spell-statistics

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Assess the duration of warm spells in Indian tmax data.

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

```
library(esd)
```

```
## Loading required package: ncdf4
```

```
## Loading required package: zoo
```

```
##
## Attaching package: 'zoo'
```

```
## The following objects are masked from 'package:base':
##
##     as.Date, as.Date.numeric
```

```
##
## Attaching package: 'esd'
```

```
## The following object is masked from 'package:base':
##
##     subset.matrix
```

```
if (!file.exists("tmax.india.rda")) {
  ss <- select.station(param='tmax',src='GHCND',cntr='India',nmin=50)
  tmax <- station(ss)
  map(tmax,FUN='nv')
} else load("tmax.india.rda")
```

Data quality

You can also embed plots, for example:

```
diagnose(tmax)
```

Data availability
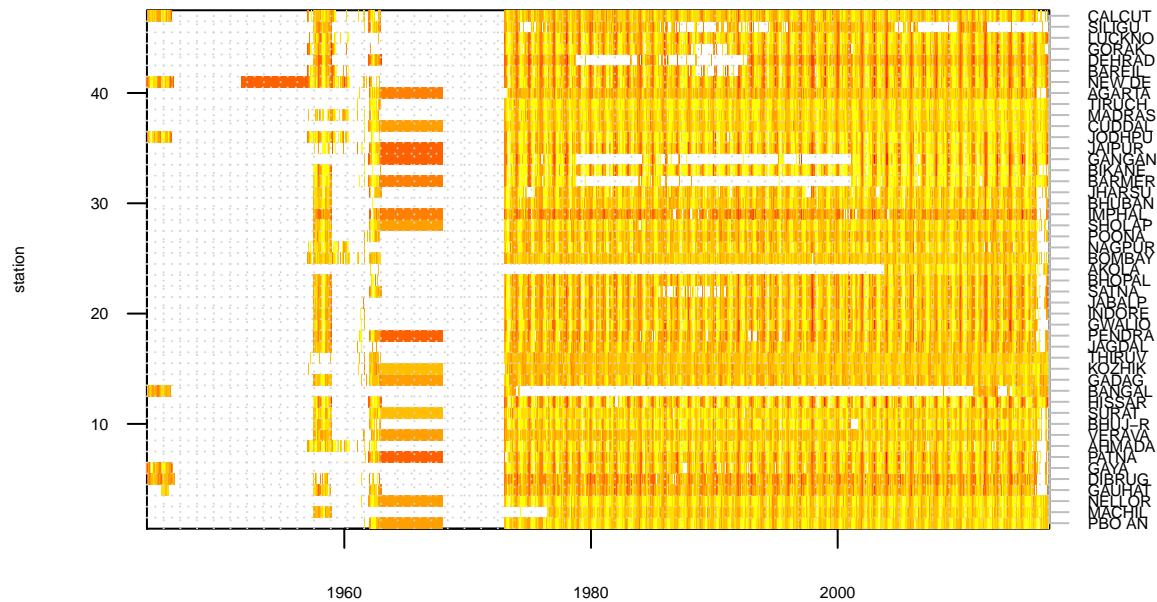
GHCND

```
## Remove periods with mostly missing data and stations with few valid data
Y <- subset(tmax,it=c(1970,2015))
nv <- apply(coredata(Y),2,FUN='nv')
Y <- subset(Y,is=nv > 10290)
```

Spell sttatistics

Wheat: sowing: Upper temperature limit: 15.7C; T>31C for 5 days induces pollen sterility before the flowering phase;

```
d <- dim(Y)
for (i in 1:d[2]) {
  sds <- spell(subset(Y,is=i),threshold=31)
  if (i==1) lws <- subset(sds,is=1) else
           lws <- combine.stations(lws,subset(sds,is=1))
  hist(sds,new=FALSE)
}

## [1] "Warning:  2524 missing values ( 16.1  %) filled by interpolation"
```

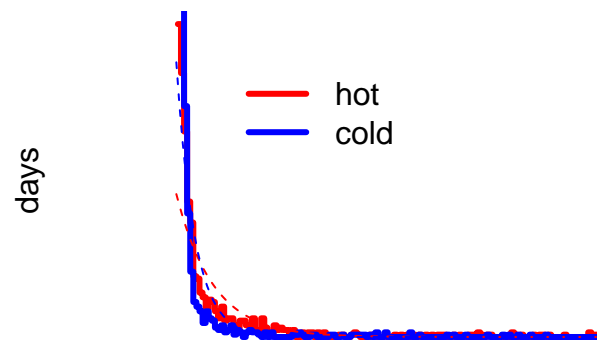**PBO ANANTAPUR hot and cold spell duration**
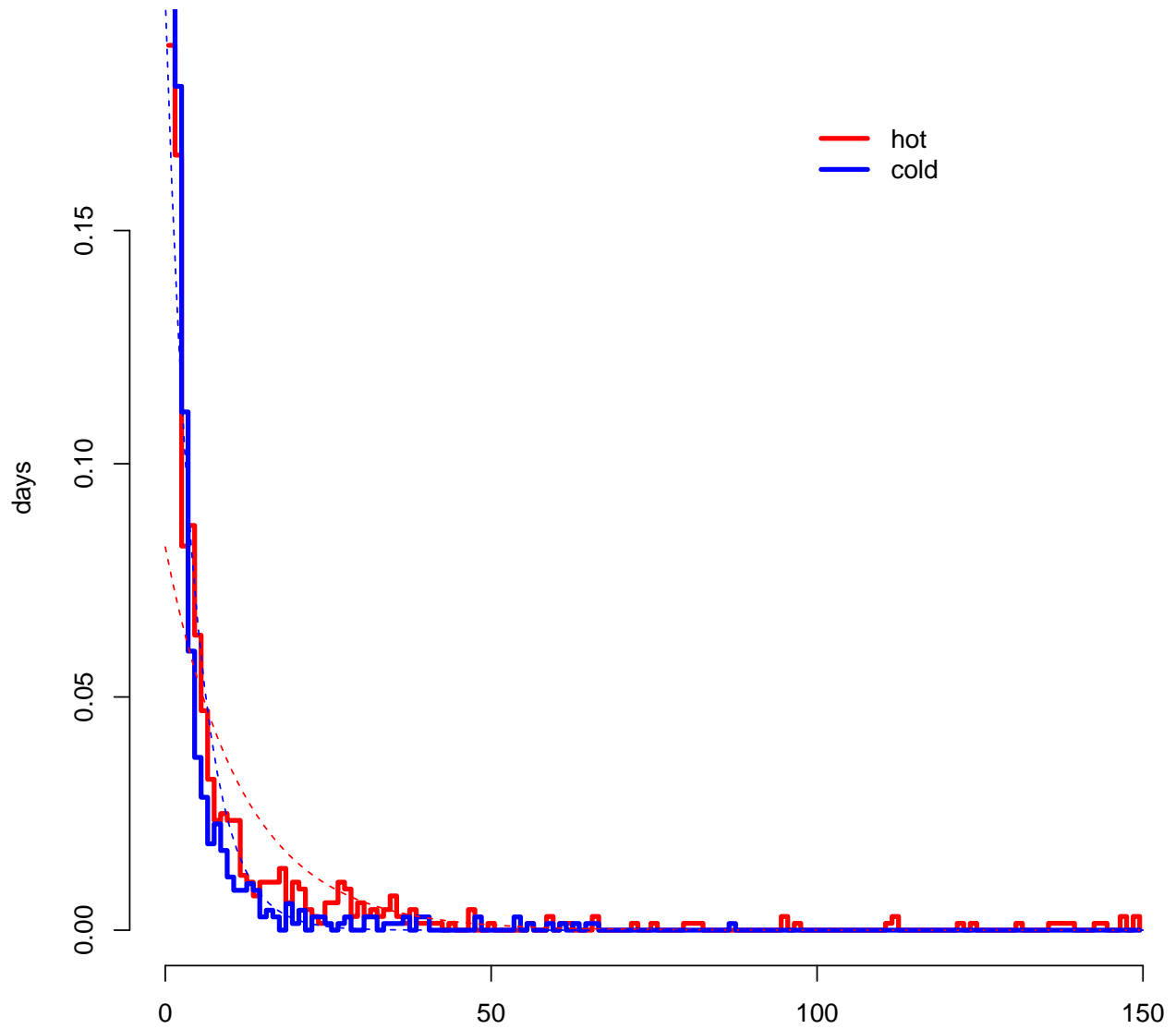
threshold= 31 degree*C

[1] "Warning: 2585 missing values (17 %) filled by interpolation"

MACHILIPATNAM hot and cold spell dur

hot
cold

days

threshold= 31 degree*C

```
## [1] "Warning:  2711 missing values ( 17.3  %) filled by interpolation"
```

NELLORE hot and cold spell duratio

hot
cold

days

threshold= 31 degree*C

```
## [1] "Warning:  2437 missing values ( 15.5  %) filled by interpolation"
```

GAUHATI hot and cold spell duratio

days

threshold= 31 degree*C

```
## [1] "Warning:  5344 missing values ( 34  %) filled by interpolation"
```
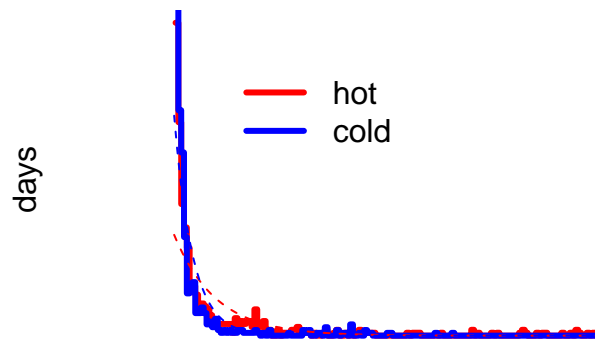
UGARH/MOHANBAR hot and cold spell

days

threshold= 31 degree*C

```
## [1] "Warning:  3179 missing values ( 20.2  %) filled by interpolation"
```

PATNA hot and cold spell duration

days

hot
cold

threshold= 31 degree*C

[1] "Warning: 3828 missing values (24.4 %) filled by interpolation"

AHMADABAD hot and cold spell durat

days

hot
cold

threshold= 31 degree*C

[1] "Warning: 3054 missing values (19.5 %) filled by interpolation"

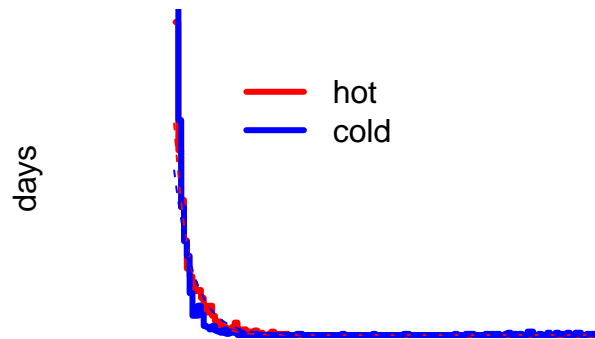## VERAVAL hot and cold spell duratio

threshold= 31 degree*C

```
## [1] "Warning:  3090 missing values ( 19.7  %) filled by interpolation"
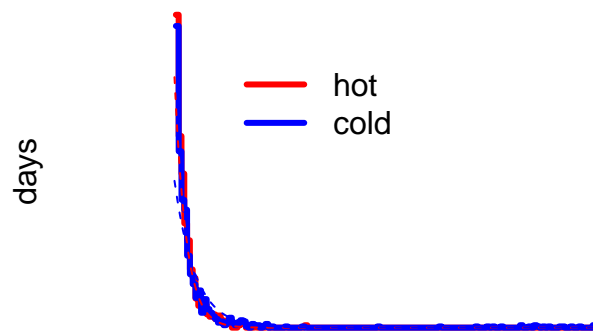```

## HUJ−RUDRAMATA hot and cold spell du



threshold= 31 degree*C

```
## [1] "Warning:  3421 missing values ( 21.8  %) filled by interpolation"
```

SURAT hot and cold spell duration

threshold= 31 degree*C

```
## [1] "Warning:  2589 missing values ( 16.5  %) filled by interpolation"
```
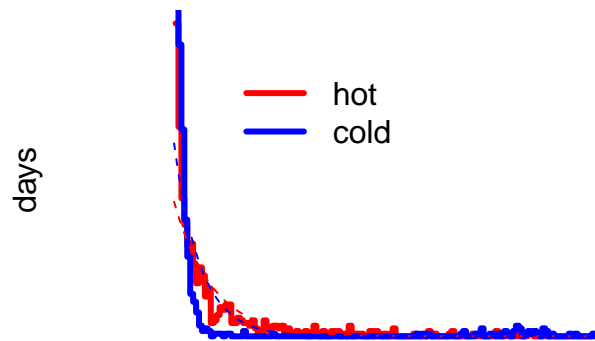
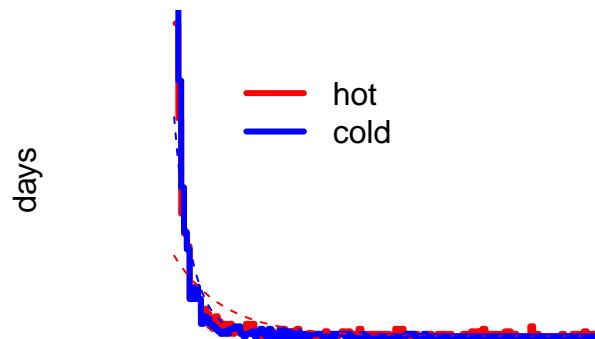## HISSAR hot and cold spell duration
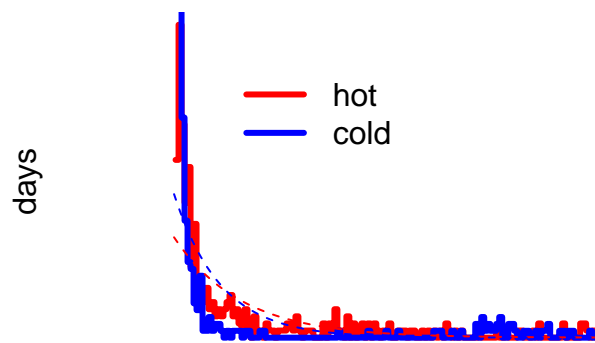
threshold= 31 degree*C

```
## [1] "Warning:  3076 missing values ( 19.6  %) filled by interpolation"
```

GADAG hot and cold spell duration

hot
cold

days

threshold= 31 degree*C

[1] "Warning: 3682 missing values (23.5 %) filled by interpolation"

KOZHIKODE hot and cold spell duration

hot
cold

days

threshold= 31 degree*C

[1] "Warning: 2244 missing values (14.3 %) filled by interpolation"

UVANANTHAPURAM hot and cold spell

hot
cold

days

threshold= 31 degree*C

```
## [1] "Warning:  3980 missing values ( 25.3  %) filled by interpolation"
```

JAGDALPUR hot and cold spell durat

hot
cold

days
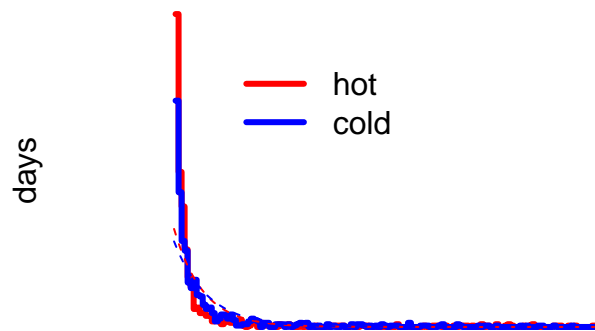
threshold= 31 degree*C

```
## [1] "Warning:  4596 missing values ( 29.3  %) filled by interpolation"
```
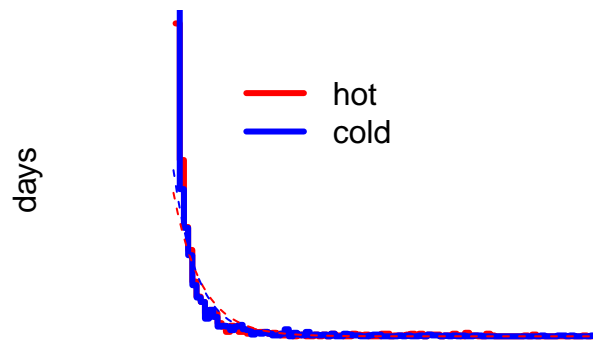
PENDRA ROAD hot and cold spell dura

days

hot
cold
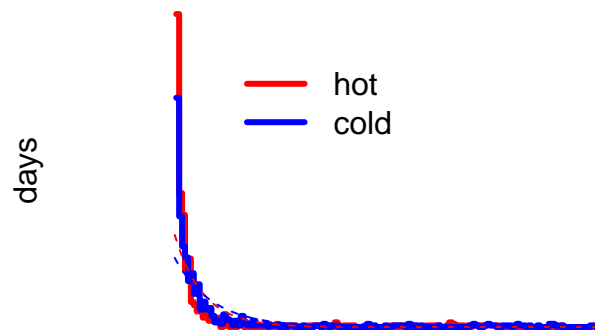
threshold= 31 degree*C

```
## [1] "Warning:  3282 missing values ( 20.9  %) filled by interpolation"
```

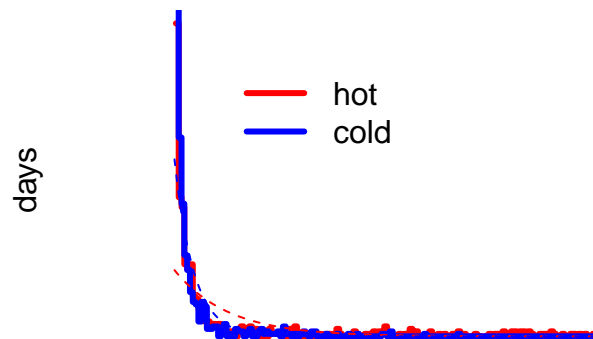## GWALIOR hot and cold spell duratic

days

hot
cold
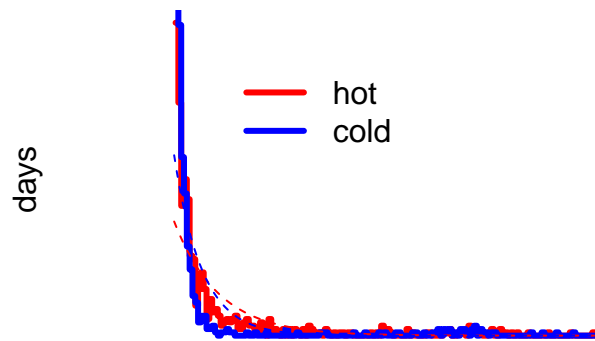
threshold= 31 degree*C

