

## Living Cycads, last updated October 2020

BFL's living cycads (Cycadaceae) were originally given to UT Austin by the University of Chicago from the collection of Dr. Chamberlain. They were located at various sites on the UT main campus until Dr. Harold Bold of the Department of Botany moved them to BFL. The following specimens thrive in the solarium and in a specially constructed, fiberglass, lean-to greenhouse adjacent to the south side of the Botany wing.

*Ceratozamia mexicana*

*Cycas circinalis* (Guam cycad)

*Cycas revoluta*

*Cycas rumphii*

*Dioon edule*

*Dioon spinulosum*

Cycad seeds contain a highly toxic compound, cycasin. Specially prepared to remove the toxin, they are a part of the diet of indigenous peoples of Guam, the largest island in the Marianas chain in the western Pacific. After the American liberation of Guam, American doctors discovered that the incidence of Lou Gehrig's disease (amyotrophic lateral sclerosis or ALS) was about 100 times greater in Guam's native population than in the rest of the world. Another similar neurodegenerative disease, unknown until then, was also found among the same people. A research group including Director of UT's Institute for Neuroscience, Dr. Steven Leslie, and Botany biochemist, Dr. Tom Mabry, is investigating the neurological implications of these and other toxins. More non-technical details concerning this research and other neurological diseases may be found in Damond Benningfield's article, The Bad Seed, in the Sept/Oct 1992 issue of the Texas Alcalde, pp. 24-27. A technical article by Chang-Hwan Oh, Delia M. Brownson, and Tom J. Mabry, "Screening for Nonprotein Amino Acids in Seeds of the Guam Cycad, *Cycas circinalis*, by an Improved GC-MS Method," is currently in review.