

# CONSERVATION GENETICS LABORATORY: CURRENT PROJECTS

CC CENTER FOR  
SD CONSERVATION  
AND SUSTAINABLE  
DEVELOPMENT

MISSOURI BOTANICAL GARDEN



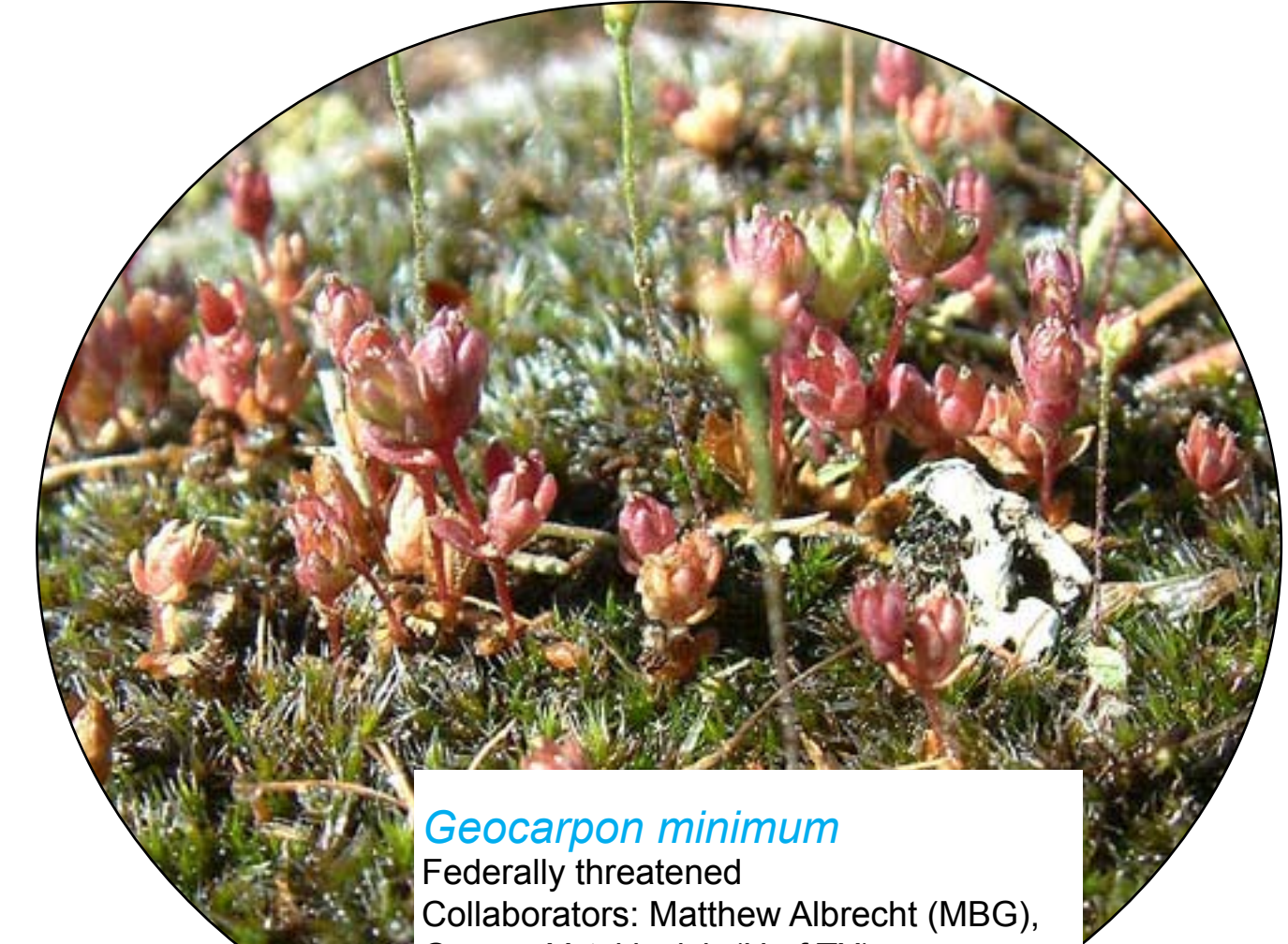
***Delphinium exaltatum***  
Collaborators: George Yatskievich (U of TX)  
Funding: US Park Service  
Methods: Microsatellite analysis of genetic structure



***Agave palmeri***  
Collaborators/Funding: Environmental Laboratory, U.S. Army Engineer Research and Development Center, Vicksburg, MS  
Methods: Microsatellite analysis of genetic structure



***Polygala lewtonii***  
Federally endangered  
Collaborators: Archbold Biological Station  
Funding: FDACS  
Methods: Microsatellite analysis of mating system



***Geocarpon minimum***  
Federally threatened  
Collaborators: Matthew Albrecht (MBG), George Yatskievich (U of TX).  
Funding: USFWS  
Methods: Microsatellite analysis of genetic structure



***Agave parryi***  
Collaborators/Funding: Environmental Laboratory, U.S. Army Engineer Research and Development Center, Vicksburg, MS  
Methods: Microsatellite analysis of genetic structure



