AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

A. PROPOSAL

Inclusion of Tayassu spp. in Appendix II.

B. PROPONENT

The Republic of Peru.

C. SUPPORTING STATEMENT

1. Taxonomy

11. Class: Mammalia

12. Order: Artiodactyla

13. Family: Tayassuidae

14. Genus: Tayassu (Fischer, 1814)

15. Species:
Tayassu tajacu (Linneus, 1758) 14 subspecies
Tayassu pecari (Link, 1795) 4 subspecies
(See Annex I)

16. Common Names:
English: collared peccary (T. tajacu)
white-lipped peccary (T. pecari)
(see Annex I for local names)
French: pécari à collier (T. tajacu)
pécari à lèvre blanche (T. pecari)
Spanish: Pecarí de collar (T. tajacu)
Pecarí de labio blanco (T. pecari)

17. Code Numbers:
T. tajacu : 5301419002001002
T. pecari : 5301419002001001

2. Biological Data

21. Distribution:

211. T. tajacu: From Arizona and the Pacific slopes of Mexico on the West, and Texas, New Mexico and the Caribbean side of Mexico on the East, south to Oaxaca and Vera Cruz and through Central America to South America. West of the Andes: from Colombia and Northwest Ecuador (Esmeraldas and Pichincha, see Baker, 1974: 145); East of the Andes: from Venezuela, Colombia and the Guyanas; South to northern Paraguay and southernmost Brazil (Rio Grande do Sul) (Wetzel, 1981).

212. T. pecari: From southern Mexico (isthmus of Telmantepec and Yucatan peninsula) South through Central America to South America; West of the Andes from Colombia and Northwest Venezuela to Northwest Ecuador (Esmeraldas and Pichincha, Baker, 1974: 145). East of the Andes from Colombia, Venezuela and the Guyanas; South to the Province of Entre Rios, Argentina, all of Paraguay and southernmost Brazil (Rio Grande do Sul) (Wetzel, 1981) (see Annex II).

22. Population:

221. T. tajacu: Probably the least vulnerable of the peccaries, because of its habitat adaptability, much larger range, ability to use caves as a refuge and reduced vulnerability to hunting perhaps because of its lower visibility, smaller size and, as compared to T. pecari, smaller herds (Wetzel, 1981). T. tajacu has shown it can survive in a great variety of habitats including cut-over land and regenerated forest. It demonstrates a wide tolerance for variation in temperature and rainfall patterns and consumes a wide variety of foods (Sowls, 1984).

However, T. tajacu is subject to heavy hunting pressure over much of its range and its numbers have been reduced in a lot of areas. Some countries report its disappearnce from regions where it was formerly found.

Moreover, information on population levels is far from adequate for most areas of its distribution and some concern has been expressed about its local status in some areas, particularly in certain countries where it is entirely unprotected. The currently high levels of trade in hides of T. tajacu also require monitoring (Oliver, 1981).

222. T. pecari: Its population has been reduced or extirpated where its habitat has been seriously disturbed. It is potentially more vulnerable than T. tajacu because of its more selective feeding requirements, larger herds (Kiltie, pers. comm.), larger body size lessening its ability to hide in caves and its smaller range, not penetrating into temperate areas (Wetzel, 1981). Populations have been reduced or locally exterminated in areas of severe deforestation and excessive hunting pressure (Ojeda and Cajal, 1986; Ojeda and Mares, 1984).

This species, like T. tajacu, is shot on sight for food in most countries and in many there is a thriving trade in their hides. However, it is not regarded as seriously threatened at this time, though concern is felt about its status in some areas, also due to the fact that T. pecari - in spite of its wide range and abundance - remains the most unstudied of the peccary species (Sowls, 1984).

Because of its gregarious habits and its preference for the forests, human impact on the populations of T. pecari has been much more evident, also because of its local migrations that demand a large area of favourable habitat. Moreover, T. pecari has not been known to thrive in second-growth timber areas, but only in wilderness areas (Léopold, 1966). As a consequence, T. pecari disappears quickly in areas colonised by people (see Annex III).

23. Habitat:

231. T. tajacu: Widely ranging through lowland and montane rain forests, semi-deciduous forests, forest edge and savannas to semi-arid thorn scrub and steppe (even up to the

Caatinga of Brazil and the most arid portions of the Gran Chaco). It is the only peccary to penetrate into southern temperate areas of North America (Wetzel, 1981).

232. T. pecari: Chiefly mesic lowland and montane rainforests, semi-deciduous forests, forest edge, but also established in moderately drier to semi-arid habitats (savannas, Campos of Brazil, thorn scrub and palm savannas of the Gran Chaco). Handley (1976: 61) found 18 specimens in Venezuela in moister (evergreen forests, 89%) to drier (savannas, 11%) habitats (Wetzel, 1981). Sowls (1984) described its existence in the thorn forest of the Chaco Boreal of Northwest Paraguay, a xeric environment.

3. Trade Data

31. National Utilization: At national level both species are intensively hunted for food. They are an important protein source for almost all residents of the Amazon region (Grimwood, 1968; Ayres and Ayres, 1979), the Chaco region and in many other parts of their range. In some countries they are the most important game animals. T. tajacu is legally classified as a game animal in Arizona, Texas and New Mexico (U.S.A.). In many other countries both species are shot by recreational hunters (Ockenfels et al., 1986).

The skins, however, are only occasionally used and at a very limited level. National trade is generally very small and skins are used for manufacture of drums, bags or belts. The South American Indians use the teeth, bones, hooves and bristles for manufacture of knives, tools and ornaments, as well as for brushes and combs (Donkin, 1985).

32. Legal International Trade: It appears that at present the only source countries for which legal exports of peccary skins may continue are Argentina, Bolivia and Peru. But despite restrictions on their trade and their low value, a reasonably large number of peccary skins does enter international trade. However the trade is not closely monitored and statistics of imports and exports are not easy to obtain. Moreover, the categories in Customs statistics tend to be rather broad (Broad, 1984).

Peru is probably the main exporter, although very few comparative data are available. Between 1969 and 1979, Peru is reported to have exported:

1,492,963 T. tajacu skins and
821,895 T. pecari skins (Mack, 1982).

There is some evidence that these species are being hunted for their skins alone in certain areas and that this trade should not therefore - as has been suggested (Broad, 1984) - be considered as purely a by-product of hunting for meat. This is especially true for T. pecari whose huge social groups render them particularly vulnerable to hunting parties with automatic weapons, or when encountered swimming across rivers (Kiltie, 1981).

Evidence indicates that in recent years trade in these skins has been increasing.

Grimwood (1968) reports that between 1946 and 1986:

2,000,000 T. tajacu skins and
848,000 T. pecari skins were exported from Iquitos, Peru. (see figures Annex IV).

Gomez (1983) gives figures of 3,848,837 T. tajacu skins and 1,596,014 T. pecari skins being exported from Amazonia, Peru between 1946 and 1985 (see figures Annex IV).

Brazil used to export a large number of skins too; between 1965 and 1967:

841,017 T. tajacu skins and
1,091,452 T. pecari skins were exported (Smith, 1977).

Doughty and Myers (1971) report that between 1960 and 1966 exports of skins from Belém in Brazil increased fivefold to 587,000 kg.

The export of peccary skins from Brazil is now banned, but it is probable that they are smuggled out.

Argentina: Ojeda and Mares (1982) give a figure of 312,155 peccary hides of the three species being exported from Argentina between 1972 and 1979.

Bolivia also exports significant numbers and is known to have sent large shipements to the U.S.A. in recent years (Duplaix, 1981). Until 1985, it is considered that there was an annual export of 80,000 T. tajacu skins (Gonzales - PRODENA Bol., in litt.).

Peccary leather is widely available as shoes, wallets, gloves and belts. Japanese companies as well as French, Italian and West German concerns are involved in the trade (Broad, 1984).

The Federal Republic of Germany seems to be the major importing country and accounted for:

81% of the export of T. tajacu skins and
82% of the export of T. pecari skins from Iquitos, Peru (Hvidberg-Hansen, 1970).

- The Verband der Deutschen Leder-Industrie has reported that during the period 1980-1981 approximately 120,000-150,000 peccary skins have been imported to Germany (Frädrich, 1982).

- Paul Fehns GmbH. reported that most peccary skins imported into the FRG were T. tajacu skins and that T. pecari probably made up only 5 to 10% of the total. This dealer stated (in litt.) that he imports 36,000 skins every year from Paraguay. This figure declined in 1986 to 15,000-18,000 skins p.a. (Niekisch M., pers. comm.).

The other significant importing countries are Japan, France and the U.S.A.

Japan and France account for 3% each of T. tajacu skins exported from Iquitos, Peru in 1969 (Hvidberg-Hansen, 1970).

- Pacific Leather Incorporation (Japan) estimated that total peccary skin imports into Japan were around 20,000-25,000 a year. This dealer has imported around 14,000 T. tajacu skins every year for over 25 years.

  In 1986, Pacific Leather Inc. reported a montly import of 3,000 to 5,000 peccary skins (Tokunaga, TRAFFIC-Japan, pers. comm.).

- Besides Pacific Leather Inc., there are still three to four firms in Japan trading in peccary skins (Tokunaga, TRAFFIC-Japan), 21.4.1986).

It is noteworthy that the Japenese government's import statistics have no independent category for peccary skins, but include them in the catagory "other skins".

Even EEC trade statistics for all suids only mention "tanned porcine pelts".

33. Illegal Trade: As stated above, export of peccary skins has been forbidden in many South American countries. Still it is not possible to adequately control the illegal trade. One reason is the vastness and remoteness of the areas the peccaries inhabit, making any policing nearly impossible.

Moreover, the trade is not closely monitored and statistics are largely non-existent or difficult to obtain.

PARAGUAY: despite a ban on wildlife trade since 1981, it is a major exporter of peccary skins. A Paraguayan trader estimated that as many as 96,000 peccary skins are exported every year. The bulk of these skins were of T. tajacu, but all three species were included to some extent (Broad, 1984). Moreover, many of the skins seems to come from Bolivia (Duplaix, 1981).

