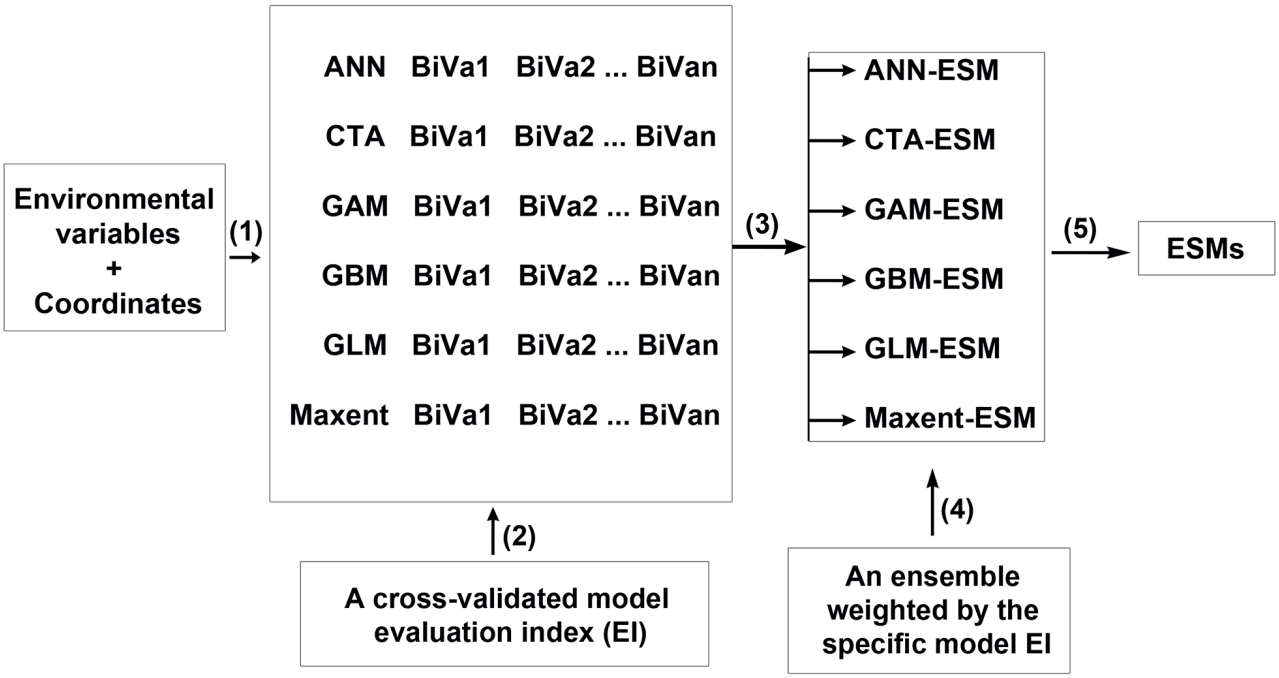
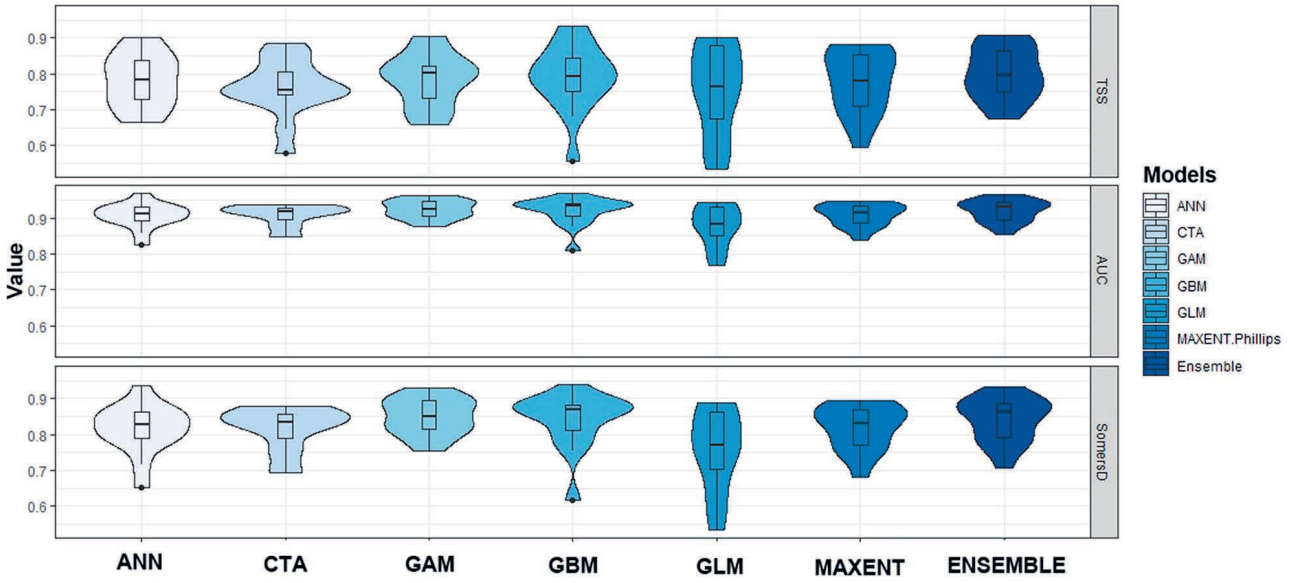
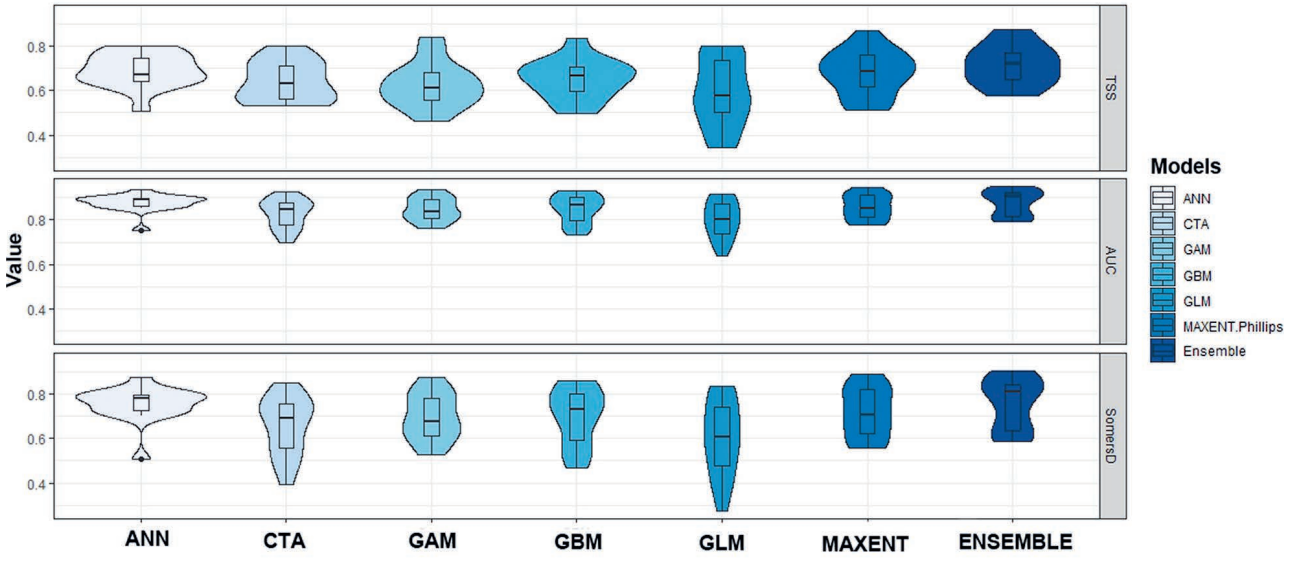


