

## *Hylochoerus meinertzhageni*

Thomas, 1904

(Eng) Forest hog  
(Fre) Hylochère géant

### Taxonomic notes

Single extant species of its genus, the giant forest hog has been subdivided into three subspecies: *H. m. ivoriensis* (West Africa forest hog), *H. m. rimator* (Congo forest hog), and *H. m. meinertzhageni* (Giant forest hog). The taxonomy of fourth south Ethiopian race is still indefinite (Oliver, 1993, 1995).

### IUCN threat category

Vulnerable (VU: criteria A2cd, B1+2abde) as *H. m. ivoriensis* (Western forest hog) in Ivory Coast, Ghana, Guinea, Liberia, Sierra Leone.

### Available information

Literature available on this species mainly concerns its status, distribution, and conservation. No specific studies on the species' ecology are available. Conservation actions, status survey, and distribution are discussed in several references (D'Huart, 1995; D'Huart & Yohannes, 1995; Grubb & Oliver, 1991; Oliver, 1993, 1994, 1995; Oliver & D'Huart, 1990). Most of the authors mentioned also give information on aspects of its ecology, particularly its habitat use and requirements. Notes on its presence in former Zaire are found in Rahm & Christiaensen (1966) and Verschuren (1975). Data on its occurrence in Ethiopia and Eritrea are reported by Yalden et al. (1996); the authors also give some information on the habitat in which the species is found there. General information on the species' ecology and distribution is found in Kingdon (1997) and Stuart & Stuart (1997).

### Known extent of occurrence

This species occurs discontinuously in west-central Africa, from Guinea to Ghana, and from east Nigeria to south-west Ethiopia, Kenya and north Tanzania (Wilson & Reeder, 1993; Oliver, 1993). Its distribution map was obtained from Oliver (1993) and then revised by Dr. J. P. D'Huart (28 April '97). Its occurrence in Ethiopia was updated on the basis of information found in D'Huart & Yohannes (1995) (Fig. 8.1.3.a).

### Categorical-discrete (CD) distribution model

The species lives in a wide variety of closed habitat types: from forests and gallery forests to woodlands and thickets (Oliver, 1993; Kingdon, 1997; D'Huart & Yohannes, 1995).

Based on these environmental preferences, the following scores were assigned (Fig. 8.1.3.b) (Tab. 8.1.3.a):

#### Score (\*)

- 1 Forests and forest mosaics.
- 2 Woodlands, bushlands, thickets and their mosaics.
- 3 Grasslands, semi-desert vegetation and croplands.

(\*) Scores increased for vegetation types occurring inside a 1-km buffer around permanent water

