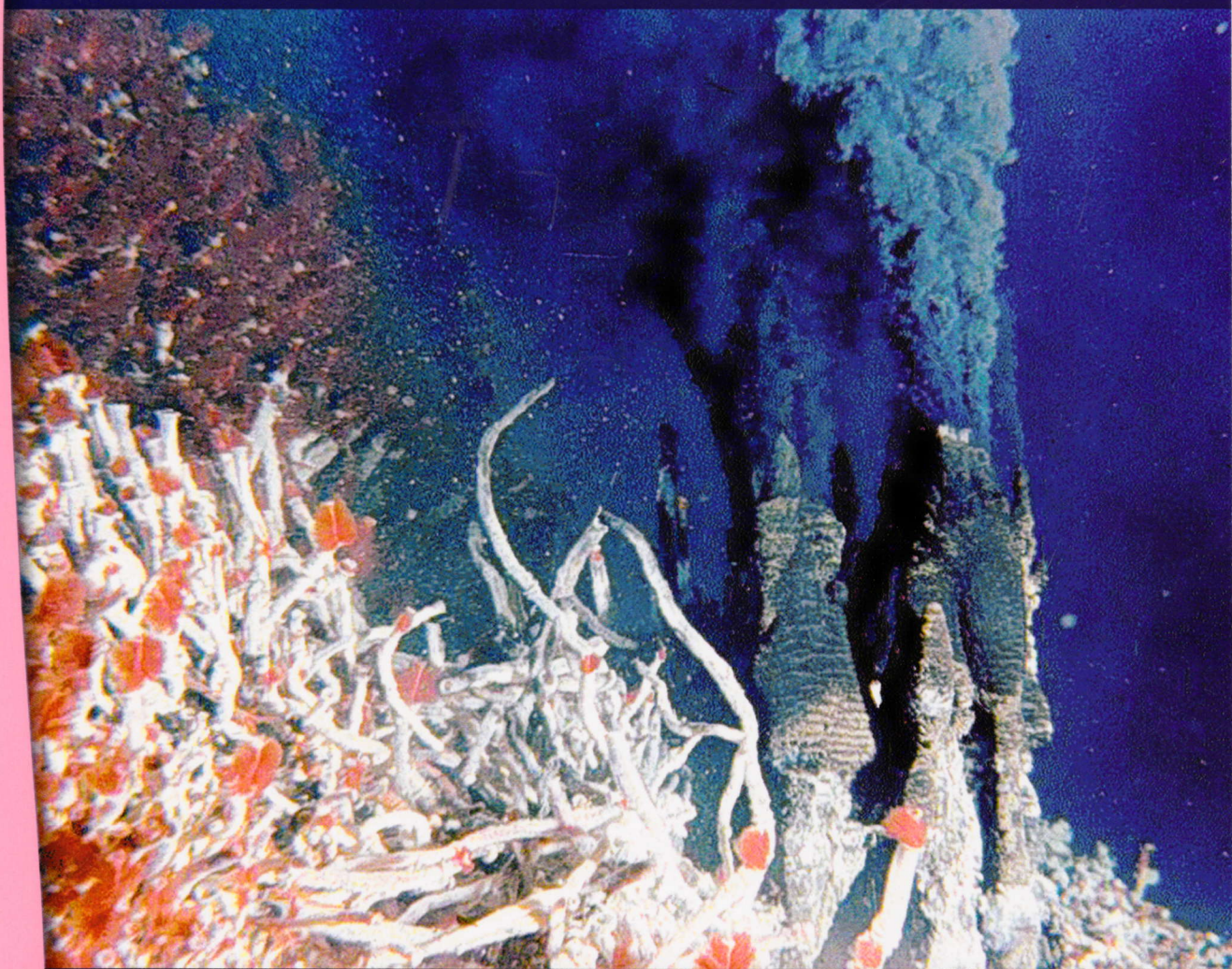


# CREATURES of the Deep

by Antoine LeCarr



- <sup>1</sup> Earth's oceans are vast. They cover more than seventy percent of Earth's surface. It's no wonder that Earth is sometimes called "the water planet."
- <sup>2</sup> We have long known that there are living things in the oceans. From tiny

plankton to huge whales, the oceans are full of life. In the last quarter of the twentieth century, however, new facts came to light. This information disproved some of what we thought we knew.



