

## **Non-invasive methods for the study of the diseases of monkeys and man in nature**

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Conservation medicine is an emerging, interdisciplinary field that investigates the relationship between human and animal health and the environmental conditions affecting the emergence of infectious diseases. In collaboration with veterinarians, virologists, parasitologists and other experts in the bio-medical sciences, primatologists have begun to investigate the role of diseases in primates and as a tool for the conservation of endangered wild populations. A key role of primatologist in this multidisciplinary research is the collection of behavioral and ecological data necessary to elucidate the impact of disease on a group and to collect the relevant samples (urine, feces, hair, postmortem tissues) needed for laboratory identification and quantification of the disease in question. Many advances in the ability to identify parasite and viral infections from non-invasively collected samples have strengthened our ability to determine and monitor disease affecting wild primate populations. Such diseases as malaria, SIV (the precursor to HIV), anthrax and Ebola, all potentially life-threatening diseases to humans and animals are now readily detectable from feces and urine. Primatologists also play a key role in long-term health monitoring of groups. This is important for understanding seasonal and individual specific processes of disease transmission and for the early detection of emergent diseases in a population that, if unchecked can propose a serious health risk to both local human and animal safety. Health monitoring is not labor intensive and can easily be incorporated into general observational protocol. Given the non-invasive nature of sample collection, it does not compromise with a policy of limited contact and proximity to study subject. This talk will introduce collection techniques and describe some recent findings from primates in the wild, with special reference to work conducted by the authors in Sri Lanka and Vietnam.