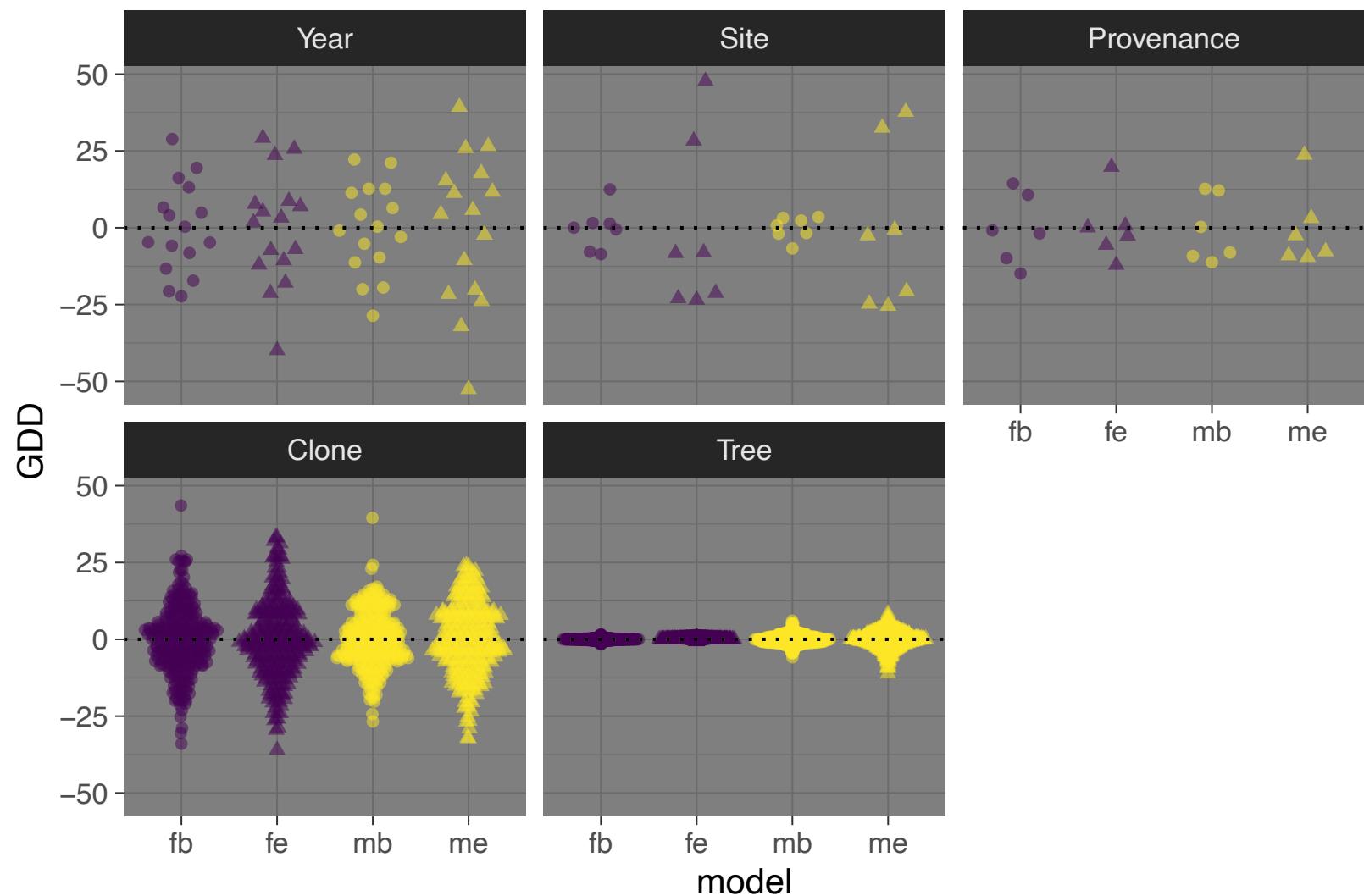


## Offset medians

event    ● begin    ▲ end    Sex    ● FEMALE    ● MALE

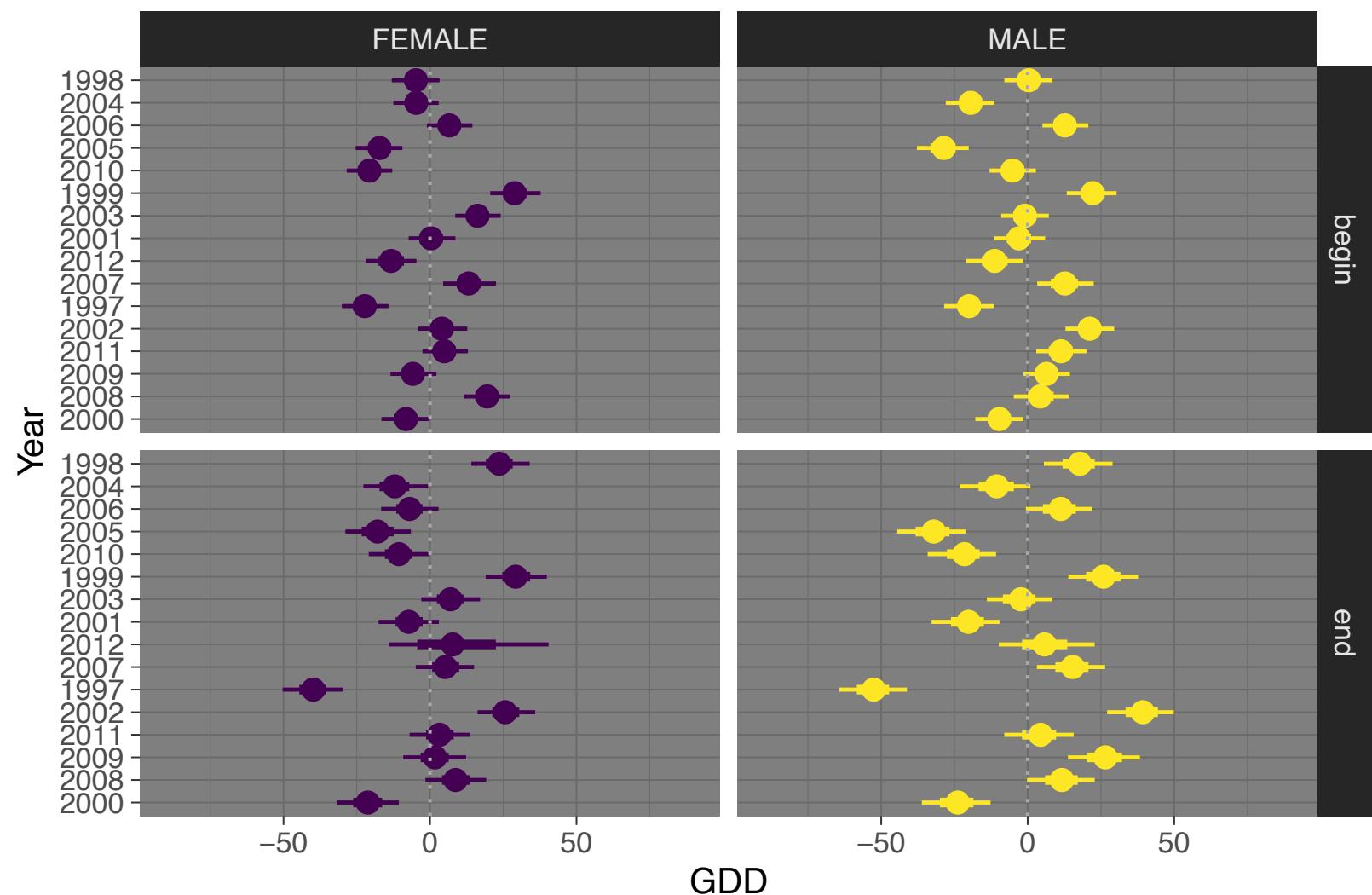


2000 draws from posterior

## Year offsets

Ordered warmest to coldest MAT

