

For Creative Minds

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Coast Redwood Habitat: Living or Nonliving?

Coast redwoods are native to a small area along the Pacific coast of northern California and southern Oregon. In all habitats and ecosystems, living things rely on both living things and nonliving things to survive. Can you identify which things found in the coast redwood habitat are living and which are nonliving?

Animals: From tiny insects to large black bears, a wide variety of animals live in and around the coast redwoods.

Water: This area has a moist climate that receives over 100 inches (2.5 m) of rain a year, plus fog from the ocean.

Temperature: Some plants grow in hot temperatures close to the equator (tropical), and others grow in cold temperatures far from the equator (polar). Between tropical and polar, temperatures are more temperate. The coast redwoods grow in a temperate climate.

Plants: Douglas firs, hemlocks, ferns, sorrels, mosses, and rhododendron can all be found in the understory of a healthy coast redwood habitat. Ferns, bushes, redwood sprouts, and even other kinds of trees can be found in the canopy.

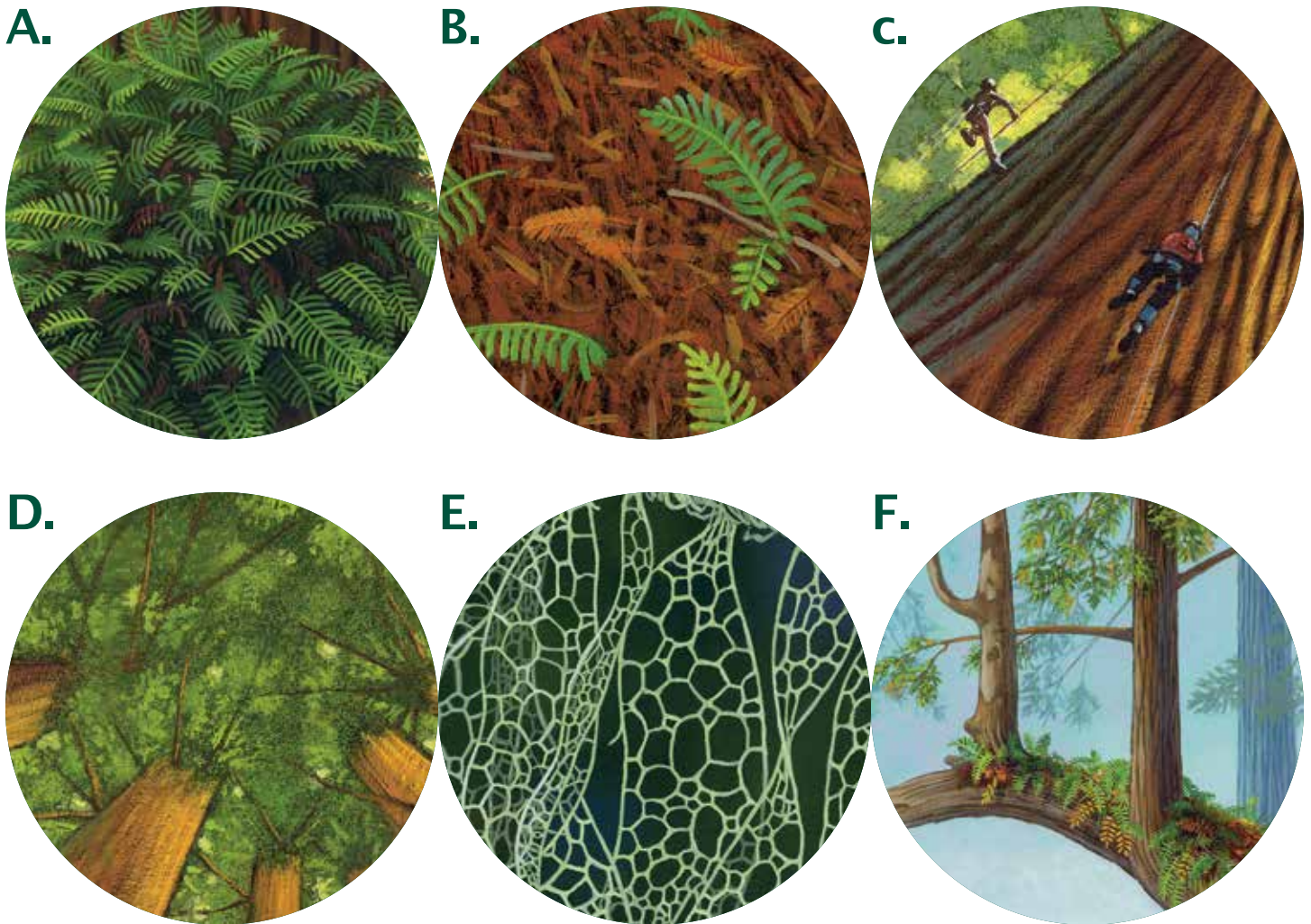
Soil: Decaying plants, including coast redwoods, provide nutrients to the soil that are then used by other plants.

