

# How to Handle Tarantulas in a Classroom Setting

## Jason Thomas

Extension Educator, University of Idaho  
Extension, Minidoka County

## Paula Cushing

Senior Curator of Invertebrate Zoology,  
Denver Museum of Nature and Science,  
Denver, Colorado

## Lauren Kerzicnik

Forest Entomologist, Forest Health  
Protection, United States Department  
of Agriculture

## Contents

- 1 Introduction
- 2 Proposed Species for Use
- 2 Handling Strategy
- 5 Further Reading

## Introduction

HANDLING TARANTULAS IN AN EDUCATIONAL SETTING reduces the misconception that all spiders are pests or are dangerous, helping the public, especially youth, to understand that most spiders are docile when encountering humans. For example, out of the thousands of spider species in the United States, only black widow spiders (genus: *Latrodectus*) (Figure 1) and recluse spiders in the genus *Loxosceles* (Figure 2) have been deemed medically significant by the Centers for Disease Control and Prevention. Even though the two are commonly found in many parts of the country, bites resulting in envenomation are rare.

The purpose of this guide is to help educators learn how to safely handle tarantulas, thus allowing educators to use this activity as a type of exposure therapy to mitigate public fear of spiders and to replace it with fascination, curiosity, and/or respect. The guide trains handlers, specifically new ones who will be handling tarantulas and those teaching others to handle them. It is not a proper care guide for tarantulas (e.g., feeding, water, habitat etc.). For the best result, please read the bulletin in its entirety before beginning any handling training.



**Figure 1.** A black widow spider in its web, one of two medically significant species found in the United States.



**Figure 2.** A brown recluse spider, one of two medically significant species found in the United States.

## Proposed Species for Use

Since the temperament and risks associated with different species varies, youth or even adults should handle only a limited selection of spider species in the classroom, including the following:

- Brazilian black tarantula (*Grammostola pulchra*)
- Chaco golden knee (*Grammostola pulchripes*)
- Chilean rose hair (*Grammostola rosea*) (Figure 3)
- Pinktoe tarantula (*Avicularia avicularia*) (Figure 4)
- Curlyhair tarantula (*Tiltocatl albopilosus*)
- Mexican blood leg tarantula (*Aphonopelma bicoloratum*)
- Arizona blonde tarantula (*Aphonopelma chalcodes*)

These seven tarantula species are typically more docile than other species and have venom that is not medically significant to humans. Primarily they use their urticating hairs as a defense when they feel threatened, either rubbing or flicking hairs at the perceived threat. The hairs themselves typically inflict minor irritation unless they lodge in an eye, mouth, or other highly sensitive areas.



**Figure 3.** A Chilean rose hair tarantula, a species whose temperament makes it a good choice for handling. Selecting the right species to work with is important to make sure they are easier to handle and not medically significant.

## Handling Strategy

### Step 1: Handling-Station Setup

1. For a good, safe experience, use a flat surface, like a table or the floor, on which to handle the spider.
2. Place the tarantula's cage next to the area where you plan to have participants handle it (all handling should occur on the chosen surface). What you want to avoid is a nervous kid dropping the spider. By handling it over a table (or crouched down a few inches from the floor), it won't fall far if dropped (and might actually survive). If a tarantula accidentally falls from a larger height, the abdomen might burst open and the animal could bleed to death.

### Step 2: Mental Preparation

Before proceeding to the setup area, make sure that participants and the handler are calm. One way to do this is to reduce loud noises or distractions and to practice proper breathing exercises. If the instructor or handler is nervous about this exercise, it detracts from the exercise's effectiveness. Tarantulas are sensitive to movement and touch, so a shaky hand can cause stress. When training new handlers, it is thus best that an experienced handler is present to help ensure a positive experience.

### Step 3: Participant Positioning

Participants approach the handling station quietly and if possible, sit or kneel. This helps them to remain calm and reduces the risk of them jumping or making other sudden movements. Tell the handler to place their flattened hand palm down on the surface of the table. Make sure they keep their hand very flat and their fingers closed (this keeps them from accidentally pinching the spider's legs between fingers).

