

Flexibility

to select variables
at inference

Different species
and applications
require different
predictors



Describing the potential
niche of species A



Mapping the current geographic
distribution of species B

MaskSDM

handles any subset of
input variables

Robustness

to missing variables
during training and
inference



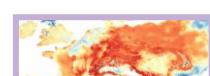
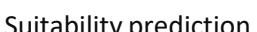
Predictor
availability varies
across both
location and time

Explainability

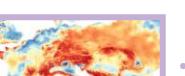
to interpret model predictions
and performance

Predictions and
performance with any
subset of variables

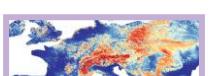
Suitability prediction



AUC: 86.7



AUC: 87.0



AUC: 89.9

Shapley value

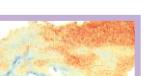


More accurate Shapley
value estimates

Local and global contribution



Shapley: 7.97



Shapley: 4.10