

## **High mountain wanderings**

I greatly enjoyed Adrian Burton's recent essay about "Icy Mike" and the other elephants of alpine Mount Kenya (Burton 2023). I agree that the presence of large vertebrates - as indicated by direct and indirect evidence of elephants (Loxodonta africana), hyenas (Crocuta crocuta), leopards (Panthera pardus), and buffalos (Syncerus caffer), to which one could add bush duiker (Sylvicapra grimmia) (Young and Evans 1993) - at elevations so high on the mountain (all at or above 4600 m) is a bit of a mystery, and a related must-read (about a frozen leopard) is Hemingway's epigraph in The Snows of Kilimanjaro (Hemingway 1938). However, these taxa at least are open country (savanna) species that, along with plains zebras (Equus quagga) and elands (Taurotragus oryx), are common visitors to or even residents of Mount Kenya's alpine zone. More mysterious (and perhaps more instructive) are

the discoveries of several dead individuals of strictly forest-affiliated species (bongo [Tragelaphus eurycerus], 4300 m; Sykes' monkey [Cercopithecus albogularis], 4800 m; black-and-white colobus [Colobus polykomos], 4700 m) thousands of feet above the tree line (3300 m) (Young and Evans 1993). I have long wondered whether a subset of dispersing mammals (which certainly were able to move between distant mountains in the past) simply get "caught out" in their wanderings, with supra-alpine environments being rare anomalies in their evolutionary histories. Perhaps parallels could be drawn with multiple lepidopteran species found on the Lewis Glacier on Mount Kenya (>4700 m), frozen into the snow (Coe 1967; TPY, pers obs). Adult lepidopterans, including the tiger moth Arctia virginalis, are known to congregate on hilltops, in a behavior called "hilltopping" (Alcock 1987; Pepi et al. 2022), and perhaps this behavior becomes maladaptive when the nearby "hilltop" is 5000-m-high Mount Kenya!

## Truman P Young

Department of Plant Sciences, University of California-Davis, Davis, CA (tpyoung@ucdavis.edu)

Alcock J. 1987. Leks and hilltopping in insects. J Nat Hist 21: 319–28.

Burton A. 2023. Where no elephant has gone before. *Front Ecol Environ* **21**: 60.

Coe MJ. 1967. The ecology of the alpine zone of Mount Kenya. The Hague: Junk Publishers.

Hemingway E. 1938. The Snows of Kilimanjaro. In: The Fifth Column and the First Forty-Nine Stories. New York, NY: Scribner's (reprinted from *Esquire Magazine*, August 1936).

Pepi A, Grof-Tisza P, Holyoak M, and Karban R. 2022. Hilltopping influences spatial dynamics in a patchy population of tiger moths. *P Roy Soc B-Biol Sci* **289**: 20220505.

Young TP and Evans ME. 1993. Alpine vertebrates of Mount Kenya, with particular notes on the rock hyrax. *J E Afr Nat Hist Soc* **82**: 55–79.



Frontiers is seeking contributions to its ongoing natural-history photo series. Frontiers EcoPics is not just a series of attractive photos: the image and accompanying text should showcase an interesting and little-known aspect of an organism's behavior or natural history, and perhaps pose an open question. Published submissions will receive a unique DOI, and will be included in the print version of the journal as well as online, where EcoPics are free for all to read.

For submission instructions and specifications visit: **frontiersinecology.org/fron/frontiers-ecopics/**Still have questions? Contact Sabrina Levey at **sabrina@esa.org**