Understanding habitat selection of the Vulnerable wild yak *Bos mutus* on the Tibetan Plateau

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TABLE S1 Topographical features of suitable habitats for the wild yak *Bos mutus*, with minimum, median and maximum values during the vegetation growing and non-growing seasons.

Habitat features	Growing season			Non-growing season		
	Min.	Median	Max.	Min.	Median	Max.
Altitude (m)	2,783	5,243	6,215	4,001	4,990	6,142
Ruggedness* (m)	0	48	428	0	23	571
Distance to nearest glacier (km)	0	13	181	0	54	245
Distance to nearest village (km)	0	32	290	0	70	377

*Topographic ruggedness index

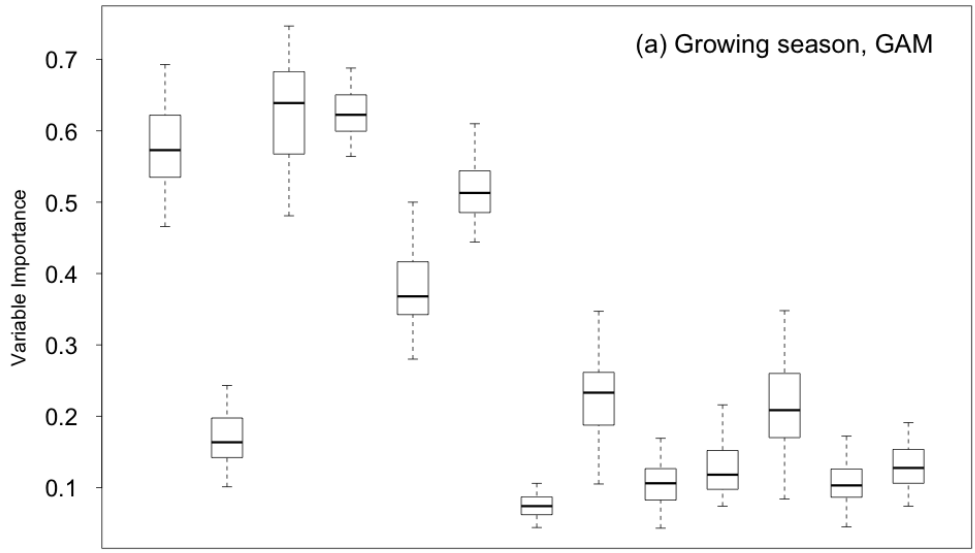
TABLE S2 Current distribution of wild yak habitat on the Tibetan Plateau, and predicted distribution, gain, and loss by 2070 under two climate change scenarios (RCP26 & RCP85), according to random forests (RF), generalized additive (GAM) and MaxEnt models, which were run independently for the growing and non-growing season.

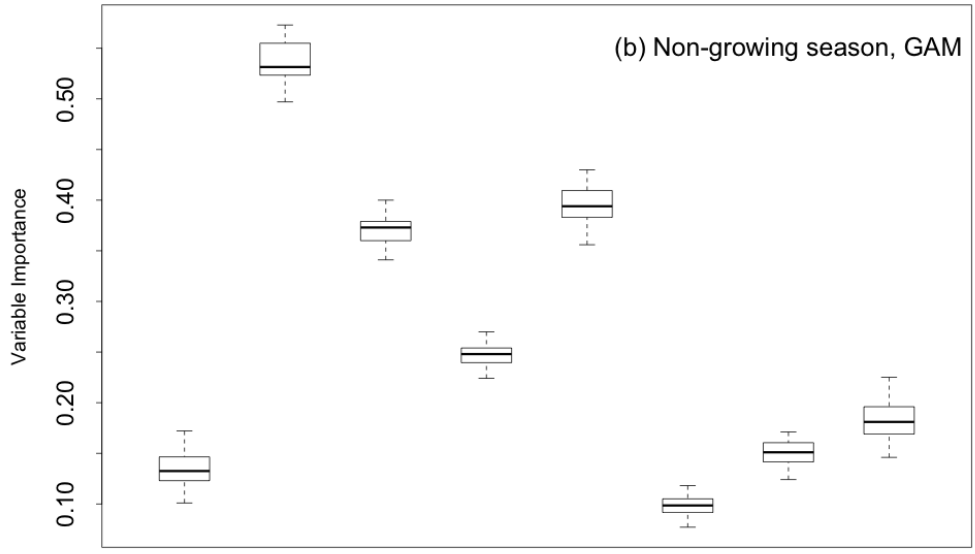
Scenario	Season	Total area of suitable habitat (pixels)			Predicted habitat gain (%)			Predicted habitat loss (%)		
		RF	GAM	MaxEnt	RF	GAM	MaxEnt	RF	GAM	MaxEnt
Current	Growing	24,222	81,092	745,463						
	Non-growing	169,539	266,793	445,140						
RCP26	Growing	59,610	94,527	612,210	146	17	−18	−69	−66	−23
	Non-growing	228,776	294,194	407,691	35	10	−8	−49	−31	−27
RCP85	Growing	71,252	156,422	522,930	194	93	−30	−74	−46	−43
	Non-growing	40,306	46,803	102,947	−76	−82	−77	−98	−100	−90

