



## Pests and Pesticides in Child-serving Facilities: An IPM Newsletter

### Nuisance Birds

Pat Barnwell

Bird droppings can damage and deface buildings and equipment as well as foul areas where people walk or play. After young birds fledge, lice, mites and fleas left in the nest are capable of invading the structure that supports the nest. This can distress inhabitants. Nests can clog downspouts and intake vents and can be a fire hazard if located near wiring. Pigeons, starlings and house sparrows are able to transmit diseases to both humans and domestic animals. Crows and vultures can damage rubber roof covers. Canada geese can foul athletic fields leaving them



**House Sparrow**

[http://www.esd.ornl.gov/facilities/nerp/Nuisance\\_wildlife.pdf](http://www.esd.ornl.gov/facilities/nerp/Nuisance_wildlife.pdf)

Service is the Federal Agency with lead responsibility for dealing with wildlife damage complaints and issuing depredation permits. See <http://www.fws.gov/forms/3-200-13.pdf> and <http://www.fws.gov/permits/ltr/ltr.html> for information and clarification.

Before attempting to control problems with nuisance birds, identify the species causing the problem and check on local, state, and federal laws or codes for dealing with the species. The federal government has the ultimate authority and responsibility for dealing with migratory bird management, but state law can be stricter. If the bird is a protected species, contact Tennessee Wildlife Resources Agency (TWRA) for

slick. All birds except the English sparrow, European starling, and the pigeon or rock dove are protected by the Migratory Bird Treaty Act. Any action that causes depredation, for example, destroys eggs or an active nest (nests with eggs or juveniles), or captures, relocates, injures or kills protected birds, requires a permit. In the case of schools, permits can be issued when birds are causing structural damage to property or posing a threat to human health or safety, and nonlethal controls have not worked. U S Fish and Wildlife

### Special Points of Interest

- > Nuisance birds
- > Webinars & Other News From EPA
- > School IPM Technician Training



**European Starling**

[http://www.esd.ornl.gov/facilities/nerp/Nuisance\\_wildlife.pdf](http://www.esd.ornl.gov/facilities/nerp/Nuisance_wildlife.pdf)

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suggestions on nonlethal methods of control. TWRA works with USDA APHIS Wildlife Services to provide technical advice and operational assistance in resolving human-wildlife conflicts. The USDA APHIS website <https://www.aphis.usda.gov/wps/portal/aphis/home> has a section dealing with wildlife damage in particular from starlings, various blackbirds, Canada geese and vultures.

Of course, the best time to think about and plan for deterring birds from roosting and nesting on a structure is during the design and construction phase. For example, specify that any window ledges should be narrow and any projections should slope at a 45 degree angle. Post-construction, wood, metal or plexiglass sheets can be mounted at a 45 degree angle on ledges to discourage birds from landing. Use light fixtures without horizontal surfaces that could provide birds with a place for loafing, roosting, or nesting. Screen vents, gaps, and openings to exclude birds. Designs, such as decorative lattice structures over entrances to food services where birds could roost, are a poor choice. Avoid crossbars on walkways or entrance canopies. Minimize any nooks in semi-enclosed areas. Don't plant groves of trees and shrubs that are attractive to wildlife (<https://extension.tennessee.edu/publications/Documents/SP530.pdf>). Thinning smaller inner branches of trees may discourage roosting and loafing. Keep dumpsters covered so that food or refuse is unavailable for birds to eat. Eliminate bird feeders and bird baths while nuisance birds are a problem. Fix leaky faucets, clogged gutters and drains, and poor grading to remove sources of standing water.



**Crossbars supporting a walkway canopy are an ideal place for birds to roost.** Photo: UT EPP



**Light fixtures with flat tops invite birds to build nests.** Photo: UT EPP

Once birds become a problem, harassment, scare tactics, and exclusion will be situationally dependent. Not all methods and devices are equally effective for all species. Harassment, scare tactics and exclusion are nonlethal methods of control and do not require a permit for protected species unless there is a chance that adults will leave the nest and abandon eggs or juveniles. Special care must be taken when endangered species or eagles are present in the environment. Know what species you are working with and what methods and devices will be most effective. To increase the chance that a deterrence mechanism works, start using the deterrents as soon as the problem is noticed and before the birds become habituated to the site. Be persistent. Often a combination of devices is more effective than a single device. Varying the location and type of harassment devices prolongs effectiveness. Be aware that tackling one site may cause birds to move to another site on the same structure or another building nearby.

Several modifications and devices that help with bird exclusion are effective. The extent of the problem must be taken into consideration so as to justify the cost. Bird spikes, wire coils, monofilament or wire strung in a grid, electric shock wiring and tracks, and netting can be placed to exclude or deter birds from resting on a structure. Use polypropylene netting with a mesh size appropriate for excluding the species in question. Netting must be suspended so that it is 3" or 4" away from the surface needing protection. Hardware cloth or wire mesh can be used to block birds from using crevices or keep birds from entering through vents. Consider if you have the proper safety equipment and training for working at the heights required to install some of these exclusion devices. It may be better to hire a professional.

