

Discussion Paper



SAMBAR DEER ON TABLE MOUNTAIN: The need for evidence-based management

ABSTRACT

Little is known about Sambar deer on Table Mountain. Published expert assessments view the ecological impact of this large Oriental deer as likely negligible, yet SANParks officials engage in ad hoc and seemingly unprocedural ‘culling’ operations simply because it is exotic/alien. This discussion paper reviews the evidence about Sambar and the relevant South African legislative framework. It calls for more research on the impact and ecological niche of Sambar deer on Table Mountain and for a moratorium on hunting/culling operations until such time as the evidence indicates that it is necessary and the required protocols are in place.

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Sambar deer on Table Mountain: The need for evidence-based management

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Sambar deer (*Rusa unicolor*) are present on Cape Town's Table Mountain, though this is not widely known. These large Oriental deer are classified as 'vulnerable' by the International Union for Conservation of Nature and Natural Resources (IUCN) because of sharp declines in their number, most rapidly in mainland South-East Asia, because of over-exploitation for their meat and antlers (Timmins et al, 2015).¹ Sambar deer are on the verge of extinction in Malaysia, resulting in calls for some populations or sub-species to be reclassified as endangered (Kawanishi et al., 2014).

Sambar deer also exist outside their native range. They were introduced to Australia, New Zealand, the United States (Texas, Florida, California) and South Africa by wealthy collectors and game hunters. Although they are on the IUCN Red List, Sambar deer are not regarded as a 'species of concern' in South Africa because this designation only applies to indigenous plants and animals (NEMBA, Section 56; see also Rebelo et al, 2011). Rather, South African conservation officials appear to engage in ad hoc culling operations even though little, if anything, is understood about their numbers or impact on the ecosystem.

This discussion paper begins by summarizing what we know about Sambar and their presence on Table Mountain. It then turns to a discussion of the legal framework relevant to the management of alien species and recent concerns about the lack of due process in culling Sambar on the Mountain. The paper concludes with a discussion of what is known about Sambar and what further research is required to understand their presence and impact in and around Table Mountain National Park (TMNP).

What (little) we know about Sambar on Table Mountain

Sambar deer were introduced on Table Mountain by Cecil John Rhodes, who added them to his large enclosure of exotic animals on Groote Schuur Estate in the late 1800s. According to some sources, they were introduced for hunting purposes (e.g. Van Rensberg et., al, 2011:

¹ Sambar populations declined by 30 to 50 percent over the three decades prior to 2015 in their native range which extends from India and Sri Lanka east along the southern Himalayas (including Nepal and Bhutan) through much of south China to Taiwan. Sambar deer also occur on mainland Southeast Asia though the range is fragmented, and in Malaysia (see Timmins et al, 2015 for more details).

361) though there is no evidence for this.² There are no records of any Sambar being hunted on Groote Schuur Estate. Groote Schuur records dating from 1905 indicate that by that time, the 19 introduced Sambar had escaped the enclosure and were ‘running wild’ in unknown numbers (Figure 1b). In 1962 a Cape Department of Nature Report assessed that Sambar deer were ‘as far as can be ascertained ... confined to Groote Schuur estate’ (1962: 85) although it is possible that some may have already spread further afield. By the early 21st century, observations reported on iNaturalist (a global citizen science platform which started in 2008) record them as present in Orange Kloof, Hout Bay and Oudekraal.³

Writing in 2011, Picker and Griffiths hazarded a guess of about 30 Sambar deer on Table Mountain with an assessed likely ‘negligible’ impact on the local ecology (2011: 33). Measey et al in their assessment of invasive species in South Africa do not attempt a population estimate but similarly describe the Sambar as ‘not thought to cause serious impact’ (2020: 125).

