### **DISCOVER OUR DESERT**

#### FUN FACTS AND COLORING PAGES ABOUT A FEW OF OUR NATIVE DESERT SPECIES



### LET'S TAKE A VIRTUAL TOUR OF THE SONORAN DESERT!

Welcome! This collaborative project was created for you by many contributors.

- Pima Community College students of Digital Arts and their instructor, Alison Boelts,
- Professional photographers who donated their images for our use: Linda Lorenz, Saori Nakagawa & Stew Neibert, Daniel Glenn Clark Photography, and PEXELS.com contributors,
- Project editor, Kay Rudnick, and,
- Sanctuary Cove/All Creeds Brotherhood, publisher.

Thank you to all of the contributions that helped make this resource available for creativity and learning.

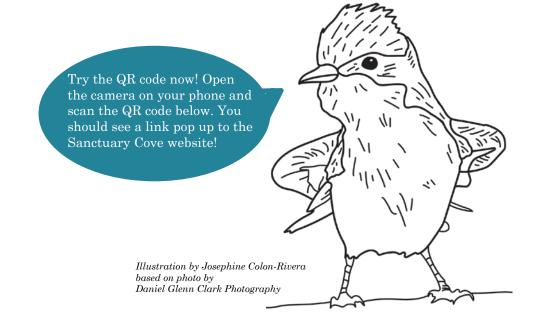
A message from our Editor, Kay Rudnick:

The Sonoran desert we live in is home to countless species of plants, insects, animals, birds, and more. One of the new skills we learned as future graphic artists was to make coloring pages and information sheets based on photographs. For coloring pages we began by tracing portions of photos. For the information pages we had to learn about our species and then combine portions of photos with some interesting facts to share.

With all this great information in one place, our instructor saw a great opportunity to share our work with the community. Children of all ages, from 3 to 103 are welcome to download this book and learn a few facts about some of our native species while having fun.

The collection in this book is just a tiny portion of the life we coexist with in the Sonoran desert. Each info page also includes a QR code, like the one at the bottom of this page, where you can use the camera on your phone to scan it for a link to more information about that species. There is also a page at the end of this book with QR codes for all the coloring page species.

We hope you enjoy coloring and learning a few things about some of the species found in the Sonoran desert.





#### **TABLE OF CONTENTS**

Species Name *	Page Contributor	Page
Aloe — Aloe Barbadensis (C)*	Nicolette Gomez <sup>4</sup>	4
American coot — <i>Fulica Americana</i> (I)	Shannon Yongbanthom	<b>5</b>
American Goldfinch — Spinus tristis (C)	Johnny Maier	6
Black-tailed jackrabbit — Lepus californicus (I)	Sofia Wimer	7
Bobcat — Lynx rufus (C)	Grace Johnson	8
Cactus wren — Campylorhynchus brunneicapillus (I)	Manny Frausto <sup>3</sup>	9
Costa's hummingbird — Calypte costae (C)	Melissa Urreiztieta	10
Desert cottontail — Sylvilagus audubonii (C)	Victor Binning	11
Gila monster — Heloderma suspectum (I)	Bryan Frisby	12
Gila woodpecker — Melanerpes uropygialis (I)	Melissa Urreiztieta <sup>4</sup>	13
Globemallow — Sphaeralcea ambigua(C)	Kay Rudnick <sup>4</sup>	14
Golden barrel cactus — <i>Echinocactus grusonii</i> (I)	Robinson Shields	15
Green-winged teal — Anas carolinensis (C)	Tatyana Roche <sup>2</sup>	16
Hedgehog cactus — <i>Echinocereus</i> (C)	Rebecca Naumchik <sup>5</sup>	17
Insect predators <sup>1</sup> (I)	Kay Rudnick <sup>4</sup>	18
Javelina — <i>Pecari tajacu</i> (C)	Nicolette Gomez	19
Mourning dove — Zenaida macroura (I)	Grace Johnson	20
Phainopepla — Phainopepla nitens (C)	Rebecca Naumchik <sup>6</sup>	21
Prickly pear cactus — Opuntia (I)	Rebecca Naumchik <sup>3, 4</sup>	22
Pyrrhuloxia — Cardinalis sinuatus (I)	Tatyana Roche	23
Pyrrhuloxia — <i>Cardinalis sinuatus</i> (C)	Marcos Morales	24
Diamondback rattlesnake — Crotalus atrox (I)	Karina Marcano	25
Ring-necked duck — Aythya collaris (C)	Ellea McGee <sup>2</sup>	26
Roadrunner — <i>Geococcyx californianus</i> (C)	Karina Marcano	27
Sharp-shinned hawk — Accipiter striatus (I)	Johnny Maier	28
Tarantula — <i>Theraphosidae</i> (C)	Jordy Carbajal	29
Vermillion flycatcher — Pyrocephalus obscurus (C)	Josephine Colon-Rivera <sup>7</sup>	30