```
## [1] "Warning:  2941 missing values ( 18.7  %) filled by interpolation"
```

INDORE hot and cold spell duration

hot
cold

days
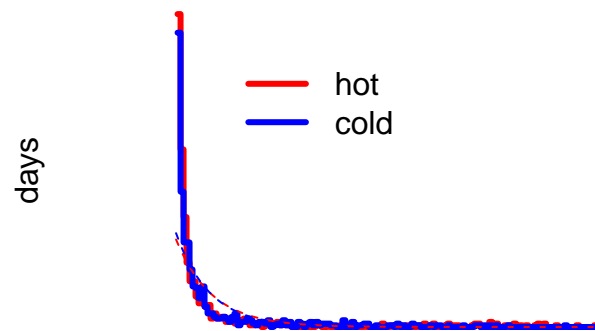
threshold= 31 degree*C

```
## [1] "Warning:  3214 missing values ( 20.5  %) filled by interpolation"
```

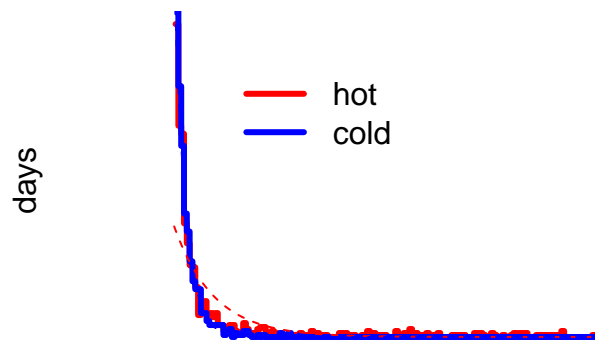# JABALPUR hot and cold spell duration

hot
cold

days
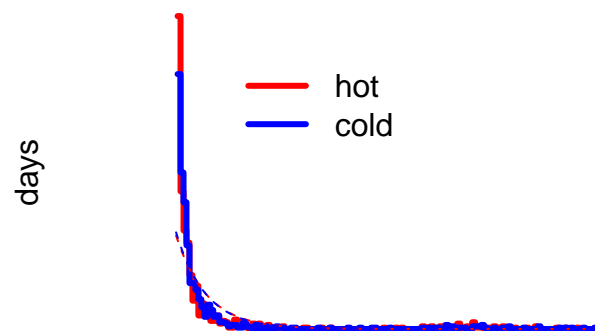
threshold= 31 degree*C

```
## [1] "Warning:  2744 missing values ( 17.5  %) filled by interpolation"
```

## OPAL/BAIRAGARH hot and cold spell d

days

hot
cold
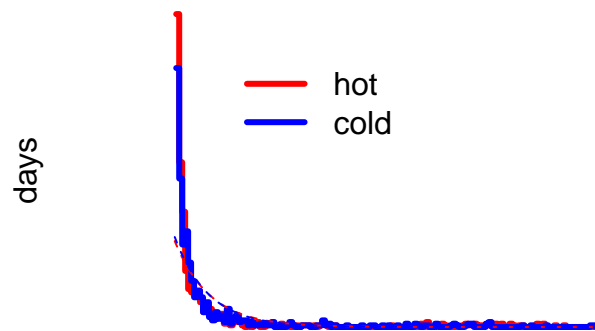
threshold= 31 degree*C

```
## [1] "Warning:  2892 missing values ( 18.4  %) filled by interpolation"
```

MBAY/SANTACRUZ hot and cold spell c

days

hot
cold
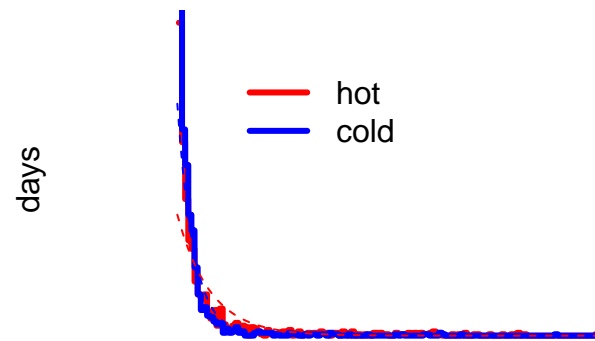
threshold= 31 degree*C

```
## [1] "Warning:  3191 missing values ( 20.3  %) filled by interpolation"
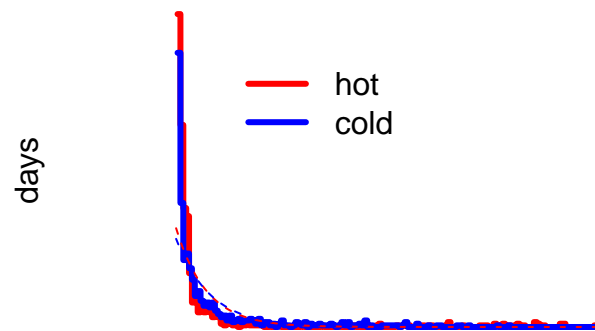```

# AGPUR SONEGA hot and cold spell du



hot
cold

days
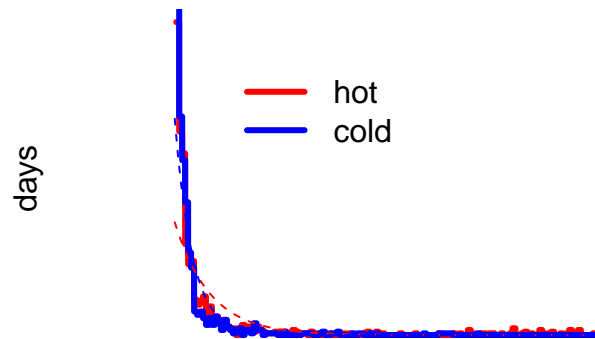
threshold= 31 degree*C

```
## [1] "Warning:  1540 missing values ( 9.8  %) filled by interpolation"
```

POONA hot and cold spell duratior

hot
cold

days
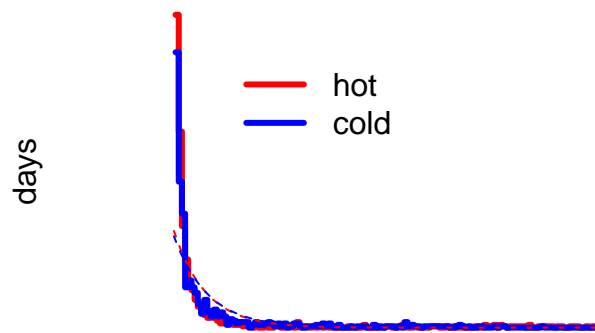
threshold= 31 degree*C

```
## [1] "Warning:  2038 missing values ( 13  %) filled by interpolation"
```

SHOLAPUR hot and cold spell duratio

days

hot
cold
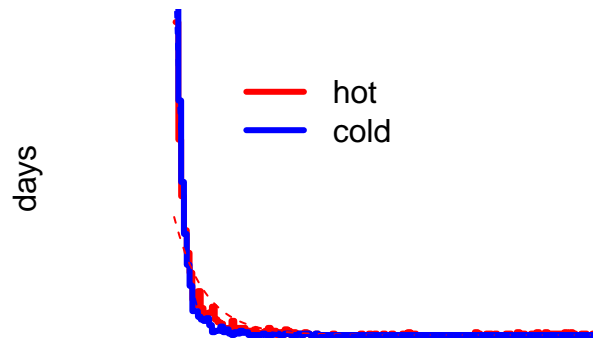
threshold= 31 degree*C

```
## [1] "Warning:  2424 missing values ( 15.4  %) filled by interpolation"
```

BHUBANE hot and cold spell duratio

days

hot
cold
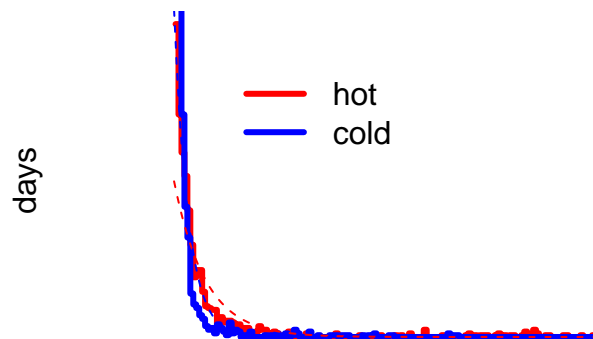
threshold= 31 degree*C

```
## [1] "Warning:  1781 missing values ( 11.3  %) filled by interpolation"
```

BIKANER hot and cold spell duratio
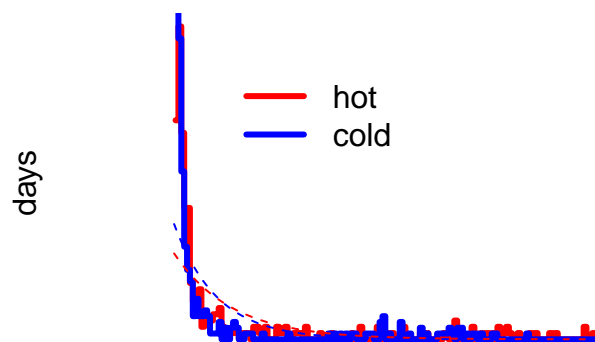
threshold= 31 degree*C

```
## [1] "Warning:  1530 missing values ( 9.7  %) filled by interpolation"
```
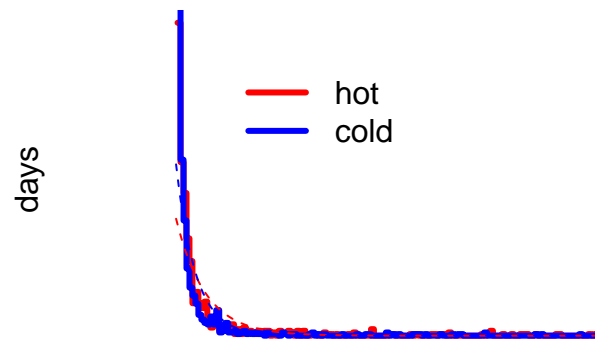
JAIPUR/SA hot and cold spell duratio
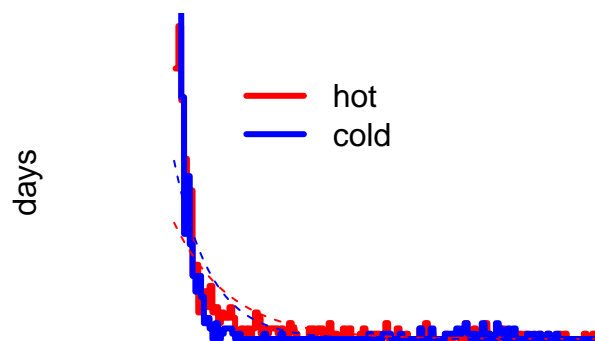
threshold= 31 degree*C

```
## [1] "Warning:  3264 missing values ( 20.8  %) filled by interpolation"
```
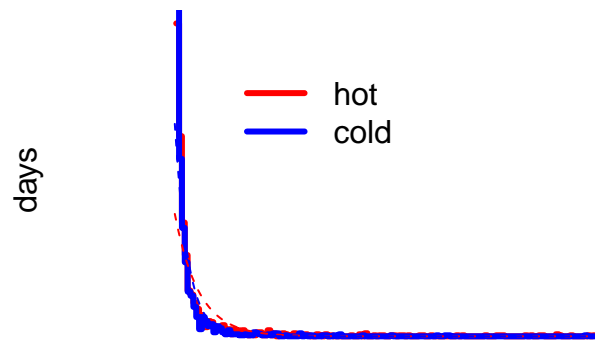
JODHPUR hot and cold spell duratio
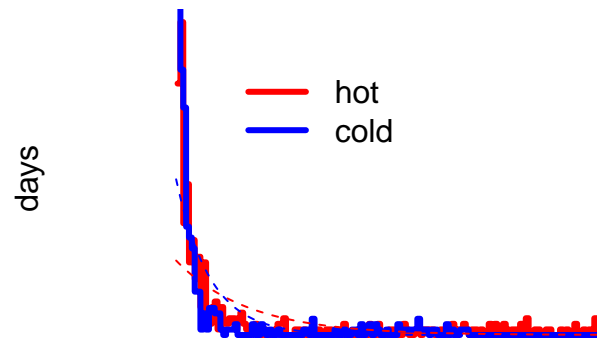
threshold= 31 degree*C

```
## [1] "Warning:  3009 missing values ( 19.2  %) filled by interpolation"
```

CUDDALO hot and cold spell duratio
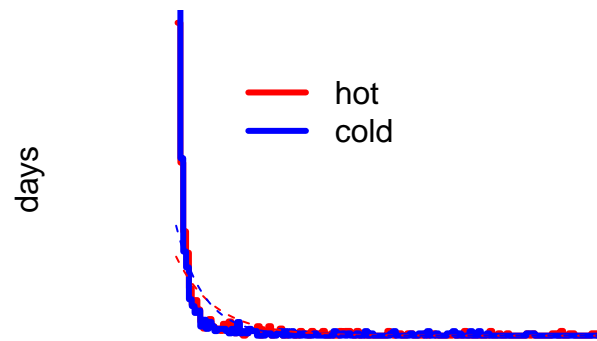
threshold= 31 degree*C

```
## [1] "Warning:  2113 missing values ( 13.5  %) filled by interpolation"
```

# RAS/MINAMBAKKAM hot and cold spel

days

hot
cold
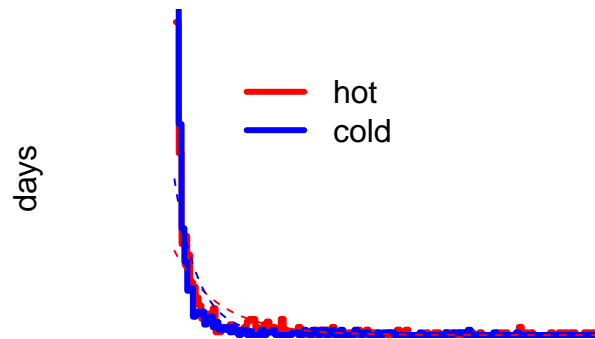
threshold= 31 degree*C

## [1] "Warning:  3859 missing values ( 24.6  %) filled by interpolation"

# RUCHCHIRAPALLI hot and cold spell du

days

hot
cold
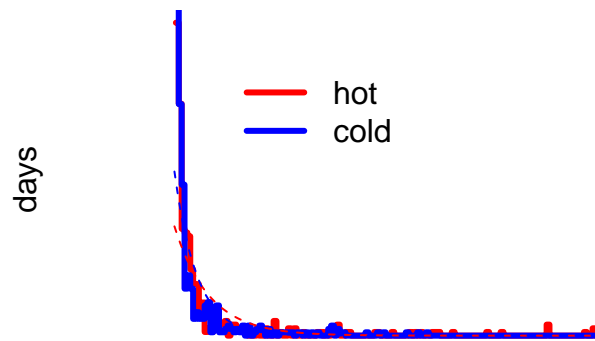
threshold= 31 degree*C

## [1] "Warning:  3527 missing values ( 22.6  %) filled by interpolation"

## AGARTALA hot and cold spell duratio



days

hot
cold
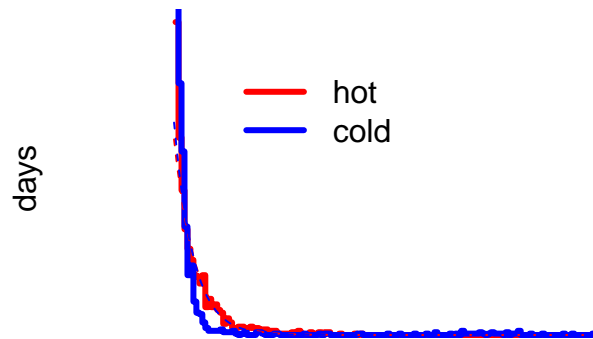
threshold= 31 degree*C

```
## [1] "Warning:  1135 missing values ( 7.2  %) filled by interpolation"
```

NEW DELHI/S hot and cold spell durat

days

hot
cold
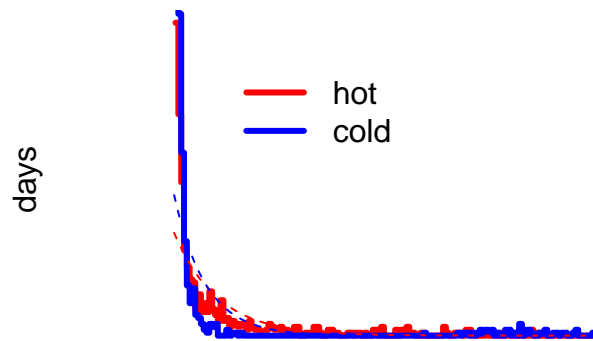
threshold= 31 degree*C

```
## [1] "Warning:  2242 missing values ( 14.3  %) filled by interpolation"
```

JCKNOW/AMAUSI hot and cold spell du
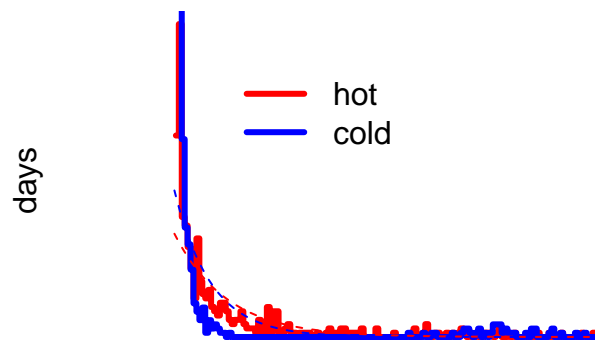
threshold= 31 degree*C

```
## [1] "Warning:  2379 missing values ( 15.2  %) filled by interpolation"
```

