

A close-up photograph of a vibrant red cactus flower. The petals are a deep, rich red, and the center is filled with bright yellow stamens. A small, dark-colored bee is perched on the yellow stamens, facing left. The background is a blurred, light-colored surface, possibly sand or a rock.

Rescuing Cacti

Since 1999

Tucson Cactus & Succulent Society



Over 1,100 TCSS Members

So...

What Is Our
"Cactus Rescue
Crew" Initiative
All About?

No, Not This!

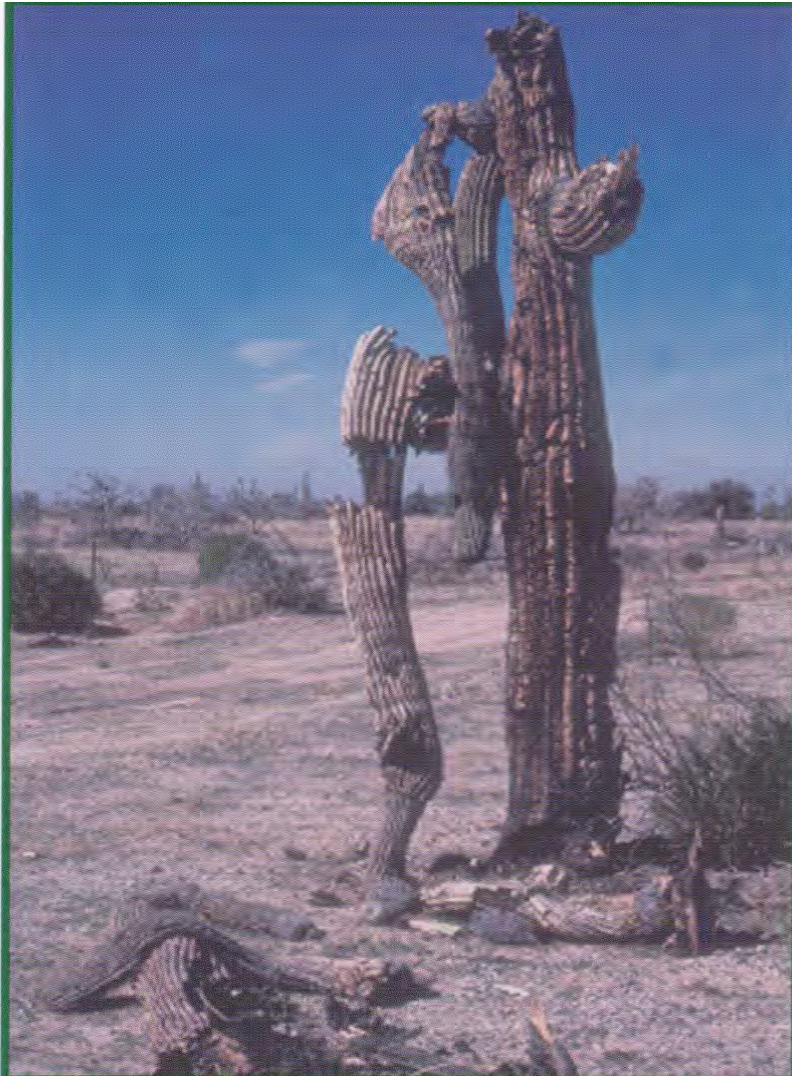


Photo by JE Bowers/SP McLaughlin

Fire... Non Native Grasses & Plants

**Maintain a 30 Ft.
Fire Zone
Around Buildings
“Use Succulents”**

Several Local Groups
Remove Invasive
Grasses Every Weekend

No, Not This!