\* Coloring pages are noted with a (C) and Info pages are noted with an (I) after species name.

<sup>1</sup> Asclepias subulate, Pepsis, Zenus renardii

 $^2$  Based on photo by Linda Lorenz

<sup>3</sup> Page contains image by ACB

<sup>4</sup> Page contains original photo or artwork by contributor

<sup>5</sup> Based on photo by Saiori Nakagawa & Stew Neibert

<sup>6</sup> Based on photo by William Kellington

<sup>7</sup> Based on photo by Daniel Glenn Clark Photography



# **AMERICAN COOT**

#### **CLASSIFICATIONS**

- KINGDOM ANIMALIA
- PHYLUM CHORDATA
- CLASS AVES
- ORDER
  GRUIFORMES
- FAMILY RALLIDAE
- GENUS FULICA
- SPECIES F. AMERICANA



THOUGH COMMONLY MISTAKEN FOR DUCKS, AMERICAN COOTS ARE ONLY DISTANTLY RELATED TO DUCKS, BELONGING TO A SEPARATE ORDER. UNLIKE THE WEBBED FEET OF DUCKS, COOTS HAVE BROAD, LOBED SCALES ON THEIR LOWER LEGS AND TOES THAT FOLD BACK WITH EACH STEP IN ORDER TO FACILITATE WALKING ON DRY LAND.

COOTS LIVE NEAR WATER, TYPICALLY INHABITING WETLANDS AND OPEN WATER BODIES IN NORTH AMERICA.



American coot -- *Fulica americana* Fact sheet by Shannon Yongbanthom Photo by Linda Lorenz



American goldfinch -- *Spinus tristis* Illustration by Johnny Maier Photo from Pexels.com

## Black-tailed Jackrabbit (Lepus californicus)

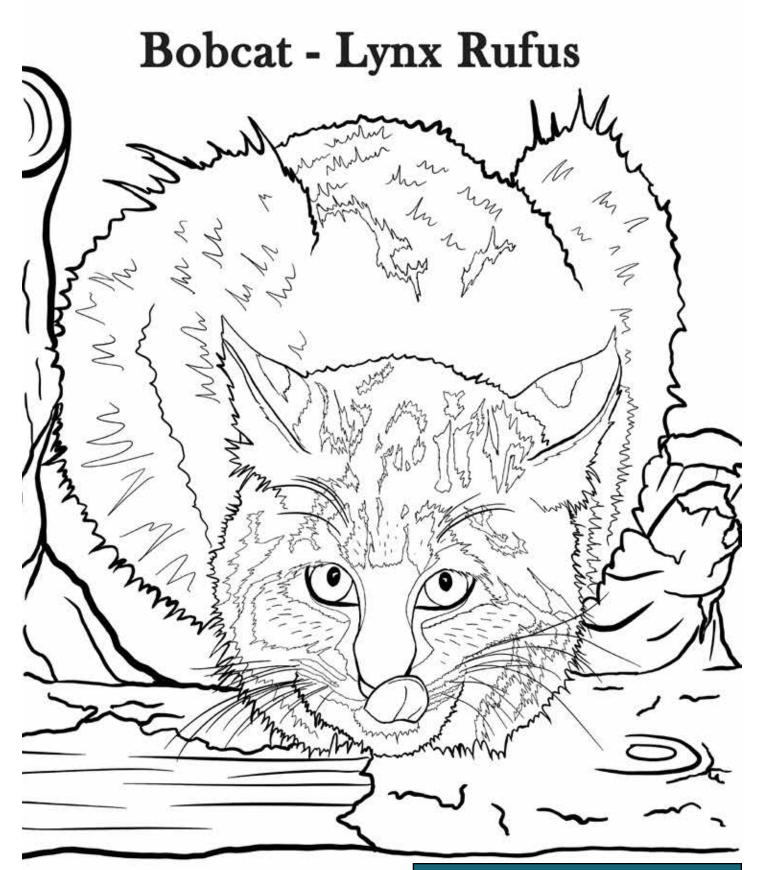
The black-tailed Jackrabbit is also called the American desert hare and is common in the western United States and Mexico. They are about 2 feet long and weigh between 3 and 6 pounds, msking it one of the largest North American hares. They live in mixed shrub-grassland terrains. Their breeding usually peaks in spring, but it varies depending on location. The average size of a litter is 4 leverets (baby jackrabbits), but can range from 2 to 7. Leverets are mobile within minutes of birth, and are born fully furred with eyes wide open. Mothers do not care for or protect their young except during nursing.

