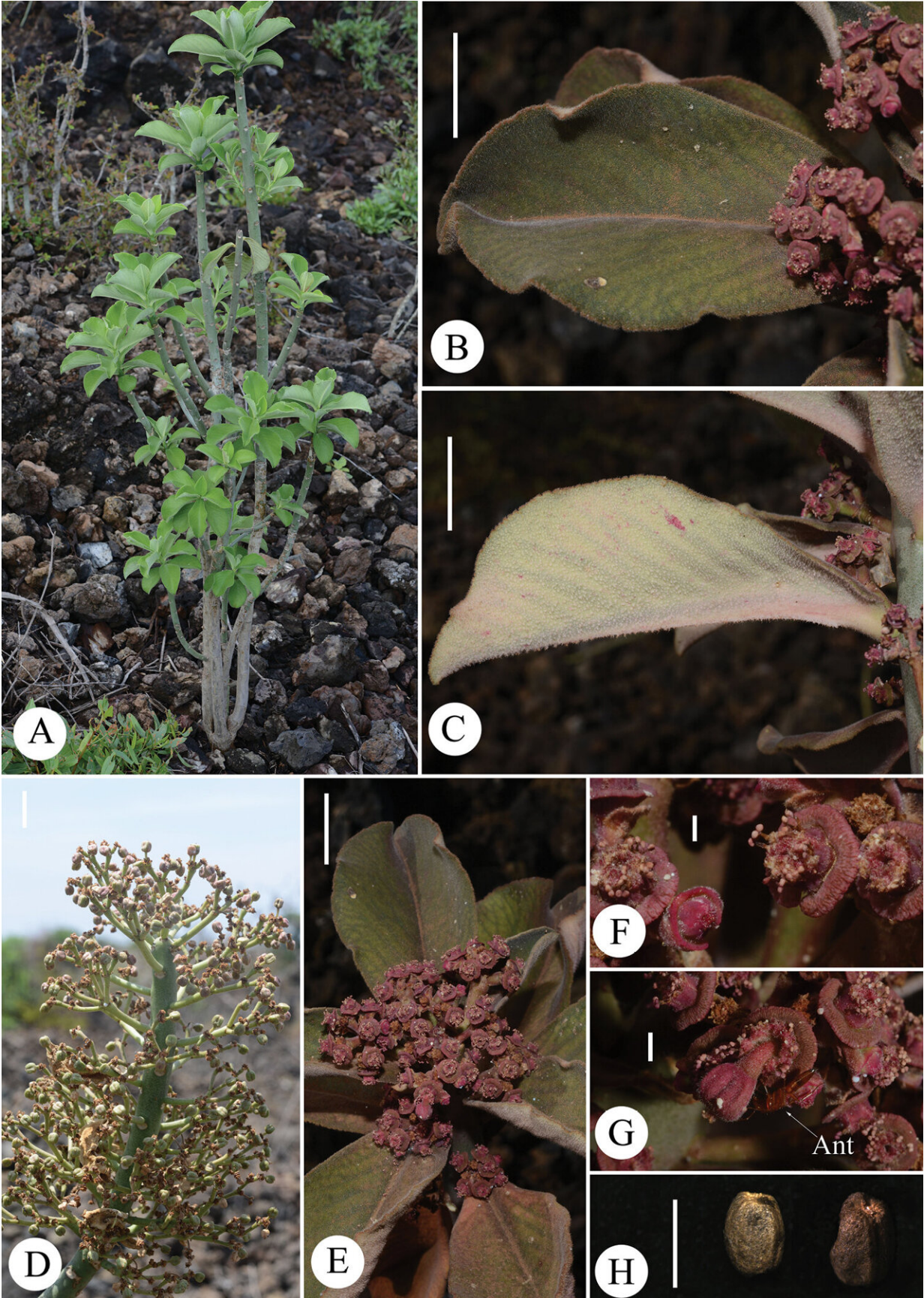


# **New succulent species of Euphorbia discovered in Kenya**

December 7 2021

---



Morphological features of *Euphorbia mbuinzaensis*. Credit: Neng Wei

During a field investigation in open deciduous woodlands covered by lava outcrops in Makueni County, southern Kenya, in September 2018, a shrubby *Euphorbia* with densely stellate hairs on the abaxial leaf surface attracted the attention of a research team. Soon afterward, the researchers revisited the area, performed more careful observations on its morphological characters, and collected enough specimens for further study.

Supervised by Prof. Qingfeng Wang and Prof. Guangwan Hu, Ph.D. student Neng Wei from the Wuhan Botanical Garden of the Chinese Academy of Sciences carried out the study of comprehensive morphology and molecular phylogeny of this *Euphorbia*.