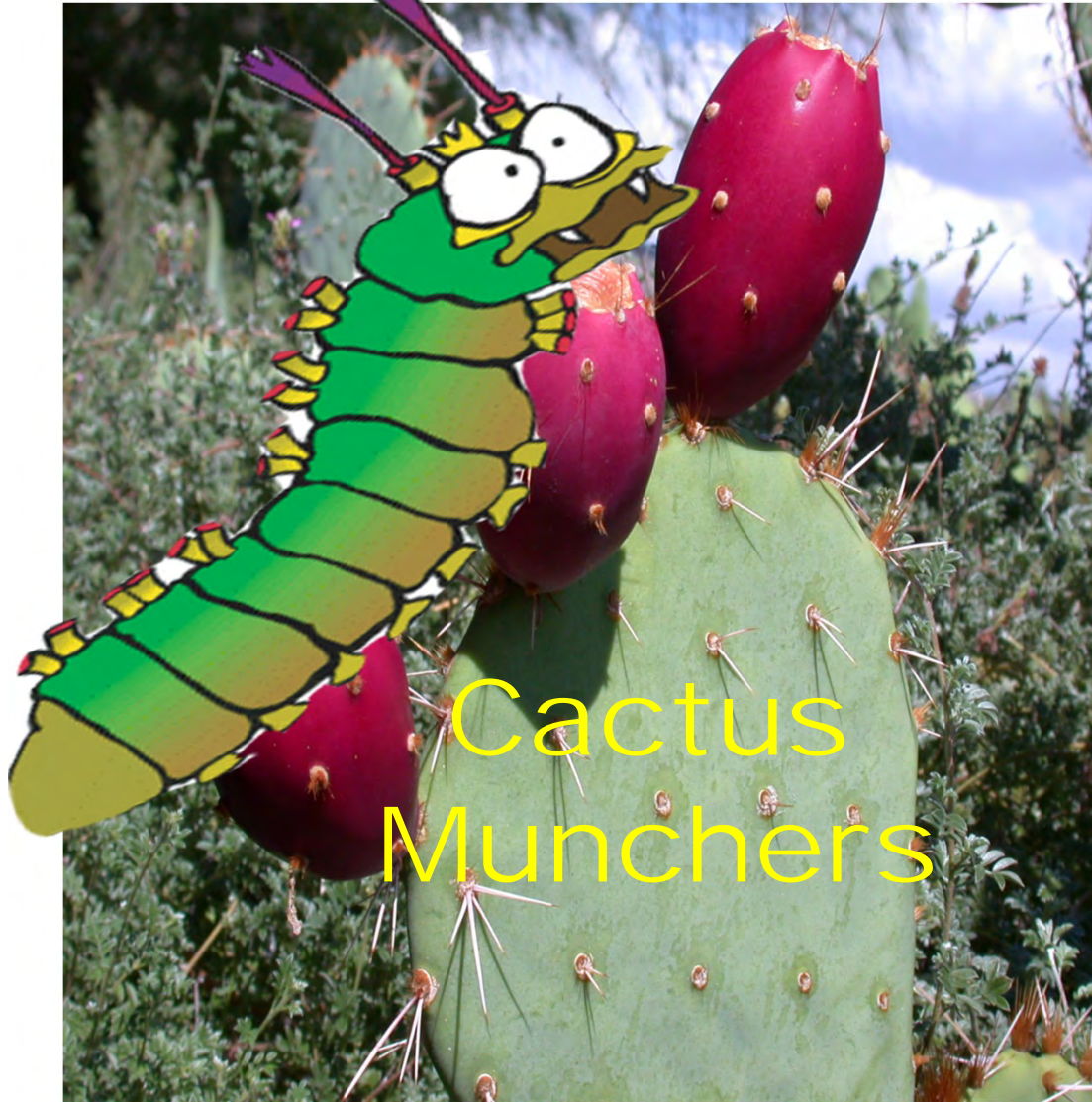


Cactus Rustlers...

Two Cactus Cops in all of Arizona
Fines Up to \$250 per Native Plant

Micro-chipping some Saguaros

No, Not This!



Cactus
Munchers

Cactoblastis

No, Not This!



**Adult
Cactus
Moth**



Eggs on Spine



Larvae

No, Not This!



Unwanted Cacti or those
Outgrowing their space...

Yes, This! "Just in Time"





Clearing Everyting To Get To The
Saguaros That Will Be Saved.



NPPO (Yea Arizona!)

Native Plant Protection Ordinance

(triggered by a blading permit – 1/3 acre+)

Must Inventory...

- Native Trees
 - Mesquite
 - Palo Verde
 - Ironwood
 - Acacia
 - few others
- Native Cacti
 - Saguaros
 - Pima Pineapple

Some Municipalities
Require more...





