

# SMART ANGLER'S NOTEBOOK

## CRAZY CRAYFISH

by Walt Dietz

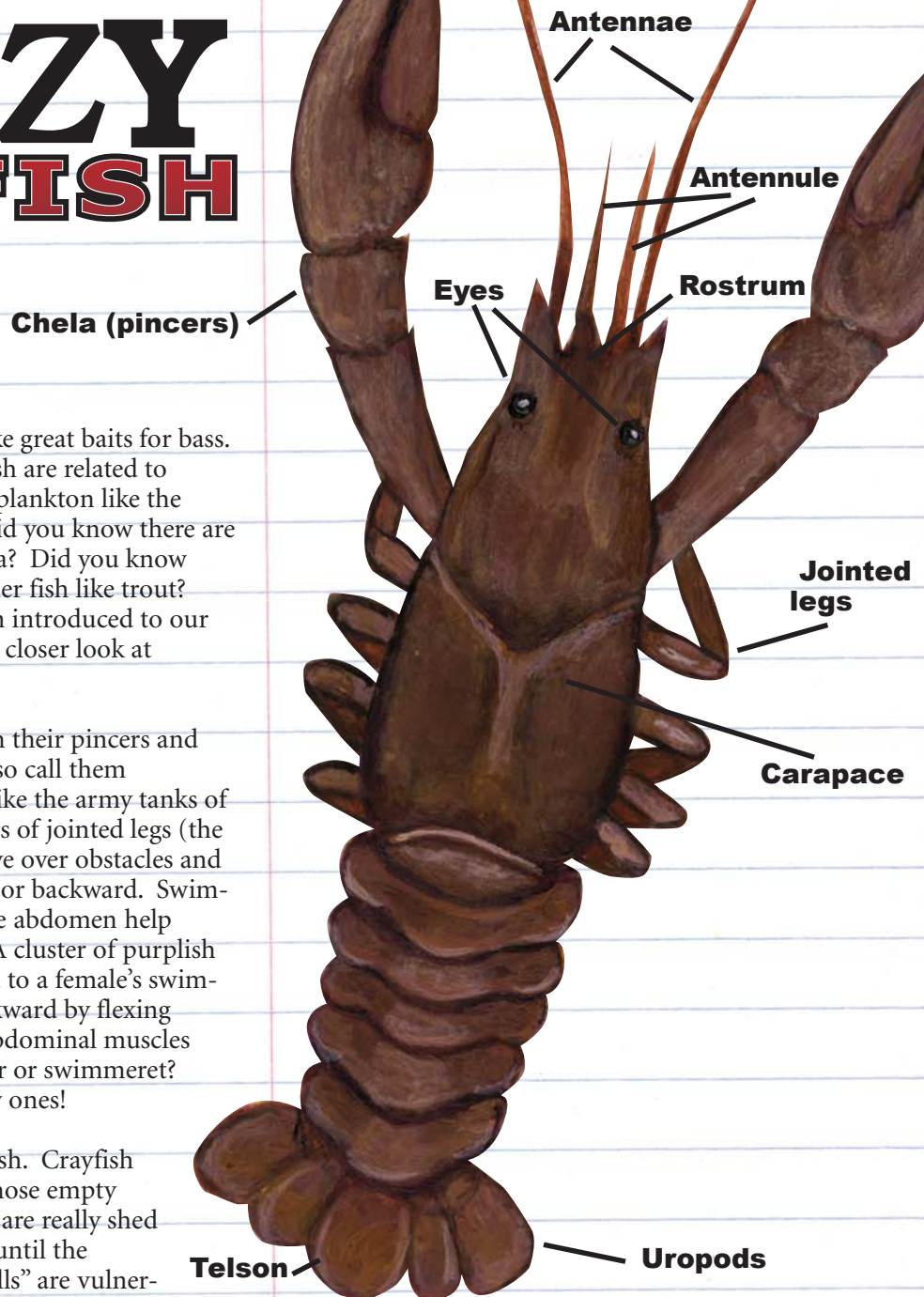
Most anglers know that crayfish make great baits for bass. They probably also know that crayfish are related to crabs, shrimp, lobsters and even zooplankton like the water flea (Order Decapoda). But did you know there are 12 species of crayfish in Pennsylvania? Did you know that crayfish make great baits for other fish like trout? There is even a crayfish that has been introduced to our waters from other states. Let's take a closer look at crayfish.

Crayfish are easy to recognize with their pincers and armorlike carapace. Some people also call them "crawdads" or "crawfish." They are like the army tanks of the aquatic world, thanks to five pairs of jointed legs (the first pair are pincers). They can move over obstacles and in any direction—forward, sideways or backward. Swimmerets (small appendages) under the abdomen help them with swimming and balance. A cluster of purplish eggs can sometimes be seen attached to a female's swimmerets. Crayfish can also shoot backward by flexing their tail fan and contracting their abdominal muscles in the jointed tail. Break a leg, pincer or swimmeret? No problem: Crayfish can grow new ones!

