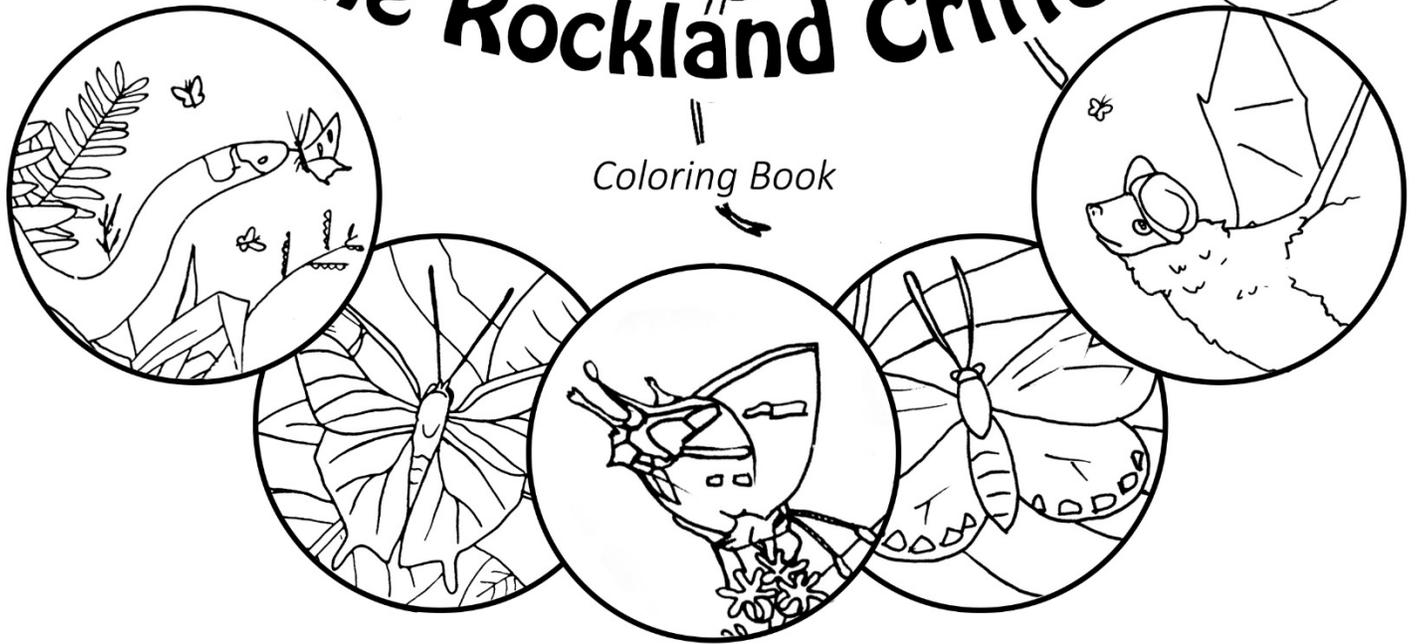


MIAMI PINE ROCKLANDS COALITION

Get To Know Florida's

Pine Rockland Critters

Coloring Book



Written/edited exclusively for
the Miami Pine Rocklands Coalition by: M. Belén Valladares

Illustrated By Kim Heise

Acknowledgements

This book has been an enthusiastic work of love by all the people that have contributed directly and indirectly to it, especially artist Kim Heise and her amazing artwork; Sandy Koi, MS, Entomologist and Jaclyn Lopez, Florida Director for the Center for Biological Diversity who have so kindly provided feedback; Cully Waggoner, Member at Large who helped with the history page; writer Alex Flinn, who so kindly helped us with editing, Miami Pine Rocklands Coalition President Al Sunshine who holds the pine rocklands close to his heart and the rest of the Board for its support and kind words - Treasurer; Zac Cosner, Secretary; and in his absence, Ross Hancock, and countless people that have wholeheartedly given their opinions, time and effort.

A very special and very big thank you to Dr. Frank Ridgley DVM, Conservation and Research Department, ZooMiami, who has educated us with his expert presentations. Dustin C. Smith from NC Zoo for his unique photos.

Our hearts go out to Katherine Flinn for writing the Teacher's Guide in this book and to my daughter, Carolina Andrea Valladares, for helping me with the applicable Sunshine State standards and age group placement and some editing.

Last but not least, I am also grateful for the God-given time in my busy life that allowed me to sit down for a little while and put together this small coloring book for the Miami Pine Rocklands Coalition.

M. Belén Valladares
Vice President
Miami Pine Rocklands Coalition



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Preface

When I learned of the inhabitants of the Pine Rocklands, especially the Miami Tiger Beetle, our city's namesake, with an estimated population of no more than 100, yet virtually unknown to the general population, I felt my heart ache and fall to my stomach. I thought to myself, "This needs to be known! Every kid in this city needs to know that the Miami Tiger Beetle exists, wear a T-shirt with a BIG Miami Tiger Beetle, spreading the message 'Under 100 Miami Tiger Beetles left, save them!' and every parent and grandparent should have special moments with their child reading about this mighty tiny critter."

As I started researching, I felt I had discovered a treasure in our own backyard and felt the need to share it.

The Atala butterfly captured my heart long when I read an article and saw its picture on a coffee shop. I was captivated not only by its amazing beauty but by its spirit of survival. I knew that it was thought extinct for decades until a small colony was found in 1979, I wanted to see one in person.

For a period of about 5 years, every time I saw its host plant, the coontie, I would examine it like a crazy entomologist without a magnifying glass, looking for one. On my birthday, a couple of years back I was enjoying lunch with friends at a farm stand with a small, covered sitting area framed by coonties. I noticed a lot of movement in the plants, took a closer look and saw the most beautiful butterflies, black wings sprinkled with metallic blue dots and bright orange bodies, red caterpillars with big yellow dots, tons of eggs, see-through chrysalis hanging from the coonties! I was surrounded by Atalas! I felt it was a special birthday gift from Mother Nature to me!

When I learned there was a beetle called the Miami Tiger Beetles with only 100 left, I felt the need to tell stories and that's how the pages of this coloring book were born.

Other people have contributed significantly to this coloring book, especially artist Kim Heise who created the illustrations and "the village" of concerned experts.

We hope to educate our children for a better world, inform adults that can do something about the threats against these critters, and bring lots of quality time enjoying these pages!

M. Belén Valladares
Vice President/Writer
Miami Pine Rocklands Coalition



Miami Pine Rocklands Coalition President's Introduction

Step into Florida's Pine Rocklands, a place like no place else on earth.

Look around! The ground is made of craggy, ancient rocks. Limestone. An old sea bed because the entire area was underwater long, long ago.

Some of the ancient pines have burnt bark. That's because they're in a naturally occurring fire zone set off by lightning storms. Lightning fires burn out the underbrush without killing-off most animals or plants that live here. That's because they have adapted to survive the fires.

Pine rocklands are home to many endangered creatures. There's the Miami tiger beetle, all shiny green and blue and black. The beetles are only found in Miami and were once thought to be extinct. There may be just a few left, but they found a way to survive, only here.