- 3 The oceans are much deeper than we had imagined. The deepest point is in the South Pacific off the coast of the Mariana Islands. Here the ocean floor is seven miles below the surface. Scientists in special vehicles explored this area. They explored other areas as well. Wherever they went, they found surprises.
- 4 To begin with, they found sources of heat. No one had expected that. The deep ocean is very cold. The heat comes from openings in the ocean floor. Hot gases and chemicals caused by volcanic activity in the earth come through these cracks. They heat the water close to the cracks.
- 5 Scientists call the cracks geothermal vents. The vents look like chimneys. For this reason, scientists called the vents "smokers." Smokers can be black, white, grey, or clear. The color depends upon the material that they eject.
- 6 The biggest surprise was the creatures living around the vents. They had strange shapes. They didn't look like other sea life. They lived in the most extreme environments. The bitter cold water, the intense heat from the vents, and the crushing pressure didn't seem to bother them at all. Clearly, scientists had a lot more to learn about the ocean.
- 7 The smallest creatures living there are bacteria. They change the chemicals that shoot out of the smokers into food. They provide this food for some of the other residents of the deep ocean.
- 8 One of the strangest of these is the tubeworm. Tubeworms look like giant red lipsticks. They are about eight feet long. They live inside white tubes made of a tough, natural material. They have no mouths, eyes, or stomachs. Their survival depends upon the bacteria that live inside them.
- 9 Two other inhabitants are blind shrimp and giant white crabs. Smaller white crabs that look like spiders scurry around the vents as well. In all, more than three hundred species of vent life have been discovered so far.
- 10 Not all deep-sea life lives so close to the vents. Some of these creatures look more like the products of nightmares than nature. The viperfish has lower fangs so long that they don't even fit in its mouth. The gulper is about six feet long with a mouth full of sharp little teeth. Its body is like a flexible sack. Gulpers swallow their prey whole and digest it as snakes do.
- 11 Some sea life glows in the dark. One of these has a six-inch body with a six-foot whiplike appendage attached to its chin. It also has two rows of organs that glow with a blue-violet light. Add to this an impressive set of teeth, and you have a creature that it would be best to avoid.
- 12 The wonder-fish is eighteen inches long. The only part that glows in the dark is an area inside its mouth. Prey is attracted to this light in the inky blackness of the deep ocean. The rest of its mouth is full of sharp teeth that make quick work of anything that wanders in.
- 13 A type of angler fish also uses light to attract prey. It has sharp, fang-like teeth. On the top of its head is a bulb-like knob. Hanging from its chin is what looks like a beard of lacy seaweed. Both the knob and the beard glow invitingly. It is a bit of a relief to know that this scary-looking creature is only about three inches long.
- 14 With each exploration new life forms are discovered. Sometimes it seems as if each one is stranger than the one before. The ocean depths still hold many secrets. Who knows what other surprises are lurking there in the deep!

## COMPREHENSION

**A** Choose the best ending for each sentence. Write *a*, *b*, or *c*.

- 1 This article is mainly about
  - a** unusual forms of sea life.
  - b** geothermal vents.
  - c** volcanic eruptions deep in the earth.
- 2 New information about the ocean became known
  - a** in the last quarter of the twentieth century.
  - b** in the last half of the twentieth century.
  - c** in the last quarter of the nineteenth century.

3 If there were no bacteria around the vents

- a** there would be no chemicals.
- b** there would be no tubeworms.
- c** there would be no volcanic eruptions.

4 Creatures that glow in the dark

- a** are usually larger than those that don't.
- b** only live around the vents.
- c** have an advantage in attracting prey in the darkness.

5 The deepest part of the ocean is

- a** three miles below the surface.
- b** seven miles below the surface.
- c** ten miles below the surface.

## LEARN ABOUT WORDS

**B** Often you can find out the meaning of a word by seeing how it is used in an article or a story. The other words give you clues.

Find the word in the article that best fits each meaning. (A paragraph number tells you where to look.) Write the word.

- 1 very large in size or amount (1)
- 2 small water animals (2)
- 3 to move about in a hurry (9)
- 4 bad dreams (10)
- 5 long, pointed teeth (10)
- 6 not stiff (10)
- 7 hiding (14)

**C** **too** = also

**two** = the number after *one*

Words that sound alike but have different spellings and meanings are called homophones. *Too* and *two* are homophones.

Look at each word in **bold type**. Note the paragraph number. Look at the paragraph and find the homophone for the word in **bold type**. Which of the homophones fits in the blank in the sentence? Write the word.

8 **know** (1)

Do you \_\_\_\_\_ what a vent is?

9 **knew** (2)

Scientists keep learning \_\_\_\_\_ things about the ocean.

10 **sew** (10)

Why is it \_\_\_\_\_ dark in the deep ocean?

## THINK ABOUT IT

- D** sadly = sad + **ly**  
sadness = sad + **ness**

The letters *-ly* and *-ness* are called suffixes. A suffix is added to the end of a word. It changes the word's meaning. Adding the suffix *-ly* to a word makes the new word tell *how*. Adding the suffix *-ness* to a word makes the new word tell *what*.

Read each sentence. Which word in parentheses ( ) makes sense?

- 1 Until recently we did not know the (vastly, vastness) of the ocean.
- 2 The (coldly, coldness) of the water in the deep ocean makes it an extreme environment.
- 3 Scientists were not prepared for the (strangely, strangeness) of the creatures of the deep ocean.
- 4 Some types of sea life cluster (closely, closeness) around the geothermal vents.
- 5 If any of these creatures were brought to the surface of the ocean, they would (quickly, quickness) die.

- E** The words *a*, *an*, and *the* are called articles. You use *a* if the next word tells about one thing and begins with a consonant.

A tubeworm looks very strange.

You use *an* if the next word tells about one thing and begins with a vowel.

An angler fish uses light to attract prey.

You use *the* if the next word names a particular person, place, or thing.

The Mariana Islands are located in the Pacific Ocean.

Read each sentence. Which article in parentheses ( ) fits each sentence? Write the word.

- 6 Water covers more than seventy percent of (a, the) surface of Earth.
- 7 (A, The) scientists were surprised by what they found at the bottom of the ocean.
- 8 One creature has (a, an) appendage attached to its chin.
- 9 Vent life is made up of (a, an) unusual group of creatures.
- 10 The tubeworm does not have (a, an) mouth.

- F** Some verbs do not add *-ed* to show that something happened in the past. These verbs are called irregular verbs because they do not follow a regular pattern when they tell about the past.

In the past, scientists *found* surprises in the ocean.

Today scientists still *find* surprises there.

Read each sentence. Which verb in parentheses ( ) makes sense in the sentence? Write the verb.

- 11 Today we can (see, saw) some ocean creatures in aquariums.
- 12 Last year I (go, went) to the San Diego Aquarium.
- 13 Yesterday I (see, saw) many beautiful fish.
- 14 Some fish (come, came) close to the glass where I stood.
- 15 That (makes, made) me shiver every time I think about it.