Odd Couples

by Lee Lamb

You know the movie *Finding Nemo.* Nemo, a clown fish, lives in a sea anemone with his dad. In the real world, clown fish choose anemones for their homes because the stinging tentacles protect the clowns (who are immune to their poison) from other fish. In turn, clown fish clean the anemone's tentacles. They also fiercely defend their home, helping protect their anemone. When animals or plants join forces to find food, shelter, transportation or protection, scientists call it symbiosis (sim-bee-oh-sis).

Give A Little, Get a Little

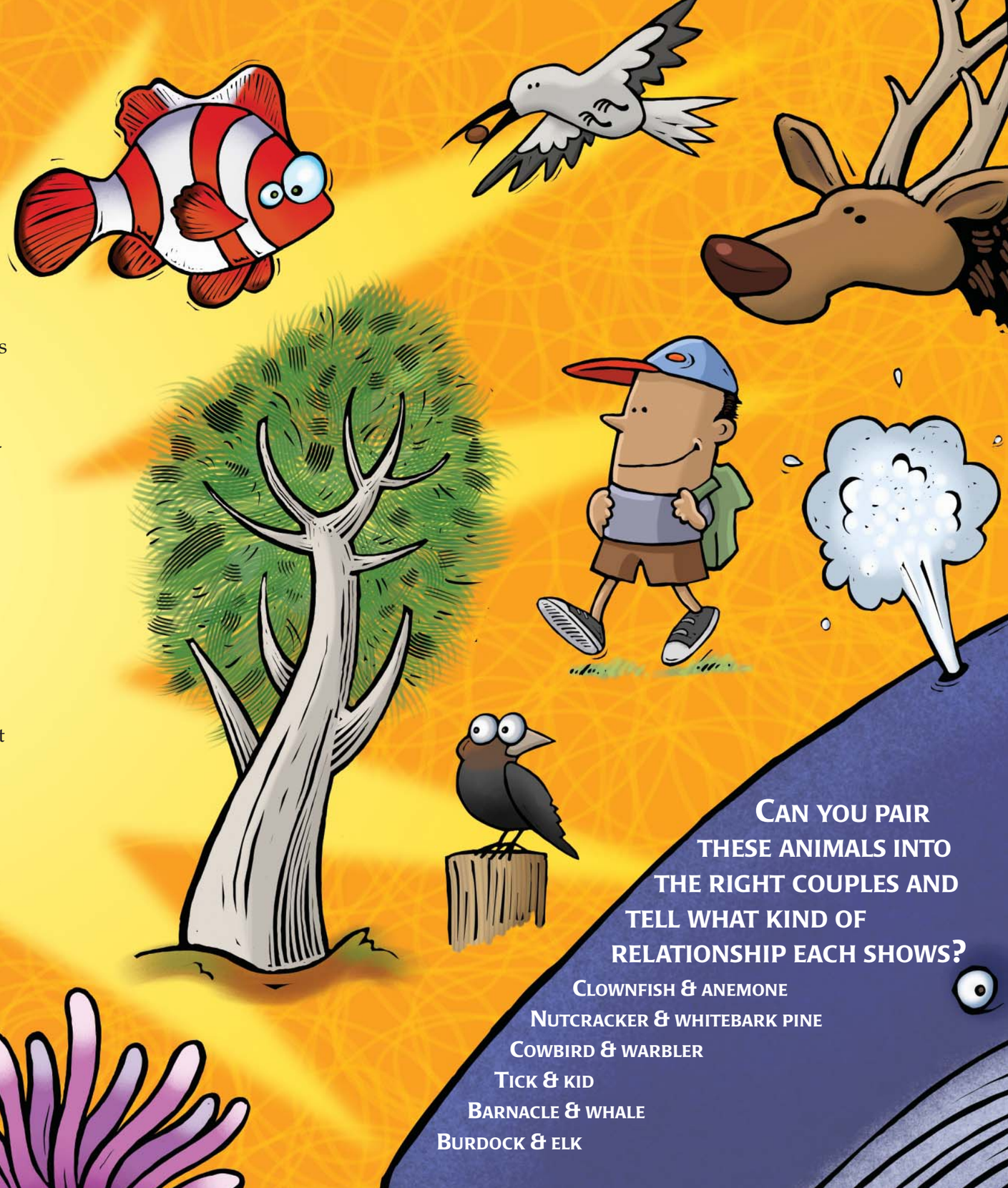
The partnership between clown fish and anemones is called mutualism (myoo-choo-uh-liz-um), meaning both species help each other. You can find examples of it from the sea floor to the peaks of the Rockies. High in elk country, Clark's nutcrackers work together with whitebark pines. In the summer, the birds gather thousands of whitebark seeds and cache (store) them in the soil. Nutcrackers feast on the seeds through the winter, but they never find them all. Come spring, the leftovers sprout into seedlings.

Nature's Bullies

Have you ever found a deer tick on your body? These hungry little bloodsuckers can carry bacteria that cause Lyme disease. It feels like the flu and can make you very sick if you don't see a doctor. When a partnership helps one species but harms another it's called parasitism (par-a-sit-iz-um). Instead of building their own nest, brown-headed cowbirds lay an egg in the nests of smaller birds like warblers. Cowbird chicks hatch first and grow fast, quickly outcompeting nest-mates for food, and often kicking them out!

Hitchin' a Ride

Commensalism (com-en-sa-liz-um) helps one partner while neither helping nor harming the other. Barnacles can't swim, but attach themselves to fish, turtles and whales. Hitching a ride takes barnacles to the best food in the briny blue, while doing no harm to their taxi cabs. Burdock seeds have hooked spines (burs) that stick to the hair of animals—and your socks! These seeds may be a little aggravating but do no real harm. And like accidental Johnny Appleseeds, elk carry them in their hair and drop them all around, helping the plant spread.



Can you pair these animals into the right couples and tell what kind of relationship each shows?

- Clownfish & anemone
- Nutcracker & whitebark pine
- Cowbird & warbler
- Tick & kid
- Barnacle & whale
- Burdock & elk

illustration by Peter Grosshauser