



This bullfrog is not facing you, but it can see you.

Transparent inner eyelids, called nictitating membranes, protect frog eyes underwater while still allowing them to see.

A frog's large eardrums are called tympanic membranes.



When swallowing prey, a frog can lower one or both eyeballs. This helps push the food down its throat.

A frog's head is wide to accommodate a huge mouth. Frogs swallow food whole. Large external eardrums provide excellent hearing, alerting a frog to the sounds of approaching danger. And big eyeballs give a frog a 360-degree view of the world.

In many species of frogs, you can tell females from males by the size of their eardrums. If the eardrum is smaller than the eye, the frog is a female. If it is larger than the eye, the frog is a male. In every other way, male and female frogs look alike.



CLUCK CLUCK

call of the wood frog

CROAK

call of the pickerel frog

BARK

call of the barking frog



two vocal sacs inflated

Only male frogs make sounds. They call to attract female frogs. Frogs produce sounds by inflating vocal sacs in their throats and vibrating the air as they slowly let it out. Some species inflate one large vocal sac. Others inflate two small vocal sacs.



single vocal sac inflated

spring peeper calling

PEEP
PEEP
PEEP

call of the spring peeper

GRUNT
GRUNT

call of the pig frog

PLUNK

call of the green frog

KER RR ROCK

call of the leopard frog

The sound each species of frog makes when calling is as distinctive as the species color and markings.

JUG-O-RUM

call of the bullfrog



CHIRP
CHIRP
CHIRP

call of the chorus frog

TRILL L L L L L L L L L L

call of the gray tree frog

After mating with male frogs, female frogs deposit their eggs in water. The eggs develop and hatch into tiny tadpoles. Limbless and lungless, the tadpoles live entirely underwater.

bullfrog eggs shown
actual size

tadpole hatching

Tadpoles feed mostly
on nutrient-rich algae.

dorsal fin

tail

gill for breathing
underwater

limb bud



Through a process called metamorphosis, tadpoles slowly sprout limbs, develop lungs, and eventually become frogs.

Depending on the species, tadpoles grow to be two, three, or in the case of bullfrog tadpoles, a whopping six inches long, in just a matter of weeks.

Finally, a frog emerges from the water. It still has a short tail. When the tail has been completely absorbed by the frog's body, the metamorphosis is complete.



When the lungs are fully developed, the frog can breathe air.

At six weeks, limbs sprout.

Soon after, the mouth widens.

At twelve weeks, the eyes begin to bulge.

The tail shrinks.



Small and medium-size frogs eat mostly insects, which they snap up with their sticky tongues. The silhouettes on this page show some of the insects frogs eat.



