DOWNLOAD PDF CRYPTIC SPECIES AND BIODIVERSITY OF LICE FROM PRIMATES NATALIE P. LEO

Chapter 1 : Publications Authored by Stephen C Barker | PubFacts

Cryptic species and biodiversity of lice from primates / Natalie P. Leo Prevalence of Clostridium perfringens in intestinal microflora of non-human primates / Shiho Fujita, Asami Ogasawara, and Takashi Kageyama.

Some domesticated species have an average lifespan of 10 years with males living up to 28 years and females living up to 22 years. For example, domesticated goats can live up to 17 years but have an average lifespan of 12 years. Most wild bovids live between 10 and 15 years, with larger species tending to live longer. For instance, American bison can live for up to 25 years and gaur up to 30 years. In polygynous species, males often have a shorter lifespan than females. This is likely due to male-male competition and the solitary nature of sexually-dimorphic males resulting in increased vulnerability to predation. Fowler and Miller, ; Toigo and Gaillard, ; Vaughn, et al. Solitary species are usually small bovids, like dik-dik , and klipspringer. Generally, these animals live in monogamous pairs and maintain a relatively small territory that excludes conspecifics. Many solitary species use a pheromone secreted from a pre-orbital gland to mark territorial boundaries while others use their own dung. Prior to mating, solitary males typically need to compete for and win a territory. Females then choose a mate based on the quality of the territory. In solitary species, offspring disperse during adolescence to seek out mates or establish a territory of their own. Typically, these bovids have cryptic or camouflaging pelage, which helps them avoid potential predators while hiding in dense cover. Generally, herds consist of females and their offspring and are led by a single, dominant male. Subordinate or juvenile males often gather in small bachelor groups consisting of 5 to 7 individuals. Female offspring remain with the herd after maturation, but males are forced to disperse upon the development of secondary sexual characteristics e. Dispersal has an increased risk of predation, which is why males will often form bachelor herds and have decreased survival rates compared to females. As a result, operational sex ratios of bovids are typically skewed towards females. Gregarious behavior in bovids is likely an antipredator defense. As the number of individuals in a group increase, the number of eyes scanning for potential predators increases and the per-capita time spent scanning for predators decreases. As a result, the per-capita time spent foraging increases. However, as group size increases, so to does intraspecific competition for food and mates. In gregarious bovids, dominant males can mate with any estrus female in their territory. Occasionally, satellite males follow herds and wait for the dominant male to die or become too old to defend their territory or mates. Some species, such as cape buffalo , follow a seniority system to determine male dominance. Some species have lower incisors that are specialized for combing through fur, which helps remove unwanted debris. Many species also nibble groom with their lips and other species, such as cattle , bushbuck , and many duikers, self-groom by licking their coats. In some long-horned bovid species, horn tips are used to scratch the back and rump. Most bovids shake their heads, wag their tails and stamp the ground in order to remove insect pests. Buffalo and wildebeest also wallow in mud to help fend off insects. During male-male competition opponents may lock or clash horns in a display of strength enacted to force opposing males into submission. Most fighting occurs between evenly sized individuals as undersized or outmatched opponents retreat almost immediately. Based on this assessment, males determine whether to fight or flee. Despite the violent nature of male-male interactions during mating season, injuries are rare. On rare occasions victors have been known to chase down or attempt to gore defeated opponents. Most bovids fight standing on all fours, yet hartebeests and the horse antelopes Hippotraginae , Oryx and Addax of East Africa fight on their knees. Many gazelle species box, which involves a series of low intensity nod-like head butts. In more intense combat, gazelle and oryx clash fight and fence, which consists of hard blows from short range where the animals jump back between head butts. Ibex and goats ram opponents by running at each other, rising on their hind legs, and clashing horns. Some species push fight, which involves unlocked horn-to-horn shoving. Some species use a side-to-side head butting technique where the animal forward presses its opponent in an attempt to knock their opponent down. If horns become entangled, animals may attempt to unlock horns by moving in a circular motion. The most intense battles of wildebeest and antelope involve thrust fighting, which is high energy jump thrusts and powerful head butting. Members of the subfamily Hippotraginae are known to parallel fight, which consists of side-to-side fighting with locked horns and neck wrestling. Some bovids air fight where they go through the motions of several fighting techniques without ever touching the opponent in an attempt to intimidate their rivals. These proximal cues serve as indicators for various ultimate factors, such as changes in season, which can affect the abundance of pests, predators, and forage. Although the costs of migration can be great, benefits often include increased individual survival rates and increased reproductive fitness. One of the best-studied cases of bovid migration is that of Serengeti wildebeest , which travel an annual distance of more than km. Unfortunately, seasonal migrations of bovids are cued by photoperiod while plant-growing seasons are cued by temperature. If the growing season of species-specific resources is not precisely matched to the initiation of migration, changes in plant phenologies may detrimentally impact the long-term survival of migratory animals. For example, increasing mean spring temperatures in West Greenland appear to have resulted in a mismatch between caribou migratory cues and the onset of spring growing season for important forage plants. Evidence suggests that caribou migrations are not advancing at a comparable rate with forage plants, and as a result, calf production in West Greenland caribou has decreased by a factor of four. Darling, ; Feldhamer, et al.