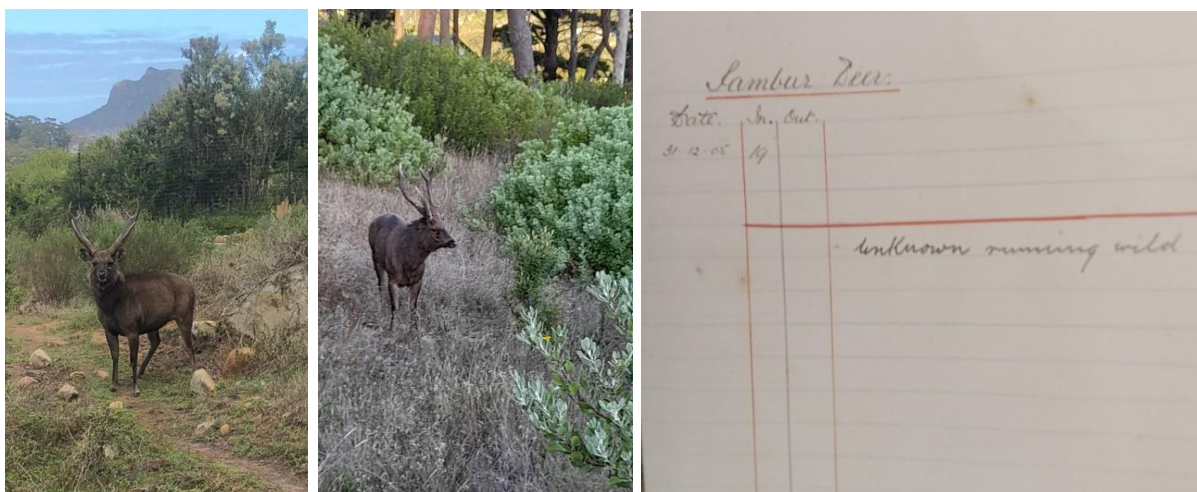


Figure 1. Left (1a): Sambar deer (Hout Bay, 2024, 1a) and cover photo courtesy of Storm Grainger, 1b photo courtesy of Jeremy Seekings), Right (1b): the entry for Sambar deer in the Groote Schuur animal records

Conservation officials and many ecologists, however, are suspicious of any exotic animal because of the potential risks it poses for the local ecology. The mere fact that Sambar are exotic appears to encourage a kind of slippage from the potential to cause a negative impact to a hard assumption about such impact. For example, in a recent article about wildlife in Cape Town, Oladimeji et al write:

‘... exotic species like the grey squirrel (*Sciurus carolinensis*) and Sambar deer (*Rusa unicolor*) thrive in urban environments, often outcompeting native counterparts (Picker and Griffiths 2011; Measey et al. 2020). These successful invasions disrupt native

² Van Rensberg *et al* cite Spear and Chown (2008) and Siegfried 1962 for evidence on Sambar in South Africa, but neither source provides evidence that Sambar deer were introduced for hunting. Spear and Chown is a review of international literature which mentions studies of Sambar in New Zealand and the Siegfried reference says nothing about hunting. There is no indication that any hunting ever occurred on Groote Schuur Estate (the only purchases recorded of ammunition were for hunting ‘vermin’). The animals appear to have been introduced simply as part of Rhodes’s collection which was housed either in enclosures (in an area demarcated for a Zoo) or in a large, enclosed paddock extending up the Eastern side of Table Mountain.

³ See https://www.inaturalist.org/observations?created_d2=2024-10-22%2015:00:20%20-0700&d1=1600-01-01&license=CC0,CC-BY,CC-BY-NC&place_id=6986&quality_grade=research&subview=map&taxon_id=75053

ecosystems, affecting resource availability and potentially displacing native species (van Rensburg et al. 2011; Van Wilgen et al. 2022)’ (2024: 2518).

This is misleading: neither Picker and Griffiths (2011) nor Measey et al (2020) describe Sambar as invasive and both assess their ecological impact to be limited; and Van Rensburg et al (2011) and Van Wilgen et al (2022) do not even mention Sambar deer. In citing these latter references, Oladimeji et al are simply assuming that generalisations about other invasive species apply to Sambar. Conservation officials from TMNP either make the same assumption or adopt a ‘precautionary’ approach in supporting the culling of Sambar just in case they pose an ecological threat (personal communications). The problem for them, however, is that the legislation requires a much more rigorous and substantive assessment (and the development of protocols) than is the case at present.

