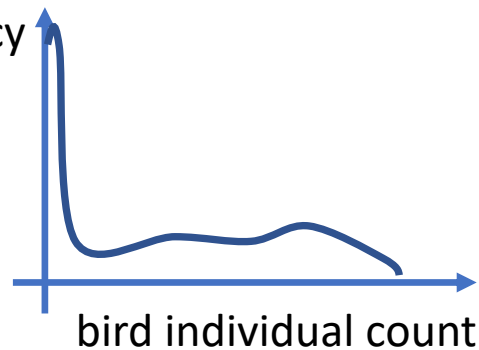


$X=[1,4,2,74,1,66,42,8,6,34,55,774,22,4,...]$

$Y=[0,0,0,0,0,0,0,0,0,0,3,5,2,10,20,...]$

frequency



Binary transformation

positive labels only

$X=[1,4,2,74,1,66,42,8,6,34,55,774,22,4,...]$

$X=[34,55,774,22,4,...]$

$Y=[0,0,0,0,0,0,0,0,0,0,1,1,1,1,1,...]$

$Y=[3,5,2,10,20,...]$

training  
with balanced sample weights

classifier

regressor

$New\_Y=[0,0,1,1,1]$

$New\_Y=[5,9,15,13,7]$

mask

$New\_Y=[0,0,15,13,7]$

$New\_X=[42,8,6,34,55,774]$



Training

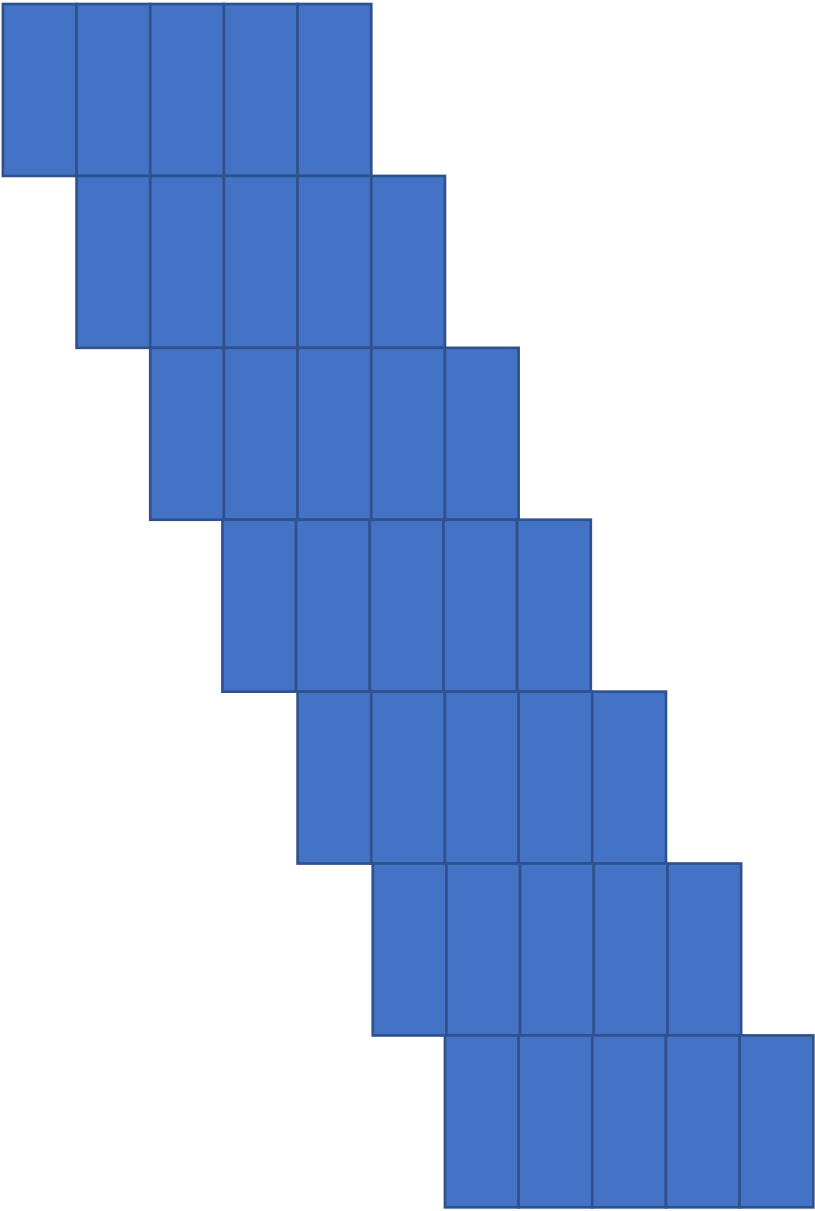
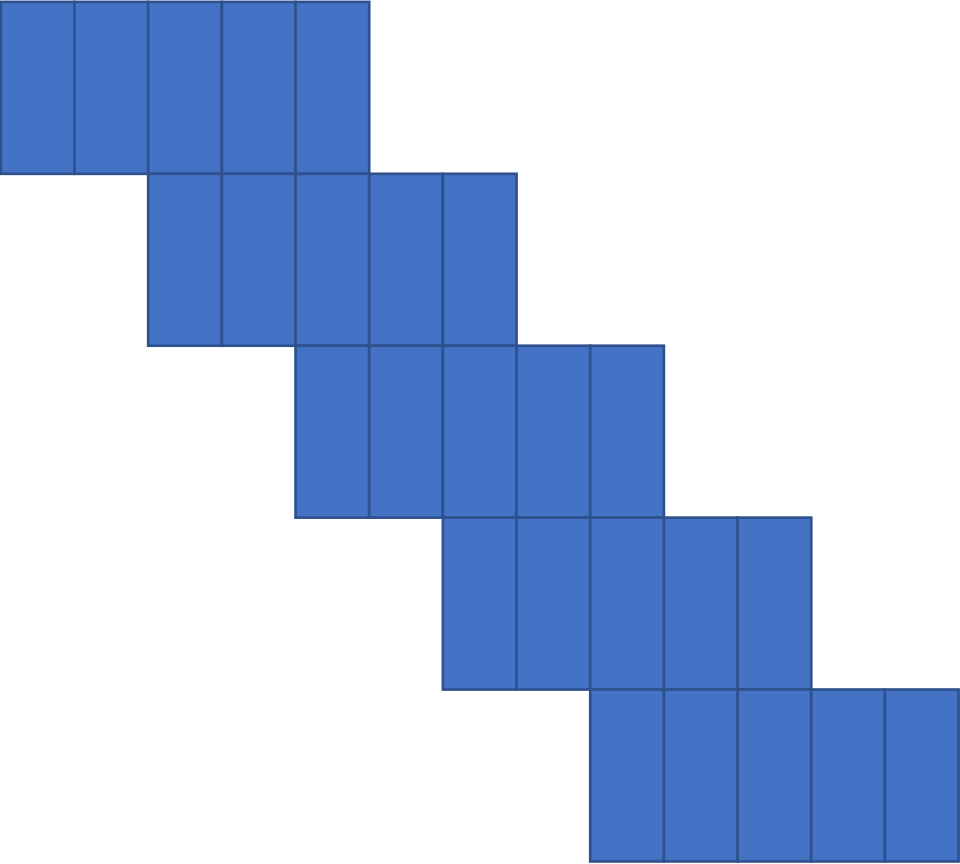


