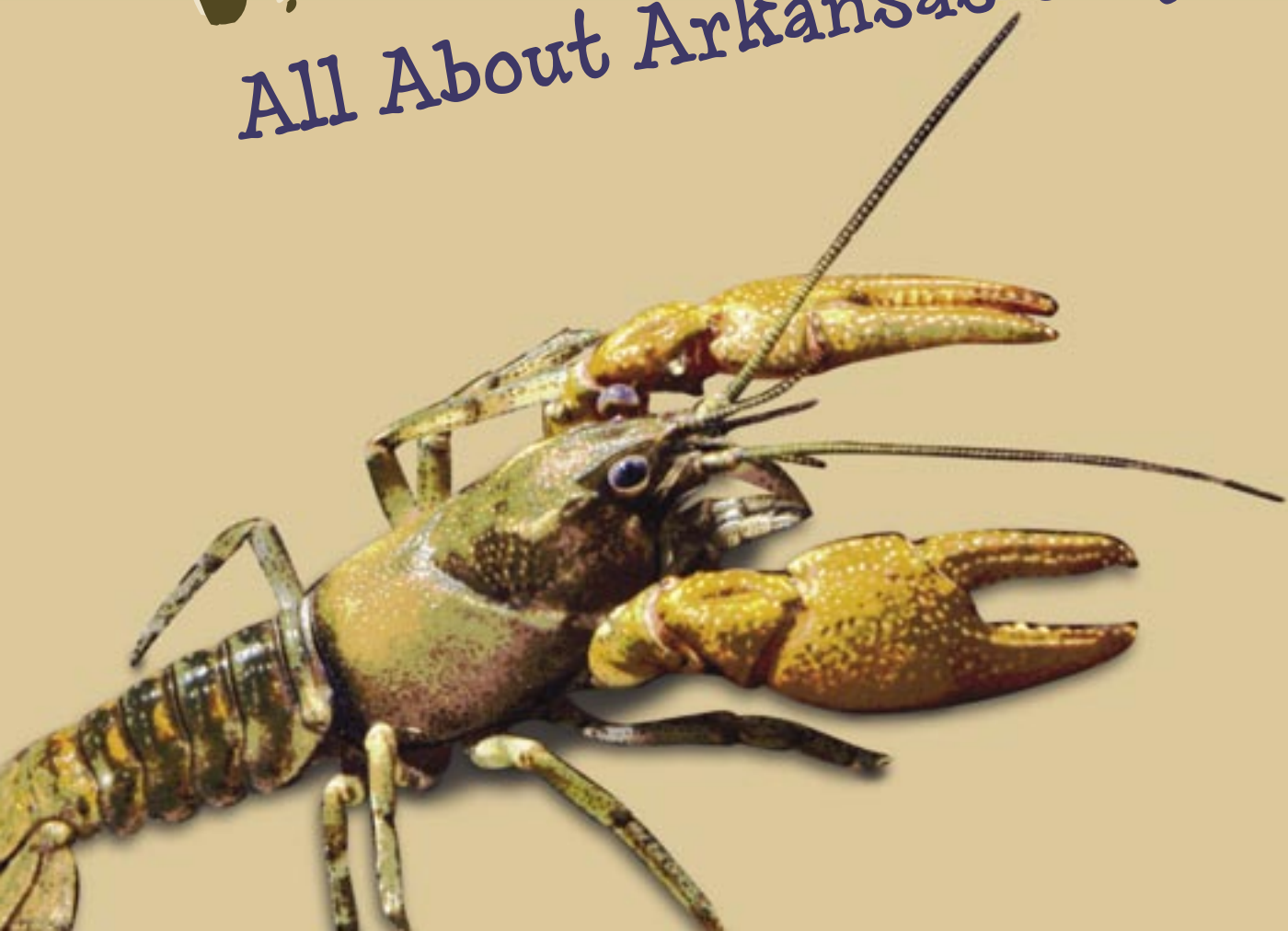




# Mud Bugs

All About Arkansas Crayfish



# MUD BUGS

**Brian Wagner**

Nongame Aquatics Biologist

**Andrea Daniel**

Fisheries Staff Biologist

**Marilyn Doran**

Fred Berry Conservation Education Center  
Facility Manager

**April Layher**

Aquatic Education Specialist

**Randy Zellers**

Editor

**Angela Sanchez**

Designer and Illustrator

Special thanks to **Chris Lukhaup** for his photography contributions to this book and its companion poster.

Thanks to **Henry Robison**, professor of biology at Southern Arkansas University, for his assistance.



**Keeping the Natural State natural.**

Summer 2007

I'm Fat Crawdaddy, the baddest bug  
in the bayou.

I'm the toughest crayfish to swim  
a stream –



What's that you say? You don't know what a crayfish is?  
Well let me tell you a little about my family and me.

