



Portrait of *Hylochoerus meinertzhageni* Thomas, 1904, the giant forest hog

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Abstract. In this work, we delve into the depths of the existence of the giant forest hog *Hylochoerus meinertzhageni*, Thomas, 1904, exploring its taxonomy, habitat, distribution, physical attributes, behavior, and ecological significance. The giant forest hog stands as a symbol of resilience and adaptability in the face of environmental challenges. With its imposing stature, elusive nature, and vital ecological role, it embodies the intricate interconnectedness of life within the African wilderness. As custodians of this precious heritage, it is our responsibility to ensure the continued existence of the giant forest hog and safeguard the forests it calls home for generations to come.

Key Words: African wilderness, behavior, distribution, ecological significance, habitat, taxonomy.

Introduction. The African wilderness is home to a myriad of fascinating creatures, each contributing to the rich tapestry of biodiversity that graces the continent. Among these remarkable inhabitants stands the imposing figure of the giant forest hog *Hylochoerus meinertzhageni* Thomas, 1904, a creature shrouded in mystery and revered for its unique characteristics. In this work, we delve into the depths of its existence, exploring its taxonomy, habitat, distribution, physical attributes, behavior, and ecological significance.

Taxonomy. *H. meinertzhageni* is the only member of the genus *Hylochoerus*. It was first described in 1904. The specific name honours Richard Meinertzhagen (wikipedia.org), who shot the type specimen in Kenya and had it shipped to the Natural History Museum in England (Garfield 2008). Although the evolutionary species concept leaves no room for subspecies (Wiley & Mayden 2000; Papuc et al 2022; Kovacs & Petrescu-Mag 2022), three subspecies of the giant forest hog are still recognized by the scientific community: *H. m. rimator*, *H. m. meinertzhageni* and *H. m. ivoriensis*. *H. m. meinertzhageni* (the East African subspecies) is slightly larger than *H. m. rimator* (the Central African subspecies), and noticeably larger than *H. m. ivoriensis* (the West African subspecies) (Novak 1999).

Habitat and distribution. The giant forest hog, as its name suggests, predominantly inhabits the dense forests and woodland savannas of sub-Saharan Africa. The giant forest hog struggles with low humidity and extended sun exposure, causing them to avoid arid regions and habitats without thick cover (Kingdon 1997). Its range extends from West Africa, including countries such as Sierra Leone, Liberia and Ghana, through Central Africa, encompassing regions like Cameroon, Gabon, Nigeria, Central African Republic, and the Democratic Republic of Congo, and into East Africa, where it roams the forests of Uganda, Kenya, and Ethiopia (d'Huart & Reyna 2016; Wilson & Mittermeier 2011) (Figure 1). Within these diverse habitats, the giant forest hog finds sanctuary amidst the towering trees and lush undergrowth, forging a harmonious existence within its natural environment.



Figure 1. Approximate distribution of giant forest hog: *H. m. rimator* (orange), *H. m. meinertzhageni* (brown), *H. m. ivoriensis* (conspicuous orange). Source: Wilson & Mittermeier (2011).

Physical characteristics. Distinguished by its formidable size and robust build, the giant forest hog commands attention with its impressive physique. Adults can weigh anywhere between 100 to 275 kilograms and stand at a height of 0.75 to 1.1 m in height at the shoulder (Estes 1991; Kingdon 1997; Novak 1999; West et al 2007). Adult animals can measure from 1.3 to 2.1 m in head-and-body length, with an additional tail length of 25 to 45 cm (Estes 1991; Kingdon 1997; Novak 1999; West et al 2007). Females are a little bit smaller than males. Females weigh a median of approximately 167 kg, as opposed to males, which weigh a median of 210 kg (Estes 1999). Its body is covered in coarse, bristly hair that ranges in color from dark brown to black (Figure 2), providing effective camouflage amidst the shadows of the forest floor.



Figure 2. The giant forest hog *Hylochoerus meinertzhageni*, Thomas, 1904 (Uganda Wildlife Education Centre). Source: Michell Zappa from São Paulo, Brazil (wikipedia.org).

