**Understanding and using the ‘ausplotsR’ package and AusPlots data**

The accompanying ‘html’ and ‘Rmd’ files contain the material for the "Ecosystem Surveillance (AusPlots): Understanding and using the 'ausplotsR’ package and AusPlots data" tutorial at the ecoED Champions Training 2018 in Canberra. In this tutorial the use of the package ‘ausplotsR’ & the ‘ausplots’ data that can be downloaded with this package are explored.

**Running notes**

R packages

To run the corresponding R and Rmd scripts the following R packages (and their dependencies) must be installed: ausplotsR, dendextend, ggplot2, goeveg, gridExtra, mapdata, maps, maptools, sp, and vegan.

‘ausplotsR’ needs to be installed directly from github using the ‘devtools’ package, so this package also need to be installed. Here are the steps to install ‘ausplotsR’ (after installing ‘devtools’).

             library(devtools)

install\_github("GregGuerin/ausplotsR")

The other packages can be installed in the usual way in R:

# Select the repository (i.e. CRAN mirror URL)

my.repos = "https://cloud.r-project.org/"

#my.repos = "https://cran.csiro.au/"

# Install other required libraries

install.packages(c("ausplotsR", "vegan", "goeveg", "maps", "maptools", "mapdata", "sp", “ggplot2", "gridExtra", "ggspatial", "dendextend"), repos=my.repos)

Data

In the workshop, TERN AusPlots ecosystem monitoring plot data on vegetation and soil are used. These data are directly obtained with the package ausplotsR, so no other data downloads are required.