South Africa has a list of declared ‘alien and invasive’ species contained in the Alien and Invasive Species Regulations and the National Environmental Management: Biodiversity Act (NEMBA) (Act no 10 of 2004). Four categories are identified. Category 1 refers to the most invasive species: those that must be controlled and eradicated (Category 1a) or eradicated where possible (Category 1b).⁴ Category 2 are species for which a permit is required.⁵ These are referred to simply as ‘invasive species’ in the Regulations, but by the Department of Environmental Affairs as also including also alien species deemed to be potentially invasive (2015: 2). Category 3 refers to ‘invasive species which may remain in prescribed areas’ but where further propagation is prohibited (loc.cit).⁶

Sambar deer are listed under category 2, although the evidential basis for this classification is lacking. The most recent assessment of ‘The Status of Biological Invasions and their Management in South Africa’ (Zengeya & Wilson, 2023) does not mention Sambar deer in the main report. One has to dig into the supplementary information provided to obtain information on the Sambar – and when one does so, it is extraordinary how sparse the evidential base is. The discussion of their presence on Table Mountain relies on *iNaturalist* and on Picker and Griffiths (2011). The assessment reports no reference to any South African research on Sambar genetics or even on any physical specimen.

The South African legislative framework

The management of TMNP is governed by three levels of legislation/planning: NEMBA which provides national rules; the ‘Co-ordinated policy framework for management plans which governs SANParks (SANParks, 2023); and the current (2015-2025) management plan for TMNP itself (TMNP, 2016).

According to the TMNP Plan, invasive species control aims ‘to restore the natural patterns and processes of degraded landscapes within the Cape Peninsula’ (2016: 36). When it comes to wildlife in particular, the stated objective is to ‘ensure the sound management of wildlife through the development and implementation of specific programmes, guidelines and protocols for harvesting, species re-introductions and removals’ (ibid: 70). The expectation is

⁴ For example, domestic cats and feral goats are listed as Category 1a in offshore islands (but not elsewhere) and the Himalayan Tahr and the Lesser Kudu (from East Africa are listed as Category 1b).

⁵ Category 2 includes a wide range of African antelope that are not indigenous to South Africa including red lechwe, black faced impala and sable.

⁶ The only mammal classified as Category 3 is the Damara dik-dik.

that these would be available in reports and that officials would ‘communicate actions for removal of alien and invasive fauna’ (ibid: 79).

The more recent SANParks Co-ordinated policy framework, which refers to all national parks including SANParks, is more nuanced on alien species control. After noting the dangers of invasive species, it notes that ‘SANParks acknowledges that in some circumstances, populations of alien species (that are not in themselves a significant threat to biodiversity) need to be accepted as part of the cultural landscape and/or ecosystem of a particular park where they have been identified as historically or culturally significant’ (2023: 26). The SANParks co-ordinated policy framework also adopts a more open process view of ecosystems than the TMNP Plan. Rather than talking of restoring degraded systems it speaks of ‘promoting the ecosystem’s resilience and integrity’ and ‘adopts a complex systems view whereby a certain amount of change to ecosystems is acceptable’ (ibid: 36). Of relevance to the role of Sambar, it notes that: ‘SANParks employs Strategic Adaptive Management for continuous learning about herbivore-vegetation dynamics, focusing management on the ecosystem process of herbivory, and allowing herbivory to bring sufficient ecosystem change while providing a safety net to prevent unacceptable or irreversible change to the vegetation and associated faunal communities of the ecosystem’ (ibid: 36)

NEMBA is also more nuanced than the TMNP plan when it comes to alien and invasive species. It notes that they are to be managed ‘to prevent or minimise harm to the environment and to biodiversity in particular’ with the objective being ‘to eradicate alien species and invasive species from ecosystems and habitats where they may harm such ecosystems or habitats’ (Section 64). NEMBA requires that managers of protected areas develop a plan for invasive species control and eradication (Section 76(1) and 76(4)) and produce regular ‘status reports’ including assessments of the efficacy of such management, to the Minister or MEC for Environmental Affairs (Section 77).