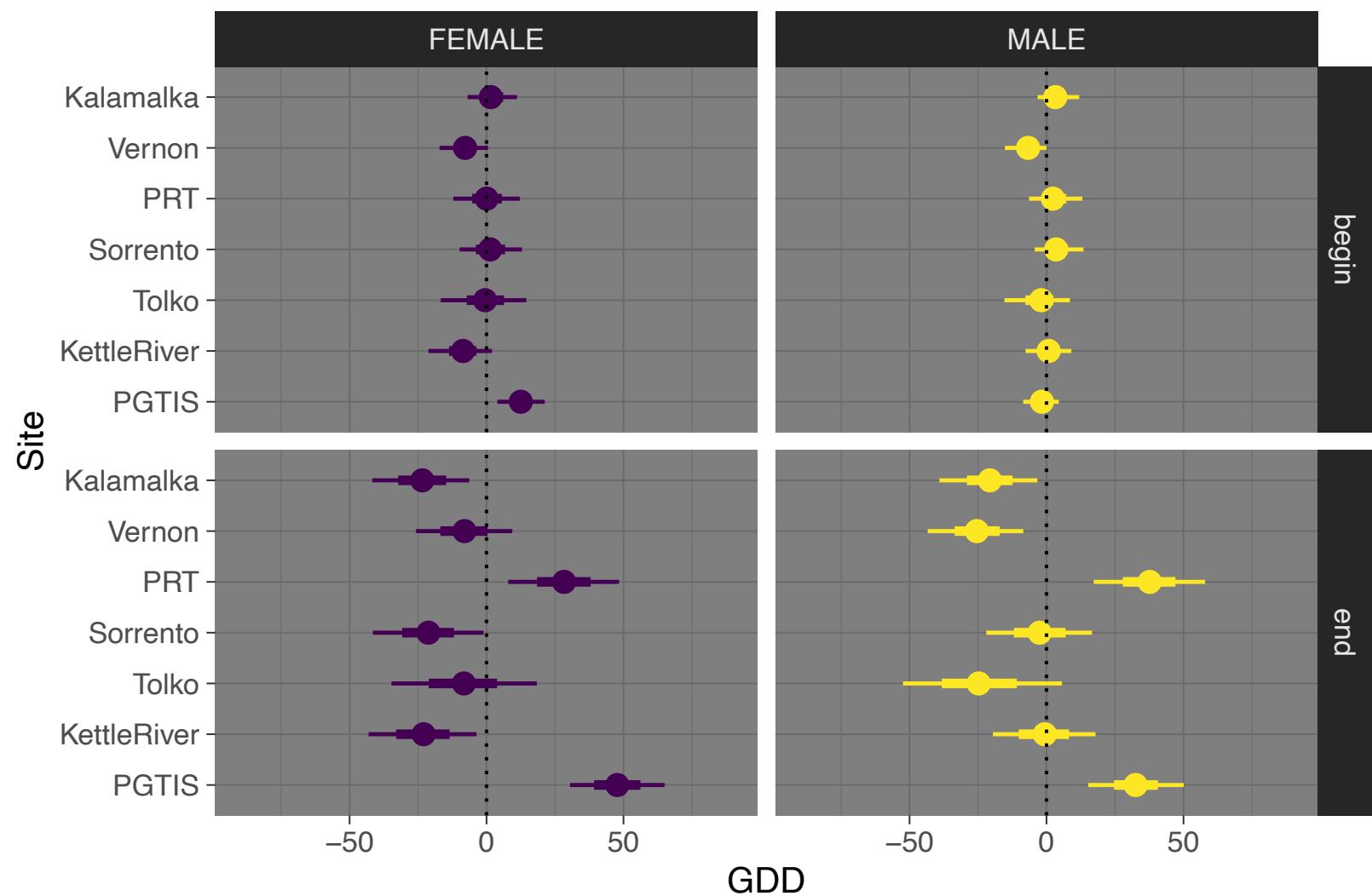
Sex    ● FEMALE    ● MALE



## Site offsets

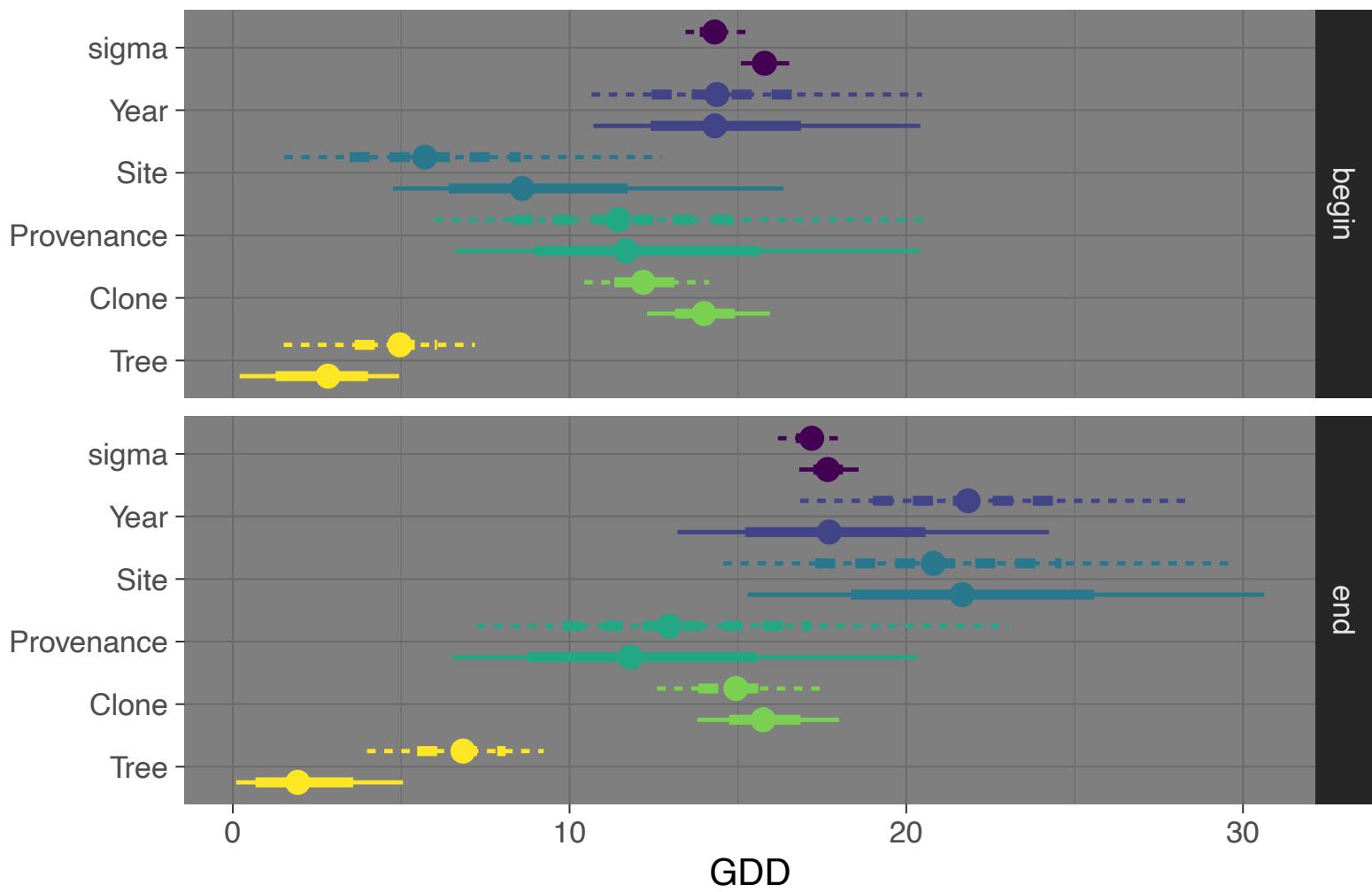
Ordered warmest to coldest MAT

Sex    FEMALE    MALE



## Standard deviation of pop mean & offsets

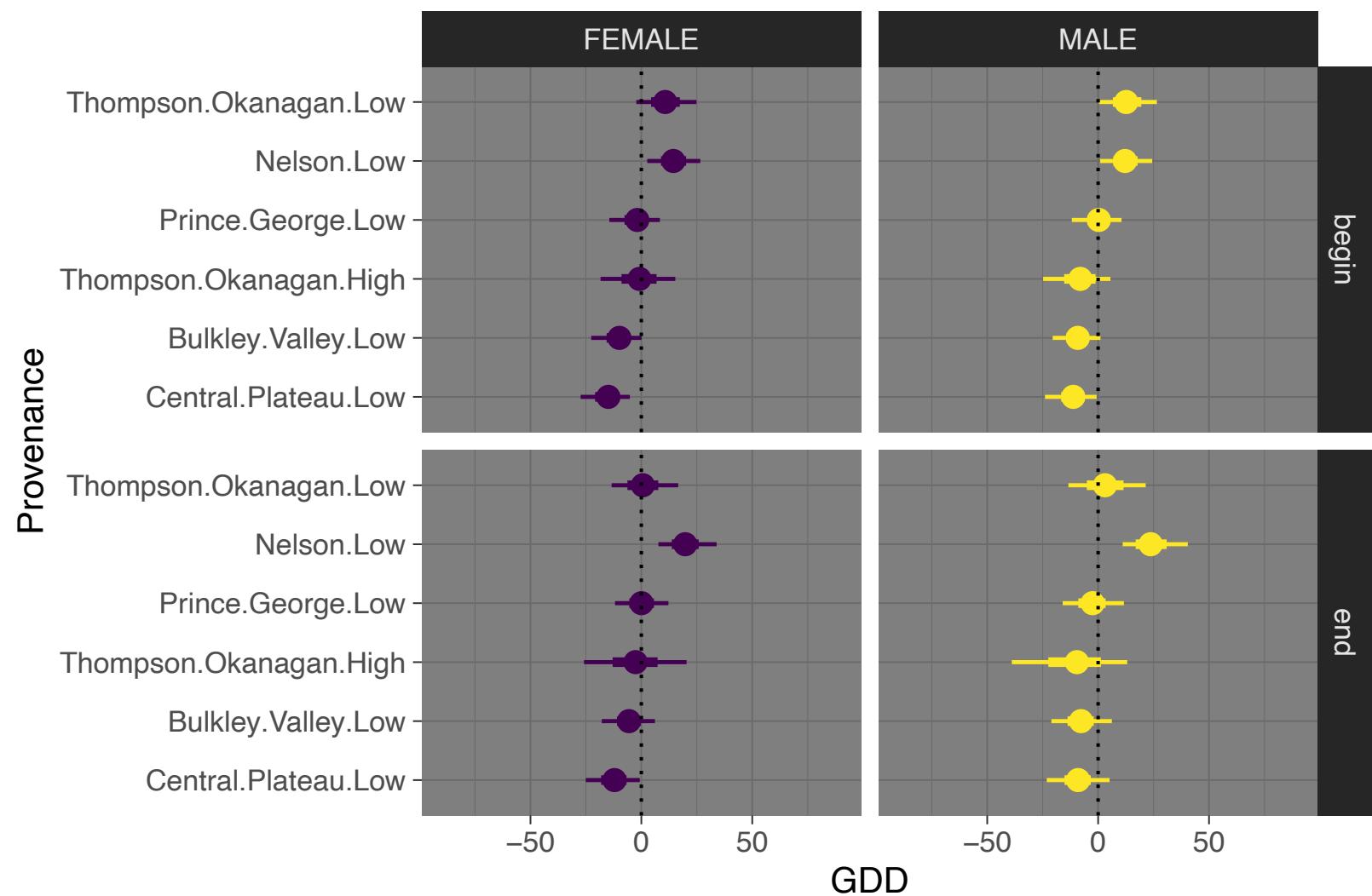
