Methods

Elephant tracking

We collected half-hourly positions of individual (n = 14) free-ranging female African elephants (*Loxodonta africana*) in Kruger National Park, South Africa (24°S, 31.5°E) between August 2007 and August 2009 (see Appendix 1), using GPS logger-transmitter collars (*manufacturer and mass here*). Each elephant in the study was from a different herd. We also collected half-hourly on-board temperature data from temperature loggers (hereafter, thermochrons) fitted to each collar. The temperature logged by each thermochron reflected a combination of the ambient temperature, the elephant's body temperature, and the heat generated by the operation of the other electronics.

Environmental data

To verify that thermochrons reported values reflecting ambient temperatures experienced by elephants, we collected weather data (mean half-hourly temperature, mean daily rainfall[1]) from the weather station at Kruger NP headquarters (Skukuza: 24.98°S, 31.5°E).
We used rainfall data to classify (*how is this to be done?*) the study period into warm-wet, and cold-dry seasons.
We further collected the following environmental data: 1. Courses of park rivers, 2. Locations of waterholes, 3. Gertenbach land cover classification of the park area (*look into this, what is it?*), 4. MODIS data (**look into this**, *what is it? which bands, which scene: this includes the actual scene number with the date, a link in the appendix, as well as information on how the scene bands were processed to get the* `woody density`).

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i. Where did the data come from? ↵