

## In This Issue

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### SPECIAL FEATURE: 40TH ANNIVERSARY OF USA ENDANGERED SPECIES ACT

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2013 marks the 40th year anniversary of the United States' Endangered Species Act, an act passed by Congress to preserve the country's rich and diverse animal life by protecting and recovering species on the brink of extinction. **Jamie Rappaport Clark**, President and CEO of Defenders of Wildlife, looks back on the history of the ESA and where it is headed in this issue's editorial. **Sleeman** explores the potential of using a big science approach to make significant and enduring progress in managing diseases that threaten wildlife. In the southwest, **Huss et al.** sampled archived specimens of American bullfrogs to determine that *Batrachochytrium dendrobatidis* (*Bd*) has been present in California for the most of the twentieth century. **Atkinson et al.** studied avian malaria and avian pox virus as they continue to play significant roles in the decline and extinction of native forest birds in the Hawaiian Islands. Honing in on insect conservation, **Smith et al.** examined the political and socioeconomic factors that have contributed to honey bee colony declines over the past 50-years as the global number of colonies has increased. **Lander et al.** found that serum biochemistry, a method useful for long-term monitoring of endangered species, could be used to distinguish between the endangered western and eastern Steller sea lion pups from Alaska. **Tran and Waller** considered the influence that landscape and climatic factors at a regional scale have on Lyme disease incidence while **Walsh** identified a significant association between forest fragmentation and giardiasis using 11-years of giardiasis surveillance data in New York State. **Brand** selected examples of data from the National Wildlife Health Center that have contributed to management actions and decisions by natural resource agencies in the conservation of listed species and **Johnson et al.** summarized health implications for many scavenging

species at risk of lead poisoning from ammunition, particularly for the California condor which is a sensitive indicator for lead contamination in the environment.

### BD AND BULLFROGS

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**Martel et al.** studied the occurrence of amphibian pathogens and zoonotic agents in 164 bullfrogs from three populations in Belgium and The Netherlands. It was found that *Bd* was present at a high prevalence of 63%, but mean infection loads were low with an average of 10.9 genomic equivalents. This finding confirms the role of bullfrogs as *Bd* carriers, but questions their role as primary reservoirs for *Bd* transmission to native amphibian communities.

### FRUIT BAT PATHOGENS

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Detection of zoonotic pathogens carried by bats is important both for understanding disease ecology and for developing preventive measures. In a cross-sectional study by **Islam et al.** the prevalence of *Salmonella* Typhi and other *Salmonella* serotypes in fruit bats in Bangladesh was studied. The data showed that no bats were positive for *Salmonella* Typhi, but one was for *Salmonella* Virchow, making it the first report of isolation of this organism from a fruit bat. Close associations between bats, humans, and livestock in rural Bangladesh make it likely that the bat was infected by consuming contaminated water.

### FREE-LIVING BIRDS IN GERMANY

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A study of free-living birds in urban Germany provided evidence that bacterial disease is not a major cause of death or disease among the examined species. **Schmidt et al.**

found that potentially pathogenic bacteria only led to septicemia or life-threatening lesions in combination with other debilitating factors such as parasitic disease or an immature immune system. As free-living birds are presented to veterinarians at rehabilitation centers and private practices or to persons who hand-raised free-living birds, information about disease processes and causes of death can aid the clinician in establishing proper treatment and in the assessment of potential zoonotic risks.

## JAPANESE ENCEPHALITIS IN NEPAL

Japanese encephalitis (JE) is the leading cause of viral encephalitis in Asia and a significant public health problem in Nepal. An ecohealth approach has been nominated as way to assist in finding and prioritizing locally relevant strategies for JE control. **Hecker et al.** used network analysis to determine how Nepalese experts conceptualize the relationship between known biological, social, and environmental JE risk factors. Results suggest that experts did not view JE as a product of complex socio-ecological systems. A key consideration when attempting to implement ecohealth projects is the need to understand the nature of systems thinking among collaborators and knowledge users.

## HOME ON THE RANGE

Rangeland degradation affects the biodiversity and soil quality of the land as well as the people who depend di-

rectly or indirectly on a healthy rangeland. In a case study of the Qinghai–Tibetan Plateau, **Dong et al.** have put forward a modified Costanza model to assess rangeland health by comparing it to other models to verify its plausibility.

## BACTERIAL AND PARASITIC ZOOSES IN VIETNAM

Over recent years, Vietnam has experienced rapid development and intensification of animal production systems. **Carrique-Mas and Bryant** summarized the current knowledge on bacterial and parasitic infections in Vietnam. Their review highlights parasitic diseases that are endemic in the country as well as emerging diseases such as *Streptococcus suis* that are likely to be foodborne. They suggest that the burden of foodborne diarrheal bacterial diseases is unlikely to be very high due to good levels of population immunity, but this may change alongside urbanization and changes in production systems.

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