BRAZIL: although at present the export of peccary skins from Brazil is banned, it is probable that they are smuggled out (Broad, 1984) and reach the market via French Guiana or find their way to Bolivia, Paraguay, Peru and Colombia (FBCN Brazil, in litt.).

Illegal cargoes from Paraguay and addressed to FRG have been confiscated in Uruguay (see Annex IV), and INDERENA-Colombia reports illegal trade in Amazonia as well (in litt.).

The export documents of French Guiana Customs reveal two shipments exported from Cayenne to FRG (Hamburg) via France and Switzerland:

a) on 27.3.1985: 5,331 skins of T. tajacu and
3,150 skins of T. pecari

b) on 17.8.1985: 4,950 skins of T. tajacu and
428 skins of T. pecari (Le Duc, pers. comm.)

On 24 October 1986, 6,000 peccary skins have been confiscated in Cayenne, French Guiana. The shipment was transported from Brazil by boat and addressed to Mr. Paul Fehns, Hamburg (FRG) (Villalba-Macias, pers. comm.).

In January 1987, the Italian Management Authorities had to refuse an import permit for 13,000 T. tajacu skins because the supporting documents, issued by the Ministry of Industry and Commerce of Paraguay, were illegal (Evrard, pers. comm.) (see Annex IV).

4. Protection Status

41. National: The legal status of Tayassu spp. varies from country to country. In most cases subsistence or non-commercial hunting is allowed, sometimes under licence. Commercial exports of skins are banned in Brazil, Colombia, Costa Rica, Mexico, Panama, Paraguay and Uruguay. However, the effectiveness of such control is often poor. Most peccaries are killed in forest areas where law enforcement is often very difficult. The control of trade across the borders in these areas is also difficult to enforce (Broad, 1984).

A list of national legislation (1985) is given below (Fuller and Swift, 1985).

ARGENTINA: Hunting regulated by the Provinces' legislation.

BELIZE: The Wildlife Protection Act, Statutory Instrument No. 4 of 1981, imposes a seven year moratorium on commercial trade in wildlife parts and products.

BOLIVIA: Ban for hunting T. tajacu by Decree No. 21312, Resolution No. 85/84 (2.4.84).

BRAZIL: Lei No. 5197 of IBDF (1967) prohibits all capture of forest animals for commercialization of skins and regulates sport hunting.

COLOMBIA: Résolution No. 849 (1973) forbids commercial hunting and trading of T. tajacu and T. pecari and their derivatives.

COSTA RICA: Decreto No. 15895-MAG (1985) protects T. tajacu and T. pecari during few months. Trade is not allowed.

ECUADOR: Article 47 of the Ley Forestal de Conservación de Areas Naturales y Vida Silvestre of 1981 forbids trade of national fauna and flora including its derivatives.

EL SALVADOR: In 1985, El Salvador lacked laws to protect its wildlife.

GUATEMALA: Both species are protected by Decreto 8-70 of the Ley General de Caza (1970). Moreover, Guatemala has put T. tajacu on Appendix III of CITES since 1981.

FRENCH GUIANA: French Guiana is a Department of France, subject to French laws. Thus, trade between France and its departments is domestic - not international - so that CITES does not apply to wildlife shipments from French Guiana to France and trade, as a consequence is subject to EEC Regulation 3626/82.

GUYANA: Apart from its obligations as a CITES Party, Guyana had few restrictions on animal or plant trade. At present, however, it has instituted a temporary export ban from February 1987 (McEnroe, in litt.).

MEXICO: On 20 September 1982, the Secretaría de Agricultura y Recursos Hidraulicos (SARH) issued an order that prohibits the commercial export and import of live wildlife and products.

NICARAGUA: Since the issuance of Decreto No. 265 in 1977, Nicaragua has prohibited commercial hunting and export of wildlife.

PANAMA: Protection and conservation of native fauna by Law No. 23 of 30 January 1967. Resolution No. DIR-002-80 forbids hunting, purchase, selling and export.

PARAGUAY: Ban on trade of all wildlife by Decreto No. 18796 of 1975.

PERU: Indefinte ban on hunting or capture of wild fauna except both Tayassu species for subsistence by Decreto No. 934-73-AG of 1973. Usage of skins is permitted to process and to obtain primary transformation (tanning industry) or secondary (fur and leather articles) to export. Annual quota for each Forestal District of the Selva and Ceja de Selva Regions since 1982 by Decreto Ley No. 21147.

SURINAME: The Game Resolution No. 104 of 1970 regulates import, export and re-export of wild fauna and flora by issue of permits.

The Game Law of 1954 provides a closed hunting season (1.4 to 31.7), except for natives in the South. During this period the animals, parts or products may not be transported, sold, given as a present or exported.

UNITED STATES OF AMERICA: T. tajacu is legally classified as a game animal in Arizona, Texas and New Mexico.

URUGUAY: Under Ley No. 9481 of 1935 and its most recent implementing regulation, Decreto 261 of 1978, Uruguay bans hunting, transport and commercialization of indigenous wildlife and wildlife products with the exception of fish.

In Uruguay, the only species found is T. tajacu which is now considered extinct.

VENEZUELA: The Ley de Protección de la Faune Silvestre of 1970 regulates hunting. Both Tayassu species are included on the Official List of Game Species by Resolution MAC-RNR-5-276 which prohibits commercial exploitation. MARNR issues regulations annually for hunting or trade.

42. International: Tayassu tajacu is listed in Appendix III of CITES for Guatemala since 6 June 1981.

43. Additional Protection Needs: Although the present status of T. tajacu and T. pecari should not give cause for immediate concern, both species are heavily exploited thoughout their range. In particular the level of the international skin trade has become of concern. Appendix II listing of both species would greatly facilitate the monitoring of this trade and allow the identification of future trends and conservation needs, without interfering at all with the national regulations on utilization of these species.

As already stated, T. pecari is especially vulnerable because of the large size of its herds, which makes the species easy to detect, and also because the very large home range a group requires. For that reason it has been recommended to set aside areas as large as possible and to restrict or prohibit the use of firearms for hunting in these areas (Kiltie, in litt.).

5. Information on Similar Species

It is important to mention that although it is possible to distinguish both Tayassu spp. from the Chacoan peccary (Catagonus wagneri) on sight, this is certainly not true for the skins, especially when they have been tanned or reduced to small size articles (Olrog et Cajal, 1982). Therefore, in view of these identification problems, most of the local scientists and conservationists rightly underline that it would not make sense to list only the Chacoan peccary (Catagonus wagneri) in Appendix I without including the two other peccary species in Appendix II for look-alike reasons.

6. Comments from Countries of Origin

The responses received from the countries of origin are given below. The majority of the countries who have responded have expressed broad support for this proposal.

ARGENTINA:	support
BELIZE:	not responded
BOLIVIA:	support (Menghi, pers. comm.)
BRAZIL:	support (Villaba-Macías, pers. comm.)
COLOMBIA:	support
COSTA RICA:	no advice
ECUADOR:	support (Villalba-Macías, pers. comm.)
FRENCH GUIANA:	not responded
GUATEMALA:	support
GUYANA:	not responded
HONDURAS:	support
MEXICO:	not responded
NICARAGUA:	not responded
PANAMA:	support
PARAGUAY:	support
PERU:	support (Menghi, pers. comm.)
SURINAME:	support (Menghi, pers. comm.)
TRINIDAD AND TOBAGO:	support (Menghi, pers. comm.)
UNITED STATES OF AMERICA:	not responded
URUGUAY:	support
VENEZUELA:	not responded

Moreover, several non-governmental organizations have pronounced themselves in favour of the present proposal. A listing of them is given below:

ARGENTINA:	- Fundación Vida Silvestre Argentina
BRAZIL:	- Fundaçao Zoobot. do Rio Grande do Sul
	- Fundaçao Brasileira para la Conservacao da Natureza
COLOMBIA:	- Soc. Col. de Ecología
	- INDERENA
HONDURAS:	- Asoc. Hond. de Ecología
PERU:	- PRODENA
VENEZUELA:	- Tita Zawisza (pers. comm.)

7. Additional Remarks

The IUCN-SSC Pigs and Peccaries Specialist Group gives its full support to this proposal. Moreover, Dr. Lyle K. Sowls has pronounced himself in favour of the amendment (see Annex V).

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THE PRESENT STATE OF PECCARY SYSTEMATICS

Husson (1978, Mammals of Surinam. E.J.Brill, Leiden) has clarified the tortured nomenclature of the peccaries. The correct names are as follows:

- For the family: Dicotylidae Turner, 1849 (not Tayassuidae as usually cited).
- Generic names available for the Collared peccary: Tayassu G.Fischer, 1814; for the White-lipped peccary: Dicotyles G.Cuvier, 1816 (if it is required to separate them generically, as is sometimes done).
- Specific names: for the Collared peccary: T.tajacu Linnaeus, 1758. for the White-lipped peccary: T.(or D.) pecari Link, 1795.

Wetzel (1977, Bull.Carnegie Mus.N.H., no.3, and other publications) rejects generic separation for Collared and White-lipped peccaries, noting that the Chacoan peccary, Catagonus wagneri, is phenetically the most divergent of the three extant species. This taxonomic scheme needs to be tested cladistically.

Tayassu tajacu: no modern revision. The described subspecies seem broadly to assort into three groups:

- grey to buffy forms with clearly marked pale collar and black dorsal stripe: tajacu Linnaeus, 1758 (Amazonas), patira Sonnini, 1803 (Guyana), torvus Bangs, 1898 (Colombia).
- blackish forms with very poorly expressed collar and dorsal stripe: niger Allen, 1913 (Ecuador), bangsi Goldman, 1917 (Peru).
- Central American forms (prior name angulatus Cope, 1889), with characteristic skull features, small in size, with larger ears.

Tayassu pecari: no modern revision. The described subspecies, with comments, are:

pecari Link, 1795. Paraguay. (synonym probably beebei Anthony, 1921, from Guyana). Characteristically small in size.

ringens Merriam, 1901. Southern Mexico.

spiradens Goldman, 1912. Costa Rica. This could be a synonym of ringens: both named forms are remarkable for the amount of white on the face.

aequatoris Lönnberg, 1921. Ecuador. Poorly known, but closer to other South American form(s) than to the Central American ones.

