

```
library(tidyverse) library(lubridate) ## Main script for phenology analysis
```

### Load required functions

```
if(file.exists("01_download_phenocam.R")) source("01_download_phenocam.R") if(file.exists("02_plot_phenocam.R"))  
source("02_plot_phenocam.R") if(file.exists("03_logistic.R")) source("03_logistic.R")
```

### Download phenology data

```
URL <- "http://phenocam.sr.unh.edu/data/archive/uiefprairie/ROI/uiefprairie_GR_1000_1day.csv"  
prairie_pheno <- download_phenocam(URL)
```

### Plot overall phenology data

```
plot_phenocam(prairie_pheno)
```

### Create and visualize subset of data for leaf out

```
spring <- as_date(c("2015-01-01", "2015-06-01")) dat <- prairie_pheno %>% filter(date > spring[1], date <  
spring[2]) %>% select(date, gcc_mean, gcc_std)  
plot_phenocam(dat)
```

### Fit logistic model

```
dat <- dat %>% mutate(doy = yday(date)) par <- c(0.33, 0.11, -10, 0.1) fit_pars <- fit_logistic(dat, par) pred  
<- tibble(date = dat$date, pred = pred_logistic(fit_pars, dat$doy))
```

### Visualize model and data

```
plot_phenocam(dat, pred = pred)
```