

Was Madagascar settled before the Austronesians?

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Roger Blench

Kay Williamson Educational Foundation

Introduction I

- The island of Madagascar split from the African mainland some 50 million years ago, considerably prior to the evolution of humans and indeed primates.
- Its isolation permitted the evolution of a complex endemic flora and a fauna dominated by lemurs.
- Some 35% of the flora and 90% of the fauna are endemic. The absence of human populations permitted the development of 'naïve' species, susceptible to both predation from humans and competition from other animals, wild and domestic.



Introduction II

- It is usually thought the primary settlement of Madagascar was by Austronesians from Borneo, although the exact dates and circumstances of this transoceanic movement remain to be settled.
- The earliest radiocarbon dates for settlement are 5th century AD
- However, recent palaeoecological evidence points to a rather different scenario, namely a population reaching southwest Madagascar ca. 400 BC

Introduction III

- The evidence for this is indirect, but now tells quite a consistent story
- There are four major elements;
 - The extinction of megafauna, including giant lemurs and the prevalence of human-modified (i.e. butchered) bones of extinct species
 - Evidence for extensive forest burning (sudden increases in microscopic carbon particles above background values).
 - the appearance of pollen of the introduced *Cannabis/Humulus*
 - increases in ruderal pollen
- Which occur prior to apparent Austronesian settlement

Introduction IV

- The most recent synthesis states bluntly ‘multiple lines of evidence point to the earliest human presence at ca. 2300 14C yr BP (350 cal yr BC)’ (Burney et al. 2004:25).
- As long ago as 1991, a modified hippo-bone from Ambolisatra on the SW coast of Madagascar was dated to 1970 ± 90 yr BP.
- Since then, identifications of bones with cutmarks have increased exponentially. Perez et al. (2005) state, ‘In total, 10 of the 28 specimens of extinct lemurs that we examined microscopically, and 77 of the 269 specimens of extant lemurs, show definitive signs of butchery in the form of cut and/or chop marks’.
- Dating of the “subfossil” megafauna, including pygmy hippos, elephant birds, giant tortoises, and large lemurs, demonstrates that most if not all the extinct taxa were still present on the island when humans arrived.
- Many taxa overlapped chronologically with humans for a millennium or more. The extinct lemurs *Hadropithecus stenognathus*, *Pachylemur insignis*, *Mesopropithecus pithecoides*, and *Daubentonia robusta*, and the elephant birds *Aepyornis* spp. and *Mullerornis* spp., were still present near the end of the first millennium AD.

Giant lemur extinction



❖ Image shows butchered sloth lemur bone, *Palaeopropithecus ingens*

‘We have found definitive cut marks on six of the seventeen specimens of *Palaeopropithecus* long bones in the Methuen collection that we have examined. These six bones have a total of forty-three cuts, all of which show classic signs of having been produced by butchery.’

Introduction V

- Part of the evidence for vegetation change is the earliest occurrence of *Cannabis/Humulus* pollen in the central highlands at Tritrivakely, at an interpolated age of 2200 cal yr BP.
- More directly linked to megafaunal extinctions is the decline in incidence of the spores of the coprophilous fungus *Sporormiella*, a proxy for megafaunal density (Burney et al. 2003). The most secure date for this change is 1720 ± 40 yr BP (230-410 cal yr AD) but a less certain earlier date of 1990 ± 50 yr BP (100 cal yr BC–110 cal yr AD) has been recorded.

