

**Supplementary data Table S1:** Summary of the six Afromontane forest regions included in the study, including respective approximate area of forest, elevational range, annual rainfall range, substrate type, estimated age of mountain and the number of tree species.

<b>Afromontane forest</b>	<b>Area</b>	<b>Elevation</b>	<b>Annual rainfall</b>	<b>Substrate</b>	<b>Age of mountain</b>	<b>Tree species</b>
Southern Afrotropical (34° S)	74 848 ha	10 - 1060 masl	863 mm	Quartzitic sandstone	>300 mya	90
Northern Afrotropical (24° S)	38 095 ha	1100 - 2000 masl	1042 mm	Quartzitic sandstone and rarely volcanic rocks	>300 mya	129
Manica Highlands (19° S)	6 120 ha	1650 - 2100 masl	2000 - 3000 mm	Quartzites, schists, limestone	>400 mya	181
Mount Mulanje (15° S)	4 600 ha	1600 - 1950 masl	2425 - 3108 mm	Coalescing syenite, quartz syenite and granite intrusions	130 mya	156
Mount Kilimanjaro (3° S)	100 000 ha	1600 - 3100 masl	1900 - 2700 mm	Volcanic deposits	<4 mya	176
Mount Kenya (0°)	165 000 ha	1450 - 3890 masl	870 - 2170 mm	Volcanic deposits	<6 mya	165