The benefits of many friends

Aside from poaching, the main causes of adult female giraffe mortality are likely to be disease, stress or malnutrition, all of which are interconnected stressors. "Social relationships can improve foraging efficiency, and help manage intraspecific competition, predation, disease risk and psychosocial stress," says UZH professor Barbara König, senior author of the study. Female giraffes may seek out and join together with an optimal number of other females in order to share and obtain information about the highest-quality food sources. Other benefits to living in larger groups might be lowering stress levels by reducing harassment from males, cooperating in caring for young, or simply experiencing physiological benefits by being around familiar females. The study also finds that females living closer to towns had lower survival rates, possibly due to poaching.

Social habits similar to humans and primates

The team documented the social behaviors of the
wild free-ranging giraffes using network analysis algorithms similar to those used by big-data social media platforms. According to the results, the giraffes are surprisingly similar in their social habits to humans and other primates, for whom greater social connectedness offers more opportunities. Chimpanzees and gorillas, for example, live in communities where ties between many individuals facilitate the flexibility of feeding strategies. "It seems to be beneficial for female giraffes to connect with a greater number of others and develop a sense of larger community, but without a strong sense of exclusive subgroup affiliation," adds Monica Bond.

**Study of a giraffe population in Tanzania**

For the past decade the research team has been conducting the largest study to date of a giraffe population. The vast scale of their study area in the Tarangire region of Tanzania spans more than a thousand square kilometers and includes multiple social communities, each with about 60 to 90 adult female members. Thus, the study was able to disentangle individual from community-level influences on survival. The study is also unique in combining social network analysis and modeling of vital rates such as survival in a sample of hundreds of individuals.


Provided by University of Zurich


*This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.*