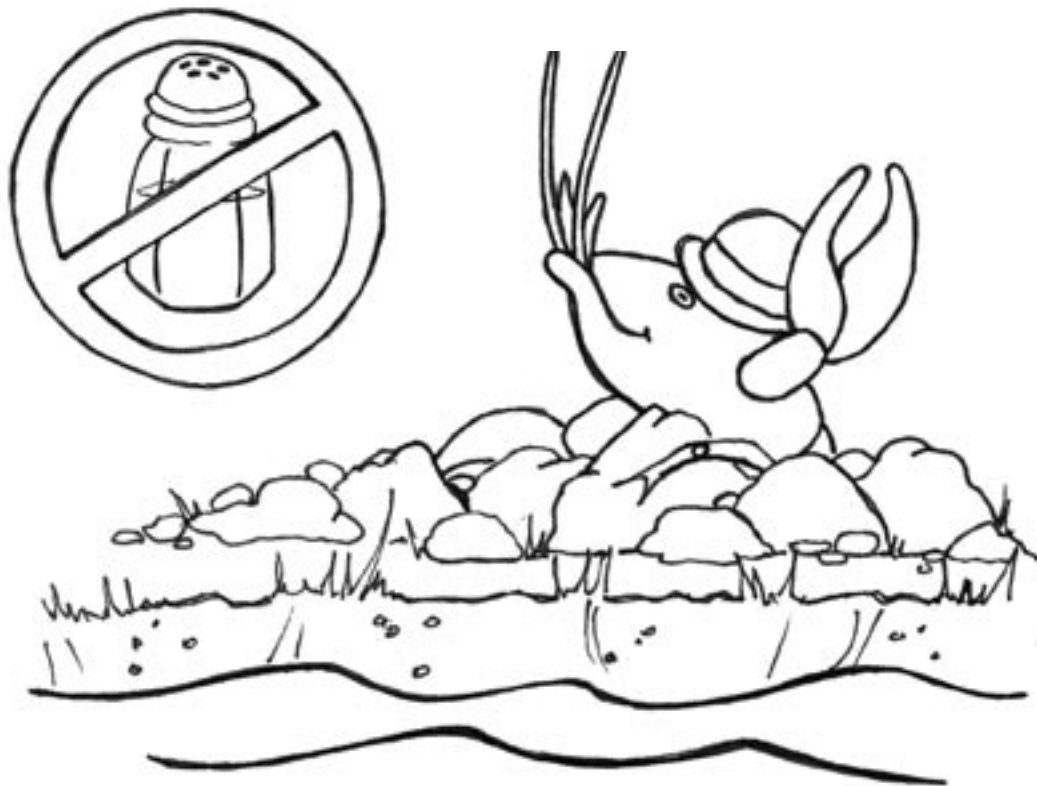


Crayfish have many names.  
Some people call us crawdads,  
crawfish and mud bugs.



Crayfish are a type of crustacean (pronounced kruh-stay-shun). Crustaceans live in or near water and have a tough, armor-like shell called an “exoskeleton” for protection.

Crabs and lobsters also are crustaceans, but they live in the ocean. Crayfish don't like salty water. We live in fresh water. Crayfish can be found at your favorite lake, stream or pond.



# WORD SCRAMBLE

The words below are all names of places crayfish might call home. Once you've unscrambled the words, use the circled letters to complete the puzzle. Can you help Fat Crawdaddy choose a place to live?

