Table 1 Estimated rates of plant extinction and speciation in the distant past (background), the recent past (Anthropocene), and the future (projected)

Median/mean		
rate (S/MSY ^a)	Data source(s)	Data type
Extinction: background		
0.05	De Vos et al. (21)	Phylogenetic analysis
0.07 ^b	Levin & Wilson (56)	Species durations in the fossil record
0.13	Stanley (95)	Species durations in the fossil record
Extinction: Anthropocene, to date		
0.98	IUCN Red List (extinct or extinct in the wild) (42)	142 extinctions from 1600 to 2016 ^c
4.1	World Conservation Monitoring Center (127)	592 extinctions from 1600 to 2016
5.2	Regan et al. (81)	33 extinctions out of 16,000 species over 400 years in Australia ^d
Extinction: Anthropocene, conservative projection		
50	Reid (82), van Vuuren et al. (109)	5% extinction rate spread over 1,000 years ^e
Speciation: background		
0.65 ^b	Levin & Wilson (56)	Ages of genera and number of species in each genus
0.14	De Vos et al. (21)	Phylogenetic analysis (net diversification plus extinction)
Speciation: Anthropocene, to date		
6.3	Thomas (103)	6 new species (in a region with \sim 3,000) from 1700 to 2015 in the United Kingdom
Speciation: Anthropocene, projection		
No estimates available		

^aSpecies per million species per year or, alternatively, species per species per million years; for example, a speciation estimate of 1.0 S/MSY means that for every million species, one new species will arise each year, or, equivalently, each species is likely to give rise to one additional species every million years.

^bWeighted average for herbs, shrubs, and hardwoods, assuming that 45% of species are woody (evenly split between shrubs and hardwoods) and the rest are herbaceous (31).

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^cThe calculation here is as follows: (142 species extinct/350,000 total species)/[(2016 – 1600)/10⁶] million years.

^dRough midpoints from a range of possibilities reported by Regan et al. (81).

eThe low end of projected percentages of species committed to extinction by Reid (82) is 4% by 2040 and 7% by 2050, but we have no estimate of the time course over which these extinctions will occur; here, we consider 1,000 years a conservative guess.