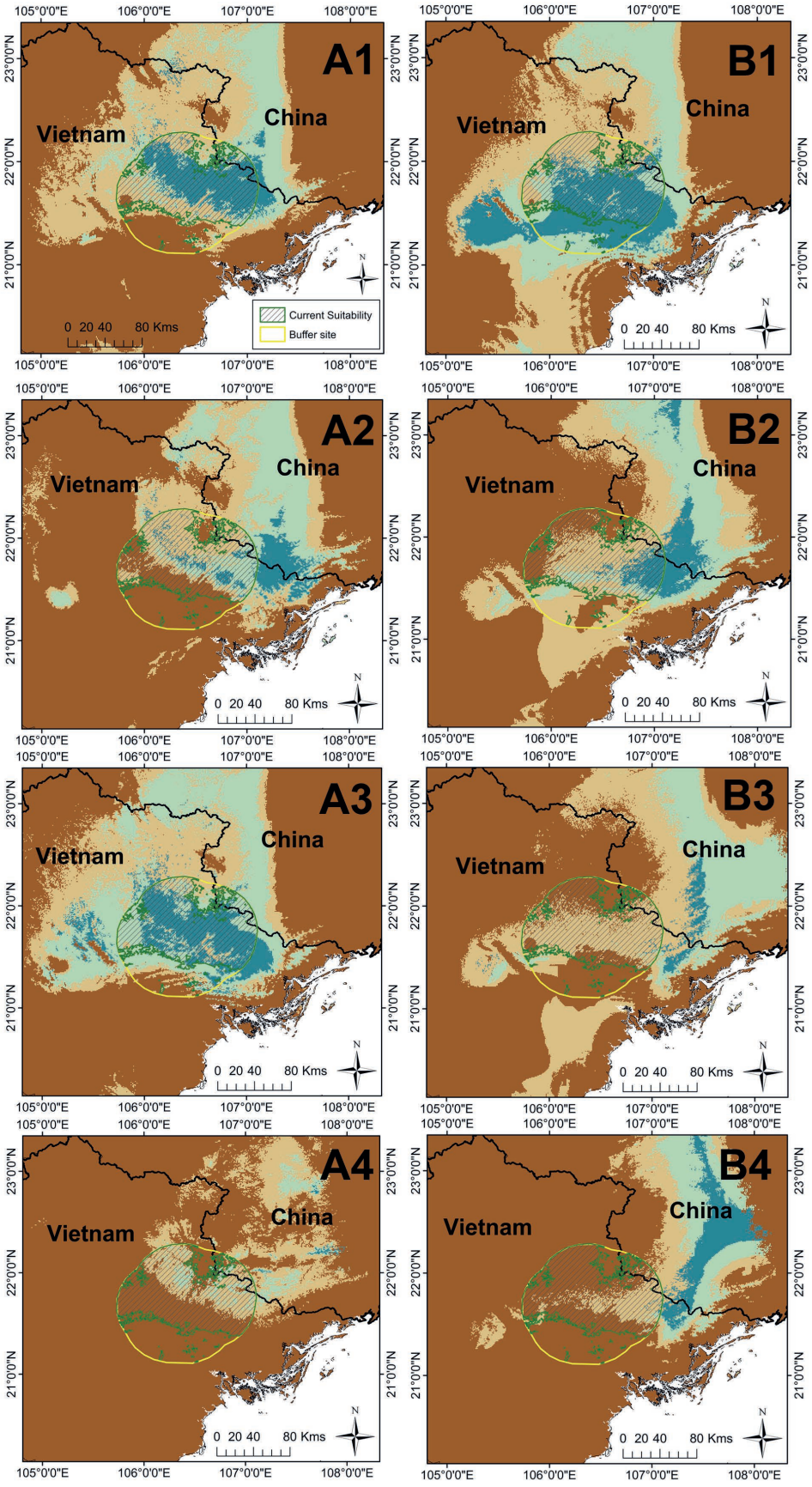
Supplementary Figure S1. Schematic Ensemble Small Models (ESM) for each selected modelling technique with all bivariate models (BiVan, with 06 climate (n = 15) and 05 vegetation predictors (n = 10)) that were calibrated and evaluated (Steps 1 and 2) and averaged to a single ESM per technique (Step 3). ESMs were finally evaluated and averaged again to a single ensemble prediction (Steps 4 and 5).



