

SUPPLEMENTARY MATERIAL

CLIMATIC CONSTRAINTS ON LAGGAR FALCON (*FALCO JUGGER*)
DISTRIBUTION PREDICTS MULTIDIRECTIONAL RANGE MOVEMENTS UNDER
FUTURE CLIMATE CHANGE SCENARIOS

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SUPPLEMENTARY TABLES

Table S1. Selection of bioclimatic variables for multi-collinearity using stepwise elimination Variance Inflation Factor (VIF) analysis. Variables with $VIF < 5$ have low correlation with other variables, and thus are suitable for inclusion in Species Distribution Models when further evaluated for ecological relevance.

CODE	BIOCLIMATIC VARIABLE	VIF
BIO8	Mean temperature wettest quarter	3.049
BIO18	Precipitation warmest quarter	2.766
BIO2	Mean diurnal temperature range	2.486
BIO9	Mean temperature driest quarter	2.355
BIO15	Precipitation seasonality ^a	2.196
BIO14	Precipitation driest month	1.820
BIO19	Precipitation coldest quarter	1.543
BIO3	Isothermality ^b	1.542

a. Defined as mean diurnal temperature range/temperature annual range*100

b. Coefficient of variation. Standard deviation of monthly precipitation estimates expressed as a percentage of the mean estimate