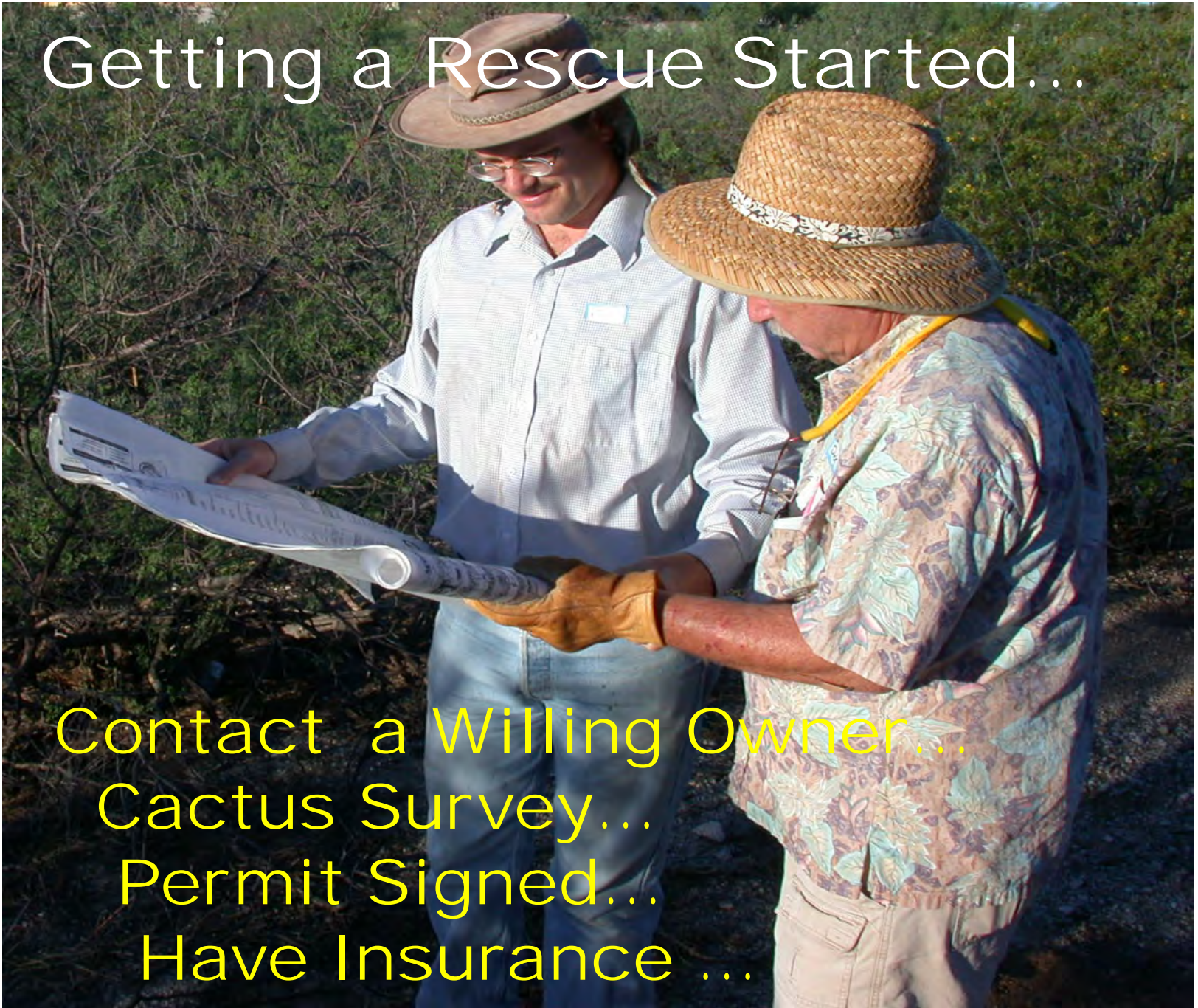
Not Inventoried or Protected...



Not inventoried or protected...

Getting a Rescue Started...

- Contact a Willing Owner...
- Cactus Survey...
- Permit Signed...
- Have Insurance ...



Purchase Native Plant Tags
from AZ Dept. of Agriculture
for each type of Cactus



Tag Costs
\$0.50 - small
\$6.00 - over 8"
\$8.00 - Saguaros

TCSS Has
Spent Over
\$200,000





Cactus Rescue Crew At One Of Our Larger Rescues

Before Each Rescue:

- ✓ Sign In (Liability Release)
- ✓ Safety Instructions
- ✓ Cactus digging Instructions (No Mistakes!)

About 150 TCSS Members Participate Each Year
Contributed over 31,000 Volunteer Hours to date (since '99)

Busy bringing in plants and getting them tagged - Silver Bell Mine





Sharing Knowledge while tagging...



Carrying a Cholla...
without hurting it or us...

Cholla Clothesline





Loading Cacti to move
to our Holding Area...

