

Escherichia coli bacteria transferring between humans and mountain gorillas

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A new study finds that mountain gorillas are at increased risk of acquiring gastrointestinal microbes, such as *Escherichia Coli*, from humans. The study, published in *Conservation Biology*, examines the exchange of digestive system bacteria between humans, mountain gorillas and domestic animals with overlapping habitats.

The findings show the presence of identical, clinically-resistant bacteria, in gorillas, which implies that antibiotic resistant bacteria or resistance-conferring genetic elements are transferring from humans to gorillas. Gorilla populations that are the subject of research and tourism are particularly vulnerable.

It has been observed elsewhere that apes that are focus of research or tourism apes could be entry points for pathogens into the ape population. In rural Uganda, for example, antibiotics are easily obtained over-the-counter and may not always be used appropriately as evidenced by high rates of antibiotic resistance in bacteria from people in rural Uganda.

The results further show that even in well-managed situations, mountain gorillas may be at increased risk of pathogen exchange with humans and domestic animals, and preventing direct contact between people and mountain gorillas may not be sufficient for eliminating microbial exchange.

Other actions may be needed, such as encouraging hand washing before and after entering the forest, discouraging human defecation in the forest

and mandating the wearing of aerosol-limiting face masks for people entering ape habitats.

Antibiotic resistance is an emerging problem in humans, and the presence of resistant bacteria in gorillas suggests that targeted interventions are needed to ensure natural disease resistance and overall health among native gorilla populations.

Source: Wiley

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