

## Letters to the Editor

### Disputes prevalence of *Leishmania* carriers in the United States

In their report of a serosurvey to detect antibodies against *Leishmania donovani* in dogs (JAVMA, Mar 1, 2003, pp 603–606), Grosjean and colleagues state, somewhat misleadingly, “although there are sand flies in the southern United States.” In fact, sand flies are widely distributed in the United States and occur as far north as southern Canada.<sup>1</sup> In areas where they are not known, it probably is because of a lack of collecting effort rather than a true absence of the insects. They also state “no infected sand flies have been reported in the United States to date.” In October of 1991, three of 27 *Lutzomyia anthophora* (Addis) collected within the city limits of San Antonio, Tex, were found to be infected with flagellate protozoans.<sup>2</sup> Two of the isolates were identified as *L. mexicana*. This sand fly species is a nest associate of the wood rat, *Neotoma micropus*, and believed to be the enzootic vector of *Leishmania* among the rodents.

Given that *L. mexicana* probably occurs in wood rat populations over much of the southern United States<sup>3,4</sup> and that humans occasionally are infected,<sup>5</sup> it would be interesting to rescreen the reactive dog from Texas for antibodies against *L. mexicana*.

Chad P. McHugh, MPH, PhD  
Brooks City-Base, Tex

1. Young DG, Perkins PV. Phlebotomine sand flies of North America (Diptera: Psychodidae). *Mosq News* 1984;44:263–304.

2. McHugh CP, Grogl M, Kreutzer RD. Isolation of *Leishmania mexicana* (Kintoplastida: Trypanosomatidae) from *Lutzomyia anthophora* (Diptera: Psychodidae) collected in Texas. *J Med Entomol* 1993;30:631–633.

3. Kerr SF, McHugh CP, Dronen NO Jr. Leishmaniasis in Texas: prevalence and seasonal transmission of *Leishmania mexicana* in *Neotoma micropus*. *Am J Trop Med Hyg* 1995;53:73–77.

4. Kerr SF, McHugh CP, Merkelz R. Short report: a focus of *Leishmania mexicana* near Tucson, Arizona. *Am J Trop Med Hyg* 1999;61:378–379.

5. McHugh CP, Melby PC, LaFon SG. Leishmaniasis in Texas: epidemiology and clinical aspects of human cases. *Am J Trop Med Hyg* 1996;55:547–555.

### Dr. Grosjean responds:

Although we concur with Dr. McHugh's suggestion to test the reactive dog's serum for *Leishmania mexicana*, screening for other species of *Leishmania* was not part of our study. In future studies, we would like to evaluate test-positive samples and differentiate between *L. mexicana* and *L. donovani*. *Leishmania mexicana* is in the United States, particularly in Texas.<sup>1</sup>

In response to Dr. McHugh's statements regarding the identification of *Leishmania* organisms in sand flies, we would like to clarify. Sand flies that are known to transmit *L. donovani* have not been reported in the United States.<sup>2</sup> Sand fly species that are known to transmit other species of *Leishmania* have been identified in the United States.<sup>2</sup>

The authors thank Dr. McHugh for his thoughts and suggestions. We appreciate his contribution to the project and the article.

Nicole L. Grosjean, BS  
East Lansing, Mich

1. Bravo L, Frank LA, Brenneman KA. Canine leishmaniasis in the United States. *Compend Contin Educ Pract Vet* 1993;15:699–708.

2. Monti DJ. Hunters hounded as leishmaniasis is diagnosed in Foxhounds. *J Am Vet Med Assoc* 2000;216:1887, 1890.

### In defense of bats

For most veterinarians, the issue of rabies in bats is one of public health and the health of domestic animals that potentially come into contact with bats. Our clients look to us as professionals who should know about rabies and the risks to them, their children, and pets. After reading the report on trends in surveillance for rabies among bats in Mar 1, 2003, JAVMA (pp 633–639), I felt that someone should clarify something in the defense of bats that is not reflected by the statistics cited by the authors.