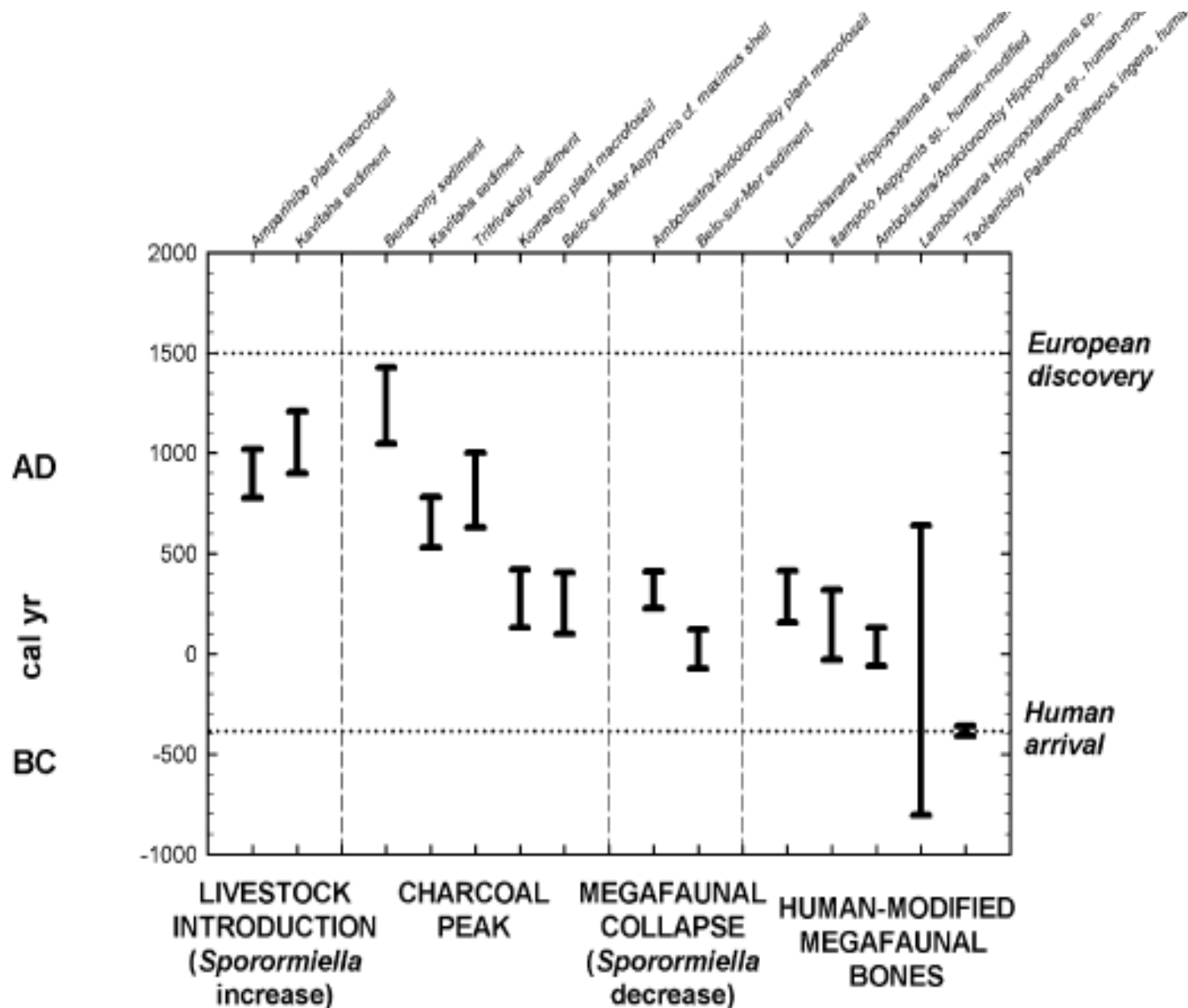


Introduction VI

- These events precede a rise of microscopic carbon particles, a sign of extensive, possibly anthropic, fires. The hypothesis that the present vegetation of central Madagascar evolved from setting fires goes back to Humbert (1927) although at that time it was impossible to set a credible date for these events.
- Abrupt increases in charcoal particles follow in SW sites, signalling increased human impact on the local landscape.
- Charcoal increase comes later in other regions, as humans spread up the southwest coast and into the interior.



Early settlement of Madagascar: Burney's model



The Graeco-Roman period

- The Periplus of the Erythraean Sea is a first century seaman's guide to the coast, may suggest Graeco-Roman mariners or their contacts had some knowledge of Madagascar, which perhaps appears in the text as the 'Great Island of Menuthias', a source of 'mountain tortoises'.
- The Geography of Ptolemy probably represents the geographical knowledge of Byzantium in the 4th century. For Ptolemy, Menuthias is certainly Madagascar, since it was east of Prason [=Delgado?], a promontory south of Rhapton, itself south of Rhapta
- A possible correlate of such contact is an intriguing change in the zoogeography, the spread of Eurasian rodents. Both *Rattus rattus* and *Mus musculus* are common on the island today and have penetrated even remote forest areas, where they are able to out-compete endemic small mammals.
- Vasey & Burney (2007) show that at Andrahomana Cave (in the southeast) between 2480 and 1760 BP proportions of endemic mammals such as *Macrotarsomys petteri* in bone assemblages decrease dramatically while both *Rattus rattus* and *Mus musculus* rise sharply.
- These may be invasive murids which 'jumped ship' an all too common process in the Indian Ocean

Who might the earliest migrants be? II

- The evidence points to sparse hunter-gatherers reaching Madagascar from the African mainland
- Scattered among the Malagasy live groups of hunter-gatherers variously known as the Mikea or Vazimba. These peoples are small in stature, and darker than the neighbouring farmers and herders (although this may be simply the consequence of their way of life).
- The literature is confusing on the name of these people. In some sources they are treated as the same, in other they are distinguished, the Vazimba being the semi-mythical inhabitants of the island and the Mikea their present-day descendants
- In general they have a tendency to assimilate to agricultural communities, and all speak varieties of Malagasy. However, there is some evidence for a lexical substrate distinct from both Bantu and Austronesian.
- Birkeli (1936) describe some groups and give samples of the unusual words, names, toponyms and song texts in the languages of the Vazimba and Baūsi [=Beosy] languages. Stiles (1991, 1998) was later able to confirm at least some of the Birkeli material.

