

GASTROINTESTINAL PARASITES OF INDIGENOUS AND INTRODUCED PRIMATE SPECIES OF RUBONDO ISLAND NATIONAL PARK, TANZANIA WITH EMPHASIS ON *BLASTOCYSTIS* INFECTIONS

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The isolated ecosystem of Rubondo Island offers a unique opportunity to investigate the possible impact of species introductions on the parasite ecology of two released (*Pan troglodytes*, *Colobus guereza*) and one indigenous primate species (*Chlorocebus aethiops*). We monitored gastrointestinal parasites of Rubondo primates by using coproscopic methods (merthiolate-iodine-formaldehyde concentration and Sheather's flotation). Additionally, subtypes of the *Blastocystis* sp., a protist with weak host specificity, were determined by using PCR and sequencing of SSU rDNA. The parasite richness was significantly higher in indigenous vervet monkeys than in either guerezas or chimpanzees. Chimpanzees might have lost some of their parasite species during captivity prior to their release. Except of two chimpanzee specific parasites (*Troglodytella abressarti*, *Enterobius* cf. *anthropopithecii*), the majority of the parasite taxa reported was found in all three studied primate species. Chimpanzees and guerezas probably acquired the nematode *Protopirura muricola* after their arrival to the island from the vervet monkeys via intermediate insect hosts. *Blastocystis* subtype 1 was detected in all three primate populations, subtype 2 and 3 in guerezas and vervet monkeys and subtype 5 only in guerezas. Phylogenetic analyses indicated that transmission of *Blastocystis* sp. did not occur among Rubondo primate populations. Despite a lack of any apparent health problems in introduced Rubondo primates from infections with novel parasite, parasite monitoring of future or ongoing reintroduction/introduction sites is necessary to detect and decrease any potential risks from the exchange of parasites between introduced and native species.

Keywords: parasite, species introduction, chimpanzee, *Blastocystis*