use a maximum entropy model (MaxEnt) to create a predicted distribution for this species based on limited occurrence data. Predicted sites with an occurrence-probability greater than sixty percent were surveyed during the species' breeding season of 2010-2011 and 2011-2012. Despite extensive surveys, few new localities were revealed: in total 5 new populations were discovered during the study period. In addition, known historical locations (pre-2007) were re-visited to verify the species' presence there. Of 15 historically known sites, *H. pickersgilli* was deemed absent at seven. Taking this into account and including additional populations discovered between 2007 and 2010, the total number of localities currently known is fourteen. We also use our results to recalculate AOO and EOO. The Critically Endangered status of this species is warranted given its limited and very fragmented distribution. The degree of isolation, development pressure and human-posed threats facing the majority of locations make the long-term survival of these populations dubious and thus emphasises the need for urgent conservation action, including ex-situ measures, for this species.

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Diet of two species of Libyan *Acanthodactylus* (Lacertidae) based on historical museum material

Although modern herpetological collections from Libya are limited, extensive historical material from the Italian colonial period in the early 20th century is represented in a number of European collections, most notably the Museo Civico di Storia Naturale di Milano, Italy. We used this historical material to study diet in the common desert-dwelling lacertid lizards *Acanthodactylus boskianus* and *A. scutellatus*. Although the two species are broadly sympatric *A. scutellatus* is a loose sand specialist, whereas *A. boskianus* prefers more hard-packed substrates. Stomach contents were investigated in 100 specimens of *A. boskianus* and 104 specimens of *A. scutellatus* initially collected between 1922 and 1937 in southern Libya. 60% and 61% of specimens of these two species, respectively, contained prey items. The most important prey categories are the same for both species, albeit ranked differently. Formicids were the most important for *A. scutellatus* (70% by number, 33% by volume), followed by insect larvae of multiple orders (11% by number, 15% by volume), followed by coleopterans (5% by number, 16% by volume). For *A. boskianus*, larvae were the most important (33% by number, 54% by volume), formicids were second (39% by number, 9% by volume), and coleopterans were third (8% by number, 19% by volume). Diets also included spiders, scorpions, and cockroaches. Intersexual dietary overlap was considerable (92%) in both species. These species of *Acanthodactylus* appear to show substantial variation in diet across their broad ranges. Although ants make up a large part of the diet in other

locations, as in Libya, elsewhere spiders, orthopterans, and other groups predominate. Unfortunately, seasonal patterns in diet could not be assessed as many of the specimens lacked complete collection data. These results reveal both the usefulness of museum collections as data sources, particularly for areas with limited accessibility, as well as the limitations imposed by the use of data-incomplete historical material.

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Chameleons through time and space: Extinction or Adaptation?

Biogeographic patterns are often explained by spatial shifts that match changing environmental conditions to which species are adapted. We hypothesize that biogeographic patterns however, can also be explained through the adaptation of organisms in situ to changing environments over time, rather than purely through shifting distributions as a response to those changes. We combined multiple existing and newly dated phylogenies, using between three and thirteen genetic markers, for 174 taxa representing ca. 90% of described species in the family Chamaeleonidae (BEAST, MrBayes). We show that most genera radiated in the Oligocene, and that recent radiations are scarce, resulting in a phylogeny dominated by paleo-endemic lineages. We suggest that the reduction of the Pan African forest coupled to the increase in open habitats (savannah, grassland, fynbos) since the Oligocene has generated a preponderance of paleo-endemic lineages (e.g. *Brookesia*, *Kinyongia*, *Nadzikambia*, *Rieppeleon*, *Rhampholeon*). Geographic regions (Eastern Arc, northern Madagascar, and eastern Madagascar) which contain fragments of ancient forests show comparatively higher phylogenetic diversity (PD) due to the retention of paleo-endemic lineages. Randomisations were performed to obtain a null model for comparison against observed PD, and the result shows that PD is lower than expected by chance across all areas. This suggests that on the whole, the phylogeny is over-dispersed, possibly as a result of extinction filtering (and/or undiscovered taxa). Recent radiation (e.g. Pliocene and later) is uncommon, and occurs primarily within the genera *Bradypodion* and *Trioceros*. We suggest that these lineages were able to take advantage of fine-structure microhabitats (e.g. grasses, fynbos) within the open vegetation that has been dominant since the Pliocene. We investigated a combination of morphological and performance data (bite force, gripping, sprinting) among *Bradypodion* species, and conclude that some *Bradypodion* lineages adapted to fine-structure habitats through the evolution of small body size, limb lengthening, hand/feet reduction, and ornamentation reduction. In contrast, paleo-endemic lineages have not radiated substantially since the Oligocene-