

Zoonotic Disease Newsletter

Washington State Department of Health's bulletin on zoonoses and vector-borne diseases

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In This Issue

Pet birds purchased recently may pose psittacosis risk

Distribution of mosquitoes in WA

Outbreak of turtle-associated Salmonella infections

Pet turtle act resurfaces

Plague: past, present, and future

Upcoming events

Pet birds purchased recently may pose psittacosis risk

By Ben Hamilton, Health Services Consultant, WA DOH Zoonotic Disease Program

Public health officials are warning that some recently purchased cockatiels and other pet birds may pose a health risk to people who are exposed to them.

Some birds traced to a vendor in Florida and shipped by a national distributor in Oklahoma have tested positive for avian chlamydiosis in 29 PetSmart stores across the nation, which included a couple of stores located in Washington.

So far, there have been no reports of people in our state contracting the human form of the disease, called psittacosis, but a few samples from symptomatic people with exposure to the birds have been submitted to commercial and CDC labs for testing.

"Local health jurisdictions have done a great job in dealing with the communication challenges and following up with investigations," said Dr. Ron Wohrle, environmental health veterinarian for the state Department of Health. "I feel the pet stores and local and state public health agencies are cooperating effectively, which will help ensure the safety of people who recently purchased a bird, employees at the stores, and the birds themselves."

PetSmart has suspended bird sales in approximately 775 stores in 46 states, including 20 stores in 11 Washington counties, which received birds from the company's primary vendor. The stores in Washington have been instructed to follow quarantine and treatment procedures that are consistent with the *Compendium of Measures to Control Chlamydophila psittaci Infection Among Humans and Pet Birds*, which can be viewed at www.nasphv.org/Documents/Psittacosis.pdf.

Cockatiels comprise the vast majority of the birds testing positive for avian chlamydiosis, so they are being isolated in rooms away from the public and treated with antibiotics. Other types of birds are also not allowed to be sold and are being treated proactively with antibiotics, but are allowed to stay in their normal habitats if they are enclosed in Plexiglas. Post-treatment testing of birds will occur two weeks following the end of the treatment period.

PetSmart expects bird sales at some stores to resume in April after the completion of preventive treatment and with approval from state and local health officials.

Customers who have recently purchased a cockatiel or any other type of bird from the 29 stores where birds tested positive for avian chlamydiosis are being contacted by PetSmart and provided information about the disease. Employees of each store were notified and instructed in proper cleanup and handling of the birds.



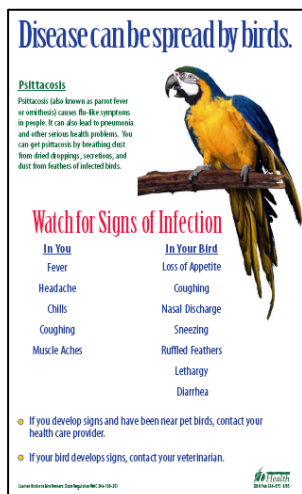
Birds often infected with the bacteria that causes avian chlamydiosis are psittacine species such as cockatiels, cockatoos, parrots, and parakeets.



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Pet birds risk continues on page 2



The Department of Health has an educational poster on avian chlamydiosis and psittacosis that can be used in pet stores, www3.doh.wa.gov/here/materials/CRA_Detail.aspx?ID=406.

Pet birds risk continued from page 1

The Florida Department of Health is investigating the source vendor of the infected birds. The vendor purchases birds from around 300 breeders and sells birds to other chain or independent pet stores, which means PetSmart isn't alone in having birds infected with avian chlamydiosis.

Avian chlamydiosis is a disease of birds caused by the bacterium *Chlamydochlamydia psittaci*. It is frequently found in birds but it doesn't always cause the bird to become ill. Sick birds often are lethargic, don't eat, loose weight, have thick discharges from eyes or nose, and diarrhea. Birds most frequently infected are psittacine species such as cockatiels, cockatoos, parrots and parakeets. Owners can have birds tested and treated with antibiotics by a veterinarian.

The bacterium can be passed from birds to people when dust from dried bird droppings or respiratory secretions are inhaled. People who are infected with the bacterium and develop psittacosis typically have a fever, chills, headache, muscle aches and a cough. These symptoms usually develop 5 to 19 days after exposure. While the disease is often mild, it can be serious if not recognized and treated. Antibiotics are often prescribed to treat infection. Anyone who develops these symptoms and has been near pet birds should contact their medical doctor.