A hard exoskeleton protects crayfish. Crayfish must shed, or molt, as they grow. Those empty "crayfish shells" you see in the water are really shed exoskeletons. Crayfish are very soft until the exoskeleton hardens. These "softshells" are vulnerable to predators.

Crayfish have amazing adaptations. They breathe through gills under the carapace. Their eyes are on movable stalks to allow sight in different directions. Antennae sense prey and predators. They emit chemical cues to identify one another and signal mating. They can even change color to match their habitat.

Crayfish are important as predators and prey in the aquatic food chain. They are omnivores (feed on plants and animals) and scavengers. They eat snails, insects, worms, tadpoles, dead aquatic animals, algae and vegetation. Crayfish also make a tasty treat for fish, reptiles and mammals. When taken from clean water and properly cooked, crayfish are a great meal for humans.





The rusty crayfish (*Orconectes rusticus*) was introduced from Midwestern states. It is sold commercially as fish bait. It is aggressive and competes with native species for food and space. It will also overgraze aquatic vegetation.

*Rusty crayfish have large pincers and often have two rusty spots on each side of the carapace.*



Help slow the spread of nuisance species. Don't release unused bait into the water. Examine or clean equipment to prevent transfer of plants and animals to other waters.

### Some Common Pennsylvania Crayfish

**Eastern crayfish or Appalachian brook crayfish (*Cambarus bartonii*)**

Common in most of Pennsylvania.  
Found in cold mountain streams under rocks or abandoned burrows.

**Northern crayfish (*Orconectes virilis*)**

Found in northwest and southcentral Pennsylvania.  
Lives in warm, turbid ponds and slow-moving water with vegetation and debris.

**Northern clearwater crayfish (*Orconectes propinquus*)**

Found in northwest Pennsylvania.  
Lives under rocks with muddy or sandy bottoms.

**Chimney crayfish or devil crayfish (*Cambarus diogenes*)**

Found in western Pennsylvania.  
Prefers low elevations, and burrows near spring-fed swamps or logged areas along streams.

**Allegheny crayfish (*Orconectes obscurus*)**

Found in central and western Pennsylvania.  
Lives under rocks with muddy or sandy bottoms.

**Monongahela crayfish or blue mountain mudcrawler (*Cambarus monongalensis*)**

Found in southwestern Pennsylvania.  
Burrows in foothills near water, and prefers clear water nearby or underground springs.

**Spinycheek crayfish (*Orconectes limosus*)**

Lives in eastern Pennsylvania.  
Prefers small, quiet streams of lowlands, ponds and ditches.

Information about our state's other crayfish can be found at the Pennsylvania Crayfish Reference Collection link under the Web Resources section.

### Collecting

Crayfish are easy to catch. Look for them in any pond, lake, river or stream. Roll rocks over in shallow water and grab behind the pincers (thorax), or use a dip net. Or have one angler hold a minnow seine while another angler lifts rocks and swooshes crayfish downstream toward the net.

### Storing

Crayfish are also easy to store. Use a cooler with wet grass or aquatic plants instead of a bait bucket with water. They'll keep for days if you store them in a cool shady spot and keep the grass wet. Wrap softshells in wet newspaper, cheesecloth or cotton material. Store them in the refrigerator and they will stay soft for a week.

### It's the LAW!

- A fishing license is required of those 16 and older to collect crayfish and other fishbait or baitfish.
  - No closed season or minimum size for crayfish.
- Pennsylvania law allows a daily limit of 50 combined fishbait species.

### Fishing Tips

Use live crayfish for bass, trout, perch, carp and catfish. Softshells are deadly! Hook them through the tail or break them apart and use the body parts. Rig with a splitshot, slip or swivel sinker. Or try a jighead. Move your line occasionally to pull live crayfish from their rocky hiding spots. ☐



## Web Resources

### Association of Astacology

[www.uku.fi/english/organizations/IAA/](http://www.uku.fi/english/organizations/IAA/)

### Crayfish World

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

### Crayfish Corner

[www.mackers.com/crayfish/](http://www.mackers.com/crayfish/)

### Invasive Species

[www.protectyourwaters.net](http://www.protectyourwaters.net)

### Pennsylvania Crayfish Reference Collection

[www.lhup.edu/~tnuttall/pennsylvania\\_crayfish\\_reference\\_.htm](http://www.lhup.edu/~tnuttall/pennsylvania_crayfish_reference_.htm)