Catagonus wagneri: almost certainly monotypic.

In accordance with Mammal Species of the World (1982) by Honacky, et al.

Local Names for Peccaries

Local Names	Locality	Authority
	Collared Peccary	
Ols-il-aiye	Arizona (Apache Indian)	Keith Basso (personal communication)
	New Mexico	Personal observation
Javelina	Arizona, New Mexico, Texas	Personal observation
Caitetu	Brazil	Seeger (1981)
Angro	Brazil (Suya Indians)	Santos (1945)
Cateto	Brazil	Santos (1945)
Catete	Brazil	Santos (1945)
Taitetu	Brazil	Santos (1945)
Caieira-branca	Brazil	Santos (1945)
Canela-rulva	Brazil	Walker et al. (1975)
Chancos de monte	Brazil	Ihering (1968)
Porco do monte	Brazil	Ihering (1968)
Taicu-canigoara	Brazil (Tupi Indian)	De la Tour (1949)
Tayasú coagara	Brazil	Leopold (1959)
Jabali	Mexico	De la Tour (1949)
Candangas	Mexico	Restrepo (1960)
Sainos	Mexico	Gaumer (1917)
Quitam	Mexico (State of Yucatán)	Alvarez del Toro (1952)
Coche de monte	Mexico (State of Chiapis)	Gaumer (1917)
Pecari de collar	Mexico	Ibarra (1959)
Pecari de collar	Guatemala	Ibarra (1959)
Citam	Guatemala (Maya)	Ibarra (1959)
Kenken	Guatemala (Maya)	Ibarra (1959)
Cuyam	Guatemala (Kekchi)	Ibarra (1959)
Cuy	Guatemala (Kekchi)	Ibarra (1959)
Ak	Guatemala (Kekchi)	Karsten (1935)
Pakki, Yankipi	Amazonian (Jivaro)	De la Tour (1949)
Chancho rosillo	Guaycuru	De la Tour (1949)
Patira	The Guayanas	De la Tour (1949)
Tayasú Taitetú	Argentina, Paraguay (Guaraní)	Mendez (1970)
Saino	Panama	Mendez (1970)
Bidó	Panama	Mendez (1970)
Bidove	Panama	Mendez (1970)
Pidove	Panama (Chocó)	Mendez (1970)
Gutarra	Panama	Bennett (1962)
Huédar	Panama (Cuna)	Mendez (1970)
Shtokó	Panama (Teribe)	Mendez (1970)
Tatabra	N.E. Ecuador	Acosta-Solis (1960)
Lomocuchi	E. Ecuador	Acosta-Solis (1960)

Local Names for Peccaries *(continued)*

Local Names	Locality	Authority
Hungana	Ecuador, N. Peru	De la Tour (1949)
Zaino	Colombia	Borrero (1967)
Taitetú	Paraguay	Wetzel and Lovett (1974)
Chácharo	Venezuela	Röhl (1959)
La Báquira de collar	Venezuela	Röhl (1959)
Ondo	Peru (Sharanahua)	Siskind (1973)
	White-lipped Peccary	
Angro-Mbedi	Brazil (Suya Indians)	Seeger (1981)
Queixada	Brazil	Santos (1945); personal observation; Ihering (1968)
Queixada-rulva	Brazil	Santos (1945)
Tiririca	Brazil	Santos (1945)
Taiacu-tiragua	Brazil (Tupi)	Santos (1945)
Taiteteu-taiacu	Brazil (Guaraní)	Santos (1945)
Sáino	Ecuador	Acosta-Solis (1966)
Guangaro	Ecuador	Acosta-Solis (1966)
Senso	Mexico	Alvarez del Toro (1952)
Marina	Mexico	Leopold (1959)
Cehnikax	Mexico (Yucatán)	Gaumer (1917)
Warree	Guatemala	Murie (1935)
Keken	Belize	Handley (1950)
Ukeken il kaax	Guatemala, Belize	Murie (1935)
Cafuche	Colombia	Borrero (1967)
Bidó	Panama (Chocó)	Mendez (1970)
Zagino or Zajino	Panama	Enders (1930)
Yanu	Panama (Cuna)	Bennett (1962)
Puerco de monte	Panama	Mendez (1970)
Vaquira	Paraguay	Seton (1929)
Tayasú tanyika-tî	Argentina and Paraguay (Guaraní)	De la Tour (1949)
Tanicati or Toñihca-tî	Guaraní, Argentina, Paraguay	Hunter (1838); Wetzel and Lovett (1974)
Pecari de quijada blanca	Argentina	De la Tour (1949)
El Coche de monte	Guatemala	Ibarra (1959)
Báquira labiada	Venezuela	Röhl (1959)
Pinque	Venezuela	Röhl (1959)
Unta pákki	Amazonia (Jivaro)	Karsten (1935)
Yawa	Peru (Sharanahua)	Siskind (1973)
Peccary	Carib root	Simpson (1941)
Pinque	Surinam	Mittermeier and Reichert (Personal communication 1981); Husson (1978)

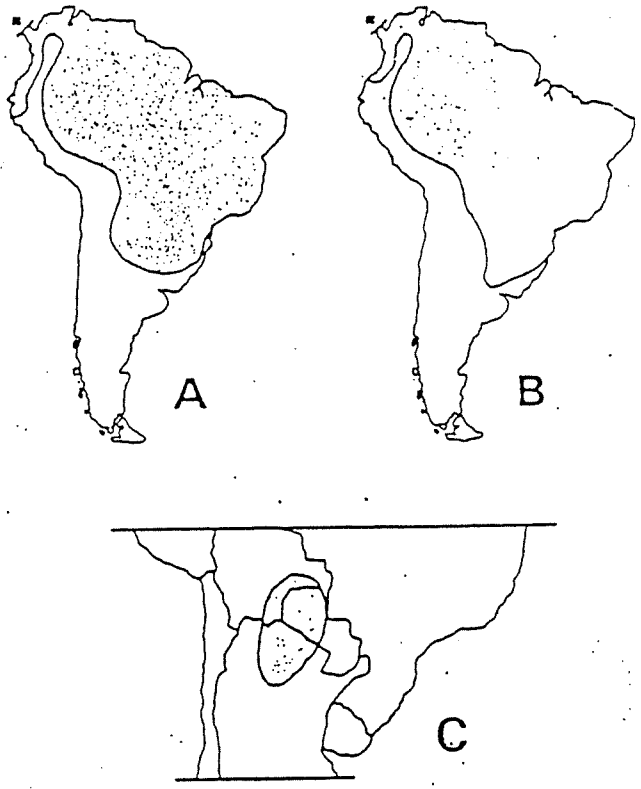
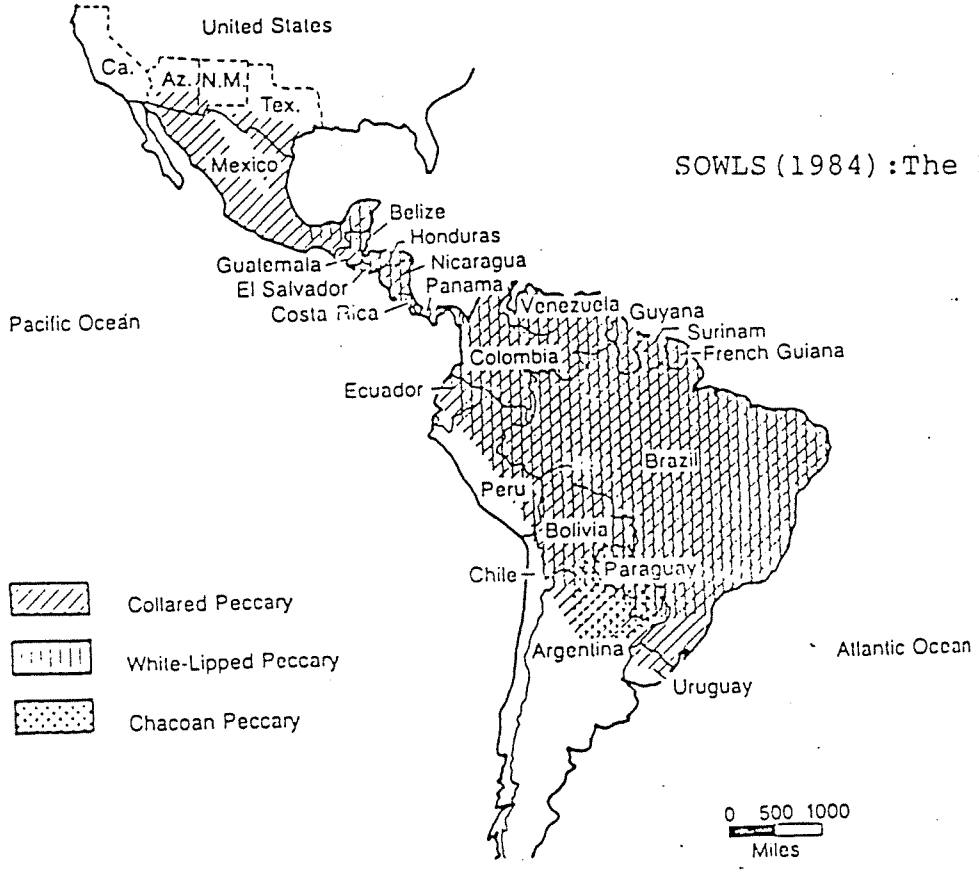