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Chapter 2 : - NLM Catalog Result

Cryptic species and biodiversity of lice from primates / Natalie P. Leo Prevalence of clostridium perfringens in intestinal microflora of non-human primates / Shiho Fujita, Asami Ogasawara, and Takashi Kageyama.

List of Contributors Part 1 Methods to study primate - parasite interactions 1 Collection methods and diagnostic procedures for primate parasitology Ellis C. Greiner and Antoinette McIntosh 2 Methods of collection and identification of minute nematodes from the feces of primates, with special application to coevolutionary study of pinworms. Hideo Hasegawa 3 The utility of molecular methods for elucidating primate-pathogen relationships - the Oesophagostomum bifurcum example. Polderman 4 The application of endocrine measures in primate parasite ecology Michael Muehlenbein 5 Using agent-based models to investigate primate disease ecology Charles L. Sukhdeo and Suzanne C. Sukhdeo 7 Primate malarias: Ayala 8 Disease avoidance and the evolution of primate social connectivity: Wolfe and William M. Switzer 18 Overview of parasites infecting howler monkeys, Alouatta sp. Vitazkova 19 Primate parasite ecology: MacIntosh and Michael A. Huffman 20 Crop raiding: Weyher 21 Can parasite infections be a selective force influencing primate group size? Rothman, and Stacey A. Hodder 22 How does diet quality affect the parasite ecology of mountain gorillas? Pell, and Dwight D. Bowman 23 Host-parasite Dynamics: Hodder, and Jessica M. Ryan, Raja Sengupta and Tony L. Goldberg, 25 Diagnostic photos of protozoans, helminths, and nematodes commonly found in wild primates.

Chapter 3 : JoVE | Peer Reviewed Scientific Video Journal - Methods and Protocols

nematodes from the feces of primates, with special 10 Lice and other parasites as markers of primate evolutionary 11 Cryptic species and biodiversity of lice.

