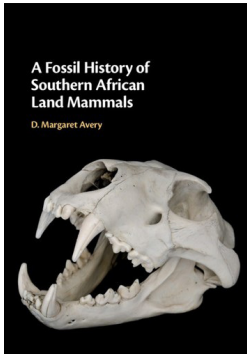




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A fossil history of southern African land mammals



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## Southern African land mammals through space and time

In 1839, Andrew Geddes Bain initiated the study of mammalian fossils in southern Africa when he published the skull of a large extinct buffalo found on the banks of the Modder River in what is now the Limpopo Province of South Africa. In this book, Margaret Avery notes that the field received a significant boost in 1925, when Raymond Dart reported *Australopithecus africanus* and associated fossils from a cave at Taung in the present-day North West Province, and another in 1936, when Robert Broom and others began to accumulate australopith and accompanying mammalian fossils from caves within what is now the Cradle of Humankind, Gauteng. It matured in the 1960s, led by C.K. ('Bob') Brain, who analysed entire fossil bone assemblages to reconstruct the behaviour and ecology of the bone accumulators. Avery entered the field in the 1970s and subsequently became the leading authority on micromammals – small rodents, insectivores and bats – from southern African fossil sites.

In the research for this book, Avery identified more than 600 fossil mammal localities in southern Africa, defined as the subcontinent south of the Kunene and Zambezi Rivers, roughly Africa below 15°S. In geopolitical terms, southern Africa means Botswana, Lesotho, Mozambique (southern half), Namibia, South Africa, Swaziland and Zimbabwe. Most known localities are in South Africa, because that is where the commercial activity that exposes sites has been most intense and because it is where palaeontologists and archaeologists have been most numerous. The sites date mainly from the later Pleistocene and Holocene, between about 130 000 years ago and the near-present. However, some, most notably Langebaanweg in the Western Cape Province, Makapansgat in the Limpopo Province, and the Gauteng australopith caves, document mammalian species during the Pliocene and early Pleistocene, between roughly 5.5 and 1 million years ago, while Arrisdrift, Berg Aukas, and other localities mostly in western Namibia, have revealed species that lived in the early-to-middle Miocene, between perhaps 23 and 14 million years ago. A handful of especially old sites, clustered on a short stretch of coastal Namibia, record mostly micromammal species of later Eocene age, broadly between 45 and 34 million years ago. Considered irrespective of age, the sites have produced specimens from about 650 species.

Information on the sites and their fossils is widely scattered and often difficult to access, even for specialists. To remedy this, Avery has gathered into a single volume lists of all the known mammalian species and sites by geologic epoch, from the Eocene through to the Holocene. For each species, she presents its classification within the Linnaean hierarchy from the level of Order down, and she locates the sites where the species occurs within a grid of 350 contiguous squares covering all of southern Africa. Each square is one degree of latitude and one degree of longitude on a side. She presents a cross-cutting list of sites with the species each contains and their locations by epoch within the same 350-square grid; 153 squares contain at least one site. For each species and site, she provides basic references and, where relevant, notes on species or age ambiguity and on species synonyms. Readers can locate information on a particular species or site from a full index or, in keeping with publication in 2019, they can search for it in the open access [ebook](#).

Avery has worked hard to ensure that the text is both comprehensive and accurate. Specialists can use it to investigate variation in species composition through time and space, and many will surely use it to gather the background they need to place new fossils or sites in context. Avery and Cambridge University Press are to be thanked for making such an invaluable research tool freely available.

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