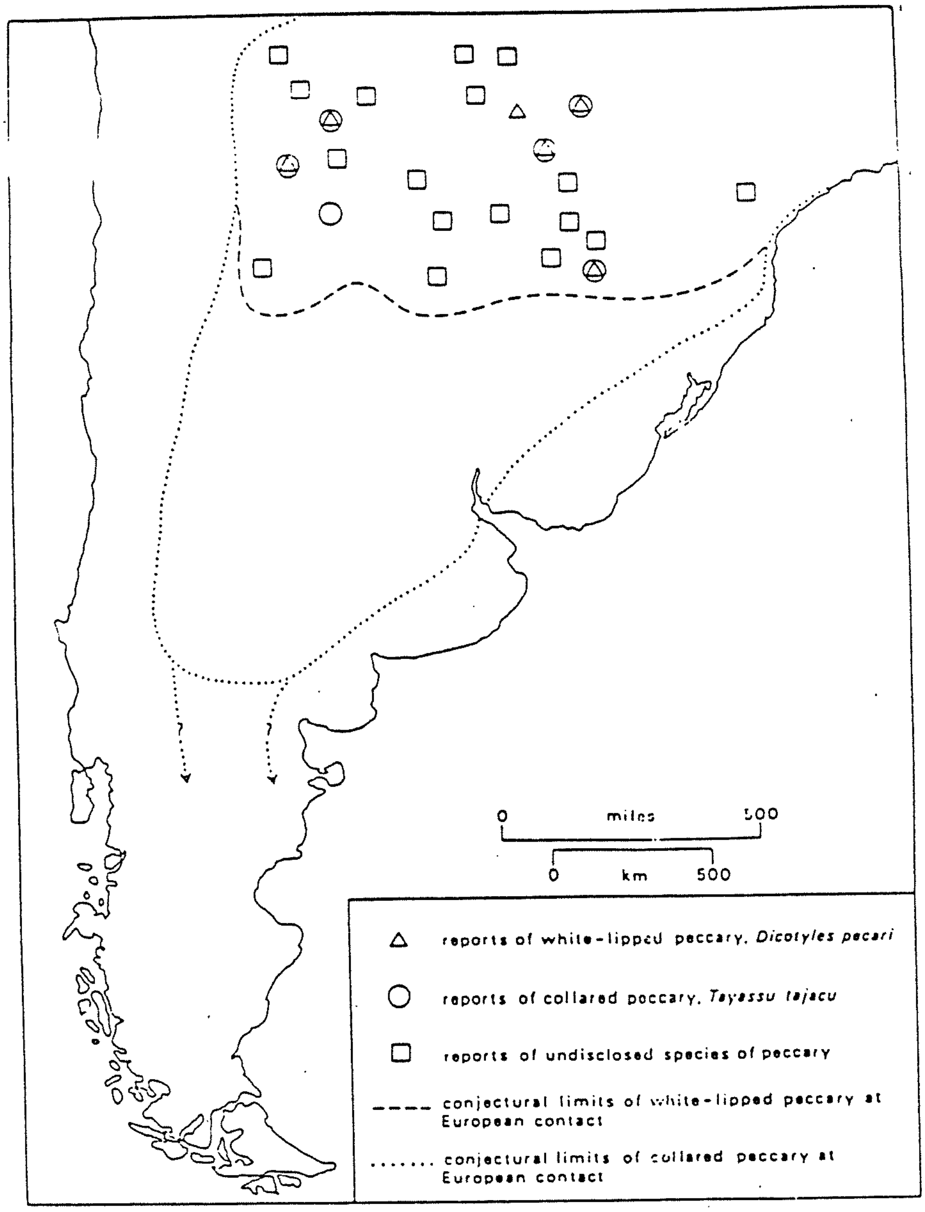
Fig. 5.—Approximate distribution in South America of: A) *Tayassu tajacu;* B) *Tayassu pecari;* C) *Catagonus wagneri.*

MAYER & BRANDT(1979):Identity,Distribution and Natural History of the Pecc.Spec.Publ.Pymatuning Lab.of Ecol.

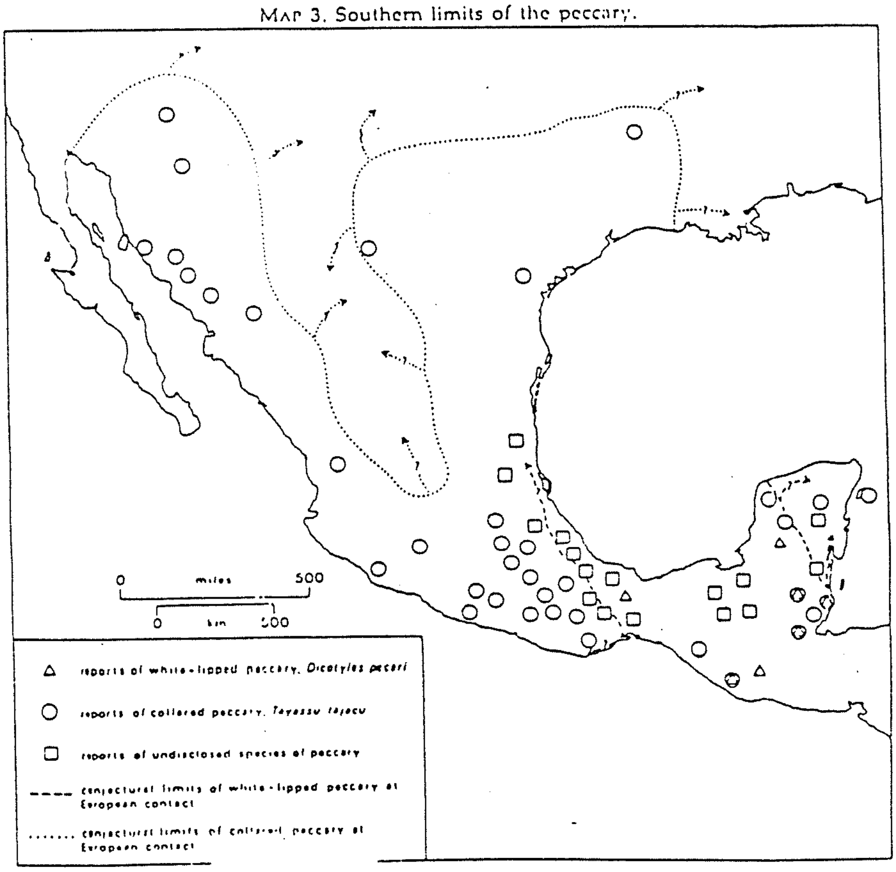
SOWLS(1984):The Peccaries. p.5



Distribution of the three peccary species



MAP 3. Southern limits of the peccary.



...hern limits of the peccary.

ANNEX III: POPULATION

Another small form of wild pig which is of concern to the Group is Sus scrofa riukiuanus, the wild boar of the Ryukyu Islands, southern Japan. This animal is the smallest certainly recognised subspecies of S. scrofa, and is now threatened by overhunting for food and in reprisal for crop damage, change in land usage owing to the expanding human population of the Ryukyu Islands and, possibly, hybridisation with domestic pigs. The problems relating to this animal have been previously raised with the Japanese Government by IUCN(8), particularly with respect to Iriomote Island, where this pig together with the Iriomote Cat, Felis (Prionailurus) iriomotensis represents the main target species of conservation concern. However, no effective action has yet been taken by the Japanese authorities, although the Group is presently attempting to assist the development of a conservation strategy for this area in association with SSC Consultant, Professor Hideo Obara. A status report on this pig by Professor Obara is appended

With respect to the peccaries, the Group has become increasingly concerned about the rapidly declining status of the Chacoan Peccary or 'Tagua', Catagonus wagneri. This species has by far the most restricted distribution of the three living peccary species, being found only in the dryer parts of the Gran Chaco of western Paraguay, south eastern Bolivia and north western Argentina. It remains legally unprotected in both Bolivia and Argentina, and although it is technically protected under the umbrella ban on hunting in Paraguay, this protection is not enforced and is probably realistically unenforceable. This species is the primary target for food for a wide range of people, including subsistence farmers, ranchers, oil prospectors and military personnel. As a result of this it has disappeared from many areas where it was still relatively abundant only a few years ago. One Group Member, Dr. Lyle Sowls, even encountered great difficulty in finding any of these animals for study purposes when he revisited the Chaco earlier this year. (82)

In addition, the Chaco is, of course, being opened up by the construction of main arterial roads in order to facilitate development for settlement and agriculture. The development of the Chaco has previously been centred primarily on the wetter zones in eastern Paraguay but is now extending to include the dryer zones of the west. Most of this area has now been sold to developers and to speculative enterprises, many of them from outside Paraguay, i.e. Europe and the U.S.(9) Land sold off in this way includes all of the areas up to and surrounding the two existing National Parks of Defensores del Chaco and Teniente Enciso. 19000ha. within the Teniente Enciso Park has also been sold, as has the 800,000ha. reserve of La Patria - adjoining and south and west of Teniente. The species is known to occur in both of the National Parks but doubts have been expressed about the adequacy of policing in these areas and there is no information available on the actual numbers of these animals. In addition, there is a minor trade in their hides, although this is probably best regarded as a by-product of hunting and is not central to the issues relating to the conservation of the species. Nonetheless it has recently been recommended by Prof. Ralph Wetzel, the discoverer of this animal, that it should be included on Appendix I of CITES, and that its Red Data Book status should be changed from 'vulnerable' to 'endangered'. The Group is currently trying to develop an action programme for this animal which can be taken to the field as well as to the funding agencies. It is felt that any such programme should, however, also address the more general aspects relating to the rational use of Chaco resources, including the recognition of the Amerindian dependancy on wildlife as a subsistence resource. The Group would also be interested in developing its proposals in consultation with other Specialist Groups which might have a particular interest in the Chaco.

The Group is also attempting to gather further information on the distribution, status and present levels of utilisation of the Collared Peccary, Tayassu tajacu and the White-lipped Peccary, T. pecari. It is recognised that both of these species remain widely distributed and may

even be extremely abundant in some areas. Nonetheless, some concerns have been expressed about huge numbers of skins of these animals which have been exported from South American countries for the leather trade. Information obtained by Traffic (USA), for instance, has revealed that in the 11 year period, 1969 to 1979 (incl.) the hides of 1,492,963 Collared Peccaries and 821,895 White-lipped Peccaries were exported from Peru alone. These numbers may well be exceptional, in that they are certainly not representative for most other countries, but it is still felt that such numbers give some cause for serious concern. Moreover, there is some evidence that these species are being hunted for their skins alone in certain areas and that this trade should not therefore, as has been repeatedly suggested, be considered as purely a by-product of hunting for their meat. This is especially true for the White-lipped Peccaries whose huge social groups (up to 200 individuals in a single herd) may render them particularly vulnerable for hunting parties with automatic weapons. A pilot study on the peccary skin trade has now been initiated by the Wildlife Trade Monitoring Unit in Cambridge although some difficulty has been experienced in obtaining accurate data on trade levels. However, it is hoped that sufficient information will be obtained to promote the suggestion that both species should be listed on Appendix II of CITES, if only so that this trade can be better monitored in the future. The possibility of proposing Tayassu ssp. for CITES-listing is currently being investigated by the U.S. Scientific Authority with the assistance of Trafic(USA), but it is recognised that populations of these animals in some areas would not be included (e.g. U.S. populations of T. tajacu) as these are already considered to be a 'managed' game species.