Sex — FEMALE - - - MALE



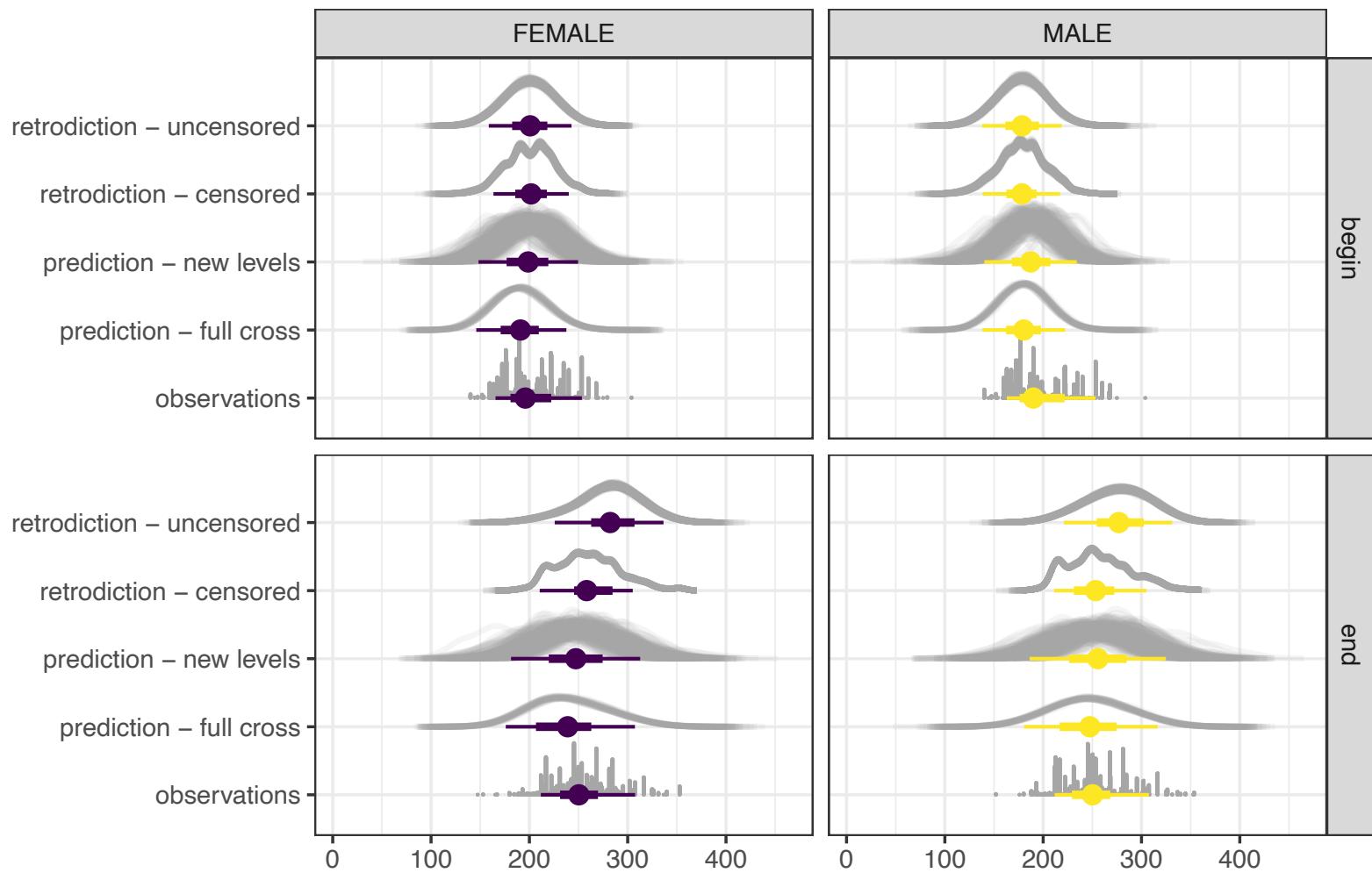
## Provenance offsets

Ordered warmest to coldest MAT

Sex    ● FEMALE    ● MALE



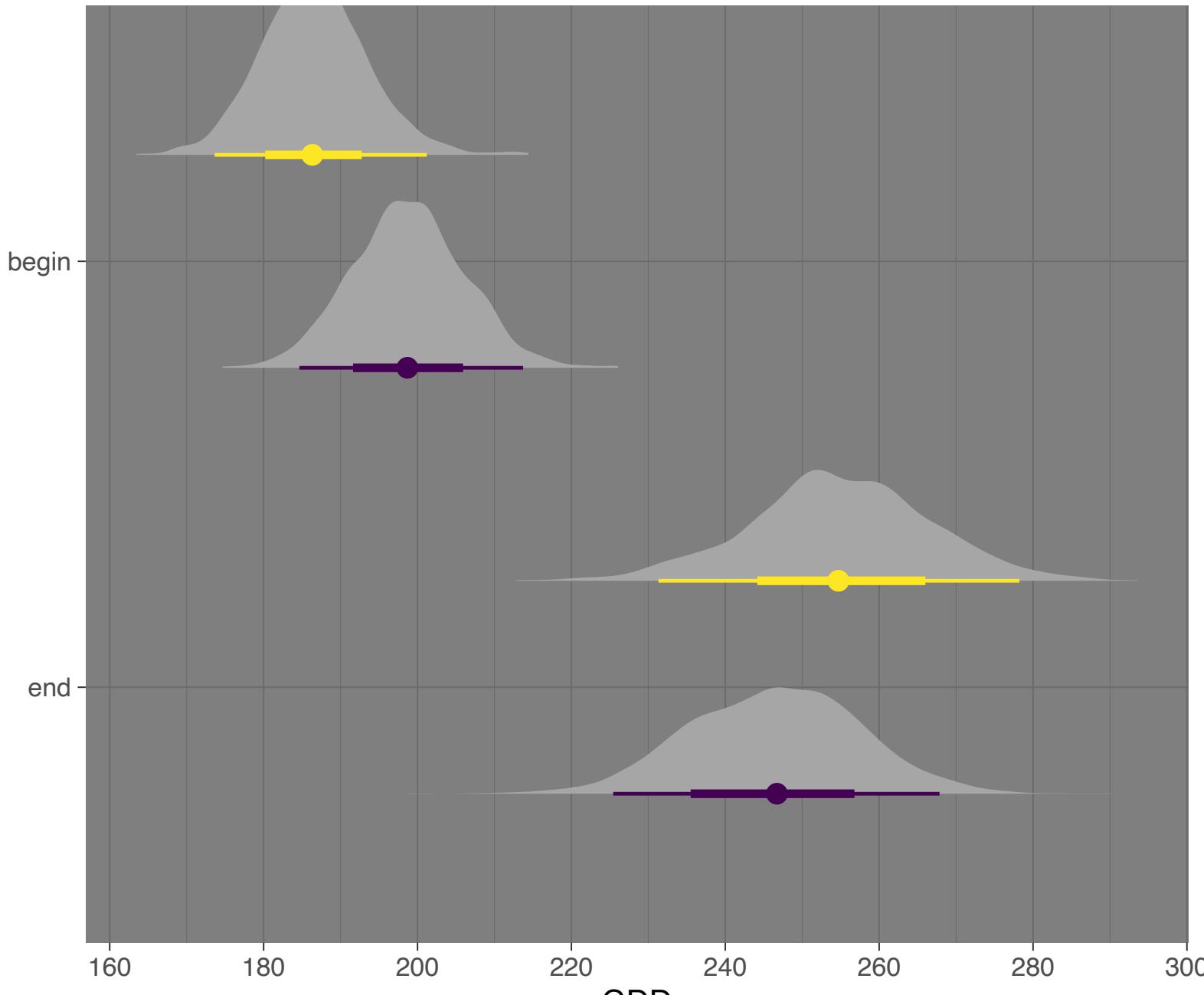
## Modeled and observed flowering events