VACE

—    — —

OUBAY

   — — — —

WAMPS

— — — — —

DONP

— — — —

ERRIV

—    — — — —

CITHD

— —    — —

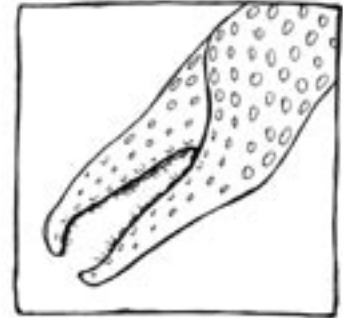
KALE

—    — —

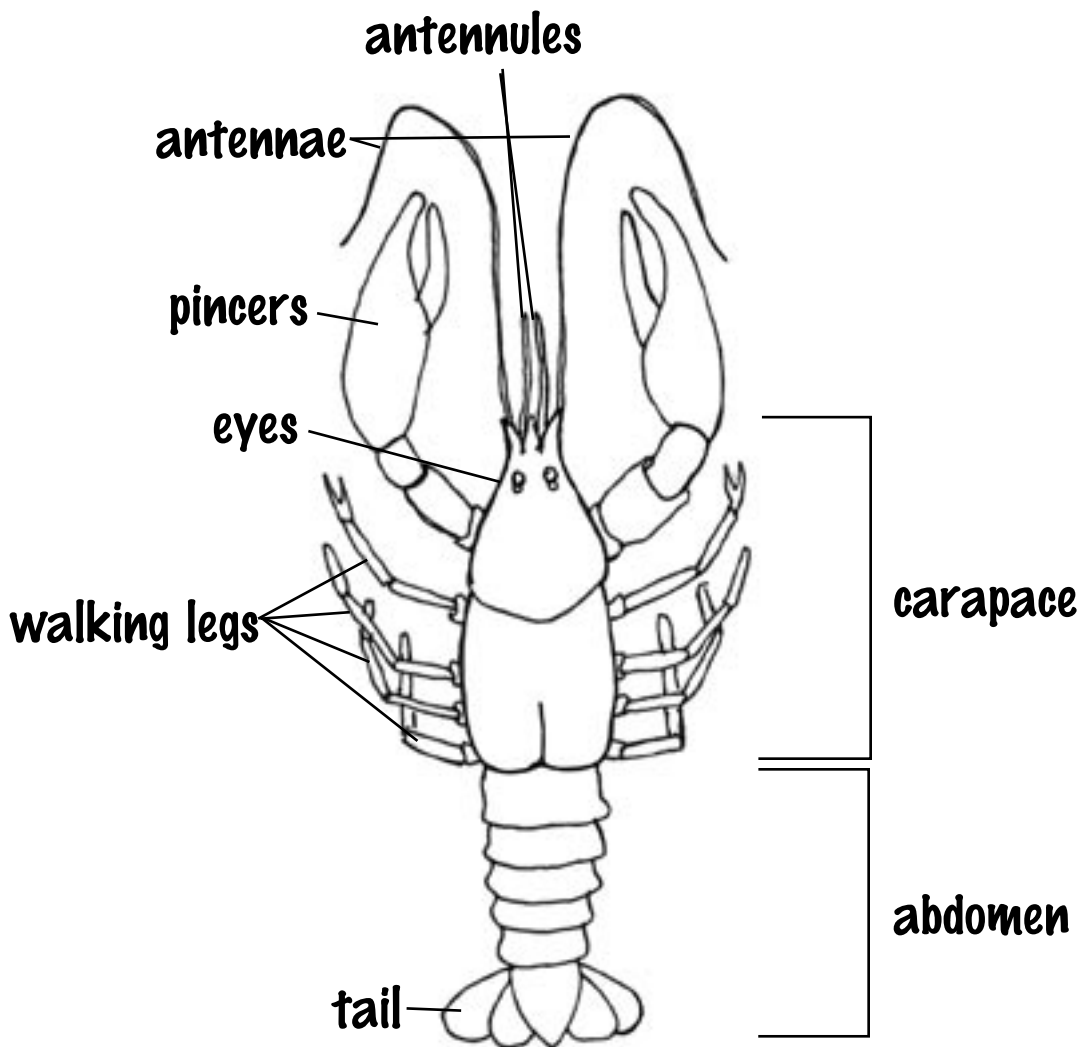
Any of these would be good h \_ \_ \_ \_ t  
for Fat Crawdaddy.

Crayfish have 10 legs. If something happens to a leg, we can grow another to take its place.

