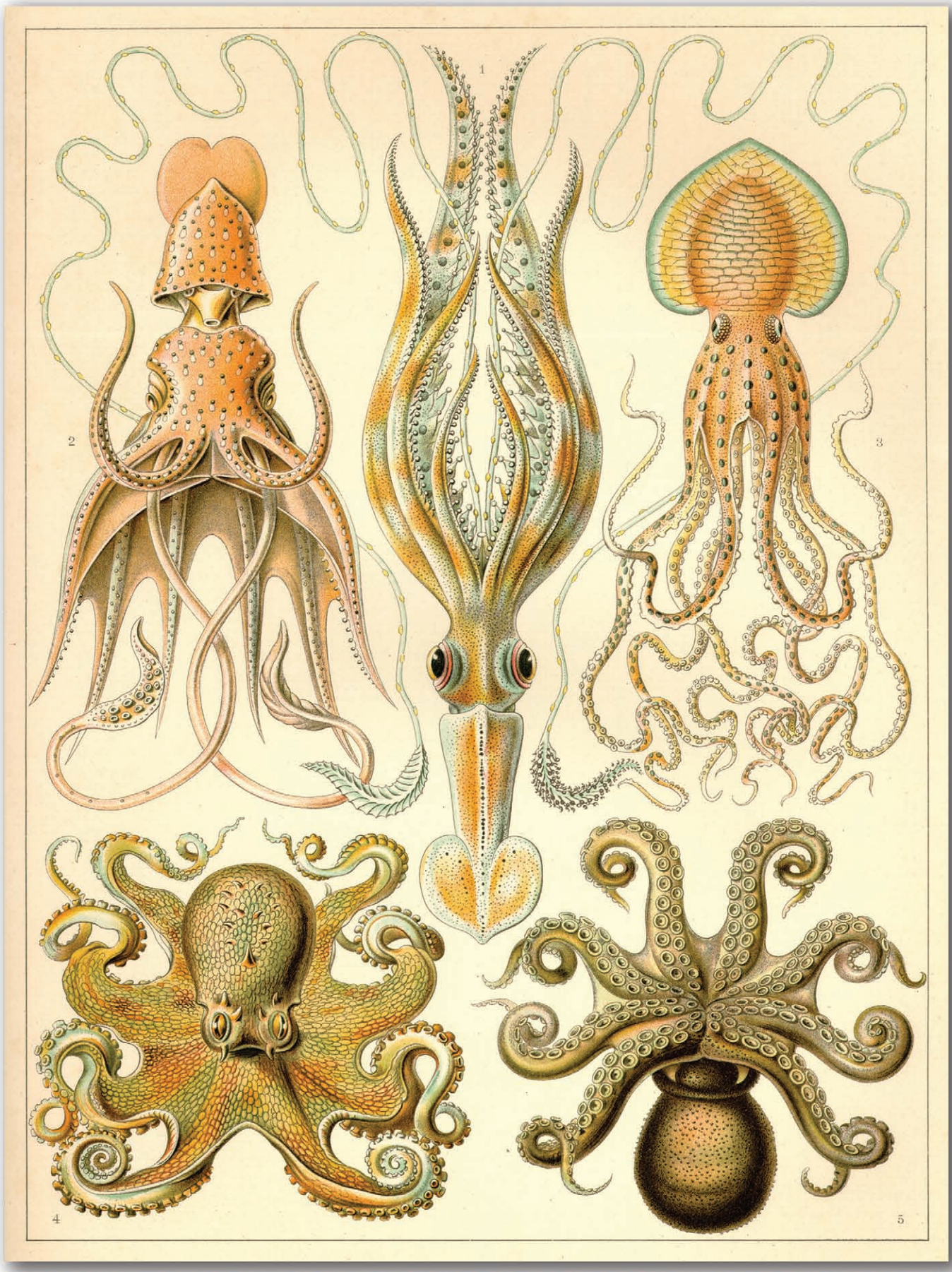
Ocean Commotion 2011



LOUISIANA SEA GRANT COLLEGE PROGRAM AT LOUISIANA STATE UNIVERSITY®

ABOUT THE OCEAN COMMOTION 2011 POSTER

These images of octopi and squid were drawn by Dr. Ernst Haeckel, a German zoologist who discovered thousands of new species of plants and animals. He carefully studied each one and made detailed drawings of many of them. In fact, he is more well-known as an artist and illustrator than as a scientist. About 100 of these drawings were published in 1904 as part of a book called *Artforms in Nature*, and they can now be found on the Internet. The squid and octopus species in the print used for our poster are:

