idea
<code>shading.density</code>	shading density
<code>arrow.length</code>	arrow head length
<code>on.graph.cex</code>	character expansion for text on graphs
<code>margin.cex</code>	character expansion for text for margins
<code>...</code>	other arguments to be passed to par

Value

the previous par settings so that they can be restored

`shotgun.df`

Shotgun range data In order to test the validity of range-of-fire estimates obtained by the application of regression analysis to shotgun pellet patterns, a blind study was conducted in which questioned pellet patterns were fired at randomly selected ranges between 3.0 and 15.2 m (10 and 50 ft) with two different 12-gauge shotguns. each firing a different type of buckshot cartridge. Test firings at known ranges were also conducted with the same weapons and ammunition.

Description

Shotgun range data In order to test the validity of range-of-fire estimates obtained by the application of regression analysis to shotgun pellet patterns, a blind study was conducted in which questioned pellet patterns were fired at randomly selected ranges between 3.0 and 15.2 m (10 and 50 ft) with two different 12-gauge shotguns. each firing a different type of buckshot cartridge. Test firings at known ranges were also conducted with the same weapons and ammunition.

Usage

`shotgun.df`

Format

A data frame with 70 observations on 4 variables.

range The range in feet of the firing.

gun The model of shotgun used in the experiment.

expt A factor recording whether the data was to be used for building/training the model, or testing it.

area The area of the smallest rectangle that would enclose the pellet pattern.

Source

Rowe, W.F. and Hanson, S.R. (1985) Range-of-fire estimates from regression analysis applied to the spreads of shotgun pellet patterns: Results of a blind study, *Forensic Science International*, 28(3-4): 239-250.

`terriers.df`

Simulated weights of difference breeds of terriers

Description

Simulated samples of weights from English terrier breeds with the parameter values for the means for the simulation taken from <http://www.dogsindepth.com>. The variances are assumed to be constant.

Usage

`terriers.df`

Format

A data.frame with 30 rows and 2 columns.

weight Weight of dog in kg.

breed Breed, either Skye, Manchester or Norwich.

`tidy_bugs`*Tidy BUGS files*

Description

This function cleans up the formatting

Usage

```
tidy_bugs(  
  path = ".",  
  arrow = TRUE,  
  brace.newline = FALSE,  
  indent = 2,  
  wrap = TRUE,  
  width.cutoff = 50  
)
```

Arguments

<code>path</code>	location of file(s)
<code>arrow</code>	use the <code><-</code> operator if TRUE, = otherwise
<code>brace.newline</code>	move braces to a new line if TRUE
<code>indent</code>	number of spaces to indent code blocks
<code>wrap</code>	whether to wrap comments to the linewidth determined by <code>width.cutoff</code>
<code>width.cutoff</code>	passed to <code>deparse</code> : integer in [20, 500] determining the cutoff at which line-breaking is tried

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