LCUTTA/DUM DUM hot and cold spell d
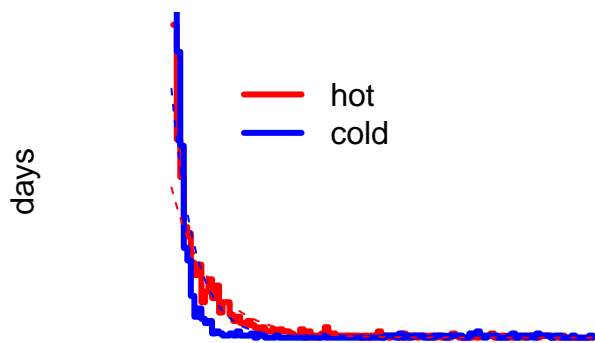
threshold= 31 degree*C

```
tmax.jja <- subset(as.4seasons(Y),it='jja')
lws.jja <- subset(as.4seasons(lws),it='jja')

## Figure 4.
xy <- merge(zoo(lws.jja),zoo(tmax.jja),all=FALSE)
cal.tmax.lws <- data.frame(x=c(coredata(xy)[,36:70]),y=c(coredata(xy[,1:35])))
cal.tmax.lws.log <- data.frame(x=log(c(coredata(xy)[,36:70])),y=log(c(coredata(xy[,1:35]))))
summary(lm(y ~x, data=cal.tmax.lws.log))

##
## Call:
## lm(formula = y ~ x, data = cal.tmax.lws.log)
```

```
## 
## Residuals:
##      Min      1Q   Median      3Q      Max
## -2.88210 -0.40976 -0.03154  0.39423  2.08146
## 
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -34.9404     0.8213  -42.54   <2e-16 ***
## x            10.5817     0.2345   45.12   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 
## Residual standard error: 0.6565 on 1374 degrees of freedom
##   (129 observations deleted due to missingness)
## Multiple R-squared:  0.597,  Adjusted R-squared:  0.5967
## F-statistic:  2035 on 1 and 1374 DF,  p-value: < 2.2e-16
```

```r
fit <- glm(y ~ x, data=cal.tmax.lws,family='poisson')
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.555556

## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.375000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.714286

## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.400000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.428571

## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 22.750000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.111111

## Warning in dpois(y, mu, log = TRUE): non-integer x = 15.166667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 15.400000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 18.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.833333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.200000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.888889

## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.750000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.750000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.750000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.777778
## Warning in dpois(y, mu, log = TRUE): non-integer x = 31.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.727273
## Warning in dpois(y, mu, log = TRUE): non-integer x = 22.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 15.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 28.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.307692
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.142857
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.142857
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.875000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 24.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 34.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 22.333333
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 26.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 24.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 53.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 22.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 30.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 25.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 26.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 27.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 25.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.538462
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.583333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.785714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.928571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.583333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.888889
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.909091
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.888889
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.071429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.818182
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.090909
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.090909
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.200000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.888889
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.125000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.214286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.777778
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.692308
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.416667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.727273
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 21.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.888889
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 30.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.100000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.647059
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.363636
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.615385
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.461538
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.181818
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.357143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.700000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.692308
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.882353
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.076923
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 21.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.818182
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.142857
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.727273
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 23.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.200000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 22.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.875000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 21.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 15.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 23.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 33.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.769231
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 18.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.545455
## Warning in dpois(y, mu, log = TRUE): non-integer x = 15.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 50.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 28.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.333333
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.222222
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 25.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 38.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 37.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.230769
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.545455
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.888889
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.125000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.625000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 56.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 29.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 29.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 24.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 52.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 64.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 29.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 38.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 21.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 31.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 18.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 25.500000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.875000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.818182
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 75.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 44.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.300000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.636364
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.545455
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.444444
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.300000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 50.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 38.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 18.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 18.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 69.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 30.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 24.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 34.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 25.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.928571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.444444
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.900000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.300000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.666667
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.700000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.222222
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.900000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.181818
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.818182
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.909091
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.076923
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.181818
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.944444
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.900000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.400000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.444444
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.142857
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.454545
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.916667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.875000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.400000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.142857
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.538462
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.222222
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.846154
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.727273
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.142857
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.142857
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.909091
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 21.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.142857
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 18.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.500000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.444444

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.571429

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.454545

## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.833333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.800000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.166667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.750000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.200000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.125000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.428571

## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.250000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.833333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.250000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.111111

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.625000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.800000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.833333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.555556

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.857143

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.250000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.250000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.833333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.625000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.375000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.142857
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.125000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.777778
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.818182
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.888889
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.444444
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.937500
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.454545
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.250000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.777778
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.888889
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.400000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.400000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.444444
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.888889
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.700000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.777778
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.083333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.363636
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.444444
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.777778
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.100000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.454545
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.538462
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.888889
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.875000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.125000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.875000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 1.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.538462
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.818182
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.222222
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.100000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.300000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.230769
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.666667
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.083333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.363636
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.125000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.222222
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.700000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.875000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.846154
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.181818
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 24.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.900000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.300000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.416667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.125000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.333333
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.818182
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.727273
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.090909
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.727273
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.875000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.777778
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.100000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.777778
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.700000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 28.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 62.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 35.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 59.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 52.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 53.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 46.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.250000
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.142857
## Warning in dpois(y, mu, log = TRUE): non-integer x = 2.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 28.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 21.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 22.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 36.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 49.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 30.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 49.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 24.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 23.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 45.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 30.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.666667
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 57.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.250000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 32.250000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 39.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 41.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 28.200000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 62.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.200000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 30.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 15.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 37.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 18.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 26.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 15.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.600000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 25.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 47.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 18.750000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.600000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 21.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 46.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 42.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 56.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 25.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 27.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.833333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.833333
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 25.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 68.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.285714
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.363636
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.888889
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.428571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.937500
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.300000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.222222
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.875000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.727273
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.100000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.583333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.444444
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.875000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.928571
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.375000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.166667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.750000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.111111
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.545455
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.272727
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.300000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.454545
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.777778
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.125000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.363636
## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.625000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.777778
## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.153846
## Warning in dpois(y, mu, log = TRUE): non-integer x = 50.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.571429
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.600000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.857143
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.250000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 22.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.200000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.555556
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.714286
## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.833333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 35.333333
## Warning in dpois(y, mu, log = TRUE): non-integer x = 56.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.400000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 31.666667
## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.500000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.800000
## Warning in dpois(y, mu, log = TRUE): non-integer x = 33.333333
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 30.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.800000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.142857

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.700000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.400000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.818182

## Warning in dpois(y, mu, log = TRUE): non-integer x = 25.166667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.777778

## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.714286

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.600000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.400000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 15.800000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.142857

## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.666667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.285714

## Warning in dpois(y, mu, log = TRUE): non-integer x = 19.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.750000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.800000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 25.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 24.750000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.571429

## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.750000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 18.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 20.400000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.125000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.444444

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.181818

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.250000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 4.888889

## Warning in dpois(y, mu, log = TRUE): non-integer x = 3.615385

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.250000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.909091

## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.111111

## Warning in dpois(y, mu, log = TRUE): non-integer x = 9.625000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.444444
```

```
## Warning in dpois(y, mu, log = TRUE): non-integer x = 15.200000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.125000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.833333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.900000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.166667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 5.545455

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.300000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 12.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.333333

## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.375000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.875000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 17.500000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 7.600000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 11.166667

## Warning in dpois(y, mu, log = TRUE): non-integer x = 8.444444

## Warning in dpois(y, mu, log = TRUE): non-integer x = 10.800000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 16.800000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 13.750000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 14.400000

## Warning in dpois(y, mu, log = TRUE): non-integer x = 6.444444
```

```r
plot(cal.tmax.lws,xlab=expression(bar(T[max])),ylab=expression(bar(L[hot])))
pre <- data.frame(x=seq(28,42,by=0.1))
lines(pre$x,exp(predict(fit,newdata=pre)),col=rgb(1,0,0,0.4),lwd=3)
grid()
```
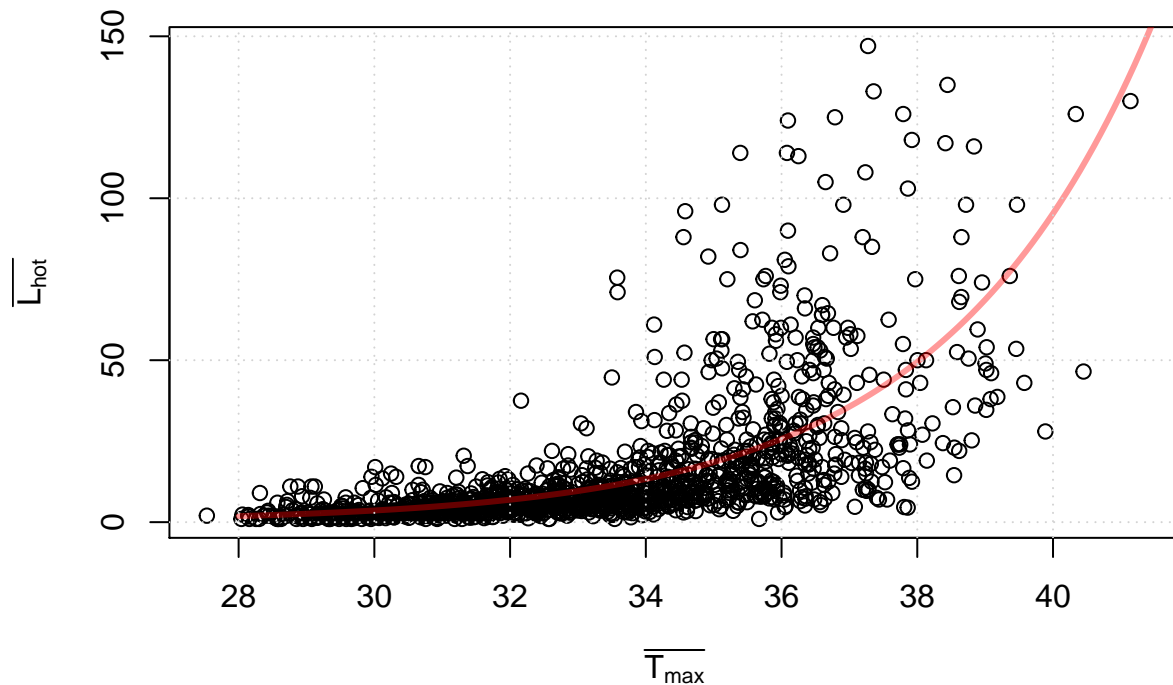
Supporting analysis

```
#3 Function: autocorrelation

AR <- function(n,mean=1,sd=1,a1=0.8) {
  rn <- rnorm(n,mean=mean,sd=sd)
  for (i in 2:n) rn[i] <- (a1*rn[i-1] + (1-a1)*rn[i])
  invisible(rn)
}
```

```
## Script that reads European temperature data and explores the connection between
## the seasonal mean temperature and the mean length of the warm/cold spells
it <- 'jja'
if (it =='djf') {
  cold <- TRUE
  threshold <- 0
  is <- 2
} else {
  cold <- FALSE
  threshold <- 20
  is <- 1
}

ss <- select.station(src='ecad',param='tg',nmin=75)
d <- dim(ss)
x <- rep(NA,d[1]); y <- x; std <- y
q.spell <- rep(NA,d[1]*10); dim(q.spell) <- c(d[1],10); q.geom <- q.spell

if (!file.exists(paste('ecad.tg.',it,'.rda',sep=''))) {
  for (i in 1:d[1]) {
   z <- station(ss[i,])
```

```r
   print(loc(z))
   ## Make sure that there are values above and below the given threshold - otherwise
   ## spell will not work.
   if ( (sum(z > threshold,na.rm=TRUE)>1000) & (sum(z < threshold,na.rm=TRUE)> 1000) ) {
    s <- spell(z,threshold=threshold)
    y[i] <- mean(subset(subset(s,is=is),it=it),na.rm=TRUE)

    ## Compare the spell-distribution with a geometric distribution
    q.spell[i,] <- quantile(subset(subset(s,is=is),it=it),probs=seq(0.05,0.95,by=0.1),na.rm=TRUE)
    q.geom[i,] <- qgeom(p=seq(0.05,0.95,by=0.1),prob=1/y[i])
    std[i] <- sd(subset(z,it=it),na.rm=TRUE)
    x[i] <- mean(subset(z,it=it),na.rm=TRUE)
    }
  }
  save(x,y,s,std,q.spell,q.geom,file=paste('ecad.tg.',it,'.rda',sep=''))
} else load(paste('ecad.tg.',it,'.rda',sep=''))
```

```
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100032 KREMSMUENSTER AUSTRIA ECAD"
## [1] "KREMSMUENSTER"
## [1] "Warning:  3168 missing values ( 6.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100034 GRAZ AUSTRIA ECAD"
## [1] "GRAZ"
## [1] "Warning:  2557 missing values ( 6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100036 INNSBRUCK AUSTRIA ECAD"
## [1] "INNSBRUCK"
## [1] "Warning:  3351 missing values ( 7.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100038 SALZBURG AUSTRIA ECAD"
## [1] "SALZBURG"
## [1] "Warning:  3266 missing values ( 7.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100040 SONNBLICK AUSTRIA ECAD"
## [1] "SONNBLICK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100042 WIEN AUSTRIA ECAD"
## [1] "WIEN"
## [1] "Warning:  2345 missing values ( 5.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100060 ZAGREB-GRIC CROATIA ECAD"
## [1] "ZAGREB-GRIC"
## [1] "Warning:  731 missing values ( 1.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100080 PRAHA-KLEMENTINUM CZECH REPUBLIC ECAD"
## [1] "PRAHA-KLEMENTINUM"
## [1] "Warning:  62 missing values ( 0.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100128 BAMBERG GERMANY ECAD"
## [1] "BAMBERG"
## [1] "Warning:  43 missing values ( 0.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100133 BERLIN-DAHLEM GERMANY ECAD"
```

```
## [1] "BERLIN-DAHLEM"
## [1] "Warning:  2205 missing values ( 4.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100138 BREMEN GERMANY ECAD"
## [1] "BREMEN"
## [1] "Warning:  404 missing values ( 0.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100143 DRESDEN WAHNSDORF GERMANY ECAD"
## [1] "DRESDEN WAHNSDORF"
## [1] "Warning:  6210 missing values ( 17  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100148 FRANKFURT GERMANY ECAD"
## [1] "FRANKFURT"
## [1] "Warning:  131 missing values ( 0.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100153 HALLE GERMANY ECAD"
## [1] "HALLE"
## [1] "Warning:  1635 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100167 HOHENPEISSENBERG GERMANY ECAD"
## [1] "HOHENPEISSENBERG"
## [1] "Warning:  2258 missing values ( 2.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100172 JENA STERNWARTE GERMANY ECAD"
## [1] "JENA STERNWARTE"
## [1] "Warning:  4972 missing values ( 7.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100177 KAISERSLAUTERN GERMANY ECAD"
## [1] "KAISERSLAUTERN"
## [1] "Warning:  6099 missing values ( 14.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100182 KARLSRUHE GERMANY ECAD"
## [1] "KARLSRUHE"
## [1] "Warning:  3317 missing values ( 6.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100187 MUENCHEN GERMANY ECAD"
## [1] "MUENCHEN"
## [1] "Warning:  919 missing values ( 1.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100192 MUENSTER GERMANY ECAD"
## [1] "MUENSTER"
## [1] "Warning:  9862 missing values ( 21.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100197 POTSDAM GERMANY ECAD"
## [1] "POTSDAM"
## [1] "Warning:  39 missing values ( 0.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100202 SCHWERIN GERMANY ECAD"
## [1] "SCHWERIN"
## [1] "Warning:  2320 missing values ( 5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100207 STUTTGART GERMANY ECAD"
## [1] "STUTTGART"
## [1] "Warning:  6271 missing values ( 14.7  %) filled by interpolation"
```

