

Deepwater Doodle

Rookery: Queen Bess Island, on the Gulf of Mexico, in Louisiana, is home to nesting brown pelicans, the state bird. Not long ago, there were no brown pelicans here. The species was nearly **EXTINCT** because of pesticides used in the 1960s. But then, pairs of pelicans from other places were reintroduced here.

It was a victory for pelicans and people who care about us!

Pelicans were doing okay before the enormous **OIL SPILL** that followed the **DEEPWATER HORIZON** explosion.

Polypylene booms were set up to keep oil out of fragile areas.

Shallows, Shore, and Marsh: Oil shut down oyster beds and shrimp fisheries.

OYSTERS: 1. Vegetable oil removes the oil. 2. Dish soap removes the goo.

MISSISSIPPI DIAMONDBACK TERRAPIN, **ALABAMA BEACH MOUSE**, **LAUGHING GULL**, **HORSESHOE CRAB**, **STONE CRAB**

BOTTLENOSE DOLPHINS: could swallow oil or oily fish. They were calving while the oil was spreading.

BLUEFIN TUNA: They spawn here... and their food fish could be poisoned.

Food Chain: Pelicans eat... fish eat... tiny fish eat... shrimp eat... copepods eat... plankton eat...

SHRIMP: began soaking into the birds' feathers and swamping their nests and chicks.

It wasn't just the oil on their feathers! Even though pelicans fish at the surface, oil all through the water column affected their food chain.

IT MAY TAKE A FEW YEARS BEFORE THE PRODUCTION IS PRE-SPILL LEVELS. BUT THE MARINE ORGANISMS WILL RECOVER. THE MARSH WILL RECOVER.

KERRY ST. PÉ, Marine biologist + Director of the Barataria Terrebonne National Estuary Program, has spent his career responding to oil spills.

KAREN ROMANO YOUNG

OUT AT SEA...

People worked underwater to stop the busted Macondo well from gushing, while others at the surface worked to get rid of oil already in the water.

SPERM WHALE: could ingest oil at surface or eat oiled food - plankton. Skin could be irritated by oil.

MANGROVE TREE, **MANATEE**

Mangrove Forest: Birds nest here. Manatees shelter here, along with all kinds of baby sea animals.

SEA TURTLE: feed and breathe at surface and rest on beaches. Many found dead, many eggs moved.

STINGRAY (low-nose ray)

Where **BIG** events affect **LITTLE** things and **LITTLE** things can have a **BIG** impact:

Terry Hazen and other researchers from the Lawrence Berkeley National Lab found that microbes that eat oil are suddenly **thriving**. (There are always oil-eating microbes in the Gulf of Mexico but now there are more.)

There is also more **SEA SNOT**.

When plankton get stressed, they produce a mucus-y substance. Huge blobs of sea snot could kill bottom-dwelling organisms and carry food away from others.

Dispersants used to break up oil also could cause trouble throughout the water column. Who knows how long it will be before the Gulf is **clear of oil?**

Coral reef: Already endangered, coral reefs support many species of fish, turtles, and sea stars.

Cold-water coral: 200 feet deep to 3300 feet deep. Deep-sea coral takes many centuries to build up. Scientists have found plumes of oil here, a spray of oil droplets more than 20 miles long.

Cold seep: Methane and hydrogen sulfide sustains this ecosystem, whose inhabitants never see sunlight.

MACONDO WELL (busted), **MUSSELS**, **OCTOPUS**, **JELLIES**, **TUBE WORMS**, **ANEMONES**, **CORALS**, **SEA STARS**

Deepwater Horizon's Bird Tally:
Total Collected 8184
Released Alive 1,243

A wonderful bird's the pelican... his beak can hold more than his belly can.

-Dixon Lanier Merritt