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## Evolutionary shifts in the dentitions of the extinct Bond's springbok, *Antidorcas bondi*

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During the Middle and Late Pleistocene the extinct Bond's springbok, *Antidorcas bondi*, occurred in abundance throughout central southern Africa, from the north-eastern Karoo in the south to southern Zimbabwe in the north. It was unusually adapted to a highly specialised grazing niche, co-existing with other larger-bodied specialised grazers in a facilitating grazing system in highly productive grasslands. Unlike the semi-arid adapted modern springbok, it was associated with wetland indicators, such as hippos, waterbuck and lechwe, which today occur in the Okavango area of Botswana and in southern Zambia as a relict fauna. We record here by means of non-destructive micro-focus X-ray Tomography ( $\mu$ XCT), located at Necsa, a marked morphological shift in the dentitions of *A. bondi* from the end-Early Pleistocene to the Middle and Late Pleistocene, reflecting its adaptation to a specialised grazing niche. A distal shift in the emphasis of mastication caused a reduction of the premolar row and an increase in hypsodonty and enamel volume of the third molar.

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Yes

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