Black-tailed jackrabbits don't migrate or hibernate during winter. They eat various shrubs, small trees, grasses, and forbs. They are an important prey for carvnivorous mammals such as eagles, hawks, owls, coyotes, foxes, and wild cats. Because they carry many fleas, ticks, lice and mites, hunters usually avoid collecting them.





Black-tailed jackrabbit -- *Lepus californicus* Fact sheet by Sofia Wilmer Photo from Pexels.com



Bobcat -- *Lynx rufus* Illustration by Robinson Shields Photo from Pexels.com

## **CACTUS WREN**

Scientific Name: Campylorhynchus Brunneicapillus Greek: Campylorhynchus (means curved beak) Latin: Brunneicapillus (means Brown hair)

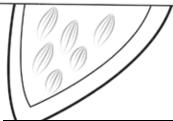
DID YOU KNOW The Cactus Wren has a special title in the state of Arizona? THE TITLE OF THE ARIZONA STATE BIRD!! The Cactus Wren has held this title since 1931, that is nearly a hundred years ago. This Bird is the largest North America Wren. The Cactus Wren calls home in the southwestern United States and part of Mexico.

> The Cactus Wren is a happy songbird. They find a mate and will stay together for the rest of their life. Another fact about the Cactus Wren is it rarely drinks standing water. They get water from the food they eat. Cactus wren like to build their nest in cactus to protect their babies from predators.

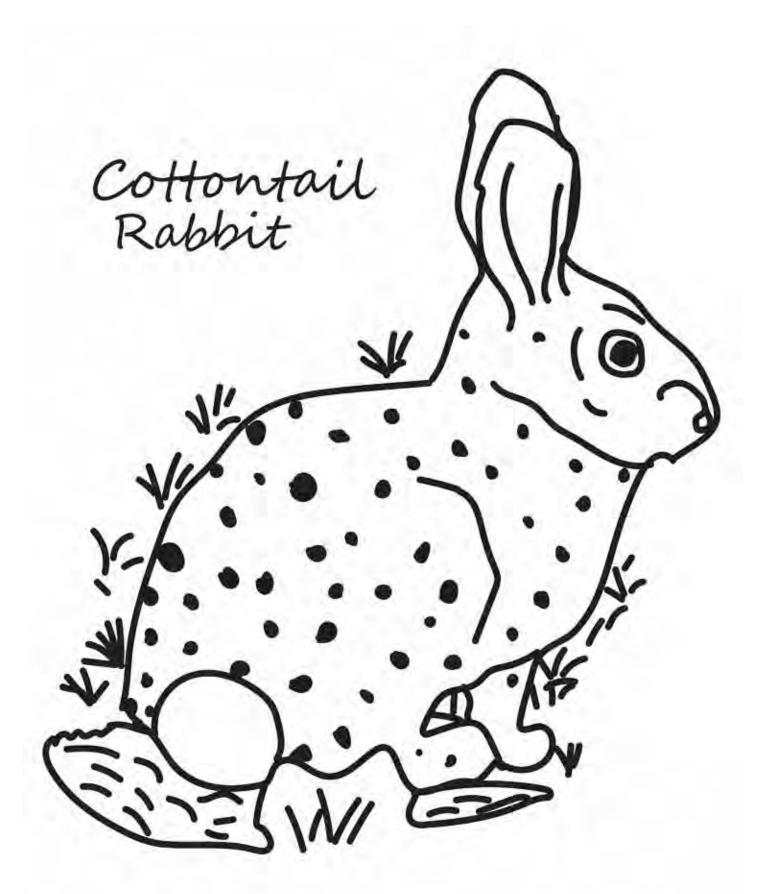
> CACTUS WREN can be tough and will fight off predators that attack its home and in its territory. They also do not like sharing their area with other birds and they will smash other bird nests in their territory. This bird is sadly having its homeland decrease to people move into its home locations in the south-western United States, but they are not currently endangered.

