

# Catching Air

Taking the Leap with Gliding Animals

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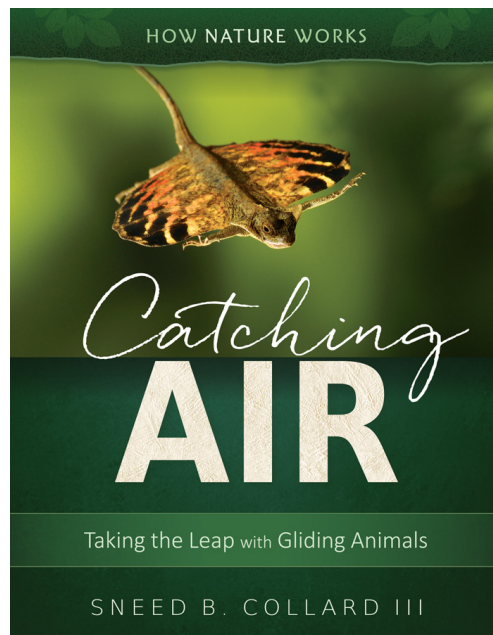
9 x 10, 48 pages, color photos throughout

Grades 3-7

Fountas & Pinnell Level R

## Summary

Only a few dozen vertebrate animals have evolved true gliding abilities, but they include an astonishing variety of mammals, reptiles, and amphibians. North America's flying squirrels and Australia's sugar gliders notwithstanding, the vast majority of them live in rainforests. Illustrated with arresting photographs, *Catching Air* takes us around the world to meet these animals, learn why so many gliders live in Southeast Asia, and find out why this gravity-defying ability has evolved in Draco lizards, snakes, and frogs as well as mammals.



This book will lead to discussions about

- Why do gliders stop short of flying?
- How did bats make that final leap?
- How did *Homo sapiens* bypass evolution to glide via wingsuits and hang gliders—or is that evolution in another guise?

## Access Prior Knowledge

- Can you fly? Why not?
- How would it be useful if you could fly?

## After You Read

1. Why don't more animals fly?
2. A lot of animals fly. A lot don't. Only a few live "in-between" by gliding. Why do you think that is?

3. Can humans fly? Why would it be dangerous for a person to try to glide or fly out of a tree or off a roof?
4. Do you think that any kind of animal could evolve to glide? Could a worm? Could a crab? Could an elephant? Could a human?
5. How do scientists learn about animals from the past? Do you think we have already discovered everything there is to know?

## Activities

1. Divide into two groups. Go outside. Have one group count non-flying animals. Have the other count flying animals. Compare results, and ask what the results tell you about the value of flying. Also ask, “How many gliding animals did you see?” Ask them to think about why they didn’t see any.
2. Ask students what they would do with gliding abilities if they had them. Given where they live and what they know about gliding, would gliding be useful in their habitat? (i.e. in a desert subdivision, few tall buildings, in New York City)
3. Create a new gliding animal and draw a picture of it. Explain which features help it to glide. Be sure to explain where it lives and why gliding is important.
4. In the playground, spread your arms and run as fast as you can. Were you able to fly or glide off the ground? Now try the same thing but this time flap your arms. Did that help? Write down why this did or didn’t work. Share your observations.

## For Further Discussion

Are there some places on earth we should protect to conserve glider habitats? Southeast Asian rainforests? Habitats for North American flying squirrels?

## Internet Resources

You may find the following Internet resources helpful as your students continue to explore the topic of gliders from *Catching Air*.

<http://seasianrainforests.wikispaces.com/>

<https://green.blogs.nytimes.com/2011/10/24/disposable-chopsticks-strip-asian-forests/>

<http://www.wildlifegardeners.org/forum/habitat/12715-how-build-flying-squirrel-nest-box.html>

## For Further Reading

*Wings* by Sneed B. Collard III. Published by Charlesbridge Publishing, 2008.

*Digging for Bird Dinosaurs* by Nic Bishop. Published by Houghton Mifflin, 2000.