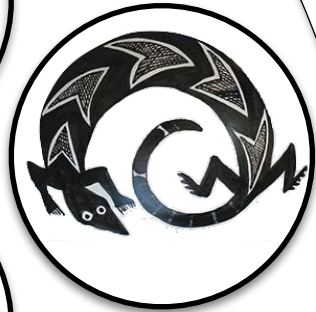
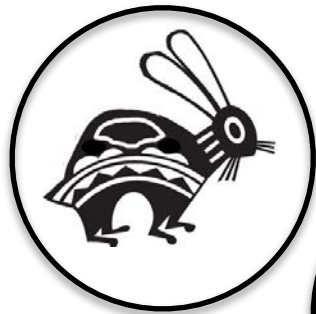




Asombro Institute
for Science Education



BioBlitz
2015



Chihuahuan Desert Nature Park
Final Report

The Asombro Institute for Science Education held a BioBlitz at its Chihuahuan Desert Nature Park on Saturday, September 19, 2015. This BioBlitz was a 15-hour event in which teams of volunteer scientists, families, students, teachers, and other community members worked together to find and identify plants and animals. We also included rocks and soils. While we know rocks and soils are not “bio,” we have so many unique geologic features at the Nature Park, we just had to include them!

This report is compiled from the species data recorded that day. The weather was wet, cool, and cloudy. This had a great effect on what species were found (or not found). The reptiles were noticeably scarce, much to the disappointment of our herpetologists and visiting guests.

The Chihuahuan Desert Nature Park is a 935-acre site located in the northern Chihuahuan Desert, north of Las Cruces, New Mexico. The eastern border of the park is a sandy grass and shrub land (4,325’) while the western border is a rocky, volcanic mountain (5,070’). The Nature Park is located on the western side of the Jornada Basin, a closed-system where the closest human development is only four miles away.

Weather Conditions on September 19, 2015 during the Chihuahuan Desert Nature Park BioBlitz				
Time	Temp.	Humidity	Wind Speed	Cloud Cover/ Rain
6:00 AM	67.8 °F	51%	5.8 mph	Clear
9:00 AM	68.9 °F	56%	3.5 mph	Overcast
12:00 PM	66.0 °F	80%	Calm	Light Rain
3:00 PM	66.6 °F	86%	Calm	Light Rain
6:00 PM	67.5 °F	79%	5.8 mph	Overcast
9:00 PM	64.2 °F	89%	Calm	Overcast

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BioBlitz Survey Schedule

6:15 am - birds

7:30 am - small mammal trapping

9:00 am - arthropods

9:00 am - birds

9:30 am - plants & wildflowers

10:30 am - plants & wildflowers

10:30 am - ants

12:30 pm - plants & wildflowers

2:30 pm - geology & rocks

6:30 pm - herptiles

7:00 pm - arthropods

7:30 pm - herptiles

8:00 pm - bats

Total Species	
Taxon	Number of Species
Birds	44
Mammals	8
Reptiles	3
Arthropods	43
Plants	103
Rocks	3

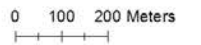
Thank You Volunteers!

Jeff Amato - New Mexico State University
 Patrick Alexander - Bureau of Land Management
 Donovan Bailey - New Mexico State University
 Isidro Berela - New Mexico State University
 Brandon Bestelmeyer - US Department of Agriculture
 Doug Burkett - ECO-Inc.
 Laura Burkett - US Department of Agriculture
 Scott Bundy - New Mexico State University
 Alexa Davis - New Mexico State University
 Baylee Davis - New Mexico State University
 Edwin Duenas - New Mexico State University
 John Freyermuth - Native Plant Society of New Mexico
 CJ Goin - Mesilla Valley Audubon Society
 Carolyn Gressitt - Native Plant Society of New Mexico
 Niki Harings - New Mexico State University
 Rebecca Kelley - New Mexico State University
 Karen Mabry - New Mexico State University
 Alexa Martinez - New Mexico State University
 Chris Ortega - New Mexico Game & Fish
 Emily Phillips - New Mexico State University
 Kallie Renard - New Mexico State University
 Jerrod Riley - New Mexico State University
 Kirsten Romig - US Department of Agriculture
 Abraham Sanchez - New Mexico State University
 Jen Shaughney - New Mexico State University
 Nancy Stotz - Mesilla Valley Audubon Society
 Justin Van Zee - US Department of Agriculture
 Mara Weisenberger - US Fish & Wildlife Service
 Rob Wu - ECO-Inc.
 Donna Yargosz - Asombro Institute for Science
 Education