> > Cactus wren -- *Campylorhynchus brunneicapillus* Fact sheet by Manny Frausto Photos: Bird from Pexels.com, Cacti by ACB





Costa's hummingbird -- *Calypte costae* Illustration by Melissa Urreiztieta Photo from Pexels.com



Desert cottontail -- *Sylvilagus audobonii* Illustration by Victor Binning Photo from Pexels.com

## Gila Monster Heloderma suspectum



The Gila monster is found in areas of the southwestern US and northwestern Mexico. To easily tell what the Gila monster looks like is by its black body with unique markings of pink, orange, or yellow. This reptile's lifespan is up to 20 years.

This creature is a carnivore and eats animals, like eggs from a nest as well as baby mammals. Gila Monsters like to spend their time underground. They store all their fat in their tails and can go many months without food.

Gila Monsters are one of the largest lizards in the wild. They grow up to 20 inches in length and weigh up to 5 pounds. Be careful with Gila Monsters if you see one because they are venomous!



Gila monster -- *Heloderma suspectum* Fact sheet by Bryan Frisby Photo from Pexels.com

### GILA WOODPECKER Melanerpes uropygialis

Do you know what makes a lot of the holes in saguaros? Woodpeckers, like the one shown here, use their long, stout beaks to excavate cavities in the soft flesh of these large cacti.

Once the cavities cure, or dry out, the woodpeckers use them for nests. Saguaros make perfect homes for woodpecker families because the flesh of the plant keeps the nest cool, even in the hot summer months. Gila is pronounced "HEE-LUH."

When woodpeckers move out of their nest cavities, other birds such as screech owls and elf owls often move in. The Gila woodpecker is easy to identify: listen for its repetitive squeaking call and watch for its zebra-striped back and the red cap that adorns the males' heads.



Gila woodpecker -- *Melanerpes uropygialis* Fact sheet & cactus photo by Melissa Urreiztieta Bird photo from Pexels.com



Globemallow -- *Sphaeralcea* Illustration by Kay Rudnick Photo by Kay Rudnick

### Golden Barrel Cactus

The Golden Barrel Cactus is a round or globe like cactus covered in bright yellow spines. While these cactus can take up to 30 years to reach their full size, mature barrel cactus can grow to over three feet tall!

These cactus grow in the Southwestern United States and Northern Mexico. They have adapted to grow in very dry climates so they can survive with very little rainfall by storing their own water.

