

Table S1 - Mange management strategy in chamois populations of Trento Province			
Type	Description	Prioritary management aims	Management
1	First mange cases in naïve zone	Monitoring	Eventual increase of hunting bag (up to 20% of previous census)
2	Mange cases with no (<15%) population decline	No hunting restrictions	As with no demographic decline
3	Mange cases with moderate (15-30%) population decline	No hunting restrictions	Hunting bag < 10% of previous census
4	Mange cases with evident (30-40%) population decline	Spare resistant animals; limit disturbance on infected animals	Hunting bag < 5% of previous census
5	Mange cases with evident (>40%) population decline	Spare resistant animals; limit disturbance on infected animals	No hunting
6	Naïve zone bordering affected areas	Monitoring	Eventual increase of hunting bag (up to 20% of previous census)
7	Post epidemic situation (applicable for no more than 3 years)	Promote demographic recovery ($\geq 50\%$ of pre-epidemic status).	<p>Hunting bag is defined according to the effective demography recovery. Hunting must return to normality following these steps:</p> <ul style="list-style-type: none"> • 50-70% of pre-epidemic stocks: hunting bag $\leq 5\%$ of census data • 70-80% of pre-epidemic stocks: hunting bag $\leq 10\%$ of census data • $\geq 80\%$: ordinary hunting bag