200 samples from the posterior, 5 for fully crossed predictions

## Population mean

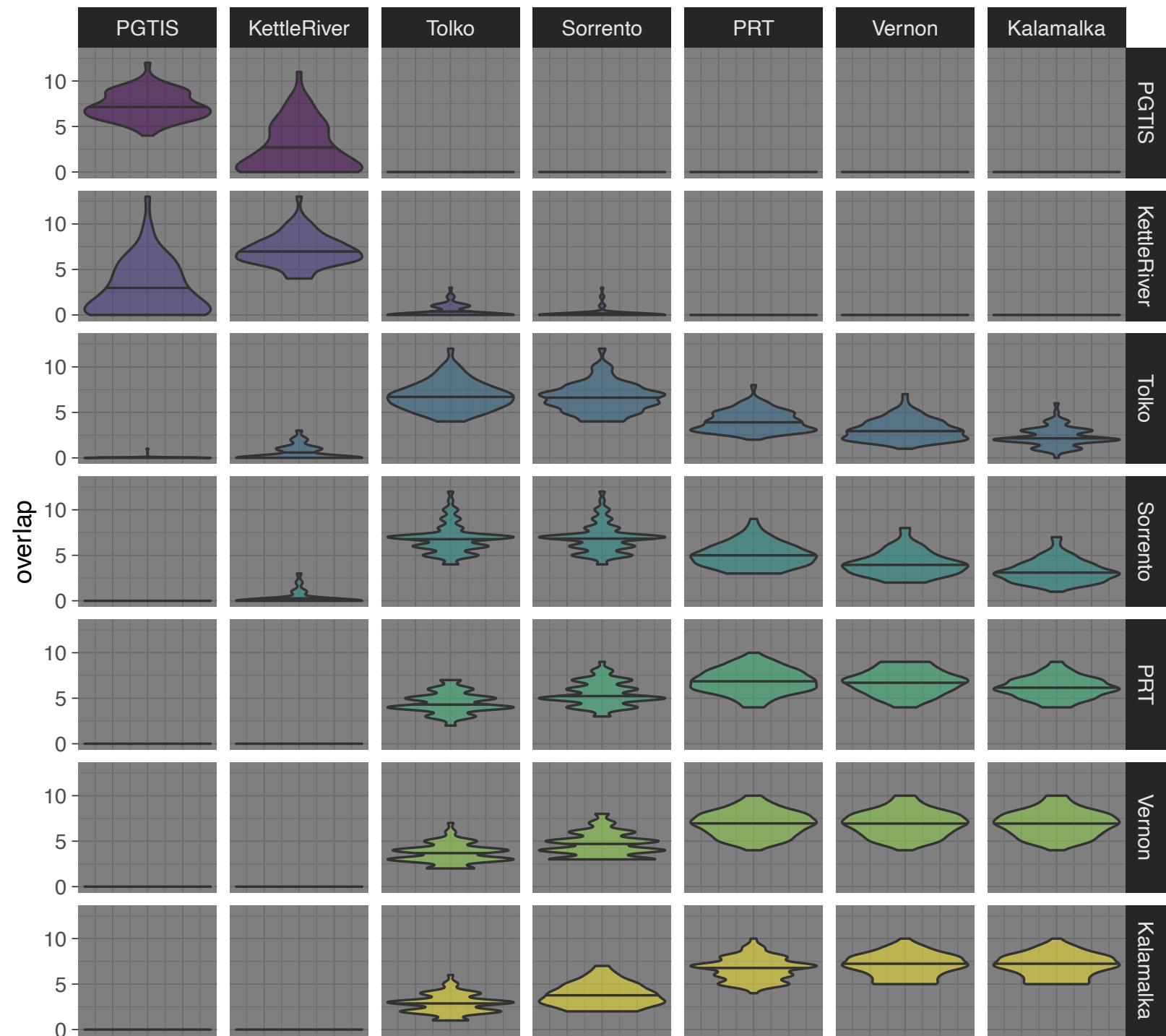
Sex    ● FEMALE    ● MALE



2000 draws from the posterior

# Days of flowering overlap between sites

1945–2012

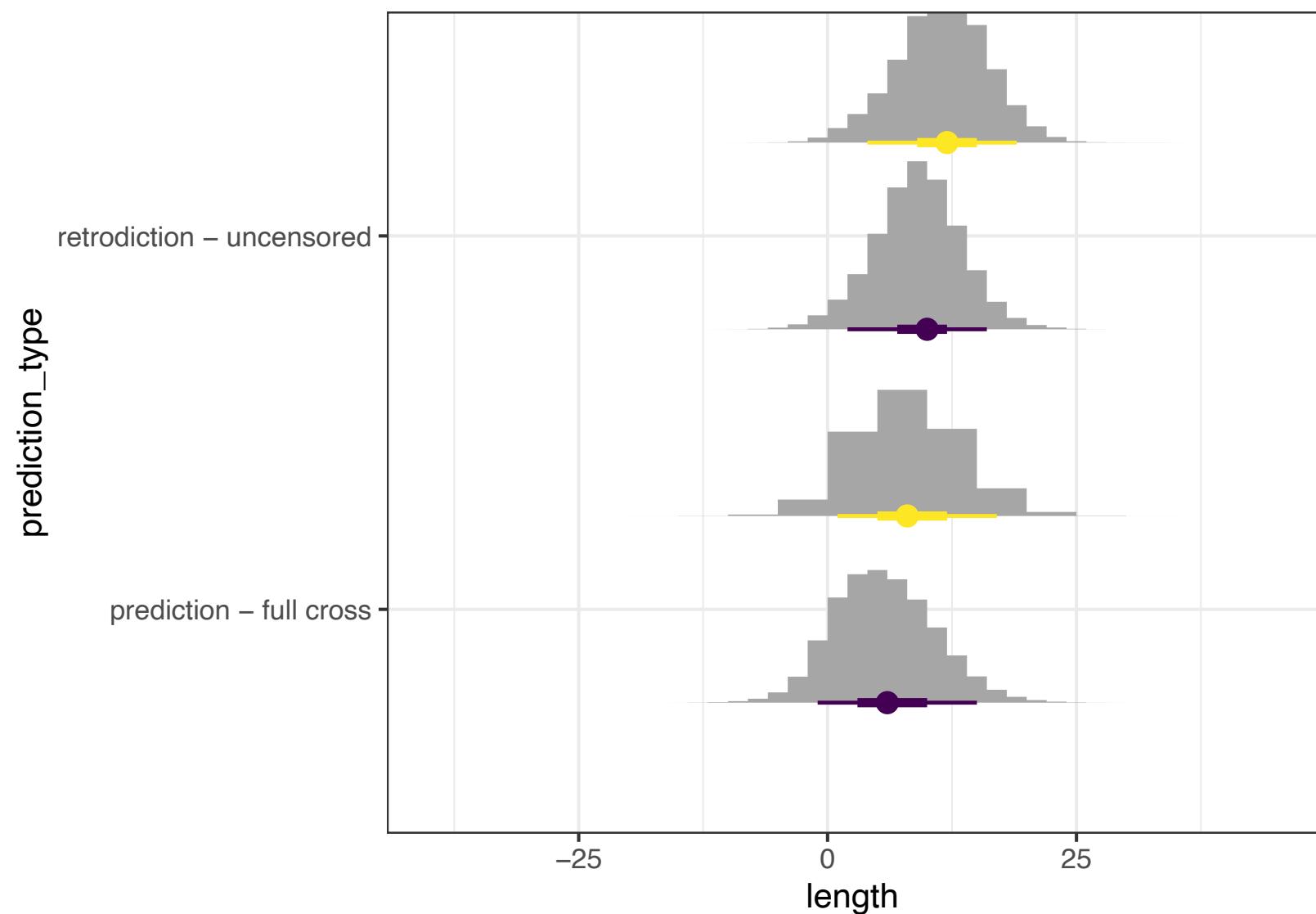