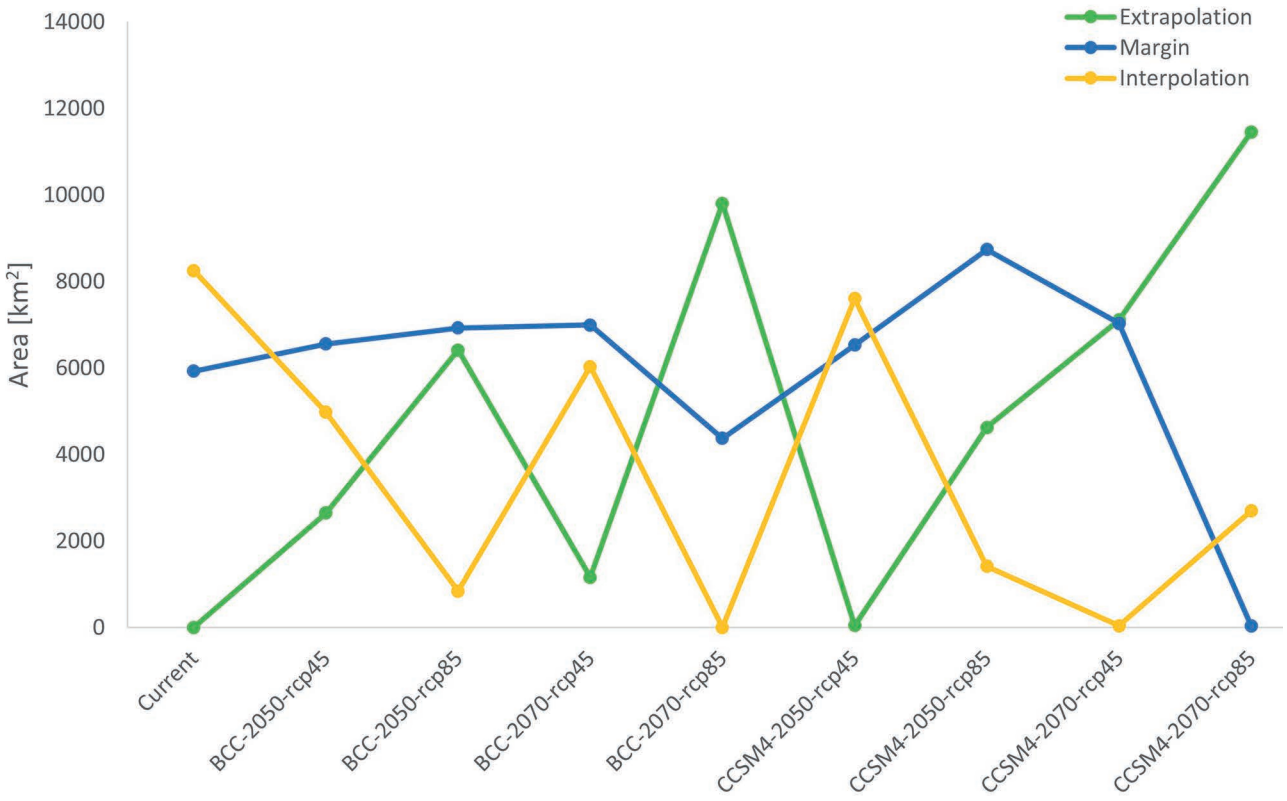
Supplementary Figure S2. Performance of seven Ensemble of Small Models of climate according to adjustment indices of TSS, AUC and Somers'D, evaluated with the testing data from the fifteen-fold spatially segregated dataset. Higher values indicate better-performing models.