A large, spiky cactus, possibly a cholla cholla, is the central focus of the image. It is situated in a desert garden bed filled with light-colored gravel. In the background, there are other cacti, including a large, flat-topped cholla cholla, and some green plants. The scene is brightly lit, suggesting a sunny day. The text "Special Prize" is overlaid in yellow on the lower part of the cactus.

Special
Prize



Planted at Pima
Prickly Park but
has since died



Queen of
the Night...





Viable?



No Plants of Any Value?
(commercial)



Desert Cacti
- Hardy
- Survivors
- Preserve
Gene Pool



Many Cacti go home with the Crew Members...

Most Rescued Cacti are Sold at Public Sales...

About 3 sales per year – We maintain minimal inventory – Plants are priced to sell!





A great re-landscaping at the Arizona State building Downtown Tucson... little maintenance & little water!

Over 86,000 Cacti Rescued at no \$ cost to the developer & No Delays!



Sales Proceeds Go To:

- Recover Our Tag Costs
- Club Activities
- Educational Outreach -25%
- Pima Prickly Park - 25%
- Conservation Grants
- Research Grants
- Preservation Botanical Art

SAGUAROS: A CACTUS CALAMITY?

QUESTION

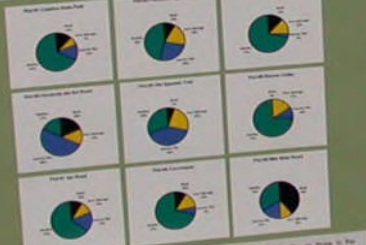
Are saguaros healthier in wild areas or near roads?

HYPOTHESIS

There will be more unhealthy saguaros in the road plots than in the control plots. There will be less animal damage near roads.

RESULTS

After observing my plots, I determined that the most important variables were color on arms, branching, and height. I did not include girths on my plots, because I did not observe many animals. I found that I would have had to collect much more data for girths to be statistically significant. I also found that on all three of the saguaro's arms, there was a lot of color on the surface. In some cases, the color was so dark that the saguaro was almost black. The saguaro was not from the same area as the control. I did not include girths because I found that they were not as important as the other variables. I also found that the saguaro was not as healthy as the control. I found that the saguaro was not as healthy as the control. I found that the saguaro was not as healthy as the control.



CONCLUSIONS

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When I designed my results for the control plots, I found that the saguaro was not as healthy as the control. I found that the saguaro was not as healthy as the control. I found that the saguaro was not as healthy as the control.

ACKNOWLEDGMENTS

I would like to thank my parents for their support and help in completing this project. I also thank my friends for their help and support.

RESEARCH

Research information regarding saguaro cacti, their habitats, and the impact of roads on their health.

MATERIALS

List of materials used in the project, including measuring tools and data collection sheets.

PROCEDURES

Detailed step-by-step instructions for how the study was conducted, from site selection to data collection.



SARSEF - Science Fair Cash Prizes K to 12 Students for deserving projects...



Carrillo School Docents building the LaPilita Museum Cactus Garden

Partners Include...

Developers

ABRAMS DEVELOPMENT
DIAMOND VENTURES
D R HORTON HOMES
K. HOVNIANIAN HOMES
KB HOMES
KEMMERLY HOMES
LENNAR
PULTE HOMES
RICHMOND AMERICAN HOMES
ROBSON COMMUNITIES
SADDLEBROOKE DEVELOPMENT
SAHBA
A.W. MARRS DEVELOPMENT
MONTEREY HOMES
A.F. STERLING
VERRADO / DMB ASSOCIATES, INC.
VISTOSO PARTNERS
WESTCOR
WESTERN ASSOCIATES
DEVELOPMENT
WESTERN HERITAGE HOMES
CITY OF TUCSON DOT
TUCSON WATER
TOWN OF ORO VALLEY
PIMA COUNTY DOT
TOWN OF SAHUARITA
AMPHITHEATER SCHOOL DISTRICT
SUNNYSIDE UNIFIED SCHOOL DISTRICT
TUCSON UNIFIED SCHOOL DISTRICT
VAIL SCHOOL DISTRICT

