Zoo955 - Week 5

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Use the 'Data/WI_CAVG_LatLong1.nc' file. In this lecture we dealt with the "temperature" variable. This file is the "climatology" variable.

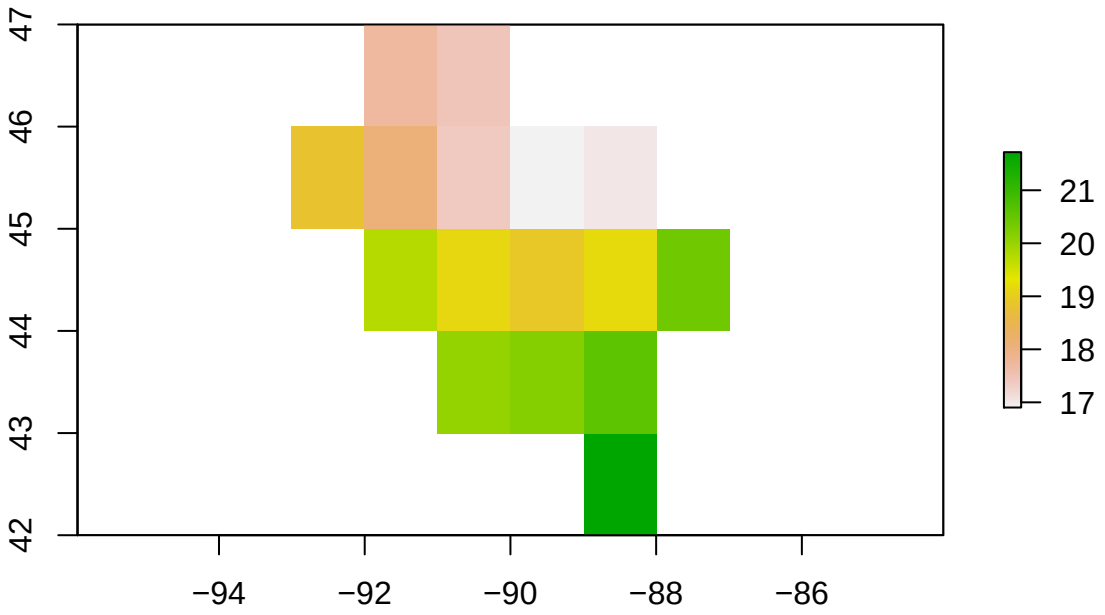
Find the metadata for these dataset. http://berkeleyearth.org/data/. We are using *Gridded Data. Monthly Land. Average Temperature (TAVG; 1753 – Recent).*

1) The climatology variable is a monthly average for each cell. What years does this average represent?

January 1951 to December 1980 reported in degrees C

2) Plot the August averages for Wisconsin.

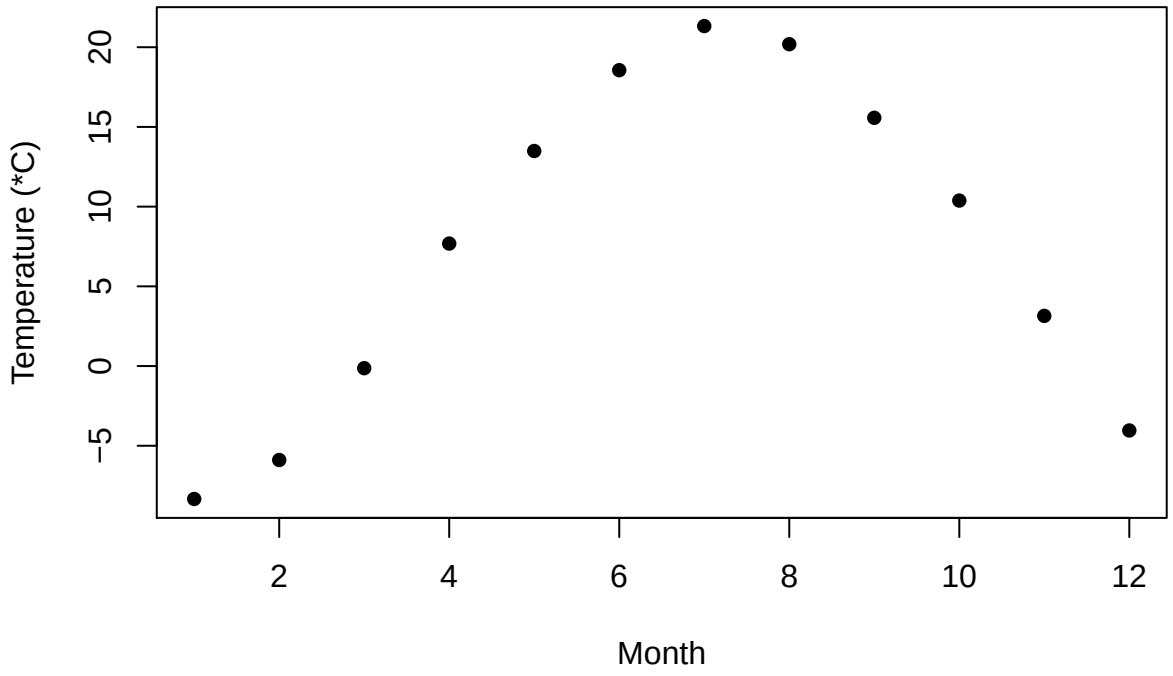
```
library(raster)
br = brick('../Lecture5_RasterBricks/Data/WI_CAVG_LatLong1.nc')
august = br[[8]]
plot(august)
```



3) Extract the averages for the cell over Lake Mendota. Plot the monthly temperature averages.

```
# Option 1
mendota = data.frame(lat = 43.1, long = -89.4)
coordinates(mendota) = ~long+lat
```

```
menTemp = extract(br,y = mendota)
plot(menTemp[1,],pch=16,ylab = 'Temperature (*C)',xlab = 'Month')
```



4) What is the August average for Lake Mendota?

```
menTemp[1,8]
```

```
##       X8
## 20.18909
```

The august average temperature is 20.2