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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100212 TRIER GERMANY ECAD"
## [1] "TRIER"
## [1] "Warning:  10989 missing values ( 27.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100217 ZUGSPITZE GERMANY ECAD"
## [1] "ZUGSPITZE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100269 ALEKSANDROV GAJ RUSSIAN FEDERATION ECAD"
## [1] "ALEKSANDROV GAJ"
## [1] "Warning:  1127 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100273 ARHANGELSK RUSSIAN FEDERATION ECAD"
## [1] "ARHANGELSK"
## [1] "Warning:  1249 missing values ( 2.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100277 ARMAVIR RUSSIAN FEDERATION ECAD"
## [1] "ARMAVIR"
## [1] "Warning:  1332 missing values ( 4.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100281 ASTRAKAN RUSSIAN FEDERATION ECAD"
## [1] "ASTRAKAN"
## [1] "Warning:  2547 missing values ( 5.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100285 ELATMA RUSSIAN FEDERATION ECAD"
## [1] "ELATMA"
## [1] "Warning:  2495 missing values ( 5.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100289 HOSEDA HARD RUSSIAN FEDERATION ECAD"
## [1] "HOSEDA HARD"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100301 KANDALAKSA RUSSIAN FEDERATION ECAD"
## [1] "KANDALAKSA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100305 KEM-PORT RUSSIAN FEDERATION ECAD"
## [1] "KEM-PORT"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100309 KURSK RUSSIAN FEDERATION ECAD"
## [1] "KURSK"
## [1] "Warning:  3231 missing values ( 7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100313 KOJNAS RUSSIAN FEDERATION ECAD"
## [1] "KOJNAS"
## [1] "Warning:  1617 missing values ( 4.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100317 KOSTROMA RUSSIAN FEDERATION ECAD"
## [1] "KOSTROMA"
## [1] "Warning:  1096 missing values ( 3.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100321 KOTLAS RUSSIAN FEDERATION ECAD"
## [1] "KOTLAS"
## [1] "Warning:  1096 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100325 KRASNOUFIMSK RUSSIAN FEDERATION ECAD"
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## [1] "KRASNOUFIMSK"
## [1] "Warning:  1096 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100329 ST. PETERSBURG RUSSIAN FEDERATION ECAD"
## [1] "ST. PETERSBURG"
## [1] "Warning:  1096 missing values ( 2.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100333 MURMANSK RUSSIAN FEDERATION ECAD"
## [1] "MURMANSK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100341 NARJAN MAR RUSSIAN FEDERATION ECAD"
## [1] "NARJAN MAR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100345 UFA RUSSIAN FEDERATION ECAD"
## [1] "UFA"
## [1] "Warning:  2598 missing values ( 6.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100349 ONEGA RUSSIAN FEDERATION ECAD"
## [1] "ONEGA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100353 ORENBURG RUSSIAN FEDERATION ECAD"
## [1] "ORENBURG"
## [1] "Warning:  1096 missing values ( 2.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100357 PAVELETZ RUSSIAN FEDERATION ECAD"
## [1] "PAVELETZ"
## [1] "Warning:  1251 missing values ( 4.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100361 PETROZAWODSK RUSSIAN FEDERATION ECAD"
## [1] "PETROZAWODSK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100369 PSKOV RUSSIAN FEDERATION ECAD"
## [1] "PSKOV"
## [1] "Warning:  2285 missing values ( 7.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100373 SARATOW RUSSIAN FEDERATION ECAD"
## [1] "SARATOW"
## [1] "Warning:  1491 missing values ( 5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100385 SYKTYVKAR RUSSIAN FEDERATION ECAD"
## [1] "SYKTYVKAR"
## [1] "Warning:  2099 missing values ( 4.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100389 TAMBOV RUSSIAN FEDERATION ECAD"
## [1] "TAMBOV"
## [1] "Warning:  1280 missing values ( 4.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100393 TROICKO-PECHERSKOE RUSSIAN FEDERATION ECAD"
## [1] "TROICKO-PECHERSKOE"
## [1] "Warning:  1908 missing values ( 4.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100397 UST TZILMA RUSSIAN FEDERATION ECAD"
## [1] "UST TZILMA"
## [1] "Warning:  2695 missing values ( 5.9  %) filled by interpolation"
```

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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100401 VELIKIE LUKI RUSSIAN FEDERATION ECAD"
## [1] "VELIKIE LUKI"
## [1] "Warning:  8303 missing values ( 16.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100405 VYTEGRA RUSSIAN FEDERATION ECAD"
## [1] "VYTEGRA"
## [1] "Warning:  3903 missing values ( 7.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100409 VOLOGDA RUSSIAN FEDERATION ECAD"
## [1] "VOLOGDA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100452 DUBLIN PHOENIX PARK IRELAND ECAD"
## [1] "DUBLIN PHOENIX PARK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100521 DE BILT NETHERLANDS ECAD"
## [1] "DE BILT"
## [1] "Warning:  1 missing values ( 0  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100537 VLISSINGEN NETHERLANDS ECAD"
## [1] "VLISSINGEN"
## [1] "Warning:  306 missing values ( 0.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100545 MAASTRICHT NETHERLANDS ECAD"
## [1] "MAASTRICHT"
## [1] "Warning:  1 missing values ( 0  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100577 BJOERNOEYA NORWAY ECAD"
## [1] "BJOERNOEYA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100586 GLOMFJORD NORWAY ECAD"
## [1] "GLOMFJORD"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100598 FAERDER FYR NORWAY ECAD"
## [1] "FAERDER FYR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100601 OSLO BLINDERN NORWAY ECAD"
## [1] "OSLO BLINDERN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100621 KAUNAS LITHUANIA ECAD"
## [1] "KAUNAS"
## [1] "Warning:  10842 missing values ( 25.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100625 KLAIPEDA LITHUANIA ECAD"
## [1] "KLAIPEDA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100629 VILNIUS LITHUANIA ECAD"
## [1] "VILNIUS"
## [1] "Warning:  4419 missing values ( 10.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100705 LJUBLJANA BEZIGRAD SLOVENIA ECAD"
## [1] "LJUBLJANA BEZIGRAD"
## [1] "Warning:  904 missing values ( 2.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
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## [1] "1 T2M 100724 TORREVIEJA SPAIN ECAD"
## [1] "TORREVIEJA"
## [1] "Warning:  2594 missing values ( 7.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100737 BASEL BINNINGEN SWITZERLAND ECAD"
## [1] "BASEL BINNINGEN"
## [1] "Warning:  68 missing values ( 0.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100749 LUGANO SWITZERLAND ECAD"
## [1] "LUGANO"
## [1] "Warning:  30 missing values ( 0.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100753 SAENTIS SWITZERLAND ECAD"
## [1] "SAENTIS"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100757 ZUERICH/FLUNTERN SWITZERLAND ECAD"
## [1] "ZUERICH/FLUNTERN"
## [1] "Warning:  30 missing values ( 0.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100785 FEODOSIIA UKRAINE ECAD"
## [1] "FEODOSIIA"
## [1] "Warning:  2384 missing values ( 5.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100789 KIEV UKRAINE ECAD"
## [1] "KIEV"
## [1] "Warning:  1602 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100793 LUGANSK UKRAINE ECAD"
## [1] "LUGANSK"
## [1] "Warning:  1691 missing values ( 4.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100797 NIKOLAEV UKRAINE ECAD"
## [1] "NIKOLAEV"
## [1] "Warning:  4607 missing values ( 10.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100801 POLTAVA UKRAINE ECAD"
## [1] "POLTAVA"
## [1] "Warning:  2424 missing values ( 5.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100831 VESTERVIG DENMARK ECAD"
## [1] "VESTERVIG"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100832 NORDBY (FANO) DENMARK ECAD"
## [1] "NORDBY (FANO)"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100833 TRANEBJERG DENMARK ECAD"
## [1] "TRANEBJERG"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100834 KOEBENHAVN: LANDBOHOJSKOLEN-1 DENMARK ECAD"
## [1] "KOEBENHAVN: LANDBOHOJSKOLEN-1"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100838 MARSEILLE OBS. PALAIS-LONCHAMP FRANCE ECAD"
## [1] "MARSEILLE OBS. PALAIS-LONCHAMP"
## [1] "Warning:  5129 missing values ( 12  %) filled by interpolation"
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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100841 BORDEAUX-MERIGNAC FRANCE ECAD"
## [1] "BORDEAUX-MERIGNAC"
## [1] "Warning:  2439 missing values ( 6.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100843 PERPIGNAN FRANCE ECAD"
## [1] "PERPIGNAN"
## [1] "Warning:  903 missing values ( 2.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100862 BOLOGNA ITALY ECAD"
## [1] "BOLOGNA"
## [1] "Warning:  4753 missing values ( 6.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100865 COIMBRA PORTUGAL ECAD"
## [1] "COIMBRA"
## [1] "Warning:  8815 missing values ( 20.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100866 LISBOA GEOFISICA PORTUGAL ECAD"
## [1] "LISBOA GEOFISICA"
## [1] "Warning:  6210 missing values ( 14.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100876 TG JIU ROMANIA ECAD"
## [1] "TG JIU"
## [1] "Warning:  9712 missing values ( 22.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100877 TURNU MAGURELE ROMANIA ECAD"
## [1] "TURNU MAGURELE"
## [1] "Warning:  12722 missing values ( 28.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100880 MALAGA AEROPUERTO SPAIN ECAD"
## [1] "MALAGA AEROPUERTO"
## [1] "Warning:  165 missing values ( 0.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100883 SAN SEBASTIAN - IGUELDO SPAIN ECAD"
## [1] "SAN SEBASTIAN - IGUELDO"
## [1] "Warning:  50 missing values ( 0.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100884 TORTOSA - OBSERVATORIO DEL EBRO SPAIN ECAD"
## [1] "TORTOSA - OBSERVATORIO DEL EBRO"
## [1] "Warning:  485 missing values ( 1.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100885 VALENCIA SPAIN ECAD"
## [1] "VALENCIA"
## [1] "Warning:  63 missing values ( 0.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100897 CET CENTRAL ENGLAND UNITED KINGDOM ECAD"
## [1] "CET CENTRAL ENGLAND"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100908 VORU ESTONIA ECAD"
## [1] "VORU"
## [1] "Warning:  3918 missing values ( 11.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100912 VILSANDI ESTONIA ECAD"
## [1] "VILSANDI"
```

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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 100932 SARAJEVO BOSNIA AND HERZEGOVINA ECAD"
## [1] "SARAJEVO"
## [1] "Warning:  31 missing values ( 0.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 101000 MADRID - RETIRO SPAIN ECAD"
## [1] "MADRID - RETIRO"
## [1] "Warning:  149 missing values ( 0.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 101042 ALICANTE SPAIN ECAD"
## [1] "ALICANTE"
## [1] "Warning:  95 missing values ( 0.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 101099 TARTU ESTONIA ECAD"
## [1] "Warning : No values found in the time series for-> This station will be ignored"
## [1] "stid= 101099 lon= 26.73 lat= 58.3 alt= 59 loc= TARTU cntr= ESTONIA param= t2m path= data.ECAD u
## NULL
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 101227 RIZE TURKEY ECAD"
## [1] "RIZE"
## [1] "Warning:  4822 missing values ( 14.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 101231 ISTANBUL TURKEY ECAD"
## [1] "ISTANBUL"
## [1] "Warning:  4718 missing values ( 14.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 101235 KASTAMONU TURKEY ECAD"
## [1] "KASTAMONU"
## [1] "Warning:  4689 missing values ( 14.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 101239 SIVAS TURKEY ECAD"
## [1] "SIVAS"
## [1] "Warning:  4752 missing values ( 14.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 101243 ISPARTA TURKEY ECAD"
## [1] "ISPARTA"
## [1] "Warning:  4689 missing values ( 14.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 101255 STORNOWAY AIRPORT UNITED KINGDOM ECAD"
## [1] "STORNOWAY AIRPORT"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 101857 GALWAY IRELAND ECAD"
## [1] "GALWAY"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 102187 LIST/SYLT GERMANY ECAD"
## [1] "LIST/SYLT"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 102246 HANNOVER GERMANY ECAD"
## [1] "HANNOVER"
## [1] "Warning:  1134 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 102262 LINDENBERG GERMANY ECAD"
## [1] "LINDENBERG"
## [1] "Warning:  54 missing values ( 0.1  %) filled by interpolation"
```

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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 102318 AACHEN GERMANY ECAD"
## [1] "AACHEN"
## [1] "Warning:  7490 missing values ( 16.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 104037 ABBEVILLE FRANCE ECAD"
## [1] "ABBEVILLE"
## [1] "Warning:  1922 missing values ( 5.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 104073 DIJON-LONGVIC FRANCE ECAD"
## [1] "DIJON-LONGVIC"
## [1] "Warning:  1953 missing values ( 5.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 104089 POITIERS - BIARD FRANCE ECAD"
## [1] "POITIERS - BIARD"
## [1] "Warning:  3080 missing values ( 8.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 104093 CLERMONT-FERRAND FRANCE ECAD"
## [1] "CLERMONT-FERRAND"
## [1] "Warning:  275 missing values ( 0.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 104121 NICE FRANCE ECAD"
## [1] "NICE"
## [1] "Warning:  306 missing values ( 1.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105088 SION 1 SWITZERLAND ECAD"
## [1] "SION 1"
## [1] "Warning:  14245 missing values ( 33.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105100 COL DU GRAND ST-BERNARD SWITZERLAND ECAD"
## [1] "COL DU GRAND ST-BERNARD"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105180 GOSPIC CROATIA ECAD"
## [1] "GOSPIC"
## [1] "Warning:  4236 missing values ( 8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105187 HVAR CROATIA ECAD"
## [1] "HVAR"
## [1] "Warning:  5271 missing values ( 9.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105201 OSIJEK CROATIA ECAD"
## [1] "OSIJEK"
## [1] "Warning:  9833 missing values ( 16.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105249 MILAN ITALY ECAD"
## [1] "MILAN"
## [1] "Warning:  3013 missing values ( 3.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105484 OKSOEY FYR NORWAY ECAD"
## [1] "OKSOEY FYR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105507 UMAN UKRAINE ECAD"
## [1] "UMAN"
## [1] "Warning:  4758 missing values ( 9.9  %) filled by interpolation"
```