A full written report on the recent activities of the Group will be submitted to the SSC Executive before the end of the year.

s caçadores, pois estes vendem a carne
local. Os pesos dos animais me[illegible]
ido houve dúvida por parte do caçador, fo-
tomados da literatura (Napier & Napier,
; Novaes, 1976).
A maneira com que os dados foram colo-
os provavelmente favorece os animais do
or porte como a anta *(Tapirus terrestris)*,
ueixada *(Tayassu pecari)* e o veado capoei-
(Mazama sp.) (Tabela 1). Também há uma
dência de não aparecerem animais comer-
lizados pelo couro como a onça pintada
anthera onca), jaguatirica *(Felis pardalis)*,
gato maracajá *(Felis wiedii)*, a lontra *(Lu-*
sp.) e a ariranha *(Pteronura brasiliensis)*.
vido a lei nº 5197 (do IBDF), que proibe a
aptura de animais silvestres para a comer-
lização de peles, a partir de 1967.

Isto não significa que estes animais não sejam [illegible]tidos, pois durante o curso do estudo foram localizadas várias armadilhas de construção recente pelo "gateiros" da região

Resultados

A população de Dardanelos em maio de 1978 era de 638 habitantes (Fig. 2) distribuída em 114 grupos domésticos com uma média de 5,6 ± 3,2 indivíduos por família. Encontramos nessa população 33 pessoas que se dedicam tanto à caça como à pesca, 19 pessoas que somente pescam e 9 que somente caçam.

Durante o mês de maio tomamos uma amostra de 1.276 refeições, o equivalente a 2 refeições por indivíduo da população total.

ABELA 1 — Relação dos animais abatidos nas vizinhanças do Salto de Dardanelos, de janeiro a abril de 1978.

ome local	Científico	Quantidade	Peso total (Kg)	Peso médio (Kg)	%
Queixada, Porcão	• Tayassu pecari	338	6084.0	18.00	68,69
Anta	• Tapirus terrestris	9	990.0	110.00	11,18
Caititu	• Tayassu tajacu	70	840.0	12.00	9,47
Veado capoeira	• Mazama sp.	12	276.0	23.50	3,12
Macaco barrigudo	• Lagothrix lagotricha	35	220.5	6,30	2,48
Mutum	+ Mitu mitu	40	128.0	3.20	1,45
Tatu de quinze quilos	• Dasypus kopplari	7	66.5	9.50	0,75
Jacu	+ Penelope sp.	33	66,0	2.00	0,75
Pato do mato	+ Cairina moschata	8	28.0	3.50	0,32
Onça Parda, Sussuarana	• Felis concolor	1	23,0	23,00	0,26
Cuxiú de Nariz branco	• Chiropotes albinasus	8	22.4	2.80	0,25
Jacutinga, Cujubim	+ Pipile cujubi	6	19,2	3.20	0,22
Tatu galinha	• Dasypus novencinctus	7	17,5	2,50	0,20
Cotia	• Dasyprocta sp.	7	17,5	2,50	0,20
Arara	+ Ara macao e Ara ararauna	14	14,0	1,00	0,16
Paca	• Agouti paca	2	13,4	6,70	0,15
Jacamim	+ Psophia viridis	4	8,0	2,00	0,09
Tracajá	•• Podocnemis unifilis	2	8,0	4,00	0,09
Carará	+ Phalacrocorax olivaceus	4	7,2	1,80	0,08
Coati	• Nasua nasua	1	3,0	3,00	0,03
Cairara	• Cebus albifrons	1	2,7	2,70	0,03
Zogue zogue	• Callicebus moloch	1	0,7	0,70	
Papagaio	+ Amazona sp.	1	0,5	0,50	
Jaboti lalá	•• Platemys platicephala	1	0,5	0,50	0,03
Sauím, Sagui	• Callithrix argentata	1	0,4	0,40	
Socó	+ Butorides striatus	1	0,2	0,20	
TOTAL	—	582	8357,2	—	100

FIGURA 6

Exportación de Productos de la Fauna Silvestre (unidades de cueros curtidos y sin curtir)
(Continuación)

especies / Año	Liebre europea (1)	zorros	zorrinos	gatos chicos	jaguar	puma	guanaco	pecaríes	comadreja	Plumas ñandú sin elaborar (kg)
1976	1.062.380	993.791	69.495	44.099	———	426	22.397	26.963	82.483	280
1977	4.033.924	695.991	250.819	141.106	———	160	42.894	56.031	219.772	309
1978	4.035.322	986.525	225.711	153.403	———	1.258	86.062	58.993	211.068	515
1979	———	1.251.647	288.901	101.609	———	650	86.324	35.005	879.606	760
1980	3.249.000	279.663	91.312	68.599	36	200	35.256	8.239	844.069	2.744
1981	2.995.559	295.076	87.466	7.365	———	12	73.875	4.900	37.492	230
1982	106.000	423.981	122.002	4.724	———	12	30.978	7.360	17.896	1.308
1983	290.010	235.339	10.220	———	———	———	13.157	39.193	1.884	1.030
1984	—544.185	66.254	3.544	———	———	———	10.250	53.574	918	569
	16.316.380	5.228.267	1.149.470	520.905	36	2.718	401.193	290.258	2.295.188	7.745

Uruguay

Peccary Skins Seized in Paraguay

6000 peccary skins from Asunción, Paraguay were seized on 16 October 1985 at Carrasco Airport, Uruguay, on their way to Hamburg, F.R. Germany.

The dried skins, all believed to be from the Collared Peccary Tayassu tajacu, were packed in twenty-six bundles and weighed 4700 kg.

The consignment from Paraguay was addressed to Paul Fehns, Vogelweide O. and had been despatched by a Carlos Ordiera who had arranged the re-export permit. It was this permit which came to the attention of the Customs authorities. Paraguay banned all trade in wildlife and wildlife products in 1975, and although trade may be permitted in exceptional circumstances, it appears that no such permits have ever been issued.

The skins, with an estimated value of US$35 000, are currently being kept at an auction mart.

F.R. Germany appears to be the major importer of peccary skins and the importer, Paul Fehns, claims to import 36 000 skins from Paraguay every year (in litt.) (see Traffic Bulletin, 6(2)).

The only peccary species included in the CITES Appendices is the White-lipped Peccary Tayassu tajacu, which is in Appendix III for Guatemala. pecari

Sources: TRAFFIC (South America); CITES Secretariat

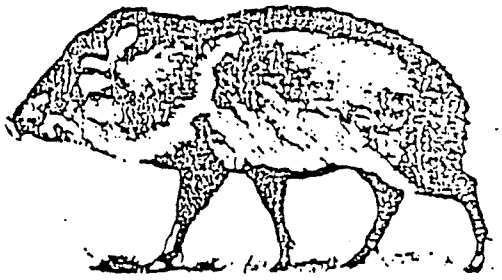
Traff.Bull.(1986):8(1)

p.2

Peccary

Peccary leather was widely available as shoes, wallets, gloves and belts. Japanese companies as well as French, Italian, and West German concerns were involved in the trade. Peccary gloves are highly prized by Japanese equestrians. Gloves of West German origin were priced from $100-140 a pair. Italian peccary shoes priced at $345 a pair identified the leather as coming from Lederfabrik Lorsbach, West Germany. Top of the market shoes sold for $365 a pair, while the French company Virgens offered shoes for as little as $175. A peccary belt by Reboor of Italy sold for $150. Wallets by the Japanese firms of Aloka d'Argent and Blaster were priced in the $55-85 range.

Peccary leather seems to be popular and becoming increasingly so all the time.



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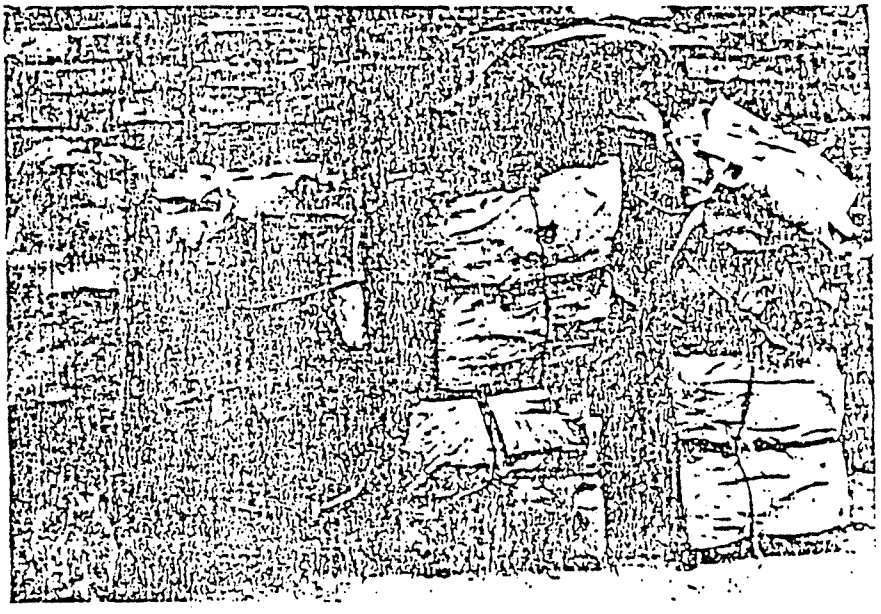


