

**附录I 黑熊生境阻力因子、分值和权重**Appendix I Resistance factors, values and weights of habitat for *Ursus thibetanus*

准则层1 Rule layer 1	权重 Weight	准则层2 Rule layer 2	权重 Weight	准则层3 Rule layer 3	对总目标的权重 Weights for the target	相对阻力 Relative resistance
物理环境因子 Physical environment factors	0.2120	坡度阻力因子 Resistance factor of slope ( $R_s$ ) (°)	0.4241	>50 40–50 30–40 21–30 <21	0.0899	400 300 200 100 50
		坡向阻力因子 Resistance factor of aspect ( $R_a$ )	0.2214	阳坡 Sunny slope 半阳半阴坡 Semi-sunny slope 阴坡 Cloudy slope	0.0469	50 100 200
		海拔阻力因子 Resistance factor of elevation ( $R_e$ ) (m)	0.1640	>2,200 1,600–2,200 1,150–1,600 600–1,150 <600	0.0348	400 300 200 100 50
		到水体距离阻力因子 Resistance factor of distance to water ( $R_w$ ) (m)	0.1905	>800 600–800 400–600 200–400 <200	0.0404	400 300 200 100 50
生物环境因子 Biological environment factors	0.3162	土地利用类型阻力因子 Resistance factor of land use ( $R_l$ )	0.3162	阔叶林 Broad-leaf forest 混交林 Mixed forest 针叶林 Coniferous forest 灌丛 Brushwood 草甸 Meadow 荒草地 Grassland 耕地 Cultivated land 水体 Water 居民地 Residential areas	0.3162	0 20 50 100 150 200 300 400 500
人为干扰因子 Human disturbance factors	0.4718	到主要公路距离阻力因子 Resistance factor of distance to main roads ( $R_r$ ) (m)	0.1483	>1,000 1,000–600 600–300 300–100 <100	0.0700	50 100 200 300 400
		居民点密度阻力因子 Resistance factor of residential density ( $R_j$ )	0.5627	>2.5 1.0–2.5 0.4–1.0 0.08–0.4 <0.08	0.2655	500 400 200 100 50
		到耕地距离阻力因子 Resistance factor of distance to cultivated land ( $R_c$ ) (m)	0.2889	>1,200 1,200–800 800–500 500–100 <100	0.1363	50 100 200 300 400

黑熊生境综合阻力 Comprehensive habitat resistance of *Ursus thibetanus* ( $R$ )

$$R=0.0899 \times R_s + 0.0469 \times R_a + 0.0348 \times R_e + 0.0404 \times R_w + 0.3162 \times R_l + 0.0700 \times R_r + 0.2655 \times R_j + 0.1363 \times R_c$$