### Step 4: Spider Selection and Testing Temperament

Before handling a spider, evaluate its temperament. First, reach into the container that houses the spider. Place one hand flat in front of the tarantula. Next, gently coax it onto the flat hand by pushing (very gently) on one of its rear legs to make it move toward your flat hand. A cooperative spider candidate readily moves onto the flat hand, thus qualifying as the one to use for the exercise.



**Figure 4.** A pinktoe tarantula, a good choice for handling given its temperament and vivid coloration.

If the participants appear ready (maintain a calm demeanor), engage further with the spider, thus prepping for step 5. However, do not curl your fingers, nor press down on the spider nor its appendages. A spider that feels “trapped” is more likely to demonstrate defensive behaviors, including biting, and become uncooperative, possibly flicking hair-like setae from its abdomen, moving quickly away from your hand, or (unlikely) arching its body to expose its fangs (Figure 5). If it acts defensively, leave the spider alone in its cage and move on to a different one and start over with step 4.

**Note:** Even if a spider acts defensively once, it might qualify for handling on another occasion, with repeated practice for acclimation. However, if at any point in the training a tarantula acts defensively, return it to its cage and cease using it for the day.

#### **Step 5:** Transferring a Tarantula to a Participant

With your empty hand, hold the child’s wrist in place to keep them from jerking too strongly, which might cause them to drop or agitate the spider. After the tarantula climbs onto your other hand, slowly and gently remove it from the cage. Lift your hand above the table, but not too much, to reduce the height in case the tarantula drops or falls out of your hand. Slowly move your hand with the tarantula on it next to the participant’s hand. Tilt your hand, holding the tarantula so that the spider moves from your hand to the youth’s outstretched hand (Figure 6).



**Figure 5.** A captive tarantula, showing the threat posture (exposing fangs). Tarantulas do this by raising their front legs to make them look larger, an indication that it is agitated and should not be handled.

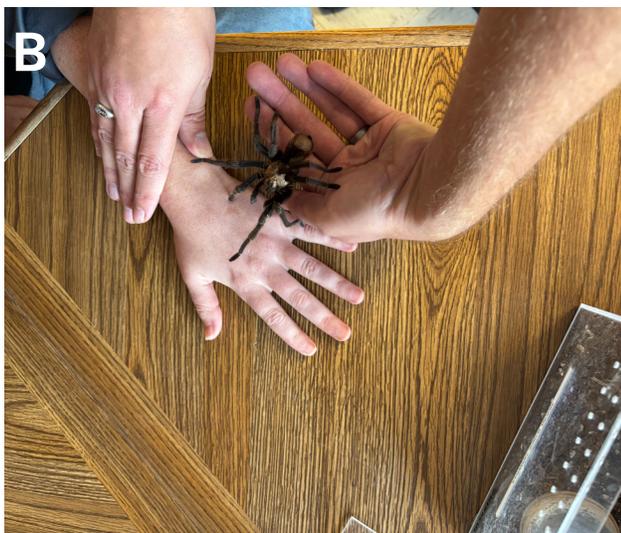
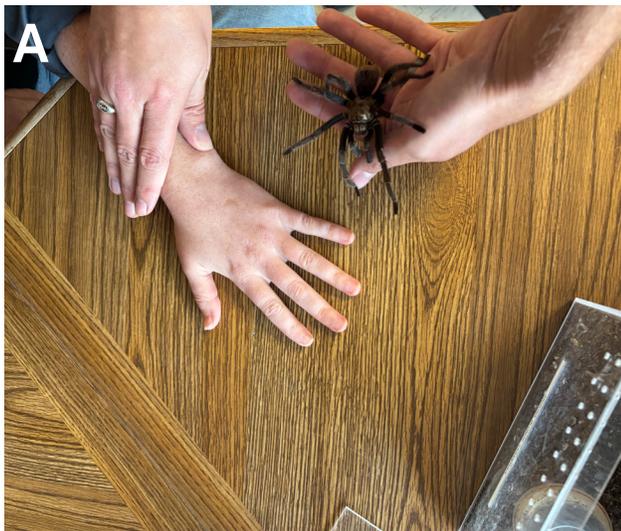
#### **Step 6:** Returning the Spider or Transferring to Other Youth

Once the tarantula boards the youth’s hand, slowly but steadily move your hand to the other side of the youth’s hand so the tarantula walks on your hand again, allowing you to control the spider’s movement. From this point, move the tarantula to another youth’s hand. After the training is finished, return it to its cage, using the same principles discussed in step 4.

