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All Wildlife Diseases, All Conservation, All One Health, All the Time!

NEWS RELEASE ON ARTICLES FROM JOURNAL OF WILDLIFE DISEASES 53(2)

Health of wildlife, domestic species and human beings, and the environments that support them (One Health), has been a focus of the Wildlife Disease Association for more than 55 years. The Journal of Wildlife Diseases (JWD) issue 53(2) has several articles with particular conservation and wildlife management significance that we would like to make you aware of.

Cases of brucellosis in cattle around Yellowstone National Park are often blamed on American bison. In **“Brucellosis Transmission between Wildlife and Livestock in the Greater Yellowstone Ecosystem: Inferences from DNA Genotyping”**, **Michael O’Brien** and his co-workers found genetic relationships among *Brucella abortus* isolates from wildlife and cattle that suggest elk were the source of a cattle outbreak in 2008 in Montana and Wyoming, and that brucellosis was introduced into Montana by migration of infected elk from Wyoming.

A “trap-vaccinate-release” program to control a rabies outbreak in raccoons in New York City’s Central Park was apparently successful. But, **“Health survey of free-ranging raccoons (*Procyon lotor*) in Central Park, New York, New York, USA: Implications for human and domestic animal health”**, whose lead author was **Kimberley Rainwater**, found other causes of disease like the parasites *Baylisascaris procyonis* and *Toxoplasma gondii*; the bacteria *Rickettsia rickettsia*, *Campylobacter jejuni*, and *Salmonella enterica*; canine parvovirus; and elevated lead levels, indicating that raccoons in Central Park may play a role in disease transmission between humans, domestic animals, and other wildlife.

Analysis of blood is the most commonly done to evaluate the health of animals. It is well known that there may be normal seasonal variation in blood values. In **“A need for dynamic hematology and serum biochemistry reference tools: Novel use of sine wave functions to produce seasonally varying reference curves in platypuses (*Ornithorhynchus anatinus*)”**, a team lead by **James Macgregor** used a novel method for determining what is “normal” in the face of seasonal variation in blood values. They used a sine wave function to plot blood values of platypus across seasons and found that metabolic changes associated with changes in environmental temperatures may be responsible for the changes in blood parameters over a year.

The majority of investigations of disease in wild animals focus on a single pathogen or disease. **Josephine Afema** and a group from Alaska and California studied a declining population of muskoxen and searched for evidence of a range of infectious and noninfectious diseases. In "**Disease complexity in a declining Alaskan muskox (*Ovibos moschatus*) population**" they found multiple disease syndromes that contributed to mortality of individual muskoxen and that likely contributed together to the reduction of the studied population.

Abstracts of these and other articles in JWD 53(2) are available at:

<http://www.wildlifedisease.org/wda/PUBLICATIONS/JournalofWildlifeDiseases/OnlineJournal.aspx>

If you are interested in getting access to the full article contact wda.manager@gmail.com