Up in the sky, see the bald eagle, our Nation's symbol. Above the trees, you may see a Florida bonneted bat, one of the rarest mammals in the world. In the sandy soil, find a small Rim Rock crowned snake. It lives only in pine rocklands and tropical hardwood hammocks of Miami-Dade County and the Florida Keys.

What is the pine rocklands' biggest enemy? Real estate developers who want to build more homes, more offices, schools, and shopping centers for the growing numbers of new people moving into South Florida. New residents have never seen a pine rockland or know what it is. Or gotten wet hiking through the Everglades. Or been amazed at the beauty of the Big Cypress National Preserve.

They don't realize our precious pine rocklands are part of a natural system that helps clean the air and refresh the ground water.

They don't know that Mother Nature had it all planned out.

Cut down the pines, plow up and pave-over the rocklands...and you not only kill all the plants and animals there, you kill off yet another natural ecosystem that sustains our own life too.

"Save it, Don't Pave it."

Al Sunshine
President, Miami Pine Rocklands Coalition



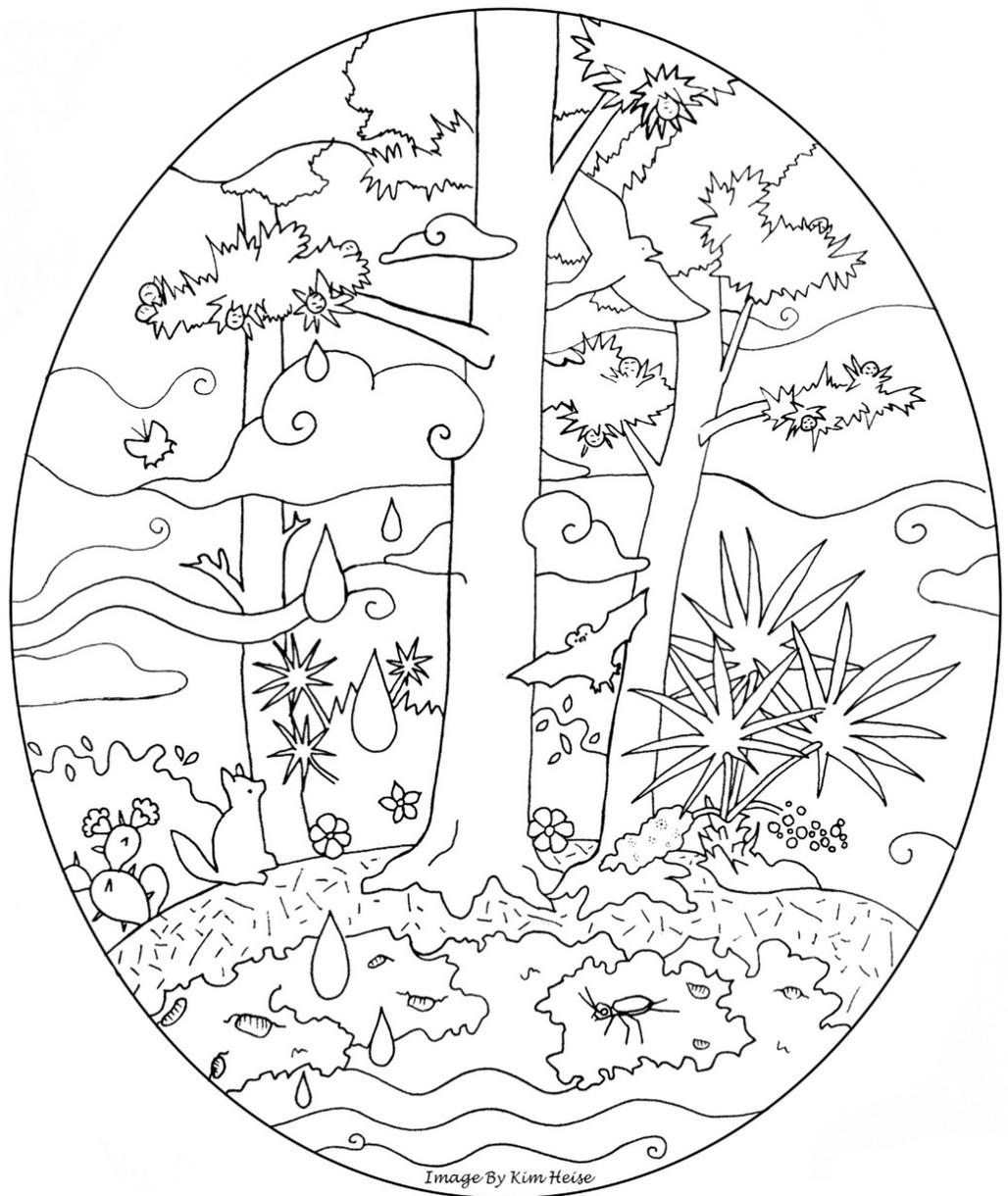
What is a Pine Rockland? Why is it special? Who calls it home?

A pine rockland is an ecosystem unique to south Florida, the Bahamas, and Cuba, and support very specialized inhabitants. These magical forests are invaluable and are an irreplaceable global treasure.

The soil in Florida's pine rocklands is mostly limestone rock, a light porous rock, vestige of an ancient seafloor formed over millennia and made up of calcium carbonate that settled out of ancient seas. A special type of pine, called the slash pine, and a multitude of animals and plants have evolved here over time and thrive in this rocky place, living and growing directly on the limestone rock.

Limestone has naturally occurring crevices, forming small holes, like Swiss cheese, and creating ideal homes for small creatures like the tiny Rim Rock crowned snake, sometimes called the Miami Rim Rock crowned snake because it lives only on the rock ridge in Miami-Dade County and in the Florida Keys.

Because pine rocklands are so rare, many of their inhabitants are state or federally protected. In this book you will get to know a few of the critters that call them home!



A Flaming Environment

Fire is an essential part of pine rockland habitats. The tree canopy is thinned out every few years by naturally occurring fires. Sunlight penetrates down to the ground better through the scant canopy, benefiting the baby pine trees and plants growing in the lower levels. The plants around here are adapted to survive fire and the branches of slash pines that form the canopy are very high, making it hard for flames to reach them.

The sparse canopy also offers valuable conditions to its dwellers. For example, the Florida bonneted bat, the largest bat in Florida, is able to fly through it without crashing into big branches, not to mention the migrating birds that find food and shelter in this place during their long migratory journeys in spring and fall.

Florida is ground zero for non-native plants bought in from many different places in the world. These plants are called invasive plants and some of them have the tendency to crowd out native species. Fire keeps invasive vegetation from outcompeting the natives that would otherwise die out.

Pine rockland fires occur naturally when lightning strikes the area, but now people have moved in so close to pine rocklands that resource managers now implement controlled fires to keep them healthy. These planned fires are called “prescribed burns.”