Chihuahuan Desert Nature Park

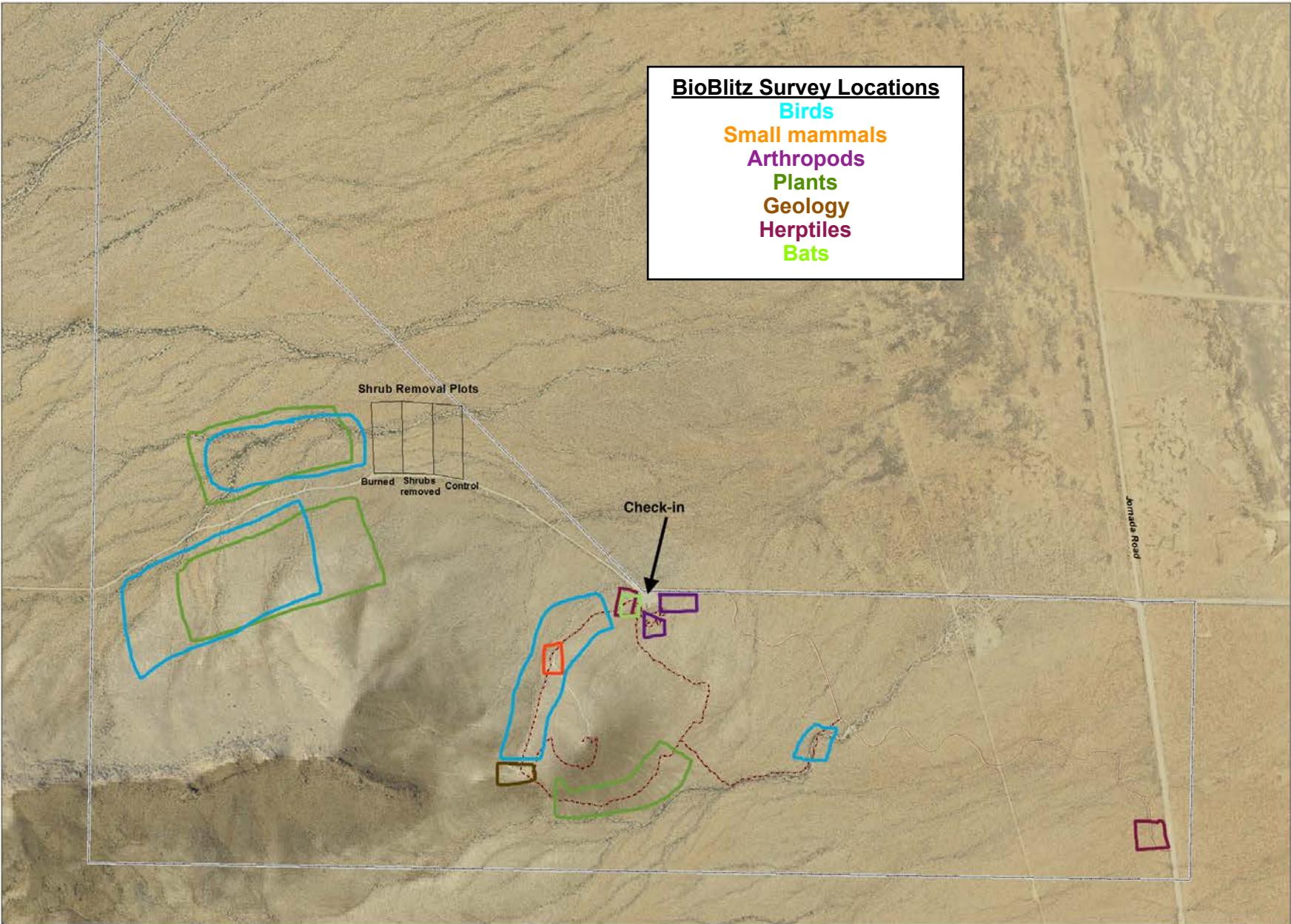


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BioBlitz Survey Locations

- Birds
- Small mammals
- Arthropods
- Plants
- Geology
- Herptiles
- Bats



- Shrub removal plots
- CDNP access road
- Trail
- Park boundary

WGS84 UTM 13N
Imagery Source: <http://fsa.usda.gov>
National Agricultural Inventory Program
NAIP 2014
8/25/2015 P. Gorenzky

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• Birds •
• •

- Bird data were gathered using four
- different techniques: point counts,
- mist nets, travel counts, and a bird
- walk.