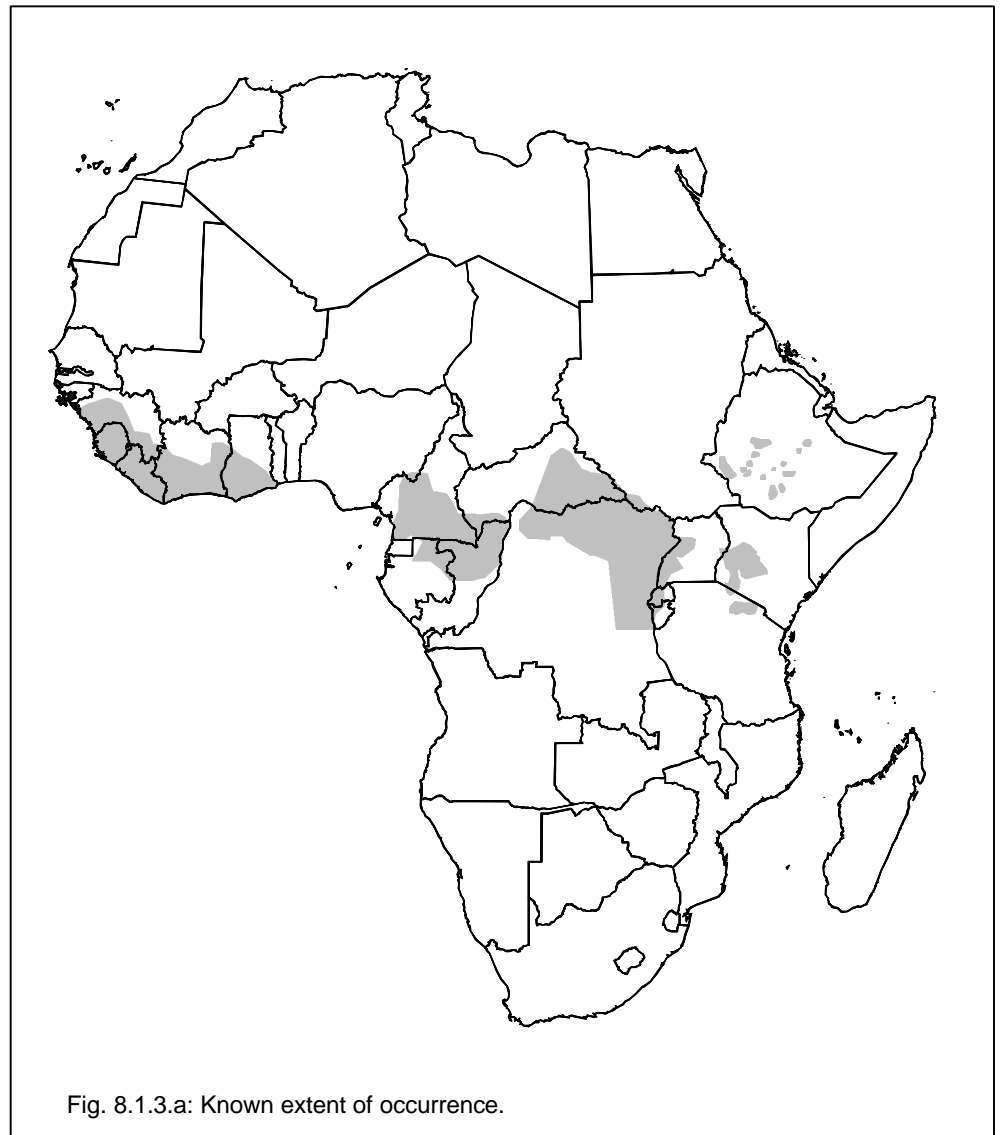


Fig. 8.1.3.a: Known extent of occurrence.

suitable		moderately suitable		unsuitable		Total	
km <sup>2</sup>	%	km <sup>2</sup>	%	km <sup>2</sup>	%	km <sup>2</sup>	%
1 636 502	75	439 823	20	106 906	5	2 183 231	100

Tab 8.1.3.a: Cumulative size (km<sup>2</sup>) of areas pertaining to each environmental suitability class within the Extent of Occurrence.

	Number Patches (NP)	Mean Patch Size (MPS) km <sup>2</sup>	Patch Size SD (PSSD) km <sup>2</sup>	Largest Patch Index (LPI) %	Mean Shape Index (MSI)	Area-Weighted Mean Shape Index (AWMSI)
suitable	594	2 757	38 130	36.36	1.46	13.43
moderately suitable	1 607	273	3 026	4.65	1.35	11.3
Total AO	77	26 964	132 113	44.35	1.68	6.17

Tab 8.1.3.b: Area of Occupancy fragmentation indexes.

### Probabilistic-continuous (PC) distribution model

The output of the probabilistic-continuous (PC) distribution model is shown in Fig. 8.1.3.c.

## Validation

% of EO in sample areas	Number of valid plots	Index of Accordance (%)
13.63	113	54.87

Tab 8.1.3.c: Categorical-discrete (CD) distribution model validation parameters.

## Comments and conservation issues

The known EO of this species is highly irregular: distribution data are very incomplete in some areas, while recent reviews have confirmed that the species is scattered in small isolated populations (i.e. in Ethiopia). According to the CD model (Index of Accordance = 54.87%), the AO of this species is mostly suitable and continuous in central Africa, while a more fragmented pattern is found in East and West Africa. However, unsuitable areas account for as little as 5% of the EO, and the spatial pattern of the forest hog appears to be affected the most by deforestation and hunting pressure. Protected areas cover about 8.5 % of the total AO and the West African population is classified as Vulnerable.

SUITABILITY CLASS	inside	outside	Total
suitable	5.50	69.46	74.96
moderately suitable	2.02	18.12	20.15
unsuitable	0.73	4.17	4.90
<b>Total</b>	<b>8.26</b>	<b>91.74</b>	<b>100</b>

Tab 8.1.3.d: Percent of environmental suitability classes within EO (as obtained from the categorical-discrete distribution model) inside and outside the protected areas.

## References

- D'Huart J.P. (1995). Priorities for conservation action and research on Afrotropical suids. *Ibex*: 3, 45.
- D'Huart J.P., Yohannes E. (1995). Assessment of the present distribution of the forest hog (*Hylochoerus meinertzhageni*) in Ethiopia. *Ibex*: 3, 46-48.
- Grubb P., Oliver W.L.R. (1991). A forgotten warthog. More bushpigs, but fewer forest hogs. IUCN/SSC Pigs and Peccaries Specialist Group & IUCN/SSC Hippo Specialist Group: 17, 61-62.
- Kingdon J. (1997). The Kingdon field guide to African Mammals. Academic Press, London and New York: Natural World.
- Oliver W.L.R. (Ed.) (1993). Pigs, Peccaries, and Hippos. Status Survey and Conservation Action Plan. IUCN/SSC Pigs and Peccaries Specialist Group & IUCN/SSC Hippo Specialist Group.
- Oliver W.L.R. (1994). Report : Africa. IUCN/SSC Pigs and Peccaries Specialist Group & IUCN/SSC Hippo Specialist Group: 23, 75-76.
- Oliver W.L.R. (1995). Taxonomy and conservation status of the suiformes - an overview. *Ibex*: 3, 3-5.
- Oliver W.L.R., D'Huart J.P. (1990). Report.: Africa. IUCN/SSC Pigs and Peccaries Specialist Group and IUCN/SSC Hippo Specialist Group: 15.
- Rahm U., Christiaensen A. (1966). Les mammifères de l'île Idjwi (Lac Kivu, Congo). Les mammifères de la forêt équatoriale de l'est du Congo. *Ann. Mus. Roy. Afr. Cent.*: n° 149.
- Stuart C., Stuart T. (1997). Field guide to the larger mammals of Africa. Struik Publishers.
- Verschuren J. (1975). Wildlife in Zaire. *Oryx*: 13 (2), 149-163.
- Wilson D.E., Reeder D.M. (Eds) (1993). Mammal Species of the World: A Taxonomic and Geographic Reference. Second edition. Smithsonian Institution Press, Washington D.C.
- Yalden D.W., Lagen M.J., Kock D., Hillman J.C. (1996). Catalogue of the mammals of Ethiopia and Eritrea. 7. Revised checklist, zoogeography and conservation. *Tropical Zoology*: 9, 73-164.