**Note:** If a youth is reluctant to handle a tarantula, do not force him/her. Witnessing other children successfully handling the animal might encourage him/her to participate.

### **Preventive Techniques**

- Control the handling activity at all times. Never allow youth to pass the spider to a friend of theirs. In such a situation, retrieve the spider before another youth steps up to handle it. If youth crowd around the table, calm the situation so that you do not lose control of the exercise.
- Never allow the youth to “pet” a spider or to touch the dorsal surface of the cephalothorax, abdomen, or legs. Pressing down on the spider may make it feel trapped and that may cause it to bite or display other defensive behaviors. To prevent “petting,” tell children that tarantulas have very poor eyesight, so they rely on the hair-like setae on their bodies to feel everything going



**Figure 6. A–C.** Proper tarantula handling techniques. Hold the participant’s hand firmly against a table to reduce movement (**A**). Use your other hand to move the tarantula on and off (**B–C**).

on around them. Thus, petting or touching them from above is the equivalent of someone poking you in the eye.

- If a tarantula begins to fatigue or shows defensive behaviors, end the handling session or switch to a different animal. A fatigued spider may “crouch.”
- After the training ends, provide the tarantula with water. Always supply an open source of water for the spider in its terrarium or cage.
- Youth are very excited to hold a tarantula. But offer the opportunity to the adults as well. If you are working with a big group, impose a rule that each person only gets one opportunity to hold the tarantula, even if there are arachnophiles present who want to handle the tarantula several times.

## Tarantula Bites

Bites are often preceded by a threat posture, hair flicking, or bolting. However, bites rarely occur and are typically of minimal concern. And they seldom inject venom when they bite (also known as a “dry bite”).

When a spider bites and injects a mild venom, those who are injected with venom experience a variety of reactions, ranging from no symptoms at all to localized pain and swelling, because a bite depends on the venom amount and concentration. Currently, none of the bites from the species previously listed are regarded as medically significant nor have they caused severe reactions. Nevertheless, all handlers and educators should be trained on noticing the signs of allergic reactions.

### Treatment

Should a bite occur, take the following steps:

1. Inform the youth’s parents or legal guardians of the bite site. Also, provide the species name, along with information about treating allergic reactions to stings and bites.
2. If a severe or allergic reaction is suspected, immediately contact a physician or local poison control or take the youth to urgent care or an emergency room.
3. Clean the wound site with a sting relief wipe (antiseptic and topical analgesic) and cover it with a bandage to reduce the chances of infection.

- Maintain a comprehensive first aid kit, ideally including one that contains an epinephrine pen, in case of severe allergic reactions.
- Remove the spider from the situation to prevent any further harm. Never again use it for handling in an educational setting.

Although the prospect of a bite is upsetting, the most threatening behavior displayed by a spider is flicking **barbed setae** (urticating hairs) at someone. The flicking into another's skin usually causes an itchy rash that typically resolves itself after the setae work themselves out of the skin. If a minor allergic reaction occurs, first wash the area pierced by the urticating hairs then apply a topical treatment of an antihistamine or hydrocortisone cream. Because of its lesser severity, send the youth home with a note for parents informing them about what happened and explaining the nature of the hairs and what to watch for.

**Note:** Barbed setae can accumulate in a spider's terrarium, which can cause handlers to develop itchy symptoms, particularly when cleaning out a terrarium.