30 forcing samples from the model translated into DoY of flowering event for 7 Sites 1945–2012.

Then calculated median DoY across samples and used those to construct flowering period intervals (begin to end). Then determined the intersection of those intervals for all sites and years

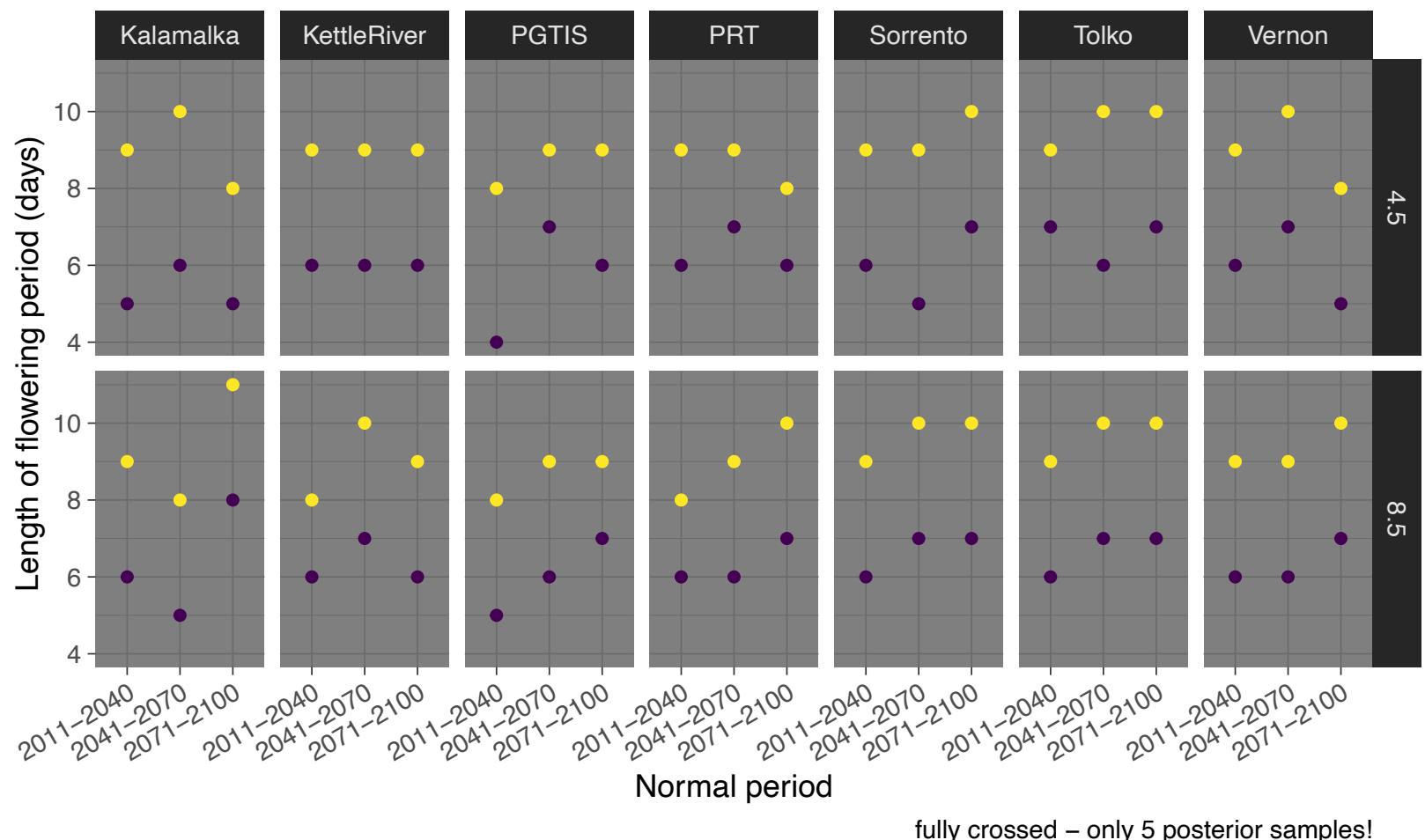
## Length of phenological period for individuals

