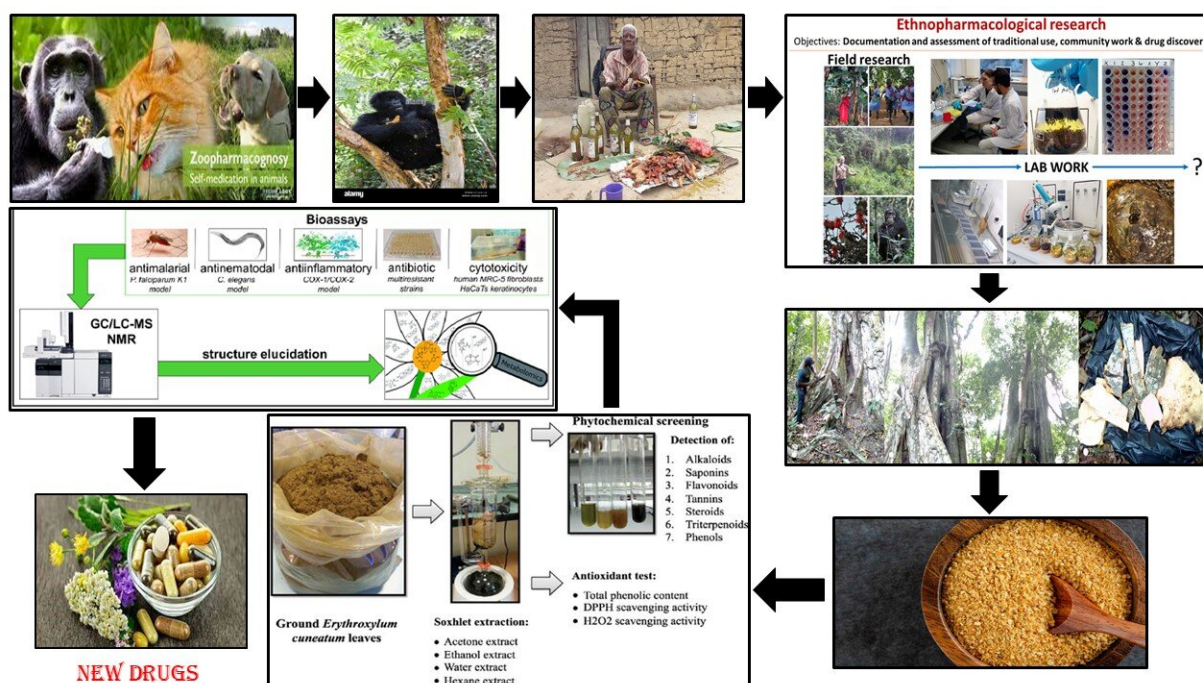


# Four plants eaten by gorillas, also used in traditional medicine, provide clues for new drug discovery

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Graphical abstract of the study. Credit: Yinda et al., CC-BY 4.0 (creativecommons.org/licenses/by/4.0/)

Four plants consumed by wild gorillas in Gabon and used by local communities in traditional medicine show antibacterial and antioxidant properties, find Leresche Even Doneilly Oyaba Yinda from the

Interdisciplinary Medical Research Center of Franceville in Gabon and colleagues in a new study publishing September 11 in the open-access journal *PLOS ONE*.

Wild great apes often consume [medicinal plants](#) that can treat their ailments. The same plants are often used by local people in traditional medicine.

To investigate, researchers observed the behavior of western lowland gorillas (*Gorilla gorilla gorilla*) in Moukalaba-Doudou National Park in Gabon and recorded the plants they ate. Next, they interviewed 27 people living in the nearby village of Doussala, including traditional healers and herbalists, about the plants that were used in local traditional medicine.

The team identified four [native plant species](#) that are both consumed by gorillas and used in traditional medicine: the fromager tree (*Ceiba pentandra*), giant yellow mulberry (*Myrianthus arboreus*), African teak (*Milicia excelsa*) and fig trees (*Ficus*). They tested bark samples of each plant for antibacterial and [antioxidant properties](#) and investigated their chemical composition.

The researchers found that the bark of all four plants had [antibacterial activity](#) against at least one multidrug-resistant strain of the bacterium *Escherichia coli*. The fromager tree showed "remarkable activity" against all tested *E. coli* strains. All four plants contained compounds that have medicinal effects, including phenols, alkaloids, flavonoids, and proanthocyanidins. However, it's not clear if gorillas consume these plants for medicinal or other reasons.

Biodiverse regions, such as central Africa, are home to a huge reservoir of unexplored and potentially medicinal plants. This research provides preliminary insights about plants with antibacterial and antimicrobial

properties, and the four plants investigated in this study might be promising targets for further drug discovery research—particularly with the aim of treating multidrug-resistant bacterial infections.

The authors add, "Alternative medicines and therapies offer definite hope for the resolution of many present and future public health problems. Zoopharmacognosy is one of these new approaches, aimed at discovering new drugs."

**More information:** Antibacterial and antioxidant activities of plants consumed by western lowland gorilla (*Gorilla gorilla gorilla*) in Gabon, *PLoS ONE* (2024). [DOI: 10.1371/journal.pone.0306957](https://doi.org/10.1371/journal.pone.0306957)

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