To prevent the spread of psittacosis, birdcages should be cleaned often to avoid waste build-up. A non-dusty litter such as newspaper should be placed under the wire mesh and changed daily. Water and food bowls should be emptied and rinsed daily. When bars or perches must be clean they should be washed using a disinfectant and rinsed thoroughly. Wet-mopping floors and countertops near cages will help avoid circulating dust and feathers.

Veterinarians are required to report cases of avian chlamydiosis and health care providers are required to report human cases of psittacosis to local health jurisdictions.

Distribution of mosquitoes in Washington State

By Anne Duffy, Public Health Advisor, WA DOH Zoonotic Disease Program

December's *Journal of the American Mosquito Control Association* includes an article entitled "Distribution of Mosquitoes in Washington State" authored by William J. Sames, Francis Maloney, and Chad McHugh (U.S. Military); Jill Townzen (Oregon State University); and Zoonotic Disease Program staff Anne Duffy and Jo Marie Brauner.

The publication represents the compilation of data from published literature, museum mosquito collections, and surveillance records. Surveillance records from the Zoonotic Disease Program resulted from the participation of mosquito surveillance partners in the statewide monitoring program since 2001. Prior to this publication, the most current information on the distribution of mosquitoes in Washington was the 1966 "Distribution of Mosquitoes and Chaoborids in Washington State, By Counties" by Roy J. Myklebust of the Washington State Department of Health.

This study culminated in the formation of county checklists for eastern and western Washington mosquitoes. These checklists include the source of the earliest collection information for each listed species and a discussion on distributions of rare findings. Forty-four mosquito species are listed in the checklists, and an additional eight species rarely found are discussed. The revision to the 1966 checklist shows the distribution of eight previously unrecognized mosquito species, *Anopheles earlei*, *Culiseta morsitans*, *Culex apicalis*, *Culex boharti*, *Ochlerotatus aloponotum*, *Ochlerotatus japonicus japonicus*, *Ochlerotatus nevadensis*, and *Ochlerotatus togoi*, as well as new county records. This brings the total number to 44 mosquito species from 6 genera in Washington State.

Washington mosquito surveillance partners will be receiving copies of this newly published article before the beginning of the 2008 mosquito season.



The majority of case-patients involved in a recent *Salmonella* outbreak who were exposed to a turtle reported that the turtle had a carapace length of less than 4 inches.

Outbreak of turtle-associated *Salmonella* infections

Adapted from *Morbidity and Mortality Weekly Report*, CDC, January 25, 2008, Vol. 57, No. 3

On August 31, 2007, a girl aged 13 years visited a South Carolina hospital emergency department, where she reported a 5-day history of bloody diarrhea, abdominal cramps, fever, and vomiting. She was treated with trimethoprim-sulfamethoxazole and intravenous fluids but was not hospitalized. Her illness resolved in 7 days. A stool specimen yielded *Salmonella* Paratyphi B var. Java. Also on August 31, a girl aged 15 years was admitted to a North Carolina hospital with acute renal failure and a 4-day history of bloody diarrhea, abdominal cramps, fever, and vomiting. She was hospitalized for 8 days and recovered fully. A joint investigation by North Carolina Division of Public Health and the South Carolina Department of Health and Environmental Control revealed that, on August 24, the two girls had swum in an unchlorinated, in-ground swimming pool belonging to the family of the older girl. Two pet turtles belonging to the family also were permitted to swim in the pool. The turtles, both of which had carapace lengths of less than 4 inches, had been purchased recently from a pet shop in South Carolina. A water sample collected from the turtle habitat yielded *Salmonella* Paratyphi B var. Java with an *Xba*I pattern indistinguishable by pulsed-field gel electrophoresis from the isolates of the younger girl. Stool specimens were not collected from the older girl.