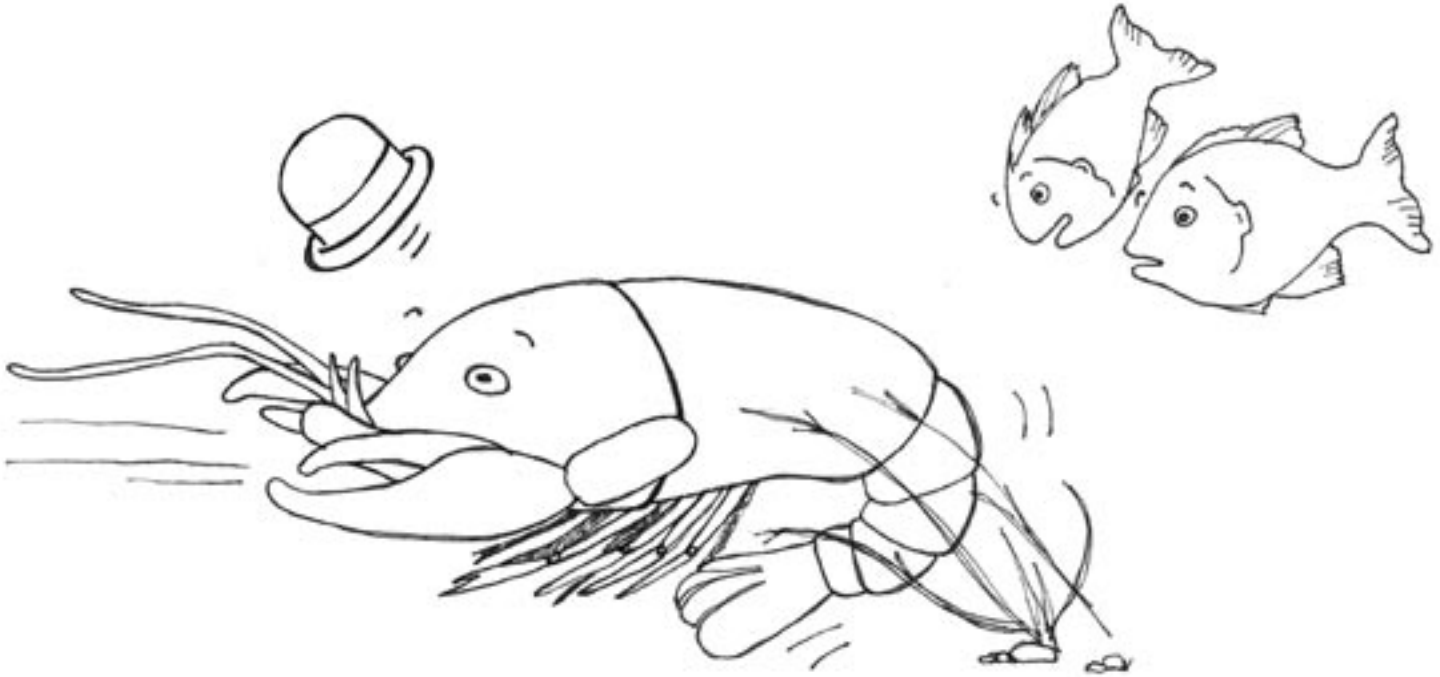
Our front two legs have claws called pincers (pronounced pin-surs). Pincers are used to dig, hold on to objects and catch smaller animals to eat.



We use our other eight legs to walk on the ground and on the bottom of lakes and streams.

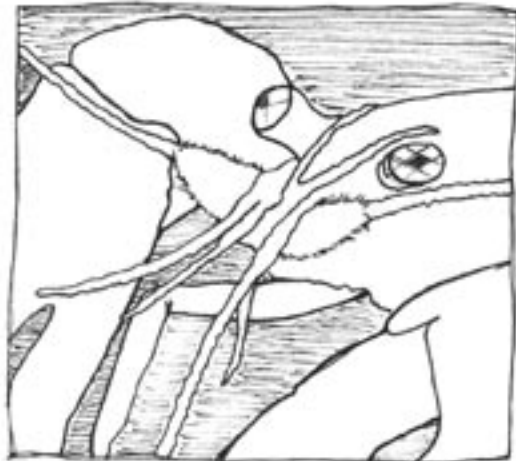


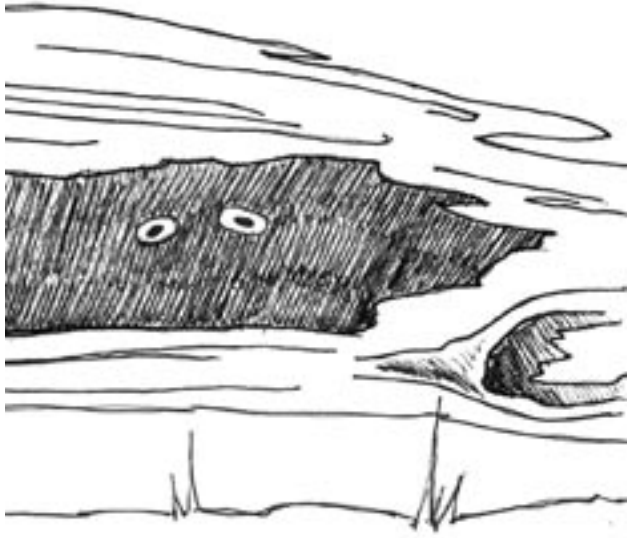
We also have many smaller legs called swimmerets (pronounced swim-ur-ets) under our tails. With a flick of our tails, we can scoot quickly through the water. It's hard for us to watch where we're going, because we swim backwards.



We have two eyes that sit on short stalks instead of inside our heads. That way we are able to look around without moving.

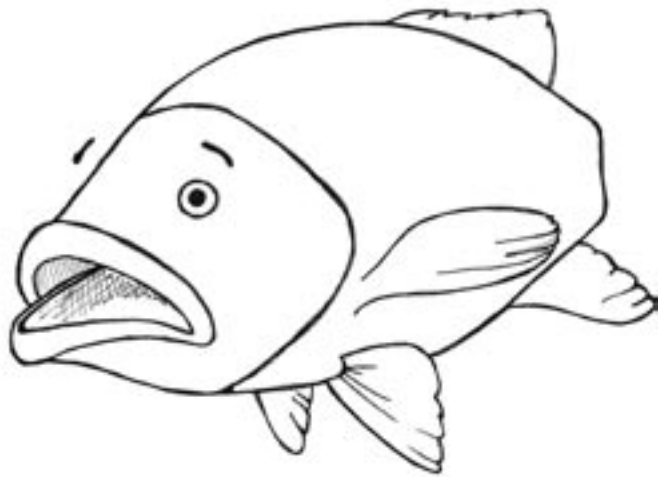
We taste, smell and feel using hairs on the ends of our antennae (pronounced an-ten-nee).





