

In This Issue

REINTEGRATING COASTAL DEVELOPMENT AND PUBLIC HEALTH IN WESTERN AUSTRALIA

Sustainable coastal development demands attention to multiple priorities (social, health, economic) within the already complex context of regional ecosystem dynamics. **Gilles et al.** draw on an understanding of socio-ecological systems, determinants of health, and their application to integrated problem-solving to analyze three case studies of coastal development in Western Australia. The case studies not only provide complementary insights into the relationship between coastal resource management and the determinants of health, but also identify tools and techniques that encourage integration of these concerns. The authors highlight the potential for an alternative approach to coastal planning and management, based on decision-making processes that emphasize dialogue, place, resource distribution, and public health concerns, as well as ecology.

PREVENTING DISEASE TRANSMISSION BETWEEN MOUNTAIN GORILLAS AND DISEASE PERSONNEL

Despite a focus on the wildlife origins of high profile emerging diseases like SARS, Ebola, and HIV/AIDS, there is little information published on *human diseases* that have emerged in wildlife populations. Tales of polio in Gombe National Park chimpanzees, and of measles and influenza in mountain gorillas cast a shadow over the benefits of ecotourism to these populations. In this issue, the **Mountain Gorilla Veterinary Project 2002 Employee Health Group** provide much-needed data on the risk of disease transfer from employees of Rwanda's Parc National des Volcans to the mountain gorillas there. Their results indi-

cate that simple measures adopted by park employees could significantly reduce the risk of disease-induced die-offs in these unique animals.

STRESS AND EMERGING WILDLIFE INFECTIONS: STUDY OF LEUKOCYTES AND CONJUNCTIVITIS IN HOUSE FINCHES

Stress is a fact of life for the 21st century and has been linked to a number of chronic conditions in people and other animals. Increasingly, ecologists are asking the question: "How does stress affect immune function in wildlife?" In this issue **Davis et al.** break new ground by examining how a commonly used immune function marker in poultry (the heterophil:lymphocyte ratio) varies in wild house finches with age, molt status, and infection. Davis et al. show that complex relationships between immune life history, immune function, and exposure to an emerging disease, mycoplasmal conjunctivitis, can be measured using this marker, providing a new opening for future studies.

IRRIGATION AND THE DISRUPTION OF DRY-SEASON ECOLOGY—IMPLICATIONS FOR MOSQUITO-BORNE DISEASE RISK

In the Kimberley region of Western Australia, the dry season has typically offered respite from the transmission of Ross River virus (RRV) since rainfall becomes insufficient to support vector breeding. In a study of the role of irrigation in mosquito production during the dry season, **Jardine et al.** found significantly larger numbers of an important RRV mosquito vector within an irrigated area compared with nonirrigated reference areas. The study

exposes that the disruption of dry-season ecology caused by irrigation has the potential to create year-round mosquito breeding and RRV transmission, and a demand for public health control and surveillance activities to extend well beyond the wet season.

URBAN TRANSPORTATION, INTEGRATED ASSESSMENTS, AND THE ECOHEALTH APPROACH

The global trend toward increased automobile traffic volume and roadway capacity is paralleled by a demand for integrated assessment of rising automobile use, that includes analysis of environment, health, economic, and socio-cultural impacts. In their analysis of a proposed freeway widening in Edmonton, Canada, **Marko et al.** adopt a framework and method informed by multi-criteria analysis and an ecosystem approach to human health. Linking the “Ecohealth” approach (including its three pillars of trans-disciplinarity, community participation, and gender inequity) with quantitative analysis gives rise to numerous insights into the challenges of transport-planning, with important implications in Canada and internationally.

PRECAUTIONARY HEALTH RISK ASSESSMENT: CASE STUDY OF BIOLOGICAL INSECTICIDES

Awareness of the complexity, uncertainty, and high stakes of many environmental and health problems has drawn

attention to multi-stakeholder processes and the precautionary principle as potentially important components of assessing and responding to risk. Drawing on a case study of exposure to biological pesticides, **Hales** argues the case for “precautionary health risk assessment” as a means to overcome limitations of traditional, expert-driven, and often exclusive risk assessment processes. The proposal bridges recent conceptual advances relating to precautionary principle and health risk assessment, and highlights the paradigm shift required to recognize affected communities as both stakeholders and active participants in assessment and decision-making.

OUTFOXING A RASH: CLINICAL EXAMPLE OF HUMAN-WILDLIFE INTERACTION

The emergence of zoonotic diseases from wildlife has received a great deal of media interest after SARS, monkeypox, and others. The fascination of the media for tropical or “exotic” zoonoses skews our view of disease emergence and ignores the increasingly close connection many of us have with wild animals and their pathogens. In the current issue, **Rabinowitz and Gordon** report a “sentinel event” of scabies probably contracted through handling wild foxes in a rehabilitation center in the US. This case reminds us that pathogens respond rapidly to new ecological niches whether created by bushmeat hunting in the Congo, or wildlife rehabilitation in Connecticut.

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