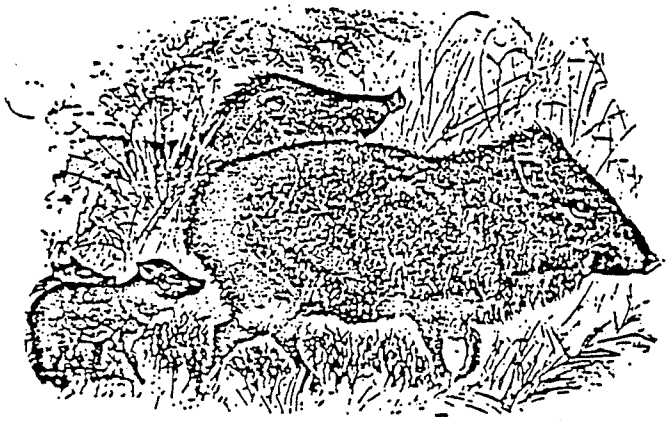
Figure 11.1. Peccary hides awaiting shipment to a large city market. (Photograph by Lyle K. Sowls)

The Peccary Skin Trade

by Steven Broad (1984)

Distribution

Of the three known species of peccary, the Chacoan Peccary (Catagonus wagneri) is the largest and has by far the most limited range, occurring only within the Gran Chaco of South America (south-east Bolivia, western Paraguay and north-west Argentina). The White-lipped Peccary (Tayassu pecari) and the Collared Peccary (Tayassu tajacu), are both widely distributed throughout most of Central and South America. T. pecari occurs from northern Argentina to southern Mexico in large herds of up to 100 animals. T. tajacu occurs in smaller herds, of up to about 20 individuals, over a larger range from northern Argentina to the southern states of the USA.



Collared Peccaries (Tayassu tajacu)

Threats

The peccaries are widely utilised as a source of food throughout their range, and a large number of peccary skins are exported for the manufacture of gloves, shoes and bags. Catagonus wagneri is best considered separately from the two Tayassu species: it is classified as 'Vulnerable' in the IUCN Mammal Red Data Book, being threatened mainly by habitat destruction, as forest areas are cleared for cattle ranching, but also because roads are being opened into the Chaco area for military use and for oil exploration (Thornback and Jenkins, 1982). This species is also threatened to some extent by hunting for meat and skins. To what extent the skin trade contributes to hunting pressure is not clear; certainly C. wagneri is a popular source of meat in much of its range. One report states that one small, four-room hotel in the Chaco uses more than 1000 C. wagneri each year, and that military outposts regularly use these animals for food (Oliver, 1981).

Both Tayassu species, like C. wagneri, are popular food items and make up a large part of the diet of people in remote areas. A number of studies have found that the Tayassu species, together with the Brazilian Tapir (Tapirus terrestris), are by far the most important large game species in the Amazon Basin. In some districts of Surinam Tayassu species 'can account for as much as 50% of the forest-based protein diet' (Mittermeier, 1977), and they may provide 16% of all the meat eaten in the Ucayali Valley in Peru (Grimwood, 1968). Human encroachment into forest areas exerts considerable pressure on the populations of these animals, but the Tayassu species are not generally thought to be threatened because they occur over a much greater range than C. wagneri and in greater numbers.

The legal status of the Tayassu species varies from country to country. In most cases subsistence or non-commercial hunting is allowed, sometimes under licence. Commercial exports of peccary skins are banned in Brazil, Colombia, Costa Rica, Ecuador, Mexico, Panama, Paraguay, Uruguay and possibly Venezuela; however the effectiveness of such control is often poor. Most peccaries are killed in forest areas where law enforcement is often very difficult. The control of trade across borders in these inaccessible areas is also difficult to enforce. None of the peccary species is included on CITES Appendices except T. tajacu which is listed on CITES Appendix III by Guatemala.

The only protection that C. wagneri enjoys is in Paraguay where there is a blanket ban on all wildlife hunting, however this is reported to be only sporadically enforced. It also occurs in two national parks in Paraguay where its protection is reported to be effective (Myers, 1977).

Skin trade

There is little documentation of the hunting of peccaries and trade in their skins. Probably the most detailed study was that carried out in 1970 by Hvidberg-Hansen on peccary utilisation in Peru. This illustrated many of the features of the trade, supporting the various less detailed accounts from other sources and other countries. We did however manage to obtain some information through correspondence with skin dealers and merchants in May 1984. The most valuable hide is that of Tayassu tajacu, reported to be about four times as valuable as T. pecari skins in 1968. (Grimwood, 1968). The hide of C. wagneri is said to be thinner than that of the other peccaries and is the least valuable; however it is often included in batches of skins that are exported from Paraguay and that used to be exported from Brazil (Thornback and Jenkins, 1982).

An important influence on the skin trade in source countries appears to be the low prices paid by South American skin dealers for the peccary skins. It seems that generally skins are only kept if the kill was close to an exporting location, as the transport of the skins over long distances would be uneconomic. Thus any purely commercial hunting for skins that does exist is located near exporting locations (Sowls, 1981). In Peru, for example, most of the skins from the Selva zone seem to leave the country from Iquitos via the Amazon (Hvidberg-Hansen, 1970). It seems that in the majority of cases the skin trade is purely a by-product of the hunting of peccaries for meat. Certainly in the case of C. wagneri most reports state that this is true and that the majority of hides never reach the market. On the other hand it has been suggested that in Bolivia some C. wagneri are hunted exclusively for their skins (Bejarano, 1981).

Despite restrictions on their trade and their low value, a reasonably large number of peccary skins does enter international trade. However, the trade in peccary skins is not closely monitored and statistics of exports or imports are not easy to obtain. Moreover there are no CITES records of any skin trade.

The categories in Customs statistics tend to be broad; 'pigskins' for instance includes hides of other species of wild pig as well as of domestic swine. Some leather described as 'Peccary' is in fact from the Capybara (Hydrochaeris hydrochaeris), which is used as a substitute when stocks are low.

The main exporting countries seem to be Peru, Bolivia, Ecuador, Paraguay, and perhaps Uruguay and Argentina. Brazil used to export a large number of skins; between 1965 and 1967, for example, 841 017 skins of

T. tajacu and 1 091 452 skins of T. pecari were exported (Smith, 1977). The export of many wildlife products, including peccary skins, from Brazil is now banned but it is probable that they are smuggled out and that a number of skins from Brazil leave South America via other countries where there are no restrictions on their export or where restrictions are less tight.

The total volume of peccary skin exports from South and Central America is not known. Two dealers, one Japanese and the other West German, stated that they had been importing reasonably constant numbers of skins from South America over the past 25 years (Pacific Leather Inc. 1984, in litt; Paul Fehns GmbH. 1984, in litt.). The German dealer reported that there had been a small decline in German imports recently and that he expected this to continue. Peru is probably the major exporter although very few comparative data are available. Between 1969 and 1979 Peru is reported to have exported 1 492 963 T. tajacu skins and 821 895 T. pecari skins (Mack, 1982). Paraguay, despite a ban on commercial wildlife trade since 1981, is another major exporter. A Paraguayan trader estimated that as many as 96 000 Peccary skins are exported from the country every year. The bulk of these were from T. tajacu but all three species were included to some extent. Bolivia also exports significant numbers and is known to have sent large shipments to the USA in recent years (Duplaix, 1981). There are no reports of peccary skin exports from Central America.

The Federal Republic of Germany seems to be the major importing country and in 1969 accounted for 81% of T. tajacu exports and 82% of T. pecari exports from Iquitos, Peru (Hvidberg-Hansen, 1970). The Verband der Deutschen Leder-Industrie, is reported as stating that during the period 1980-81 approximately 120 000 - 150 000 peccary skins had been imported (Frädrich, 1982). Paul Fehns GmbH. reported that most peccary skins imported into the F.R. Germany were of T. tajacu, and that T. pecari probably only made up 5-10% of total imports. This dealer states (in litt.) that he imports 36 000 skins every year from Paraguay.

The other significant importing countries are Japan, Italy, France and the USA. In 1969 Japan and France accounted for 3% each of T. tajacu skin exports from Iquitos, Peru (Hvidberg-Hansen, 1970). Pacific Leather Inc. estimated that total imports of peccary skins into Japan were around 20 000 - 25 000 a year. This dealer has imported around 14 000 skins of T. tajacu every year for over 25 years. The United States imports raw peccary skins and finished peccary skin products and in 1969 accounted for 13% of exports of T. tajacu skins and 18% T. pecari skins from Iquitos, Peru (Hvidberg-Hansen, 1970). Italy imports a number of peccary skins, and has been known to import from Bolivia and re-export finished goods to the USA.

Conclusions

It appears that, at present, the only source countries from which legal exports of peccary skins may continue are Argentina, Bolivia, Peru and possibly Venezuela. It is certain that a large number of peccary skins are traded, and it is believed that peccary populations are decreasing in some areas, especially Catagonus wagneri, which is rapidly losing its restricted habitat. However there is little evidence that the skin trade is a major contributory factor to population decline on any more than a local scale near exporting locations and human population centres. The low prices which are reported to be paid to hunters for the skins seem to be a strong restriction on the development of commercial hunting. The threat of the skin trade could be better assessed if the trade were documented more fully to provide a better picture of trends in volume and source countries.

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Rhino Horn Imports into Korea

Rhino horn imported into the Republic of Korea during 1983 was valued at US$162 000, an increase on the 1982 figure of 26 000 for a quantity of 236 kg of horn (see Traffic Bulletin VI(1):3-4). The quantity imported in 1983, however, was not available.

National Bureau of Statistics, Economic Planning Board, Republic of Korea.

Namibia Abides by Convention

South West Africa is not a Party to CITES. However, its Department of Agriculture & Nature Conservation has stated in a letter dated 20 January 1984 to the CITES Secretariat, that Namibia will abide by the decision of the Convention not to allow any commercial trade in, or export of, rhino products until such trade is again permitted.

