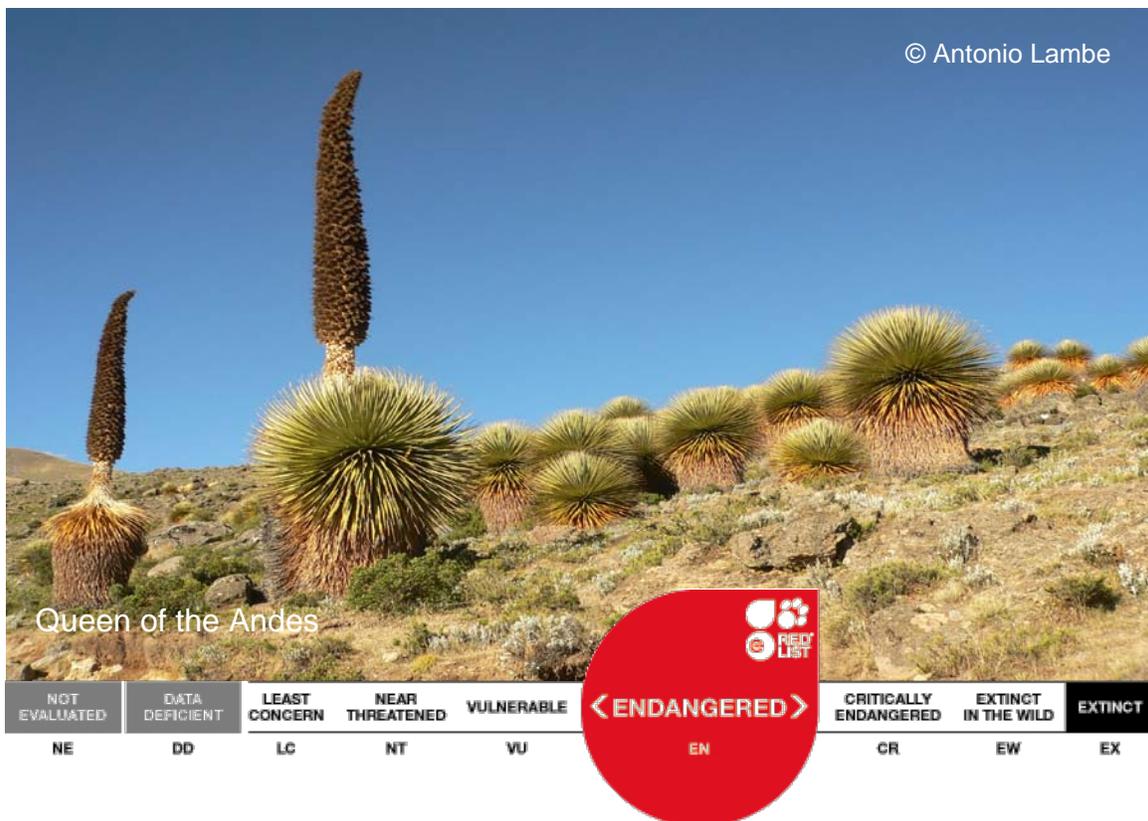


# The IUCN Red List of Threatened Species™ 2009 update

## Plant Facts



Total species assessed in = 12,151 (up by 96 since last year)

Total EX or EW = 114 (1%) [EX = 86; EW = 28]

Total threatened = 8,500 (70%) [CR = 1,577; EN = 2,316; VU = 4,607]

Total NT = 1,076 (9%)

Total LR/cd = 238 (2%) *[an old category that is gradually being phased out]*

Total DD = 735 (6%)

Total LC = 1,488 (12%)



### **Queen of the Andes (*Puya raimondii*) – EN**

This spectacular plant occurs in the Andes of Peru and Bolivia. Its populations are often very isolated from each other. Thanks to a single enormous subpopulation, which could represent most of the world's population of this plant, the population size may number 800,000 individuals. Bolivia is estimated to have 30,000-35,000 plants. This species produces seeds only once in about 80 years or more before dying, and although a mature plant will produce 8–12 million seeds, inclement montane conditions at the time of dispersal, which may also affect pollinating insects, can result in few if any germinations. Moreover, seeds in less than ideal conditions can begin to lose germinating ability after a few months and are also susceptible to damping-off. Because of these factors, a century-old plant may not reproduce at all and will, botanically, have lived in vain. This risk is exacerbated by global warming whose effects on Peru's glaciers are well established. Climate change may already be impairing *Puya raimondii*'s ability to flower.

In some areas, cattle roam freely among many colonies, which as a result are not being regenerated because the animals either trample or may eat young plants. In other sites, fires are set to create pastureland or the thorny leaves are burnt to facilitate access to the trunks' starch which becomes cattle fodder. Pith removal, of course, kills the plant. Compounding all these issues, there is very little genetic variety within existing populations, indicating a lack of mixing between different populations, resulting in inbreeding. Even though fully fitted to its harsh environment, *P. raimondii* lacks sufficient variability in its genome to allow it to adapt to both human pressure and changing climate. ©Antonio Lambe



### **Toussaintia orientalis - EN**

*Toussaintia orientalis* is a small tree found in dry evergreen lowland forest and bushland in Tanzania and Kenya, although the only known site in Kenya (Mangea) may now be destroyed. At Mangea most if not all of the forest has gone because of agricultural expansion. In Tanzania, there is intensive agriculture in Ifakara and the species may also have now disappeared from that locality. The Pugu Forest Reserve has also been badly impacted by human activities, however the species is better protected in the other forest reserves where it occurs. Photo © [Quentin Luke](#)



### **Aloe kilifiensis - EN**

*Aloe kilifiensis* is an Endangered species that occurs along the southern Kenyan coast. It was also discovered more recently on the northern Tanzanian coast. This succulent plants grows in Acacia bushland on shale soils, on coral rocks and on white gritty soils. It is locally common in places, however there is considerable habitat disturbance in its range due to agricultural expansion and other human activities in this coastal zone. The species is also sought after by succulent collectors because of the striking flower colour. Photo © [Quentin Luke](#)