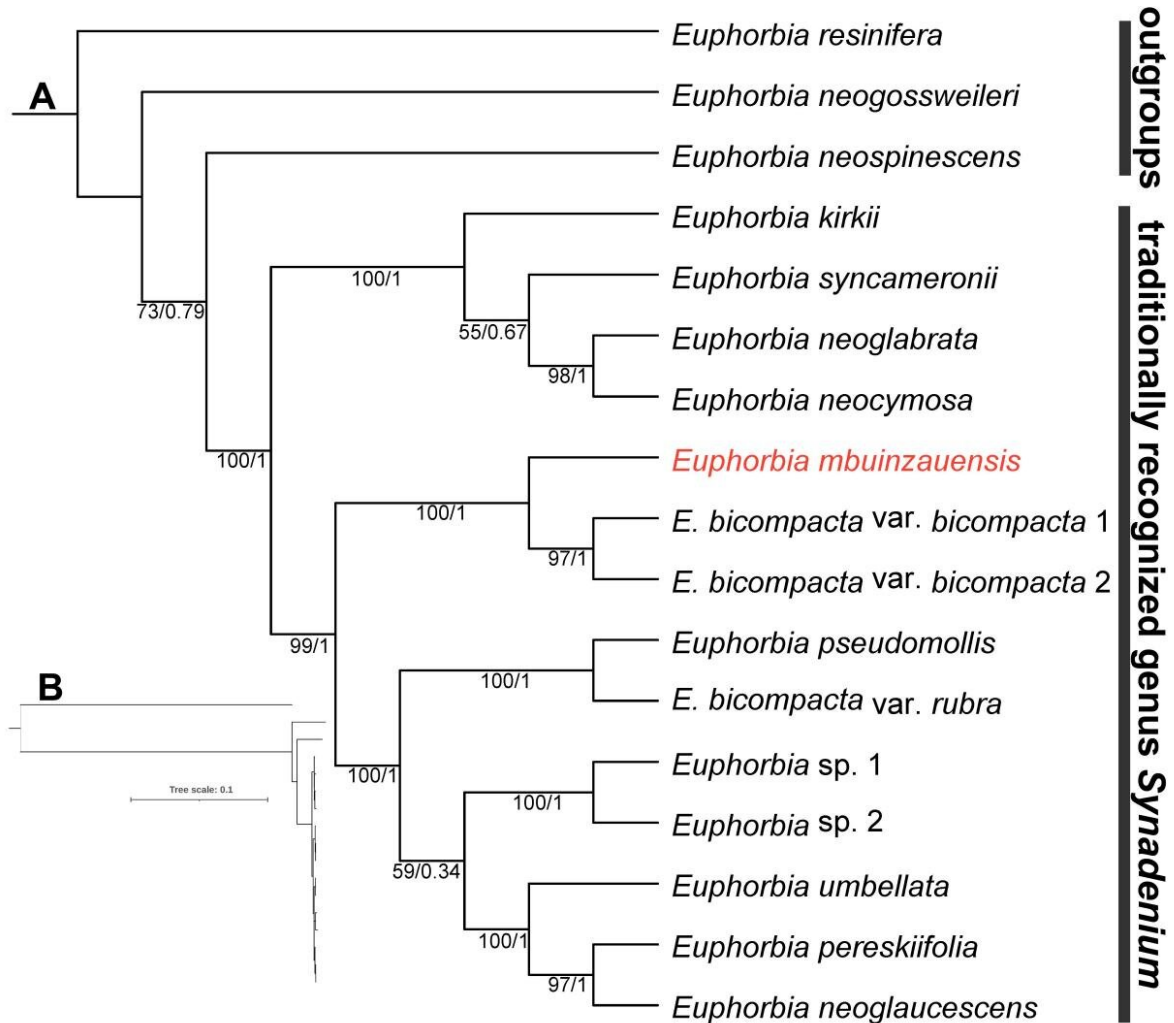
After sufficient literature consultation, specimen examinations, detailed morphological comparisons, and robust phylogenetic support, this species was finally confirmed to be new to science and named "*mbuinzaensis*" for its locality. Results were published in *PhytoKeys*.

Morphologically, *Euphorbia mbuinzaensis* is most similar to *E. pseudomollis*, but differs mainly by its shrubby habit, abaxial leaf surfaces with densely stellate hairs, 2-4-forked cymes, smaller bracts, smaller cyathia, crimson glands without a narrow smooth margin, smaller fruits and ovoid seeds.

*Euphorbia mbuinzaensis* is distinct from other species in *Synadenium* group with strong morphological and phylogenetic support. Using phylogenetic inference based on a nrDNA dataset, the previously



segregated genus *Synadenium* is believed to be monophyletic. Nevertheless, an expanded and dense sampling of closely related species is needed to confirm this.



The maximum likelihood tree inferred from the complete nuclear ribosomal DNA sequences. Credit: Neng Wei

It is worth mentioning that the phylogenetic relationships among the

species in Synadenium group exhibit extremely short branches, indicating that this lineage is likely to have emerged very recently.

According to the criteria of the International Union for Conservation of Nature, the new [species](#) is assessed as "endangered," given the very limited populations and individuals in the wild. Action is urgently needed, including in situ and ex situ conservation, to protect this fragile and lovely succulent.

**More information:** Neng Wei et al, Euphorbia mbuinzaensis, a new succulent species in Kenya from the Synadenium group in Euphorbia sect. Monadenium (Euphorbiaceae), *PhytoKeys* (2021). [DOI: 10.3897/phytokeys.183.70285](#)

Provided by Chinese Academy of Sciences

Citation: New succulent species of Euphorbia discovered in Kenya (2021, December 7) retrieved 20 April 2024 from <https://phys.org/news/2021-12-succulent-species-euphorbia-kenya.html>

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.