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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105511 SHEPETIVKA UKRAINE ECAD"
## [1] "SHEPETIVKA"
## [1] "Warning:  6329 missing values ( 18.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105515 LUBNY UKRAINE ECAD"
## [1] "LUBNY"
## [1] "Warning:  1754 missing values ( 5.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105519 ASKANIIA NOVA UKRAINE ECAD"
## [1] "ASKANIIA NOVA"
## [1] "Warning:  7014 missing values ( 18  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105523 AI-PETRI UKRAINE ECAD"
## [1] "AI-PETRI"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 105684 GAVAR ARMENIA ECAD"
## [1] "GAVAR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 106022 KREMSMUENSTER AUSTRIA ECAD"
## [1] "KREMSMUENSTER"
## [1] "Warning:  5486 missing values ( 10.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 106031 PRAHA-KLEMENTINUM CZECH REPUBLIC ECAD"
## [1] "PRAHA-KLEMENTINUM"
## [1] "Warning:  4388 missing values ( 5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 106038 SODANKYLA. LAPIN ILMATIET. TUTK.KESKUS FINLAND ECAD"
## [1] "SODANKYLA. LAPIN ILMATIET. TUTK.KESKUS"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 106702 MARIGNANE FRANCE ECAD"
## [1] "MARIGNANE"
## [1] "Warning:  1070 missing values ( 3.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 106707 ILULISSAT (JAKOBSHAVN) GREENLAND [DENMARK] ECAD"
## [1] "ILULISSAT (JAKOBSHAVN)"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 106765 MONTELIMAR FRANCE ECAD"
## [1] "MONTELIMAR"
## [1] "Warning:  275 missing values ( 0.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 106768 PTE DE LA HAGUE FRANCE ECAD"
## [1] "PTE DE LA HAGUE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 106770 STRASBOURG-ENTZHEIM FRANCE ECAD"
## [1] "STRASBOURG-ENTZHEIM"
## [1] "Warning:  1469 missing values ( 4.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 106866 VORONEZ RUSSIAN FEDERATION ECAD"
## [1] "VORONEZ"
## [1] "Warning:  7585 missing values ( 21  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 106920 ASKANIIA NOVA UKRAINE ECAD"
## [1] "ASKANIIA NOVA"
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## [1] "Warning:  13472 missing values ( 34.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 108098 TORREVIEJA SPAIN ECAD"
## [1] "TORREVIEJA"
## [1] "Warning:  5720 missing values ( 17.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 108906 VAEXJOE SWEDEN ECAD"
## [1] "VAEXJOE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 108907 FALUN SWEDEN ECAD"
## [1] "FALUN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 108908 STENSELE SWEDEN ECAD"
## [1] "STENSELE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 109405 TROMSO NORWAY ECAD"
## [1] "TROMSO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 109664 TORUNGEN FYR NORWAY ECAD"
## [1] "TORUNGEN FYR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 111042 TRONDHEIM - VOLL NORWAY ECAD"
## [1] "TRONDHEIM - VOLL"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 111417 HAMBURG FUHLSBUETTEL GERMANY ECAD"
## [1] "HAMBURG FUHLSBUETTEL"
## [1] "Warning:  39 missing values ( 0.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113748 HATANGA RUSSIAN FEDERATION ECAD"
## [1] "HATANGA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113756 OSTROV VRANGELJA RUSSIAN FEDERATION ECAD"
## [1] "OSTROV VRANGELJA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113764 KANDALAKSA RUSSIAN FEDERATION ECAD"
## [1] "KANDALAKSA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113768 KEM-PORT RUSSIAN FEDERATION ECAD"
## [1] "KEM-PORT"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113772 ARHANGELSK RUSSIAN FEDERATION ECAD"
## [1] "ARHANGELSK"
## [1] "Warning:  3989 missing values ( 8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113776 KOJNAS RUSSIAN FEDERATION ECAD"
## [1] "KOJNAS"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113796 VYTEGRA RUSSIAN FEDERATION ECAD"
## [1] "VYTEGRA"
## [1] "Warning:  6643 missing values ( 13.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113808 NARJAN MAR RUSSIAN FEDERATION ECAD"
## [1] "NARJAN MAR"
## [1] "Retrieving data from 1 records ..."
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## [1] "1 T2M 113816 UST TZILMA RUSSIAN FEDERATION ECAD"
## [1] "UST TZILMA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113832 TROICKO-PECHERSKOE RUSSIAN FEDERATION ECAD"
## [1] "TROICKO-PECHERSKOE"
## [1] "Warning:  4679 missing values ( 9.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113840 SYKTYVKAR RUSSIAN FEDERATION ECAD"
## [1] "SYKTYVKAR"
## [1] "Warning:  4870 missing values ( 10.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113844 SURGUT RUSSIAN FEDERATION ECAD"
## [1] "SURGUT"
## [1] "Warning:  12787 missing values ( 26.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113860 HANTY-MANSIJSK RUSSIAN FEDERATION ECAD"
## [1] "HANTY-MANSIJSK"
## [1] "Warning:  12115 missing values ( 26.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113872 VERHOJANSK RUSSIAN FEDERATION ECAD"
## [1] "VERHOJANSK"
## [1] "Warning:  7574 missing values ( 15.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113880 TURA RUSSIAN FEDERATION ECAD"
## [1] "TURA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113884 VILJUJSK RUSSIAN FEDERATION ECAD"
## [1] "VILJUJSK"
## [1] "Warning:  4257 missing values ( 9.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113900 VANAVARA RUSSIAN FEDERATION ECAD"
## [1] "VANAVARA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113904 OLEKMINSK RUSSIAN FEDERATION ECAD"
## [1] "OLEKMINSK"
## [1] "Warning:  10029 missing values ( 20.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113912 JAKUTSK RUSSIAN FEDERATION ECAD"
## [1] "JAKUTSK"
## [1] "Warning:  4695 missing values ( 10  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113916 UST-MAJA RUSSIAN FEDERATION ECAD"
## [1] "UST-MAJA"
## [1] "Warning:  8354 missing values ( 19.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113924 MARKOVO RUSSIAN FEDERATION ECAD"
## [1] "MARKOVO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113928 ANADYR RUSSIAN FEDERATION ECAD"
## [1] "ANADYR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113948 KORF RUSSIAN FEDERATION ECAD"
## [1] "KORF"
## [1] "Retrieving data from 1 records ..."
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## [1] "1 T2M 113956 ST. PETERSBURG RUSSIAN FEDERATION ECAD"
## [1] "ST. PETERSBURG"
## [1] "Warning:  3653 missing values ( 7.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113968 LIEPAJA LATVIA ECAD"
## [1] "LIEPAJA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113976 VELIKIE LUKI RUSSIAN FEDERATION ECAD"
## [1] "VELIKIE LUKI"
## [1] "Warning:  10891 missing values ( 21.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113988 VILNIUS LITHUANIA ECAD"
## [1] "VILNIUS"
## [1] "Warning:  10494 missing values ( 21.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 113996 MINSK BELARUS ECAD"
## [1] "MINSK"
## [1] "Warning:  10093 missing values ( 22  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114004 KIROV RUSSIAN FEDERATION ECAD"
## [1] "KIROV"
## [1] "Warning:  5124 missing values ( 10.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114008 KOSTROMA RUSSIAN FEDERATION ECAD"
## [1] "KOSTROMA"
## [1] "Warning:  3714 missing values ( 11.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114012 NIZNIJ NOVGOROD RUSSIAN FEDERATION ECAD"
## [1] "NIZNIJ NOVGOROD"
## [1] "Warning:  4965 missing values ( 10  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114016 KAZAN RUSSIAN FEDERATION ECAD"
## [1] "KAZAN"
## [1] "Warning:  4557 missing values ( 9.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114024 ELATMA RUSSIAN FEDERATION ECAD"
## [1] "ELATMA"
## [1] "Warning:  5113 missing values ( 10.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114040 BISER RUSSIAN FEDERATION ECAD"
## [1] "BISER"
## [1] "Warning:  6252 missing values ( 13.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114044 PERM RUSSIAN FEDERATION ECAD"
## [1] "PERM"
## [1] "Warning:  3897 missing values ( 7.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114048 TOBOLSK RUSSIAN FEDERATION ECAD"
## [1] "TOBOLSK"
## [1] "Warning:  4696 missing values ( 9.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114060 EKATERINBURG RUSSIAN FEDERATION ECAD"
## [1] "EKATERINBURG"
## [1] "Warning:  7000 missing values ( 14.1  %) filled by interpolation"
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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114068 KURGAN RUSSIAN FEDERATION ECAD"
## [1] "KURGAN"
## [1] "Warning:  6084 missing values ( 13.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114072 PETROPAVLOVSK KAZAKHSTAN ECAD"
## [1] "PETROPAVLOVSK"
## [1] "Warning:  8800 missing values ( 19.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114076 OMSK RUSSIAN FEDERATION ECAD"
## [1] "OMSK"
## [1] "Warning:  3964 missing values ( 10.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114080 UFA RUSSIAN FEDERATION ECAD"
## [1] "UFA"
## [1] "Warning:  5155 missing values ( 12.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114088 KUSTANAI KAZAKHSTAN ECAD"
## [1] "KUSTANAI"
## [1] "Warning:  5490 missing values ( 13.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114096 ENISEJSK RUSSIAN FEDERATION ECAD"
## [1] "ENISEJSK"
## [1] "Warning:  4551 missing values ( 9.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114100 BOGUCANY RUSSIAN FEDERATION ECAD"
## [1] "BOGUCANY"
## [1] "Warning:  3791 missing values ( 12  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114104 TOMSK RUSSIAN FEDERATION ECAD"
## [1] "TOMSK"
## [1] "Warning:  4143 missing values ( 8.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114108 KRASNOJARSK RUSSIAN FEDERATION ECAD"
## [1] "KRASNOJARSK"
## [1] "Warning:  3745 missing values ( 10  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114112 BARABINSK RUSSIAN FEDERATION ECAD"
## [1] "BARABINSK"
## [1] "Warning:  6008 missing values ( 14.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114124 MINUSINSK RUSSIAN FEDERATION ECAD"
## [1] "MINUSINSK"
## [1] "Warning:  5855 missing values ( 15.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114128 VITIM RUSSIAN FEDERATION ECAD"
## [1] "VITIM"
## [1] "Warning:  3671 missing values ( 11.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114132 KIRENSK RUSSIAN FEDERATION ECAD"
## [1] "KIRENSK"
## [1] "Warning:  6214 missing values ( 13.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114156 BARGUZIN RUSSIAN FEDERATION ECAD"
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## [1] "BARGUZIN"
## [1] "Warning:  6004 missing values ( 13.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114160 MOGOCA RUSSIAN FEDERATION ECAD"
## [1] "MOGOCA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114164 SKOVORODINO RUSSIAN FEDERATION ECAD"
## [1] "SKOVORODINO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114168 IRKUTSK RUSSIAN FEDERATION ECAD"
## [1] "IRKUTSK"
## [1] "Warning:  3727 missing values ( 7.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114172 CHITA RUSSIAN FEDERATION ECAD"
## [1] "CHITA"
## [1] "Warning:  4992 missing values ( 10.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114180 ULAN-UDE RUSSIAN FEDERATION ECAD"
## [1] "ULAN-UDE"
## [1] "Warning:  4569 missing values ( 9.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114184 KJAHTA RUSSIAN FEDERATION ECAD"
## [1] "KJAHTA"
## [1] "Warning:  8756 missing values ( 19.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114188 KYRA RUSSIAN FEDERATION ECAD"
## [1] "KYRA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114192 BORZJA RUSSIAN FEDERATION ECAD"
## [1] "BORZJA"
## [1] "Warning:  6064 missing values ( 14.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114200 OHOTSK RUSSIAN FEDERATION ECAD"
## [1] "OHOTSK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114204 AJAN RUSSIAN FEDERATION ECAD"
## [1] "AJAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114208 BOMNAK RUSSIAN FEDERATION ECAD"
## [1] "BOMNAK"
## [1] "Warning:  8036 missing values ( 20.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114212 EKIMCHAN RUSSIAN FEDERATION ECAD"
## [1] "EKIMCHAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114216 NIKOLAEVSK-NA-AMURE RUSSIAN FEDERATION ECAD"
## [1] "NIKOLAEVSK-NA-AMURE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114220 NORSK RUSSIAN FEDERATION ECAD"
## [1] "NORSK"
## [1] "Warning:  4096 missing values ( 12.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114228 BLAGOVESCENSK RUSSIAN FEDERATION ECAD"
## [1] "BLAGOVESCENSK"
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## [1] "Warning:  5382 missing values ( 10.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114256 TERNEJ RUSSIAN FEDERATION ECAD"
## [1] "TERNEJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114260 POGRANICHNYJ RUSSIAN FEDERATION ECAD"
## [1] "POGRANICHNYJ"
## [1] "Warning:  7545 missing values ( 18  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114264 VLADIVOSTOK RUSSIAN FEDERATION ECAD"
## [1] "VLADIVOSTOK"
## [1] "Warning:  4098 missing values ( 11.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114268 ALEKSANDROVSK-SAHALINSKIJ RUSSIAN FEDERATION ECAD"
## [1] "ALEKSANDROVSK-SAHALINSKIJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114272 PORONAJSK RUSSIAN FEDERATION ECAD"
## [1] "PORONAJSK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114280 KLJUCHI RUSSIAN FEDERATION ECAD"
## [1] "KLJUCHI"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114296 VASILEVICI BELARUS ECAD"
## [1] "VASILEVICI"
## [1] "Warning:  11387 missing values ( 22.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114300 KIEV UKRAINE ECAD"
## [1] "KIEV"
## [1] "Warning:  4584 missing values ( 9.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114320 KISINEV MOLDOVA, REPUBLIC OF ECAD"
## [1] "KISINEV"
## [1] "Warning:  17198 missing values ( 36.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114324 ODESA UKRAINE ECAD"
## [1] "ODESA"
## [1] "Warning:  5422 missing values ( 12.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114328 IZMAIL UKRAINE ECAD"
## [1] "IZMAIL"
## [1] "Warning:  23692 missing values ( 49.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114332 HENICHESK UKRAINE ECAD"
## [1] "HENICHESK"
## [1] "Warning:  8774 missing values ( 17.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114336 ASKANIIA NOVA UKRAINE ECAD"
## [1] "ASKANIIA NOVA"
## [1] "Warning:  9874 missing values ( 25.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114340 SIMFEROPOL UKRAINE ECAD"
## [1] "SIMFEROPOL"
## [1] "Warning:  8131 missing values ( 17  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
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## [1] "1 T2M 114344 FEODOSIIA UKRAINE ECAD"
## [1] "FEODOSIIA"
## [1] "Warning:  9110 missing values ( 18.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114352 KURSK RUSSIAN FEDERATION ECAD"
## [1] "KURSK"
## [1] "Warning:  5847 missing values ( 12.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114356 VORONEZ RUSSIAN FEDERATION ECAD"
## [1] "VORONEZ"
## [1] "Warning:  4176 missing values ( 11.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114360 KAMENNAJA-STEP RUSSIAN FEDERATION ECAD"
## [1] "KAMENNAJA-STEP"
## [1] "Warning:  5619 missing values ( 12.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114364 OKTJABRSKIJ-GORODOK RUSSIAN FEDERATION ECAD"
## [1] "OKTJABRSKIJ-GORODOK"
## [1] "Warning:  4096 missing values ( 8.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114400 ELISTA RUSSIAN FEDERATION ECAD"
## [1] "ELISTA"
## [1] "Warning:  4141 missing values ( 12.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114404 ASTRAKAN RUSSIAN FEDERATION ECAD"
## [1] "ASTRAKAN"
## [1] "Warning:  5165 missing values ( 10.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114412 URALSK KAZAKHSTAN ECAD"
## [1] "URALSK"
## [1] "Warning:  6842 missing values ( 16  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114416 ORENBURG RUSSIAN FEDERATION ECAD"
## [1] "ORENBURG"
## [1] "Warning:  3653 missing values ( 7.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114420 ASTANA KAZAKHSTAN ECAD"
## [1] "ASTANA"
## [1] "Warning:  7038 missing values ( 14.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114424 AKTOBE KAZAKHSTAN ECAD"
## [1] "AKTOBE"
## [1] "Warning:  6409 missing values ( 15.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114428 TURGAJ KAZAKHSTAN ECAD"
## [1] "TURGAJ"
## [1] "Warning:  12331 missing values ( 28.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114436 TAIPAK KAZAKHSTAN ECAD"
## [1] "TAIPAK"
## [1] "Warning:  5599 missing values ( 16.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114452 ATYRAU KAZAKHSTAN ECAD"
## [1] "ATYRAU"
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## [1] "Warning:  6449 missing values ( 13  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114456 ARALSKOE MORE KAZAKHSTAN ECAD"
## [1] "ARALSKOE MORE"
## [1] "Warning:  6027 missing values ( 14.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114468 SEMEJ KAZAKHSTAN ECAD"
## [1] "SEMEJ"
## [1] "Warning:  5193 missing values ( 12.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114480 ZHARKENT KAZAKHSTAN ECAD"
## [1] "ZHARKENT"
## [1] "Warning:  4400 missing values ( 12  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114484 ALMATY KAZAKHSTAN ECAD"
## [1] "ALMATY"
## [1] "Warning:  5125 missing values ( 13.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114488 NARYN KYRGYZSTAN ECAD"
## [1] "NARYN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114496 SOTCHI RUSSIAN FEDERATION ECAD"
## [1] "SOTCHI"
## [1] "Warning:  5948 missing values ( 12  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114508 MAHACKALA RUSSIAN FEDERATION ECAD"
## [1] "MAHACKALA"
## [1] "Warning:  4542 missing values ( 9.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114512 TBILISI GEORGIA ECAD"
## [1] "TBILISI"
## [1] "Warning:  10289 missing values ( 20.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114516 GUMRI ARMENIA ECAD"
## [1] "GUMRI"
## [1] "Warning:  12449 missing values ( 28.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114520 GANCA AZERBAIJAN ECAD"
## [1] "GANCA"
## [1] "Warning:  15285 missing values ( 31  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114524 YEREVAN ARMENIA ECAD"
## [1] "YEREVAN"
## [1] "Warning:  11718 missing values ( 24.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114528 TURKESTAN KAZAKHSTAN ECAD"
## [1] "TURKESTAN"
## [1] "Warning:  7826 missing values ( 15.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114544 TASHKENT UZBEKISTAN ECAD"
## [1] "TASHKENT"
## [1] "Warning:  4895 missing values ( 9.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114556 FERGANA UZBEKISTAN ECAD"
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## [1] "FERGANA"
## [1] "Warning:  6595 missing values ( 13.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114560 CHARDZHEV TURKMENISTAN ECAD"
## [1] "CHARDZHEV"
## [1] "Warning:  10162 missing values ( 22.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114572 GYZYLARBAT TURKMENISTAN ECAD"
## [1] "GYZYLARBAT"
## [1] "Warning:  10696 missing values ( 21.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114584 BAJRAMALY TURKMENISTAN ECAD"
## [1] "BAJRAMALY"
## [1] "Warning:  7320 missing values ( 15.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114596 KHOROG TAJIKISTAN ECAD"
## [1] "KHOROG"
## [1] "Warning:  14106 missing values ( 32.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114604 GYSHGY TURKMENISTAN ECAD"
## [1] "GYSHGY"
## [1] "Warning:  10459 missing values ( 25.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 114612 UIL KAZAKHSTAN ECAD"
## [1] "UIL"
## [1] "Warning:  5150 missing values ( 15.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116801 DIKSON RUSSIAN FEDERATION ECAD"
## [1] "DIKSON"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116806 HATANGA RUSSIAN FEDERATION ECAD"
## [1] "HATANGA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116816 OSTROV VRANGELJA RUSSIAN FEDERATION ECAD"
## [1] "OSTROV VRANGELJA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116826 REBOLY RUSSIAN FEDERATION ECAD"
## [1] "REBOLY"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116850 BEREZOVO RUSSIAN FEDERATION ECAD"
## [1] "BEREZOVO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116856 NJAKSIMVOL RUSSIAN FEDERATION ECAD"
## [1] "NJAKSIMVOL"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116862 SURGUT RUSSIAN FEDERATION ECAD"
## [1] "SURGUT"
## [1] "Warning:  13368 missing values ( 27.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116867 BOR RUSSIAN FEDERATION ECAD"
## [1] "BOR"
## [1] "Warning:  1464 missing values ( 4.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116872 BAJKIT RUSSIAN FEDERATION ECAD"
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## [1] "BAJKIT"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116877 IVDEL RUSSIAN FEDERATION ECAD"
## [1] "IVDEL"
## [1] "Warning:  1096 missing values ( 3.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116882 HANTY-MANSIJSK RUSSIAN FEDERATION ECAD"
## [1] "HANTY-MANSIJSK"
## [1] "Warning:  9553 missing values ( 21.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116887 ALEKSANDROVSKOE RUSSIAN FEDERATION ECAD"
## [1] "ALEKSANDROVSKOE"
## [1] "Warning:  1097 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116892 OLENEK RUSSIAN FEDERATION ECAD"
## [1] "OLENEK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116897 VERHOJANSK RUSSIAN FEDERATION ECAD"
## [1] "VERHOJANSK"
## [1] "Warning:  5460 missing values ( 11.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116902 ZHIGANSK RUSSIAN FEDERATION ECAD"
## [1] "ZHIGANSK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116907 TURA RUSSIAN FEDERATION ECAD"
## [1] "TURA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116912 VILJUJSK RUSSIAN FEDERATION ECAD"
## [1] "VILJUJSK"
## [1] "Warning:  1773 missing values ( 4.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116922 SUNTAR RUSSIAN FEDERATION ECAD"
## [1] "SUNTAR"
## [1] "Warning:  1106 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116927 ERBOGACEN RUSSIAN FEDERATION ECAD"
## [1] "ERBOGACEN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116932 VANAVARA RUSSIAN FEDERATION ECAD"
## [1] "VANAVARA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116937 OLEKMINSK RUSSIAN FEDERATION ECAD"
## [1] "OLEKMINSK"
## [1] "Warning:  7848 missing values ( 16  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116942 ISIT RUSSIAN FEDERATION ECAD"
## [1] "ISIT"
## [1] "Warning:  2011 missing values ( 6.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116947 JAKUTSK RUSSIAN FEDERATION ECAD"
## [1] "JAKUTSK"
## [1] "Warning:  2548 missing values ( 5.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116952 UST-MAJA RUSSIAN FEDERATION ECAD"
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## [1] "UST-MAJA"
## [1] "Warning:  5903 missing values ( 13.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116957 MYS SHMIDTA RUSSIAN FEDERATION ECAD"
## [1] "MYS SHMIDTA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116962 MARKOVO RUSSIAN FEDERATION ECAD"
## [1] "MARKOVO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116967 ANADYR RUSSIAN FEDERATION ECAD"
## [1] "ANADYR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116972 BUHTA PROVIDENJA RUSSIAN FEDERATION ECAD"
## [1] "BUHTA PROVIDENJA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116977 SEJMCHAN RUSSIAN FEDERATION ECAD"
## [1] "SEJMCHAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116987 MAGADAN RUSSIAN FEDERATION ECAD"
## [1] "MAGADAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 116992 KORF RUSSIAN FEDERATION ECAD"
## [1] "KORF"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117013 KIROV RUSSIAN FEDERATION ECAD"
## [1] "KIROV"
## [1] "Warning:  3270 missing values ( 6.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117019 NIZNIJ NOVGOROD RUSSIAN FEDERATION ECAD"
## [1] "NIZNIJ NOVGOROD"
## [1] "Warning:  3068 missing values ( 6.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117024 KAZAN RUSSIAN FEDERATION ECAD"
## [1] "KAZAN"
## [1] "Warning:  2672 missing values ( 5.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117033 LEUSI RUSSIAN FEDERATION ECAD"
## [1] "LEUSI"
## [1] "Warning:  1096 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117038 BISER RUSSIAN FEDERATION ECAD"
## [1] "BISER"
## [1] "Warning:  4126 missing values ( 8.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117043 PERM RUSSIAN FEDERATION ECAD"
## [1] "PERM"
## [1] "Warning:  2000 missing values ( 4.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117048 TOBOLSK RUSSIAN FEDERATION ECAD"
## [1] "TOBOLSK"
## [1] "Warning:  2624 missing values ( 5.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117055 EKATERINBURG RUSSIAN FEDERATION ECAD"
## [1] "EKATERINBURG"
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## [1] "Warning:  2194 missing values ( 4.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117060 TARA RUSSIAN FEDERATION ECAD"
## [1] "TARA"
## [1] "Warning:  1129 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117065 KURGAN RUSSIAN FEDERATION ECAD"
## [1] "KURGAN"
## [1] "Warning:  3679 missing values ( 8.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117070 OMSK RUSSIAN FEDERATION ECAD"
## [1] "OMSK"
## [1] "Warning:  1376 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117076 SAMARA RUSSIAN FEDERATION ECAD"
## [1] "SAMARA"
## [1] "Warning:  1096 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117081 KOLPASEVO RUSSIAN FEDERATION ECAD"
## [1] "KOLPASEVO"
## [1] "Warning:  1098 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117086 ENISEJSK RUSSIAN FEDERATION ECAD"
## [1] "ENISEJSK"
## [1] "Warning:  2511 missing values ( 5.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117091 BOGUCANY RUSSIAN FEDERATION ECAD"
## [1] "BOGUCANY"
## [1] "Warning:  1234 missing values ( 3.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117096 TOMSK RUSSIAN FEDERATION ECAD"
## [1] "TOMSK"
## [1] "Warning:  1920 missing values ( 3.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117101 KRASNOJARSK RUSSIAN FEDERATION ECAD"
## [1] "KRASNOJARSK"
## [1] "Warning:  1188 missing values ( 3.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117106 BARABINSK RUSSIAN FEDERATION ECAD"
## [1] "BARABINSK"
## [1] "Warning:  3451 missing values ( 8.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117121 MINUSINSK RUSSIAN FEDERATION ECAD"
## [1] "MINUSINSK"
## [1] "Warning:  3298 missing values ( 8.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117126 VITIM RUSSIAN FEDERATION ECAD"
## [1] "VITIM"
## [1] "Warning:  1114 missing values ( 3.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117131 KIRENSK RUSSIAN FEDERATION ECAD"
## [1] "KIRENSK"
## [1] "Warning:  3855 missing values ( 8.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
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## [1] "1 T2M 117141 CHARA RUSSIAN FEDERATION ECAD"
## [1] "CHARA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117146 CULMAN RUSSIAN FEDERATION ECAD"
## [1] "CULMAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117151 ZHIGALOVO RUSSIAN FEDERATION ECAD"
## [1] "ZHIGALOVO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117156 TROICKIJ PRIISK RUSSIAN FEDERATION ECAD"
## [1] "TROICKIJ PRIISK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117161 BARGUZIN RUSSIAN FEDERATION ECAD"
## [1] "BARGUZIN"
## [1] "Warning:  3421 missing values ( 7.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117166 MOGOCA RUSSIAN FEDERATION ECAD"
## [1] "MOGOCA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117171 SKOVORODINO RUSSIAN FEDERATION ECAD"
## [1] "SKOVORODINO"
## [1] "Warning:  5483 missing values ( 14.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117176 IRKUTSK RUSSIAN FEDERATION ECAD"
## [1] "IRKUTSK"
## [1] "Warning:  1770 missing values ( 3.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117181 CHITA RUSSIAN FEDERATION ECAD"
## [1] "CHITA"
## [1] "Warning:  2864 missing values ( 6.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117186 SRETENSK RUSSIAN FEDERATION ECAD"
## [1] "SRETENSK"
## [1] "Warning:  1188 missing values ( 4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117191 ULAN-UDE RUSSIAN FEDERATION ECAD"
## [1] "ULAN-UDE"
## [1] "Warning:  2516 missing values ( 5.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117196 KJAHTA RUSSIAN FEDERATION ECAD"
## [1] "KJAHTA"
## [1] "Warning:  6371 missing values ( 14.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117201 KYRA RUSSIAN FEDERATION ECAD"
## [1] "KYRA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117206 BORZJA RUSSIAN FEDERATION ECAD"
## [1] "BORZJA"
## [1] "Warning:  3566 missing values ( 8.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117211 ALDAN RUSSIAN FEDERATION ECAD"
## [1] "ALDAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117216 OHOTSK RUSSIAN FEDERATION ECAD"
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## [1] "OHOTSK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117221 AJAN RUSSIAN FEDERATION ECAD"
## [1] "AJAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117226 BOMNAK RUSSIAN FEDERATION ECAD"
## [1] "BOMNAK"
## [1] "Warning:  5394 missing values ( 13.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117231 EKIMCHAN RUSSIAN FEDERATION ECAD"
## [1] "EKIMCHAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117236 NIKOLAEVSK-NA-AMURE RUSSIAN FEDERATION ECAD"
## [1] "NIKOLAEVSK-NA-AMURE"
## [1] "Warning:  5191 missing values ( 10.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117241 NORSK RUSSIAN FEDERATION ECAD"
## [1] "NORSK"
## [1] "Warning:  1539 missing values ( 4.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117246 IM. POLINY OSIPENKO RUSSIAN FEDERATION ECAD"
## [1] "IM. POLINY OSIPENKO"
## [1] "Warning:  1157 missing values ( 3.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117251 BLAGOVESCENSK RUSSIAN FEDERATION ECAD"
## [1] "BLAGOVESCENSK"
## [1] "Warning:  3462 missing values ( 7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117256 CEKUNDA RUSSIAN FEDERATION ECAD"
## [1] "CEKUNDA"
## [1] "Warning:  1983 missing values ( 6.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117261 ARHARA RUSSIAN FEDERATION ECAD"
## [1] "ARHARA"
## [1] "Warning:  1112 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117266 EKATERINO-NIKOLSKOE RUSSIAN FEDERATION ECAD"
## [1] "EKATERINO-NIKOLSKOE"
## [1] "Warning:  1096 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117276 ZOLOTOJ RUSSIAN FEDERATION ECAD"
## [1] "ZOLOTOJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117281 DALNERECHENSK RUSSIAN FEDERATION ECAD"
## [1] "DALNERECHENSK"
## [1] "Warning:  1311 missing values ( 4.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117286 TERNEJ RUSSIAN FEDERATION ECAD"
## [1] "TERNEJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117291 POGRANICHNYJ RUSSIAN FEDERATION ECAD"
## [1] "POGRANICHNYJ"
## [1] "Warning:  4654 missing values ( 11.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
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## [1] "1 T2M 117296 VLADIVOSTOK RUSSIAN FEDERATION ECAD"
## [1] "VLADIVOSTOK"
## [1] "Warning:  1649 missing values ( 4.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117301 ALEKSANDROVSK-SAHALINSKIJ RUSSIAN FEDERATION ECAD"
## [1] "ALEKSANDROVSK-SAHALINSKIJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117306 PORONAJSK RUSSIAN FEDERATION ECAD"
## [1] "PORONAJSK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117316 KLJUCHI RUSSIAN FEDERATION ECAD"
## [1] "KLJUCHI"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117321 ICA RUSSIAN FEDERATION ECAD"
## [1] "ICA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117326 PETROPAVLOVSK-KAMCHATSKIJ RUSSIAN FEDERATION ECAD"
## [1] "PETROPAVLOVSK-KAMCHATSKIJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117332 VORONEZ RUSSIAN FEDERATION ECAD"
## [1] "VORONEZ"
## [1] "Warning:  1560 missing values ( 4.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117337 KAMENNAJA-STEP RUSSIAN FEDERATION ECAD"
## [1] "KAMENNAJA-STEP"
## [1] "Warning:  3112 missing values ( 6.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117342 OKTJABRSKIJ-GORODOK RUSSIAN FEDERATION ECAD"
## [1] "OKTJABRSKIJ-GORODOK"
## [1] "Warning:  2210 missing values ( 4.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117354 ROSTOV-NA-DONU RUSSIAN FEDERATION ECAD"
## [1] "ROSTOV-NA-DONU"
## [1] "Warning:  8732 missing values ( 24.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117369 ELISTA RUSSIAN FEDERATION ECAD"
## [1] "ELISTA"
## [1] "Warning:  1553 missing values ( 4.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117376 RUBCOVSK RUSSIAN FEDERATION ECAD"
## [1] "RUBCOVSK"
## [1] "Warning:  1096 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117387 SOTCHI RUSSIAN FEDERATION ECAD"
## [1] "SOTCHI"
## [1] "Warning:  4056 missing values ( 8.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117392 GROZNYJ RUSSIAN FEDERATION ECAD"
## [1] "GROZNYJ"
## [1] "Warning:  3905 missing values ( 13.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117397 MAHACKALA RUSSIAN FEDERATION ECAD"
## [1] "MAHACKALA"
## [1] "Warning:  8447 missing values ( 17.1  %) filled by interpolation"
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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117402 LIEPAJA LATVIA ECAD"
## [1] "LIEPAJA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117417 VILNIUS LITHUANIA ECAD"
## [1] "VILNIUS"
## [1] "Warning:  11159 missing values ( 22.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117422 MINSK BELARUS ECAD"
## [1] "MINSK"
## [1] "Warning:  10424 missing values ( 22.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117427 PETROPAVLOVSK KAZAKHSTAN ECAD"
## [1] "PETROPAVLOVSK"
## [1] "Warning:  9012 missing values ( 19.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117432 KUSTANAI KAZAKHSTAN ECAD"
## [1] "KUSTANAI"
## [1] "Warning:  5490 missing values ( 13.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117447 VASILEVICI BELARUS ECAD"
## [1] "VASILEVICI"
## [1] "Warning:  12090 missing values ( 24.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117452 KIEV UKRAINE ECAD"
## [1] "KIEV"
## [1] "Warning:  5287 missing values ( 10.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117482 KISINEV MOLDOVA, REPUBLIC OF ECAD"
## [1] "KISINEV"
## [1] "Warning:  17198 missing values ( 40.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117487 ODESA UKRAINE ECAD"
## [1] "ODESA"
## [1] "Warning:  5644 missing values ( 12.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117492 IZMAIL UKRAINE ECAD"
## [1] "IZMAIL"
## [1] "Warning:  23911 missing values ( 50.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117497 HENICHESK UKRAINE ECAD"
## [1] "HENICHESK"
## [1] "Warning:  9400 missing values ( 19.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117502 ASKANIIA NOVA UKRAINE ECAD"
## [1] "ASKANIIA NOVA"
## [1] "Warning:  9874 missing values ( 25.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117507 SIMFEROPOL UKRAINE ECAD"
## [1] "SIMFEROPOL"
## [1] "Warning:  8516 missing values ( 17.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117512 FEODOSIIA UKRAINE ECAD"
## [1] "FEODOSIIA"
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## [1] "Warning:  9435 missing values ( 19  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117537 URALSK KAZAKHSTAN ECAD"
## [1] "URALSK"
## [1] "Warning:  6842 missing values ( 16  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117542 ASTANA KAZAKHSTAN ECAD"
## [1] "ASTANA"
## [1] "Warning:  7556 missing values ( 15.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117547 AKTOBE KAZAKHSTAN ECAD"
## [1] "AKTOBE"
## [1] "Warning:  6409 missing values ( 15.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117552 TURGAJ KAZAKHSTAN ECAD"
## [1] "TURGAJ"
## [1] "Warning:  12331 missing values ( 28.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117562 TAIPAK KAZAKHSTAN ECAD"
## [1] "TAIPAK"
## [1] "Warning:  5599 missing values ( 16.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117567 UIL KAZAKHSTAN ECAD"
## [1] "UIL"
## [1] "Warning:  5150 missing values ( 15.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117587 ATYRAU KAZAKHSTAN ECAD"
## [1] "ATYRAU"
## [1] "Warning:  7078 missing values ( 14.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117592 ARALSKOE MORE KAZAKHSTAN ECAD"
## [1] "ARALSKOE MORE"
## [1] "Warning:  6027 missing values ( 14.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117602 SEMEJ KAZAKHSTAN ECAD"
## [1] "SEMEJ"
## [1] "Warning:  5193 missing values ( 12.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117617 ZHARKENT KAZAKHSTAN ECAD"
## [1] "ZHARKENT"
## [1] "Warning:  4400 missing values ( 12  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117622 ALMATY KAZAKHSTAN ECAD"
## [1] "ALMATY"
## [1] "Warning:  5125 missing values ( 13.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117627 NARYN KYRGYZSTAN ECAD"
## [1] "NARYN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117637 TBILISI GEORGIA ECAD"
## [1] "TBILISI"
## [1] "Warning:  10813 missing values ( 21.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117642 GUMRI ARMENIA ECAD"
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## [1] "GUMRI"
## [1] "Warning:  12590 missing values ( 28.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117647 GANCA AZERBAIJAN ECAD"
## [1] "GANCA"
## [1] "Warning:  15801 missing values ( 32  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117652 YEREVAN ARMENIA ECAD"
## [1] "YEREVAN"
## [1] "Warning:  12262 missing values ( 25.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117657 TURKESTAN KAZAKHSTAN ECAD"
## [1] "TURKESTAN"
## [1] "Warning:  8398 missing values ( 17.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117677 TASHKENT UZBEKISTAN ECAD"
## [1] "TASHKENT"
## [1] "Warning:  4114 missing values ( 9.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117692 FERGANA UZBEKISTAN ECAD"
## [1] "FERGANA"
## [1] "Warning:  5324 missing values ( 12.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117697 CHARDZHEV TURKMENISTAN ECAD"
## [1] "CHARDZHEV"
## [1] "Warning:  10382 missing values ( 23.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117712 GYZYLARBAT TURKMENISTAN ECAD"
## [1] "GYZYLARBAT"
## [1] "Warning:  11212 missing values ( 23  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117727 BAJRAMALY TURKMENISTAN ECAD"
## [1] "BAJRAMALY"
## [1] "Warning:  7720 missing values ( 16.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117742 KHOROG TAJIKISTAN ECAD"
## [1] "KHOROG"
## [1] "Warning:  14175 missing values ( 32.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 117752 GYSHGY TURKMENISTAN ECAD"
## [1] "GYSHGY"
## [1] "Warning:  10459 missing values ( 25.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 119706 A CORUNA SPAIN ECAD"
## [1] "A CORUNA"
## [1] "Warning:  79 missing values ( 0.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 119760 ALBACETE LOS LLANOS SPAIN ECAD"
## [1] "ALBACETE LOS LLANOS"
## [1] "Warning:  180 missing values ( 0.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 119886 BARCELONA -FABRA OBSERVATORY SPAIN ECAD"
## [1] "BARCELONA -FABRA OBSERVATORY"
## [1] "Warning:  529 missing values ( 1.6  %) filled by interpolation"
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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 119895 BARCELONA/AEROPUERTO SPAIN ECAD"
## [1] "BARCELONA/AEROPUERTO"
## [1] "Warning:  5878 missing values ( 17.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 119922 CACERES CIUDAD SPAIN ECAD"
## [1] "CACERES CIUDAD"
## [1] "Warning:  73 missing values ( 0.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 120219 LEON VIRGEN DEL CAMINO SPAIN ECAD"
## [1] "LEON VIRGEN DEL CAMINO"
## [1] "Warning:  52 missing values ( 0.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 120327 MURCIA/ALCANTARILLA SPAIN ECAD"
## [1] "MURCIA/ALCANTARILLA"
## [1] "Warning:  700 missing values ( 2.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 120435 IZANA SPAIN ECAD"
## [1] "IZANA"
## [1] "Warning:  887 missing values ( 2.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 120453 STA. CRUZ DE TENERIFE SPAIN ECAD"
## [1] "STA. CRUZ DE TENERIFE"
## [1] "Warning:  216 missing values ( 0.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 120462 TENERIFE/LOS RODEOS SPAIN ECAD"
## [1] "TENERIFE/LOS RODEOS"
## [1] "Warning:  2827 missing values ( 10.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 120597 VALLADOLID (VILLANUBLA) SPAIN ECAD"
## [1] "VALLADOLID (VILLANUBLA)"
## [1] "Warning:  115 missing values ( 0.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 120615 ZAMORA SPAIN ECAD"
## [1] "ZAMORA"
## [1] "Warning:  652 missing values ( 2.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 120624 DAROCA SPAIN ECAD"
## [1] "DAROCA"
## [1] "Warning:  162 missing values ( 0.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 120984 GIESSEN/WETTENBERG GERMANY ECAD"
## [1] "GIESSEN/WETTENBERG"
## [1] "Warning:  1135 missing values ( 4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 121116 OBERSTDORF GERMANY ECAD"
## [1] "OBERSTDORF"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 121176 WASSERKUPPE GERMANY ECAD"
## [1] "WASSERKUPPE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 121236 MANNHEIM GERMANY ECAD"
## [1] "MANNHEIM"
## [1] "Warning:  2989 missing values ( 10.1  %) filled by interpolation"
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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 121260 COTTBUS GERMANY ECAD"
## [1] "COTTBUS"
## [1] "Warning:  3030 missing values ( 6.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 121656 ELLWANGEN-RINDELBACH GERMANY ECAD"
## [1] "ELLWANGEN-RINDELBACH"
## [1] "Warning:  557 missing values ( 2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 121968 ESLOHE GERMANY ECAD"
## [1] "ESLOHE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 121980 ESSEN-BREDENEY GERMANY ECAD"
## [1] "ESSEN-BREDENEY"
## [1] "Warning:  1499 missing values ( 5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 122004 WEILERSWIST-LOMMERSUM GERMANY ECAD"
## [1] "WEILERSWIST-LOMMERSUM"
## [1] "Warning:  1104 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 122376 FRANKFURT/MAIN (FELDBERGSTR.) GERMANY ECAD"
## [1] "FRANKFURT/MAIN (FELDBERGSTR.)"
## [1] "Warning:  20212 missing values ( 37.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 122664 GARMISCH-PARTENKIRCHEN GERMANY ECAD"
## [1] "GARMISCH-PARTENKIRCHEN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 122700 GEISENHEIM GERMANY ECAD"
## [1] "GEISENHEIM"
## [1] "Warning:  39 missing values ( 0.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 123336 HAMELN GERMANY ECAD"
## [1] "HAMELN"
## [1] "Warning:  3349 missing values ( 11.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 123504 HEIDELBERG GERMANY ECAD"
## [1] "HEIDELBERG"
## [1] "Warning:  2363 missing values ( 7.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 123780 HILGENROTH GERMANY ECAD"
## [1] "HILGENROTH"
## [1] "Warning:  781 missing values ( 2.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 124116 HUSUM GERMANY ECAD"
## [1] "HUSUM"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 124548 KLEINER FELDBERG/TAUNUS GERMANY ECAD"
## [1] "KLEINER FELDBERG/TAUNUS"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 125016 BAMBERG (STERNWARTE) GERMANY ECAD"
## [1] "BAMBERG (STERNWARTE)"
## [1] "Warning:  21189 missing values ( 42  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 125568 LUBECK-WERFT GERMANY ECAD"
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## [1] "LUBECK-WERFT"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 126012 METTEN GERMANY ECAD"
## [1] "METTEN"
## [1] "Warning:  39 missing values ( 0.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 126120 BEERFELDEN GERMANY ECAD"
## [1] "BEERFELDEN"
## [1] "Warning:  265 missing values ( 0.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 126180 MONTABAUR GERMANY ECAD"
## [1] "MONTABAUR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 126276 MUNCHEN-BOTANISCHER GARTEN GERMANY ECAD"
## [1] "MUNCHEN-BOTANISCHER GARTEN"
## [1] "Warning:  23526 missing values ( 46.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 126336 MUENSTER GERMANY ECAD"
## [1] "MUENSTER"
## [1] "Warning:  9862 missing values ( 21.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 127488 BERLIN-DAHLEM (LFAG) GERMANY ECAD"
## [1] "BERLIN-DAHLEM (LFAG)"
## [1] "Warning:  19919 missing values ( 38.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 128184 BAD SALZUFLEN GERMANY ECAD"
## [1] "BAD SALZUFLEN"
## [1] "Warning:  1893 missing values ( 6.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 128760 SEESEN GERMANY ECAD"
## [1] "SEESEN"
## [1] "Warning:  881 missing values ( 3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 128796 SIEGEN (KLARANLAGE) GERMANY ECAD"
## [1] "SIEGEN (KLARANLAGE)"
## [1] "Warning:  1953 missing values ( 6.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 129144 STUTTGART-HOHENHEIM GERMANY ECAD"
## [1] "STUTTGART-HOHENHEIM"
## [1] "Warning:  14490 missing values ( 33.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 129396 TRAVEMUNDE GERMANY ECAD"
## [1] "TRAVEMUNDE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 129432 TRIER-ZEWEN GERMANY ECAD"
## [1] "TRIER-ZEWEN"
## [1] "Warning:  7951 missing values ( 19.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 129984 WEIHENSTEPHAN-DURNAST GERMANY ECAD"
## [1] "WEIHENSTEPHAN-DURNAST"
## [1] "Warning:  1489 missing values ( 5.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 130092 WEISSENBURG GERMANY ECAD"
## [1] "WEISSENBURG"
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## [1] "Warning:  447 missing values ( 1.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 130320 BOCHUM GERMANY ECAD"
## [1] "BOCHUM"
## [1] "Warning:  12007 missing values ( 42.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 130536 WORMS GERMANY ECAD"
## [1] "WORMS"
## [1] "Warning:  4755 missing values ( 16.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 130584 WUPPERTAL-BUCHENHOFEN GERMANY ECAD"
## [1] "WUPPERTAL-BUCHENHOFEN"
## [1] "Warning:  1904 missing values ( 6.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 130632 WRIXUM/FOHR GERMANY ECAD"
## [1] "WRIXUM/FOHR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 131640 BRAUNLAGE GERMANY ECAD"
## [1] "BRAUNLAGE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 132336 KR. NECKAR-ODENWALD BUCHEN GERMANY ECAD"
## [1] "KR. NECKAR-ODENWALD BUCHEN"
## [1] "Warning:  919 missing values ( 3.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 132564 CLAUSTHAL-ZELLERFELD GERMANY ECAD"
## [1] "CLAUSTHAL-ZELLERFELD"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 146811 ARMAGH UNITED KINGDOM ECAD"
## [1] "ARMAGH"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 147928 OSTROV GOLOMJANNYJ RUSSIAN FEDERATION ECAD"
## [1] "OSTROV GOLOMJANNYJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 147933 BARENCBURG RUSSIAN FEDERATION ECAD"
## [1] "BARENCBURG"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 147943 GMO IM.E.K.FEDOROVA RUSSIAN FEDERATION ECAD"
## [1] "GMO IM.E.K.FEDOROVA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 147958 BELY ISLAND RUSSIAN FEDERATION ECAD"
## [1] "BELY ISLAND"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 147963 MALIYE_KARMAKULY RUSSIAN FEDERATION ECAD"
## [1] "MALIYE_KARMAKULY"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 147973 VOLOCHANKA RUSSIAN FEDERATION ECAD"
## [1] "VOLOCHANKA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 147983 OSTROV KOTELNYJ RUSSIAN FEDERATION ECAD"
## [1] "OSTROV KOTELNYJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 147998 SASKYLAH RUSSIAN FEDERATION ECAD"
## [1] "SASKYLAH"
## [1] "Retrieving data from 1 records ..."
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## [1] "1 T2M 148003 TIKSI RUSSIAN FEDERATION ECAD"
## [1] "TIKSI"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148013 KJUSJUR RUSSIAN FEDERATION ECAD"
## [1] "KJUSJUR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148018 JUBILEJNAJA RUSSIAN FEDERATION ECAD"
## [1] "JUBILEJNAJA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148023 VAJDA-GUBA RUSSIAN FEDERATION ECAD"
## [1] "VAJDA-GUBA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148028 POLJARNOE RUSSIAN FEDERATION ECAD"
## [1] "POLJARNOE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148033 TERIBERKA RUSSIAN FEDERATION ECAD"
## [1] "TERIBERKA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148038 KOLGUEV SEVERNYI RUSSIAN FEDERATION ECAD"
## [1] "KOLGUEV SEVERNYI"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148063 SVYATOY NOS;CAPE(CLOSED) RUSSIAN FEDERATION ECAD"
## [1] "SVYATOY NOS;CAPE(CLOSED)"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148068 KANIN NOS RUSSIAN FEDERATION ECAD"
## [1] "KANIN NOS"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148083 KRASNOSHELYE RUSSIAN FEDERATION ECAD"
## [1] "KRASNOSHELYE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148108 INDIGA RUSSIAN FEDERATION ECAD"
## [1] "INDIGA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148123 UMBA RUSSIAN FEDERATION ECAD"
## [1] "UMBA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148133 OSTROV SOSNOVEZ RUSSIAN FEDERATION ECAD"
## [1] "OSTROV SOSNOVEZ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148148 UKHTA KALEVALA RUSSIAN FEDERATION ECAD"
## [1] "UKHTA KALEVALA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148153 GRIDINO RUSSIAN FEDERATION ECAD"
## [1] "GRIDINO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148158 ZHIZHGIN MAYAK RUSSIAN FEDERATION ECAD"
## [1] "ZHIZHGIN MAYAK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148288 SHENKURSK RUSSIAN FEDERATION ECAD"
## [1] "SHENKURSK"
## [1] "Warning:  3910 missing values ( 9.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148318 KARGOPOL RUSSIAN FEDERATION ECAD"
## [1] "KARGOPOL"
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## [1] "Warning:  1286 missing values ( 3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148333 VYBORG RUSSIAN FEDERATION ECAD"
## [1] "VYBORG"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148338 GOGLAND RUSSIAN FEDERATION ECAD"
## [1] "GOGLAND"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148378 AMDERMA RUSSIAN FEDERATION ECAD"
## [1] "AMDERMA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148383 MARRE-SALE RUSSIAN FEDERATION ECAD"
## [1] "MARRE-SALE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148393 DUDINKA RUSSIAN FEDERATION ECAD"
## [1] "DUDINKA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148423 NOVY-PORT RUSSIAN FEDERATION ECAD"
## [1] "NOVY-PORT"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148428 TAZOVSKOE RUSSIAN FEDERATION ECAD"
## [1] "TAZOVSKOE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148433 IGARKA RUSSIAN FEDERATION ECAD"
## [1] "IGARKA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148443 PETRUN RUSSIAN FEDERATION ECAD"
## [1] "PETRUN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148448 SALEKHARD RUSSIAN FEDERATION ECAD"
## [1] "SALEKHARD"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148468 AGATA RUSSIAN FEDERATION ECAD"
## [1] "AGATA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148473 UST-USA RUSSIAN FEDERATION ECAD"
## [1] "UST-USA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148503 SARAN-PAUL RUSSIAN FEDERATION ECAD"
## [1] "SARAN-PAUL"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148508 TARKO-SALE RUSSIAN FEDERATION ECAD"
## [1] "TARKO-SALE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148538 VERHNEIMBATSK RUSSIAN FEDERATION ECAD"
## [1] "VERHNEIMBATSK"
## [1] "Warning:  1172 missing values ( 3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148553 OKTYABR SKOYE RUSSIAN FEDERATION ECAD"
## [1] "OKTYABR SKOYE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148568 LARYAK RUSSIAN FEDERATION ECAD"
## [1] "LARYAK"
## [1] "Warning:  1653 missing values ( 5.6  %) filled by interpolation"
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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148583 CHERDYN' RUSSIAN FEDERATION ECAD"
## [1] "CHERDYN'"
## [1] "Warning:  2425 missing values ( 5.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148638 SUHANA RUSSIAN FEDERATION ECAD"
## [1] "SUHANA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148643 DZARDZAN RUSSIAN FEDERATION ECAD"
## [1] "DZARDZAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148658 UST-MOMA RUSSIAN FEDERATION ECAD"
## [1] "UST-MOMA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148703 SEGEN-KYUEL RUSSIAN FEDERATION ECAD"
## [1] "SEGEN-KYUEL"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148718 NAKANNO RUSSIAN FEDERATION ECAD"
## [1] "NAKANNO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148743 SUSUMAN RUSSIAN FEDERATION ECAD"
## [1] "SUSUMAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148748 STRELKA CHUNJA RUSSIAN FEDERATION ECAD"
## [1] "STRELKA CHUNJA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148818 OSTROVNOE RUSSIAN FEDERATION ECAD"
## [1] "OSTROVNOE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148823 SREDHEKOLYMSK RUSSIAN FEDERATION ECAD"
## [1] "SREDHEKOLYMSK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148838 UST-OLOJ RUSSIAN FEDERATION ECAD"
## [1] "UST-OLOJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148863 ZYRJANKA RUSSIAN FEDERATION ECAD"
## [1] "ZYRJANKA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148873 KORKODON RUSSIAN FEDERATION ECAD"
## [1] "KORKODON"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148948 BROHOVO RUSSIAN FEDERATION ECAD"
## [1] "BROHOVO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148958 APUKA RUSSIAN FEDERATION ECAD"
## [1] "APUKA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 148993 TIHVIN RUSSIAN FEDERATION ECAD"
## [1] "TIHVIN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149038 STARAJA_RUSSA RUSSIAN FEDERATION ECAD"
## [1] "STARAJA_RUSSA"
## [1] "Warning:  2414 missing values ( 8.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
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## [1] "1 T2M 149153 BRJANSK RUSSIAN FEDERATION ECAD"
## [1] "BRJANSK"
## [1] "Warning:  2578 missing values ( 8.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149158 KRASNAJA_GORA RUSSIAN FEDERATION ECAD"
## [1] "KRASNAJA_GORA"
## [1] "Warning:  4138 missing values ( 13.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149178 TOT-MA RUSSIAN FEDERATION ECAD"
## [1] "TOT-MA"
## [1] "Warning:  2662 missing values ( 6.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149183 NIKOLSK RUSSIAN FEDERATION ECAD"
## [1] "NIKOLSK"
## [1] "Warning:  1099 missing values ( 3.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149313 JARANSK RUSSIAN FEDERATION ECAD"
## [1] "JARANSK"
## [1] "Warning:  3063 missing values ( 10.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149373 JOSKAR-OLA RUSSIAN FEDERATION ECAD"
## [1] "JOSKAR-OLA"
## [1] "Warning:  2570 missing values ( 8.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149393 MOZAJSK RUSSIAN FEDERATION ECAD"
## [1] "MOZAJSK"
## [1] "Warning:  1247 missing values ( 4.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149473 LUKOJANOV RUSSIAN FEDERATION ECAD"
## [1] "LUKOJANOV"
## [1] "Warning:  1939 missing values ( 6.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149478 PORETSKOYE RUSSIAN FEDERATION ECAD"
## [1] "PORETSKOYE"
## [1] "Warning:  2060 missing values ( 4.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149513 RJAZAN RUSSIAN FEDERATION ECAD"
## [1] "RJAZAN"
## [1] "Warning:  1484 missing values ( 4.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149588 ZAMETCHINO RUSSIAN FEDERATION ECAD"
## [1] "ZAMETCHINO"
## [1] "Warning:  1173 missing values ( 2.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149598 INZA RUSSIAN FEDERATION ECAD"
## [1] "INZA"
## [1] "Warning:  3400 missing values ( 11.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149653 BEZENCHUK RUSSIAN FEDERATION ECAD"
## [1] "BEZENCHUK"
## [1] "Warning:  1965 missing values ( 4.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149703 VERHOTURE RUSSIAN FEDERATION ECAD"
## [1] "VERHOTURE"
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## [1] "Warning:  1193 missing values ( 4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149743 TURINSK RUSSIAN FEDERATION ECAD"
## [1] "TURINSK"
## [1] "Warning:  1336 missing values ( 4.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149798 TYUMEN AMSG RUSSIAN FEDERATION ECAD"
## [1] "TYUMEN AMSG"
## [1] "Warning:  1472 missing values ( 5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149823 SARAPUL RUSSIAN FEDERATION ECAD"
## [1] "SARAPUL"
## [1] "Warning:  1159 missing values ( 3.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149828 JANAUL RUSSIAN FEDERATION ECAD"
## [1] "JANAUL"
## [1] "Warning:  1486 missing values ( 5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149908 DUVAN RUSSIAN FEDERATION ECAD"
## [1] "DUVAN"
## [1] "Warning:  1279 missing values ( 4.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149918 SHADRINSK RUSSIAN FEDERATION ECAD"
## [1] "SHADRINSK"
## [1] "Warning:  1247 missing values ( 4.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149928 ISCHIM AMSG RUSSIAN FEDERATION ECAD"
## [1] "ISCHIM AMSG"
## [1] "Warning:  1480 missing values ( 5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 149983 ZLATOUST RUSSIAN FEDERATION ECAD"
## [1] "ZLATOUST"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150013 MAKUSCHINO RUSSIAN FEDERATION ECAD"
## [1] "MAKUSCHINO"
## [1] "Warning:  1374 missing values ( 4.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150033 CULPANOVO RUSSIAN FEDERATION ECAD"
## [1] "CULPANOVO"
## [1] "Warning:  1510 missing values ( 5.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150058 AKSAKOVO RUSSIAN FEDERATION ECAD"
## [1] "AKSAKOVO"
## [1] "Warning:  1231 missing values ( 4.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150068 TROITSK RUSSIAN FEDERATION ECAD"
## [1] "TROITSK"
## [1] "Warning:  1304 missing values ( 4.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150103 SERNOVODSK RUSSIAN FEDERATION ECAD"
## [1] "SERNOVODSK"
## [1] "Warning:  1363 missing values ( 4.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150118 STERLITAMAK RUSSIAN FEDERATION ECAD"
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## [1] "STERLITAMAK"
## [1] "Warning:  1211 missing values ( 4.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150128 VERKHNEURALSK RUSSIAN FEDERATION ECAD"
## [1] "VERKHNEURALSK"
## [1] "Warning:  2233 missing values ( 7.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150173 NAPAS RUSSIAN FEDERATION ECAD"
## [1] "NAPAS"
## [1] "Warning:  1530 missing values ( 5.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150188 SREDNY VASJUGAN RUSSIAN FEDERATION ECAD"
## [1] "SREDNY VASJUGAN"
## [1] "Warning:  3462 missing values ( 9.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150198 UST-OZERNOE RUSSIAN FEDERATION ECAD"
## [1] "UST-OZERNOE"
## [1] "Warning:  1295 missing values ( 4.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150218 PUDINO RUSSIAN FEDERATION ECAD"
## [1] "PUDINO"
## [1] "Warning:  1249 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150223 BAKCHAR RUSSIAN FEDERATION ECAD"
## [1] "BAKCHAR"
## [1] "Warning:  1222 missing values ( 4.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150233 PERVOMAJSKOE RUSSIAN FEDERATION ECAD"
## [1] "PERVOMAJSKOE"
## [1] "Warning:  1170 missing values ( 4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150258 SEVERNOE RUSSIAN FEDERATION ECAD"
## [1] "SEVERNOE"
## [1] "Warning:  1713 missing values ( 5.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150273 ACHINSK RUSSIAN FEDERATION ECAD"
## [1] "ACHINSK"
## [1] "Warning:  4798 missing values ( 11.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150308 BOLOTNOE RUSSIAN FEDERATION ECAD"
## [1] "BOLOTNOE"
## [1] "Warning:  1138 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150313 TAJGA RUSSIAN FEDERATION ECAD"
## [1] "TAJGA"
## [1] "Warning:  1186 missing values ( 4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150333 TISUL RUSSIAN FEDERATION ECAD"
## [1] "TISUL"
## [1] "Warning:  1349 missing values ( 4.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150358 SOLJANKA RUSSIAN FEDERATION ECAD"
## [1] "SOLJANKA"
## [1] "Warning:  1900 missing values ( 6.4  %) filled by interpolation"
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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150373 TAJSHET RUSSIAN FEDERATION ECAD"
## [1] "TAJSHET"
## [1] "Warning:  1614 missing values ( 4.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150383 TATARSK RUSSIAN FEDERATION ECAD"
## [1] "TATARSK"
## [1] "Warning:  4049 missing values ( 9.5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150493 NENASTNAJA RUSSIAN FEDERATION ECAD"
## [1] "NENASTNAJA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150513 VERHNJAJA GUTARA RUSSIAN FEDERATION ECAD"
## [1] "VERHNJAJA GUTARA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150533 KAMEN-NA-OBI RUSSIAN FEDERATION ECAD"
## [1] "KAMEN-NA-OBI"
## [1] "Warning:  1170 missing values ( 4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150588 SLAVGOROD RUSSIAN FEDERATION ECAD"
## [1] "SLAVGOROD"
## [1] "Warning:  1215 missing values ( 4.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150603 BIJSK ZONALNAJA RUSSIAN FEDERATION ECAD"
## [1] "BIJSK ZONALNAJA"
## [1] "Warning:  1223 missing values ( 4.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150623 OLENJA RECHKA RUSSIAN FEDERATION ECAD"
## [1] "OLENJA RECHKA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150638 PEREVOZ RUSSIAN FEDERATION ECAD"
## [1] "PEREVOZ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150643 DZHIKIMDA RUSSIAN FEDERATION ECAD"
## [1] "DZHIKIMDA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150678 MAKSIMOVO RUSSIAN FEDERATION ECAD"
## [1] "MAKSIMOVO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150693 BRATSK RUSSIAN FEDERATION ECAD"
## [1] "BRATSK"
## [1] "Warning:  1586 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150698 ORLINGA RUSSIAN FEDERATION ECAD"
## [1] "ORLINGA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150713 UST-NJUKZHA RUSSIAN FEDERATION ECAD"
## [1] "UST-NJUKZHA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150728 NIZHNEANGARSK RUSSIAN FEDERATION ECAD"
## [1] "NIZHNEANGARSK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150758 SREDNIJ KALAR RUSSIAN FEDERATION ECAD"
## [1] "SREDNIJ KALAR"
```

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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150768 NAGORNYJ RUSSIAN FEDERATION ECAD"
## [1] "NAGORNYJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150778 TULUN RUSSIAN FEDERATION ECAD"
## [1] "TULUN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150813 BAGDARIN RUSSIAN FEDERATION ECAD"
## [1] "BAGDARIN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150838 BALAGANSK RUSSIAN FEDERATION ECAD"
## [1] "BALAGANSK"
## [1] "Warning:  1479 missing values ( 5  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150848 BAJANDAJ RUSSIAN FEDERATION ECAD"
## [1] "BAJANDAJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150858 UST-BARGUZIN RUSSIAN FEDERATION ECAD"
## [1] "UST-BARGUZIN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150863 ROMANOVKA RUSSIAN FEDERATION ECAD"
## [1] "ROMANOVKA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150908 DZALINDA RUSSIAN FEDERATION ECAD"
## [1] "DZALINDA"
## [1] "Warning:  1451 missing values ( 4.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150913 INGA RUSSIAN FEDERATION ECAD"
## [1] "INGA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150938 BOLSHOE GOLOUSTNOE RUSSIAN FEDERATION ECAD"
## [1] "BOLSHOE GOLOUSTNOE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 150963 SOSNOVO-OZERSKOE RUSSIAN FEDERATION ECAD"
## [1] "SOSNOVO-OZERSKOE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151003 TUNKA RUSSIAN FEDERATION ECAD"
## [1] "TUNKA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151008 HAMAR-DABAN RUSSIAN FEDERATION ECAD"
## [1] "HAMAR-DABAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151013 BABUSKIN RUSSIAN FEDERATION ECAD"
## [1] "BABUSKIN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151043 HILOK RUSSIAN FEDERATION ECAD"
## [1] "HILOK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151058 AGINSKOE RUSSIAN FEDERATION ECAD"
## [1] "AGINSKOE"
## [1] "Warning:  1941 missing values ( 6.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151073 NERCHINSKIJ ZAVOD RUSSIAN FEDERATION ECAD"
## [1] "NERCHINSKIJ ZAVOD"
```

