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NEWS RELEASE

For immediate release

MODERN LIFESTYLE THREATENS OLDEST SEED PLANTS ON EARTH

Gland, Switzerland, 2 July 2003 (IUCN) Cycads, the oldest seed plants on earth, are now also amongst the most threatened plants in the world cautions a new publication from IUCN - The World Conservation Union. Two species have already gone Extinct in the Wild, and continuing pressures from modern lifestyles suggest that more are likely to join them.

These palm-like plants first appeared in the fossil record about 300 million years ago, well before the dinosaurs roamed the planet. Today, there are about 297 species and sub-species distributed over Africa, Asia, Australia and the New World (Americas). They range in size, from small species found under the forest canopy to tall species either growing in the forest canopy or out in the open. All species are reviewed in the *Cycad Status Survey and Conservation Action Plan*, compiled by the Cycad Specialist Group of IUCN's Species Survival Commission. To date this is the most comprehensive report on the status of these charismatic plants.

The publication also comes at a crucial time as 53% of all cycads are threatened with extinction compared to an average 12.5% for plants in general, according to the *1997 IUCN Red List of Threatened Plants*. The action plan outlines the various threats facing cycads and provides recommendations for future action to be undertaken by conservation organizations, researchers, plant collectors, botanical gardens, policy makers and local communities.

Threats and trade

The main threats to wild cycads include habitat destruction for farming, mining and urban development, habitat modification, traditional use (medicinal and magical), invading alien vegetation, and the collection of plants and seeds from the wild for horticultural purposes.

"In South Africa and Swaziland, 60% of the decline in populations of *Encephalartos* cycads could be attributed to trade in wild-collected plants", says Dr. John Donaldson, Chair of the Cycad Specialist Group. The demand for large cycads by landscapers means that there is a high risk of mature plants being taken straight from the wild due to their slow rate of growth and the many years of cultivation needed to reach an adequate size. As the demand for wild plants is presently high, there is greater need to produce cultivated plants to supply a legal trade and alleviate the pressure on wild cycads.

The main importers of cultivated, and hence legitimate, cycad seeds and plants are the U.S., followed by Germany and the Netherlands according to 1983-1999 data from the World Conservation Monitoring Centre (part of the United Nations Environment Programme). The biggest exporter was found to be Japan.

However, problems that hamper the legal trade in cycads include the poor availability of cultivated plants and the difficulty in distinguishing a cultivated plant from a wild-collected one. The Cycad Specialist Group argues that if trade restrictions in cycad seeds were reduced this would increase the availability of cultivated plants.

Tracking wild individuals

Technology is also now making it easier to distinguish between wild-collected

plants and cultivated ones. In South Africa the insertion of microchips into the stems of individual plants allows law enforcement officials to trace any possible movements of these plants. Individuals can be scanned for the presence of a microchip which has a unique number that is assigned to each plant. All the microchipped plants are entered on a national register. DNA fingerprinting techniques are also being developed to trace the parentage of plants in trade.

Last refuges

For many species *ex situ* conservation in botanical gardens and gene banks may now be the sole option left for their survival. In other cases, such as the Critically Endangered Albany cycad (*Encephalartos latifrons*), survival in the wild depends on artificial pollination as the specialist beetle pollinators no longer exist. Where species do still occur in the wild, some protected areas have been set up. The propagation of wild seeds in community nurseries is also helping to re-stock areas within the original species' range, as well as providing local people with jobs and a reason to conserve their cycads.

Flagship species

"Cycads experience the same problems that many other plant species face, but their biology makes them more vulnerable to human induced disturbance", says Dr. Donaldson. Cycads are slow growing, dioecious plants (separate male and female plants) with infrequent reproduction and specialized pollinators. This means that individual plants need to be in close proximity if they are to be pollinated and hence reproduce. Dr. Donaldson adds that "as a result, they can act as flagship species for conservation and as early warning signs for the effects of specific threats on plant diversity".

With an estimated 270,000 species of plant, cycads make up a small proportion of the total plant diversity. Yet, it is their antiquity and endurance that make cycads so special, providing clues about plant evolution and insights to a prehistoric world.

It is hoped that this publication will not only stimulate conservation action for cycads on the ground, but will also be a vital step towards placing cycads on the global conservation agenda.

Cycads. Status Survey and Conservation Action Plan is available on <http://iucn.org/themes/ssc/actionplans/cycads/cycads.pdf> and can be purchased in hard copy from the IUCN World Conservation Bookstore <http://www.iucn.org/bookstore>; Email: books@iucn.org; tel: +44 1223 277894; fax +44 1223 277175.

Images to accompany this news release are available on <http://iucn.org/themes/ssc/actionplans/cycads/images.htm>

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