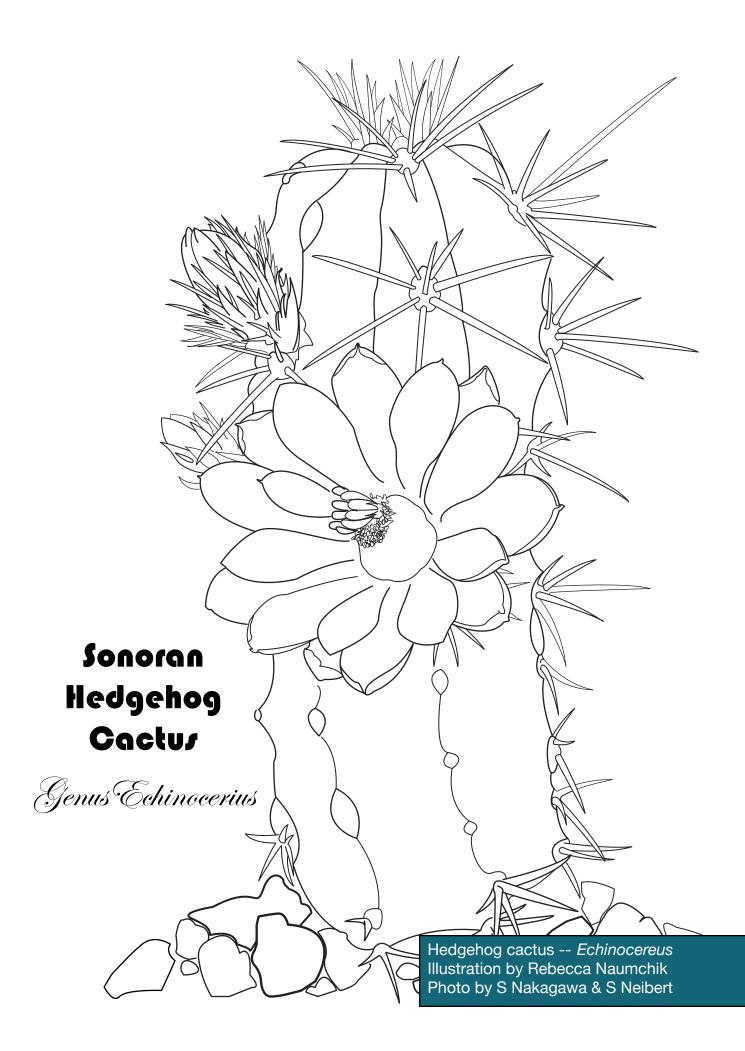
Once the barrel cactus is about 14 inches wide it can begin growing a crown of beautiful yellow flowers. These flowers are often pollinated by bees. This cactus also grows yellow fruit that serve as a tasty snack to many desert critters including the Antelope Ground Squirrel.



Golden barrel cactus -- *Echinocactus grusonii* Fact sheet by Robinson Shields Photo from Pexels.com



Green-winged teal -- *Anas carolinensis* **Illustration by Tatyana Roche** Photo by Linda Lorenz



## WHAT COULD BE HAPPENING HERE?

#### These insects are each a different type of predator.

**Desert Milkweed** is one of over 30 species of milkweed native to Arizona. Its nectar is a main food source for many butterflies, bees, and other nectarloving critters, like the large **Tarantula Hawk** and the smaller **Leafhopper Assassin Bug**. Both can be seen on this milkweed flower.

Desert Milkweed is a primary source of food as well as a mating ground for the Tarantula Hawk, a common spider wasp in the Southwest US. The male Tarantula Hawk is not predatory. If not feeding, he likes to sit atop high plants like this milkweed to attract females. After mating, the female uses her sting to paralyze prey before dragging it to a special nest, where she will lay her egg in her prey. The Tarantula spider is her most common victim, which is how this insect gets its name.

> The Leafhopper Assassin Bug is native to North and Central America and can survive in most any habitat. The Desert Milkweed is a favorite hunting ground for this assassin bug, who will feed on nectar if necessary, but prefers to feed on all sorts of insects, including other predators. Tarantula Hawks like the one here are a favorite meal.







Desert milkweed -- Asclepias subulata Tarantula hawk -- Pepsis Leafhopper assassin bug -- Zelus renardii Fact sheet and photos by Kay Rudnick



## Mourning Dove

### Zenaida macroura

The Mourning Dove (Zenaida macroura) is a member of the dove family, Columbidae. The bird is also known as the American Mourning Dove or the Rain Dove, and sometimes as the Turtle Dove. It is one of the most abundant and widespread of all North American birds.

Its ability to sustain its population is due to its fast breeding; in warm areas, one pair may raise up to six broods of two young each in a single year. The wings make an unusual whistling sound upon take-off and landing. The bird is a strong flier, capable of speeds up to 55 mph.

Most Mourning Dove nests are in trees. Sometimes they can be found in shrubs, vines, or on artificial constructs like buildings, or hanging flower pots. When there is no suitable elevated object, Mourning Doves will nest on the ground.



Mourning dove -- *Zenaida macroura* Fact sheet by Grace Johnson Photo from Pexels.com

### Prickly Pear Cactus (Opuntia)

Opuntia is a hearty plant in the cactus family commonly called the prickly pear cactus. It can grow up to 23 feet tall. A prickly pear grows large flat pads called "cladodes" which may be covered in spines, or completely spineless depending on the species and age of the plant. There are many species of Opuntia. They are native to the Americas, though they have been introduced by human action to many other areas of the worlds, sometimes with detrimental effects.