Local violations

There appears to be no such plans or status reports regarding the culling of Sambar deer in TMNP (or at least no reports that SANParks officials are prepared to share with the public⁷). This is problematic because there is considerable uncertainty and suspicion on the part of local residents over what is happening in TMNP with the Sambar. Officials have told local residents Hout Bay that they, as conservation officials, have a right to shoot Sambar deer, that they have been doing it for years but have sought to keep it from becoming public (personal communication). However, with the growth of security cameras in neighbourhoods along the boundary of Orange Kloof and the mobilization of citizens into security / neighbourhood watch organizations, such clandestine activities are now more easily spotted.

Notably, on 26 May 2022, two SANParks employees were apprehended by a local resident, the assistant neighbourhood watch area manager for Orange Kloof, after shots were fired 150 meters from his home at 22.45 that night. It was found that a female Sambar deer had been killed. The resident insisted on a meeting, and the following day met with the two SANParks employees and a further SANParks official at TMNP head office. At the meeting SANParks officials stated that it was in their mandate to ‘scientifically cull Sambar deer’ as they had

⁷ All requests for documents from the manager of TMNP and the CEO of SANParks have thus far have been unproductive.

done in the past, regardless of people's views on the matter. It was agreed, however, that discharging a rifle close to a residential area was not acceptable and that SANParks would inform the neighbourhood representative prior to any future culling operations. SANParks officials requested that the neighbourhood representative be circumspect in the way he treated such information because, they said, they did not want to alert criminals who might attack them for their guns. One of the SANParks employees involved in the killing of the Sambar then presented a haunch of butchered Sambar meat to the neighbourhood representative and the SANParks official from head office.⁸

The killing of the Sambar deer, allegedly as part of a culling operation, appears to have violated the TMNP's own requirement that it develops plans and communicates these to the public when it comes to removing alien species. It also appears to have violated NEMBA's requirements that control programmes be based on a prior substantive assessment of ecological impact. Furthermore, NEMBA states that a permit is required for carrying out any 'restricted activity' which includes 'selling or otherwise trading in, buying, receiving, giving, donating... or in any way acquiring or disposing of any specimen of an alien or listed invasive species' (see list of definitions and Section 65). This implies that any 'disposing' of Sambar (killing and gifting of meat) would require a permit issued either by the National or Provincial minister (MEC) for Environmental Affairs (Section 87A). It is unlikely that the officials had a permit for any of this.

As it turned out, SANParks did not honour their undertaking of 27 May 2022 to inform the neighbourhood representative of upcoming culling operations. On 24 September 2024 another 'culling' operation took place. That night, the neighbourhood watch security cameras picked up unusual activity at the Orange Kloof Road gate. Later, two shots were heard, and neighbourhood social media groups became very active. At first, the SANParks representative on the group posted that there was no culling operation. The neighbourhood representative went to the gate and spoke to the ranger supposedly in charge of the operation who stated that it was a culling operation. When asked where the carcass was, he said that both shots had missed. In the interim, the SANParks representative on the WhatsApp group indicated that her sources had misinformed her, apologised and confirmed that a culling operation had indeed taken place – but could provide no further details.

The next morning (25 September) the acting area manager of SANParks (who, as it turned out, was one of the SANParks officials involved in shooting the Sambar female two years earlier) phoned the neighbourhood representative to say he had not been aware of the culling operation. A further meeting was held at the SANParks Newlands depot on 21 October 2024 where SANParks officials once again stated they would inform the neighbourhood representative about any future culling and once again emphasised the need to treat any such information with caution (supposedly to prevent attacks from criminals).⁹

The residents in Orange Kloof and Long Kloof are sensitive to gunshots in the nature reserve and very suspicious of these alleged 'culling' operations. There is/was a well-known stag, nick-named 'Vuvuzela' (or Vuvu) who has not been seen since the night of the culling. There is much speculation that this large stag, (described as 'big as a horse' and with 'magnificent

⁸ Personal communications and information supplied based on notes taken during the meeting with SANParks (and subsequently shared with SANParks officials to check for accuracy).