One of its most striking features is the prominent pair of tusks that protrude from its mouth, which can grow up to 35.9 cm in length (Huffman 2023). These tusks serve both as formidable weapons and as tools for digging up roots and tubers, essential components of the giant forest hog's diet.

Behavior and ecology. Despite its imposing stature, the giant forest hog is a shy and elusive creature, preferring to avoid human contact whenever possible (Nowak 1999). It is primarily nocturnal, venturing out under the cover of darkness to forage for food in the safety of the forest (Novak 1999).

Feeding is the major activity for which 49.7% of the active daytime is used (Aemro Mekonnen et al 2018). Resting (e.g., lying down, standing and wallowing) is the next major activity, for which they spend about 38.8% of the daytime, followed by other activities (11.5%) (Aemro Mekonnen et al 2018).

A herbivore by nature, its diet consists of a variety of plant matter, including roots, bulbs, fruits, and foliage (Aemro Mekonnen et al 2018), supplemented occasionally by small invertebrates. Grass is the major food item of the giant forest hog (90%), mainly of *Panicum sp.*, *Acalypha psilostachya*, *Cissampelos rigidifolia*, *Psilotrichum gnaphalobryum* and *Abutilon ceclii* (Aemro Mekonnen et al 2018). The giant forest hog's ability to digest fibrous plant material makes it a crucial player in the ecosystem, aiding in seed dispersal and nutrient cycling within its habitat.

In terms of social structure, the giant forest hog typically lives in small family groups (up to 20 animals), comprised of a dominant male, several females, and their offspring (Novak 1999). Females leave the herd before giving birth and return with the piglets about one week after parturition (wikipedia.org). All members of the herd protect the piglets, and a piglet can nurse from all females (Huffman 2023). Boars fight by running head on into each other, followed by head pushing and attempts to slash the opponent with their lower tusks (Geist 1966).

These groups establish territories within the forest, marked by scent glands located on the hog's face and feet, and fiercely defend them against intruders. However, encounters between groups are generally rare, as the vast expanse of the forest provides ample space for each family unit to roam undisturbed.

Like other suids in Sub-Saharan Africa, the giant forest hog has not been domesticated, yet it is easily tamed and has been seen as having potential for domestication (Novak et al 1999). However, in the wild, it is more feared than the red river hog, *Potamochoerus porcus* (Linnaeus, 1758), and the bushpig, *Potamochoerus larvatus* (Cuvier, 1822), as males sometimes launch sudden attacks, possibly to defend their group (Novak et al 1999). They have been observed driving spotted hyenas away from carcasses, and fights among males resulting in death are not uncommon (Huffman 2023). Despite their size and potential for aggression, they can fall prey to leopards, especially large male forest leopards, and clans of spotted hyenas (wikipedia.org). Although in some areas lions may also prey on giant forest hogs, the two species are usually segregated by habitat, as African lions typically do not inhabit densely forested areas where the giant forest hog lives (Hart et al 1996; Hayward 2006).

Conservation status and threats. Despite its imposing presence, the giant forest hog faces numerous threats to its survival, primarily due to habitat loss and hunting pressure. As human populations expand and forests are cleared for agriculture and development, the hog's natural habitat dwindles, forcing it into ever-shrinking pockets of wilderness. Additionally, the giant forest hog is hunted for its meat and tusks, both of which hold significant cultural and economic value in certain regions.

Efforts to conserve the giant forest hog and its habitat are underway, with initiatives focusing on habitat preservation, community education, and sustainable hunting practices. Protected areas such as national parks and reserves serve as vital refuges for these majestic creatures, providing sanctuary from the pressures of human encroachment.

Giant forest hog *H. meinertzhageni* has most recently been assessed for The IUCN Red List of Threatened Species in 2016. *H. meinertzhageni* is listed as Least Concern (d'Huart & Reyna 2016).

Conclusions. The giant forest hog stands as a symbol of resilience and adaptability in the face of environmental challenges. With its imposing stature, elusive nature, and vital ecological role, it embodies the intricate interconnectedness of life within the African wilderness. As custodians of this precious heritage, it is our responsibility to ensure the continued existence of the giant forest hog and safeguard the forests it calls home for generations to come.

Conflict of interest. The authors declare that there is no conflict of interest.

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