

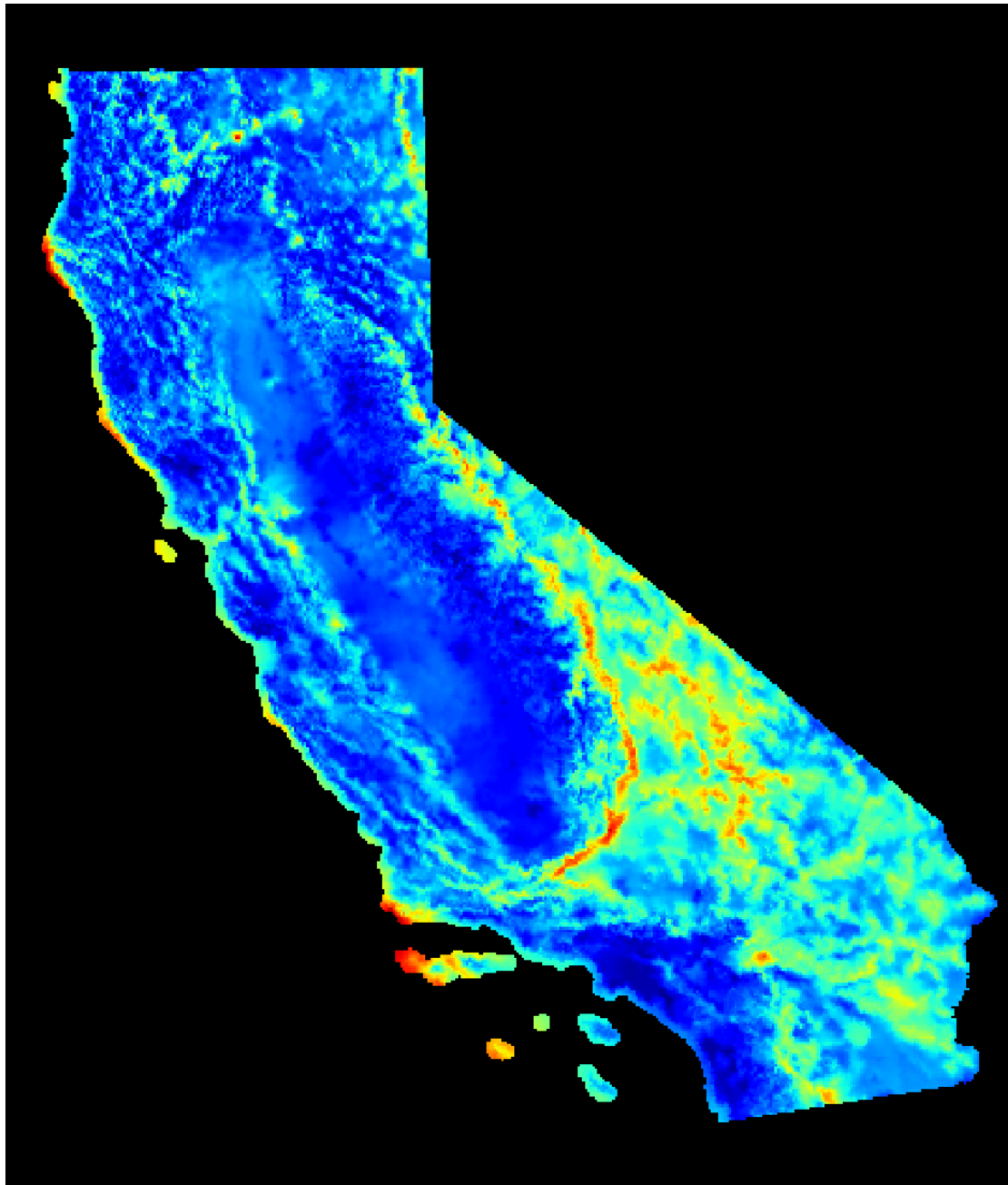
Analysis of variable contributions

The following table gives estimates of relative contributions of the environmental variables to the Maxent model. To determine the first estimate, in each iteration of the training algorithm, the increase in regularized gain is added to the contribution of the corresponding variable, or subtracted from it if the change to the absolute value of lambda is negative. For the second estimate, for each environmental variable in turn, the values of that variable on training presence and background data are randomly permuted. The model is reevaluated on the permuted data, and the resulting drop in training AUC is shown in the table, normalized to percentages. As with the variable jackknife, variable contributions should be interpreted with caution when the predictor variables are correlated.