This article has been cited by other articles in PMC. As a consequence, they can negatively impact human and animal health, food production, economic trade, and biodiversity conservation. They can also be difficult to study and have historically been regarded as having little influence on ecosystem organization and function. Not surprisingly, parasitic biodiversity has to date not been the focus of much positive attention from the conservation community. However, a growing body of evidence demonstrates that parasites are extremely diverse, have key roles in ecological and evolutionary processes, and that infection may paradoxically result in ecosystem services of direct human relevance. Here we argue that wildlife parasites should be considered meaningful conservation targets no less relevant than their hosts. We discuss their numerical and functional importance, current conservation status, and outline a series of non-trivial challenges to consider before incorporating parasite biodiversity in conservation strategies. We also suggest that addressing the key knowledge gaps and communication deficiencies that currently impede broad discussions about parasite conservation requires input from wildlife parasitologists. Introduction Parasites have few friends. In nature, they are difficult to study due to their small size, complex life cycles, and generalized taxonomic impediments. In wildlife biology, parasites have traditionally been either ignored because quantifying their effects on host species is challenging, or antagonized because of the inherent harm they cause their hosts. Many human parasites, often zoonotic, carry important costs that result in morbidity, mortality, and negative effects on the economy Gallup and Sachs, ; Gazzinelli et al. Wildlife parasites in particular, represent the majority of zoonotic emerging pathogens of humans Taylor et al. Animal parasites also impact food security and incomes through their deleterious influences on livestock Cleaveland et al. Finally, disease can affect conservation efforts, acting as a contributing threat in the endangerment of wildlife hosts, and occasionally causing severe population declines de Castro and Bolker, ; Blehert et al. For all these reasons it is not surprising that parasites are generally viewed through the lens of either direct antagonism or patent disregard. As a consequence, the maintenance of parasitic biodiversity has not historically been a conservation priority Gompper and Williams, ; Dunn et al. The stated goal of the field of conservation biology is to maintain biodiversity, including the evolutionary processes that drive and sustain it Meffe et al. Yet to ignore the conservation of parasites is to ignore the conservation status of the majority of life on Earth, as parasitism represents the most common consumer strategy on the planet Poulin and Morand, ; Dobson et al. It also means neglecting a fundamental biological relationship, as infection is fundamental to the ecological and evolutionary drivers of biological diversity and ecosystem organization Marcogliese, This diverse and multiphyletic group is united by their appropriation of resources from a host in some part of their life cycle. This appropriation creates direct fitness costs to host individuals, although the magnitude of said costs is highly variable and often context-dependent. Here we focus on parasites of wildlife and the roles of wildlife parasitologists in discussions about parasite conservation. Is the host-parasite relationship important? Wildlife parasite studies have traditionally focused on the documentation of parasitic communities in host populations, surveillance for parasitic organisms of animal or human health relevance, or assessments of disease risk to long-term host persistence Riley et al. More rarely are they concerned with the ecological and evolutionary ramifications of host-parasite associations Gompper and Williams, However, recent research suggests host-parasite relationships are a fundamentally important driver of ecological structure and function. Parasites are a ubiquitous component of ecosystems in terms of species diversity Poulin and Morand, , biomass Kuris et al. By extracting resources from their hosts, parasites force them to alter their energy balances Thomas et al. The resulting impacts of parasitism on host reproductive rate Schwanz, , growth Gorrell and Schulte-Hostedde, , movement, and survival Robar et al. At small spatial scales, the differential effects of infection of generalist parasites can modulate competitive interactions. For example, parapoxvirus-mediated apparent competition likely explains the ecological success of introduced gray squirrels Sciurus carolinensis in the United Kingdom Tompkins et al. Nematodes can modulate the coexistence or lack thereof of sympatric bird species Tompkins et al. Infection can also affect reproductive behaviors and output, for example causing abortion or sterility. Parasites can also shape patterns of animal distribution and density at larger spatial scales, as seen in the introduction and subsequent removal of the rinderpest virus in East Africa, which dramatically impacted ecosystem structure by influencing ungulate population densities Thomas et al. The impacts of rinderpest infection over large-scale ecosystem processes e. Parasites are also natural selection agents influencing a variety of host attributes, from phenotypic polymorphism and secondary sexual characters, to the maintenance of sexual reproduction Wegner et al. These effects ultimately drive biological diversification, through influencing host reproductive isolation and speciation Summers et al. Finally, recent discussions of the importance of parasites in food webs Lafferty et al. Are wildlife parasites endangered? Recent research has shown that most human emerging diseases have a zoonotic reservoir, that reservoirs are most often wildlife species Jones et al. Particularly given the media attention paid to emerging zoonotic disease, it is possible that we live in an age characterized by a generalized perception that parasites must be controlled rather than conserved. However, parasites are not immune to the threats that affect free-living species and our current biodiversity crisis may well be primarily characterized by the loss of affiliate species Dunn et al. Reports of pandemics and emerging disease illustrate one of the consequences of global environmental change but do not preclude the fact that many parasite species are also threatened by it. We now know that ecosystem disturbance creates risks for parasite persistence Hudson et al. For example, land-use change and pollution can both reduce the abundance and diversity of parasite species Lafferty, ; Huspeni and Lafferty, ; Bradley and Altizer, Climate change can restrict parasite transmission Afrane et al. Parasites are also threatened by deliberate attempts to control or eradicate them. In certain circumstances, the extirpation of parasites of public health or veterinary importance can be an unquestionable gain, but control efforts often affect species beyond those initially targeted Kristensen and Brown, In other instances, routine veterinary practices can have the unintended effect of eliminating intermediate hosts and thereby interrupt enzootic transmission cycles in species other than those receiving the treatment Spratt, ; Wardhaugh et al. Parasites and other associated taxa are threatened not only by direct environmental alteration but are also indirectly affected by all the threats acting upon their hosts Colwell et al. As many parasites require a threshold host population size for sustained transmission, some species will be endangered well before this decline is irreversible Altizer et al. Although such co-extinctions in dependent taxa likely represent the majority of extinction events in this age of unprecedented biodiversity loss Koh et al. However, the threat of co-extinction must be carefully evaluated in any parasite conservation assessment.

