

Killer instincts

Like humans, chimpanzees can engage in guerrilla warfare with their neighbours. As with humans, the prize is more land.



PEOPLE are not alone in waging war. Their closest living cousins, chimpanzees, also slaughter their own kind—in brutal attacks that primatologists increasingly view as strategic, coordinated assaults rather than random acts of violence. But however tempting it is to see these battles through the lens of human warfare, the motives for chimp-on-chimp violence are poorly understood. In particular, researchers have long debated whether the apes fight for land, or for females.

A report just published in *Current Biology* may help to settle the question. The study it describes, led by John Mitani, of the University of Michigan in Ann Arbor, is the first to offer a detailed picture of organised conflict between chimpanzees. Drawing on a decade of observations in the field, it concludes that, as with human conflict, wars between chimpanzees are fuelled by territorial conquest.

Between 1999 and 2008 Dr Mitani and his colleagues shadowed a group of chimpanzees called the Ngogo, who live in the Kibale national park in Uganda. Most of the time, the Ngogo chimps were anything but model soldiers—squabbling, foraging and lolling about their domain. But on 114 occasions Dr Mitani's colleague Sylvia Amsler watched large groups of males strike out on silent, single-file patrols to the fringes of their territory.

These forays often turned violent. All but one of the 18 fatal attacks Dr Amsler witnessed occurred during boundary patrols. In each case, males colluded to kill chimps from a neighbouring group.

The territorial imperative

To understand what motivated this violence, the researchers looked at which chimps were actually attacked. If the purpose of chimpanzee warfare were either rape or the abduction of mates, then the expectation would be that adult males would be the targets of lethal violence. On occasion, they were. But most victims were juveniles, and of both sexes.

Furthermore, chimpanzee mothers were often beaten as the raiders snatched and killed their offspring. Though these assaults on mothers were rarely lethal, patrolling chimps were clearly more likely to batter females than recruit them as mates, suggesting that other motives might drive their violent behaviour.

The researchers therefore asked whether geography offered a better explanation. Using the Global Positioning System to map patrol routes and attack locations, they saw that the Ngogo chimps' reconnaissance fanned mainly beyond their north-eastern border, encroaching onto the land of a neighbouring group. Almost all of the killings occurred in this disputed territory, which sported particularly fine stands of the chimps' favourite fruit-tree. By the time the study ended, the Ngogo group's campaign had displaced its rivals completely, annexing the north-eastern lands and enlarging its range by 22%.

Though the territorial upgrade may eventually attract new mates, none of the displaced females has been spotted joining the Ngogo group. This suggests that real estate, not a tight mating market, is the true motive for chimp combat. Such motivation makes sense in the context of the discovery in 2004, by Jennifer Williams of the University of Minnesota, that larger territories enabled chimps in neighbouring Tanzania to produce more offspring. This provides an evolutionary incentive for the apes to expand their range—and its associated resources—by any means necessary.

Can chimpanzee skirmishes tell people anything about their own violent tendencies? One lesson, which may surprise cynics, is that humans are more peaceful than chimps. The rate of killing Dr Mitani reports is between one-and-a-half and five times that seen in human agricultural societies—and between five and 17 times higher than attrition due to warfare among hunter-gatherers, who could have less need to defend territory than farmers. (It is also, it must be acknowledged, higher than that reported for other chimpanzee communities, suggesting that the Ngogo troop may be exceptionally bellicose.) In the context of comparisons with humans, though, the most salient feature of chimpanzee combat may be its co-operative nature.

Chimps avoid single combat. To fight successfully, they must maintain complex, collaborative social networks—suggesting that only by bonding within groups can chimps engage in violence between such groups. This has big implications. It may be the ability to form bonds with strangers was forged by the demands of war. Thus, the human tendency to coalesce around abstract concepts such as religion or nation, which underpins civilisation, may well be an evolutionary legacy of a violent past. Signs of anything similar in a species that, albeit a close-ish relative, parted company from the line leading to humans at least 5m years ago are therefore interesting.

Unfortunately for the chimpanzees of Kibale, they are not the only combatants locked in a central African territorial dispute. Even as bushmeat poachers, exotic-pet traders and encroaching farmers have landed the quarrelsome primates on the endangered-species list, decades of resource-driven conflicts between humans have destabilised conservation efforts. On June 21st, in an attempt to protect chimp populations, the Wildlife Conservation Society of New York and the International Union for Conservation of Nature announced a new conservation plan for the species. By identifying the areas most in need of protection, researchers hope to preserve the culture of chimp communities such as the Ngogo for future study.

Fonte: The Economist, June 24th 2010. Disponível em: <www.economist.com>.
Acesso em: 25 jun. 2010.