## Take the Mosquito Quiz

Inspired by *The Mosquito Brothers* by written by Griffin Ondaatje, illustrated by Erica Salcedo

## **HOW MUCH DO YOU KNOW ABOUT MOSQUITOES?**

Take this True or False quiz and find out!

1. A mosquito can detect human breath in total darkness from a distance of more than 100 feet.

True / False

2. Mosquitoes are one of the slowest flying insects in the world.

True / False

3. The word mosquito comes from the Icelandic language.

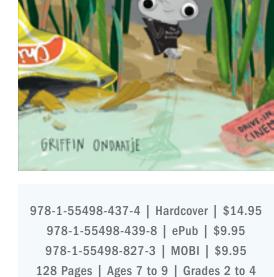
True / False

- **4.** The official noun for a group of mosquitoes is *horde*. True / False
- 5. A flying mosquito beats its wings up to 600 times per second.

True / False

- **6. Mosquitoes live on all seven of the world's continents.** True / False
- 7. A single raindrop can weigh fifty times more than a mosquito.

True / False



8. Both male and female mosquitoes bite.

True / False

9. During World War II, a new species of mosquito evolved in the London underground subway system.

True / False

10. Many scientists consider mosquitoes to be the most dangerous creatures on the planet. True / False

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## **ANSWERS**

1. A mosquito can detect human breath in total darkness from a distance of more than 100 feet.

True.

Mosquitoes can sense the heat and humidity surrounding our bodies. They are attracted to the carbon dioxide in human breath and to lactic acid, which we release when we sweat. So we are especially attractive to mosquitoes when we are active, and breathing and sweating more than usual.

### Source:

www.todaysparent.com/family/family-health/mosquito-bite-safety

2. Mosquitoes are one of the slowest flying insects in the world.

True.

Mosquitoes fly at an average speed of 1.5 miles per hour — about ten times the walking speed of a Galapagos tortoise, or roughly half the average walking speed of humans. Yet insects such as dragonflies can fly up to 35 miles per hour.

### Sources:

www.si.edu/Encyclopedia SI/nmnh/buginfo/incredbugs.htm www.animals.sandiegozoo.org/animals/turtle-tortoise

3. The word mosquito comes from the Icelandic language.

False.

According to the Merriam-Webster dictionary, the word mosquito comes from the Spanish, the diminutive of mosca (fly). The first known use of the word mosquito is thought to have occurred in North America in the late sixteenth century.

### Sources:

www.merriam-webster.com/dictionary/mosquito www.mosquito.org/mosquito-info

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4. The official noun for a group of mosquitoes is horde.

False.

A swarm of mosquitoes can also be called by the official collective noun, scourge.

#### Source:

A Compendium of Collective Nouns: From an Armory of Aardvarks to a Zeal of Zebras by Woop Studios. San Francisco: Chronicle, 2013.

5. A flying mosquito beats its wings up to 600 times per second.

True.

Even though mosquitoes are exceptionally slow flyers, they flap their tiny wings as fast as they can. Mosquito wings beat 400 to 600 beats per second (on average). That is more than twice as fast as a hummingbird (whose wings beat up to 200 times a second).

#### Source:

www.pbs.org/wnet/nature/episodes/hummingbirds-magic-in-the-air/introduction/5424

6. Mosquitoes live on all seven of the world's continents.

False.

Mosquitoes can be found in Australia, Africa, Europe, Asia, North America and South America, but not on the continent of Antarctica.

There more than 3,000 species of mosquitoes in the world. Brazil has more than any other country (447 species). Great Britain is home to only 33 species.

There are about 175 mosquito species in the United States. Texas has more than any other state — about 85 species. In all of Canada there are only about 82 species. However, entomologist Richard Jones suggests that because of all its wetlands, lakes, rivers and marshes, Canada "makes a good claim to being the most mosquito-ridden country in the world."

#### Sources:

www.mosquito.org/mosquito-info

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www.mosquitocatalog.org/files/pdfs/MQ0287.pdf

Mosquito by Richard Jones. London: Reaktion Books, 2012.

## 7. A single raindrop can weigh fifty times more than a mosquito.

True.

Even though mosquitoes live in humid areas with high rainfall, high-speed videography has shown that they have a unique way of coping with rainstorms: "A mosquito's strong exoskeleton and low mass renders it impervious to falling drops. The mosquito's low mass causes raindrops to lose little momentum upon impact and so impart correspondingly low forces to the mosquitoes." In other words, as long as a mosquito isn't flying too low, it should be able to detach itself from the raindrop (after a thousandth of a second) before the raindrop hits the ground.