SUPPLEMENTARY FIGURES

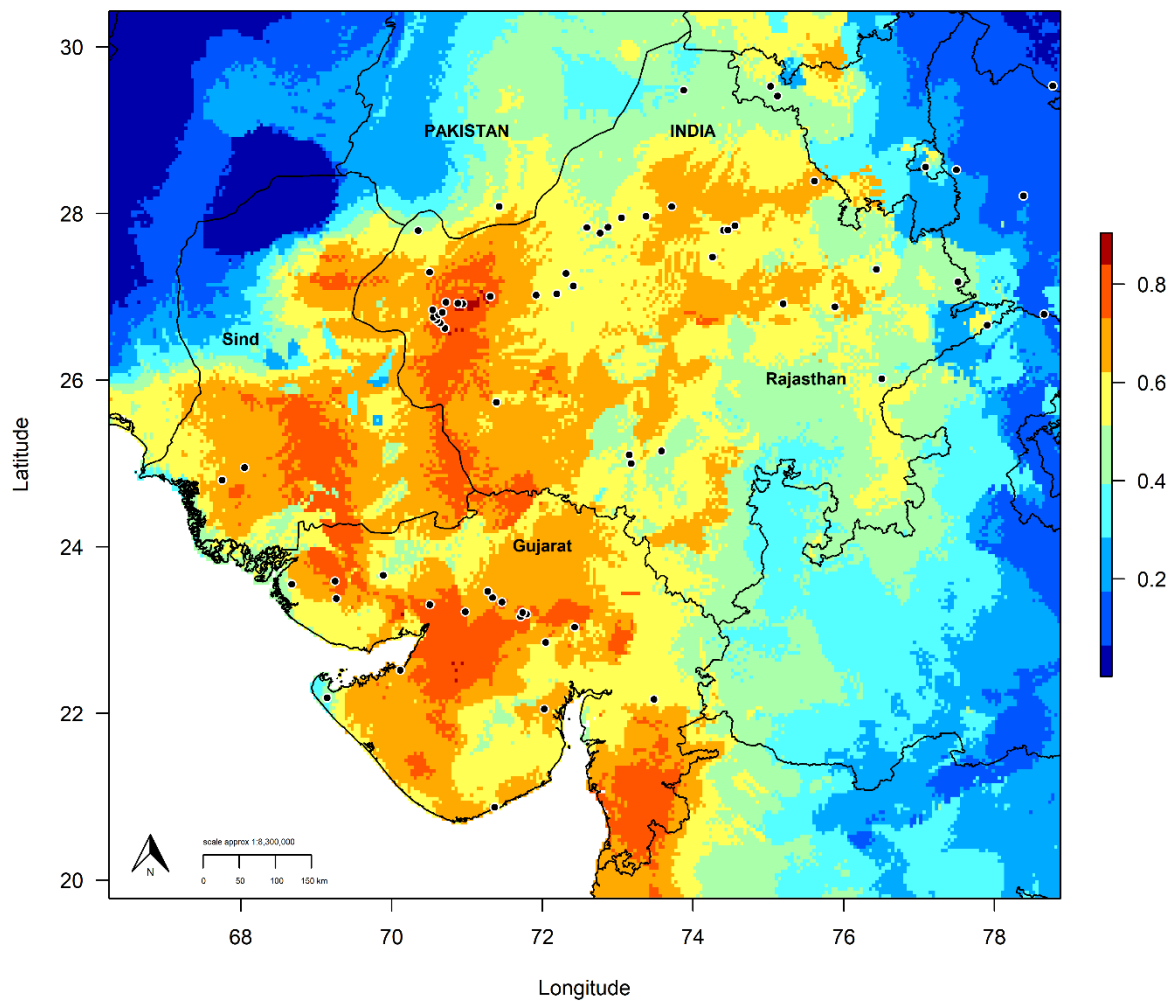


Figure S1. Predicted distribution for the Laggar Falcon projected into areas forming the core of highest climate suitability: Gujarat and Rajasthan regions (India) and Sind region (Pakistan). Map denotes continuous logistic prediction with hotter red areas (values closer to 1) having higher climatic suitability. White filled circles define known Laggar occurrences.

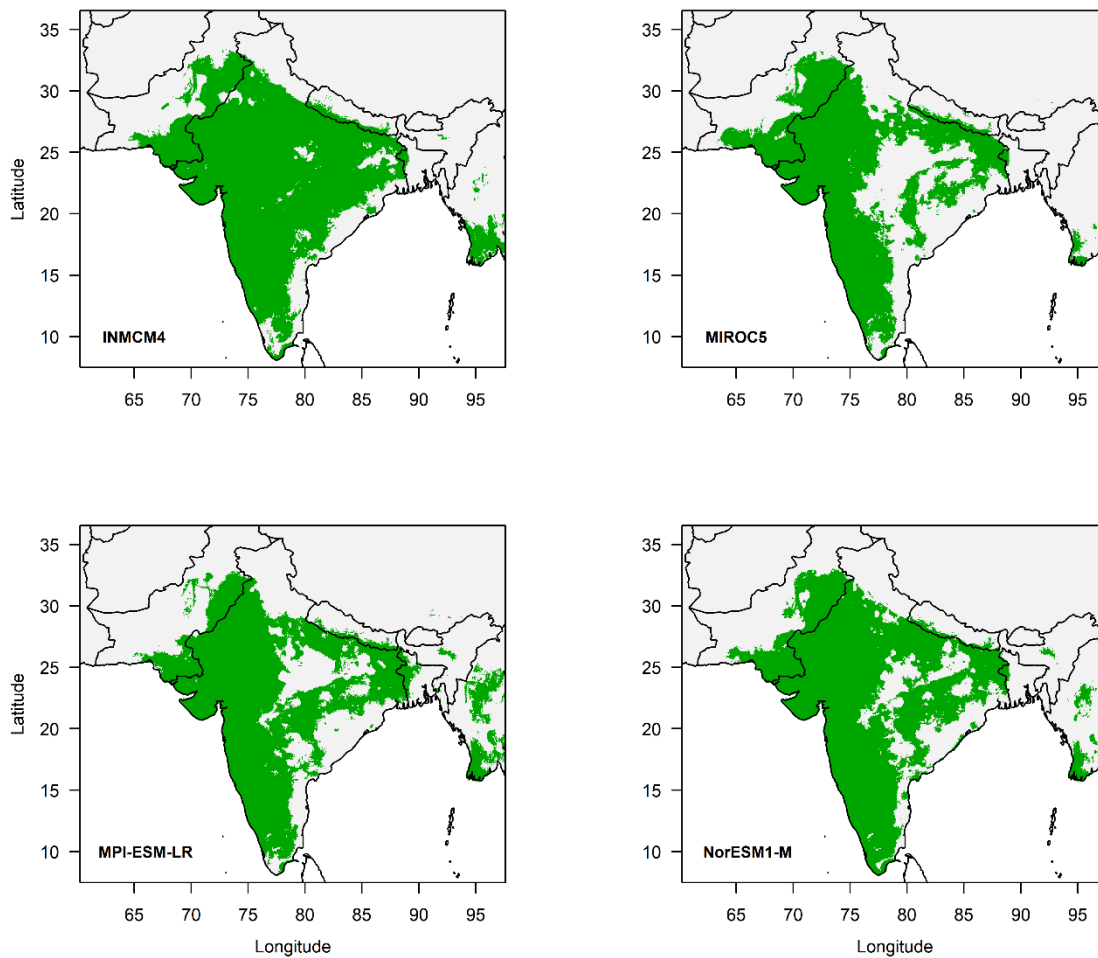


Figure S2. Predicted binary (presence/absence) distribution for the Laggar Falcon for 2050 using four General Circulation Models (GCMs) under a low carbon emissions scenario (RCP4.5). Reclassified from the continuous predictions using 10% training presence threshold rule. Green areas denote suitable future climate space for the Laggar Falcon, light grey areas as not suitable.