In water, our antennae can feel vibrations from large fish and animals swimming nearby. When we feel that, we head for shelter!

If we can't find a place to hide, we have to show other animals how tough we are. We raise our pincers high and make ourselves look as big as possible. If we have to, we can give other animals a strong pinch.





Our shells are tough, but they don't stretch. When crayfish grow, we have to change shells. We make a new shell underneath the old one. We sit still on the bottom for a little while, and our old shell begins to turn white. When we're ready, we work our way out of our old shell.

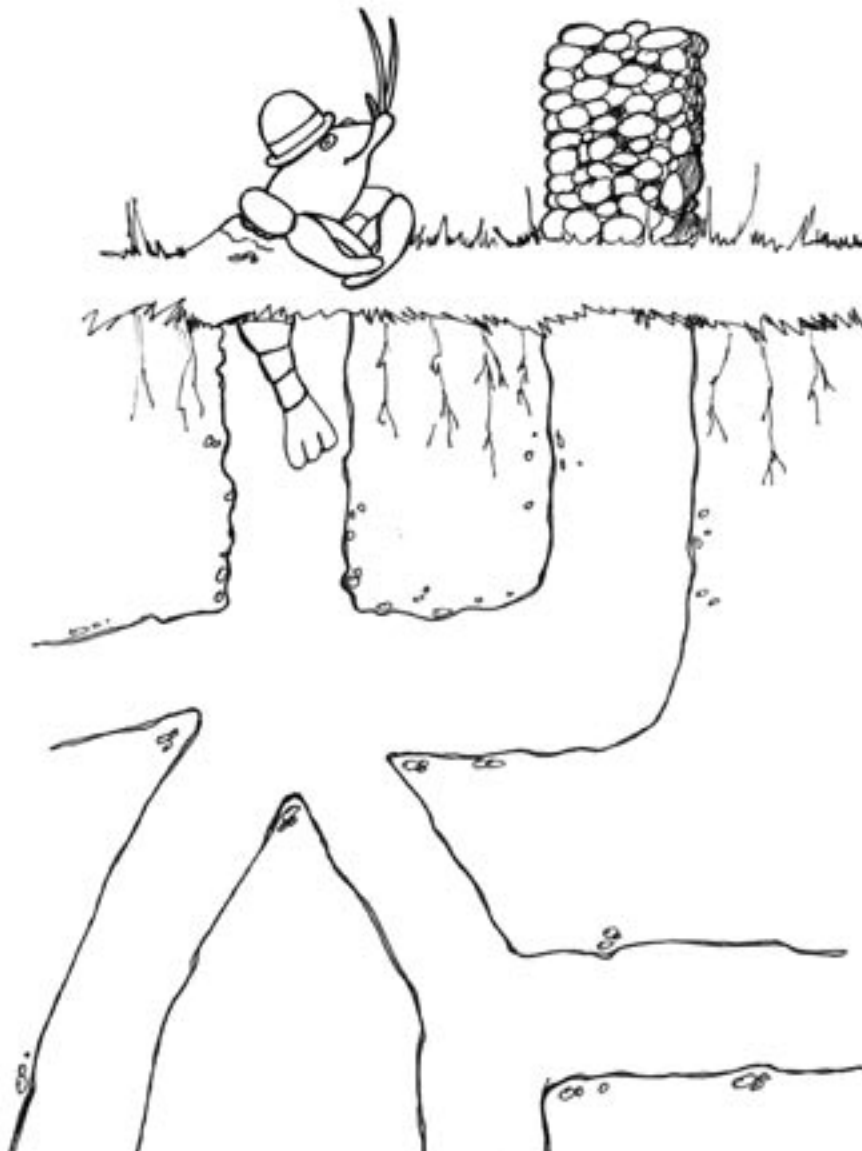
Sometimes people see the old shell and think we died. We're actually hiding somewhere close until our new shell is hard enough to protect us.