## Further Reading

Tarantulas are long-lived animals; females can live well over 20 years and males live up to maturity (typically 8–10 years). So that you don't invest in one that won't suit your needs, acquire tarantulas for classrooms or as pets **only** from reputable dealers who absolutely verify that the spider was reared in a lab or in captivity. Indeed, the tarantula pet trade has become somewhat suspect, thus almost certainly negatively impacting wild populations of these creatures worldwide.

Centers for Disease Control-National Institute for Occupational Safety and Health. 2024. "Venomous Spiders at Work." [https://www.cdc.gov/niosh/outdoor-workers/about/venomous-spiders.html?CDC\\_AAref\\_Val=https://www.cdc.gov/niosh/topics/spiders/default.html](https://www.cdc.gov/niosh/outdoor-workers/about/venomous-spiders.html?CDC_AAref_Val=https://www.cdc.gov/niosh/topics/spiders/default.html).

Fukushima, C., J. I. Mendoza, R. C. West, S. J. Longhorn, E. Rivera, E. W. T. Cooper, Y. Hénaut, S. Henriques, and P. Cardoso. 2019. "Species Conservation Profiles of Tarantula Spiders (Araneae, Theraphosidae) Listed on CITES." *Biodiversity Data Journal* 7: e39342, <https://pmc.ncbi.nlm.nih.gov/articles/PMC6858399/pdf/bdj-07-e39342.pdf>.

Schultz, S. A., and M. J. Schultz. 1998. *The Tarantula Keeper's Guide: Comprehensive Information on Care, Housing, and Feeding*. Hauppauge, NY: Barron's Educational Series. 287 p.

WebMD Editorial Contributors. 2024. "Insect Bites and Stings (Children)." WebMD. <https://www.webmd.com/first-aid/insect-bites-and-and-stings-children>.

### Photo Credits

Black Widow photo courtesy of Joseph Berger, Bugwood.org licensed under a [Creative Commons Attribution-Noncommercial 3.0 License](https://www.invasive.org/browse/detail.cfm?imgnum=5614524) (<https://www.invasive.org/browse/detail.cfm?imgnum=5614524>).

Brown Recluse photo courtesy of Joe Culin, Clemson University, Bugwood.org licensed under a [Creative Commons Attribution-Noncommercial 3.0 License](https://www.invasive.org/browse/detail.cfm?imgnum=5615576) (<https://www.invasive.org/browse/detail.cfm?imgnum=5615576>).

Chilean Rose Hair photo courtesy of Mohammed El Damir, Bugwood.org licensed under a [Creative Commons Attribution-Noncommercial 3.0 License](https://www.insectimages.org/browse/image/5506986) (<https://www.insectimages.org/browse/image/5506986>).

Pinktoe Tarantula photo courtesy of R. Bertaniprocessing: P. Coxhead, CC BY 3.0 (<https://creativecommons.org/licenses/by/3.0>), via Wikimedia Commons ([https://en.wikipedia.org/wiki/Avicularia#/media/File:Avicularia\\_avicularia\\_female\\_morphotype\\_1\\_ZK36.jpg](https://en.wikipedia.org/wiki/Avicularia#/media/File:Avicularia_avicularia_female_morphotype_1_ZK36.jpg)), edited and upscaled using Midjourney V7.

Threat Pose photo courtesy of Morkelsker, public domain, via Wikimedia Commons (<https://commons.wikimedia.org/wiki/File:Murinus2.jpg>).

Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Barbara Petty, Director of University of Idaho Extension, University of Idaho, Moscow, Idaho 83844. It is U of I policy to prohibit and eliminate discrimination on the basis of race, color, national origin, religion, sex, sexual orientation and gender identity/expression, age, disability, or status as a Vietnam-era veteran. This policy applies to all programs, services, and facilities, and includes, but is not limited to, applications, admissions, access to programs and services, and employment.

U of I is committed to providing reasonable accommodations to qualified individuals with disabilities upon request. To request this document in an alternate format, please contact CALS Extension Publishing at 208-885-7982 or [calspubs@uidaho.edu](mailto:calspubs@uidaho.edu).