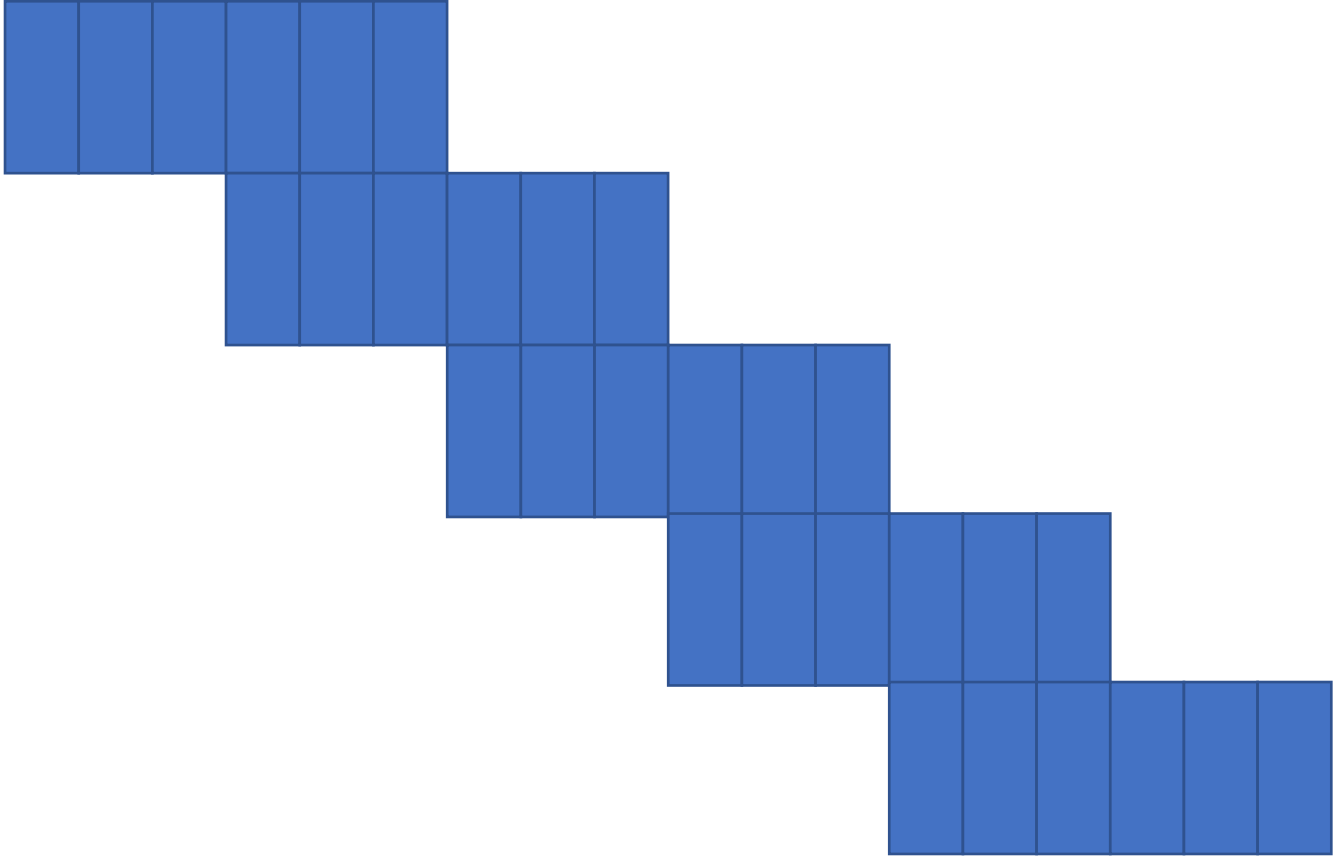
Test/prediction

Hurdle model

Figure by @chenyangkang for stemflow

10 20. 30. 40. 50. 60 70 80 90 100 110





# Sliding window approach

## Random jitter for each ensemble

Decided by:  
temporal\_bin\_start\_jitter="random",  
spatio\_bin\_jitter\_magnitude=100

temporal\_bin\_interval=50 (DOY)

temporal\_step = 20 (DOY)