A subsequent multistate investigation followed and revealed:

- A total of 103 cases with isolates indistinguishable from the outbreak strain had been reported to CDC from 33 states as of January 18, 2008
- According to general enteric disease questionnaires, of the 100 patients for whom age information was available, 56 (56%) were aged ≤ 10 years
- Among the 70 case-patients interviewed for a study, 44 (63%) reported exposure to a turtle during the 7 days before illness onset
- Of the 42 case-patients for whom the details of the turtle exposure were known, 28 (67%) reported holding or touching the turtle, 24 (57%) reported feeding the turtle, 29 (69%) reported contact with the turtle's habitat and 4 (10%) reported kissing the turtle or having put the turtle in his or her mouth
- Thirty-seven (86%) of the 43 case-patients who were exposed to a turtle and for whom turtle size information was available reported that the turtle had a carapace length of less than 4 inches

Read the MMWR at www.cdc.gov/mmwr/preview/mmwrhtml/mm5703a3.htm.

Pet Turtle Act Resurfaces



Since 1975, no turtles with a carapace of less than 4 inches have been allowed for sale in the U.S., except if used for scientific, educational, or exhibition purposes. Although the prohibition is largely un-enforced (small turtles can often be found in flea markets, pet stores, or online) it is credited with preventing an estimated 100,000 *Salmonella* infections in U.S. children each year. During 2001-06, the number of turtles kept as pets increased 86% to nearly 2 million turtles.

The U.S. Senate recently passed a farm bill with the "Domestic Pet Turtle Equality Act" attached, which will, as it's currently written, either open the market to pet turtle sales or close the market to reptiles and amphibians that contain a similar or greater prevalence of *Salmonella* than that of pet turtles. A joint House-Senate committee has to work out a final version of the farm bill before it moves on, which means the turtle provision could still face the axe, as it did in previously proposed legislation last year.

Supporters of the pet turtle act argue that other pet reptiles and amphibians can carry *Salmonella* and are sold, technology exists to eradicate the bacteria from turtles up to the point of sale, and pet owners can be equipped to keep their turtles *Salmonella* free.

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Plague: past, present, and future

Stenseth NC, et al. *PLoS Medicine*, January 2008, Volume 5, Issue 1

Recent experience with SARS (severe acute respiratory syndrome) and avian flu shows that the public and political response to threats from new anthroozoonoses can be near-hysteria. This can readily make us forget more classical animal-borne diseases, such as plague.

Three recent international meetings on plague concluded that: (1) it should be re-emphasised that the plague bacillus (*Yersinia pestis*) still causes several thousand human cases per year; (2) locally perceived risks far outstrip the objective risk based purely on the number of cases; (3) climate change might increase the risk of plague outbreaks where plague is currently endemic and new plague areas might arise; (4) remarkably little is known about the dynamics of plague in its natural reservoirs and hence about changing risks for humans; and, therefore, (5) plague should be taken much more seriously by the international community than appears to be the case.

Read more about the past, present, and future of this neglected disease at <http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pmed.0050003>.

Upcoming workshops, meetings, conferences**Zoonotic and Vector-borne Disease Workshop**

Aimed at increasing knowledge in response and prevention of zoonoses, this informative workshop covers a host of topics from the biology of bed bug infestations to the spread of psittacosis, concerns about MRSA, and the latest zoonoses in marine mammals. The agenda will soon be posted at www.doh.wa.gov/ehp/ts/zoo.htm.

Burien – Tuesday, March 11, 2008
Washington State Criminal Justice Training Commission Auditorium

Moses Lake – Thursday, March 13, 2008
Big Bend Community College, 1800 (ATEC) Building, Rooms 1870 C&D

The American Mosquito Control Association 74th Annual Meeting

This meeting will consist of presentations and exhibits that illustrate and highlight the latest science, technology and products used to conduct research and control vectors. This meeting also provides ample opportunities to network with vector control professionals, researchers and educators from around the world. More information is at www.mosquito.org/.

Sparks, Nevada – March 2 - 6, 2008
John Ascuaga's Nugget

International Conference on Emerging Infectious Diseases

The conference brings together public health professionals to encourage the exchange of scientific and public health information on global emerging infectious disease issues. The program will include plenary and panel sessions with invited speakers as well as oral and poster presentations on emerging infections. Major topics to be included are current work on surveillance, epidemiology, research, communication and training, bioterrorism, and preventions and control of emerging infectious diseases, both in the United States and abroad. More is at www.iceid.org.

Atlanta, Georgia – March 16 - 19, 2008
Hyatt Regency