

Table S5. Results of model selection for the behavioural models, based on Akaike’s information criterion corrected by small samples sizes (AICc). Best models (i.e. minimising the AICc) are highlighted in bold. The symbol ‘*’ indicates the interaction between two variables.

<i>Behavioural state</i>	<i>Data subset</i>	<i>Fixed effects</i>	<i>Random effects</i>	<i>AICc</i>
Directed thermal soaring (State 1)	Adults and sub-adults; autumn and spring	~ Season * Age	Individual	772
			Year	902
			Individual, Year	548
		~ Season + Age	Individual, Year	546
		~ Season	Individual, Year	567
		~ Age	Individual, Year	672
	Adults; autumn and spring	~ Season * Sex	Individual	324
			Year	473
			Individual, Year	288
		~ Season + Sex	Individual, Year	288
~ Season		Individual, Year	285	
~ Sex	Individual, Year	352		
Gliding (State 2)	Adults and sub-adults; autumn and spring	~ Season * Age	Individual	961
			Year	1066
			Individual, Year	858
		~ Season + Age	Individual, Year	856
		~ Season	Individual, Year	858
		~ Age	Individual, Year	1041
	Adults; autumn	~ Season * Sex	Individual	448
			Year	577

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	and spring		Individual, Year	411
		~ Season + Sex	Individual, Year	462
Convoluted thermal soaring (State 3)	Adults and sub-adults; autumn and spring	~ Season * Age	Individual	854
			Year	1196
			Individual, Year	805
		~ Season + Age	Individual, Year	817
	Adults; autumn and spring	~ Season * Sex	Individual	457
			Year	606
			Individual, Year	460
		~ Season + Sex	Individual	455
		~ Season	Individual	453
		~ Sex	Individual	460
Orographic soaring (State 5)	Adults and sub-adults; autumn and spring	~ Season * Age	Individual	1548
			Year	1913
			Individual, Year	1364
		~ Season + Age	Individual, Year	1362
		~ Season	Individual, Year	1423
		~ Age	Individual, Year	1524
	Adults; autumn and spring	~ Season * Sex	Individual	773
			Year	859
			Individual, Year	711
		~ Season + Sex	Individual, Year	821

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