### Sources:

www.npr.org/2012/06/05/154300189/splish-splat-why-raindrops-dont-kill-mosquitoes www.pnas.org/content/109/25/9822.abstract

<u>blogs.scientificamerican.com/observations/2012/06/04/how-the-mosquito-survives-a-randrop-collision</u>

## 8. Both male and female mosquitoes bite.

False.

Only female mosquitoes require a blood meal, so only females bite animals — warm- or cold-blooded — including birds. Females will be drawn to blood feeding by a combination of carbon dioxide, temperature, moisture, smell, color and movement.

In the Arctic, thick clouds of mosquitoes feed on caribou herds. The swarms can consume about a cup of blood a day from a single animal. Caribou have been known to suffocate from inhaling mosquitoes. They can also run off cliffs or submerge themselves in pools of water for hours to escape blood-thirsty mosquitoes.

#### Sources:

www.mosquito.org/biology

www.nature.com/news/2010/100721/full/466432a.html

www.mosquito.org/an-america-without-mosq-ctrl

Alaska by Traveler T. Terpening. Chalfont St. Peter: Bradt Travel Guides, 2010.

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9. During World War II, a new species of mosquito evolved in the London underground subway system.

True.

Known as the London Underground Mosquito (Culex pipiens), this mosquito became a powerful nuisance during the Second World War, attacking Londoners seeking shelter from German bombing in the underground railway tunnels.

#### Sources:

*Bugs Britannica* by Peter Marren and Richard Mabey. London: Chatto and Windus, 2012. <a href="https://www.nature.com/hdy/journal/v82/n1/full/6884120a.html">www.nature.com/hdy/journal/v82/n1/full/6884120a.html</a>

10. Many scientists consider mosquitoes to be the most dangerous creatures on the planet.

True.

Mosquitoes, and the viruses and parasites they carry, kill more humans than any other animal. Malaria, a mosquito-borne disease, affects hundreds of millions of people every year, and kills approximately half a million people. On April 25, World Malaria Day draws attention to the world's continued efforts to control this disease.

### Sources:

www.todaysparent.com/family/family-health/mosquito-bite-safety
www.smithsonianmag.com/smart-news/mosquitoes-kill-more-humans-humanmurderers-do-180951272/?no-ist
www.ted.com/talks/hadyn\_parry\_re\_engineering\_mosquitos\_to\_fight\_disease

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## FOR MORE INFORMATION

## **American Mosquito Control Association**

Includes fun facts and frequently asked questions.

www.mosquito.org

## Biokids: Kids' Inquiry of Diverse Species

Critter Catalog

University of Michigan

Answers basic questions about mosquitoes and their role in the ecosystem.

www.biokids.umich.edu/critters/Culicidae

### **BugInfo**

**Smithsonian Institution** 

Incredible facts about various insects (Most Annoying, Most Destructive), including mosquitoes.

www.si.edu/Encyclopedia SI/nmnh/buginfo/incredbugs.htm

#### Gatesnotes

Bill Gates, whose foundation works to fight malaria, blogs about the world's deadliest animal.

www.gatesnotes.com/Health/Most-Lethal-Animal-Mosquito-Week

### Hinterland Who's Who

Canadian Wildlife Federation

Features descriptions of wildlife, discussions on the issues and the actions one can take to help wildlife.

www.hww.ca/en/species/insects/mosquito.html

#### **TED Talks**

"Re-engineering Mosquitoes to Fight Disease"

Hadyn Parry TED Talk, Fall 2012

A London biotechnologist describes a company that has created mosquito factories to produce sterile male mosquitoes. Released into the wild, they mate with disease-carrying female mosquitoes that are then unable to reproduce and spread diseases such as dengue. <a href="https://www.ted.com/talks/hadyn\_parry\_re\_engineering\_mosquitos\_to\_fight\_disease">www.ted.com/talks/hadyn\_parry\_re\_engineering\_mosquitos\_to\_fight\_disease</a>

## **World Malaria Day**

Provides statistics and the latest news about the ongoing fight against this disease. <a href="https://www.worldmalariaday.org">www.worldmalariaday.org</a>

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## 14 Not-So-Fun Facts About Mosquitoes

**Smithsonian Institution** 

Includes tips for dealing with pesky mosquitoes.

 $\underline{www.smithsonianmag.com/science-nature/14-not-so-fun-facts-about-mosquitoes-36242998/?no-ist}$