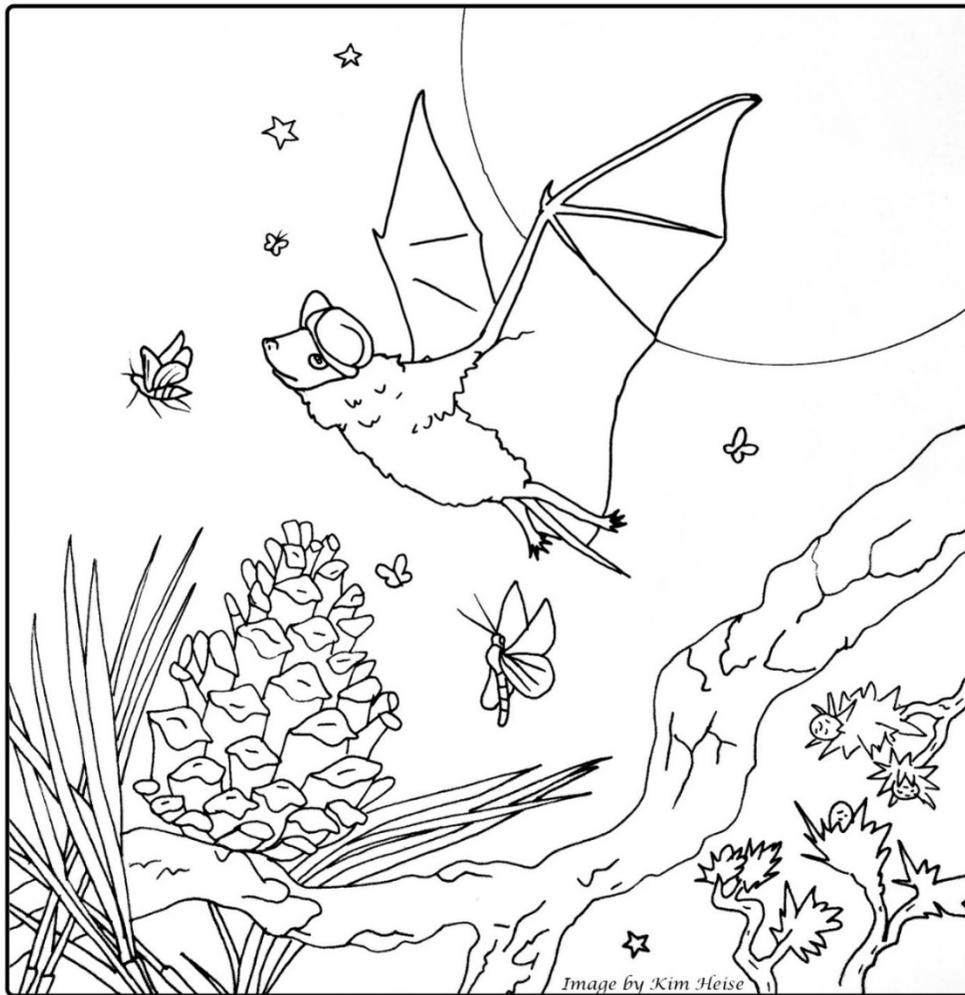


Bartram's Scrub-Hairstreak Butterfly



The Bartram's scrub-hairstreak butterfly host plant is the pineland croton. It grows in clearings on the rocky soils of southeast Florida and the Florida Keys. Like other plants in the area, pineland crotons need fire to keep their space clear for healthy development. This butterfly never flies too far away from its home and it gets its name from the Bartrams, a family that made it its business to write about the plants and animals observed through the family's travels. There are only a few hundred of these butterflies remaining in their limited habitat. The tiny butterfly is very rare and listed as a federally endangered species by the U.S. Fish and Wildlife Service.

Florida Bonneted Bat



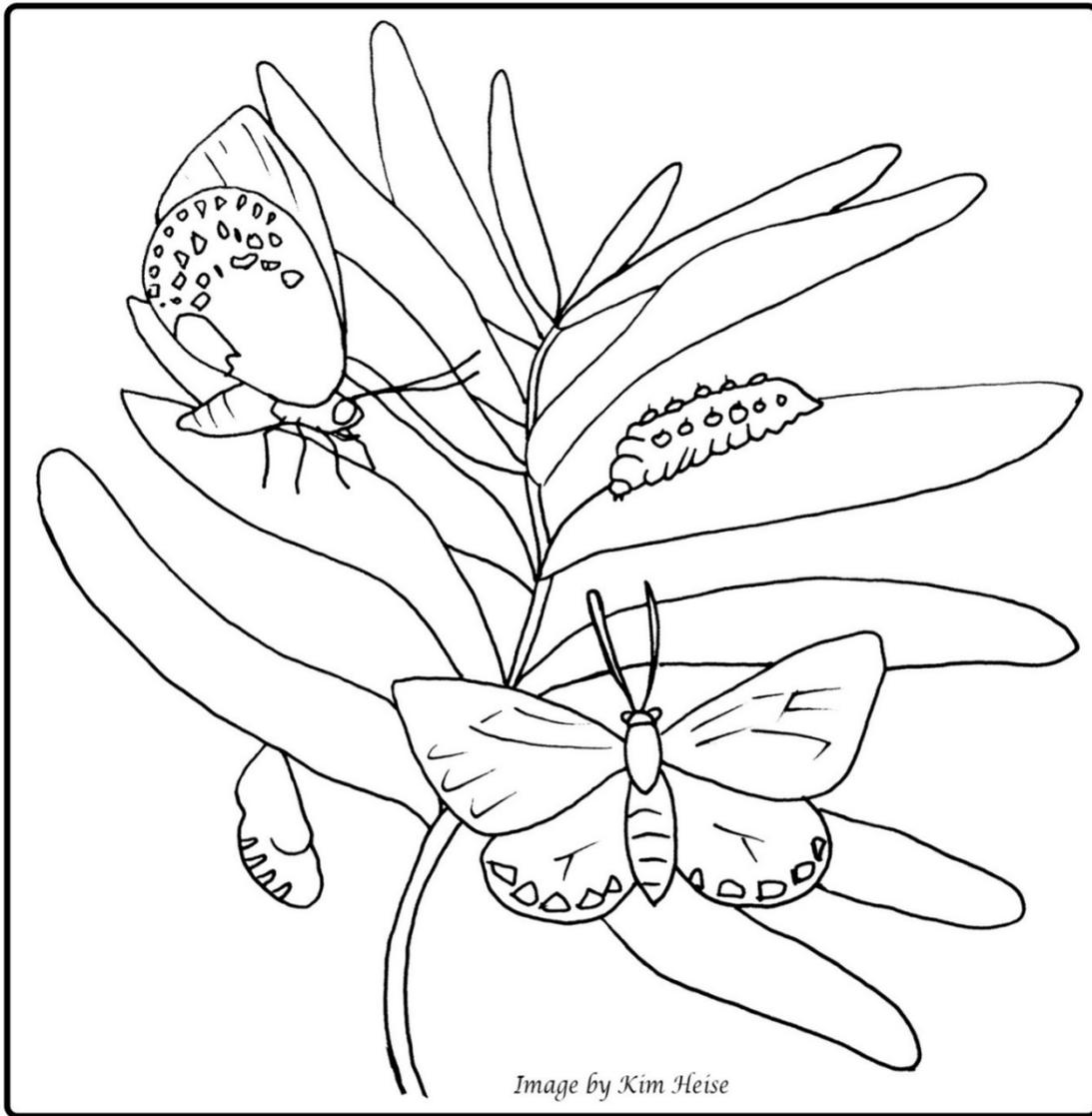
This endangered bat gets its name from its big ears that resemble a bonnet or hat. It's Florida's largest bat and needs a lot of space to roam. The pine rockland canopy, trimmed by fire, makes the perfect obstacle-free flying space they enjoy. Bonneted bats eat their weight in bugs every night.