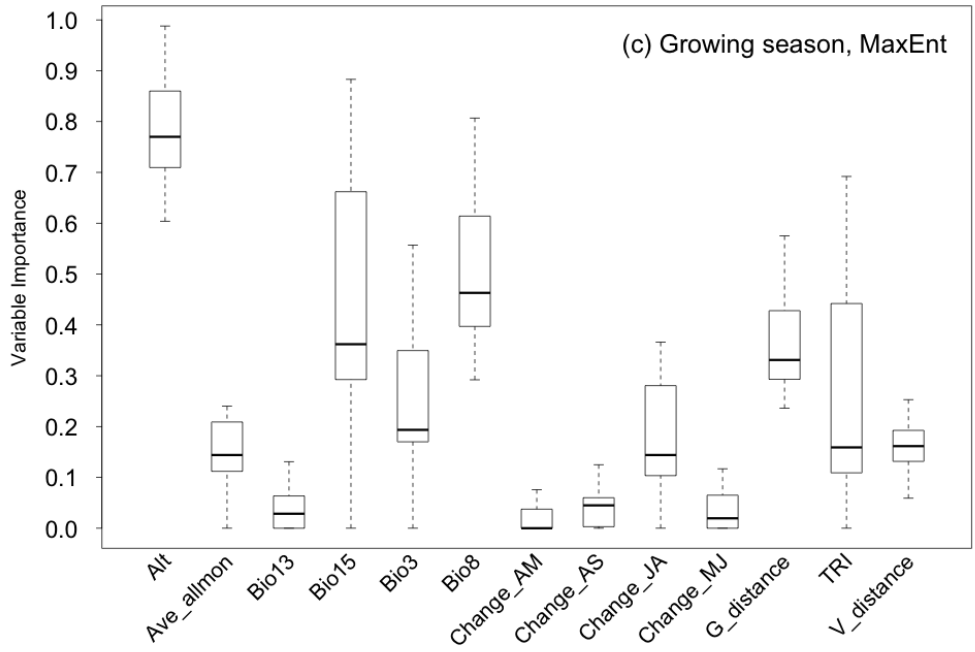
TABLE S3 Predicted minimum, median and maximum values of topographical features of suitable habitats for the wild yak by 2070 under two climate change scenarios, RCP26 and RCP85.

Scenario	Topographical feature	Growing seasonal habitats					Non-growing season habitats				
		Min.	25%	Median	75%	Max.	Min.	25%	Median	75%	Max.
RCP26	Altitude (m)	2,913	5,059	5,152	5,289	6,175	4,159	4,949	5,076	5,194	6,272
	Ruggedness* (m)	0.00	21.25	33.88	52.75	457.75	0.00	16.63	30.13	47.75	373.28
RCP85	Altitude (m)	3,800	5,088	5,162	5,283	6,091	542	5,068	5,150	5,245	6,343
	Ruggedness* (m)	0.00	20.75	32.63	49.75	382.13	0.00	25.25	36.88	50.50	336.50

*Topographic ruggedness index


(a) Growing season, GAM
Variable Importance
0.1
0.2
0.3
0.4
0.5
0.6
0.7


(b) Non-growing season, GAM
Variable Importance
0.10
0.20
0.30
0.40
0.50



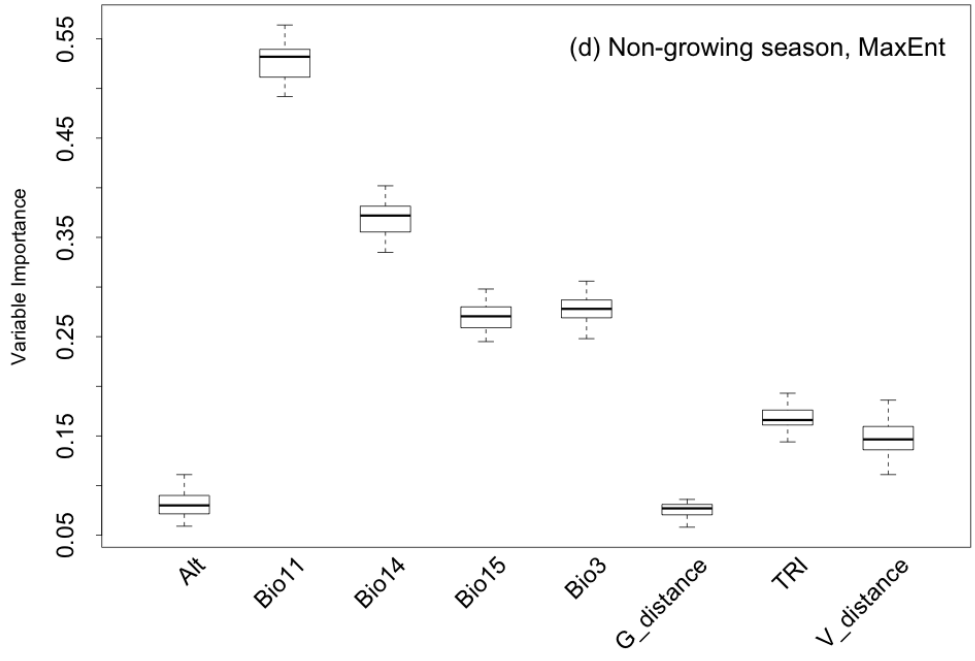


FIG. S1 Variable importance derived from various modelling approaches. (a) and (b) are the generalized additive model (GAM) outputs for the growing and non-growing seasons, respectively; (c) and (d) are the MaxEnt outputs for the growing and non-growing seasons, respectively.