***Diospyros***  
Many species are endangered - IUCN  
Collaborators: George Schatz, Pete Lowry (MBG)  
Funding: NGS and Franklinia Foundation  
Methods: Phylogenetic analysis using Sanger sequencing, Population analysis using RAD-seq



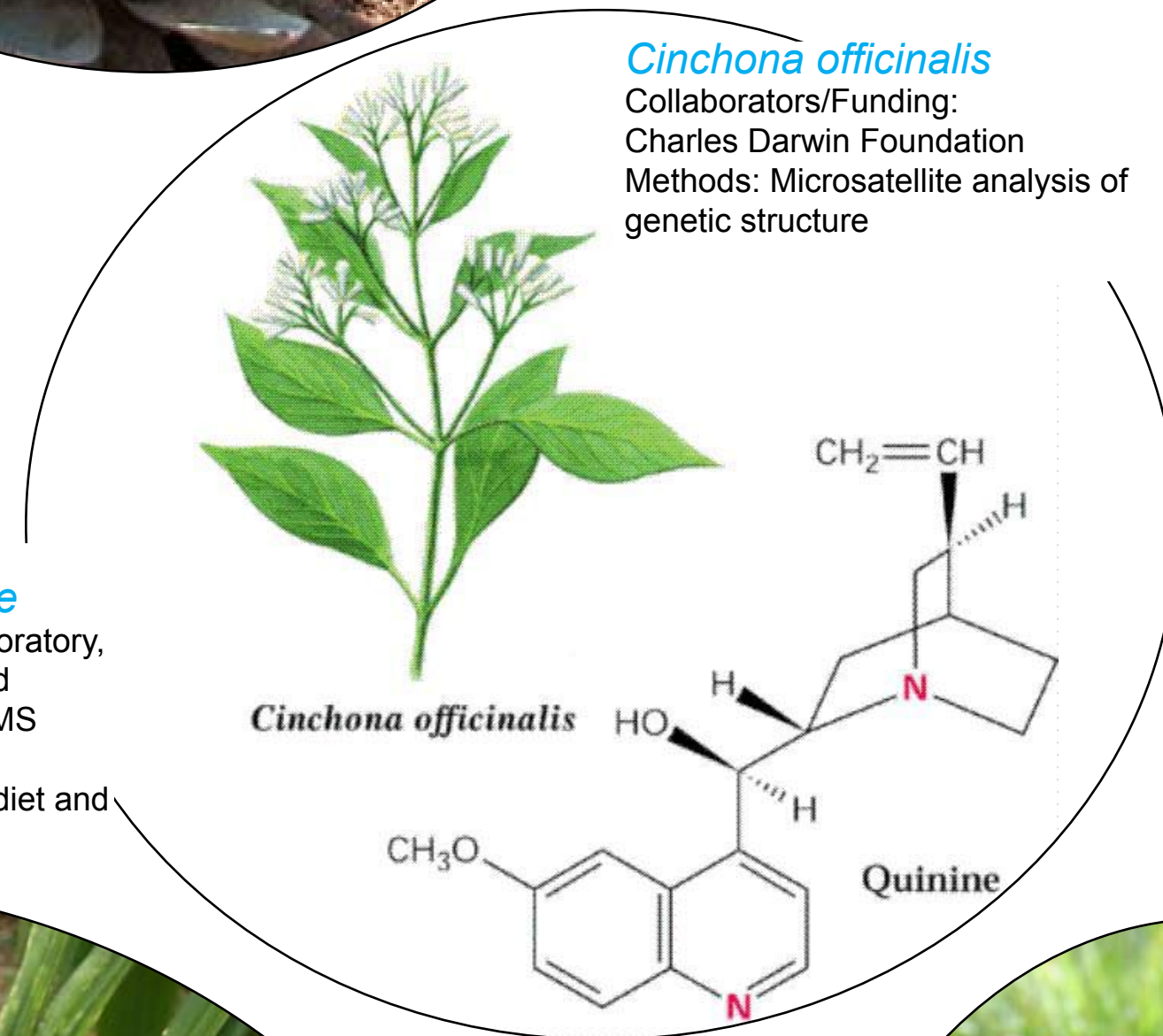
***Euphorbia roscens***  
Federally endangered  
Collaborators: Archbold Biological Station  
Funding: FDACS  
Methods: Microsatellite analysis of genetic structure



***Physaria filiformis***  
Federally threatened  
Collaborators: Matthew Albrecht (MBG), George Yatskievich (U of TX).  
Funding: USFWS  
Methods: Microsatellite analysis of genetic structure



***Leptonycteris yerbabuena***  
Collaborators: Environmental Laboratory, U.S. Army Engineer Research and Development Center, Vicksburg, MS  
Funding: ESTCP  
Methods: DNA Metabarcoding of diet and parasite diversity