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## [1] "Warning:  3118 missing values ( 7.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151078 CAKIR RUSSIAN FEDERATION ECAD"
## [1] "CAKIR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151088 KRASNYJ CHIKOJ RUSSIAN FEDERATION ECAD"
## [1] "KRASNYJ CHIKOJ"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151143 UCHUR RUSSIAN FEDERATION ECAD"
## [1] "UCHUR"
## [1] "Warning:  1899 missing values ( 6.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151178 NELKAN RUSSIAN FEDERATION ECAD"
## [1] "NELKAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151183 BOLSOY SANTAR RUSSIAN FEDERATION ECAD"
## [1] "BOLSOY SANTAR"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151203 UDSKOE RUSSIAN FEDERATION ECAD"
## [1] "UDSKOE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151238 CHERNJAEVO RUSSIAN FEDERATION ECAD"
## [1] "CHERNJAEVO"
## [1] "Warning:  1777 missing values ( 4.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151268 DZAORE RUSSIAN FEDERATION ECAD"
## [1] "DZAORE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151273 BOGORODSKOE RUSSIAN FEDERATION ECAD"
## [1] "BOGORODSKOE"
## [1] "Warning:  1845 missing values ( 6.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151283 MAZANOVO RUSSIAN FEDERATION ECAD"
## [1] "MAZANOVO"
## [1] "Warning:  1164 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151343 SUTUR RUSSIAN FEDERATION ECAD"
## [1] "SUTUR"
## [1] "Warning:  1580 missing values ( 5.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151348 NIZHNE-TAMBOVSKOE RUSSIAN FEDERATION ECAD"
## [1] "NIZHNE-TAMBOVSKOE"
## [1] "Warning:  2172 missing values ( 7.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151428 SOVETSKAJA GAVAN RUSSIAN FEDERATION ECAD"
## [1] "SOVETSKAJA GAVAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151463 KRASNYJ JAR RUSSIAN FEDERATION ECAD"
## [1] "KRASNYJ JAR"
## [1] "Warning:  1762 missing values ( 6.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151478 MELNICHNOE RUSSIAN FEDERATION ECAD"
## [1] "MELNICHNOE"
## [1] "Warning:  4246 missing values ( 14.4  %) filled by interpolation"
```

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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151503 SVIJAGINO RUSSIAN FEDERATION ECAD"
## [1] "SVIJAGINO"
## [1] "Warning:  2664 missing values ( 9.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151523 RUDNAJA PRISTAN RUSSIAN FEDERATION ECAD"
## [1] "RUDNAJA PRISTAN"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151528 POSET RUSSIAN FEDERATION ECAD"
## [1] "POSET"
## [1] "Warning:  1771 missing values ( 6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151553 MOSKALVO RUSSIAN FEDERATION ECAD"
## [1] "MOSKALVO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151558 POGIBI RUSSIAN FEDERATION ECAD"
## [1] "POGIBI"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151563 NOGLIKI RUSSIAN FEDERATION ECAD"
## [1] "NOGLIKI"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151573 TIMOVSKOE RUSSIAN FEDERATION ECAD"
## [1] "TIMOVSKOE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151578 POGRANICHNOE RUSSIAN FEDERATION ECAD"
## [1] "POGRANICHNOE"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151668 UST-VOJAMPOLKA RUSSIAN FEDERATION ECAD"
## [1] "UST-VOJAMPOLKA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151673 UST-HAIRYUZOVO RUSSIAN FEDERATION ECAD"
## [1] "UST-HAIRYUZOVO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151693 SOBOLEVO RUSSIAN FEDERATION ECAD"
## [1] "SOBOLEVO"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151698 SEMJACHIK RUSSIAN FEDERATION ECAD"
## [1] "SEMJACHIK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151703 NACHIKI RUSSIAN FEDERATION ECAD"
## [1] "NACHIKI"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151718 OKTJABRSKAJA RUSSIAN FEDERATION ECAD"
## [1] "OKTJABRSKAJA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151723 PETROPAVLOVSKIJ MAJAK RUSSIAN FEDERATION ECAD"
## [1] "PETROPAVLOVSKIJ MAJAK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151733 NIKOLSKOYE/BERINGA OSTROV RUSSIAN FEDERATION ECAD"
## [1] "NIKOLSKOYE/BERINGA OSTROV"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151808 BOGORODITSKOYE-FENINO RUSSIAN FEDERATION ECAD"
## [1] "BOGORODITSKOYE-FENINO"
## [1] "Warning:  2070 missing values ( 4.8  %) filled by interpolation"
```