Supplementary Figure S3. Performance of seven Ensemble of Small Models of vegetation according to adjustment indices of TSS, AUC and Somers'D, evaluated with the testing data from the fifteen-fold spatially segregated dataset. Higher values indicate better-performing models.



Supplementary Figure S4. Multi-Environment Similarity Surface (MESS) map of the novel habitat following future circulation models of BCC_CSM-1-1: (A1) RCP-4.5 by 2050s; (A2) RCP-4.5 by 2070s; (A3) RCP-8.5 by 2050s; (A4) RCP-8.5 by 2070s; and CCSM4: (B1) RCP-4.5 by 2050s; (B2) RCP-4.5 by 2070s; (B3) RCP-8.5 by 2050s; and (B4) RCP-8.5 by 2070s (teal colour represents high interpolation habitat, aqua colour – low interpolation, coral colour – low extrapolation, brown colour – high extrapolation).



Supplementary Figure S5. Predicted areas of novel habitats in the Multi-Environment Similarity Surface (MESS) analyses under different conditions of current and future scenarios (green line represents Extrapolation; orange line Interpolation; blue line Margin).

Supplementary Table S1. Relative contributions (percentages) of climatic variables for ESMs (Bio-2: Mean Day Temperature (Temp) Range, Bio-3: Isothermality, Bio-9: Mean Temp of Driest Quarter, Bio-15: Precipitation Seasonality, Bio-18: Precipitation of Warmest Quarter, Bio-19: Precipitation of Coldest Quarter).

	ANN	CTA	GAM	GBM	GLM	MAXENT.Phillips	ENSEMBLE
Bio-2	18.3	19.2	22.1	18.0	22.4	18.9	19.8
Bio-3	14.7	16.4	0.0	16.0	19.6	16.3	13.7
Bio-9	15.0	12.9	16.1	14.1	13.2	14.2	14.3
Bio-15	20.8	17.1	19.7	17.4	15.0	17.3	17.9
Bio-18	15.0	18.4	21.6	17.6	14.7	17.7	17.6
Bio-19	16.1	16.0	20.4	16.9	15.2	15.6	16.7

Supplementary Table S2. Relative contributions (percentages) of vegetation variables for ESMs (NDVI-1: Mean Coldest Quarter NDVI, NDVI-2: Minimum Coldest Quarter NDVI, NDVI-3: Minimum Warmest Quarter NDVI, NDVI-4: STD of NDVI and EVI: Range EVI)

	ANN	CTA	GAM	GBM	GLM	MAXENT.Phillips	ENSEMBLE
NDVI-1	23.6	22.9	21.5	22.3	25.0	22.9	23.0
NDVI-2	22.7	23.3	21.7	20.9	19.0	20.2	21.3
NDVI-3	18.8	14.6	18.6	17.6	10.3	17.1	16.4
NDVI-4	19.3	20.3	20.3	20.1	26.3	21.4	21.2
EVI	15.6	18.9	17.8	19.1	19.3	18.5	18.1