

# TAXONOMY AND CONSERVATION STATUS OF THE SUIFORMES - AN OVERVIEW

Oliver W.L.R.

IUCN/SSC Pigs and Peccaries Specialist Group. Park End, 28A Eaton Road, Norwich, Norfolk NR4 6PZ, U.K.

**Keywords:** Suidae, Dicotylidae, Hippopotamidae, Endangered species, Wild pigs.

IBEX J.M.E. 3:3-5

The Suborder Suiformes consists of three extant families: the Suidae, Dicotylidae and Hippopotamidae. These are now thought to comprise at least 19 living species, of which all but three species- the collared peccary *Tayassu tajacu*, the red river hog *Potamochoerus porcus* and the bush pig *P. larvatus* - are threatened to varying degrees, either throughout their ranges or because they include one or more threatened subspecies. Even the widely distributed and often locally abundant Eurasian wild pig (*Sus scrofa*), common warthog (*Phacochoerus africanus*) and white-lipped peccary (*T. pecari*) all have threatened subspecies, which merit increased conservation attention. By compari-

son, the status of a few taxa, such as the pigmy hog (*S. salvanius*), the recently recognised Visayan warty pig (*S. cebifrons*) and the Nigerian race of pigmy hippo (*Hexaprotodon ivoriensis heslopi*), are critical; whilst others, like the enigmatic Vietnam warty pig (*S. bucculentus*), may already have followed the three species of Madagascar dwarf hippos (*Hippopotamus laloumena*, *H. lemerlei* and *Hexaprotodon madagascariensis*) and the Cape race of the "desert" warthog (*P. a. aethiopicus*) into extinction. Recent revisions of the taxonomy of these animals are summarized in table 1 and the present known conservation status of all currently recognized taxa are summarized in table 2.

**Table 1. Taxonomy of living and recent suiformes.**

Total: superfamilies 2, families 3, subfamilies 3, genera 9, species (provisionally 22 (of which 3, possibly 4, are extinct), subspecies (provisionally) > 65 (of which at least 1, but possibly 2 or more, are extinct).

**Order:** Artiodactyla (comprising three suborders: Suiformes, Tylopoda, and Ruminantia)

**Suborder:** Suiformes (comprising two superfamilies and three families, as follows):

**Superfamily:** Anthracotheroidea

**Family:** *Hippopotamidae*

(no separate subfamilies, but two genera and two living and three recently extinct species, as follows):

**Genus:** *Hippopotamus*

**Species:** *H. amphibius* (5 ? ssp) - Common Hippo  
*H. laloumena* - Madagascar Hippo (extinct)  
*H. lemerlei* - Madagascar Dwarf Hippo (extinct)

**Genus:** *Hexaprotodon*  
(= *Choeropsis*)

**Species:** *H. liberiensis* (2ssp) - Pygmy Hippo  
*H. madagascariensis* - Madagascar Pygmy Hippo (extinct)

**SuperFamily:** Suoidea (comprising two families, seven genera and ≤ seventeen species, as follows):

**Family:** Dicotylidae (no separate subfamilies, but two genera and three species, as follows):

**Genus:** *Tayassu*

**Species:** *T. tajacu* (14 ? ssp) - Collared Peccary  
*T. pecari* (c. 5 ssp) - White-lipped Peccary

**Genus:** *Catagonus*

**Species:** *C. wagneri* (0 ssp) - Giant or Chacoan Peccary

**Family:** Suidae (comprising three subfamilies, five genera and  $\leq$  fourteen species, as follows):

**Subfamily:** Suinae - the "true" pigs

**Genus:** *Sus*

**Species:** *S. scrofa* (c. 17 ssp) - Eurasian Wild Pig  
*S. salvanius* (0 ssp) - Pygmy Hog  
*S. bucculentus* - Vietnam Warty Pig (extinct ?)  
*S. verrucosus* (2 ssp) - Javan Warty Pig  
*S. barbatus* (3 ssp) - Bearded Pig  
*S. cebifrons* (0 ? ssp) - Visayan Warty Pig  
*S. philippensis* (? ssp) - Philippine Warty Pig  
*S. celebensis* (0 ? ssp) - Sulawesi Warty Pig