Opuntia is edible. The fruit (often called cactus fruit, or cactus fig) can be consumed after any spines have been peeled, rubbed or burned away. It is a very versatile food, and can be used to make appetizers, soups, salads, entrees, vegetable dishes, breads, desserts, beverages, candy, jellys, and drinks. The young tender pads of the plant are also edible, and can be used to make cactus fries.

The plant is also a source of natural red dye. A parasitic scale insect called Dactylopius coccus thrives on the plant, feeding on the moisture and nutrients in the sap. This insect produces carminic acid, which can then be extracted to make the dye. This colorful dye, called cochineal dye or carmine, is used in food coloring and in cosmetics. Historically, the dye was used by the Aztec, Maya, and Inca peoples, and was once almost as highly valued as silver as a South American export.



Prickly pear cactus -- *Opuntia* Fact sheet by Rebecca Naumchik Photos: Flower by ACB, Cactus by R Naumchik

# SILVY FIVE PLANTER PHANDPEPLA

Phainopepla -- *Phainopepla nitens* Illustration by Rebecca Naumchik Photo by William Kellington -

## Pyrrhuloxia

### Cardinalis sinuatus

The pyrrhuloxia or desert cardinal is a medium-sized North American song bird found in southwest America and northern Mexico. This distinctive bird has a short, stout bill and red crest and wings, and looks a lot like the Northern cardinal and the Vermilion cardinal (which are in the same family).

The pyrrhuloxia's diet consists of seeds, fruits, and insects. The desert cardinal snatches insects from trees and picks seeds mostly from the stalks of grasses and similar plants. It also eats cactus fruit.

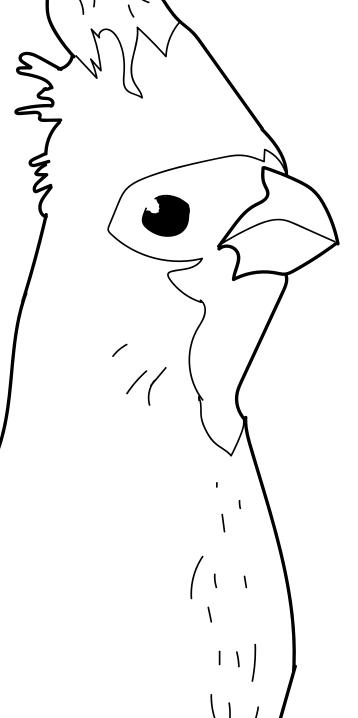
> This bird places its nest in dense shrub, often concealed. The nest is small and forms a bowl or cup-like shape made up of grass, twigs, or bits of tree bark. Usually the nest has two to four eggs that are whitish with specks of green or gray. At hatching, the chicks have a bright yellow bill with red lining around the mouth.



Pyrrhuloxia -- *Cardinalis sinuatis* Fact sheet by Tatyana Roche Photo from Pexels.com

Pyrrhuloxia

Cardinalis sinuatus



Pyrrhuloxia -- *Cardinalis sinuatis* Illustration by Marcos Morales Photo from Pexels.com



The diamondback is a rattlesnake that you can find in deserts, grasslands, forests, and even along the coast. The snake earns its name from the diamond-shaped pattern along its back. They span from 3 to 5 feet on average. Another feature to look out for is the striped end of their tail as well as the rattle which is made from keratin (same as our fingernails!).

The diamondback hunts mice, rats, rabbits, gophers, and small birds with its heat sensing abilities. The sensors, located behind each nostril, allow the diamondback to locate predators like coyote, bobcats, eagles, and roadrunners!

