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Pests of Public Health Importance

January 24, 2017

Pests of Public Health Importance, one of a series of [school Integrated Pest Management \(IPM\) webinars](#) hosted by EPA's Center of Expertise for School IPM, was presented on January 24, 2017. Included here is information on the presenters and responses to participants' questions.

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Speakers

- Richard Pollack, Harvard University, richard_pollack@harvard.edu
- Pearl English, Nurse, Philadelphia (PA) Schools; pearlenglish@msn.com
- Marcia Anderson, Center of Expertise for School IPM; Anderson.marcia@epa.gov

Questions and Answers

The questions below were posed by the webinar participants. The responses may have been refined following the webinar for clarification or to include additional resources.

1. Why can't I insist that students from homes with bed bugs stay at home until they have them exterminated?

(Dr. Pollack) I hear this question all too often, and it pertains as well to other kinds of pests, such as head lice. Why should teachers and school personnel be exposed to things that the students bring in? Remember that bed bugs may be transported to school by teachers and other staff members. Of the infections or infestations that students might bring to school, including cold viruses, flu viruses, and pinworms, bed bugs are low in terms of their health significance. Bed bugs sometimes hide within clothing, book bags, lunch boxes and other possessions. Unless students (and school personnel) leave their clothing and belongings at the school house door, there is really no way to assure that you would be making any difference by keeping students out. Furthermore, how could you possibly tell which homes contain bed bugs? Bed bugs may not be discovered until many weeks or months after they've taken up residence. My best advice is to deal with the bed bugs as they are found in the school setting.

2. We have a pet bird in the classroom that seems to scratch a lot. Can we get diseases from it?

(Dr. Pollack) Pet birds, as well as pest birds (such as pigeons, sparrows and swifts that nest or perch on homes), may be infested by tiny blood-feeding mites. Sometimes, these mites can be incredibly abundant and cause irritation to the birds and to persons who handle or are near the birds. There are simple ways of dealing with these mites. The best thing to do is to have a veterinarian occasionally examine the animals, and provide treatment to the birds, as appropriate. In that way, you ensure that your classroom pets are safe and in good health.

3. If there are gaps in the exterior of a building too large to caulk, what material is best to use to ensure more pests do not enter the building?

(Dr. Pollack) If it is around a window frame, a high quality silicone-based sealant would be a good choice, as it will remain flexible. Some of the less expensive caulks will tend to dry out, flake, and fall away in just one year. So, if you are going to go through the trouble and expense of closing off the gaps, it is best to get a sealant that will last a long time.

(Dr. Anderson) Because labor is the most expensive part of the job, it's better to do it right the first time to avoid having to pay someone to scrape out the old caulk and reapply new caulk.

(Dr. Pollack) For large gaps, talk to your building maintenance people. There are materials called backing rods. They are foam rods that can be pushed in, and a sealant used over that. If it is much larger than that, there are fire-stopping compounds, or expandable foams and non-rusting metal meshes that can be stuffed into the gaps. Consult with your building maintenance folks to choose the right material for the job.

4. How do you handle teachers or parents who demand that the school nurse perform a head check for lice on an entire classroom?

(Dr. English) I have had that experience in which a child was found with head lice and the principal required that the entire classroom be checked. In most cases, you will not find any more lice. The most likely place to find additional head lice are on siblings or other family members.

5. Do you have any advice on controlling an infestation of brown recluse spiders?

(Dr. Pollack) Spiders, particularly the brown recluse spiders, tend to cause a tremendous amount of worry and distress. I think folks should realize that these spiders are much more interested in creatures that are considerably smaller than they are, like little flies, even smaller spiders, etc. A person might be bitten when the spider is disturbed. The bites are medically important. For information on brown recluse spiders and a map depicting their range, please visit this site: <http://spiders.ucr.edu/brs.html>. Lastly, even in homes where thousands of brown recluse spiders may be living, the human occupants tend not suffer even a single bite. So the bites are very uncommon.