Starlings can be repelled from a night roost by loud sounds from pyrotechnics, propane canons or recorded distress calls. Check to make sure that the use of noise making devices is allowable especially in an urban area. Safety and caution in using pyrotechnics is also a concern; proper training is required. To be effective these



#### Barn Swallow Young in Nest

[http://www.esd.ornl.gov/facilities/nerp/Nuisance\\_wildlife.pdf](http://www.esd.ornl.gov/facilities/nerp/Nuisance_wildlife.pdf)

devices must be used as soon as the birds start to use a site and continue until they leave. Timing and persistence is important in dealing with nuisance wildlife. Vary the sounds for the best results. For starlings start the sound early in the evening while the birds still have enough light to find another site. Often it is wise to inform the public why noise making devices are being used.

Visual models such as mylar owls, hawks, snakes and balloons with scary eyes and metallic strips moved by breezes do little to deter pigeons but may work against sparrows for a short time. Loud sounds also tend not to dissuade pigeons and sparrows. Best nonlethal methods to control pigeons are the use of bird spikes, wire coils, bird wires strung in a grid, and electric shock wiring and tracks. A sticky polybutene gel can be applied to flat ledges to repel birds. Before applying the gel place strips of painters tape on the ledges so that the gel can be removed easily. Typically gels need to be replaced after six months.

Nest removal is another possibility for controlling pigeons and sparrows because they are not protected, but can be a public relations problem. Often, these birds will rebuild nests, so again persistence is required. Wear gloves when removing nests to avoid contact with parasites and seal the nest in plastic for disposal. If juveniles are present they must be humanely euthanized (<https://www.avma.org/KB/Policies/Pages/Euthanasia-Guidelines.aspx>).

The Internet Center for Wildlife Damage Management, <http://icwdm.org/handbook/index.aspx>, has a downloadable handbook with sections on various types of wildlife. Refer to the section on birds for help with managing rock pigeons, European starlings, English sparrows, blackbirds, swallows, woodpeckers, Canada geese, and other birds. Check the website [http://www.aphis.usda.gov/wildlife\\_damage/downloads/canada\\_goose.pdf](http://www.aphis.usda.gov/wildlife_damage/downloads/canada_goose.pdf) for permits to control Canada geese. USDA APHIS has information on managing vultures at [http://www.aphis.usda.gov/publications/wildlife\\_damage/content/printable\\_version/fs\\_vulture\\_damage\\_man.pdf](http://www.aphis.usda.gov/publications/wildlife_damage/content/printable_version/fs_vulture_damage_man.pdf). Contact TWRA for information on managing other nuisance birds that may not be listed.

Resources: Hedges, Stoy, ed. Mallis Handbook of Pest Control, 10th edition, 2011, Mallis Handbook LLC. pp 1163-1177.



Ferraro, Dennis. Urban Pests Birds Controlling Damage G 2024. <http://extensionpublications.unl.edu/assets/html/g2024/build/g2024.htm>

#### Pigeon (Rock dove)

[http://www.esd.ornl.gov/facilities/nerp/Nuisance\\_wildlife.pdf](http://www.esd.ornl.gov/facilities/nerp/Nuisance_wildlife.pdf)

## Upcoming Webinar and Other News From EPA

### Pest Prevention by Design in Schools

EPA will host a webinar, “Pest Prevention by Design in Schools”, on Feb. 23 from 2:00 to 3:30 p. m. To register go to, <http://www.epa.gov/managing-pests-schools/webinars-about-integrated-pest-management-schools>. Be sure to download a copy of the accompanying publication, *Pest Prevention by Design*, at [http://sfenvironment.org/sites/default/files/fliers/files/final\\_ppbd\\_guidelines\\_12-5-12.pdf](http://sfenvironment.org/sites/default/files/fliers/files/final_ppbd_guidelines_12-5-12.pdf). This publication offers advice on pest-proofing whether you’re planning for new construction, renovation or repairs.



### Follow up to *Urban Ecology and Pest Management* Article



**Door sweeps and astragal door seals, the first line of defense against pest entry** Photo credit:

<http://www3.epa.gov/pestwise/news/peps/pepswire-2016-02.pdf>

For those of you who enjoyed reading Booby Corrigan’s article in our last newsletter here is a link to a follow-up article in the winter 2016 issue of PESPWire

(<http://www3.epa.gov/pestwise/news/peps/pepswire-2016-02.pdf>). The article emphasizes the importance of exclusion in pest-proofing a structure, for example, sealing gaps between and under doors. Door gaps are a common problem in the majority of schools that we visit. Need some advice on what products to consider when sealing those door gaps? Follow

this link to an excellent article, “Of Rodents and Doors”,:

<http://www.pctonline.com/article/pct0815-rodent-control-doors-holes> that focuses on what products to consider depending on your situation.

