

Creep into the DEEPEND

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FROM: DEEPEND Science Team

TO: DEEPEND Virtual Team Leaders

SUBJECT: The Vampire Squid doesn't need a Halloween costume!

Good morning Virtual Research Team!

Today we woke up early and ate breakfast (there is a full kitchen on the ship and a cook who makes sure we all get hot meals) before deploying the nets. It is exciting to watch the Team deploy MOCNESS. The MOCNESS attaches to a thick metal cable connected to the A-frame and pulley system. We release the net out to sea, then reeled back in, sort of like a giant fishing reel. Can you imagine a fishing reel with 1 mile of fishing line?

The nets were in the water a long time: six hours! This gave the nets enough time to get as deep as we needed. Then MOCNESS is slowly pulled back on up. When we pulled the nets back up, we found many cool animals!

When the water is that deep, there is no sunlight and animals need to find different ways to sense their surroundings and communicate with each other. We found black fish with spots that glow (bioluminesce), bright red shrimp with long antennae, and squid with giant eyes.

Today, I helped Team Ceph collect individuals. I'm so glad because we found a vampire squid!

A vampire squid is a small squid. Adults are usually less than a foot long. The one we caught today was only a couple of inches long.

When our friends at the Oregon Coast Aquarium's Oceanscape Network heard I was going to talk about vampire squid, they created a special piece of art for you – a vampire squid. Isn't it gorgeous?

One of the Team Ceph experts shared with me how it got its name. The scientific name for the vampire squid is *Vampyroteuthis infernalis*. This is Latin and it roughly translates to "the vampire squid from Hades." The vampire squid was discovered and named more than 100 years ago (1903). That was a few years after the publication of the original Dracula book by Bram Stoker (1897). Just like today, the person who discovers an animal gets to name it. The little beauty's jet-black skin and red eyes (in certain lights) reminded the person of a vampire.

The vampire squid lives 1,969 to 2,625 feet (600-800 m) down.

As you can see from the illustration, the vampire squid's arms are webbed. It may look like a scary predator, but looks are deceiving. The vampire squid is a scavenger. That means it

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doesn't hunt. It eats marine snow. Marine snow is made up of bits and pieces of dead animals, algae, poop, and other organic debris that sink from above. Scientists call a vampire squid a "detritivore."

How does it capture marine snow? It floats in the water and waves a long filament (you can see the filaments in the illustration). The filament captures marine snow. That may not seem like much to eat, but the vampire squid is incredibly energy efficient. Its diet and deceptively simple way of gathering food means it doesn't burn as many calories as...say a fast swimming fish does.

Like many animals in the deep, it is bioluminescent – it glows. When startled or threatened, it puts on quite a light show to confuse or trick the predator. If that's not enough, it can do something else. You may know that some shallow-water octopus and squid release a jet of black ink to startle or confuse predators. In a dark world, ink wouldn't do much good. When startled, the vampire squid releases a cloud of glowing slime. Between a light show and a cloud of lights in the dark, it has some fascinating ways to protect itself.

It's such a cool animal and now that I know how it got its name, it seems even more fun.

The person who discovers a new plant or animal also gets the honor of giving it its scientific name. An animal's scientific name might tell you what the discoverer thought it looked like or the way it behaved. Some name the new species in honor of a colleague, friend, or family member. Some scientists even have a sense of humor, like thinking of Dracula when naming this squid.

Maybe we'll discover some new species on this DEEPEND cruise and be able to name them! If you were going to discover a new species, what kind of deep-sea animal would you like it to be? For fun, I've attached a photo of a very cool Siphonophore MOCNESS brought also up. What would you name would you chose for it? Why? I'd love to see hear your ideas. (Have you ever heard of a Siphonophore before?) We'd love to hear about the animal you might discover.

Today was really exciting! I've never been on a research cruise that trawls so deep and I saw many animals I'd never seen before. We'll keep searching for new things here in the Gulf! Anchors away!

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Creep into the DEEPEND Mission

