EcoHealth 3, 221–222, 2007
DOI: 10.1007/s10393-006-0073-1

ECOHEALTH

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In This Issue

A Study in the Time of Cholera

Cholera epidemics are a major public health crisis in many developing, tropical countries and nowhere more so than in Africa. Relationships between cholera, temporal patterns, and climate have been demonstrated in areas of Asia and South America, but not yet in Africa. In this article, **Constantin de Magny et al.** analyze links between abiotic variables and cholera in Ghana. Their results show a strong statistical association, from the end of the 1980s, between cholera outbreak resurgences in Ghana and indices of rainfall, temperature, and pressure. This has important implications, since, as global temperatures increase, diseases like cholera may spread to higher latitudes.

Hawaiian Monk Seals Still in Hot Water

The Hawaiian monk seal is the most endangered marine mammal in USA waters. Despite conservation efforts, the population with ~1200 individuals continues to decline. Several factors have been incriminated including starvation, predation, mobbing (aggressive male behavior towards females), biotoxins, and disease. Recently, increasing numbers in the waters of the Main Hawaiian Islands (MHI), in contrast to the continuing sharp decline in the largely uninhabited Northwestern Hawaiian Islands (NWHI), are now exposed to a broad range of human, domestic animal, and feral animal pathogens. This study by **Littnan et al.** addresses the movement and foraging habitats of monk seals in the MHI relative to their potential exposure to known infectious diseases in near-shore marine habitats.

Mental Health and Environmental Degradation

The relationship between mental health and environmental degradation is an emerging field of interest for EcoHealth practitioners. **Higginbotham et al.** have developed a scale capable of measuring what they call the ''bio–psycho–social'' impacts of degradation to people's lived surroundings. The scale combines hazard perception, threat appraisal, felt impact of changes, environmental actions, and Albrecht's loss of place (''solistalgia'') across six subscales. Using data from groups with different exposures to disturbance in the Upper Hunter River in eastern Australia, their article successfully validates the psychometric scales by demonstrating intercorrelations between subscales and strong reliability—both internal consistency and test–retest.

Protecting the Land May Protect Your Health

A substantial amount of public health research suggests a strong connection between social capital, including the level of a population's involvement in civic action, and health. Yet studies had not singled out the possible health effects of civic involvement in ecosystem protection. In six rural communities across Victoria, New Zealand, **Moore et al.**, in a study aimed at addressing this question, examined the health, well-being, and social capital benefits gained by community members involved in the management of land for conservation They found an association with this activity and individuals' health and well-being, as well as the social capital of the local community.

Lyme Disease Risk and the Forest Edge

There is growing interest in how infection risk varies over the landscape. For vector-borne zoonotic diseases with multiple reservoir hosts, risk is driven by complex interactions among vectors, hosts, the landscape, and the pathogen. In this issue, **Horobik et al.** tease apart this complexity to show that the increased risk of infection by Lyme disease on forest edges in the northeast USA is a product, primarily, of human behavior, rather than of increased tick density and prevalence.

Measuring the Effects of Aquatic Ecosystem Restoration—Long Term

How may we judge the effectiveness of ecosystem health restoration efforts in aquatic ecosystems? **Morley and Lewis** use the assumption that species richness of molluscs and their trematode assemblages is an adequate surrogate for aquatic biodiversity and ecosystem function. Data collected from four sampling episodes in a canal in England over a 30-year period provide an opportunity to examine shifts in the community before and after restoration activities were conducted. The stability and diversity of the assemblage is used to demonstrate a slow, modest return of ecosystem health.

Ecotones and Emerging Infectious Diseases

The role of edge habitat, sometimes called ''ecotones,'' in the emergence of some diseases has long been recognized in ecological epidemiology and vector-borne disease literature. A recent rethinking and elaboration of the ecotone concept in landscape ecology, however, suggests the association with emerging infectious diseases (EID) may be more significant than previously considered. **Despommier et al.** examine the current literature to determine whether ecotones, now defined as dynamic and complex parts of ecosystems, are associated with largely the same ecological and evolutionary processes that facilitate emergence of zoonotic diseases. The authors found that at least 10 major EID have been shown to be associated with specific ecotones and ecotonal processes. Approximately 50 more diseases are suggested to have similar mechansims of emergence.

Birds and Pathogens

It seems, the more we look, the more likely we are to see connections among changing distributions of plants and animals, and shifting distributions of parasites and pathogens of relevance to humans. Less common are detailed descriptions of the ways humans might be implicated, beyond the generality that host expansions are caused by human activity or affect human farming systems or humans themselves (or both). In this issue, **Epstein et al.** examine the potential for expanding populations of Australian white ibis to transmit pathogens. They describe the bacterial and viral loads and the behavioral attributes of white ibis that might affect livestock and human health.

Out of the Frying Pan...The *Atelopus* Dilemma

Amphibian declines are particularly severe in the *Atelopus* spp. ''harlequin frogs'' of Central and South America. Up to 30 of the 130 or so extant species may have recently disappeared due to the pathogen *Batrachochytrium dendrobatidis*. In this issue, **Lampo et al.** report on the rediscovery of a single individual *A. mucubajiensis* in Venezuela, a species thought to be extinct. This discovery is brought into sharp focus by their finding of *B. dendrobatidis* in this individual. Conservationists need a rapid response to this disease, before *A. mucubajiensis* joins the now extinct *T. acutirostris* featured in the last issue of *EcoHealth.*

Disease Risk as Down-side of Protected Areas

Anthropogenic environmental tinkering has led to a number of important disease threats to conservation. Here, **Lebarbenchon et al.** review the rarely discussed issue of how conservation measures may alter host–pathogen dynamics and drive disease threats themselves. Zoos have known about the complex issues of diseases within captive assurance colonies for a long time and have made significant efforts to deal with them. But what about protected areas, where endangered species are encouraged to increase in density, providing more potential hosts for their pathogens? **Lebarbenchon et al.** argue that conservation programs should consider such potentially negative outcomes at the planning stage

Published online: December 28, 2006