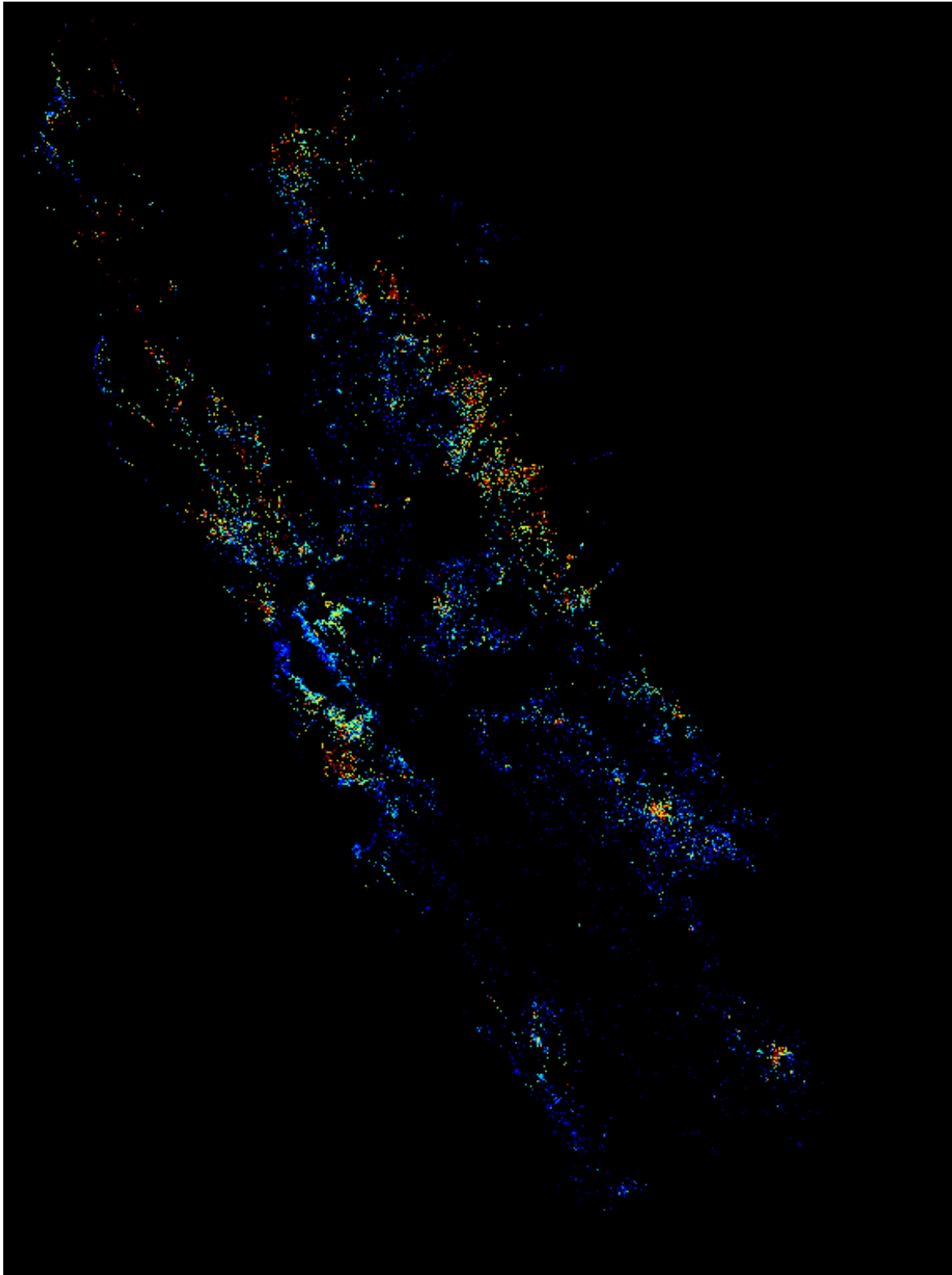
Variable	Percent contribution	Permutation importance
tree-height-max	35.1	38.6
tree-fall-in	31.9	7.2
hftd	8.8	3.5
local-topography	5	9.4
canopy-stress	4.9	5.7
temperature-avg	4.6	9.9
impervious	2.8	4.8
conductor-count	2.6	5.7
specific-humidity-avg	1.4	1.9
tree-height-avg	1.3	8.1
precipitation-avg	0.9	0.8
wind-avg	0.4	1.8
1000-hour-fuels-avg	0.3	1.1
energy-release-avg	0.1	1
burn-index-avg	0	0.5
wind-max	0	0
vapor-pressure-deficit-avg	0	0
100-hour-fuels-avg	0	0

train AUC score : 0.738
train recall score : 0.982

Wind data (average over 2015-2018):



Ignition probability by location:



Difference between wind in the model and wind out of the model (blue = lower; red = higher prob of ignition):