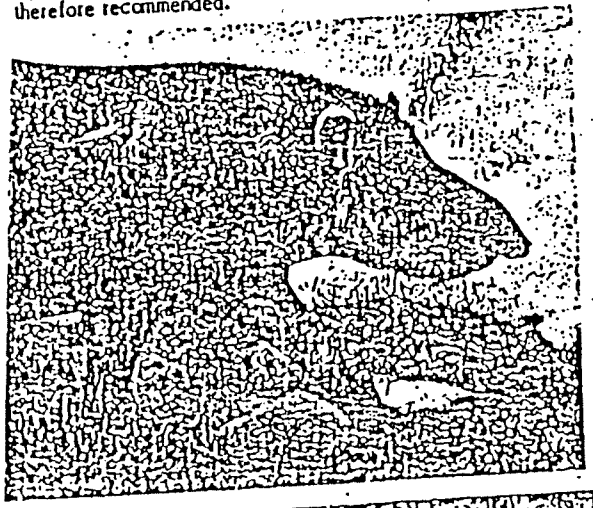
Exceptions will be made, however, in cases where persons who are in legal possession of rhino products emigrate to other countries or in cases where animals have been bred in captivity and were hunted by trophy hunters.

Special Publications No. 2
(1969) Amer. Committee for Twl.

ave been examined by Dra. Koepcke, of the Museo "Javier Prado", and by
l. Paul V. Pierret.

onomy.—*Tapirus pinchaque* is known only in the nominate form.

us.—The mountain tapir does not appear to be much persecuted by hunters, but
he species is said to be intolerant of disturbance and to be disappearing from
reas where it was formerly common. It is rare throughout the remainder of its
:ange in Ecuador and Colombia, and is included in the I.U.C.N. List of Endan-
gered Species. The Peruvian population cannot number more than 100 to 200
individuals. Total protection and the creation of some form of sanctuary are
therefore recommended.



Lelli Tapir

Below: Peccary
(White-collared)

Notes on the Distribution and Status of some Peruvian Mammals

by I. R. Grimwood (1968)

ARTIODACTYLA

I.R. Grimwood (1968)

TAYASSUIDAE

Genus *Tayassu* G. Fischer — Peccaries

The two species of this genus that occur in Peru are treated separately below.

Tayassu tajacu (Linn.) — Collared Peccary

Local Names.—Sajino, Ituchi, Quetayrequi (Campa), Kiromaa (Chayhuita), Yanquipik (Achual).

Distribution.—This species occurs in the Amazon region and the northern part o
the coastal region. In the Amazon region it is found throughout the low selv
zone from the north to the south of the country, in some areas of which it i
subject to considerable seasonal movements occasioned by the annual inunda
tion of vast tracts of land. It also occurs in the lower levels of the high selv
zone, where its normal upper limit appears to be 800 to 900 m. It has, howeve
been reported at over 1,500 m. in the Oxapampa Province of the Department c
Pasco. In the coastal region it is known throughout the Zarumilla Province c
the Department of Tumbes, at elevations of from 500 to 1,500 m., and in the Ayr
baca and Huancabamba Provinces of the Department of Piura, where it occu
in dry, deciduous woodland, very different from its habitat in the Amazon regic
It may also occur further south.

Taxonomy.—The nominate race is probably the form in most of the Amazon regic
with the race *T. t. bangsi* (Goldman) occurring in the extreme north.

Status.—The collared peccary is an important source of food for almost all re
dents of the Amazon region, providing 16.6% and 12.6% respectively of all me
eaten in the Ucayali and Pachitea valleys, according to the surveys of Pier
and Dourojeanni. It is also intensively hunted for its hide by commerc
hunters (whose wasteful methods often entail throwing away the meat), desp
the fact that each hide is worth no more than S/25 to S/30 (7 to 8 shilling
Over 2,000,000 hides of this species were exported from Iquitos during
period 1946-1966, 690,000 of them in the last 5 years. The actual export
hides by years was as under:

1946 70,876	1953 60,844	1960 125,245
1947 65,084	1954 85,731	1961 109,500
1948 45,455	1955 114,644	1962 128,763
1949 69,355	1956 106,744	1963 120,735
1950 82,548	1957 101,352	1964 129,920
1951 60,830	1958 74,359	1965 129,600
1952 40,812	1959 108,608	1966 181,201

If these figures represent but 60% of all animals killed, this is the equivo
of an annual off-take of one peccary for each 1.6 sq. km. (.61 sq. mile) of

trol of hunting and of the trade in skins is therefore necessary if this valuable species is to be conserved. *Tayassu tajacu* is represented in the Manu National Park.

Tayassu albirostris (Illiger) — White-lipped Peccary

Local Names.— Huangana, Sacha-cuchi, Shintare (Campa), Naimaa (Chayhuita), Paki (Achual).

Distribution.— This species occurs alongside *T. tajacu* throughout most of the latter's range in the Amazon region, although in some localities only one or the other may be present. A great deal of work awaits doing to separate the ecological requirements of the two species. *Tayassu albirostris* is not known from the west of the Andes.

Taxonomy.— The nominate race occurs throughout.

Status.— *T. albirostris* is over-all less numerous than *T. tajacu* although it occurs in larger bands, which often number up to 100 individuals, compared with 10 or 20 in the case of the latter species. It is also more nomadic in habits. It is subject to the same hunting pressures, despite its hide being of even less value and fetching no more than S/8 to S/10 (2 shillings to 2/6) each. Over 848,000 hides were exported between 1946 and 1966, and the average off-take for the last 5 years was the equivalent of one animal per 4.5 sq. kms. (1.8 sq. miles) of the whole Amazon region, on the same basis of calculation as was used in the case of *T. tajacu*. Control of hunting and of the trade in skins is necessary. Annual exports of hides were as under:

1946 46,274	1953 24,669	1960 50,119
1947 30,056	1954 37,876	1961 31,000
1948 23,253	1955 50,783	1962 55,456
1949 29,532	1956 52,432	1963 58,975
1950 30,281	1957 51,954	1964 48,840
1951 21,825	1958 51,925	1965 35,400
1952 16,413	1959 60,500	1966 40,801

The species is represented in the Manu National Park.

CAMELIDAE

Genus *Vicugna* Gray — Vicunas

Local Name.— Vicuna.

Distribution.— The single species of this genus is confined to the puna country of the Andean region, where it appears never to have occurred north of 9.30' S. Between 9.30' S. and 13.30' S., the vicuna is now almost extinct, the only known survivors being some 9 or 10 widely separated groups totalling less than 150 individuals in all. These groups appear doomed, and it is improbable that any of them can persist for more than a few more years.

vince of the Department of Ayacucho, where a careful count in 1965 showed there to be some 1,200 to 1,300 animals in an area of 600 sq. kms. Elsewhere the vicuna exists in widely separated populations of a few groups each, only one of those populations is known to exceed 100 individuals in all. Some 500 to 600 animals are also kept in a state of semi-domesticity on Hda. Cala Cala, in the Azangaro Province of the Department of Puno, about a third which are hybrids resulting from crossing with llama or alpaca. The known position, by Departments, is as under:

Ancash.— Six or seven small groups, totalling perhaps 35 animals in all exist in the Yungay and Bolognesi Provinces. Elsewhere the species is extinct.

Junin.— A small group is rumored still to exist to the west of Lake Junin, elsewhere the species is apparently extinct.

Lima.— Only three groups, of less than 20 each, are known; they are located near Matucana and Canta.

Huancavelica.— A group of less than 20 is reported to exist near the Cachi Virrenya lakes, and two other small herds are known in the extreme south of Cordova and Huac-huas.

Ayacucho.— Besides the large population of the Pampas Galeras reserve vicunas are known from the Negramayo lake area, where there may be as many as 150 to 200 animals, although the greatest number ever seen in a single group was 55. They also probably occur further north, near Andamarca. The species was formerly common in the Parinacocha Province; but poachers have been particularly active in that region, and no animals were seen between Puquio and Coracora or between Coracora and Lake Parinacocha when those areas were investigated, nor could reports of their present existence be obtained.

Apurimac.— This Department still holds fair numbers of vicunas. The species is absent from most, if not all, of Andahuilas and Abancay Provinces; but scattered small groups are reported to occur in the Antabamba Province, to the east of the Rio Pachachaca near Circa, Bambrabamba, and Antabamba. A fairly comprehensive survey of the western part of the Department, between Andahuaylas and the Puquio-Chalhuanca road, resulted in a total of 84 animals being seen, of which 55 were concentrated in 6 groups on Pampa Chuquibamba. Two separate herds, one of 7, the other of 18, have also been seen on several occasions near where the Puquio-Chalhuanca road drops down into the Pachachaca valley.

Cuzco.— Vicunas have apparently not been known for many years in the highlands of the Quispicanchis, Paucartambo, Calca, and Urubamba Provinces. If indeed they ever existed there; and they have now disappeared from the Sicuani area, where they are reported to have occurred until recently. Small groups are, however, fairly frequently seen in the La Raya area of the Vilconota valley and the species probably occurs in other parts of Canchis and Canas Provinces and in the Chumbivilcas and Espinar Provinces to the south, about which little is known.

WWF ASSOCIAZIONE ITALIANA PER IL WORLD WILDLIFE FUND ITALIA
FONDO MONDIALE PER LA NATURA

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Rome, 1st April 1986

M. Jean-Pierre d'Huart
Directeur
TRAFFIC (Belgium)
Chaussée de Waterloo 608
b-1060 BRUXELLES

Dear Monsieur d'Huart,

further to my letter of 21 March, please find hereinafter the available information about the import of Peccary skins in Italy. Peccary is not included in the Washington Convention and therefore no CITES import permit is required from the Ministry of Agriculture. Furthermore, in the Italian Customs regulations there is no specific item for Peccary skin: it goes under the general item "skins of Suidae", which includes wild boars, domestic pig and peccary. We can assume that the skins coming from Centrale and South America are of peccary, those from other countries should be boar or pig. The data for the various years are the following:

1980: countries of origin France, China, Japan, Taiwan (total 63.9 tonnes);

1981: countries of origin China, Japan, Taiwan

1982: countries of origin China, Japan, Taiwan, Yougoslavia, Bolivia (8.4 tonnes), Argentina (6.4 tonnes)

1983: countries of origin China, Japan, Taiwan, Germany, Argentina (4.6 tonnes)

1984: countries of origin China, Japan, Argentina (10.1 tonnes)

1985 (January-May): countries of origin China, Taiwan, Germany, Hungary.