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antlers’) might have been killed by the culling operation – or even by an illegal episode of sport or trophy hunting (personal communication).

Whether the above was the case or not, from the two recorded incidents it is clear that SANParks has allowed what appears to be an ad hoc, unprocedural and unaccountable process of ‘culling’ Sambar deer in TMNP, without regard for neighbouring residents. Not only does there appear to be no protocols or reports (or even ‘scientific’ research), but the public was not informed of either the 2022 or 2024 culling operations. If the killings had been done to obtain meat and trophies (perhaps in addition to supposed ‘culling’ objectives) then further violations of the law would have occurred.

There is a clear need for a more open and transparent approach to monitoring and controlling Sambar deer (if, and where, deemed necessary) and to do this within the existing legislative framework. That includes complying with reporting requirements under NEMBA and conducting a substantive prior assessment of whether this alien species is actually causing any harm to the TMNP ecosystem.

What do we know about Sambar?

Sambar deer are comparable in size to a North American elk. Various sub-species have been identified in the past (see account in Leslie, 2011) although recent genetic analysis disputes such categorisations, identifying instead three clades associated geographically with Myanmar/India, Sri Lanka, and Sunda (i.e. Sumatra, Mentawai, and Borneo) (Martins et al. 2018). They are a large, robust deer with a coarse and shaggy pelage of uniform colour around the body (hence the scientific name ‘unicolour’) although the colour can vary from light to dark brown. Sambar deer are capable of remaining very still in the face of a threat, allowing their dark pelage to blend in with the vegetation, or creeping off in a ‘semicrouch trot’ with the neck held horizontally (Schaller quoted in Leslie, 2011: 20).¹⁰

Sambar deer are typically non-social, with stable groups being at most family groups (Leslie, 2011: 18-19). Very little is known about the breeding behaviour of this shy animal though there are suggestions that breeding season varies depending on geographical location. Sambar breed throughout the year in equatorial regions, they are more likely to mate in spring and give birth in winter in tropical and sub-tropical areas (Watter et al, 2020). Such sensitivity to length of daylight is thought to assist in better survival of fawns (ibid). Reproductive success appears to be low in contexts like India (where Sambar deer are subject to predation by tigers, loss of habitat and hunting pressure from humans) but higher in Australia where they have no natural predators (Watter et al, 2020).

Only the males have antlers, and these are shed annually. It takes three years for a male to develop the full antler set (Weerasekera et al, 2020), and as the stag ages, the antlers grow to become larger, rougher and more corrugated. Antlers of mature stags are generally 3-tined with a more or less straight brow tine coming off at an acute angle (see Figures 2 and 3).

¹⁰ I have observed Sambar in Hout Bay keeping so still that dogs have not noticed them and my attention was attracted to them only because of a twitching ear. In my observation, when confronted by dogs, Sambar deer typically remain still or trot off slowly. On one occasion a Sambar stag (presumably in rut) swiped at a barking dog with its antlers, injuring the dog’s head.



Figure 2: Antler development

Image reproduced in Rodrigo (2020) courtesy of Danushka Weerasekera.