In the PESPWire article Corrigan also mentions escutcheon plates, foams, and the importance of distinguishing between sealants and caulks and where to use them. Review “Pest Proofing: Caulks, Sealants, Foams, Metal Products or Door sweeps?” in the August 2009 newsletter, [http://schoolipm.utk.edu/documents/newsletters/august\\_2009.pdf](http://schoolipm.utk.edu/documents/newsletters/august_2009.pdf), to refresh your memory or learn something new. Corrigan doesn’t recommend foams especially in kitchens. Foam surfaces are full of tiny holes that are very difficult to clean and a good habitat for bacteria to grow on whatever might get splashed into those tiny holes.

## UT 2016 School IPM Technician Training



If your school system does in-house pest control and you would like to learn more about controlling pests with IPM, we are offering a series of training sessions across the state for school IPM technicians. In the morning session from 9:00 a. m. to noon, we spend time in the classroom covering basic principles of IPM and control for some common pests. In the afternoon from 1:00 to 5:00 p. m., you'll get practice in doing inspections in pest vulnerable areas and around the perimeter of a structure and in testing your knowledge. You might even want to encourage your contracted pest management professional to take the class.

The training is free and worth six points towards recertification. We provide a manual to study. Achieve 70 % or more on the test and earn a certificate of accomplishment and recognition on the [schoolipm.utk.edu](http://schoolipm.utk.edu) website.

Training opportunities are as follows:

March 21 in Lexington, TN at Caywood Elementary School

March 22 in Brentwood, TN at Brentwood High School

March 24 in Millington, TN at Millington Central High School

March 30 in Mosheim, TN at West Greene High School

To get a registration form for a class go to training on the website [schoolipm.utk.edu](http://schoolipm.utk.edu) or contact [pbarnwel@utk.edu](mailto:pbarnwel@utk.edu). Classes are limited to 25 participants.

# All Bugs Good and Bad

## 2016 Webinar Series



First Friday of the Month  
2:00 pm (Eastern)

### Join Us for This Free Webinar Series on Pests



**February 5** Don't Let the Insects Eat Your Vegetables  
*Dr. Ayanava Majumdar*



**March 4** Kill That Queen the First Time: Tips for Making Fire Ant Mound Treatments  
*Dr. Jason Oltver*



**April 1** Help Pollinators Cope with Pesticides  
*Dr. Jim Tew, Sallie Lee, Dani Carroll and Jack Rowe*



**May 6** Managing Pests of Backyard Pecans  
*Bryan Wilkins*



**June 3** Spotted Wing Drosophila  
*Dr. Hannah Burrack*



**August 5** Controlling Roaches Before They Control You  
*Dr. Fath OI and Janet Hurley*



**September 2** Snake Identification  
*Dr. Mike Wines*



**October 7** Don't Use Too Much Pesticide or Fertilizer: Learn How to Calibrate your Lawn and Garden Sprayers and Spreaders  
*Dr. Wayne Buhler*



**November 4** Rodenticides  
*City of New Orleans Mosquito, Termite and Rodent Control Board*



For more information on the series and how to connect to the webinars, visit:

<http://articles.extension.org/pages/73368>



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on this newsletter?

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For more information about IPM in Tennessee schools and other facilities, or to view past issues of *Pests and Pesticides in Child-serving Facilities*, please visit [schoolipm.utk.edu](http://schoolipm.utk.edu).

### **NATIONAL IPM INFORMATION**

eXtension's Pest Management In and Around Structures: Urban Integrated Pest Management [http://www.extension.org/urban\\_integrated\\_pest\\_management](http://www.extension.org/urban_integrated_pest_management)

National School IPM  
[schoolipm.ifas.ufl.edu/](http://schoolipm.ifas.ufl.edu/)

IPM in Schools Texas  
<http://schoolipm.tamu.edu/>

IPM Institute of North America  
[www.ipminstitute.org/](http://www.ipminstitute.org/)

School IPM PMSP—all schools IPM by 2015 [http://www.ipminstitute.org/school\\_ipm\\_2015.htm](http://www.ipminstitute.org/school_ipm_2015.htm)

National Pest Management Association IPM  
[www.whatisipm.org/](http://www.whatisipm.org/)

EPA schools  
<http://www2.epa.gov/managing-pests-schools>

For further information about the IPM program at your school or in your county, contact your county Extension Agent or the school IPM Coordinator. For county agent contact information, please visit <https://extension.tennessee.edu/Pages/Office-Locations.aspx>

## Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label.

## Disclaimer

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others that may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The author(s), the University of Tennessee Institute of Agriculture and University of Tennessee Extension assume no liability resulting from the use of these recommendations.

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