Answers: Living: animals, plants; Nonliving: water, temperature, soil

Redwood Forest Vocabulary Matching

Match the vocabulary description to the image.

1. Trunks that grow from limbs growing from the main trunk are called **reiterations**.
2. The world at the top of the forest is called a **canopy**.
3. Sponge-like mats of soil are called **humus**.
4. Plants called **epiphytes** attach themselves to other plants to grow.
5. Over 150 different types of **lichens** grow in the redwood canopies. Lichens are actually two organisms growing together.
6. Scientists who climb and study trees are called **botanists**.



Answers: 1-F, 2-D, 3-B, 4-A, 5-E, 6-C

Animals and Their Basic Needs

Many types of animals make their homes high in the canopy, the secret forest of the coast redwoods. Match the animal adaptations to how they provide their basic needs:

- How they **protect themselves** from becoming food for other animals.
- How they find or get **food and water**.
- How they get **oxygen (air)** from their surroundings.
- Where they live and raise young (**shelter**).



Pill bugs often roll themselves into balls when disturbed. Because of that, they are sometimes called roly-polies. They breathe through gills.

Wandering salamanders breathe through their skin and mouths instead of lungs.

They eat tiny bugs crawling in the humus and camouflage themselves in the leaves to hide from predators.



During the day, Humboldt flying squirrels sleep in tree holes lined with soft moss or lichens.

They glide from tree to tree at night searching for food.

Northern spotted owls catch prey in their talons.

They nest in tree cavities, broken treetops, and in the old nests of hawks, eagles, and squirrels.



Marbled murrelets nest in shallow dips in moss and lichen high in the redwoods, far from their ocean home.

