

Does climate change drive extinction risk in Namibian lizards (Lacertidae)?

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Abstract.— Reptiles are supposed to be relatively invulnerable to the ongoing rapid anthropogenic climate change as they are able to actively regulate their body temperature (T_b) through behaviour, tolerate high T_b and resist water loss. However, recent studies have shown that lizards and snakes seem to be more at risk than previously expected. In Mexico, increased local extinction probability in lizards correlated with the magnitude of warming during the reproductive period, questioning the assumption of climate invulnerability. We tested the hypothesis that different lizard species of the family Lacertidae are vulnerable to rises in maximum temperatures in Namibia, especially in the Namib and the Kalahari. We predicted that inhabiting different habitats with different microhabitat temperatures and different preferred T_b within different distribution ranges would result in differences in local extinction probability. As opposed to other studies our model integrates past and present distributions verified by museum collections and ground-truthed, a quantifiable physiological parameter (preferred body temperature T_{pref}) and available operative temperatures in correlation to air temperatures. Data was collected for 17 species (*Meroles anchietae*, *M. cuneirostris*, *M. suborbitalis*, *M. ctenodactylus*, *M. reticulatus*, *M. micropholidotus*, *M. knoxii*, *Pedioplanis namaquensis*, *P. laticeps*, *P. lineocellata*, *P. breviceps*, *P. rubens*, *P. undata*, *P. inornata*, *P. gaerdesi*, *P. husabensis* and *Heliobolus lugubris*). Our first results seem to indicate that populations of at least one of the tested species were extirpated (both predicted by the model and verified) in the hottest area of its distribution range due to increased maximum temperatures during the reproductive season since the mid-1970s. Furthermore, different extents in future extinction risk are predicted under consideration of the currently accepted climate change scenarios. It seems that Namibian Lacertidae under current conditions already live at their thermal maximum.

Key Words.— climate change, preferred body temperature, lacertidae, Southern Africa, extinction risk

Treatment of snakebite in domestic animals

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Abstract.— I have practised as a veterinarian with farm and companion animals since the 1970s, gaining experience mainly in the Hartbeespoortdam area of North West Province, South Africa, Namibia (North and South), Natal (Coastal and Midlands) and the Highveld region of Gauteng. My interest in reptiles and amphibians involves mainly those indigenous to southern Africa. In all incidents of snakebite, an