By and large, most surveys of rabies in bats, including this current one, are based on samples from bats submitted for rabies testing and, therefore, not representative samples from natural populations. Those studies<sup>1,2</sup> that survey random individuals from natural bat colonies find that less than 1% of individuals test positive for rabies. This is to be compared with the much higher prevalence of rabies in bats with clinical signs of illness,<sup>3</sup> including lethargy, weakness (inability to fly), and perceived aggression. Sick and weak bats are the ones most likely to

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### Instructions for Writing a Letter to the Editor

Readers are invited to submit letters to the editor. Letters may not exceed 500 words and 6 references. All letters are subject to editing. Those pertaining to anything published in the JAVMA should be received within one month of the date of publication. Submission via e-mail ([JournalLetters@avma.org](mailto:JournalLetters@avma.org)) or fax (847-925-9329) is encouraged; authors should give their full contact information including address, daytime telephone number, fax number, and e-mail address if available.

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come into close contact with humans and, therefore, be submitted for rabies testing. Healthy, nonrabid bats (representing greater than 99% of the population) avoid close human contact and are rarely, if ever, submitted for rabies testing.

As veterinarians, we should educate our clients that it is unwise and potentially dangerous to approach a bat, especially because healthy bats are not commonly encountered during everyday human activity. Children should be taught to leave these creatures alone and tell their parents about them. But we should also be careful not to villainize these fascinating creatures. Bats fill an important ecologic niche and do much for us by way of insect control and pollination. Clients should understand that they and their families do not suffer any risk of contracting rabies just by having bats flying around their homes. Bats can, in fact, be interesting and desirable guests.

The authors of the *JAVMA* article do warn that their statistics are skewed because of the nature of the sample population and means of submitting data (eg, certain states submit only positive rabies test data). They state that their data "cannot be interpreted as a measure of the true incidence or prevalence of rabies in any natural population." I just want to emphasize that, while the seriousness of rabies as a zoonosis should not be downplayed, neither should bats be hated or feared.

Bruce W. Christensen, DVM  
Tinton Falls, NJ

1. Sheeler-Gordon LL, Smith JS. Survey of bat populations from Mexico and Paraguay for rabies. *J Wildl Dis* 2001;37:582-593.

2. Steece R, Altenbach JS. Prevalence of rabies specific antibodies in the Mexican free-tailed bat (*Tadarida brasiliensis mexicana*) at Lava Cave, New Mexico. *J Wildl Dis* 1989;25:490-496.

3. Pape WJ, Fitzsimmons TD, Hoffiman RE. Risk for rabies transmission from encounters with bats, Colorado, 1977-1996. *Emerg Infect Dis* 1999;5:433-437.

### The authors and Dr. Rupprecht respond:

We appreciate and agree with the comments of Dr. Christensen

regarding our recent publication. Rabies infection is rarely detected among healthy bats.<sup>1</sup> Rabies in humans in the United States has been reduced to a few cases each year, and the risk of acquiring this disease is not a justification for indiscriminate harming of individual bats or colonies of these important mammals.

Our report focused on the status and trend in national surveillance for rabid bats. Although we do report the number of bats submitted for diagnostic testing and the percentage testing rabid, the major objective was to assess progress in collaborative efforts between the states and Centers for Disease Control and Prevention to improve the quality of information obtained from bat specimens. By providing this summary, we attempted to inform and reassure the numerous individuals contributing these data that their efforts are yielding important information. As Dr. Christensen points out, we never equated surveillance data with rabies prevalence among healthy bats.

The annual national rabies surveillance summary has historically described testing results under the category bats. Sparse data collected on bats limit the usefulness of the information to veterinary and public health officials with the important responsibility of identifying persons or animals exposed to rabid bats and deciding appropriate actions, such as postexposure prophylaxis for humans and long-term quarantine or possibly euthanasia for exposed animals.<sup>2,3</sup> Focusing solely on the rabies test outcome is a wasted opportunity to collect valuable information on animals already euthanized.

