NOAA FISHERIES

Rose Atoll Marine National Monument Lesson Organization

Lesson 1: Sea Turtles – How do the beaches of Rose Atoll support threatened sea turtles and where do turtles go when they are not on the beach?

Contents

- 1. Lesson Plan
- 2. Student Observation Worksheet
- 3. Student Tracking Worksheet
- 4. Student Tracking Worksheet ANSWER KEY
- 5. Tracking Map
- 6. Tagged Turtle Photo

Lesson 2: Coral Reefs – How do coral reefs form and how does sea level influence their growth?

Contents

- 1. Lesson Plan
- 2. Coral Biology Tutorial
- 3. Student ReefGrow Lab
- 4. Student ReefGrow Lab ANSWER KEY
- 5. Rose Atoll PowerPoint

Lesson 3: Marine Protected Areas– What does it mean to be a Marine National Monument or a Marine Protected Area?

Contents

- 1. Lesson Plan
- 2. Student Worksheet
- 3. Rose Atoll Presidential Proclamation
- 4. Hawaiian Marine Resource Management Article
- 5. Samoan Marine Resource Management Article
- 6. Definition and Classification of MPAs Handout

Preface: Rose Atoll Marine National Monument

Rose Atoll is the easternmost Samoan Island and one of the smallest atolls in the world. Located 130 nautical miles ESE of Pago Pago, American Samoa, it is the southernmost land and associated waters controlled by the United States. It is known as *Motu o Manu* or "Island of Seabirds" and *Nu'u o Manu* or "Village of Seabirds" in Samoan. The monument is co-managed by NOAA, USFWS, and the government of American Samoa. The atoll is nearly square and comprised of two islands, Rose and Sand. The reef is distinctive from the other islands in Samoa and dominated by crustose coralline algae that give the reef a pink hue. Similarly, the reef fish communities are distinct from the rest of Samoa with a high number of small, planktivorous species represented in the 270 identified fish species. Green and hawksbill sea turtles nest on the atoll and several species of cetacean, humpback whales, pilot whales, and dolphins, have been seen at the atoll as well (USFWS, 2012).

While all of the islands are natural laboratories, Rose Atoll has subject to monitoring and research not

only of its natural systems, but how they respond to human disturbance. A 120-foot longline fishing vessel, F/V *Jin Shiang Fa*, ran around on the atoll in 1993 causing physical damage to the reef and spilling 100,000 gallons of diesel and 2500 pounds of ammonia. While some of the ship was removed soon after the grounding, the rest was removed between 2004 and 2007 and the US Fish and Wildlife Service will be monitoring the reef recovery until 2017 (USFWS, 2012).







For more information:

Rose Atoll MNM http://www.fpir.noaa.gov/MNM/mnm_roseatoll.html

http://americansamoa.noaa.gov/

NOAA Marine National Monument Program http://www.fpir.noaa.gov/MNM/mnm_index.html

Presidential Proclamation

http://www.fpir.noaa.gov/Library/MNM/Proclamation%208337%20-%20Rose%20Atoll.pdf

Sources

US Fish and Wildlife Service." Rose Atoll Marine National Monument Fact Sheet." 2012 <u>http://www.fws.gov/refuge/Rose_Atoll/</u>