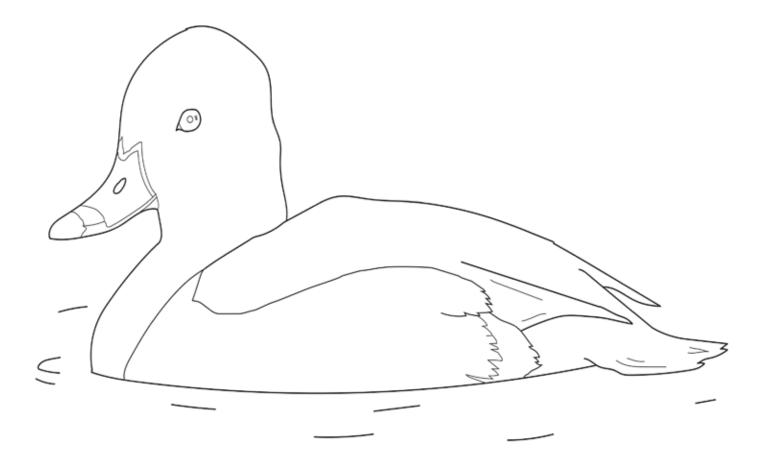
Rattlesnakes spend most of the hot day in the cool shade of brush, burrows, or under rocks and they hibernate during the winter.

Fun fact: Diamondbacks can rattle their tail 60 times per second!



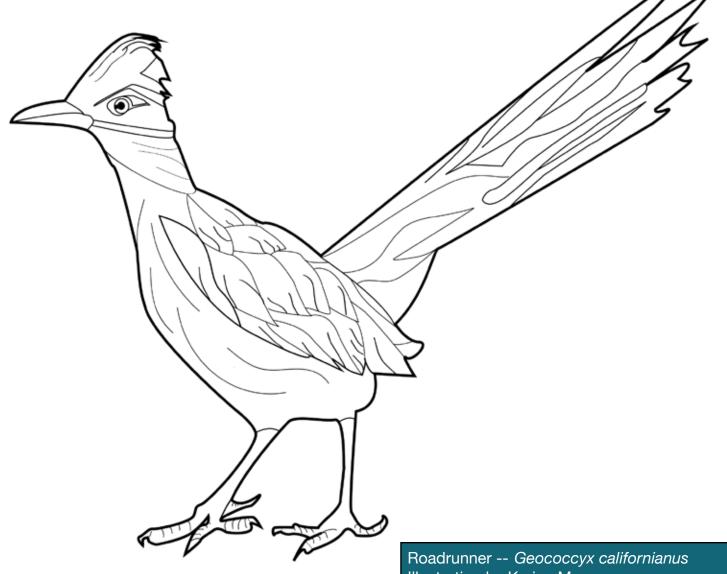
Diamondback Rattlesnake -- *Crotalus atrox* Illustration by Karina Marcano Photo from Pexels.com

## RING-NECKED DUCK Aythya Collaris



Ring-necked Duck -- *Aythya Collaris* Illustration by Ellea McGee Photo by Linda Lorenz





Roadrunner -- Geococcyx californiant Illustration by Karina Marcano Photo from Pexels.com

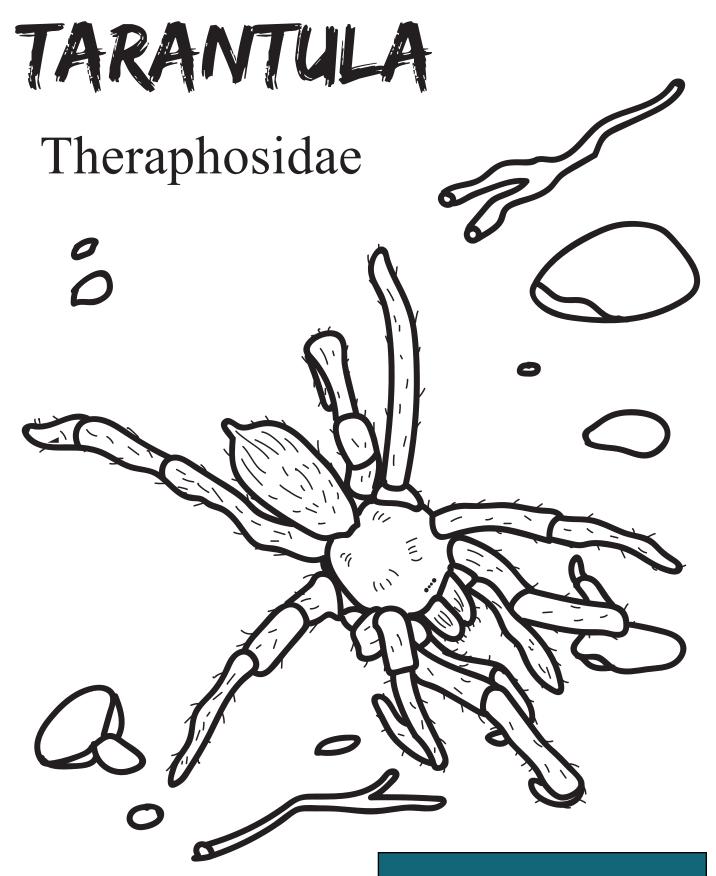
### SHARP-SHINNED HAWK (Accipiter Striatus)