Government Entities

Granite Construction
ASARCO – Silver Bell Mine

ALBANESE-BROOKS ASSOCIATES
BURLINI-SILBERSCHLAG LTD
BURNS AND WALD-HOPKINS
ARCHITECTS
JAMES P. DOUGLASS
DIVERSIFIED DESIGN AND
CONSTRUCTION
EMC2 GROUP
KEVIN B. HOWARD ARCHITECTS, INC.
MMLA/PSOMAS
MSC CONSULTING
MCGANN & ASSOCIATES
NCH CORPORATION
NORRIS DESIGN
NOVAK ENVIRONMENTAL
RICK ENGINEERING
STANTEC
SWAIM ASSOCIATES
TARGET GENERAL/CORE
TMHS ASSOCIATES
THE PLANNING CENTER
WHEAT SCHARF ASSOCIATES
ARIZONA CACTUS SALES
B&B CACTUS FARM
CIVANO NURSERY
GREG CORMAN
SAGE LANDSCAPE ARCHITECTURE
AND ENVIRONMENTAL
MR. TREE
HACIENDA DEL SOL GUEST RANCH &
RESORT

Landscape Architects

Nurseries Landscapers

Arizona Native Plant Laws...

- * Native Cacti in their original growing location may not be transported from any land without first obtaining a permit from AZ Dept. of Agriculture.**
- * Individual Plant Tags are required for each plant to be legally sold or transplanted on another property.**
- * Once a Native plant is relocated it does not need additional permits or tags to be relocated again except for Saguaros over 4 feet tall.**



For more information on
Native Plant Laws see
<http://www.azda.gov/esd/nativeplants.htm>

86,000

Cacti Rescued
Rescues Accomplished

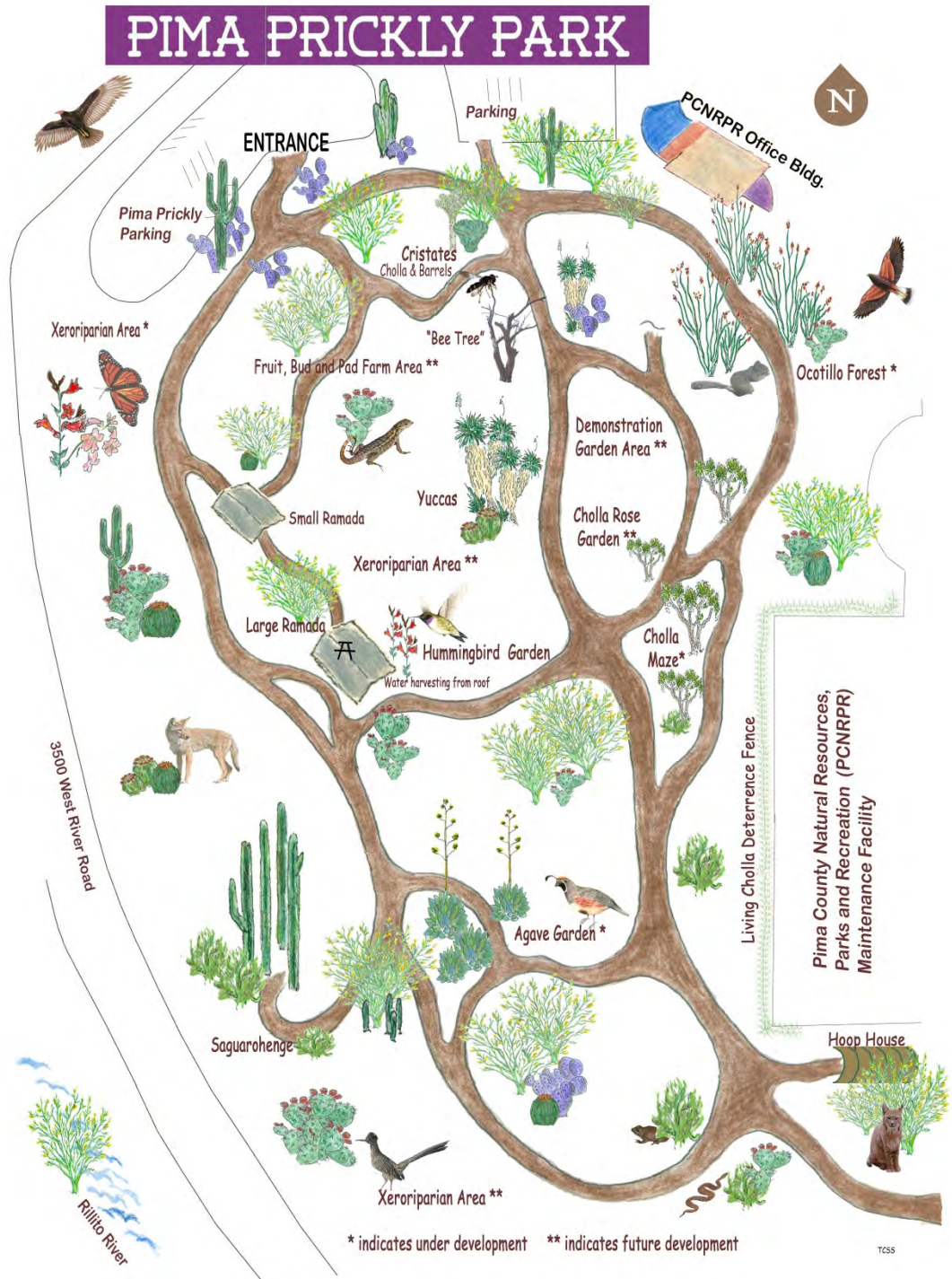
Help us save Native Cacti...