PHOTO COURTESY OF CHRIS LUKHAUP

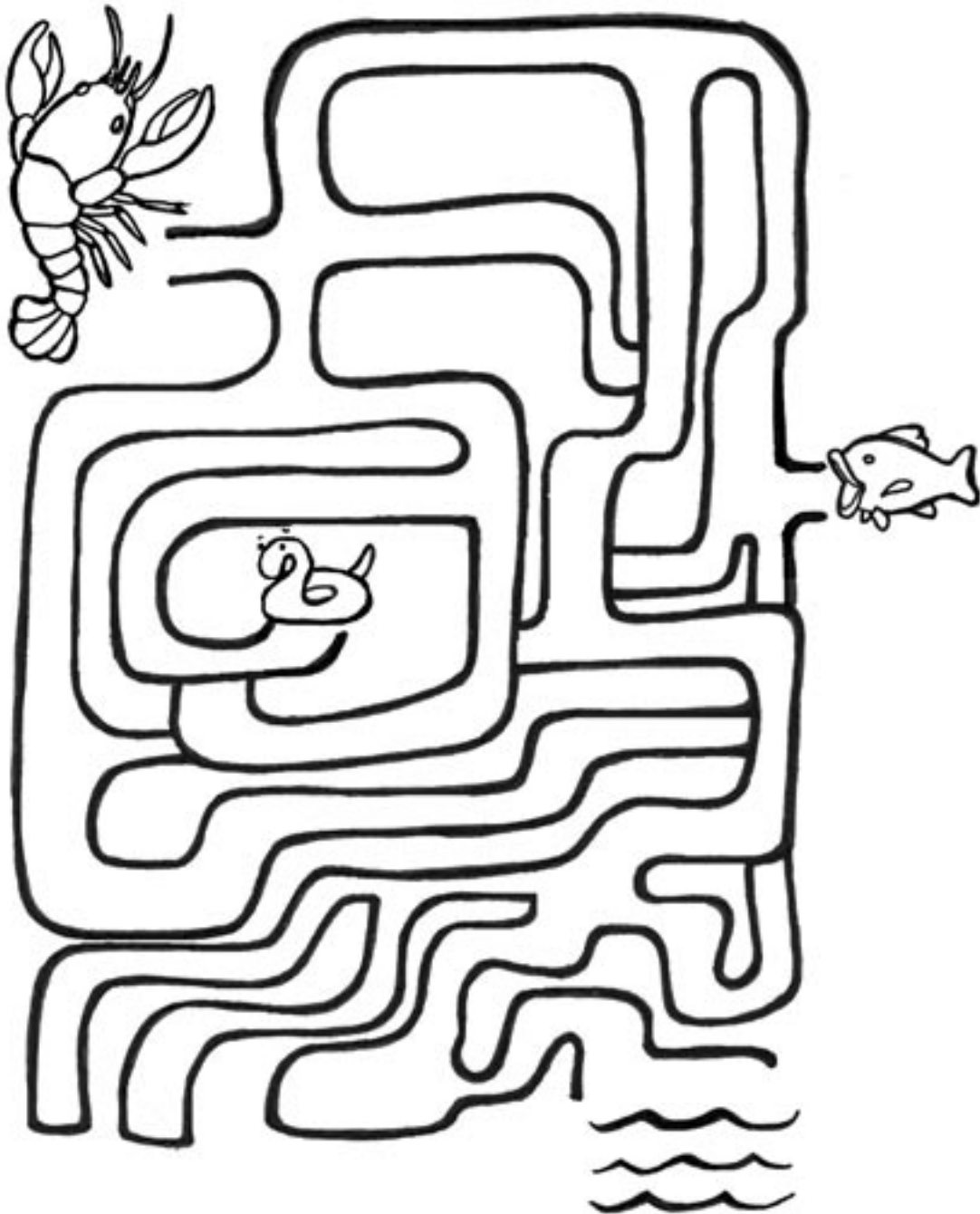
Crayfish need water to breathe. We're not fish, but we can die if we dry out. We can be found in creeks, ditches, swamps, lakes and even caves. Anywhere there is water, you're likely to see a crayfish.

We can live on land and dig to water underneath the ground. Some of our burrows go more than 20 feet deep. That's longer than most cars. Some places have so many burrows, they become a maze of tunnels.



# Crazy Maze

Can you help Fat Crawdaddy find his way to the water? Watch out! Other animals make their homes in crayfish burrows, and they want to put Fat Crawdaddy on their dinner plate.



When crayfish dig, we pile the extra mud at the entrance of our burrows. All that mud dries out. This makes a chimney over the hole.

Most chimneys are only a few inches tall, but some can be as tall as 12 inches.



PHOTO COURTESY OF BRIAN WAGNER

See if you can match the building skills of a crayfish. Get some clay and roll it into marble-sized pieces. See how high you can stack your chimney without tipping it over.



There are more than 550 types of crayfish all over the Earth. Crayfish live on every continent except Antarctica and Africa.

Some crayfish are tiny, only an inch or two long. The largest crayfish lives in Tasmania and can weigh as much as 15 pounds.

Find Tasmania on a globe.

Hint: It's amazing that such a big crayfish can come from such a small island.



# WORD SEARCH

Fifteen words are hidden in the puzzle below. Look for them running across, up and down, diagonally and even backward.

