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

NEWS ON ARTICLES FROM JOURNAL OF WILDLIFE DISEASES 52(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 50 years. The Journal of Wildlife Diseases (JWD) issue 52(3) has several articles with particular conservation and wildlife management significance that we would like to make you aware of.

Wildlife professionals sometimes wonder whether citizen science can effectively address complex biological questions. In **CITIZEN SCIENTISTS MONITOR A DEADLY FUNGUS THREATENING AMPHIBIAN COMMUNITIES IN NORTHERN COASTAL CALIFORNIA, USA** an eclectic team led by **Richard Botzler** and **Janet Foley** showed that the probability of being positive for *Batrachochytrium dendrobatidis* (Bd), nearly doubled when a child (≤ 12 yr old) collected the sample compared to a teen or adult. Foothill yellow-legged frogs, northern red-legged frogs, and western toads were more likely to be positive than were Pacific chorus frogs. And frogs tested in winter or spring were more likely to be positive than those tested in summer or fall. Their finding support other studies showing amphibians are more susceptible to Bd when temperatures are cool and that species differ in their susceptibility.

Despite growing concern about the impact of infrasound from wind farms on human and animal health there is little real data available. **Roseanna Agnew** and a British team looked at hair cortisol levels (a measure of stress) in badgers whose setts were various distances from wind farms. The cortisol levels were 264% higher in badgers living less than 1 km of a wind farm than in badgers greater than 10 km from a wind farm. No differences were found between the cortisol levels of badgers living near wind farms operational since 2009 and 2012, indicating that the animals do not become habituated over time to turbine disturbance. Cortisol levels in the affected badgers did not vary in relation to the distance from turbines within 1 km, wind farm annual power output, or number of turbines. They suggest **WIND TURBINES CAUSE CHRONIC STRESS IN BADGERS (*MELES MELES*) IN GREAT BRITAIN**.

Avian trichomonosis, a disease typically caused by the protozoan parasite *Trichomonas gallinae*, is a well recognized cause of death in many avian species. **ECOLOGIC DRIVERS AND POPULATION IMPACTS OF AVIAN TRICHOMONOSIS MORTALITY EVENTS IN BAND-TAILED PIGEONS (*PATAGIOENAS FASCIATA*) IN CALIFORNIA, USA** investigates 54 mortality events from 1954 – 2014 involving from 10 to 10,000 birds. **Krysta Rodgers** and colleagues show that winter temperature and precipitation, and coast live oak acorn production were associated with outbreaks. Estimated mortality was highly variable across years, but cumulative losses were substantial and likely to have a negative impact on population size.

In **MORTALITY DURING TREATMENT: FACTORS AFFECTING THE SURVIVAL OF OILED, REHABILITATED COMMON MURRES (*URIA AALGE*)** medical records were examined from 468 unoiled and 913 oiled COMU's resulting from a series of leaks from a Korean War era sunken tanker, the S.S. Jacob Luckenbach, off San Francisco, California from November 2001–January 2003. **Rebecca Duerr, Mike Ziccardi and Greg Massey** show that degree of oiling did not correlate with body mass (BM), packed cell volume (PCV), total plasma protein (TP), and higher survival. But they were positively correlated with each other and core body temperature (T). More heavily oiled COMUs may be in better condition than less oiled birds because they beach themselves immediately to avoid drowning and hypothermia, whereas lightly oiled birds may postpone beaching until exhausted due to extreme body catabolism. The strong relationship of PCV to BM, regardless of oiling, provides evidence that anemia commonly encountered in oiled seabirds may be a sequela to overall loss of body condition rather than solely due to toxic effects of petroleum exposure.

Abstracts of these and other articles in JWD 52(3) are available at:

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

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