They live in the last remaining pine rocklands, mangrove forests, and hardwood swamps in southeastern and southwestern Florida. Bonneted bats are very rare and difficult to see, but Zoo Miami has reported recording their sounds in the zoo as well as the pine rocklands next to the zoo.

Coral Gables residents have also reported seeing and hearing them in the large banyan trees around the Granada golf course, where people now gather to see or hear them on clear nights. You can contact the bat squad if you wish to participate. www.MiamiBatSquad.com.

A baby Bonneted bat was rescued and named 'Bruce'. He is doing well at the Zoo Miami veterinary hospital. You can see a You Tube video at: https://www.youtube.com/watch?v=q16tfhp_Kk4.

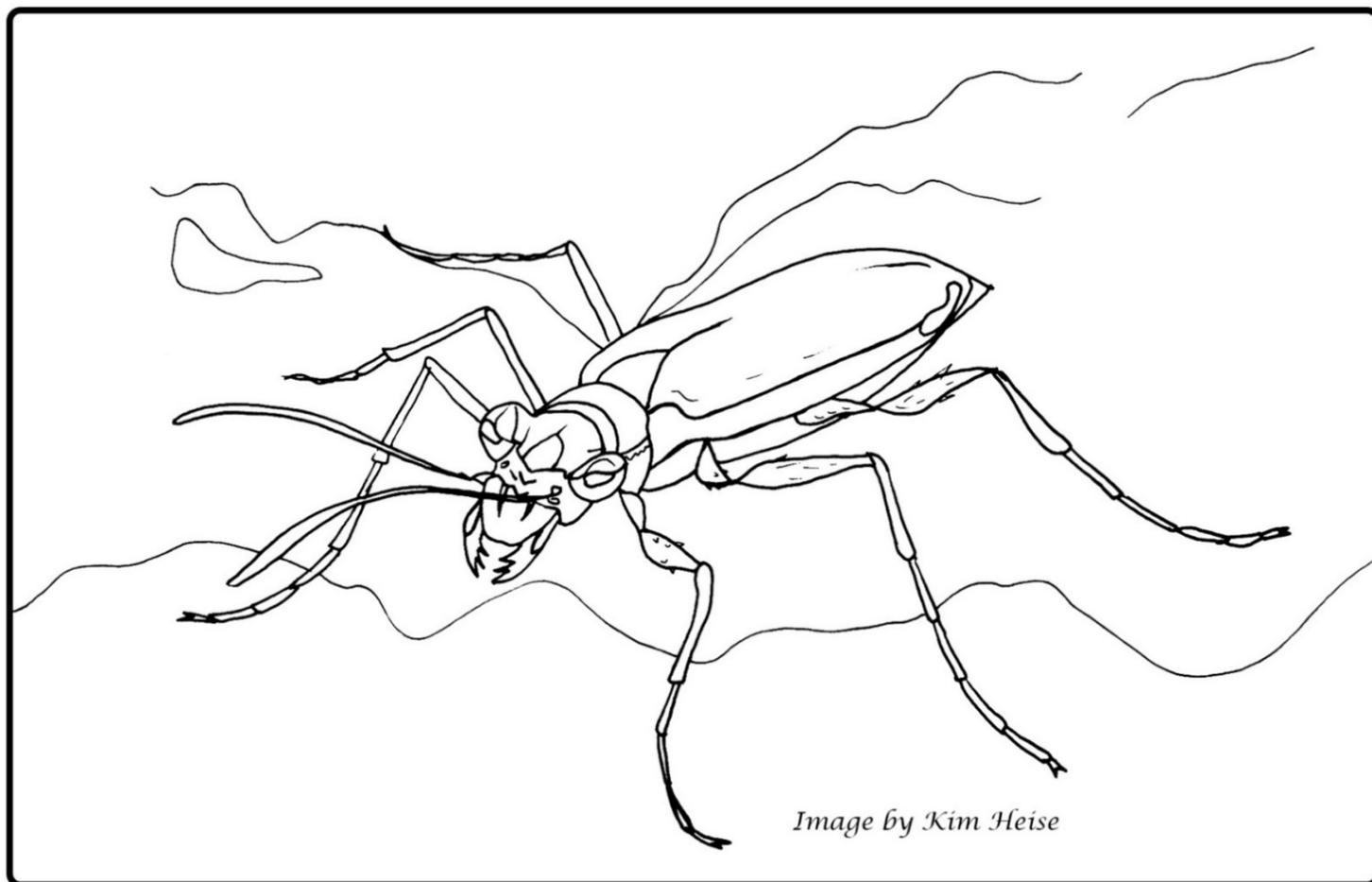
Atala Butterfly



The Atala butterfly's wings are black, speckled with iridescent blue and have a bright orange spot to match their striking bright orange abdomen. Males are either Caribbean blue or teal green on the inner fore and hindwings and females are always royal blue on the upper wing only. The drought and moderately salt-tolerant coontie is the only native host plant for the Atala caterpillar, which is red with rows of yellow spots. While in the caterpillar stage, the Atala butterfly eats the coontie. The coontie's natural toxins make the caterpillar poisonous to predators, who have learned to avoid these brightly colored beauties.

The butterfly was named for Atala, the Native American heroine of a novel. Atalas are imperiled and live in Pine Rocklands and were once thought to be extinct. People can help the Atala survive by planting coonties and other native plants that provide food and shelter. Native plants are easy to care for, they don't require watering or don't require spraying.