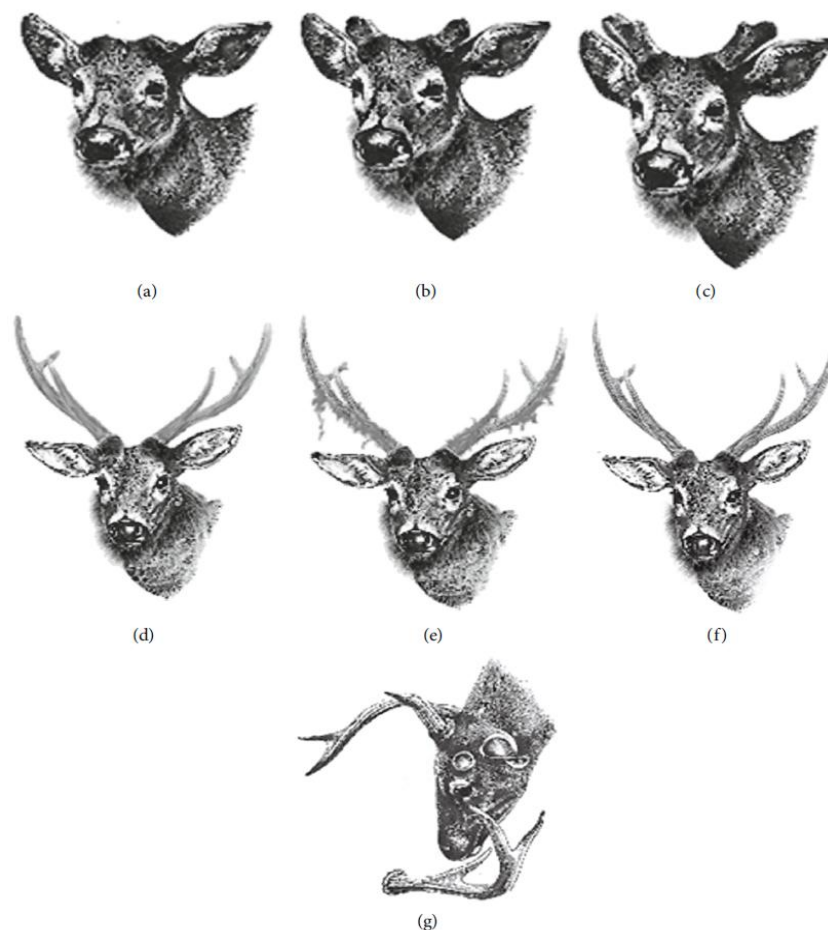


FIGURE 1: Antler stages of sambar deer (*Rusa unicolor unicolor*) recorded from Horton Plains National Park, Sri Lanka: (a) cast, (b) growing 1—single spike, (c) growing 2—antler fork into a Y as the second tine appears, (d) growing 3—velvet begins to harden as the third tine appears, (e) growth completed—velvet shedding begins, (f) hard antler, and (g) casting.

Figure 3 Annual antler cycle (from Weerasekera et al, 2020: 4).

During the rutting (breeding) season, stags use these antlers in fighting (competition for females). Stags are more easily seen during the breeding season when they are more likely to come out into the open during the day as if ‘looking for something’ (Schaller quoted in Leslie, 2011: 19). (The stags in Figures 1a and 1b are probably displaying this behaviour.) During the rut stags are known to spray themselves with urine, including on their faces, using their mobile penises – the structure of which is unique amongst cervids (Leslie, 2011: 19).

Antlers are hardest during rutting when testosterone is highest and casting (shedding) after the breeding season is associated with a sharp drop in testosterone (Weeraskera et al, 2020). Figure 2 shows the stages of growth of antlers for a stag and Figure 3 shows the annual cycle for a full-grown stag.

Sambar are generalist herbivores meaning that they graze and browse a wide variety of trees, shrubs, herbs and grasses. This allows them to survive in a wide range of contexts, though they appear to prefer wetter, forested regions (Leslie 2011; Timmins et al, 2015). In Australia they are known to cause damage to agriculture through grazing or browsing pasture, fruit, grapevines, vegetables, pine and other trees, flowers and foliage (Lindeman and Forsyth, 2008). They are known to strip bark from and rub their antlers (to remove the velvet) on pine trees, even killing them. Farmers in Australia blame them for browsing and damaging young trees less than 30cm tall (by removing the growing tip), although investigators found it was impossible to distinguish damage caused by other species such as rabbits and wallabies (ibid: 14-15).