A	Q	U	G	A	C	R	A	Y	O	U	M
H	A	B	I	T	A	T	P	I	M	Z	T
O	E	U	L	R	A	B	E	A	N	L	Y
N	W	R	L	C	R	A	Y	F	I	S	H
B	A	R	S	A	U	Y	P	E	V	O	B
A	P	O	N	D	K	O	A	V	O	A	K
P	V	W	A	Z	A	U	A	U	R	P	M
C	S	E	W	A	T	E	R	Z	E	M	U
F	A	R	K	A	N	S	A	S	R	A	D
K	A	V	A	Q	U	A	T	I	C	W	B
A	S	R	E	C	N	I	P	A	T	S	U
M	U	Y	E	A	N	N	E	T	N	A	G

ANTENNAE  
AQUATIC  
ARKANSAS

BAYOU  
BURROWER  
CAVE

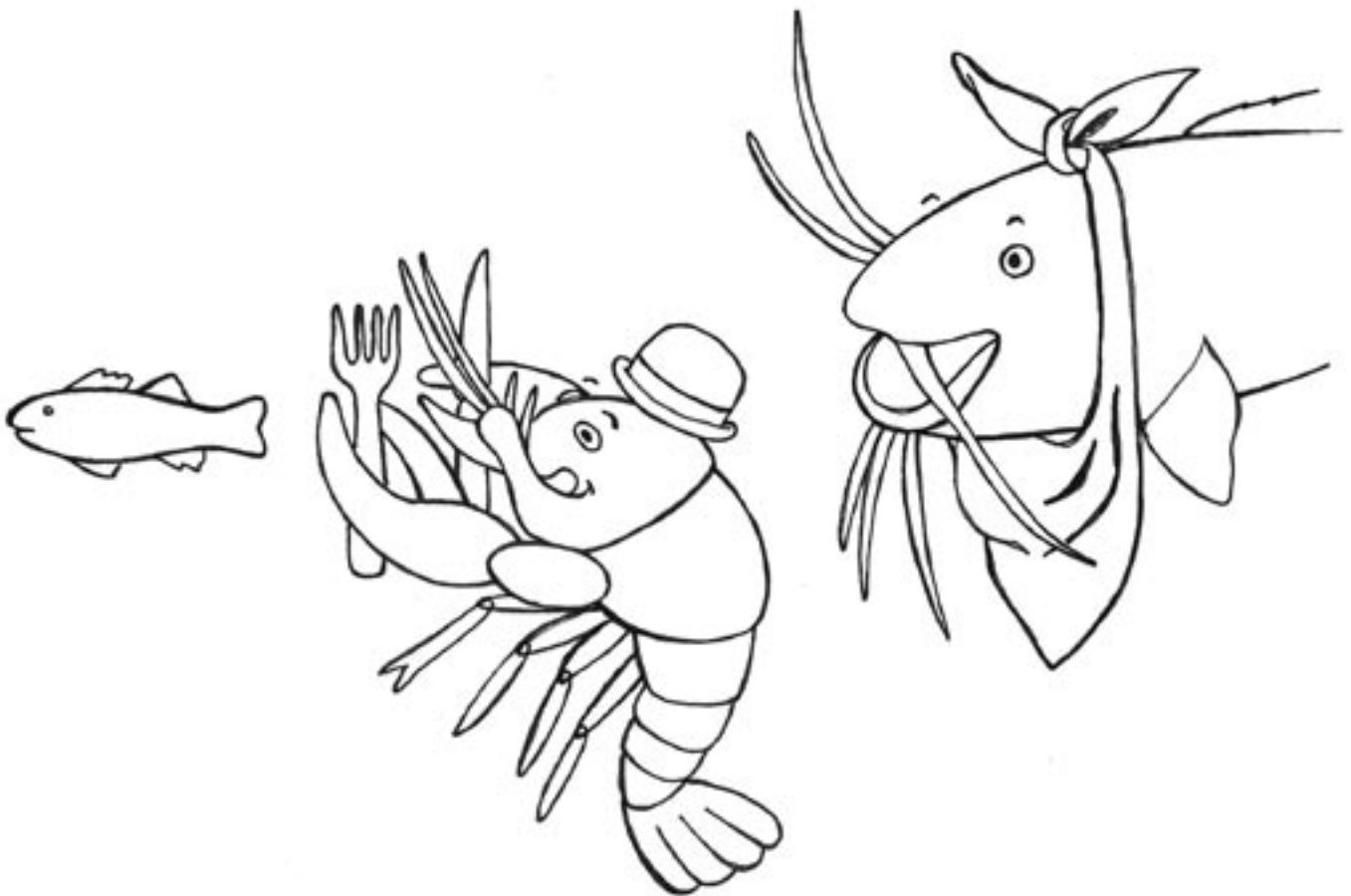
CRAYFISH  
GILLS  
HABITAT

MUD BUG  
OMNIVORE  
PINCERS

POND  
SWAMP  
WATER

Crayfish have strong stomachs. We are omnivores (pronounced om-ne-vorz). That means we will eat almost anything – plants, tiny fish, insects and even dead animals on the bottom of a stream or pond.