Miami Tiger Beetle

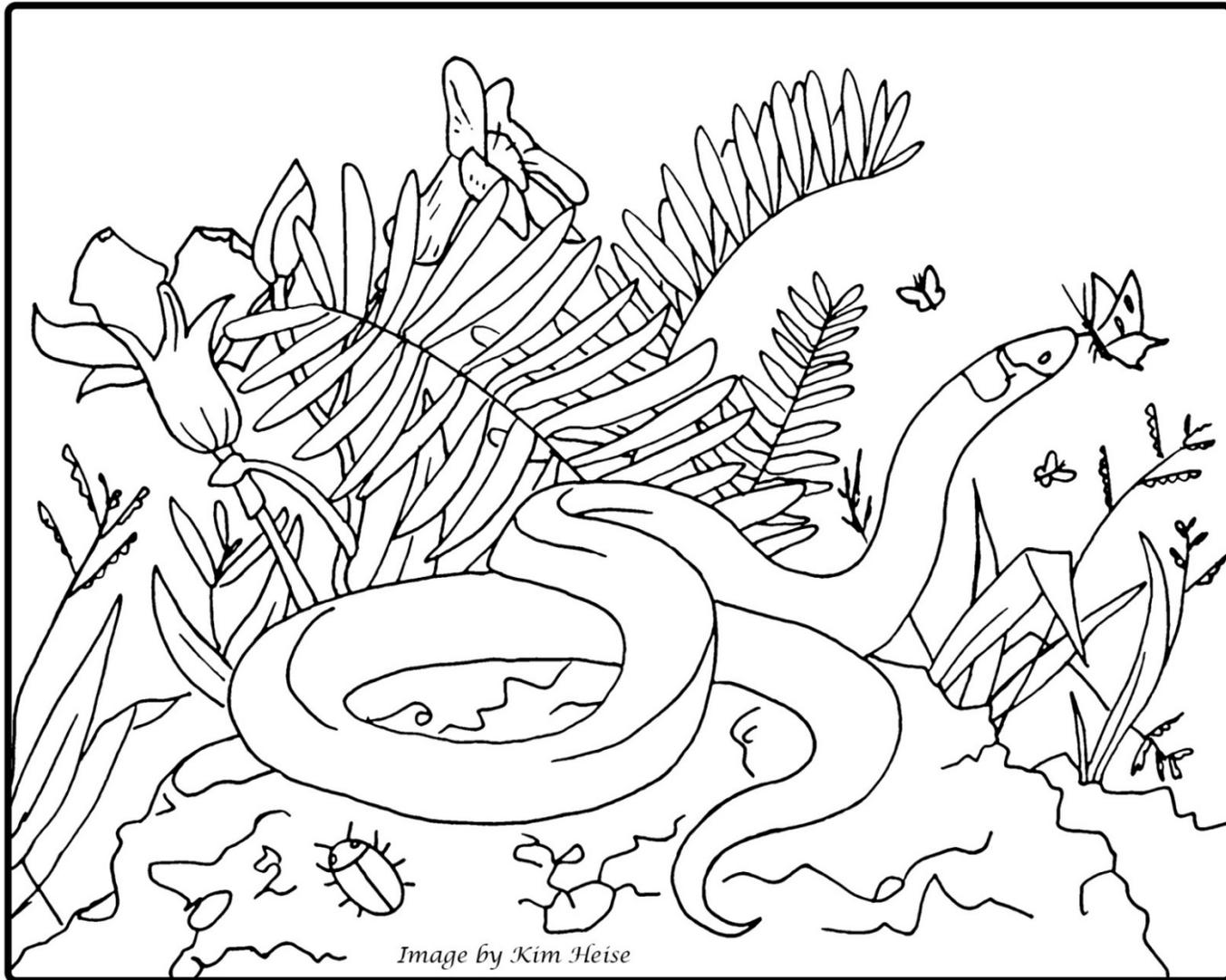


The tiny Miami tiger beetle is the real hero of the pine rocklands. These guys disappeared for over 70 years until 2007 when scientists rediscovered the Miami tiger beetle in the Richmond Pine Rocklands of Miami, Florida.

Miami tiger beetles are fierce predators, hence the name “tiger.” The larvae live in tiny burrows in the sunny and sandy spots found in pine rocklands. One of their favorite foods are ants, and they quietly watch for them from their burrows, then jump out at lighting speed, so fast your eyes only see the prey disappear in a flash. Then they devour them in a split second with their strong powerful jaws. Though tiny, they are some of the fastest animals on Earth. Miami tiger beetles are seasonal and can only be seen from May through October. They hide out in their small, secluded shelters the rest of the year. Adult Miami Tiger Beetles are a bright iridescent green, which helps them blend in with their pine rockland habitat. Sadly, only 38 were spotted the last time they were counted in 2014 and it is believed there are fewer than 100 left alive today. Human beings alone have the power to keep the species alive by protecting their only known home: The Richmond Pine Rocklands in Miami.

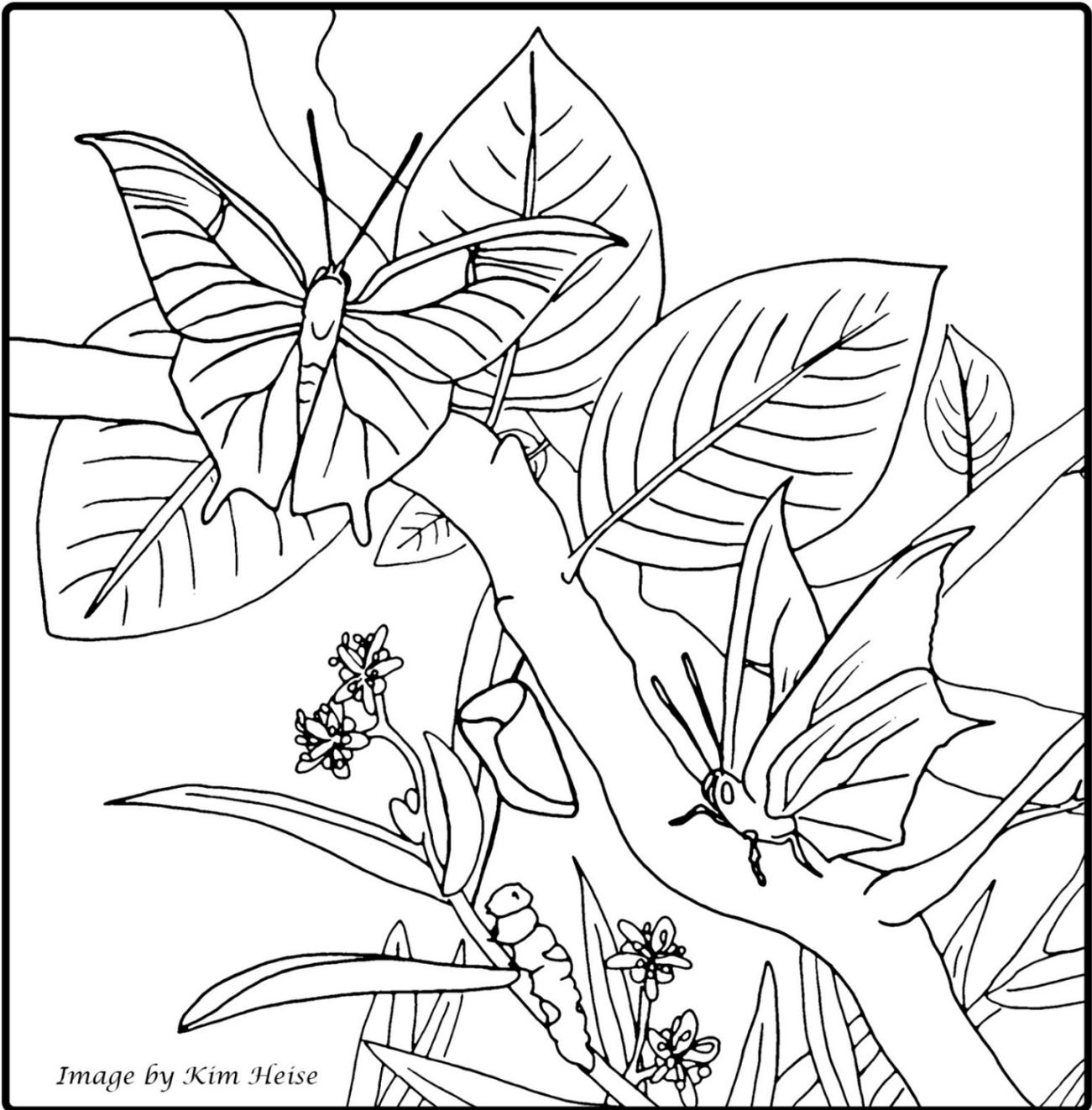
You can watch a tiger beetle YouTube video at: <https://www.youtube.com/watch?v=s9Aoe3DiFdA>.

