

### Survivorship Graph

Populations of species demonstrate various mortality profiles. Often ecologists use a life table to develop survivorship curves. A 1000-cohort sample is typically used. Here are data from three different species. The second column is the number remaining alive at the beginning of the age period. The third column is the percentage of the lifespan at which the age period is at.

Age Period (years)	Mountain Sheep	% of Lifespan
0-1	1000	100
1-2	801	93
2-3	789	86
3-4	776	79
4-5	764	71
5-6	734	64
6-7	688	57
7-8	640	50
8-9	571	43
9-10	439	36
10-11	252	29
11-12	96	21
12-13	6	14
13-14	3	7
14	0	0

Age Period (years)	Squirrels	% of Lifespan
0-1	1000	100
1-2	796	86
2-3	344	71
3-4	151	57
4-5	54	43
5-6	11	29
6-7	6	14
7-8	0	0

Age Period (months)	Short-lived Grass	% of Lifespan
0-3	843	100
3-6	722	88
6-9	527	75
9-12	316	63
12-15	144	50
15-18	54	38
18-21	15	25
21-24	3	13
24	0	0

- Plot the data with *relative age* on the x-axis and the survivors on the y-axis. The x-axis will then run from 0 to 1.
- Do sheep, squirrels and grass display similar survivorship curves?
- When during the lifetime of each species is the mortality rate the highest?
- At approximately what ages are half of the sheep, squirrels and grass still alive?
- What assumptions did you make?