We eat everything, and everything eats us! Fish, birds, snakes, turtles and even people eat crayfish because we're so tasty.



**Crayfish are great parents. Female crayfish carry their eggs under their tails to protect them from danger. These eggs look like clusters of tiny blueberries. One crayfish may carry as many as 300 eggs at a time.**



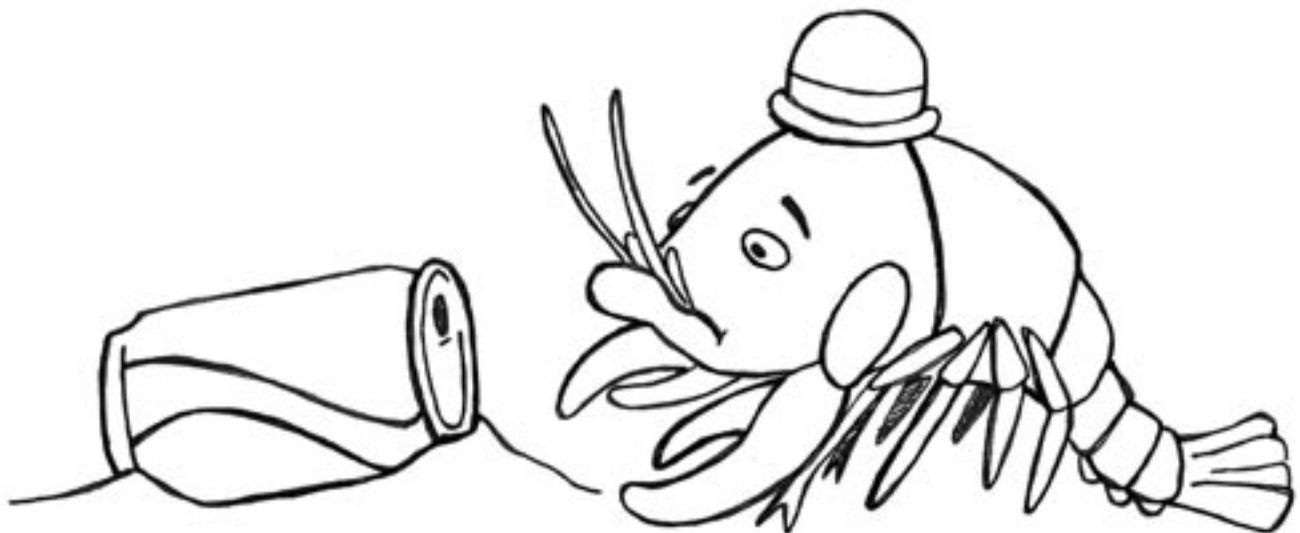
PHOTO COURTESY OF CHRIS LUKHAUP



Some types of crayfish are endangered. That means there are so few of them left that people are trying to look out for them and protect them.

People hurt crayfish by destroying our habitat. Habitat is where creatures live. Just because you can't see our homes, doesn't mean they're not there.

Water pollution is a serious threat to crayfish. We may be tough, but chemicals and foul water can poison us. Dams on streams, building and mining near water, and irresponsible farming and logging can wash dirt and mud into our water. This destroys crayfish habitat and leaves us homeless.



# THINK AND RESPOND

1. Write a story about a crayfish in Arkansas. Include where it lives and what it eats. Draw a picture of your story.
2. A habitat is where something lives and spends its time. Every living thing has a habitat – even people! Describe your habitat.
3. Crayfish need clean water, just like people need fresh air. What are some things we can do to keep the water clean?

## SCHOOL-HOME CONNECTION

Ask an adult to help you learn more about crayfish. You can even try catching a few together. While you are outside take a moment to listen and look for new things.

Learn more about how to keep our streams and water clean. Have a parent contact the Arkansas Game and Fish Commission at (501) 223-6369 and ask about joining the Stream Team. You can also find us on the Internet at [www.agfc.com/fishing/special-programs-fish/stream-team.aspx](http://www.agfc.com/fishing/special-programs-fish/stream-team.aspx)

# MORE MUD BUGS



This activity book is part of a two-piece education program from the Arkansas Game and Fish Commission. To request a handsome 24-inch x 36-inch poster, call the AGFC Publication Hotline, (501) 223-6352.



Keeping the Natural State natural.

[www.agfc.com](http://www.agfc.com)

2 Natural Resources Drive  
Little Rock, AR 72205  
(800) 364-4263