Sex    ● FEMALE    ○ MALE



## Future flowering period median length

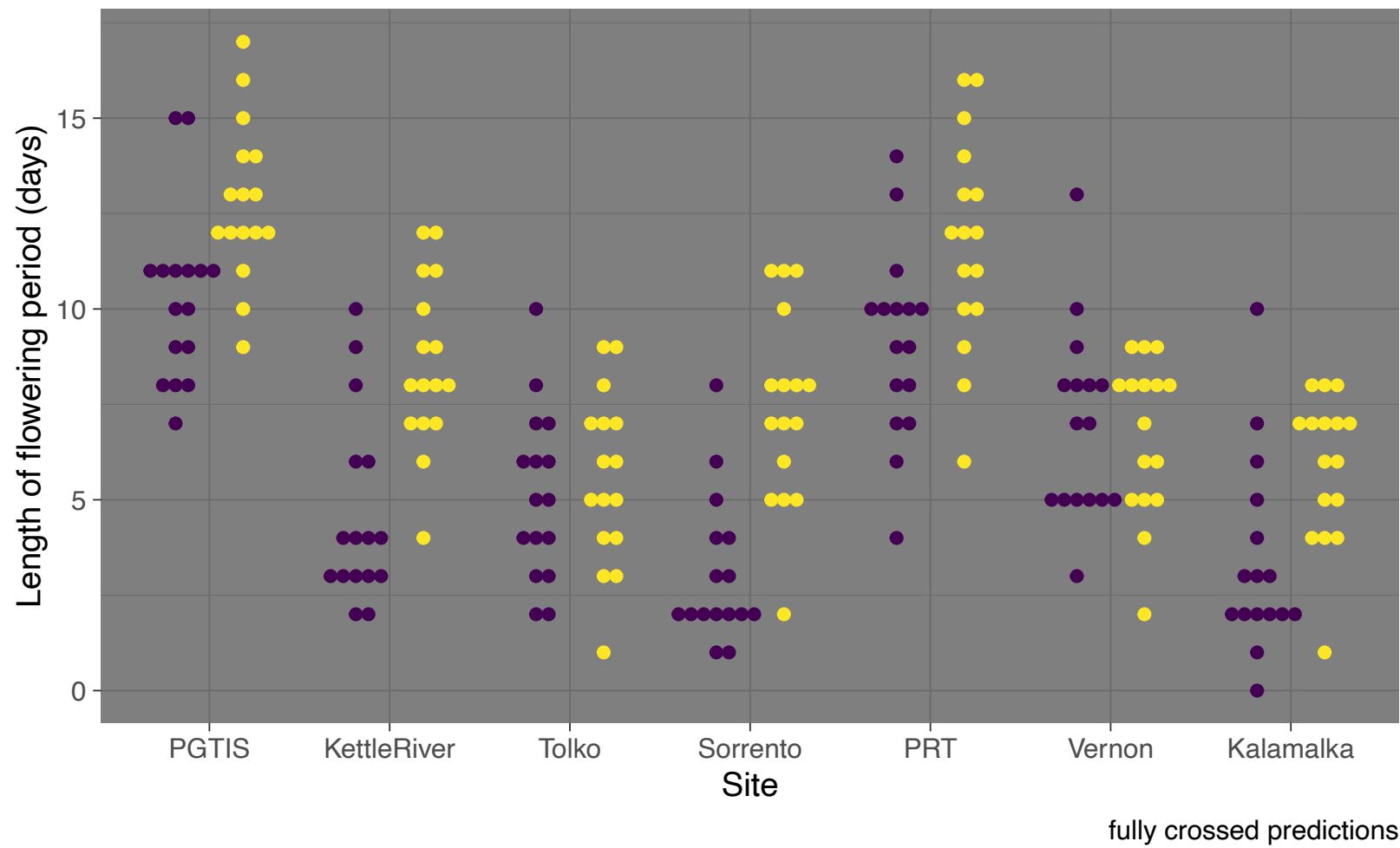
Sex     ● FEMALE     ● MALE



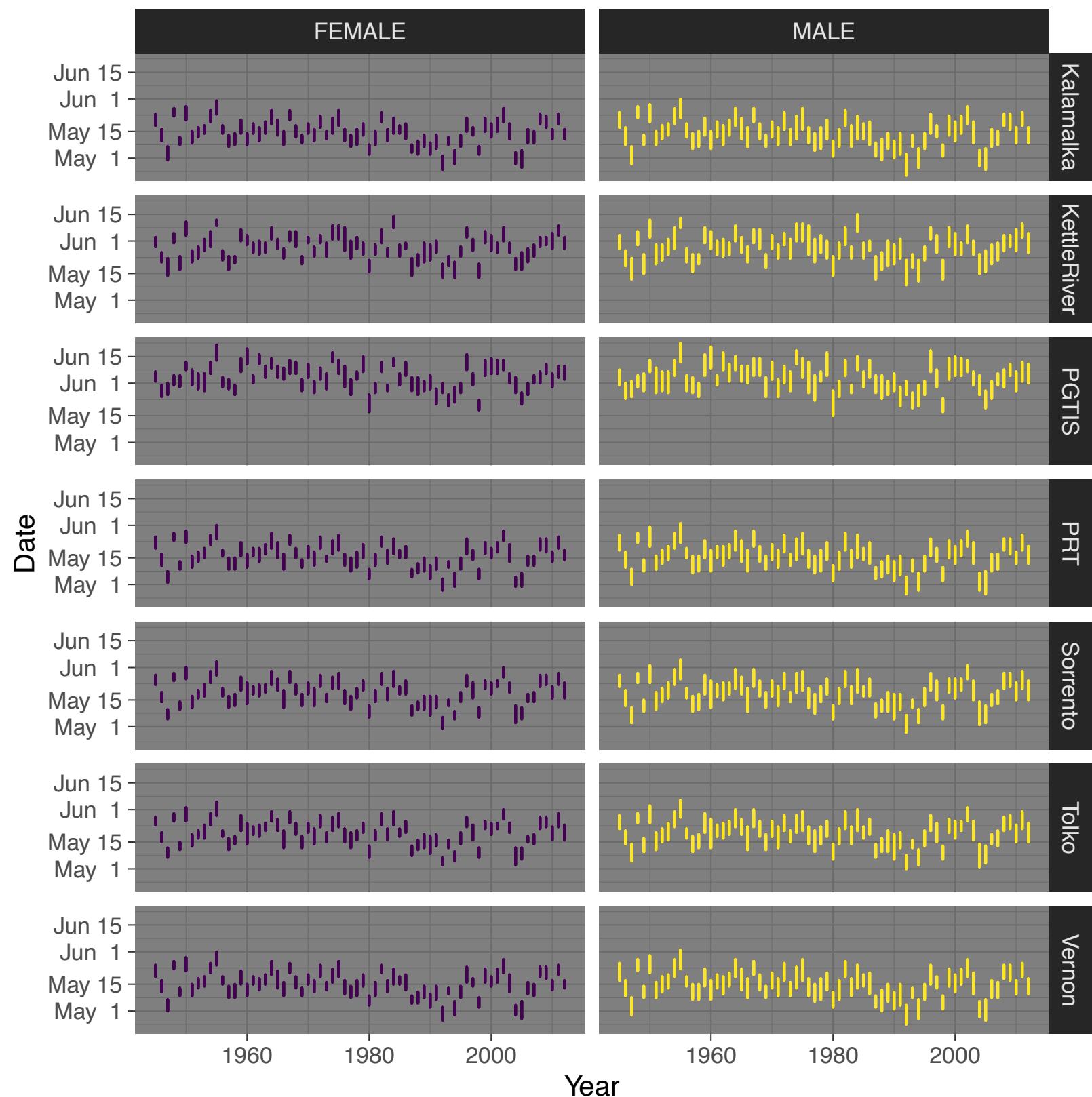
## Median flowering period length at a site

Each point represents one year at one site 1997–2012

Sex    ● FEMALE    ● MALE

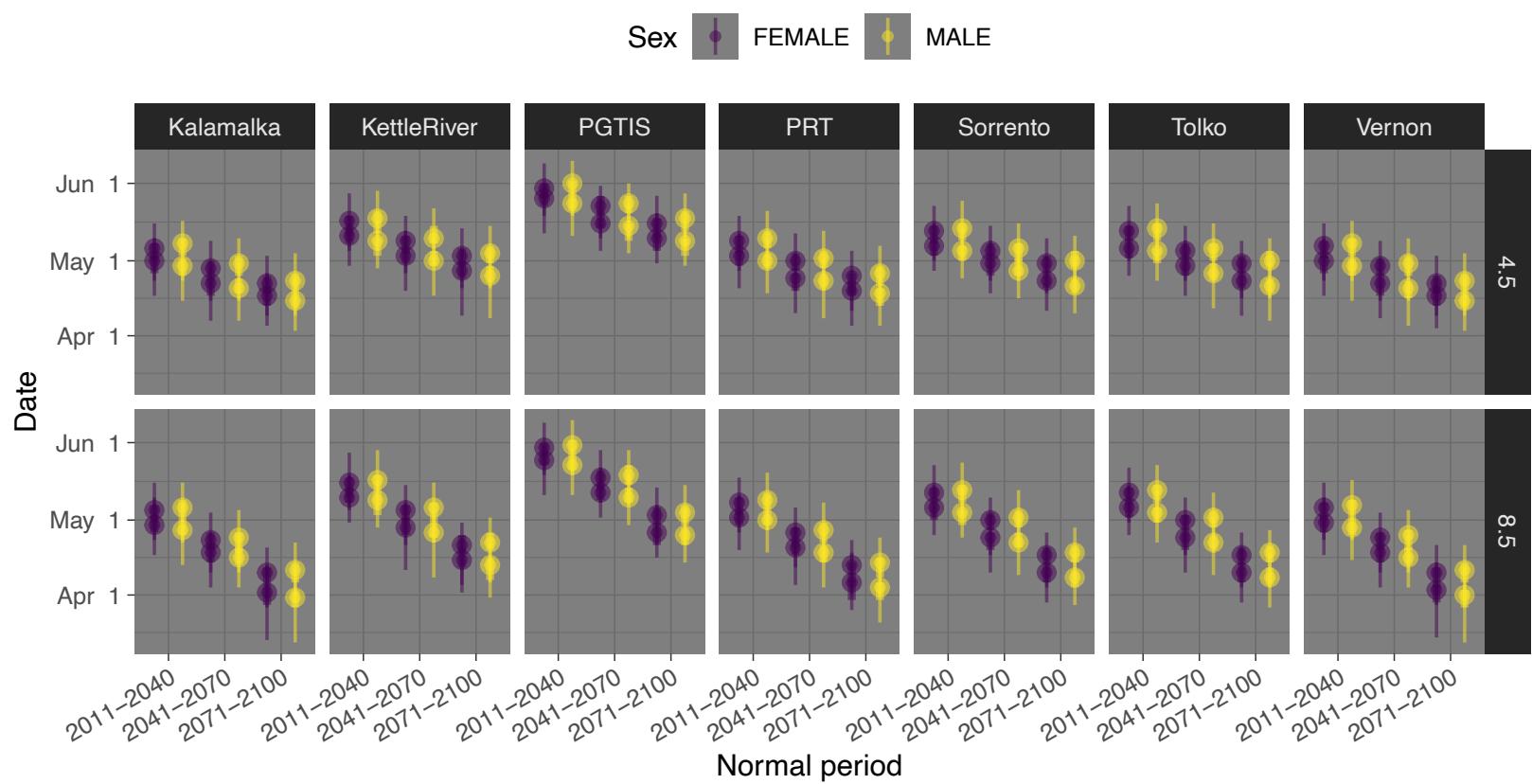


Flowering period from 1945–2012 at 7 sites  
 median start day of year to median end day of year



