

Executive Summary

The Cycad Action Plan brings together a collection of data and opinions on one of the world's most threatened groups of plants and presents a series of actions to promote their conservation. The coverage in the Cycad Action Plan provides substantially more information than has been made available in previous Red Lists and regional action plans. Even in the few years since the publication of the 1997 IUCN Red List of Threatened Plants (Walter and Gillett 1998), the number of species and subspecies that have been assessed has increased from 180–297. At the same time, the number of taxa that are Extinct in the Wild, or fall into one of the IUCN categories of threat, has risen from 149 (82%) in 1997 to 155 (53%). We have used the latest IUCN Red List Categories and Criteria (version 3.1, 2001) (available in Appendix 2), for evaluating threatened status and this has resulted in a more objective analysis than was previously possible. Cycads have been under severe threat for several decades and many attempts have been made to conserve the plants and their habitats with varying degrees of success. Part of the Cycad Action Plan is therefore an analysis of what has been done and its effectiveness, and part is a plan of action to build on past successes to reduce the impacts on wild cycad populations.

The Action Plan begins with an overview of all the cycads, describing the origins of the three families of living cycads (Cycadaceae, Stangeriaceae, and Zamiaceae) and their current distributions. It is encouraging to see that roughly 40% of the world's cycads fall into globally recognised biodiversity hotspots. This results in a considerable overlap between some of the objectives of this Action Plan and the goals of several international conservation organisations; that is, to conserve the last remaining habitat in areas of high diversity. In the case of cycads, this is an essential prerequisite for conservation since cycads have evolved numerous interactions with other organisms that will only survive in their native habitat.

The overview is followed by regional assessments for the four broad areas of cycad distribution; namely Africa and the Indian Ocean Islands, Australia, Asia (including Malesia – an area of tropical Australasia comprising Malaysia, Papua New Guinea, and the islands of Indonesia and the Philippines), and the New World. This geographical breakdown is convenient for regional planning but it also reflects the underlying biogeography of the cycads. With

the exception of the widespread genus, *Cycas*, each of the other ten genera occurs in only one of the four regions. The chapter for each region deals with regional diversity and provides an analysis of local centres of diversity. The graphs provided for each region show that typically most of the cycads occur in a few countries while many countries have only one cycad species and these analyses are critical for regional planning. The regional overviews also highlight many of the differences between areas, with Africa having a high level of threat due to wild-collecting compared to Asia and the New World, where habitat destruction is a severe threat, and Australia where the levels of threat are generally lower.

Trade is a significant issue affecting cycads and a separate chapter has been included to deal with trade issues. CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) has provided an international mechanism to monitor and control trade in endangered species and all cycads are currently listed in the CITES appendices. The key question we try to address is whether CITES has been effective. One of the shortcomings that we identify is that CITES monitors trade but it does not monitor the impact on wild populations. The need to conserve cycad habitats means that trade has to be viewed in a broader context. The potential to satisfy trade through artificially propagated plants and through community based nurseries is evaluated.

With untold species facing extinction, many species may only survive in botanical gardens. We have therefore assessed the current status of cycad collections, with special emphasis on genebanks that represent specific populations. Activities over the past decade have already resulted in a large number of genebanks but there are still several Critically Endangered and Endangered species that are not adequately represented in genebanks.

Finally, the Cycad Action Plan presents a set of objectives and actions to reduce the threat to cycads in the wild and to provide *ex situ* conservation for those that almost certainly will die out in the wild. The actions focus on habitat conservation and species conservation and involve a wide range of stakeholders. Local communities, collectors, conservation organisations, policy makers, and researchers, can all influence the survival or extinction of cycad species and the final chapter outlines actions and activities that can be implemented by these stakeholders.