## ArboMAP: Arbovirus Modeling and Prediction to Forecast Mosquito-Borne Disease Outbreaks

Variable Selection (v2.0)

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Variable selection has been performed, with environmental variables chosen pairwise from the available environmental covariates. There were 15 models considered, and these are ordered below by the Akaike information criterion (AIC). A lower AIC in this case means the model fit the observed data better, so we generally assume that the first model on the list is the best model, and use these two variables for modeling and prediction.

Here, therefore, we recommend theanc and vpd as predictors in the ArboMAP Main Code.Rmd file.

| var1                   | var2                   | AIC     |
|------------------------|------------------------|---------|
| tmeanc                 | vpd                    | 6395.11 |
| $\operatorname{tmaxc}$ | $\operatorname{vpd}$   | 6406.59 |
| tmeanc                 | rmean                  | 6424.50 |
| tminc                  | $\operatorname{vpd}$   | 6428.23 |
| $\operatorname{tmaxc}$ | rmean                  | 6429.22 |
| tminc                  | rmean                  | 6447.87 |
| tminc                  | pr                     | 6504.59 |
| tminc                  | tmeanc                 | 6511.48 |
| tminc                  | $\operatorname{tmaxc}$ | 6511.48 |
| tmeanc                 | $\operatorname{tmaxc}$ | 6511.48 |
| tmeanc                 | pr                     | 6534.88 |
| $\operatorname{tmaxc}$ | pr                     | 6569.40 |
| rmean                  | $\operatorname{vpd}$   | 6617.04 |
| pr                     | $\operatorname{vpd}$   | 6697.74 |
| pr                     | rmean                  | 7164.97 |