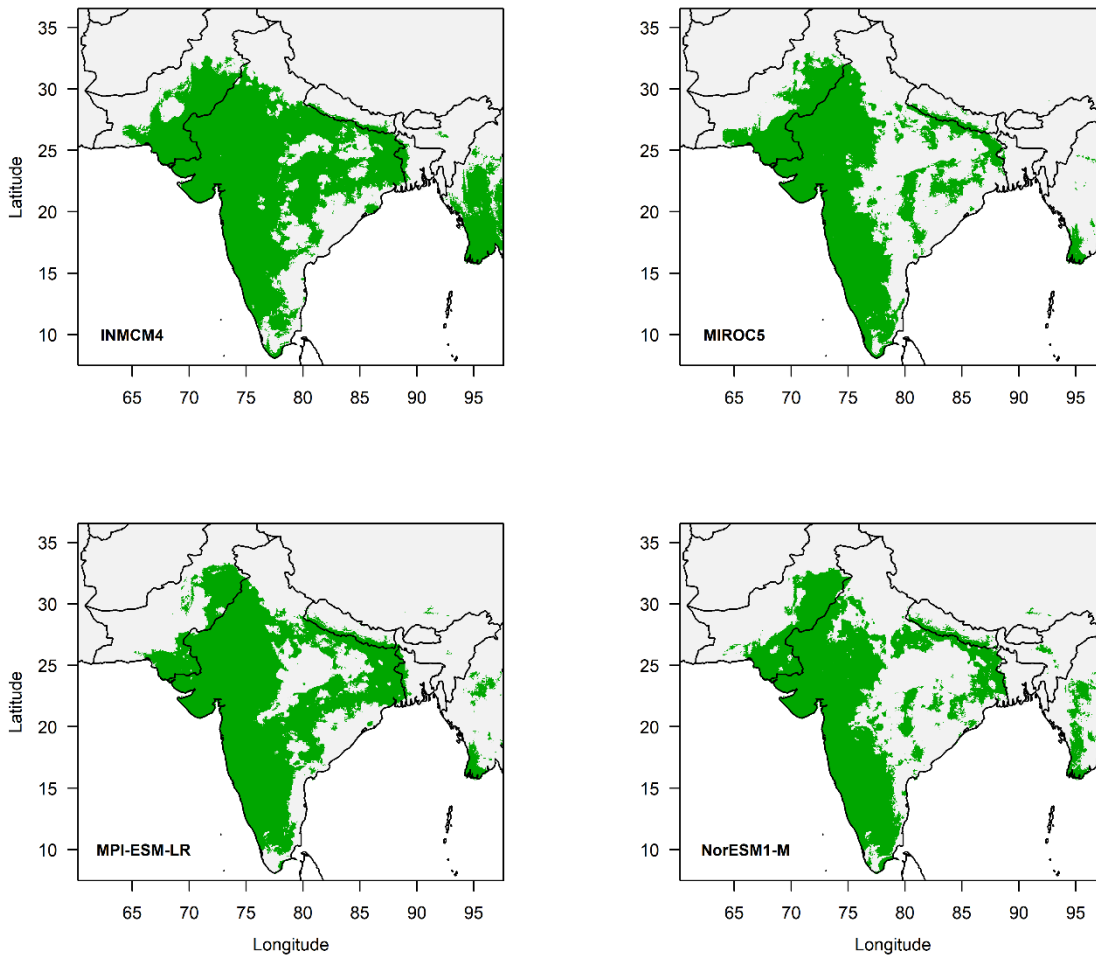


Figure S3. Predicted binary (presence/absence) distribution for the Laggar Falcon for 2050 using four General Circulation Models (GCMs) under a high carbon emissions scenario (RCP8.5). Reclassified from the continuous predictions using 10% training presence threshold rule. Green areas denote suitable future climate space for the Laggar Falcon, light grey areas as not suitable.