Rim Rock Crowned Snake



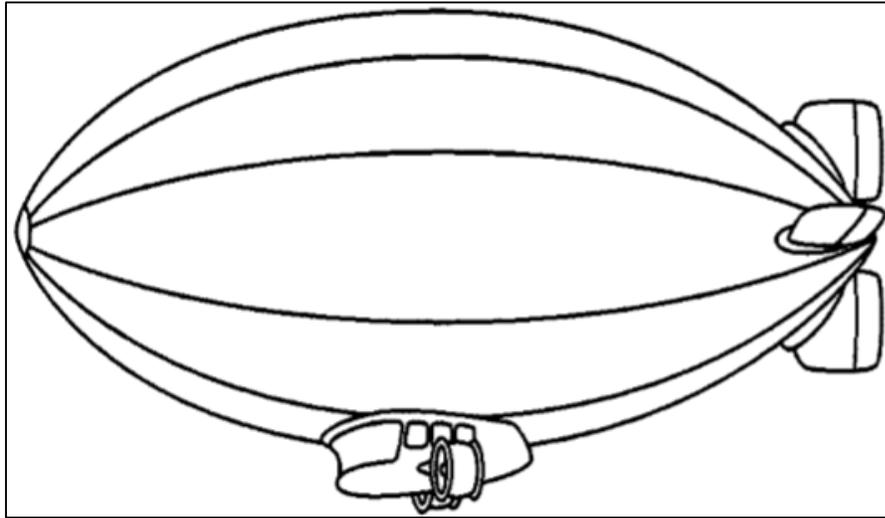
The Rim Rock crowned snake is a very rare species of snake found only in Miami-Dade and Monroe counties. The Rim Rock crowned snake is a tiny, 10 inch long snake named after the Miami Rim Rock formation. It has a black head with a tan to light brown body. It is not known how many remain.

Florida Leafwing Butterfly



This beautifully camouflaged pine rockland butterfly's closed wings look like dried leaves on the outside but when they open up they have bright red-orange-brown colors on the inside. Its only home is the pine rockland habitat remaining inside Everglades National Park. Its host plant is the pineland croton.

History of the Richmond Pine Rocklands site.



The Miami tiger beetle and other species living here owe their survival to the special place that has been their home for millennia: the Richmond Pine Rocklands located around Zoo Miami. They were lucky that this area has remained largely undeveloped for decades since several top secret governmental entities made it their home. The Richmond name came from a sawmill that was originally on the site. Many of Miami-Dade County's earliest buildings were built with the dominant tree growing in pine rocklands, the slash pine. The wood was very hard and the lumber was sold as "Dade County pine."

One interesting part of its history is that it was the second largest blimp base during World War II. Blimp missions originated out of the Richmond Naval Station to look out for enemies to prevent and protect our coast and our ships from any attack.

On July 18, 1943 Navy blimp K-74 spotted an enemy submarine and the airship was taken down by the submarine. Thankfully, all servicemen and the captain survived except for 28-year-old Petty Officer Isadore Stessel, who was bleeding from an injury and was apparently eaten by sharks. Navy blimp K-74 became the only U.S. Naval airship shot down in combat.

The Richmond site is now home to Zoo Miami, the Gold Coast Rail Road Museum, and the Military Museum. The federal government donated part of the site to the University of Miami for educational purposes. Please see the timeline of the occupants of the site.



Timeline of the Richmond Pine Rocklands.

1940 ↓	Richmond Sawmill
1941 ↓	The U.S. Navy purchased 2,107 acres to construct a blimp base. Construction begins on April 20 th 1942.
10/14/1942 ↓	The first LTA (Lighter Than Air) airship (Blimp) landed at Naval Air Station Richmond (NAS) and Airship Squadron 21 was formed.
1946 to 1948 ↓	University of Miami opens "South Campus"
7/18/1943 ↓	Navy Blimp K-74 is shot down by German Submarine U-134, the only U.S. blimp lost in combat.
9/15/1945 ↓	Hurricane strikes South Dade and resulting fire destroys the three large wooden Hangars of NAS Richmond and all aircraft in them.
10/04/1943 ↓	The University of Miami (UM) enters into a 50 year lease and assumes control of NAS Richmond from the U.S. Navy and has 1,571 acres of the base deeded to them to be known as "South Campus". The military continued to have a small presence on the site.
1948 ↓	UM closes South Campus classes, but retains a Research facility for agricultural research and horticultural studies on site.



<p>August, 1956</p> <p>↓</p>	<p>William Godfrey, a UM Student, presented an idea to UM President Dr. Jay F.W. Pearson about using the rails left behind at NAS Richmond as an engineering educational and historical attraction.</p>
<p>1957-1966</p> <p>↓</p>	<p>UM sets up the Miami Railroad Historical Society (MRHS) and runs a steam powered locomotive former FEC #153 to pull a train called "The Gold Coast Special" on the UM site on Sundays until 1966 when the CIA asks UM to move the train someplace else.</p>
<p>1959-1992</p> <p>↓</p>	<p>Richmond Air Force Station (AFS), site of 644th RADAR Squadron.</p>
<p>1962-1979</p> <p>↓</p>	<p>Richmond AFS was shared with the Army for the Nike Missile air-defense system as Army site HM-01DC. The Federal Aviation Administration (FAA) operated on the site until August 1992.</p>
<p>1962-1968</p> <p>↓</p>	<p>The Central Intelligence Agency (CIA) leases some of the former NAS Richmond buildings from UM under the name Zenith Technological Services, also known as JM WAVE or WAVE Station. It becomes at the time, the largest CIA installation outside of Langley, Virginia.</p>
<p>11/13/1966</p> <p>↓</p>	<p>The Gold Coast Railroad moved from the Richmond site to Fort Lauderdale, along the north side of the airport. UM transferred ownership of all rail locomotives, cars, and rail objects to the MRHS.</p>
<p>1970</p> <p>↓</p>	<p>UM lease of the Richmond site is revoked and UM moves from the site. Dade County issues bonds and deeds land to create Dade County Zoo and South Dade Metropolitan Park, which become known as MetroZoo and Larry and Penny Thompson Park respectively.</p>
<p>1975</p> <p>↓</p>	<p>U.S. Coast Guard District 7 maintains a Communication Station (COMMSTA) Miami and Richmond Heights Housing Area. The station is on 252 acres which includes transmitting and receiving antennas, transmitter buildings, a large recreation area, administration/operations building, and three tenant commands. After the Coast Guard downsized and made most of the operations remotely operated, the Coast</p>
<p>1976</p> <p>↓</p>	<p>Federal Correctional Institution (FCI), Miami opens. Low-security prison with adjacent minimum-security prison camp.</p>



