

**Table S2.** Performance metrics for parameter settings used for creating the present time model and relative contribution (%) of variables.

Variable	<i>cf. bedriagae</i>	<i>kurtmuelleri</i>	<i>ridibundus</i>
Partial ROC*	0 (0)	0 (0)	0 (0)
Omission rate 5%*	0.053 (0.042)	0.286 (0.267)	0.089 (0.044)
AICc*	7176 (7500)	818 (847)	5691 (5865)
Delta AICc*	0 (0)	0 (0)	0 (0)
Regularization multiplier*	5.0 (2.5)	4.5 (3.0)	2.5 (3.5)
Response type of feature classes*	l (lqpth)	lqt (qth)	lqh (lqth)
Mean diurnal range (Bio 2)	0.9	0.4	5.2
Temperature seasonality (Bio 4)	0.1	4.3	3.7
Mean temperature of wettest quarter (Bio 8)	11.0	1.5	8.5
Mean temperature of driest quarter (Bio 9)	30.6	20.3	2.2
Precipitation of driest month (Bio 14)	0.3	0	24.4
Precipitation seasonality (Bio 15)	1.8	0.4	1.8
Precipitation of coldest quarter (Bio 19)	1.9	37.2	0.1
Broadleaf forest	0.8	2.9	2.1
Needleleaf forest	3.8	1.8	2.5
Mixed forest	1.4	0.1	3.0
Shrubs	0.1	2.3	1.4
Barren	38.7	12.4	1.0
Herbaceous vegetation	0.3	5.6	1.7
Cultivated vegetation	0.8	0.2	16.3
Altitude	1.2	6.2	2.6
Aridity index	1.9	0.6	0.1
Habitat homogeneity	3.4	0.9	20.2
Terrain roughness	0.1	0	0.8
Terrain roughness index	0.1	0	1.3
Tree coverage percent	0.9	2.9	1.1

\*With only seven bioclimatic variables (in rounded squares).