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[et al.] -- Cryptic species and biodiversity of lice from primates / Natalie P. Leo --, Prevalence of clostridium perfringens in intestinal microflora of non-human primates / Shiho Fujita, Asami Ogasawara, and Takashi Kageyama -- Intestinal bacteria of chimpanzees in the wild and in captivity: an application of molecular ecological.

Huffman and Colin A. Monkeys and apes often share parasites with humans, for example the HIV viruses which evolved from related viruses of chimpanzees and sooty mangabeys, and so understand- ing the ecology of infectious diseases in non-human primates is of paramount importance. Furthermore, there is accumulating evidence that environmental change may promote contact between humans and non-human primates and increase the possibility of sharing infectious disease. He is currently an editor for the American Journal of Primatology. His research on hostâ€”parasite relationships and primate self-medication has involved multi-disciplinary interna- tional collaborations on species around the world, spanning over 15 countries. He has been an associate scientist with the Wildlife Conservation Society since and for the last 18 years has conducted research in the Kibale National Park, Uganda. Foley, University of Cambridge Nina G. An Evolutionary Perspective Tessa M. Pollard 0 6 55 Spider Monkeys: Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press. Includes bibliographical references and index. ISBN hardback 1. Communicable Diseases â€” transmission. QX 45 P] QL Chapman Frontmatter More information Contents List of contributors page ix Preface xv Part I Methods to study primateâ€”parasite interactions 1 1 Collection methods and diagnostic procedures for primate parasitology 3 Ellis C. Polderman 4 The application of endocrine measures in primate parasite ecology 63 Michael P. Muehlenbein 5 Using agent-based models to investigate primate disease ecology 83 Charles L. Chapman Frontmatter More information vi Contents Part II The natural history of primateâ€”parasite interactions 6 What does a parasite see when it looks at a chimpanzee? Sukhdeo and Suzanne C. Sukhdeo 7 Primate malarias: Ayala 8 Disease avoidance and the evolution of primate social connectivity: Ebola, bats, gorillas, and chimpanzees Peter D. Wolfe and William M. Switzer 18 Overview of parasites infecting howler monkeys, Alouatta sp. Vitazkova 19 Primate parasite ecology: MacIntosh, and Michael A. Huffman 20 Crop raiding: A test with red colobus Colin A. Rothman, and Stacey A. Hodder 22 How does diet quality affect the parasite ecology of mountain gorillas? Pell, and Dwight D. Chapman Frontmatter More information viii Contents 23 Hostâ€”parasite dynamics: Hodder, and Jessica M. Ryan, Raja Sengupta, and Tony L. Goldberg 25 Useful diagnostic references and images of protozoans, helminths, and nematodes commonly found in wild primates Hideo Hasegawa, Colin A. Chapman, and Michael A. Chapman Frontmatter More information Contributors julie m. Chapman Frontmatter More information Contributors xi alexander d. Diagonal , ES, Barcelona, Spain jessica m. Thomas, US Virgin Islands peter d. The effects of parasitism can be serious or even deadly, warranting that all precautionary measures be taken. However, for some like ourselves who have had the experience more than once, it can lead to an interest to understanding the nature of hostâ€”parasite relationships and the effect parasites can have on the host. For both of us, the study of primate parasite ecology is truly infectious, and it is our wish that this enthusiasm is transmitted to you the reader! Given that monkeys and apes often share parasites with humans, understanding the ecology of infectious diseases in non-human primates is of paramount importance. This is well illustrated by the HIV viruses, the causative agents of human AIDS, which evolved recently from related viruses of chimpanzees Pan troglodytes and sooty mangabeys Lophocebus atys and the outbreaks of Ebola virus, which trace their origins to zoonotic transmissions from local apes. A consideration of how environmental change may promote contact between humans and non-human primates and increase the possibility of sharing infectious disease detrimental to humans or non-human primates is now critical to both conservation and human health planning. The study of disease adds a new and important dimension to primatology, as most previous research has focused on predation and resource competition, with almost no research on infectious disease as an ecological force. Chapman Frontmatter More information xvi Preface researchers including the veterinary sciences, conservation, zoonotic diseases, zoology, and evolutionary biology. In general, the chapters fall into three broad categories: They cover hostâ€”parasite, pathogen inter- actions of both internal and external parasites. Authors address the dynamic nature of hostâ€”parasite relationships and look at such aspects as host behavioral counter-measures in response to infection, inter- and intra-species difference in parasite prevalence as a consequence of climatic and environmental varia- tion, habitat fragmentation, and seasonality. This book would not have come to fruition had it not been for the enthusi- asm and efforts of all the authors and colleagues who offered their time and assistance in preparing and reviewing the manuscripts. To all of you we give our hearty appreciation.