Sambar deer are mostly sedentary and spend a lot of time ruminating to break down low quality forages (Semiadi et al, 2009). In so doing, they prefer to be close to water and cover (Leslie 2011: 15). Activity patterns vary depending on context, though they are mostly crepuscular (coming out to eat during twilight) or nocturnal (Timmins et al, 2015: 14).

Impact on Table Mountain: The need for research

Sambar are generalist browsers/grazers and thus can be expected to eat a wide variety of plants, both indigenous and exotic, on Table Mountain. Unfortunately, there have been no studies of Sambar diet on the mountain (and no known analysis of stomach contents of Sambar culled by SANParks). We do not know what sub-species of Sambar deer they comprise. Conservation officials appear to assume that they pose a danger to the local ecology simply because they are exotic and because they are known to eat bark and damage trees by rubbing their antlers (personal communication).

Research is needed into Sambar numbers (and distribution). Ecologists who have written about invasive fauna on Table Mountain report that Sambar are not likely to exist in sufficient numbers to result in anything other than a limited impact on the ecology (Picker and Griffiths, 2011; Measey et al, 2020). And, as noted earlier, Picker and Griffiths reported an estimate of 30 Sambar on the Mountain. If so, then the 19 individuals imported to Groote Schuur Estate more than a century ago reproduced very slowly and cannot reasonably be seen as invasive. It is also worth noting that forest cover increased significantly in TMNP – by 63% according to historical photographic analysis (Poulson and Hoffman, 2015). It thus may well be that preferred Sambar habitat expanded faster than the Sambar themselves (again suggesting that their impact has likely been insignificant).

Even so, research is needed into Sambar diet. To what extent, if at all, are they threatening endangered plants? Alternatively, could they be assisting by browsing on exotic invasive species? As noted earlier, NEMBA proposes that alien and invasive species be eradicated where they harm ecosystems and habitats. Are Sambar deer harming the TMNP ecosystem? SANParks’s ‘Coordinated policy framework’ accepts that in some circumstances, where alien species are not a significant threat to biodiversity, they may be ‘accepted as part of the cultural landscape and/or ecosystem of a particular park where they have been identified as historically or culturally significant’ (SANParks, 2023: 26). Do Sambar not fall into this category? The SANParks Coordinated Plan also recommends ‘continuous learning about herbivore-vegetation dynamics’ and even ‘allowing herbivory to bring sufficient ecosystem change while providing a safety net to prevent unacceptable or irreversible change to the vegetation and associated faunal communities of the ecosystem’ (ibid: 36). Understanding the role of Sambar as large herbivore on Table Mountain is surely essential but to understanding the human curated fire-repressed ecosystem that has emerged on the Mountain and the potential role played by this large herbivore in helping thin out lower branches and the understory.

Understanding Sambar diet might also help understand its relationship with invasive acacia and pines. Sambar deer are known to eat immature *Acacia* trees (they are relatively common in immature *Acacia mangium* plantations in India (Timmins et al, 2015: 15)). *Acacia saligna* (Port Jackson) has been shown to have nutritional value for ruminants, especially when young (Krebs et al, 2003). It is possible that Sambar deer on Table Mountain are helping control invasive acacia by eating seedlings and browsing on young trees. Figure 4 shows bark stripping and browsing of acacia saplings in Oudekraal, Table Mountain. Research is required to see if they select for the very young seedlings (which appear, from casual observation, to be less frequent in areas of Oudekraal and Hout Bay frequented by Sambar).



Figure 4: Signs of bark stripping and browsing by Sambar deer, Oudekraal, Table Mountain.

Similarly, as noted above, Sambar deer are known to browse on pine trees, even causing economic damage to Christmas tree plantations in Australia (Lindeman and Forsyth, 2008). Figure 5a shows a Sambar stag rubbing his antlers on a pine tree in Oudekraal, and Figure 5b shows that such rubbing activity resulted in substantial damage to the tree, essentially ringbarking it and eventually killing it (Figure 5b). Given that pine trees are invasive species that conservation officials are seeking to remove, this particular Sambar action was an ecological beneficial one.