07/04/1980 ↓	MetroZoo opens with a Preview Center.
12/12/1981 ↓	MetroZoo opens first major exhibit.
1984 ↓	UM builds a new South Campus in all new buildings.
1984 ↓	The Gold Coast Railroad moved from Fort Lauderdale back to its original Richmond site. Adding more rail and building a train shed.
1985 ↓	LTC Luis E. Martinez US Army Reserve Center is established. Army moves from Building 25 to new facilities.
August, 1985 ↓	A Radiological survey found several "hazardous substances" on UM South Campus site. Cesium-137, Cobalt-60, Hydrogen-3 and Carbon-14 -- at the site, and a 2001 geophysical survey found metallic material in 12 trenches.
1991 ↓	Marines staging area prepare troops for the Gulf War.
08/24/1992 ↓	Hurricane Andrews destroys all of South Dade including MetroZoo, The Gold Coast Railroad Museum and other facilities on the Richmond site. Hurricane Andrews destroys all of South Dade.
1994 ↓	The Government Services Administration (GSA) begins demolition of remaining wooden buildings from NAS Richmond, leaving only Building 25 remaining.



06/03/1997 ↓	County Resolution R-68-97, sponsored by City of Miami Commissioner Dennis Moss, directing the County Manager to study the feasibility of creating a special theme park district in Dade County.
1997 ↓	UM builds the Perrine Primate Center building and new outdoor cages. (Sometimes referred to as National Institutes of Health).
2000 ↓	UM purchased the United States Naval Observatory Secondary National Time Standard Facility and opened The Center for Southeastern Tropical Advanced Remote Sensing (CSTARS), also known as the UM Richmond Campus.
May, 2006 ↓	UM applies for a zoning change on 138 acres at its former South Campus from Agricultural to Traditional Neighborhood Development with plans to sell it and lists Ram Development Company as the Buyer.
August, 2006 ↓	UM has to pay the Army Corps of Engineers \$393,473 to cover some of the costs of cleanup of "hazardous substances and radiated animal carcasses, derived from radiological experiments," on UM South Campus site. https://www.insidehighered.com/news/2006/08/25/miami
November, 2006 ↓	Voter referendum passes 64% Yes to 34% No, approving MetroZoo Entertainment Area "on MetroZoo property on land that is not environmentally sensitive and is outside the animal attractions".
2010 ↓	NAS Richmond Building 25 is moved from its original site on Department of Defense (DoD) property to a new location next to the Gold Coast Railroad Museum to become The South Florida Military Museum.
2014	The Miami Pine Rocklands Coalition (MPRC) forms to try to preserve this endangered and globally imperiled ecosystem. MPRC stages protest rallies at Richmond site as well as UM's Main Campus in 2015 to bring more awareness and to continue the fight to save the last 2% of Pine Rockland

Contributed by:

William C. Waggoner
Board Member
Miami Pine Rocklands Coalition

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Teachers' Guide

Objectives:

1. Learn about native flora and fauna of the Pine Rocklands/Everglades/South Florida.
2. Understand the role of fire in the life of the Pine Rocklands ecosystem
3. Understand the effect people have on the environment
4. Understand the importance of protecting the Pine Rocklands

Questions:

1. Name three animals that make the Pine Rocklands their home.
2. Choose a Pine Rocklands animal. Describe its diet and adaptations it has made to survive.
3. Of what material is the soil in the Pine Rocklands composed?
4. Why are fires necessary to the Pine Rocklands?
5. What effect have humans had on the Pine Rocklands?
6. Fires are necessary to the Pine Rocklands. Can you think of other usually destructive forces are necessary to the environment?
7. Compare the Pine Rocklands with another ecosystem you have studied. How are they alike and different?
8. Do you agree that it is important to save the Pine Rocklands? Why or why not?
9. What more do you think could be done to save the Pine Rocklands?

Projects:

1. Visit the Pine Rocklands or research the subject further online. Write a speech about your experience.
2. Make a graph showing the change in populations of different animals in the Pine Rocklands.
3. Make a drawing or collage representing the plants and animals found in the Pine Rocklands.
4. Act out a scene of someone protesting development of the Pine Rocklands.
5. Write a song about the Pine Rocklands or find music that you think represents the Pine Rocklands.
6. Write a letter to a government official, asking them to help the Pine Rocklands.
7. Group Project: Write and act out a Public Service Announcement about saving the Pine Rocklands. You can film it if you want and send it to the Miami Pine Rocklands Coalition for their YouTube channel.
8. Plant coonties or crotons in your schoolyard or garden.

Contributed by:

Katherine Flinn



Applicable Sunshine State Standards

SS.4.A.7.3

Identify Florida's role in World War II.

Subject Area: Social Studies

Grade: 4

Strand: American History

Standard: Roaring 20's, the Great Depression, and WWII in Florida

Date Adopted or Revised: 02/14

Status: State Board Approved

Remarks/Examples

Examples may include, but are not limited to, warfare near Florida's shores and training bases in Florida (Miami, Tampa, Tallahassee, etc.), spying near the coast, Mosquito Fleet.

SC.2.L.17.2

Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.

Subject Area: Science

Grade: 2

Body of Knowledge: Life Science

Big Idea: Interdependence -

A. Plants and animals, including humans, interact with and depend upon each other and their environment to satisfy their basic needs.

B. Both human activities and natural events can have major impacts on the environment.

C. Energy flows from the sun through producers to consumers.

Date Adopted or Revised: 02/08

Content Complexity Rating: Level 2: Basic Application of Skills & Concepts - More Information

Date of Last Rating: 05/08

Status: State Board Approved SC.3.L.17.2

Recognize that plants use energy from the Sun, air, and water to make their own food.

Subject Area: Science

Grade: 3

Body of Knowledge: Life Science

Big Idea: Interdependence -

A. Plants and animals, including humans, interact with and depend upon each other and their environment to satisfy their basic needs.

B. Both human activities and natural events can have major impacts on the environment.

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C. Energy flows from the sun through producers to consumers.

Date Adopted or Revised: 02/08

Content Complexity Rating: Level 1: Recall - More Information

Date of Last Rating: 05/08

Status: State Board Approved

Assessed: Yes

SC.4.L.17.4

Recognize ways plants and animals, including humans, can impact the environment.

Subject Area: Science

Grade: 4

Body of Knowledge: Life Science

Big Idea: Interdependence -

A. Plants and animals, including humans, interact with and depend upon each other and their environment to satisfy their basic needs.