Chapter 5 : Primate Parasite Ecology | Colin A Chapman - blog.quintoapp.com

Table of contents for Primate parasite ecology: the dynamics and study of host-parasite relationships / edited by Michael A. Huffman, Colin A. Chapman. Bibliographic record and links to related information available from the Library of Congress catalog.

In birds, naked and helpless after hatching. Animals with bilateral symmetry have dorsal and ventral sides, as well as anterior and posterior ends. Synapomorphy of the Bilateria. Bogs have a flora dominated by sedges, heaths, and sphagnum. Vegetation is dominated by stands of dense, spiny shrubs with tough hard or waxy evergreen leaves. May be maintained by periodic fire. In South America it includes the scrub ecotone between forest and paramo. Found on all continents except maybe Antarctica and in all biogeographic provinces; or in all the major oceans Atlantic, Indian, and Pacific. Vegetation is typically sparse, though spectacular blooms may occur following rain. Deserts can be cold or warm and daily temperates typically fluctuate. In dune areas vegetation is also sparse and conditions are dry. This is because sand does not hold water well so little is available to plants. In dunes near seas and oceans this is compounded by the influence of salt in the air and soil. Salt limits the ability of plants to take up water through their roots. Ecotourism implies that there are existing programs that profit from the appreciation of natural areas or animals. Endothermy is a synapomorphy of the Mammalia, although it may have arisen in a now extinct synapsid ancestor; the fossil record does not distinguish these possibilities. Found in northern North America and northern Europe or Asia. Iteroparous animals must, by definition, survive over multiple seasons or periodic condition changes. In other words, India and southeast Asia. Epiphytes and climbing plants are also abundant. Precipitation is typically not limiting, but may be somewhat seasonal.

Chapter 6 : People - Leo Gustafsson

10 Lice and other parasites as markers of primate evolutionary history David L. Reed, Melissa A. Toups, Jessica E. Light, Julie M. Allen, and Shelly Flannigan 11 Cryptic species and biodiversity of lice from primates Natalie Leo.

Table of contents for Primate parasite ecology: Bibliographic record and links to related information available from the Library of Congress catalog Note: Electronic data is machine generated. May be incomplete or contain other coding. Part I Methods to study primate-parasite interactions 1 1 Collection methods and diagnostic procedures for primate parasitology 3 Ellis C. Greiner and Antoinette Mclntosh 2 Methods of collection and identification of minute nematodes from the feces of primates, with special application to coevolutionary study of pinworms 29 Hideo Hasegawa 3 The utility of molecular methods for elucidating primate-pathogen relationships - the Oesophagostomum bifurcum example 47 Robin B. Polderman 4 The application of endocrine measures in primate parasite ecology 63 Michael P Muehlenbein 5 Using agent-based models to investigate primate disease ecology 83 Charles L. Nunn Part II The natural history of primate-parasite interactions 6 What does a parasite see when it looks at a chimpanzee? Sukhdeo and Suzanne C. Sukhdeo 7 Primate malarias: Ayala 8 Disease avoidance and the evolution of primate social connectivity: Ebola, bats, gorillas, and chimpanzees Peter D. Allen, and Shelly Flannigan 11 Cryptic species and biodiversity of lice from primates Natalie P Leo 12 Prevalence of Clostridium perfringens in intestinal microflora of non-human primates Shiho Fujita, Asami Ogasawara, and Takashi Kageyama 13 Intestinal bacteria of chimpanzees in the wild and in captivity: Wolfe and William M. Switzer 18 Overview of parasites infecting howler monkeys, Alouatta sp. Vitazkova 19 Primate parasite ecology: Macintosh, and Michael A. Huffman 20 Crop raiding: Weyher 21 Can parasite infections be a selective force influencing primate group size? A test with red colobus Colin A. Rothman, and Stacev A. Hodder 22 How does diet quality affect the parasite ecology of mountain gorillas? Pell, and Dwight D. Bowman 23 Host-parasite dynamics: Hodder and Jessica M. Ryan, Raja Sengupta, and Tony L. Goldberg 25 Useful diagnostic references and images of protozoans, helminths, and nematodes commonly found in wild primates Hideo Hasegawa, Colin A. Chapman, and Michael A. Huffman Library of Congress subject headings for this publication:

Chapter 7 : ADW: Felidae: INFORMATION

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Twenty years later, that fascination with animals resulted in getting first my M. By now, I have studied animals on four continents, and see no reason to stop. I am currently doing my post-doc at the University of Utah, working with the taxonomy and systematics of chewing lice on birds. The primary focus of my research is lice on songbirds Passeriformes , but the louse collection here at the U is among the most diverse in the world, and occasionally I cannot help myself from working with lice on other groups of birds. Regardless of the hosts, however, some themes run through most of my research interests. It is sometimes assumed that the geographical distribution of lice is similar to the sum of the geographic distributions of their hosts. Yet whether we look at the Lunaceps and Carduiceps lice of sandpipers, the Brueelia-complex and Menacanthus lice of songbirds, or the Anaticola lice of ducks, we find that the biogeographical and host distribution patterns of lice are markedly different from those of their hosts. The host distribution of chewing lice is also not straightforward in all cases. In some cases, lice in a given genus are limited to subsections of the host family they parasitize, or occur on all hosts in a given family as well as one or two other host species in different families. In isolation, these cases may not be very interesting, but put together, they can reveal many interesting patterns of the higher systematics and deeper evolutionary co-history between the lice and their hosts. Often, this kind of pattern is obscured by poor species descriptions or hidden in undescribed specimens in museums. Much of my work is to use these museum specimens to find patterns and describe new species, so that we may get a better understanding of the evolutionary history of lice, even in cases where we cannot get fresh material to study. A third part of my present research is on the functional morphology of mating, focusing on the evolution and use of secondary sexual dimorphism in different parts of the chewing louse anatomy. These dimorphic characters are often convergent between distantly related lice, and seem to be tied closely to microhabitat adaptation. As precise microhabitat data is generally absent for most species of chewing lice, and most groups of lice are difficult to study alive, understanding the underlying causes for the morphology of different groups of lice may give invaluable insights into the ecology and evolution of these animals. Remarkable levels of avian louse Insecta: Phthiraptera diversity in the Congo Basin. Zoologica Scripta, in press. Patterns of cryptic host specificity in duck lice based on molecular data. Medical and Veterinary Entomology, in press. Unlocking the black box of feather louse diversity: Molecular Phylogenetics and Evolution, 94, â€" Data supporting a molecular phylogeny of the hyper-diverse genus Brueelia. Data in Brief, 5, â€" Host generalists and specialists emerging side by side: International Journal for Parasitology, 45, The chewing lice Insecta: Ischnocera, Amblycera of Japanese pigeons and doves Aves: Columbiformes , with descriptions of three new species. Journal of Parasitology, , â€" Philopteridae from African songbirds Passeriformes: Soil Biology and Biochemistry, 68, Three new species of chewing lice of the genus Emersoniella Tendeiro, Insecta: Philopteridae from Papua New Guinean kingfishers and kookaburras Aves: Philopteridae from New Guinean bowerbirds Passeriformes: Ptilonorhynchidae and satinbirds Passeriformes: Fauna och Flora, Lumbriculidae reveals cryptic speciation. Molecular Phylogenetics and Evolution, Flyway homogenisation or differentiation? Insights from the phylogeny of the sandpiper Charadriiformes: Calidrinae wing louse genus Lunaceps Phthiraptera: International Journal for Parasitology, 42, Revision of Lunaceps Clay and Meinertzhagen, Insecta: Philopteridae , with descriptions of six new species and one new subspecies.

Chapter 8 : Professor Stephen Barker - UQ Researchers

Monkeys and apes often share parasites with humans, for example the HIV viruses which evolved from related viruses of chimpanzees and sooty mangabeys, and so understand- ing the ecology of infectious diseases in non-human *primates is of paramount importance.*

Chapter 9 : Neglected wild life: Parasitic biodiversity as a conservation target

Neotropical Primates 16(2), Cryptic species and biodiversity of lice from primates - N.P. Leo; lap between howler monkey species in a contact zone.