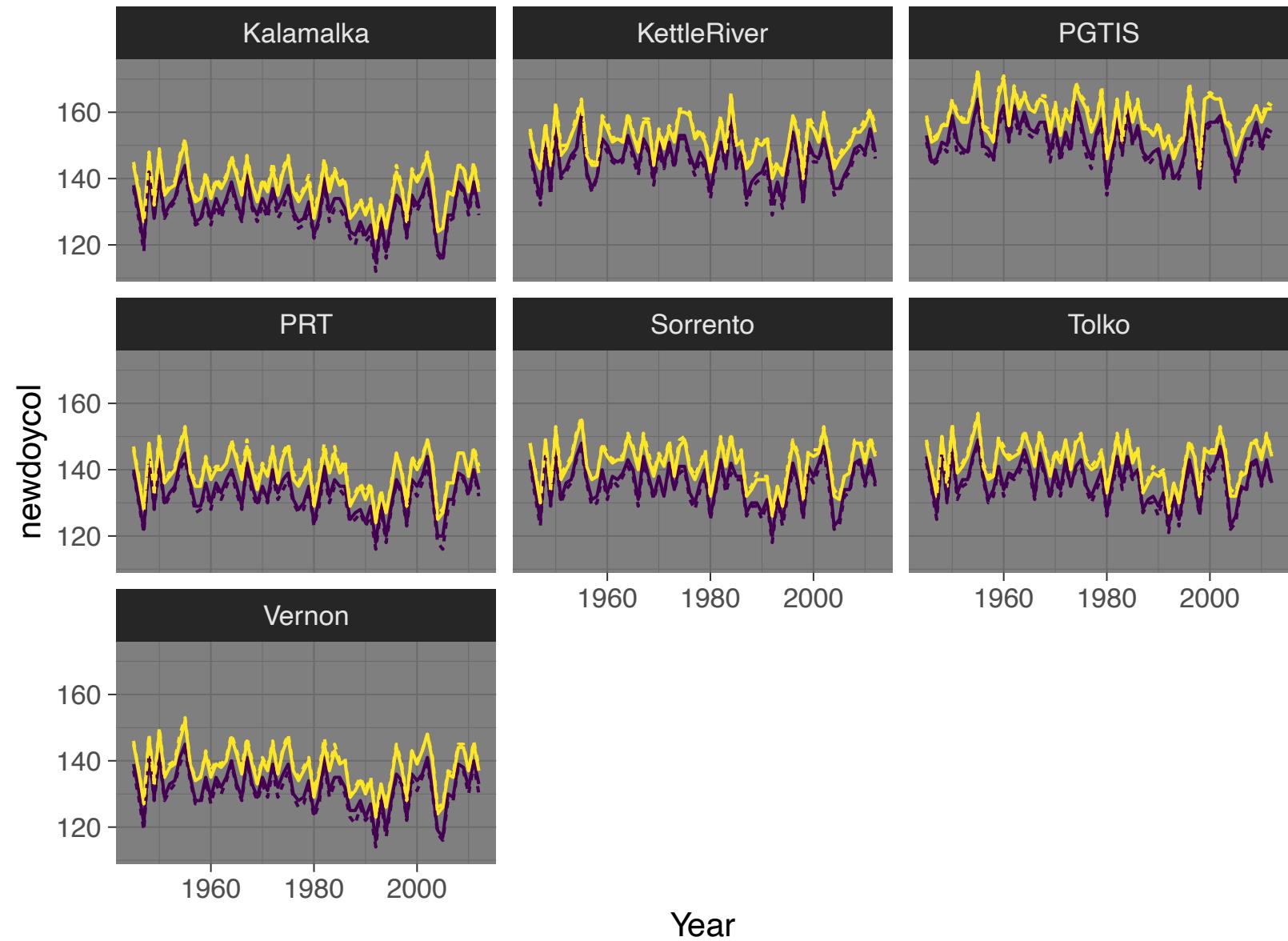
1500 forcing observations simulated from 200 draws of the posterior with new factor levels and matched to forcing data for plotted sites and years. Daily temperature data from PCIC and adjusted using monthly climateNA

Future flowering periods at 7 sites for 2 Climate forcing scenarios  
 median start day to median end day

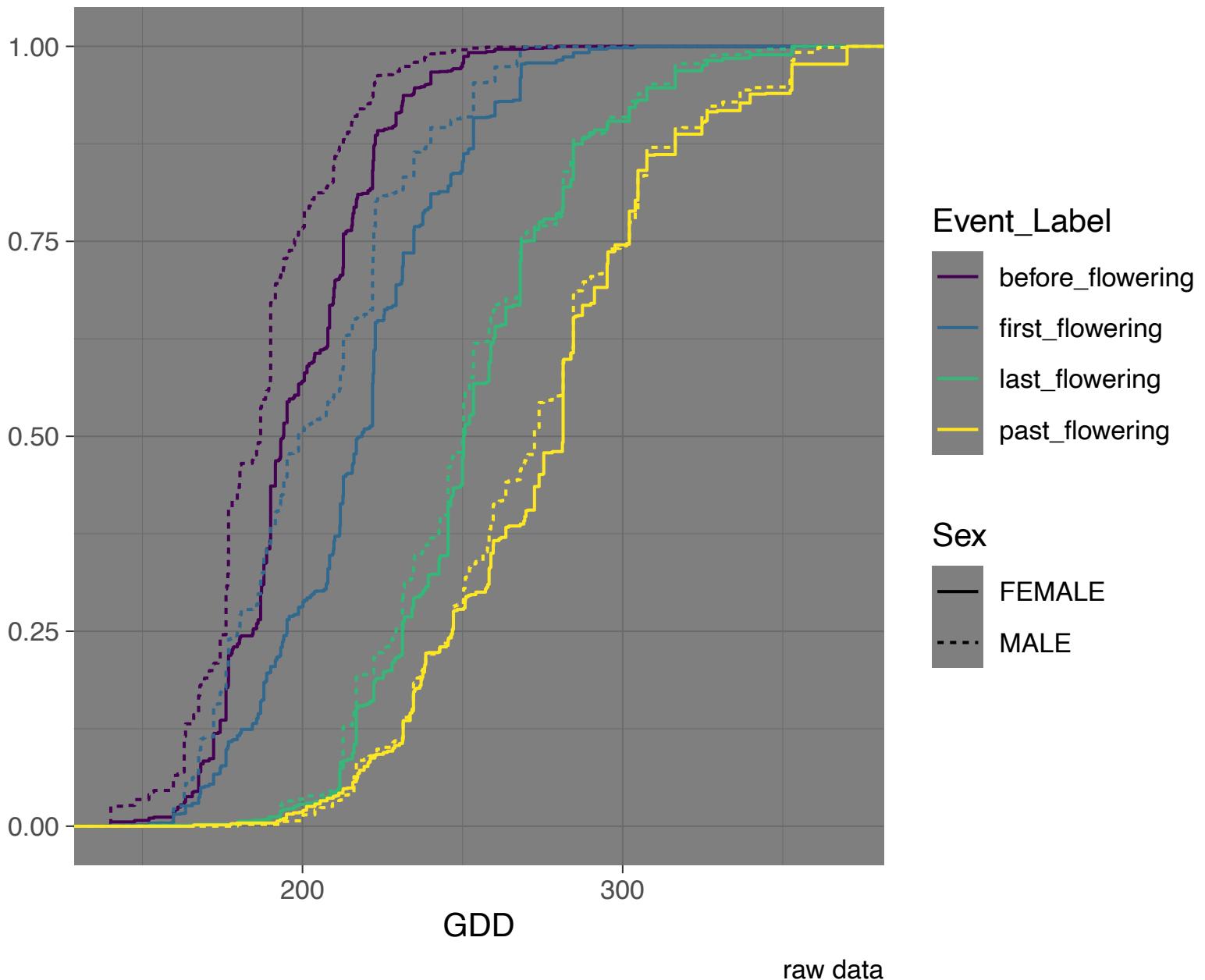


medians of 1500 forcing observations simulated from 30 draws of the posterior with new factor levels and matched to day of year data for plotted sites and years. Daily temperature timeseries for 7 sites from PCIC & adjusted using ClimateNA