6. I heard that rats are sometimes in toilets. How do they get there and how can we stop them?

(Dr. Pollack) Rats are denizens of the sanitary waste lines in many of our urban environments. Some find their way in by wandering up within the waste pipes or down through the vent stacks that go through the roofs in the buildings. Rats that have entered the sanitary waste pipes can emerge in a toilet. There is only a small amount of water that separates the waste system from what you see in the toilet bowl. Rats are good swimmers, so a little water poses no obstacle to them. If you ever encounter that situation, it is a fairly simple fix. A plumber can install a back-water flow valve on the waste line. In many communities, it is a requirement. It stops wastes from coming in during flooding situations, but it also stops rats and other pests from entering the building through the pipes.

- 7. When parents or patients remove ticks with tweezers, they tend to break off the tick's head. I have heard that using a warm, soapy cotton swab around the bite will make the tick back itself out. What is your opinion?**

(Dr. English) I have never heard of the warm soapy water procedure. I have used a tweezer specifically designed for tick removal. It appears a little bent and its design allows you to go very close to the scalp / skin.

(Dr. Pollack) I am not a fan of using soapy water or any other kind of water or alcohol product for this purpose. I do not think it works effectively. Remember how important it is to remove ticks promptly. Every minute you delay with tick removal, is an added opportunity for an infected tick to transmit a potentially deadly virus or other serious infection. So, as soon as you find a tick, remove it.

As far as breaking off the head or mouth parts, that sometimes happens. The mouthparts are non-living when separated from the rest of the tick, and are insignificant. They will be shed by the body naturally in 2 to 4 days. If you are further concerned, consult a medical professional. CDC offers a good information about [tick removal](#).

- 8. I have heard a lot about "super" head lice. What are these and is it true that they are resistant to everything (pesticide products)?**

(Dr. Pollack) This image might conjure up lice flying around with tiny little capes and those that are larger and stronger than normal head lice. There really is no such thing as a super louse – except in the minds of some journalists who do not understand what they are writing about. The reality is that some lice have become resistant to some treatments because of the continued use of the product. Some lice may be able to withstand certain treatments and breed with other lice that have also been able to withstand the same pesticide. I would not call them super lice - I would call them more difficult to treat. There are products, including some FDA-approved prescription formulations, that will clear up these infestations.

(Dr. English) I had an incident in which head lice were a recurring problem in one family. They did call them super lice. They tried a different treatment and, within a week, the lice were gone.

- 9. Flies are a significant pest in school food service areas. Perhaps this should be a topic for a future webinar?**

(Dr. Anderson) Our March 14, 2017 webinar, "[Feed the kids and not the pests – IPM for cafeterias and kitchens](#)" will address flies commonly found in kitchens.

- 10. We recently had a portable classroom installed with a gap between the overhead walkway and the classroom roof, creating an ideal environment for birds to gather and nest. What would you suggest to prevent the birds from using this space to roost?**

(Dr. Pollack) Birds will exploit any kind of ledge on which they can nest or roost. Assuming these birds are not a state or federally protected species, the nests can be removed, the site washed, and the area sanitized. To prevent the problem from reoccurring you can use galvanized or stainless steel mesh hardware cloth with ¼" to ½" holes. Carefully wrap it around the wall to protect the site.

(Dr. Anderson) There are also numerous types of bird exclusion devices on the market for just this purpose.

(Dr. Pollack) If you need something more complex, find a licensed pest control company that has experience in dealing with this and they might be able to show you other commercially available or custom-made solutions.

11. If I see a bug in our school, how can I have it identified? Who does that and how long does it take?

(Dr. Anderson) Contact your local [cooperative extension service office](#). They will advise you on where to go.

(Dr. Pollack) State extension services are excellent choices. Should you wish a fee-based alternative that may provide same day evaluations, consider [IdentifyUS](#).

12. Our early learning center has cubbies in which students' personal items are touching (coats, snow pants, backpacks). It is cost effective / recommended to purchase lockers to keep these items separate as a means of head lice prevention?

(Dr. Pollack) Head lice mainly transfer directly from an infested person's scalp hair to the scalp hair of another person. Head lice do not regularly transfer to coats or other clothing, and it would seem exceptionally rare for a louse to transfer via clothing. Hence, I do not think it would be justified to install lockers to reduce transmission of head lice. Concentrate efforts on the scalp hair.

Resources

- CDC [tick removal](#) web page
- Cooperative extension service [office locator](#)