

KNOW NEWS

BECAUSE KNOW NEWS IS GOOD NEWS

The Buzz on Bees

by Buffy Silverman

You enter your classroom and see twenty faces. It's easy for you to recognize each of your classmates. People are not the only ones who remember a familiar face though. Scientists have learned that honeybees can recognize human faces, too.

Australian biologist Adrian Dyer used a sugary treat to teach bees to recognize a person's face. He showed bees pictures of two different faces. Below one face was a tasty sugary liquid. Below the other face was a liquid that bees dislike. The bees learned to fly to the face where they got the sweet treat.

When Dyer stopped feeding the bees, they still came to the "sweet" face. Then he showed the bees a picture they had not seen before. Instead of visiting the stranger's face, the bees flew to the face they recognized, looking for a sweet reward.

People once thought only animals with big brains could recognize a human face. Honeybees proved them wrong — and that's something to buzz about!

This is how scientists think a human face looks to a bee. Instead of one lens per eye, like you have, bees have up to 7000 "facets", each with its own lens.



Jumping for Blood

by Mireille Messier

What has eight legs, jumps, and likes to drink human blood? It's not four vampires doing the bunny hop! It's the East African jumping spider.

Scientists from New Zealand and Kenya found that when these spiders were given the choice between any type of food and a mosquito full of human blood, they picked the blood-filled mosquito almost every time.

The East African jumping spider is the only animal known that chooses its food (its prey) according to what *the prey* has eaten. (It's like you

deciding to eat a fish because you think what is in its tummy will be yummy.) But you don't have to worry about these little spiders coming after you. The tiny East African jumping

spider doesn't have a mouth strong enough to break human skin. Instead, it has to wait until it finds a small and easy-to-eat mosquito full of human blood to satisfy its craving.



Courtesy Dr. Robert Jackson

Fish With Chips

by Adrienne Mason

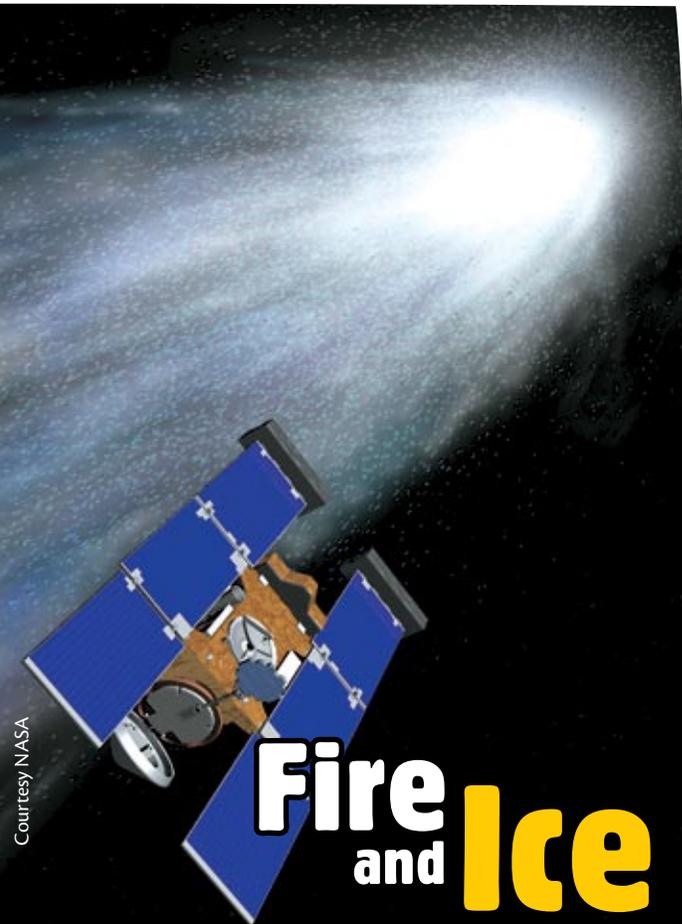
The "fish with chips" project is part of the Census of Marine Life. In the census, scientists from 73 countries, including Canada and the United States, are surveying life in the world's oceans.

Scientists have found that fish with chips in their bellies are super swimmers. These chips aren't french fries, though. They are small electronic tags, about the size of an almond, that have been stitched inside the fishes' bellies.

For years, scientists wondered where fish travelled in the Pacific Ocean. Now, by using these chips, scientists can track the movement of salmon, tuna, sharks, and even turtles and sea lions. The chips send signals to receivers on the ocean floor. (The signals are scanned when the animals swim over the receiver, just as groceries are scanned at a store.) Scientists use this information to map the animals' movements and find out how well they survive.

The results have been surprising. Scientists have found that young salmon the length of your pointer finger swim up to 35 kilometres a day and bluefin tuna swim up to 40,000 kilometres (the distance around the world!) in 600 days.

By better understanding where ocean animals travel, scientists can help to protect them *and* the places they live. You can see how the animals are tracked at www.postcoml.org/videos/how_it_works.htm



Fire and Ice

by Buffy Silverman

How far would you travel for a spoonful of dust? NASA's *Stardust* spacecraft travelled almost five billion kilometres to collect some special dust from the comet Wild 2.

It took *Stardust* five years to reach Wild 2. *Stardust* trapped the dust using a tennis-racket-shaped collector, which held a substance called "aerogel". In January 2006, a capsule carrying the dust separated from *Stardust* and returned to Earth where it landed in a desert in Utah, USA.

Comets cruise around the outer edge of the solar system where it is very cold. Comets were always thought to be clouds of ice, dust, and gas. But scientists studying the dust from Wild 2 found a surprise. Some of the minerals captured by *Stardust* were formed where it is very hot. In fact, they might have formed near the Sun.

So far, we don't know how these super-heated dust particles reached the coldest part of the solar system. That's a hot question for some cool scientists of the future to answer.

Tasty Tattoos

by Mireille Messier

Those pesky little stickers on fruits and vegetables are enough to drive you mad! They are hard to remove, leave nasty glue on your healthy snack, stick to your fingers, and, sometimes, you even end up biting into one. Gross!

Soon, labels on produce (fruit and vegetables) could be a thing of the past. Greg Drouillard, from Windsor, Ontario, has come up with a way to "tattoo" fruit. He uses a strong beam of light, called a laser, to carve information into the thin top layer of produce. The tattoo might include where the fruits or veggies came from and when they were picked.

These tasty tattoos are completely edible, don't damage the food, and are kind to the environment since they don't use glue, plastic, paper, or ink. So keep your eyes peeled—you may be eating labels soon!



Mind Games

by Dianne Young

As big as a house,
as small as a bug,
and yet we weigh the same.

We're always dark,
but we need light,
so can you guess our name?

Answer on page 31.



Courtesy NASA

Courtesy Greg Drouillard

Sam Logan