Aimophila ruficeps - Rufous-crowned sparrow
Amphispiza bilineata - Black-throated sparrow
Auriparus flaviceps - Verdin
Bubo virginianus - Great horned owl
Buteo jamaicensis - Red-tailed hawk
Buteo swainsoni - Swainson's hawk
Calamospiza melanocorys - Lark bunting
Callipepla gambelii - Gambel's quail
Callipepla squamata - Scaled quail
Campylorhynchus brunneicapillus - Cactus wren
Cardinalis sinuatus - Pyrrhuloxia
Carpodacus mexicanus - House finch
Catharus guttatus - Hermit thrush
Catherpes mexicanus - Canyon wren
Chordeiles minor - Common nighthawk
Dendroica coronata - Yellow-rumped warbler
Falco sparverius - American kestrel
Geococcyx californianus - Greater roadrunner
Icterus parisorum - Scott's oriole

Lanius ludovicianus - Loggerhead shrike
Melospiza lincolnii - Lincoln's sparrow
Mimus polyglottos - Northern mockingbird
Oporornis tolmiei - MacGillivray's warbler
Passerina caerulea - Blue grosbeak
Peucaea cassinii - Cassin's sparrow
Pipilo chlorurus - Green-tailed towhee
Pipilo fuscus - Canyon (brown) towhee
Polioptila caerulea - Blue-grey gnatcatcher
Poocetes gramineus - Vesper sparrow
Salpinctes obsoletus - Rock wren
Sayornis saya - Say's phoebe
Spizella atrogularis - Black-chinned sparrow
Spizella breweri - Brewer's sparrow
Spizella pallida - Clay-colored sparrow
Spizella passerina - Chipping sparrow
Thryomanes bewickii - Bewick's wren
Toxostoma crissale - Crissal thrasher
Toxostoma curvirostre - Curve-billed thrasher
Troglodytes aedon - House wren
Tyrannus verticalis - Western kingbird
Vermivora celata - Orange-crowned warbler
Vermivora virginiae - Virginia's warbler
Wilsonia pusilla - Wilson's warbler
Zenaida macroura - Mourning dove



• Mammals

- Mammal data were from trapping small
- mammals using Sherman live traps,
- personal observation, and echolocation
- recordings.

Chaetodipus sp. - Pocket mouse

Dipodomys merriami - Merriam's kangaroo rat

Lepus californicus - Black tailed jackrabbit

Myotis sp. - Bat in the 40-kh frequency

Odocoileus hemionus - Mule deer

Perognathus flavus - Silky pocket mouse

Sylvilagus audubonii - Desert cottontail

Tadarida brasiliensis - Mexican free-tailed bat

• Reptiles

- Reptile data were from confirmed
- sightings. Although live pit traps were
- installed, the weather proved to be too
- cold to capture any lizards or snakes.

Crotalus molossus - Blacktail rattlesnake

Holbrookia maculata - Lesser earless lizard

Phrynosoma modestum - Roundtail horned lizard



• Arthropods

- Arthropod data were collected using pitfall traps,
- sweep nets, and bait specifically aimed at ants.

