

Missouri Crayfish Finders: Stream Team Volunteer Crayfish Field Guide



Background

Missouri is home to over 40 species of crayfish, including 26 Species of Conservation Concern. One of the greatest threats to these native species is the spread of invasive crayfish.

To improve our understanding of crayfish distributions across the state, the Missouri Department of Conservation (MDC) Science Branch is partnering with Stream Team Volunteers to collect crayfish observations through the *Missouri Crayfish Finders* project.

This effort will:

- Track invasive crayfish populations
- Update species distributions across Missouri
- Support conservation and management decisions

Volunteers are encouraged to collect photo vouchers of crayfish encountered during routine biological monitoring or additional sampling efforts. These collections are supplemental and should not interfere with standard Stream Team protocols.

Upload observations to the *Missouri Crayfish Finders* project on iNaturalist by scanning the QR code or visiting this link: <https://www.inaturalist.org/projects/missouri-crayfish-finders>

Be sure to include the following information with your observation:

- Date of collection
- Location (enable shared coordinates with project curators)
- In Notes Field:
 - Number of volunteers
 - Time spent sampling
 - Methods used
 - Stream Team number



Where to Find Crayfish

General Rule: If there is water, there are likely crayfish.

Streams & Rivers:

- Look in shallow riffles under large rocks
- Gently lift rocks and check underneath
- In deeper or slower areas, search woody debris, root wads, and aquatic vegetation
- Use a dip net for backwater areas

Ponds & Lakes:

- Focus on shoreline area
- Check under rocks, logs, sticks

Wetlands, Prairies, & Roadside Ditches

- Look for burrowing crayfish
 - Most active after heavy rain
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How to Catch and Hold Crayfish

Catching Tips:

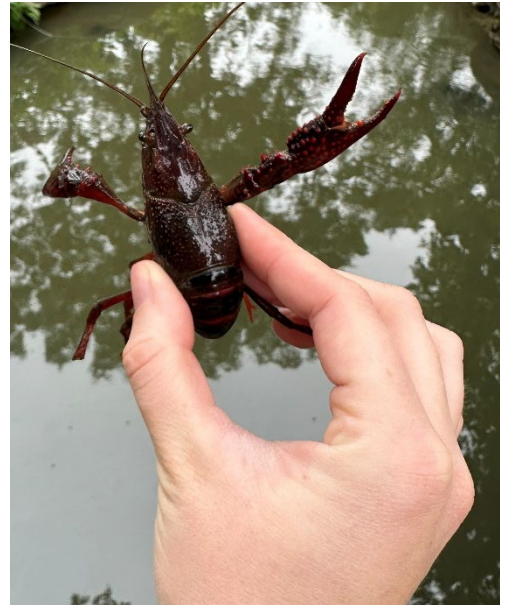
- If catching by hand, approach from behind (they swim backward to escape)
- If available use seines or dipnets to sample streams, rivers, ponds, and lakes
- Crayfish are most active at night – use a flashlight to find them walking around prairies or wetlands

Holding Tips:

- Hold crayfish behind the head to avoid being pinched
- Keep crayfish moist and cool while handling
- Minimize handling time
- Return crayfish to where they were found

Sampling Tips:

- If possible, volunteer monitors should spend 30 minutes sampling all available habitats at a site
- At a minimum, each volunteer should spend at least 5 minutes searching for crayfish
- Take photos of at least 1 representative for each species you believe is present at the site – each crayfish should be uploaded as a separate observation



Tips for High-Quality Photos:

- Use natural light
- Avoid shadows and glare
- Ensure images are in focus
- Take photos from multiple angles
- If possible, place crayfish on neutral background (ex. white tray)
- If possible, include a ruler for scale

Required Photos

1. Dorsal View (Top View)

Dorsal view showing overall body shape and coloration along with key features including the rostrum and areola.

Tips:

- Take photo from directly above
- Include the entire body



2. Ventral View (Bottom View)

Ventral view shows the underside of the crayfish including the base of the legs and the reproductive structures.

Tips:

- Capture full body from claws to tail fan



Helpful Extra Photos

Reproductive Structures

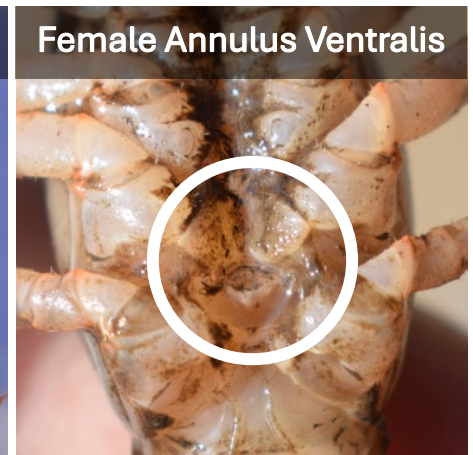
Close up of underside showing reproductive structures.

Tips:

- Focus on base of legs
- Side view of male gonopods are helpful



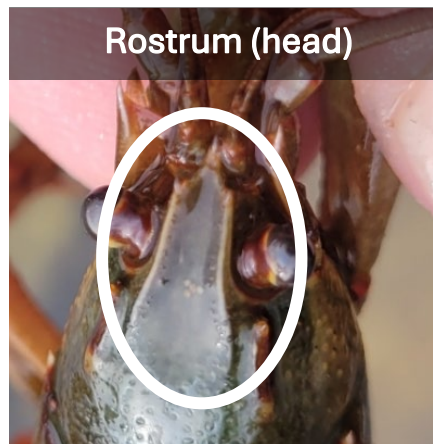
Male Gonopod



Female Annulus Ventralis

Rostrum and Areola

Close up of head (rostrum) and mid-body (areola).



Rostrum (head)



Areola (mid-body)

Pincers (Claws)

Close up of claws showing shape and color.

Tips:

- Photograph both claws
- Include multiple angles



Thank You for Being a Missouri Crayfish Finder!

Your photos play an important role in helping us track invasive crayfish and protect Missouri's native crayfish. Every photo you submit contributes valuable information that supports conservation across the state.

Questions? Contact:

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