1. **Long-armed squid** (*Chiroteuthis veranyi*) are found throughout the Atlantic Ocean and Gulf of Mexico and can reach 50 inches in length, or a little over four feet (1.2 m).
2. **Umbrella squid** (*Histioteuthis bonnellii*) are unevenly distributed throughout the Atlantic, and also found off the coast of Argentina, South Africa and South Australia. These squid can reach four feet (1.2 m) in length.
3. **Reef octopus** (*Pinnoctopus cordiformis*) can be found in waters around Australia and New Zealand. They are so common in New Zealand that they are fished commercially for food. They can reach three feet (1 m) in length and weigh up to 20 pounds (9 kg).
4. **Common octopus** (*Octopus vulgaris*) can be found in large groups off the coast of northwest Africa, in the Mediterranean Sea and in all other tropical and temperate waters worldwide, particularly in the Gulf of Mexico. Common octopi can reach over four feet (1.2 m) in length and weigh up to 25 pounds (11.3 kg).
5. **Common octopus** (*Octopus vulgaris*) – view from below

Octopi and squids are part of the mollusk family, a group of hard-shelled invertebrates including snails, clams and oysters. However, octopi and squids are different from their other family members, as they do not have a hard outer shell. Squids have a cartilage skeleton called a pen, which is shaped like a feather and helps them retain their shape. Octopi do not have any bony structures in their bodies and can fit through spaces as narrow as their eyeballs.

Squid and octopi are some of the most unique creatures in the animal kingdom. They are both cephalopods, meaning they have tentacles attached to their heads. They can be found in all of the world's oceans and tend to be larger in cold waters than warm waters. In the Gulf of Mexico, there are 93 identified cephalopod species. The common Atlantic octopus (*Octopus vulgaris*) and the brownstripe octopus (*Octopus burryi*) are the most common, along with squids like the longfin (*Loligo pealeii*) and arrow (*Loligo plei*). The Atlantic brief squid (*Lolliguncula brevis*) frequently can be spotted in Terrebonne Bay.

Some types of squid and all octopi have suckers on their arms that help them climb, hold their prey and taste chemicals in their environment. Both squid and octopi can change colors rapidly to match their surroundings and to camouflage themselves from predators or prey. Some types of squid can even change their texture. They are extremely intelligent and can learn to solve problems quickly but have relatively short life spans. Some species live for only six to nine months, while others live up to five years.

There are approximately 300 species of octopus in the world, with arm spans ranging in size from *Octopus wolfei's* tiny maximum size of 0.6 inches (1.5 cm) to the giant Pacific octopus (*Octopus dofleini*), which can reach 16 feet (5 m). Octopi are found in all oceans of the world, with habitats ranging in depth from shallow intertidal reefs to deep seas. Octopi have eight arms with one or two rows of suckers on each arm. They live solitary lifestyles in dens on the ocean floor. An octopus will prey on crabs,and other crustaceans and other mollusks such as snailsand will sometimes release ink into the water to disorient victims before attacking or to scare away predators.

Squid are commonly found in the North Atlantic Ocean and the Gulf of Mexico as well as around Hawaii and California, although they can be found as far south as Antarctica. Other than some coastal species and younger squid, most of the 300 squid species are found at a depth of 1,000 feet or more. Some squid travel in schools, but most are solitary animals. The smallest squid measures one inch (2.5 cm), and the largest squid found to date was a giant Pacific squid measuring more than 65 feet (20 m) long. A typical squid has eight arms and two tentacles, each with hooks and/or suckers. Unlike the octopi, squid also have two fins. Squid are carnivorous animals that feed on various types of small fish as well as crab. They have also been known to feed on other squid.

Books

Octopuses and Squids (Undersea Encounters), by Mary Jo Rhodes and David Hall

Sea Monsters: Octopus and Squid by Homer Seward

Octopus: The Ocean's Intelligent Invertebrate by Jennifer A. Mather, Roland C. Anderson and James. B. Wood.

An Octopus is Amazing by Patricia Lauber.

Welcome to the World of Octopus by Diane Swanson

Gentle Giant Octopus: Read and Wonder by Diane Swanson

Kraken: The Curious, Exciting and Slightly Disturbing Science of Squid by Wendy Williams

Octopuses and Squids (Undersea Adventures) by Mary Jo Rhodes and David Hall

Glass Squid and Other Spectacular Squid by Casey Rand

Links

http://a-z-animals.com/animals/octopus/
http://tolweb.org/Octopodidae
http://science.howstuffworks.com/environmental/life/zoology/marine-life/squid2.htm
http://www.squid-world.com
http://tolweb.org/treehouses/?treehouse_id=4225
http://www.seafriends.org.nz/indepth/octopus.htm
http://marinebio.org/species.asp?id=555
http://www.tpwmagazine.com/archive/2008/jul/scout2/
http://www.britannica.com/EBchecked/topic/251305/Ernst-Haeckel
http://www.nhptv.org/natureworks/nwep6f.htm
http://animals.nationalgeographic.com/animals/invertebrates/common-octopus/
http://www.octopus.org.nz/factsheets/octopus.html
http://www.gsmfc.org/publications/GSMFC%20Number%20191.pdf
http://www.gsmfc.org/seamap/picture_guide/Cephalopods/

Try a squid dissection with your class!

http://wwwbio200.nsm.buffalo.edu/labs/tutor/Squid/
http://giantsquid.msstate.edu/LessonList/dissection.html