

After a long search, Malagasy botanist Fetra Randriatsara (left) and Maria Vorontsova are excited to find the rare native grass *Chasechloa madagascariensis* in Ankarana National Park, Madagascar

of ecosystems. ‘When you lose plants, ecosystems start to collapse,’ says Maria. ‘We don’t understand the full details of how ecosystems work and the interdependencies between species. But lose one and you can get a cascade of extinctions.’

The Kew study generated alarming figures for the scale and speed of extinction. In the past 250 years, 571 plants are now known to have become extinct, or extinct in the wild – more than twice the number of birds, mammals and amphibians combined, and four times the number listed as extinct in the IUCN *Red Lists*. The number of reported extinctions was much higher, at 1,234, but more than half have since been rediscovered or turned out to belong to species known by a different name and still with us. Even so, the rate of loss is about 500 times that expected naturally.

Although the figures are the most accurate to date, the team stresses that they are inevitably a gross underestimation. Many species are ‘missing’ but not officially extinct. ‘Scientists are very reluctant to declare a species extinct, because they can’t be 100 per cent certain it’s gone,’ explains Rafaël. It’s virtually impossible to prove something is absent – not least because of the logistical difficulties of searching vast areas of remote and difficult terrain. Many species are still here but effectively extinct: the animals that once pollinated them or spread their seeds may have vanished; surviving plants might all be the same sex and unable to reproduce; or there may be so few individuals that they no longer have the genetic wherewithal to adapt to changing conditions. Some of these survive only in botanic gardens. And of course, many plants will have vanished without ever being discovered.

If the numbers make people more aware of how serious plant extinction is and prompt more urgent action, then that’s a positive thing – but the study is more than a rollcall of the lost. For every name on the list, Rafaël gathered details about the type of plant and the places it used to grow, information compiled from herbarium specimens and botanical illustrations, old and obscure books and reports

Photos: Maria Vorontsova, Collin Clubbe



The future is looking a little brighter for *Vachellia anegadensis* now that a new population has been found, changing the tree’s status from critically endangered to endangered