Figure 5: Left (a) Sambar rubbing a pine tree Sept 2023; Right (b) The dead tree toppled over, Oudekraal Jan 2024.

There is evidence of Sambar rubbing and stripping bark from indigenous trees too, but from casual observation in Hout Bay and Oudekraal, this takes the form of damage to one side of the tree, allowing them to survive (Figure 6).



Figure 6. Damage to bark of indigenous trees likely caused by Sambar (ravine, Hout Bay)



Figure 7: a) Impact of Sambar browsing on ivy (left panel); b) impact on a shrub (middle panel); and c) on the adjacent TMNP area beneath a tree (resting site, right panel).

Sambar are predominantly browsers, apparently moving through the understory of the forest nibbling at leaves, flowers, bark etc. On the borders of TMNP in Orange Kloof (Hout Bay) there is evidence of them browsing heavily on ivy and shrubs, but the effect seems to be more one of pruning than killing (Figure 7a and 7b). Sambar deer frequent that particular area as there is permanent water and cover and they are welcomed by the property owner. Figure 7 depicts the area in summer (when Orange Kloof is at its driest). There is evidence of grazing and disturbance of the ground by hoof under the tree they are known to rest under (Figure 7c). But even in this heavily used area, the impact on vegetation appears minimal. More research is needed on how they select plants and if and when they do sufficient damage to kill plants – and if they do, what the impact is on biodiversity.



Figure 8: Left (8a) Sambar browsing, Right (8b) evidence of browsing

The fact that they are generalist herbivores suggests that they will browse opportunistically but may possibly select for young acacias as these are likely richer in nutrients than the indigenous vegetation. Figure 8a shows a pair of Sambar moving through the understory nibbling at plants and evidence of browsing of leaves (and the growing tip) of a sapling on the forest floor (8b). In this instance, Sambar deer do not appear to be killing trees in the forest, but they may well be suppressing the growth of new shoots near old trees. Research is needed into the impact of this on the ecosystem and the role it might play in reducing the risk of fire.

Finally, it is worth considering once again the fact that the Sambar are on the IUNC Red List as ‘vulnerable’ with some populations threatened in their native range. This has resulted in attention being paid to exotic populations of Sambar as a potential source of genetic rescue and re-introductions (Rollins et al, 2023). A study of the genetics of Sambar in Australia and New Zealand found that: ‘Although diversity is reduced in the introduced range compared with the native range, Sambar deer in Australia and New Zealand harbour unique genetic variants that could be used to strengthen genetic diversity in populations under threat in the native range’ (ibid: abstract). It also found no difference in genetic diversity between Sambar in Australia and New Zealand despite the fact that the New Zealand population originated from two deer. In other words, the fact that the TMNP Sambar originated from 19 Sambars on Groote Schuur estate is not sufficient reason to assume that genetic diversity in this population is inadequate. Research on this too is needed.

Conclusion

In short, there are many reasons pertaining to the need for more research and to develop appropriate management strategies. A clear moratorium on culling needs to be agreed – especially of potentially genetically important individuals favoured by trophy hunters. Not only is research needed to guide management plans, but more engagement with the public is advisable to develop new and shared understandings.

Areas of TMNP like Orange Kloof and Hout Bay have ecosystems that differ fundamentally from the pre-urbanization past. Fire is suppressed and there are significant ecological challenges posed by remnant plantations and invasive plants. TMNP can thus be understood as a ‘novel’ ecosystem in an urban context (Klaus and Kiehl, 2021). Understanding the ecological niche that Sambar occupy in this fundamentally human-altered system – as well as the social meanings attached to them – is essential. Conservation officials may have inherited a hunting/culling mentality from the past and it is possible that some continue such practices also to obtain meat and trophies. But in this democratic era, the management of fauna on Table Mountain ought to accord with the principles and protocols required by the legislation – and be based on solid research and community consultation.

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