moths



mayflies



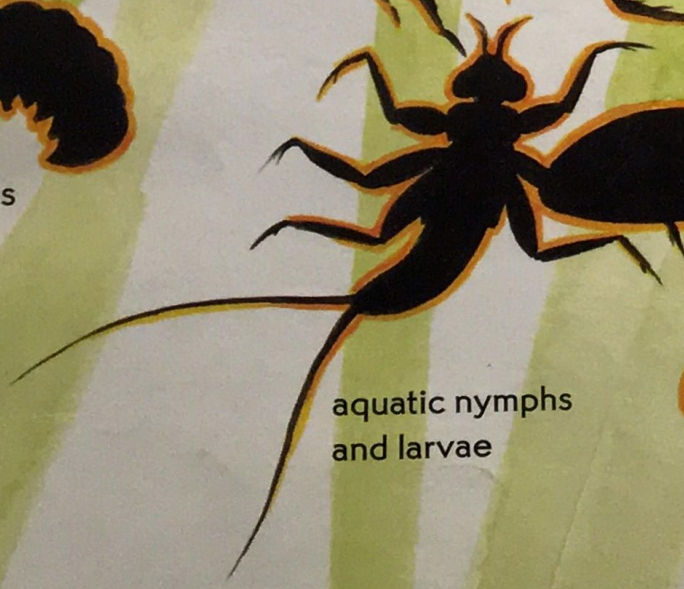
dragonflies



grasshoppers



grubs



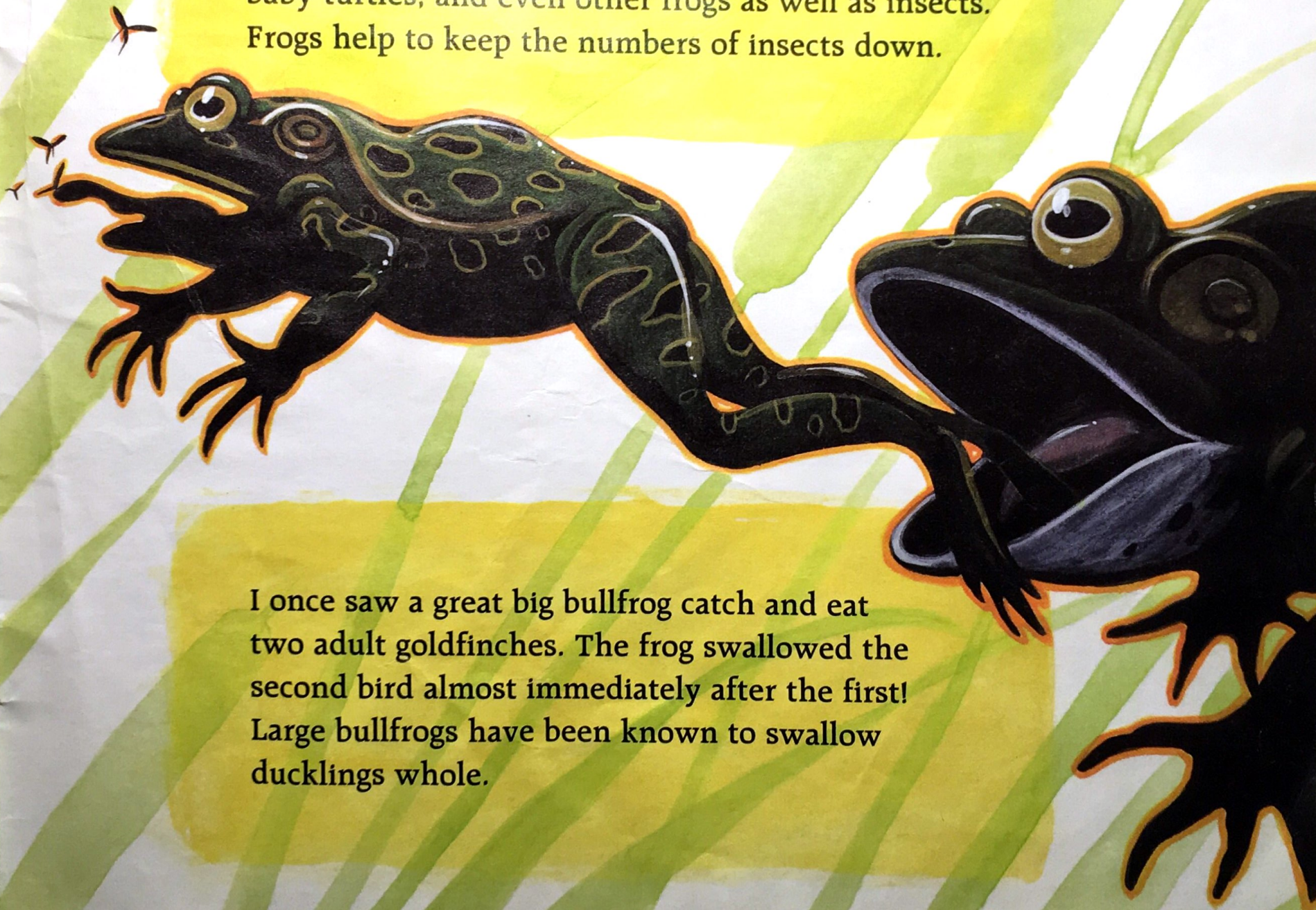
aquatic nymphs and larvae

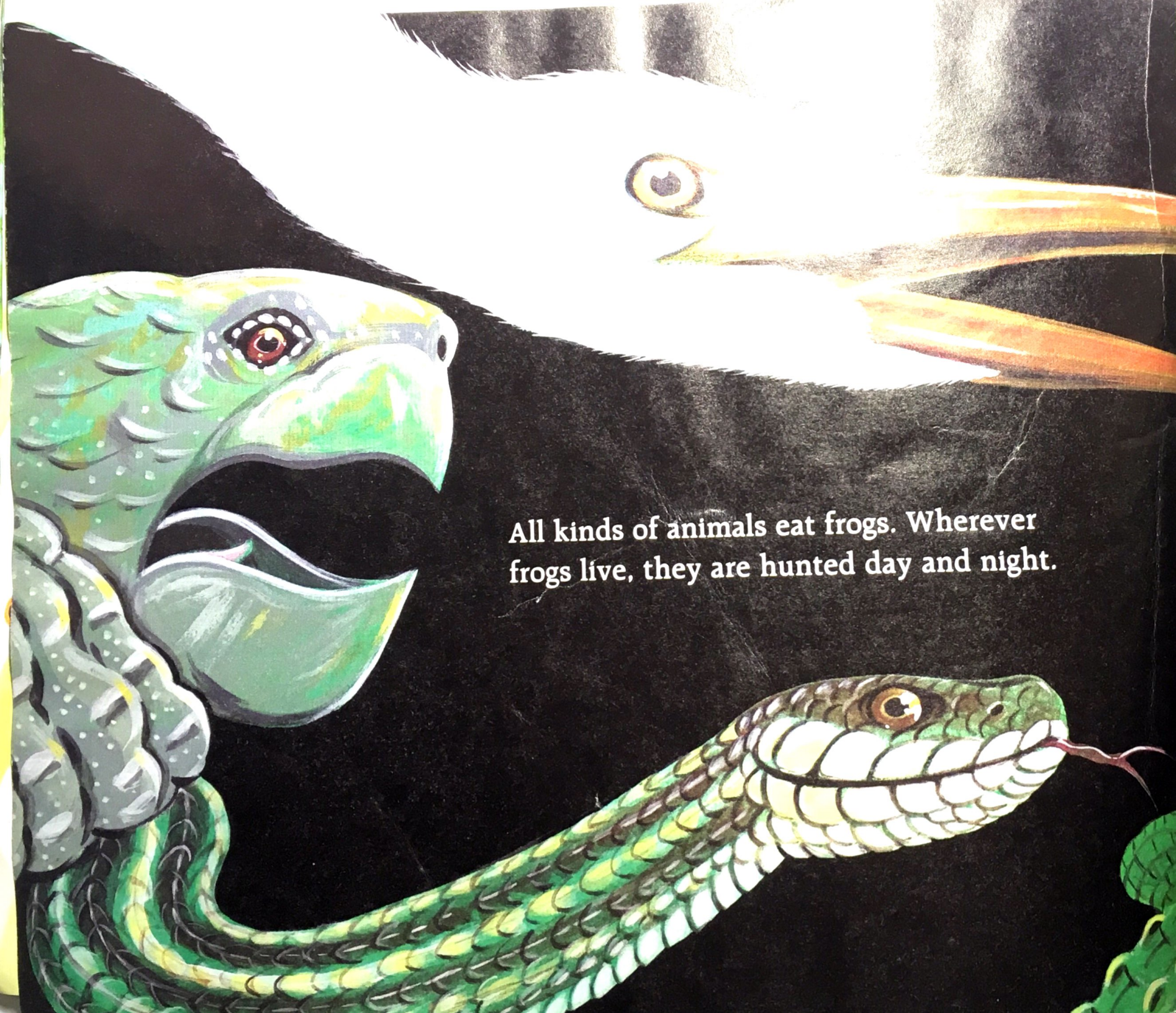


worms

Large frogs eat worms, small snakes, fish, mice, baby turtles, and even other frogs as well as insects. Frogs help to keep the numbers of insects down.

I once saw a great big bullfrog catch and eat two adult goldfinches. The frog swallowed the second bird almost immediately after the first! Large bullfrogs have been known to swallow ducklings whole.





All kinds of animals eat frogs. Wherever frogs live, they are hunted day and night.

So many different birds, reptiles, fish, and mammals catch and eat frogs—it is amazing that frogs survive the pressure . . .



but they do.

In the natural order of things, frogs can take care of themselves. But frogs cannot avoid or escape environmental dangers such as water pollution and the loss of wetland habitats.