This is the Sharp-shinned hawk. In Latin the Sharp-shinned hawk is called the Accipter Striatus. This hawk is also a small hawk and the males are even smaller than the females.

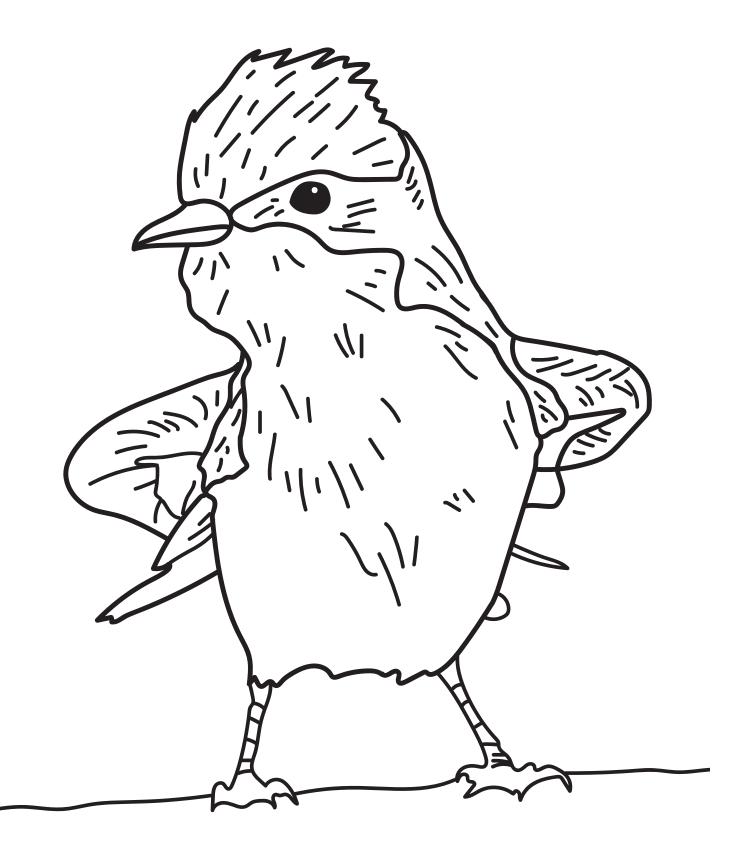
The male hawk can get as big as 9.1 to 11.8 inches long and weigh up to 4.4 oz. The females can get as big as 11 to 15 inches long and can weigh up to 7.7 oz. Both male and female weigh less than 1 pound.

These hawks live in forests that have mainly oak trees. They also make nests made out of sticks in these trees so the females can lay eggs in them to hatch baby Sharp-shinned hawks.

> Sharp-shinned hawk -- *Accipiter striatus* Illustration by Johnny Maier Photo from Pexels.com



Tarantula -- *Theraphosidae* Illustration by Jordy Carbajal Photo from Pexels.com



Vermillion flycatcher -- *Pyrocephalus obscurus* Illustration by Josephine Colon-Rivera Photo by Daniel Glenn Clark Photography

## Scan these QR codes to learn more about the species found on the coloring pages

Aloe Aloe barbadensis



Globemallow Sphaeralcea



Javelina Pecari tajacu



Tarantula Theraphosidae



Bobcat Lynx rufus



Costa's hummingbird Calypte costae



Desert cottontail Sylvilagus audubonii



Goldfinch Spinus tristis



Green-winged teal Anas carolinensis



Hedgehog cactus Echinocereus



Phainopepla Phainopepla nitens



Ring-necked duck Aythya collaris



Roadrunner Geococcyx californianus



Vermilion flycatcher Pyrocephalus obscurus

