

ReadMe File for Return Interval Models
“Extremes of Physical-Chemical Drivers and Cyanobacteria Concentrations”

Figure 2 and the precipitation statistics in Table 1 are generated by
Poisson+Shuffle_precip_2022-03-14.R from data in **DCRA_precip_1940-2021.Rdata**
Precipitation statistics in Table 2 are generated from this same dataset by R script
DFA_Yahara_Precip_2020-03-18.R

Figure 3 and the discharge statistics in Table 1 are generated by
Poisson+Shuffle_Discharge_2022-03-25.R from data in
Discharge_PB+YW_1990-2021.Rdata
Discharge statistics in Table 2 are generated from this same dataset by R script
DFA_Discharge_2022-03-25.R

Figure 4 and the phosphorus load statistics in Table 1 are generated by
Poisson+Shuffle_PLoad_2022-03-14.R from data in **AnnLoads_PB+YP_1995-2021.Rdata**
Phosphorus load statistics in Table 2 are generated from this same dataset by R script
DFA_Yahara_PLoad_2020-03-18.R

Figure 5 and the phycocyanin statistics in Table 1 are generated by
Poisson+Shuffle_BGA_2022-03-14.R from data in
BGA+Chl_dark_centered_Z_2008-2021.Rdata Phycocyanin statistics in Table 2 are
generated from this same dataset by R script **DFA_Yahara_BGA_detrend-by-year_2020-03-27.R**

Organize_Precip+Gages_2019-01-01.R is a file of R functions called by the DFA scripts.

Figure 7 is generated by **Count_Days_Pload_Extreme_to_BGA_extreme_2022-03-28.R** using
data file **PPT_Pload_BGAdark_2008-2021.Rdata**