Details on the species and numbers of bats tested, location of capture, reasons for submission, and interactions with humans or other animals are valuable to wildlife biologists, mammalogists, and public health officials. These data complement efforts to understand the status of bats in the United States and efforts to reduce interactions and unnecessary killing of bats. One of our primary goals in publishing this article was to encourage ongoing, and sometimes fledgling, efforts in this direction.

Many of the individuals who work on zoonoses came to their vocation because of a deep interest in natural history and the recognition of disease as a major factor in wildlife ecology and conservation.<sup>4</sup> At times, the interests of protecting human and animal health and promoting wildlife conservation appear to conflict. Defining a reasonable balance between these interests is never simple, and proposed solutions may fail to satisfy all interests. Many bat species serve as a reservoir for rabies virus, and bat-associated variants of rabies virus have been disproportionately associated with human rabies in the United States since the mid 1980s.<sup>1</sup> Recommendations for humans<sup>2</sup> and other animals<sup>3</sup> potentially exposed to rabid bats stress limiting bat submissions to individual animals potentially involved in the exposure. Other recommendations aimed at reducing human-bat interactions are designed to protect bats as much as humans. We need to limit the sacrifice of bats to a minimum, but maximize the information obtained when sacrifice is unavoidable.

James E. Childs, ScD  
Alison Mondul, MSPH  
John W. Krebs, MS  
Charles E. Rupprecht, VMD, PhD  
Atlanta, Ga

1. Messenger SL, Rupprecht CE, Smith JS. Bats, emerging virus infections, and the rabies paradigm. In: Kunz TH, Fenton MB, eds. *Bat ecology*. Chicago: University of Chicago Press, 2003:622-679.

2. Centers for Disease Control and Prevention. Human rabies prevention—United States, 1999: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Morb Mortal Wkly Rep* 1999;48:1-21.

3. Jenkins SR, Auslander M, Conti L, et al. Compendium of Animal Rabies Prevention and Control, 2003. *J Am Vet Med Assoc* 2003;222:156-161.

4. Hudson PJ, Rizzoli A, Grenfell BT, et al, eds. *The ecology of wildlife diseases*. Oxford: Oxford University Press, 2002;197.

### Criticized veterinarian speaks out

I graduated in 1991. After my first several years of practice in the Seattle area, I was confident in my

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skills and seemed happiest when working on tough medicine cases or performing a complicated surgery.

Little did I know that after I moved to Iowa in 1999, my course and attitude would change. I started my own house-call practice using a new, well-equipped, 24-ft mobile unit. After a successful first year, I sold my client list to go where my heart had slowly been leading me.

I now do high-quality, low-cost (I am the only employee, so overhead is low) work for shelters, trap-neuter-release programs, and rescue groups. Needless to say, most of my job is performing spays and castrations. I knew that I would become the target for ridicule from local veterinarians, but had no idea the lengths some would go to try hurting my reputation.

One veterinarian offered to waive his \$50 after-hour fee in exchange for having his client write a letter to the local paper denouncing low-cost spay/neuter veterinarians. The client had gone to him requesting oral pain medication for the dog the day after it was spayed. She had my telephone number but chose to go to the local veterinarian out of convenience.

One veterinarian told the

owner of a kitten she recently adopted from a shelter I work for that I couldn't possibly have removed both ovaries, as I do my cat spays via the right flank (I tattoo the belly to indicate the surgery was done).

Time and time again I've been told off by lay folks and veterinarians who say I have no business doing spays before the animals are six months old. Well, if the animal has a home and a responsible owner, I agree surgery can wait until six months of age. However, none of the animals I see have owners, and none are guaranteed to go to a responsible owner who will follow through on having the neuter done, despite vouchers. Therefore, we neuter animals before they leave.

I have always made myself available to talk to veterinarians who don't agree with me. The van is always open to a visitor who wants to see my procedures. I also think if the veterinarians who enjoy criticizing me were to see the piles of dead animals the poor shelter folks need to deal with because of overcrowding, they may change their tune.

*Jennifer Doll, DVM  
Solon, Iowa*