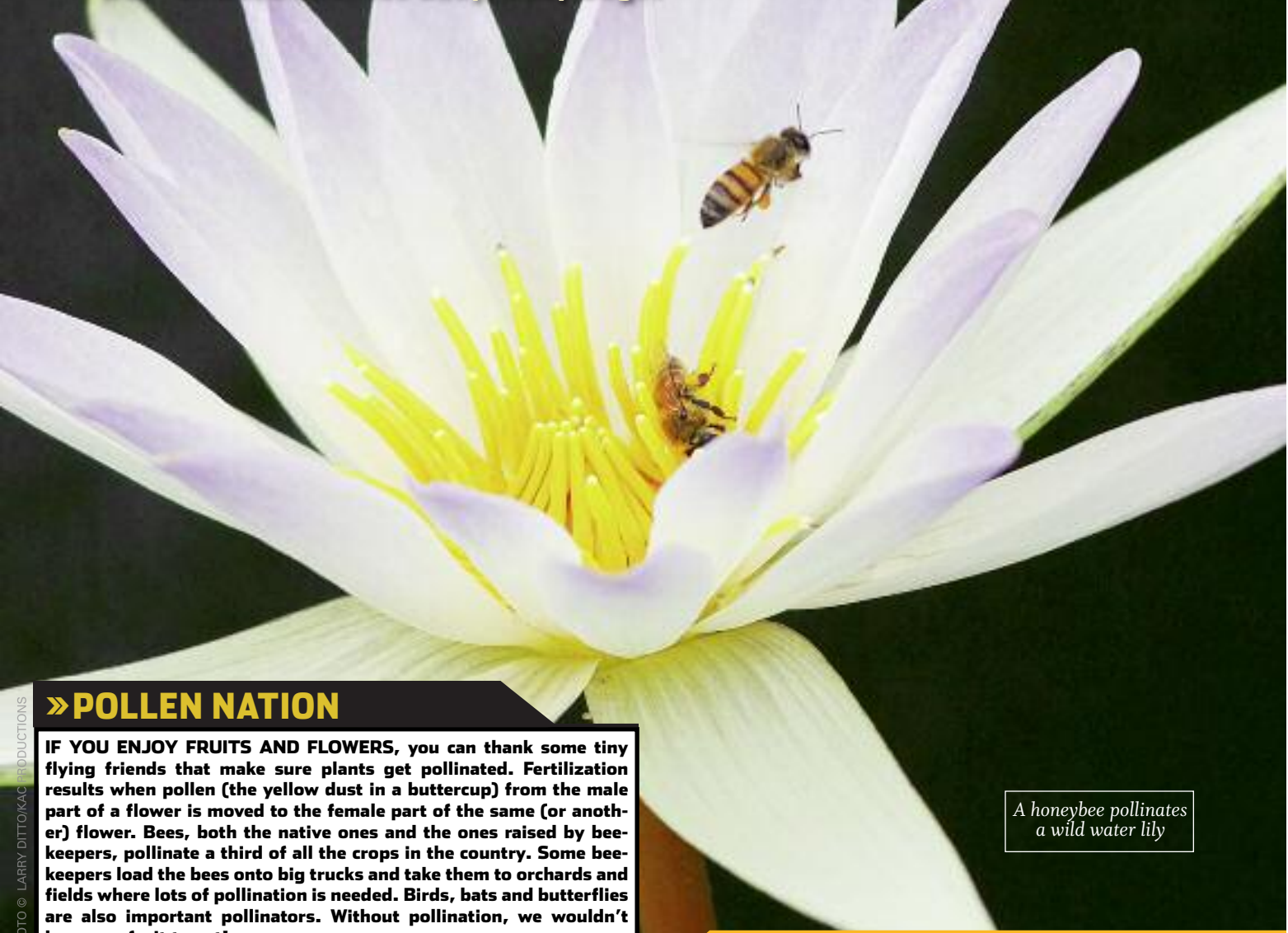


Keep Texas Wild



WHAT'S THE BUZZZZZZ?

'Bee' amazed at these busy, busy bugs!