B. Both human activities and natural events can have major impacts on the environment.

C. Energy flows from the sun through producers to consumers.

Date Adopted or Revised: 02/08

Content Complexity Rating: Level 3: Strategic Thinking & Complex Reasoning - More Information

Date of Last Rating: 05/08

Status: State Board Approved

Assessed: Yes

Remarks/Examples

Introduce the impacts of invasive species, such as Brazilian pepper, Cuban anole, Kudzu, Australian pine, non-native pets released into wild (Burmese python). Ocean pollution resulting from discharge of sewage, toxic chemicals, manufacturing wastes, fertilizers, soaps, detergents, runoff and insecticides; population growth causes consumption of limited resources and land use expansion to accommodate for more people; animal extinction (endangered and threatened species).

SC.5.E.7.5

Recognize that some of the weather-related differences, such as temperature and humidity, are found among different environments, such as swamps, deserts, and mountains.

Subject Area: Science

Grade: 5

Body of Knowledge: Earth and Space Science

Big Idea: Earth Systems and Patterns - Humans continue to explore the interactions among water, air, and land.

Air and water are in constant motion that results in changing conditions that can be observed over time.

Date Adopted or Revised: 02/08

Content Complexity Rating: Level 2: Basic Application of Skills & Concepts - More Information

Date of Last Rating: 05/08

Status: State Board Approved

Assessed: Yes



SC.7.L.17.3

Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.

Subject Area: Science

Grade: 7

Body of Knowledge: Life Science

Big Idea: Interdependence -

A. Plants and animals, including humans, interact with and depend upon each other and their environment to satisfy their basic needs.

B. Both human activities and natural events can have major impacts on the environment.

C. Energy flows from the sun through producers to consumers.

Date Adopted or Revised: 02/08

Content Complexity Rating: Level 3: Strategic Thinking & Complex Reasoning - More Information

Date of Last Rating: 05/08

Status: State Board Approved

Assessed: Yes

SS.912.G.5.6

Analyze case studies to predict how a change to an environmental factor can affect an ecosystem.

Subject Area: Social Studies

Grade: 9-12

Strand: Geography

Standard: Understand how human actions can impact the environment.

Date Adopted or Revised: 02/14

Status: State Board Approved

SC.5.L.15.1

Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.

Subject Area: Science

Grade: 5

Body of Knowledge: Life Science

Big Idea: Diversity and Evolution of Living Organisms -

A. Earth is home to a great diversity of living things, but changes in the environment can affect their survival.

B. Individuals of the same kind often differ in their characteristics and sometimes the differences give individuals an advantage in surviving and reproducing.

Date Adopted or Revised: 02/08

Content Complexity Rating: Level 3: Strategic Thinking & Complex Reasoning - More Information

Date of Last Rating: 05/08

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Status: State Board Approved

Assessed: Yes

SS.4.A.9.1

Utilize timelines to sequence key events in Florida history.

Subject Area: Social Studies

Grade: 4

Strand: American History

Standard: Chronological Thinking

Date Adopted or Revised: 02/14

Status: State Board Approved

SS.4.A.1.1

Analyze primary and secondary resources to identify significant individuals and events throughout Florida history.

Subject Area: Social Studies

Grade: 4

Strand: American History

Standard: Historical Inquiry and Analysis

Date Adopted or Revised: 02/14

Status: State Board Approved

Remarks/Examples

Examples may include, but are not limited to, photographs, paintings, maps, artifacts, timelines, audio and video, letters and diaries, periodicals, newspaper articles, etc.



A Word from Our Board and Friends

What the Pine Rocklands mean to me....

These are the most important uplands in South Florida because of the diversity of unique plant and animal species that live and depend on them. They are important passageways for many species of birds. Before they were destroyed for development and fragmented as they are now, they were very important wildlife corridors especially for deer, bear, panther, etc. They are special places because even though smaller footprints can be found in the Bahamas (Abacos) and Cuba (Pinar del Rio) the diversity and extent of the Miami Rock Ridge Pinelands were unique in their abundance of flora and fauna found nowhere else but South Florida.

Growing up in what we called Quail Roost (yes, there used to be many quails running around the Richmond tract), we used to ride our bicycles to "the woods" and swim in the rockpit (now waterslide). And many of us more intrepid youngsters used to cross the railroad tracks and visit the full woods, sometimes hearing odd creatures leaving in a haste to paddle back home to our waiting mom's and getting grounded us as punishment for leaving the neighborhood. This was before Zoo Miami even opened.

But besides the childhood memories, it is important to save these rocklands because they are like no other anywhere in the world. They form an important ecosystem within the Everglades, but just as the Everglades are a world renowned park and considered a wetland of critical importance, the Miami Pine Rocklands are an imperiled forest and should be saved for their uniqueness and importance to the ecology of South Florida. Like the Everglades, it would be a true shame if we lost this unique, one of a kind place.

Carmen Ferreiro

What Do The Pine Rocklands Mean To Me?

I chose to live in Deerwood because I loved the greenery and knew from my many visits to MetroZoo that the environment of the former Naval Air Station Richmond site around MetroZoo was globally imperiled and endangered. I knew that most of the land was already protected and I never envisioned anyone would ever want to pave over and develop such a rare and beautiful site.

We've paved over and torn down enough already. It's time to save the last 2% that exist outside of the Everglades. It's our job to protect a piece of what South Florida looked like many years ago, so future generations can enjoy their beauty as well. The children coloring the endangered species in this coloring book today, may well be the stewards who protect them tomorrow.

Enjoy,

Cully Waggoner
Board Member At Large
Miami Pine Rocklands Coalition



My generation has the world on its shoulders. We are dealing with the worst environmental problems today that humanity has ever seen. Rapid extinction of species is just one of these problems. It is estimated that 200 species go extinct every day. How can I stand by while a habitat in my backyard is on the brink of extinction? My generation is also becoming increasingly aware of social and environmental injustices. Millennials protect the underdogs. That is why as a young person today, I stand for the Pine Rocklands to exist for tomorrow.

Anya Contreras

Miami Pine Rocklands Coalition Member and a millennial





Bartram's Scrub Hairstreak
Photo courtesy of: Frank Ridgley DVM
Conservation and Research Department
Zoo Miami



Atala Butterfly
Photo Courtesy of: Sandy Koi MS,
Entomologist



Bonneted Bat
Photo courtesy of: Frank Ridgley DVM
Conservation and Research Department
Zoo Miami



Rim Rock Crowned Snake
Photo courtesy of: Dustin Smith - Curator of Reptiles
and Amphibians, NC Zoological Park, NC DENR



Miami Tiger Beetle
Photo courtesy of: Dustin Smith - Curator of Reptiles and
Amphibians, NC Zoological Park, NC DENR



Florida Leafwing
Photo Courtesy of:
Carmen Ferreiro, Naturalist

"These special critters have no other place to call home, let's protect these valuable pine rocklands."
Jaclyn Lopez, Florida Director, Center for Biological Diversity

"If we lose our Pine Rocklands, we may never see these unique creatures again. Please help save these special forests."
Carmen Ferreiro, Naturalist.

"The pine rocklands are unique in the world and the animals that live there are equally unique. All pine rocklands can be restored with care, but they cannot be manufactured and the animals cannot be re-created!"
Sandy Koi, Entomologist.