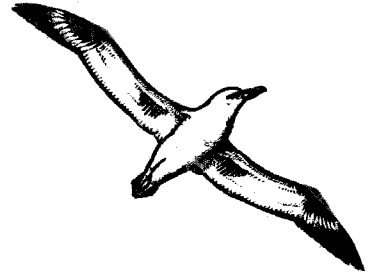


Did You Know???



Lesson at a Glance

Students will collect fascinating facts about the Northwestern Hawaiian Islands and find creative ways to share them with the class.

Objectives

Students will be able to

- Creatively share facts about the NWHI with classmates.
- Write a children's book about the NWHI.

Materials Needed

- "Fascinating Facts" worksheet
- Access to the following websites:
Navigatingchange.org
Hawaiianatolls.org
PVS-Hawaii.com
- Paper and pencils
- Poster size paper and colored pens

Student Activities

1. "Northwestern Hawaiian Islands Fascinating Facts Book"

Students are to collect "fascinating" facts about the Northwestern Hawaiian Islands and share these with classmates. Have students work in small groups. Assign each group a topic to focus on. This could be the 10 different Northwestern Hawaiian Islands, groups also representing the monk seals, sea birds, and turtles. Start by giving the students a copy of the "Fascinating Facts". Have them find facts on here that relate to their topic. Also encourage them to check out the websites listed above to find more "facts".

Students are to take these facts, one per page, and illustrate them. Encourage them to think about the format of a children's book. All the pages can be combined together to create a class book.

You may also want to have students make posters of their facts and display these around the classroom or school.



Fascinating Facts About the Northwestern Hawaiian Islands



General Facts

- The NWHI contains more than 800,000 acres (1,250 square miles) of submerged shoals, coral reefs, and seamounts (that's twice the land surface area of Oahu).
- NWHI is home to 69% of the coral reefs in the United States. This ecosystem is believed by scientists to be one of the last intact fully functioning pristine marine systems of its size in the world.

MidWay

- A thriving colony of approximately 500,000 Bonin Petrels was almost completely extirpated by the accidental introduction of rats to Midway in 1943. By 1979 they had declined to 5,000 pairs and had very little nesting success. A successful eradication of these rats at Midway, completed in 1998, has resulted in a reversal of the decline and increases in the population of this small petrel.
- Midway Atoll is home to the world's largest Laysan albatross colony and the second largest black-footed albatross colony.

Laysan Island

- Laysan Island was described as a "denuded desert" in the Bishop Museum's Tanager Expedition report in 1929 as the scientists described the landscape after rabbits multiplied unchecked there. After years of extensive work to restore and maintain this native ecosystem, the island now has healthy vegetation again and supports the largest complement of native birds in the NWHI.

Unbelievable Flights!

- Sooty terns NEVER sit on the water and after leaving the nest fly at sea for at least a year before touching land.
- An albatross is an amazing efficient long distance flyer. Using its wings like a glider plane, it can fly 62 mph and has been tracked traveling at least 2,000 miles on a round trip voyage from Tern Island to the coast of California during a two-week period.

Fascinating Facts

- In February 2002 Chandler S. Robbins returned to Midway Atoll and recaptured a Laysan Albatross that he had first banded there as an incubating bird on December 10, 1956. This bird must have been at least 5 years old when he first banded it (it would have hatched on or before February 1951), so would have been at least 51 years old when he recaptured it on its nest on February 5, 2002. Albatrosses live a long time and can raise chicks at advanced ages.
- Only a Honu Knows. . .How to Swim Back to French Frigate Shoals. A green sea turtle tracked by scientists swam from French Frigate Shoals at more than a mile an hour, covering a distance of 702 miles during her 23-day migration to Kane`ohe Bay on O`ahu. When turtles are old enough (around 20 to 25 years old), they return as mature adults to lay eggs in the same place they hatched. An estimated 800 female green sea turtles nested at French Frigate Shoals during 2002. Each female can lay three nests holding an average of 100 eggs per nest. . [800x300=240,000]
- Nine out of every ten turtles in the Main Hawaiian Islands were hatched within the protected French Frigate Shoals atoll.



Monk seal Facts

- Monk seals have existed for 15 million years with virtually no evolutionary changes, earning them the title "living fossils."
- Monk seals are one of only two mammals native to Hawaii . . . the other is the Hawaiian hoary bat.
- Comparatively speaking, the monk seal pup count is also impressive. To sight a pup was once an extremely rare occurrence. With a significant reduction in human disturbance over the last 7 years, monk seals are apparently finding Midway's beaches more hospitable. During the past year, a record 15 monk seal pups were born on the atoll.

Home Sweet Home

- On a hypersaline lake lying in the middle of Laysan Island lives the Laysan duck, the most endangered duck in the United States and the one with the smallest home range of any duck in the world. It is only found on Laysan Island.
- Seventy-two terrestrial arthropods, including a giant cricket and giant earwigs, three plant species, and two landbirds, the Nihoa finch and

the Nihoa millerbird, are found only on the Island of Nihoa and nowhere else in the world.

- Native plant community bragging rights go to Mokumanamana or Necker Island and Gardner Pinnacles, which support an all exclusive native plant regime (invasives are not allowed!) providing habitat for hundreds of thousands of nesting native birds.
- USFWS has been continually monitoring tropical sea bird species at Tern Island at French Frigate Shoals for 23 years. This record (the most consistent data set of its kind in the tropical Pacific) details sea bird reproduction and population fluctuations, which provide valuable information about oceanographic events, climate and ecosystem changes.
- Established in 1909, the Hawaiian Islands National Wildlife Refuge encompasses the islands and reefs stretching 800 miles from Nihoa to Pearl and Hermes Reef. This year we celebrate the Centennial of the National Wildlife Refuge System, which has protected this ecosystem for nearly 100 years.
- Maro Reef has much less than an acre of emergent land, but almost 478,000 acres of submerged lands, making it the largest coral reef in the NWHI.
- Lisianski was named for the Russian ship captain who grounded his vessel there in 1805, the first of many recorded shipwrecks there. Three-fourths of the Bonin petrels in Hawai`i nest here along more than a million sooty terns. Its surrounding undersea world is massive in size covering an area over 100 times the size of the island.
- The above sea land area of Gardner Pinnacles consists of only 5 rocky acres yet biologists have sighted over 19 species of birds of which 12 species nest on its precarious cliffs.
- Black-lipped pearl oysters were once so common at Pearl and Hermes Atoll that an entire button industry was supported by them. Due to overharvesting, the species almost disappeared from Hawaii. The Territory of Hawaii made it illegal to harvest these oysters in 1929, but the species has never recovered.