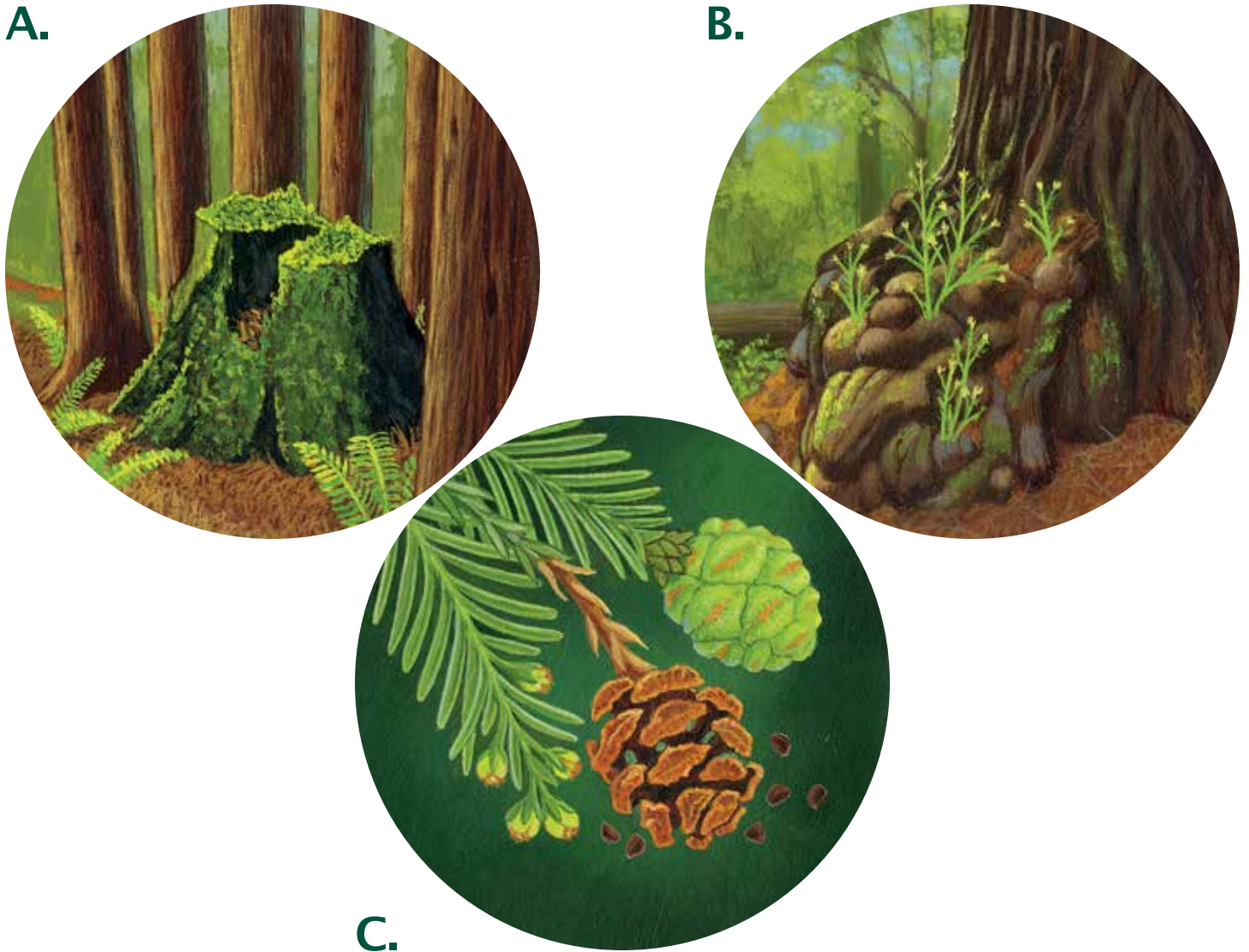
Parents will carry fish from the ocean to their young several times a day.

Answers: protect themselves: wandering salamanders, pill bugs/roly-polies;
food & water: wandering salamanders, Humboldt flying squirrels, northern spotted owls, marbled murrelets;
get oxygen (air): pill bugs/roly-polies, wandering salamanders;
shelter: Humboldt flying squirrels, northern spotted owls, marbled murrelets

Making New Trees

All living things make new living things (reproduce). Match the coast redwood reproduction description to the correct image.

1. A mature coast redwood makes up to 100,000 small **cones** in a year. Each cone is about an inch long (2.5 cm) and has 50 to 100 tiny seeds (about the size of tomato seeds). Few of its seeds ever grow into new trees because the dense forest is too dark and crowded.
2. Most coast redwoods reproduce by **stump sprouts** growing out of large outgrowths on the tree trunk called **burls**. When a coast redwood tree is stressed by fire, drought, wind or human activity, the burl sends out shoots that are copies of the parent tree!
3. If these burls grow all around the tree, and the parent tree dies, the remaining circle of trees is called a **fairy ring**.



Answers: 1-C, 2-B, 3-A