Rocky Mountain Arsenal Wildlife Refuge Assignment (75 points)

Students will be going to the Wildlife Refuge on April 7th and 8th. To focus our experience and to integrate our ecological knowledge students will complete the following.

Species Descriptions

Two Species Descriptions will be created; one NATIVE species and one INVASIVE species (25 points each). If you are confused on the terminology please review your ecology notes from this past fall. Each species description should take up AT LEAST a page. Be detailed in your descriptions. Do not copy from Wikipedia, this is plagiarism. You must put the description in your own words using your ecological knowledge and your experiences on the field trip. An example will be provided on the back of this paper.

A species description includes the following:

* 1. Latin Name, Common Name
  2. A HANDDRAWN Picture
  3. Description of the Species Habitat
  4. Life History (What physical and behavioral adaptations do they have? How do they use them to survive and reproduce?)
  5. Range Map (A map that shows where the organism lives)
  6. Interesting Facts about your species

Descriptive Writing (25 points)

This description should be ONE PAGE IN LENGTH.

Describe *vividly* the sights you see. Use both your Language Arts skills and your scientific terminology. For example, what paints a more vivid mental picture: Flowers blowing in the breeze, or Golden poppies nod sleepily? Pink clouds drift in the sky, or Rosy wisps of cotton candy drift in the sky? Specific words make a difference, choose your words wisely!

Close your eyes and listen attentively. Do you hear the chipper chirp of a bluebird? The drone of a honeybee? The rustle of leaves in the elm tree?

You will have time on the trip to sit quietly, by yourself, to start working on this or complete it.

**Species Description [](http://www.nmfs.noaa.gov/pr/images/turtles/loggerhead_marcogiuliano.jpg)**

|  |  |
| --- | --- |
| **Lifespan:** | unknown, but they reach sexual maturity at around 35 years old |
| **Diet:** | whelks and conch |
| **Behavior:** | females nest from April-September and generally lay 3-5 nests per season |

Loggerheads were named for their relatively large heads, which support powerful jaws and enable them to feed on hard-shelled prey, such as whelks and conch. The top shell (carapace) is slightly heart-shaped and reddish-brown in adults and sub-adults, while the bottom shell (plastron) is generally a pale yellowish color. The neck and flippers are usually dull brown to reddish brown on top and medium to pale yellow on the sides and bottom.

In the southeastern U.S., mating occurs in late March to early June and females lay eggs between late April and early September. Females lay three to five nests, and sometimes more, during a single nesting season. The eggs incubate approximately two months before hatching sometime between late June and mid-November.

Hatchlings lack the reddish-brown coloration of adults and juveniles. Their flippers are dark gray to brown above with white to white-gray margins. The coloration of the plastron is generally yellowish to tan.

**Habitat**

Loggerheads occupy three different ecosystems during their lives:

* beaches (terrestrial zone)
* water (oceanic zone)
* nearshore coastal areas ([**"neritic"**](http://www.nmfs.noaa.gov/pr/glossary.htm#neriticzone) zone)

Loggerheads nest on ocean beaches, generally preferring high energy, relatively narrow, steeply sloped, coarse-grained beaches.

**Life History**

Immediately after hatchlings emerge from the nest, they begin a period of frenzied activity. During this active period, hatchlings move from their nest to the surf, swim, and are swept through the surf zone, and continue swimming away from land for up to several days.

After this swim frenzy period, post-hatchling loggerheads take up residence in areas where surface waters converge to form local downwellings. These areas are often characterized by accumulations of floating material, such as seaweed (for example, *Sargassum*), and, in the southeast U.S., are common between the Gulf Stream and the southeast U.S. coast, and between the Loop Current and the Gulf Coast of Florida. Post-hatchlings within this habitat are observed to be low-energy float-and-wait foragers that feed on a wide variety of floating items (Witherington 2002). As post-hatchlings, loggerheads may linger for months in waters just off the nesting beach or become transported by ocean currents within the Gulf of Mexico and North Atlantic. Work by Lohmann and Lohmann (1994b, 1996) and Lohmann et al. (1999) suggests that loggerheads may continue some oriented swimming in order to keep from being swept into cold North Atlantic currents. Scientists are also remotely tracking neonate loggerhead sea turtles using small, solar-powered satellite tags.