**Genus:** *Potamochoerus*

**Species:** *P. larvatus* (>3 + ? ssp) - Bushpig  
*P. porcus* (0 ssp) - Red River Hog

**Genus:** *Hylochoerus*

**Species:** *H. meinertzhageni* (4 ssp) - Forest Hog

**Subfamily:** Phacochoerinae - the warthogs

**Genus:** *Phacochoerus*

**Species:** *P. aethiopicus* (2 ssp, 1 extinct) - Desert Warthog  
*P. africanus* (c. 4 ssp) - Common Warthog

**Subfamily:** Babirousinae - babirusa

**Genus:** *Babirusa*

**Species:** *B. babirusa* (4 ? ssp, 1 possibly extinct) - Babirusa

**Table 2. Summary of present conservation status of Suiformes.**

Taxon	Current Conservation Status	Taxon	Current Conservation status
<b>Family Hippopotamidae</b>		<i>Catagonus wagneri</i>	5
<i>Hippopotamus amphibius</i>	2*	Chacoan Peccary	
Common Hippopotamus (subspecific taxonomy requires review)		<b>Family Suidae</b>	
<i>Hippopotamus lamoumena</i>	Extinct	<i>Phacochoerus aethiopicus</i>	
Madagascan Hippopotamus		Desert Warthog	
<i>Hippopotamus lemerlei</i>	Extinct	<i>P. a. aethiopicus</i>	Extinct
Madagascan Dwarf Hippopotamus		<i>P. a. delamerei</i> **	4
<i>Hexaprotodon liberiensis</i>		<i>Phacochoerus africanus</i>	
Pygmy Hippopotamus		Common Warthog	
<i>H. l. liberiensis</i>	4	(subspecific taxonomy provisional)	
<i>H. l. heslopi</i>	Indeterm. (prob.6)	<i>P. a. africanus</i>	1
<i>Hexaprotodon madagascariensis</i>	Extinct	<i>P. a. aeliani</i>	Indeterm. (prob. 5)
Madagascan Pygmy Hippopotamus		<i>P. a. massaicus</i>	1
<b>Family Dicotylidae</b>		<i>P. a. sundevallii</i>	1 - 2
<i>Tayassu tajacu</i>	1-2*	<i>Hylochoerus meinertzhageni</i>	
Collared Peccary (subspecific taxonomy requires review)		Forest Hog	
<i>Tayassu pecari</i>		<i>H. m. meinertzhageni</i>	3 - 4
White-lipped Peccary		<i>H. m. rimator</i>	3 - 5
<i>T. p. ringens</i>	3	<i>H. m. ivoriensis</i>	5
<i>T. p. spiradens</i>	3 - 4	<i>H. m. ssp.</i> (S. Ethiopia)	Indeterm.
<i>T. p. equatorius</i>	Indeterm.	<i>Potamochoerus larvatus</i>	
<i>T. p. pecari</i>	1 - 2	Bushpig (subspecific taxonomy provisional)	
<i>T. p. albirostris</i>	1	<i>P. l. hassama</i>	2
		<i>P. l. (?) somaliensis</i>	2
		<i>P. l. koiropotamus</i> **	1
		<i>P. l. larvatus</i> (introduced ?)	1 - 2
		<i>P. l. hova</i> (introduced ?)	1 - 2

(Family Suidae, continued)

<i>Potamochoerus porcus</i> Red River Hog	1	<i>Sus bucculentus</i> Vietnam Warty Pig	Extinct ?
<i>Sus scrofa</i> Eurasian Wild Pig		<i>Sus verrucosus</i> Javan Warty Pig	
<i>S. s. scrofa</i>	1	<i>S. v. verrucosus</i>	4
<i>S. s. meridionalis</i>	2 - 3	<i>S. v. blouchi</i>	4
<i>S. s. algira</i>	2	<i>Sus barbatus</i> Bearded Pig	
<i>S. s. attila</i>	1	<i>S. b. barbatus</i>	2
<i>S. s. lybicus</i>	1 - 2	<i>S. b. oi</i>	3
<i>S. s. nigripes</i>	1	<i>S. b. ahoenobarbus</i>	3
<i>S. s. davidi</i>	1	<i>Sus cebifrons</i>	5 - 6**
<i>S. s. cristatus</i>	1	Visayan Warty Pig	
<i>S. s. affinis</i>	1	<i>Sus philippensis</i>	3**
<i>S. s. ssp. (Bopeta, Sri Lanka)</i>	Indeterm.	Philippine Warty Pig	
<i>S. s. sibiricus</i>	1	<i>Sus celebensis</i>	1 - 2**
<i>S. s. ussuricus</i>	1	Sulawesi Warty Pig	
<i>S. s. leucomystax</i>	2	<i>Babyrousa babyrussa</i> Babirusa	
<i>S. s. riukiuanus</i>	4 - 5	<i>B. b. babyrussa</i>	5
<i>S. s. taivanus</i>	2 - 3	<i>B. b. celebensis</i>	4
<i>S. s. moupinensis</i>	1	<i>B. b. togeanensis</i>	5
<i>S. s. vittatus</i>	1	<i>B. b. bolabatuensis</i>	Indeterm. (Extinct?)
<i>Sus salvanius</i> Pygmy Hog	6		

Key:

\* = Future taxonomic reviews likely to result in one or more subspecies being included in a more threatened category.

\*\* = Additional taxonomic material from selected areas likely to indicate taxon comprises/includes two or more subspecies.

Status category definitions:

1 = 'Widespread and abundant';

2 = 'Known or believed relatively secure' (i.e. widespread at low density, but abundant in some areas or limited distribution but abundant and not thought to be threatened, and/or well represented in protected areas);

3 = 'Potentially at risk or Rare' (i.e. not thought to be immediately threatened, but has restricted distribution or is widespread but nowhere abundant, but occurs in some protected areas);

4 = 'Known to be at risk or Vulnerable' (i.e. has restricted distribution and/or limited ecological tolerance, known to be threatened by habitat destruction/disturbance, hunting pressure or other factors, over the majority of its range, and/or is inadequately represented in reserves);

5 = 'Seriously threatened or Endangered' (i.e. highly restricted and/or fragmented distribution; all known population declining and status likely to become critical in the near future);

6 = 'Critically endangered' (i.e. only one or a very few, small populations, which are unlikely to survive unless urgent action is taken to redress causative factors);

Extinct = 'Extinct'.  
Indeterm. = Indeterminate: 'Taxa considered to be Threatened' (i.e. status categories 3 to 6 above, but available data insufficient to determine appropriate categorisation).

REFERENCES:

All data modified after  
OLIVER W.L.R. (ed.) 1993: Pigs, Peccaries and Hippos: Status Survey and Conservation Action Plan. IUCN, Cambridge and Gland, 202 pp.