www.TucsonCactus.org - Cactus Rescue Crew Program

400

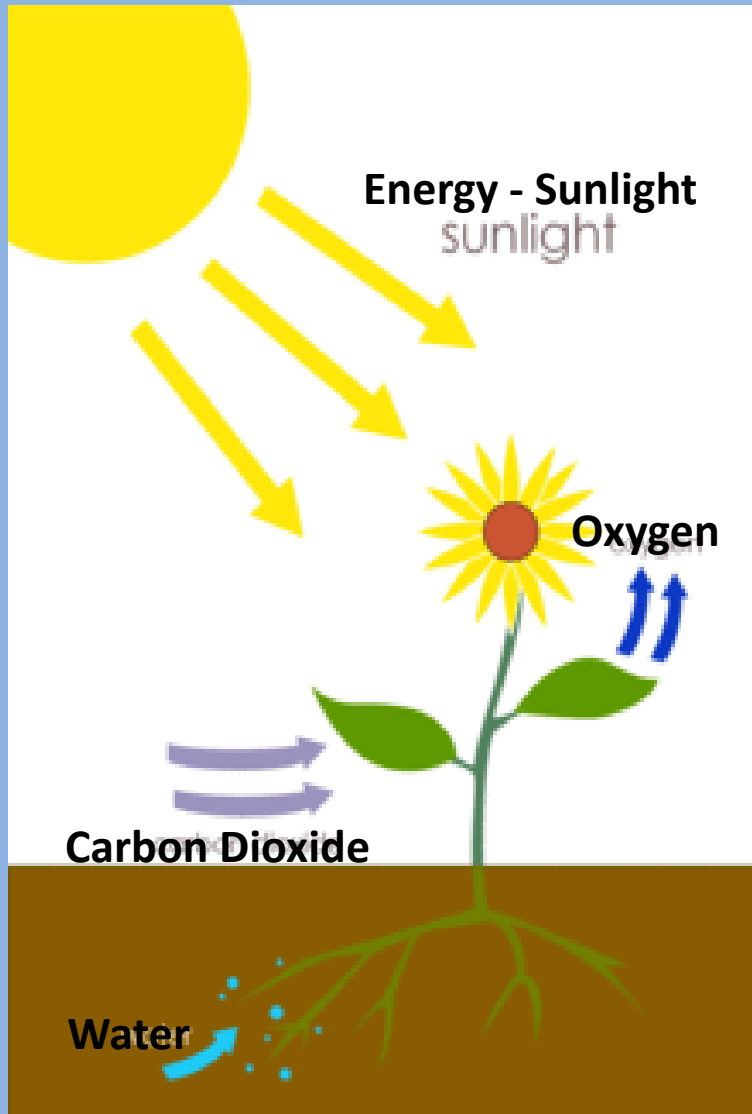
PIMA PRICKLY PARK

Special Cacti
 Often go to our
 Pima Prickly Park
 3500 W. River Road
 and
 others go to
 gardens or landscapes
 such as
 Mission Gardens
 Krutch Garden UofA
 PC Animal Control
 Evergreen Cemetery
 Schools



* indicates under development ** indicates future development

CAM - Photosynthesis - Very Unique



Crassulacean Acid Metabolism

**Used by Almost All Cactus
and Many Succulents**

- Stomata (pores) Closed All Day
- Takes in Carbon Dioxide at Night
- Stores as Malic Acid
- Daytime Photosynthesis releasing Oxygen

**Evolved for Arid Conditions
Greatly Reduces Water
Evaporation - up to 66%**

Cactus "101" Postcard - Handout





Tucson Cactus & Succulent Society
www.TucsonCactus.org

Prepared by: Joe Frannea updated 5/23/18