

How primates deal with disease and some zoonoses potentially affecting humans in the tropics

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Chimpanzees and other primates eat a variety of nutritious items including fruits, leaves, young buds on a daily basis. Besides these items, a number of plant parts containing peculiar secondary plant compounds are occasionally eaten. In the recent years, an interest has been shown in understanding the significance of ingesting these nutritionally deplete plant items. One explanation is that these items are used for their pharmacologically active properties. Strong evidence in support of this hypothesis has come from research on African great apes (chimpanzees and gorillas) demonstrating anti-parasitic properties and or relief from parasite related gastro-intestinal upset.

From ecological and parasitological analysis of the behavior of chimpanzees across Africa it has been shown that the ingestion of extremely bitter juices from the pith of plants or the swallowing of the rough leaves of other species plays an important role in the suppression of intestinal nematode and cestode parasite infections. Parasites are responsible for a variety of diseases that directly affect the behavior and reproductive capacity of animals. Some of these diseases (parasitic, viral, bacterial) are also known to be transmissible to and from humans (zoonoses). In recent years the exchange of diseases like malaria between wild primates and humans has received increasing attention and in some cases has had serious health consequences worldwide. In this light it is becoming increasingly important to better understand the evolution, ecology and health consequences of zoonoses for both human preservation and primate conservation.