Order	Family	Genus species	Common name
Araneae	Araneidae	<i>Neoscona oaxacensis</i>	Western spotted orb weaver
Araneae	Araneidae		Wolf spider
Araneae	Theraphosidae	<i>Aphonopelma chalcodes</i>	Desert blonde tarantula
Coleoptera	Cerambycidae	<i>Moneilema gigas</i>	Cactus longhorn beetle
Coleoptera	Cerambycidae	<i>Neoclytus acuminatus</i>	Red-headed ash borer
Coleoptera	Chrysomelidae	<i>Paranapiacaba tricincta</i>	Leaf beetle
Coleoptera	Curculionidae	<i>Ophryastes sp.</i>	Weevil
Coleoptera	Histeridae		Clown beetle (1)
Coleoptera	Histeridae		Clown beetle (2)
Coleoptera	Meloidae	<i>Megetra cancellata</i>	Blister beetle
Coleoptera	Scarabaeidae	<i>Tomarus gibbosus</i>	Carrot beetle
Coleoptera	Tenebrionidae	<i>Eleodes sp.</i>	Darkling beetle
Coleoptera	Tenebrionidae	<i>Eusattus reticulatus</i>	Darkling beetle
Coleoptera	Tenebrionidae	<i>Philolithus morbillosus</i>	Darkling beetle
Diptera	Sarcophagidae		Flesh fly
Hemiptera	Coreidae	<i>Chelinidea vittiger</i>	Cactus bug
Hemiptera	Coreidae	<i>Narnia sp.</i>	
Hemiptera	Corixidae		Water boatmen
Hemiptera	Pentatomidae	<i>Murgantia histrionica</i>	Harlequin cabbage bug
Hymenoptera	Formicidae	<i>Dorymyrmex bicolor</i>	Ant
Hymenoptera	Formicidae	<i>Dorymyrmex insanus</i>	Ant
Hymenoptera	Formicidae	<i>Forelius pruinosus</i>	Ant
Hymenoptera	Formicidae	<i>Myrmecocystus depilis</i>	Ant
Hymenoptera	Formicidae	<i>Myrmecocystus mexicanus</i>	Ant

• Arthropods continued

Order	Family	Genus species	Common Name
Hymenoptera	Formicidae	<i>Pogonomyrmex imberbiculus</i>	Harvester ant
Hymenoptera	Formicidae	<i>Pogonomyrmex rugosus</i>	Rough harvester ant
Hymenoptera	Formicidae	<i>Solenopsis xyloni</i>	Southern fire ant
Hymenoptera	Mutillidae	<i>Dasymutilla sp.</i>	Velvet ant
Hymenoptera	Pompilidae	<i>Pepsis sp.</i>	Tarantula hawk wasp
Mantodea	Mantidae		Praying mantis
Orthoptera	Acrididae	<i>Boottettix argentatus</i>	Creosote bush grasshopper
Orthoptera	Acrididae	<i>Leprus wheeleri</i>	Wheeler's blue-winged grasshopper
Orthoptera	Acrididae		Short-horned grasshopper (1)
Orthoptera	Acrididae		Short-horned grasshopper (2)
Orthoptera	Acrididae		Short-horned grasshopper (3)
Orthoptera	Rhaphidophoridae		Camel cricket
Orthoptera	Romaleidae	<i>Brachystola magna</i>	Plains lubber grasshopper
Orthoptera	Tetrigidae		Pygmy grasshopper
Orthoptera	Tettigoniidae	<i>Dichopetala brevihastata</i>	Short-wing katydid
Orthoptera	Tettigoniidae	<i>Insara elegans</i>	Mesquite katydid
Phasmida	Diapheromeridae	<i>Diapheromera covilleae</i>	Creosote bush walking-stick
Scorpiones			Scorpion
Uropygi	Thelyphonidae	<i>Mastigoproctus giganteus</i>	Giant vinegaroon



• Geology & Rocks

- We know that geology & rocks are not usually part of a BioBlitz, however, the landforms are key to some desert flora and fauna. The landscape is so varied at the Nature Park, we would consider not including the geology, rocks, & soil to be remiss.

Rock Types

Basalt

Andesite

Ryolite

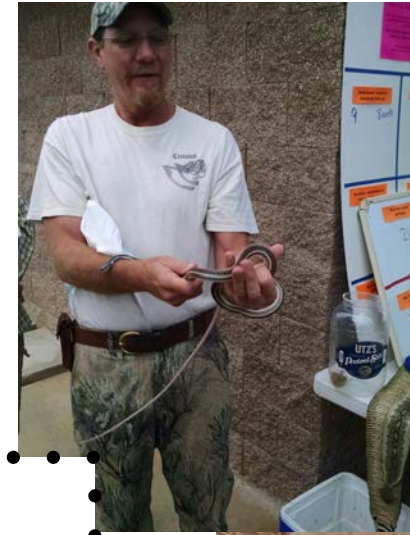
Elevation

East border - 4,325'

West border - 5,070'

Unique features in park - The dike is Doña Ana monzonite, a type of granite.





InfoBlitz

Along with scheduled surveys, we also conducted InfoBlitz stations, short educational presentations highlighting desert soil, desert food webs, playa critters, how to use a dichotomous key, bear trapping and ecology, animal senses, bat echolocation, and reptile diversity.