event — begin — end Sex — FEMALE — MALE



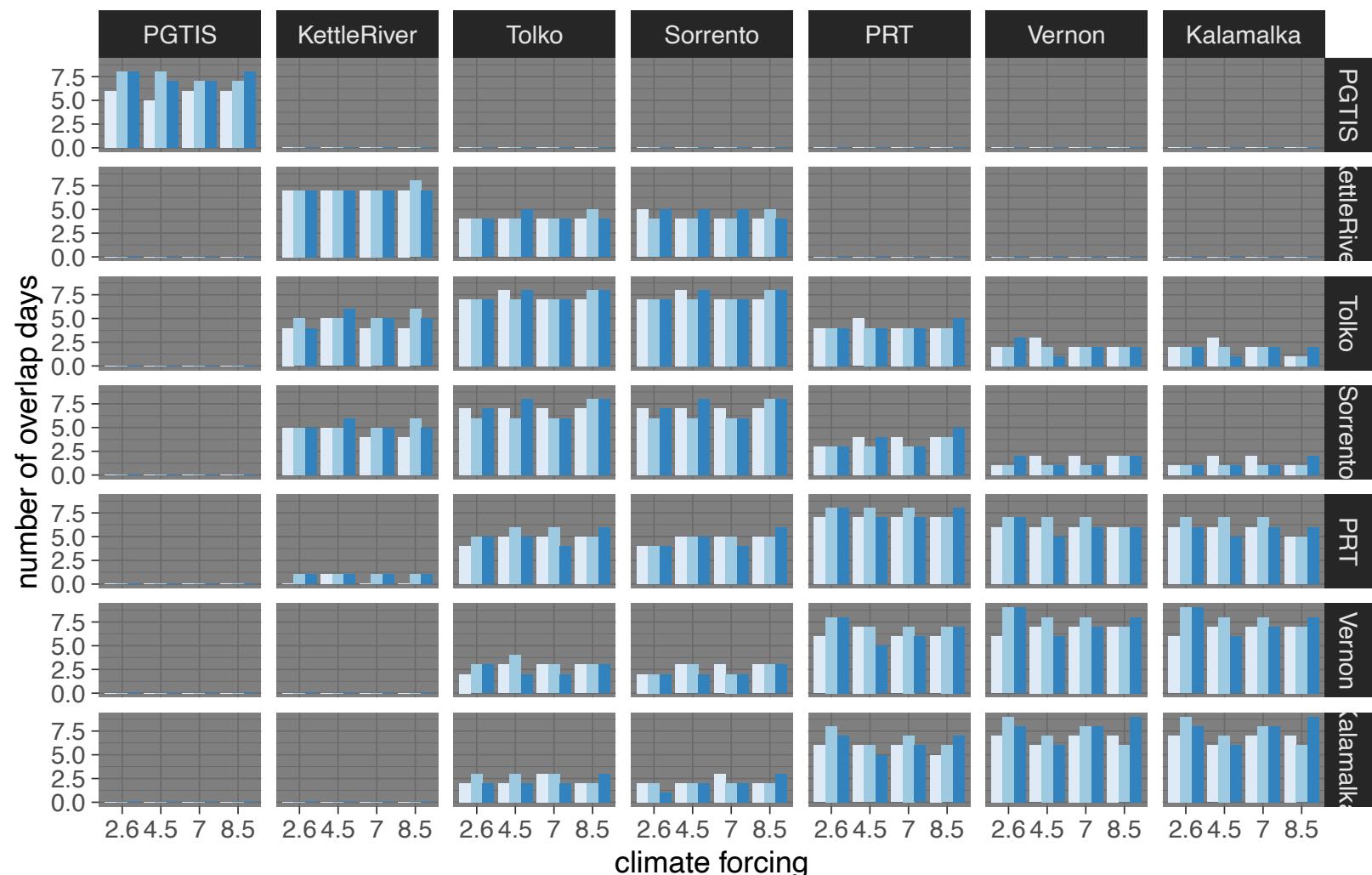
## Cumulative distribution of accumulated forcing for flowering events



## Days of flowering overlap between sites

Normal period 2011–2040

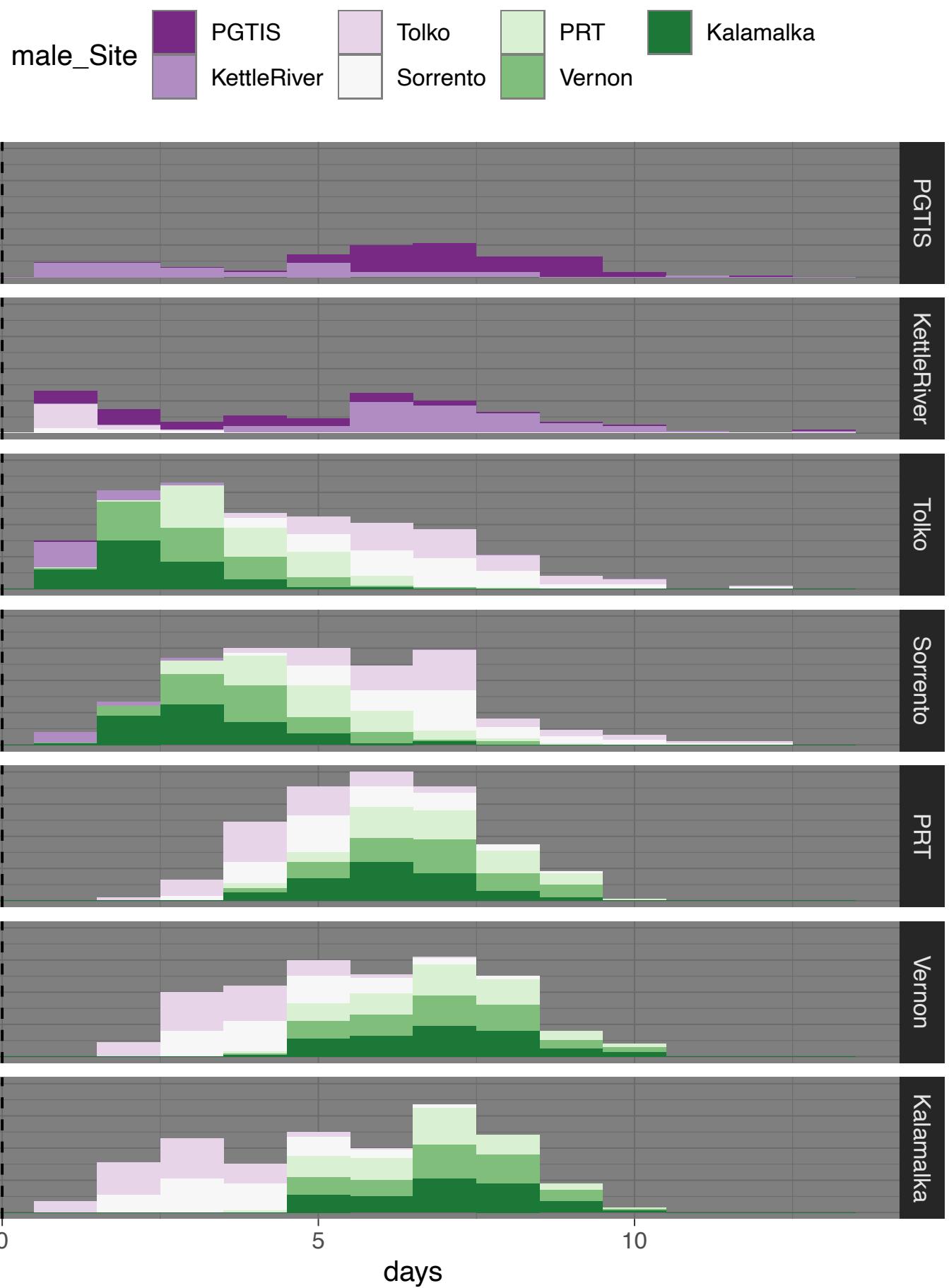
normal\_period    2011–2040    2041–2070    2071–2100



30 forcing samples from the model translated into DoY of flowering event for 7 Sites 1945–2012.  
 Then calculated median DoY across samples and used those to construct flowering period intervals (begin to end).  
 Then determined the intersection of those intervals for all sites and years

# Days receptivity overlaps with pollen shed at different sites

1945–2012



30 forcing samples from the model translated into DoY of flowering event for 7 Sites 1945–2012.

Then calculated median DoY across samples and used those to construct flowering period intervals (begin to end). Then determined the intersection of those intervals for all sites and years