» POLLEN NATION

IF YOU ENJOY FRUITS AND FLOWERS, you can thank some tiny flying friends that make sure plants get pollinated. Fertilization results when pollen (the yellow dust in a buttercup) from the male part of a flower is moved to the female part of the same (or another) flower. Bees, both the native ones and the ones raised by beekeepers, pollinate a third of all the crops in the country. Some beekeepers load the bees onto big trucks and take them to orchards and fields where lots of pollination is needed. Birds, bats and butterflies are also important pollinators. Without pollination, we wouldn't have any fruit to eat!

A honeybee pollinates a wild water lily

» IT'S A HONEY OF A JOB!

So many pollen-filled flowers, so little time!

Bees collect nectar from flowering plants and bring it to the hive.

OOPS, I POLLINATED!

While bees work hard to gather pollen, some flying creatures do it accidentally. Many butterflies and birds drink nectar from flowers, and carry along the pollen that happens to stick to them when they visit more flowers. Sometimes even the wind can be a pollinator.

Honey is stored in the honeycomb. Bees make the honeycomb from beeswax, a product made by the worker bees. Each honeycomb is made with hexagonal shapes, each with six sides.

After the honeycomb is full, the bees fan their wings inside the hive, using the breeze they create to evaporate the water from the honey. This makes the honey thicker and sweeter.

Bees use a sticky brown gum called propolis to seal the cracks in the hive. The bees gather propolis from trees and buds near the hive.

» It's Not Easy Being Queen

Becoming the queen bee is almost like a fairy tale. In each hive or colony of thousands of bees, only one is chosen to be queen. She develops into a queen by eating royal jelly, made from pollen plus a special substance that comes from the younger worker bees. While the queen is surrounded by female workers who take care of her every need, her only job is to lay eggs. She can lay up to 3,000 eggs every day in the spring. And the male bees? Called drones, their only job is to mate with the queen!



Inside the hive the bees use their honey stomachs to partially digest

the honey, spit it up, then swallow it and digest it some more.

» Where Did the Bees Go?

During the past few years, there has been a large decrease in the number of bees. When beekeepers drove their trucks to fields of fruit trees, the honeybees left to do their job, but many never came back. No one knows exactly why this is happening. Scientists think it could be due to disease, a pest like mites, or something manmade, like pesticides or products used by the beekeepers. There is a new name for this phenomenon — colony collapse disorder.



Spike's Activity Page



>> WILD MATH

An average honeybee hive can be home to between 12,000 and 50,000 bees. Only about 2 percent of the entire hive is made up of male bees, called "drones." In a hive of 50,000 bees, approximately how many are male? How many are female? What about in a hive of 40,000?

PHOTO © GREG LASLEY/KAC PRODUCTIONS



>> KEEPING IT WILD

Honeybees communicate with each other by dancing. When the worker bee discovers a good nectar source far from the hive, she does the "waggle" dance on the honeycomb. The "round" dance is used for close-by nectar sources.



The other bees gather around to watch and find out the latest news. The length of the dance shows how far away the floral

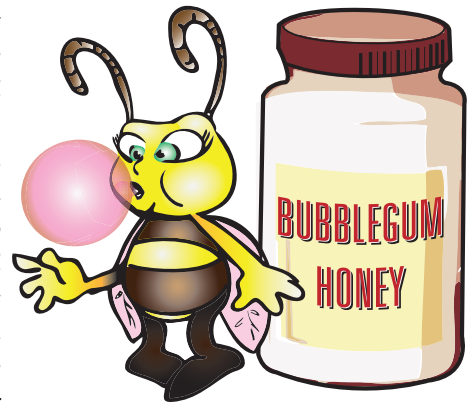
patch is. Her dance also shows the direction of the patch, and she adds a

special shake when more for-

agers are needed. If more bees are needed to make honey, she does a "tremble" dance. Pretend you are a honeybee, and make up your own ways of doing the "bee boogie" to communicate specific messages to the other bees.

>> WILD SCIENCE

Honey can have different flavors depending on the source of the nectar and pollen gathered. Orange, clover and buckwheat are a few different flowers often used to make honey. Go to the grocery store and choose four different kinds of honey to test. Make a chart and record the viscosity (thickness), color and taste of each. Can you guess what kinds of flowers were used to make it? Check your guesses with the information on the labels.



NEXT MONTH: Bird Migration

TEACHER RESOURCE

Visit www.tpwmagazine.com to download a printable PDF, access lesson plans, find additional resources or order copies.

PHOTO © JOE NUSSBAUMER