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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151828 ERSOV RUSSIAN FEDERATION ECAD"
## [1] "ERSOV"
## [1] "Warning:  5326 missing values ( 18  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151838 GOTNJA RUSSIAN FEDERATION ECAD"
## [1] "GOTNJA"
## [1] "Warning:  2043 missing values ( 6.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151863 URJUPINSK RUSSIAN FEDERATION ECAD"
## [1] "URJUPINSK"
## [1] "Warning:  4533 missing values ( 10.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151898 VALUJKI RUSSIAN FEDERATION ECAD"
## [1] "VALUJKI"
## [1] "Warning:  1701 missing values ( 5.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151913 FROLOVO RUSSIAN FEDERATION ECAD"
## [1] "FROLOVO"
## [1] "Warning:  1283 missing values ( 4.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151948 EL-TON RUSSIAN FEDERATION ECAD"
## [1] "EL-TON"
## [1] "Warning:  3064 missing values ( 8.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151968 VOLSHSKIY GMO RUSSIAN FEDERATION ECAD"
## [1] "VOLSHSKIY GMO"
## [1] "Warning:  3981 missing values ( 13.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 151978 VERHNIJ_BASKUNCAK RUSSIAN FEDERATION ECAD"
## [1] "VERHNIJ_BASKUNCAK"
## [1] "Warning:  1516 missing values ( 5.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152008 TAGANROG (LIGHTHOUSE) RUSSIAN FEDERATION ECAD"
## [1] "TAGANROG (LIGHTHOUSE)"
## [1] "Warning:  2373 missing values ( 5.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152018 GIGANT RUSSIAN FEDERATION ECAD"
## [1] "GIGANT"
## [1] "Warning:  1877 missing values ( 6.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152068 JASKUL RUSSIAN FEDERATION ECAD"
## [1] "JASKUL"
## [1] "Warning:  4128 missing values ( 14.2  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152088 KRASNODAR RUSSIAN FEDERATION ECAD"
## [1] "KRASNODAR"
## [1] "Warning:  2149 missing values ( 7.4  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152128 PERELYUB RUSSIAN FEDERATION ECAD"
## [1] "PERELYUB"
## [1] "Warning:  1966 missing values ( 6.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152143 ZILAIR RUSSIAN FEDERATION ECAD"
```