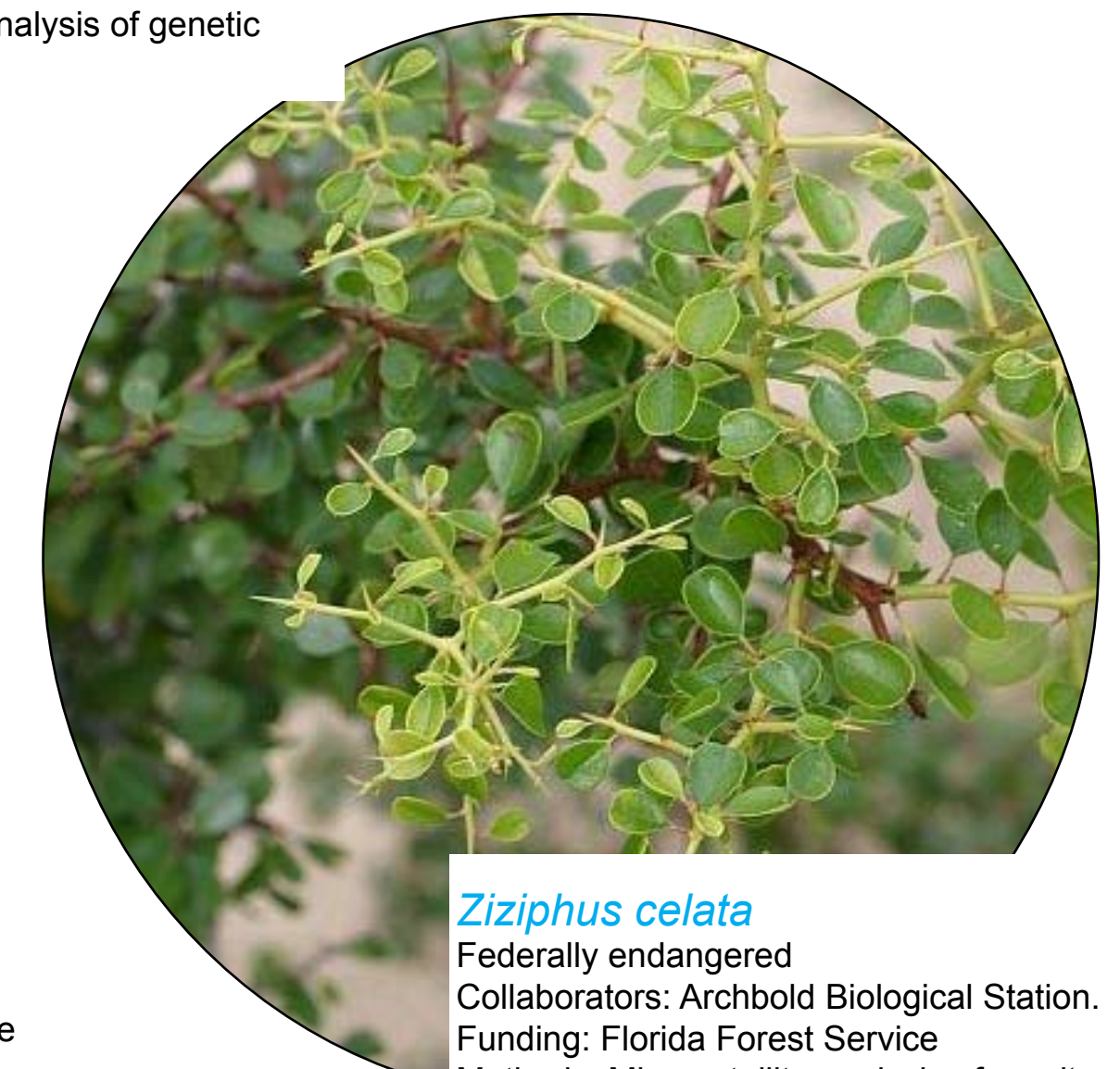
***Dracaena umbraculifera***  
Listed as extinct in the wild - IUCN  
Collaborators/Funding: Dr. Peter Wyse Jackson, Jim Miller (MBG), MBG-Horticulture  
Methods: Microsatellite analysis and DNA sequencing



***Lilaeopsis schaffneriana***  
Federally endangered  
Collaborators: US Army Engineers Research and Development Center  
Funding: DoD Legacy  
Methods: RAD-seq to determine species boundaries



***Leavenworthia exigua var. laciniata***  
Federally threatened  
Collaborators/Funding: USFWS  
Methods: Microsatellite analysis of genetic structure



***Ziziphus celata***  
Federally endangered  
Collaborators: Archbold Biological Station.  
Funding: Florida Forest Service  
Methods: Microsatellite analysis of *ex situ* reintroductions

Abbreviations:  
DoD Legacy - Department of Defense Legacy Resource Management Program  
ESTCP - Environmental Security Technology Certification Program  
FDACS - Florida Department of Agriculture and Consumer Services  
IUCN - International Union for Conservation of Nature  
MBG - Missouri Botanical Garden  
RAD-seq - Restriction Enzyme Associated DNA sequencing  
USFWS - U.S. Fish and Wildlife Service