Who might the earliest migrants be? II

- The standard anthropological view is that the Mikea are simply transformed refugees in the forest of neighbouring populations such as the Vezo and Masikoro (Tucker 2001 & Mikea website)
- The evidence is that they have similar rituals, social organisation
- Indeed there is no doubt that the Mikea lifestyle incorporates such individuals, just as the gypsies of Europe incorporate travellers.
- Nonetheless, note the location of the Mikea, exactly where the migrants from the African mainland landed and the persistence of unetymologisable vocabulary
- Some of this is 'avoidance' vocabulary, i.e. manipulated speech, but there are words that seem to have mainland cognates

Who might the earliest migrants be? III

- Hunter-gatherers do still survive on the African mainland, though not opposite the proposed crossing point
- Typical populations are the Kenyan Dahalo, the Hadza and the South Cushitic-speaking peoples such as the Aasax and the Qwadza
- Unfortunately, none of their languages are perfectly described, but it is possible to make comparisons with unpublished materials
- Hadza and Dahalo produced no results at all, but there are a few promising comparisons with Southern Cushitic
- Southern Cushitic is a group of languages described by first by Ehret and later (and much more reliably) by Mous and Kiessling

Who might the earliest migrants be? IV

- Southern Cushitic consists of four languages spoken by pastoral-type peoples, Iraqw, Burunge, Goroa and Alagwa
- Two other languages for which only fragmentary records survive are Aasax and Qwadza (these were almost certainly Southern Cushitic)
- Ehret claimed Dahalo and Ma'a (the famous mixed language) were also Southern Cushitic but this is not generally believed
- Aasax probably died out as a living language at least thirty years ago and today there are only 'rememberers'
- These were recently interviewed by Maarten Mous and some additional vocabulary recovered
- We can't make any conclusive link with the residual Mikea vocabulary but..

Some Southern Cushitic parallels I

bada	person	cf. Proto-Iraqw <i>*badiissee</i> ‘old men’ (> Iraqw, Gorowa <i>bariise</i>), cognate with Proto-Sam <i>*baro</i> , Oromo <i>baru</i> ‘to learn’ (> Digo <i>barobaro</i> 5/6 ‘youth’). See under <i>barera</i> for an alternative etymology. Also possibly (by metathesis) Aasax <i>dobon</i> ‘young man’ reflected in N. Somali <i>dob</i> ‘bachelor’; similarly Taita <i>mdaßana</i> ‘initiated youth’ < extinct Taita Cushitic
barera	woman	cf. Mbugu, Pare mborá 1/2 ‘girl’ (= Chaga woman); Dahalo b’óóra (singulative b’óóreete) ‘boy’; Ma’a mburatú ‘boy’. See also bada above for an alternative etymology
*falahu	of honey	cf. Alagwa, Burunge <i>*fatl</i> ‘to collect honey’, <i>*fatlima</i> ‘collected honey’, with Cushitic cognates incl. Somali <i>*fad</i> ‘to scoop’.
kelo, kelu	house, dwelling	cf. Iraqw <i>qeedi</i> ‘small house type’, qoori ‘round, mud-brick, thatched house’

Some Southern Cushitic parallels II

kisio	hardened wooden point	cf. Iraqw tsitsihhi 'gravel; spear or arrow point'; Qwadza 'tsatsa' arrowhead
masea	sun	cf. Ma'a i'azé 5/6 'sun, day'; m'azé 3/4 'midday, sun, day' < Mbugu, Pare izúva 5/6 'sun' < Proto-Bantu
riri	precipice	cf. Proto-Iraqw *diindirimo 'hill, plateau', Iraqw dindirimoo 'elevated land', linked to Proto-Sam *dundum anthill
salo, salu	centre	cf. Iraqw tla/a 'middle'

Aasax rememberers



Curiously....

- *dahalo*, *dahalu* inhabitants of the forest cf. N. Swahili *mdahalo* 1/2 'Dahalo people'
- The Dahalo are foragers living in the interior of the Kenya coast, who speak a Cushitic language which includes click in its phonology.
- An alternative etymology, however, the *da*-element is related to *bada* 'person' and *halo* is **haolo* 'forest' in Malagasy.

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