```
## [1] "ZILAIR"
## [1] "Warning:  1207 missing values ( 4.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152153 BREDY RUSSIAN FEDERATION ECAD"
## [1] "BREDY"
## [1] "Warning:  1215 missing values ( 4.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152198 ZMEINOGORSK RUSSIAN FEDERATION ECAD"
## [1] "ZMEINOGORSK"
## [1] "Warning:  10389 missing values ( 24.7  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152208 KYZYL-OZEK RUSSIAN FEDERATION ECAD"
## [1] "KYZYL-OZEK"
## [1] "Warning:  2979 missing values ( 9.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152223 YAJLJU RUSSIAN FEDERATION ECAD"
## [1] "YAJLJU"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152243 UST-KOKSA RUSSIAN FEDERATION ECAD"
## [1] "UST-KOKSA"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152253 KOSCH-AGACH RUSSIAN FEDERATION ECAD"
## [1] "KOSCH-AGACH"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152268 KARA-TJUREK RUSSIAN FEDERATION ECAD"
## [1] "KARA-TJUREK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152288 TUAPSE RUSSIAN FEDERATION ECAD"
## [1] "TUAPSE"
## [1] "Warning:  5591 missing values ( 18.9  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152303 MINERAL-NYE-VODY RUSSIAN FEDERATION ECAD"
## [1] "MINERAL-NYE-VODY"
## [1] "Warning:  2761 missing values ( 9.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152313 BUDENNOVSK RUSSIAN FEDERATION ECAD"
## [1] "BUDENNOVSK"
## [1] "Warning:  3504 missing values ( 10.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152333 KRASNAJA POLJANA RUSSIAN FEDERATION ECAD"
## [1] "KRASNAJA POLJANA"
## [1] "Warning:  1271 missing values ( 4.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152343 KISLOVODSK RUSSIAN FEDERATION ECAD"
## [1] "KISLOVODSK"
## [1] "Warning:  4323 missing values ( 10.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152383 VLADIKAVKAZ RUSSIAN FEDERATION ECAD"
## [1] "VLADIKAVKAZ"
## [1] "Warning:  21328 missing values ( 54.6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152388 GUDERMES RUSSIAN FEDERATION ECAD"
## [1] "GUDERMES"
## [1] "Warning:  3279 missing values ( 11.1  %) filled by interpolation"
```

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## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152403 SULAK RUSSIAN FEDERATION ECAD"
## [1] "SULAK"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152413 DERBENT RUSSIAN FEDERATION ECAD"
## [1] "DERBENT"
## [1] "Warning:  1789 missing values ( 6  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152418 BUYNAKSK RUSSIAN FEDERATION ECAD"
## [1] "BUYNAKSK"
## [1] "Warning:  1851 missing values ( 6.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152423 MAKHACH-KALA RUSSIAN FEDERATION ECAD"
## [1] "MAKHACH-KALA"
## [1] "Warning:  1620 missing values ( 3.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 152433 AKHTY RUSSIAN FEDERATION ECAD"
## [1] "AKHTY"
## [1] "Warning:  5575 missing values ( 14.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 155165 KNIN CROATIA ECAD"
## [1] "KNIN"
## [1] "Warning:  27922 missing values ( 48.1  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 155249 TORTOSA - OBSERVATORIO DEL EBRO SPAIN ECAD"
## [1] "TORTOSA - OBSERVATORIO DEL EBRO"
## [1] "Warning:  1360 missing values ( 3.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 155263 BARCELONA -FABRA OBSERVATORY SPAIN ECAD"
## [1] "BARCELONA -FABRA OBSERVATORY"
## [1] "Warning:  1065 missing values ( 2.8  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 157206 ANDENES NORWAY ECAD"
## [1] "ANDENES"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 171621 PTE DE CHASSIRON FRANCE ECAD"
## [1] "PTE DE CHASSIRON"
## [1] "Warning:  3780 missing values ( 10.3  %) filled by interpolation"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 171634 BELLE ILE - LE TALUT FRANCE ECAD"
## [1] "BELLE ILE - LE TALUT"
## [1] "Retrieving data from 1 records ..."
## [1] "1 T2M 171642 ORLY FRANCE ECAD"
## [1] "ORLY"
## [1] "Warning:  8662 missing values ( 24.7  %) filled by interpolation"
## Plot results

plot(x,y,main=paste('Mean',it,'temperature & mean length of intervals',
                    c('below','above')[c(cold,!cold)],threshold,'C'),
     sub='source: ECA&D',pch=19,col=rgb(0.5,0,0,0.3),
     xlab=expression(bar(T)),ylab=expression(bar(tau)))
grid()
```

```
## Monte-Carlo simulations to compare spell length with
mstd <- 2*max(std,na.rm=TRUE)
if (!cold) mx <- mean(x,na.rm=TRUE) else mx <- 0
nmc <- 300
ymc <- rep(NA,nmc); xmc <- ymc
for (m in seq(mx-mstd,mx+mstd,length=nmc)) {
  coredata(z) <- AR(length(z),mean=m,sd=mstd)
  s <- spell(z,threshold=threshold)
  ymc[i] <- mean(subset(subset(s,is=is),it=it),na.rm=TRUE)
  xmc[i] <- m
  points(xmc,ymc,pch=19,col='grey75')
}

points(x,y,pch=19,col=rgb(0.5,0,0,0.3))

ix <- order(x); x <- x[ix]; y <- y[ix]
ok <- is.finite(x) & is.finite(y)
x <- x[ok]; y <- y[ok]; std <- std[ok]
calfit <- data.frame(x=x,y=y)
attr(calfit,'max(x)') <- max(x,na.rm=TRUE)
#fit <- lm(y ~ I(x) + I(x^2),data=calfit)
fit <- glm(y ~ x,data=calfit,family='poisson')
lines(calfit$x,exp(predict(fit)),col='red')
```

Mean jja temperature & mean length of intervals above 20 C

source: ECA&D
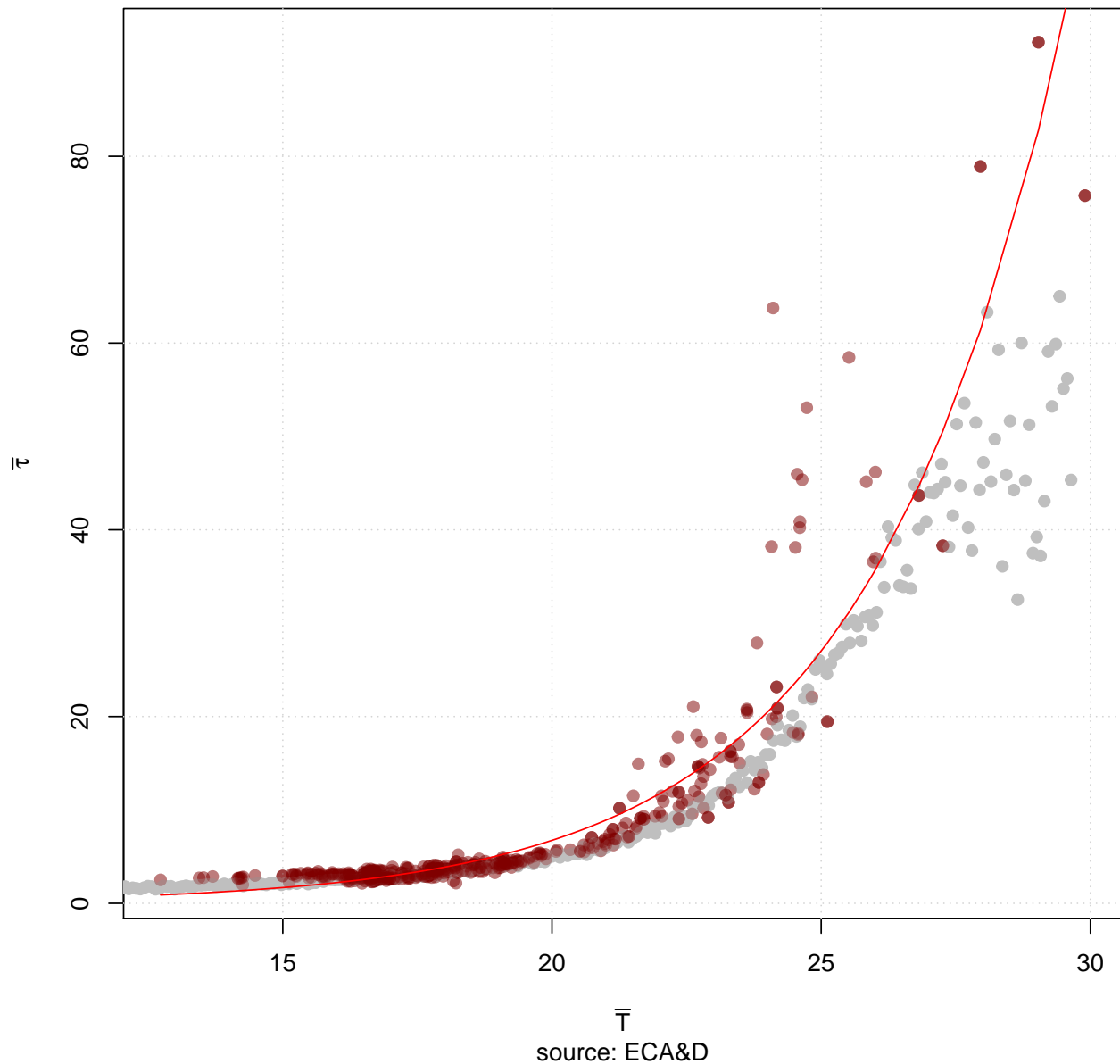
```
attr(x,'description') <- paste(it,'mean temperature (degC)')
if (cold) attr(y,'description') <- 'mean cold spell length (days)' else
        attr(y,'description') <- 'mean warm spell length (days)'
attr(y,'threshold') <- threshold
attr(x,'label') <- expression(bar(T))
attr(x,'Monte-Carlo') <- xmc
attr(y,'label') <- expression(bar(tau[T < T0]))
attr(y,'Monte-Carlo)') <- ymc
meanspell <- data.frame(meanT=x,meanL=y,std=std)
attr(meanspell,'fit') <- fit
attr(meanspell,'geometric.fit') <- data.frame(q.spell=q.spell,q.geom = q.geom)
save(meanspell,file=paste('meanspell',it,c('below','above')[c(cold,!cold)],threshold,'.rda',sep=''))
```

```
## Test if the spell length statistics is close to geometric
plot(c(q.spell),c(q.geom),main='Spell length statistics & the geometric distribution',
     xlim=range(q.spell,q.geom,na.rm=TRUE),
     ylim=range(q.spell,q.geom,na.rm=TRUE),pch=19,col=rgb(0,0,0,0.2),
     xlab=expression(q[p]),ylab='qgeom(p,1/mean)')
grid()
lines(range(q.spell,q.geom,na.rm=TRUE),range(q.spell,q.geom,na.rm=TRUE),col='red')
```

Spell length statistics & the geometric distribution