./.

There could be some peccary from Germany through Hamburg free port, but no distinction is possible. According to the Trade Association, a number of finished peccary skins is imported from the United States, but, as this country is not listed among the exporters, probably go under the item "other skins" and the quantity cannot be identified.

I regret not to be able to tell you more than what is reported above. Kindest regards.

Ing. Pier Lorenzo Florio
Member of WWF-Italy's Board of Directors

PLF/dm

Min. of Agriculture, Loreto, PERU (Unpublished) 1986.

COMERCIO DE CUEROS DE SAJINO Y HUNGANA ENTRE 1966 A 1985

LORETO-PERU

	T; tajacu collared	T. pecari white-lipped
	Sajino	Hungana
1966	184,201	42,001
1967	136,900	65,000
1968	145,326	60,544
1969	155,100	68,300
1970	149,490	71,200
1971	95,600	36,700
1972	149,500	74,700
1973	80,250	34,600
1974	109,583	86,261
1975	120,487	42,606
1976	131,392	25,798
1977	142,297	18,729
1978	64,317	22,916
1979	78,414	40,836
1980	109,688	52,496
1981	55,746	17,083
1982	22,648	5,285
1983	26,692	15,184
1984	19,948	16,562
1985	26,046	16,329
n = 20 Años	2'003,625	813,530
	$\bar{x}$ = 100,181	$\bar{x}$ = 40,676.5

CUADRO Nº 1: VOLUMEN DE CUEROS DE ESPECIES DE FAUNA SILVESTRE DE LA AMAZONIA PERUANA EXPORTADOS DE 1946 a 1973.

AÑO	T.t. SAJINO	T.p. HUANGA/	VENADO	RONSOC/	L.BLAN.	L/NEGRO
1946	70,876	46,274	22,099	——	——	——
1947	65,884	30,056	20,082	——	——	——
1948	45,455	23,253	15,820	——	——	——
1949	69,355	29,532	27,029	——	——	——
1950	82,548	30,281	34,188	999	——	——
1951	60,830	21,825	22,669	7,999	——	——
1952	40,812	16,413	19,767	6,705	——	——
1953	60,844	24,669	18,711	7,259	——	——
1954	85,731	37,876	32,866	8,201	——	——
1955	114,644	50,783	41,429	7,243	——	——
1956	106,744	52,432	37,558	12,072	——	——
1957	101,352	51,954	39,940	——	——	——
1958	74,359	51,925	24,747	——	——	——
1959	108,608	60,500	43,554	——	——	——
1960	125,245	50,119	25,492	——	——	——
1961	109,500	31,000	34,204	——	——	——
1962	129,094	55,436	30,140	8,494	32,460	16,206
1963	122,032	59,529	7,070	12,668	28,341	10,845
1964	134,920	48,840	42,164	10,466	20,650	8,225
1965	136,379	36,837	35,550	16,993	20,506	4,000
1966	184,201	42,801	54,852	7,822	16,629	4,947
1967	136,900	63,000	28,833	6,480	14,628	3,363
1968	145,326	60,544	19,507	5,737	19,788	3,171
1969	155,100	68,400	27,083	4,302	17,601	6,780
1970	149,490	71,200	18,209	4,800	10,696	4,364
1971	95,600	36,700	7,505	2,300	18,495	6,542
1972	149,500	74,700	14,916	5,389	28,809	4,405
1973	80,250	34,600	18,219	500	23,257	11,421
TOTAL	2'941,579	1'261,279	764,203	136,429	251,860	84,269

UTILIZATION OF THE COLLARED PECCARY

(Tayassu tajacu LINNÉ) IN PERU

By

HENRIK HVIDBERG-HANSEN

FAO Forestry Research and Training Project
UNDP/ SF N° 116

Unpubl.

La Molina,
October 1970

CONTENTS

INTRODUCTION

This study is a part of a general survey on wild animals important for hide and skin production in Peru. It includes a survey of their hunting and the preparation and commercialization of their skins.

The study has been carried out as a survey. Statistics from the Peruvian Forest Service have been examined. Exporters and skin dealers in Iquitos, Pucallpa, P.Maldonado and Leticia (Colombia) have been visited. Field trips have been made, hunters have been interviewed and questionnaires been filled in. Hunters of the Amazon region (the Selva) were interviewed during field trips to the following areas:

a. P.Maldonado and a journey along the Madre de Dios river from the Bolivian border (P.Pardo) up-stream, to the outlet of the Manu river into Madre de Dios river.
b. Pucallpa, and journey on the Aguaytia river where hunters were interviewed from Nueva Requena upstream until the mouth of the San Alejandro River; the San Alejandro River upstream until the village of the same name.
c. Amazon river, downstream from Iquitos. Hunters were interviewed from Chochiquinas downward, until the boundary of Peru.

All field work was carried out between 13/3 - 15/7 1970. Without the assistance from the Peruvian Forest Service these studies could not have been completed. The "Instituto de Desarrollo de los Recursos Naturales Renovables" (INDERENA) Office in Leticia, Colombia, has also been very helpful. The recommendations deal only with protective aspects; recommendations on control of trade and other aspects have been given elsewhere.

DISTRIBUTION

The collared peccary occurs in the Amazon region and, according to Grimwood (1968), also in the northern part of the Coastal region.

PRESENT LEGAL PROTECTION

According to "Resolución Suprema N° 236", this species is protected by a closed season in the Selva region during the period 1/12 - 31/3.

SKIN TRADE

Page 3 shows the main skin trade channels. The majority of skins go to Iquitos, from where they are shipped via the Amazon River.

Exports from Peru since 1962 are shown below:

Exporters \ Year	1962	1963	1964	1965	1966	1967	1968	1969
Exporters Iquitos	128,736	120,735	129,920	129,600	181,201	136,900	145,326	155,100
"Curtiembre Cocodrilo & Industrial Cocodrilo" Companies Lima	358	1,297	5,000	6,779	3,000	0	0	0
TOTAL	129,094	122,032	134,920	136,379	184,201	136,900	145,326	155,100

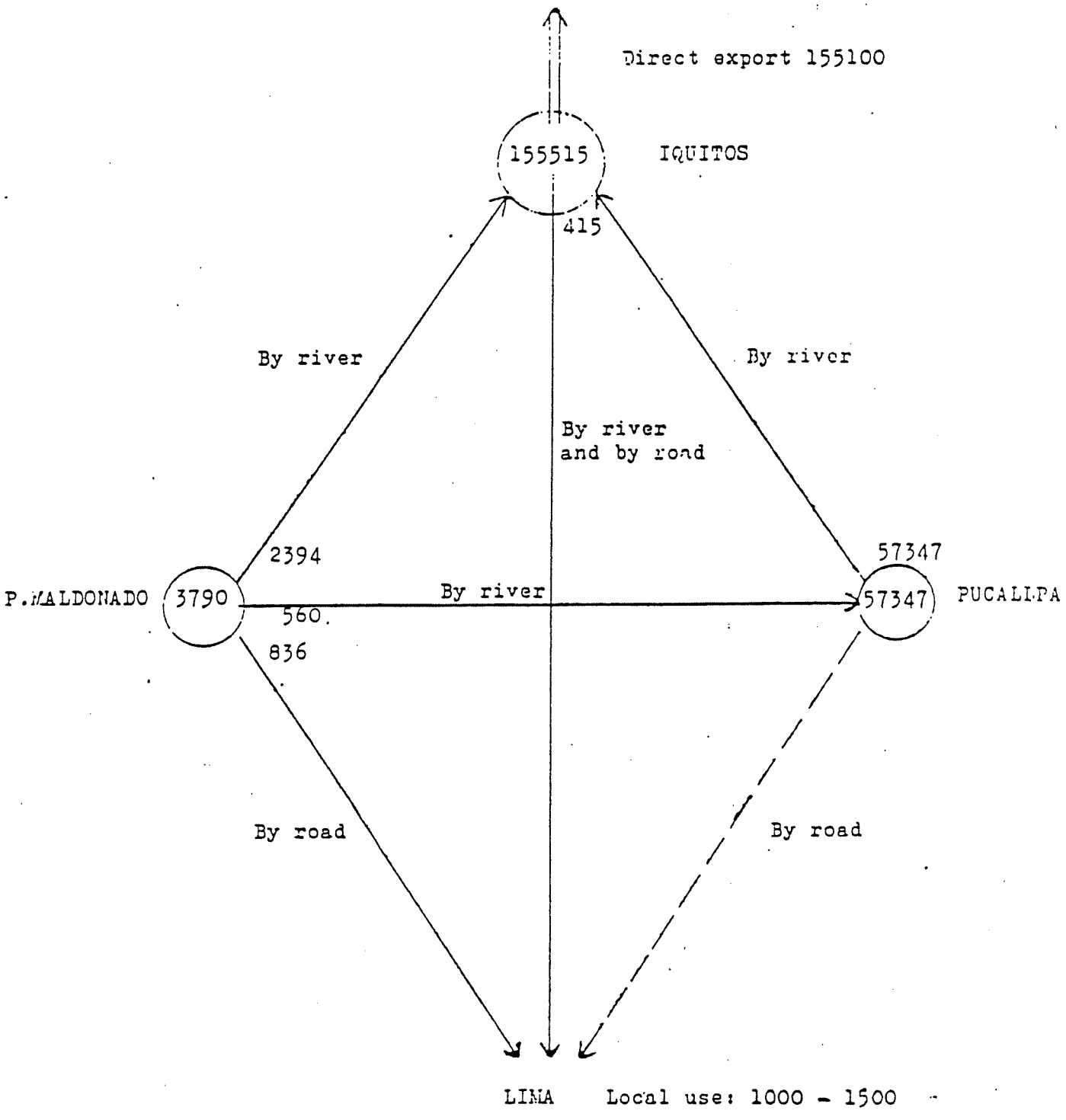
Skins exported in 1969 were shipped to the following locations:

TOTAL	GERMANY	FRANCE	USA	JAPAN
	Hamburg	Marseille	New York	Yakohama
155,100	125,100	5,000	20,000	5,000

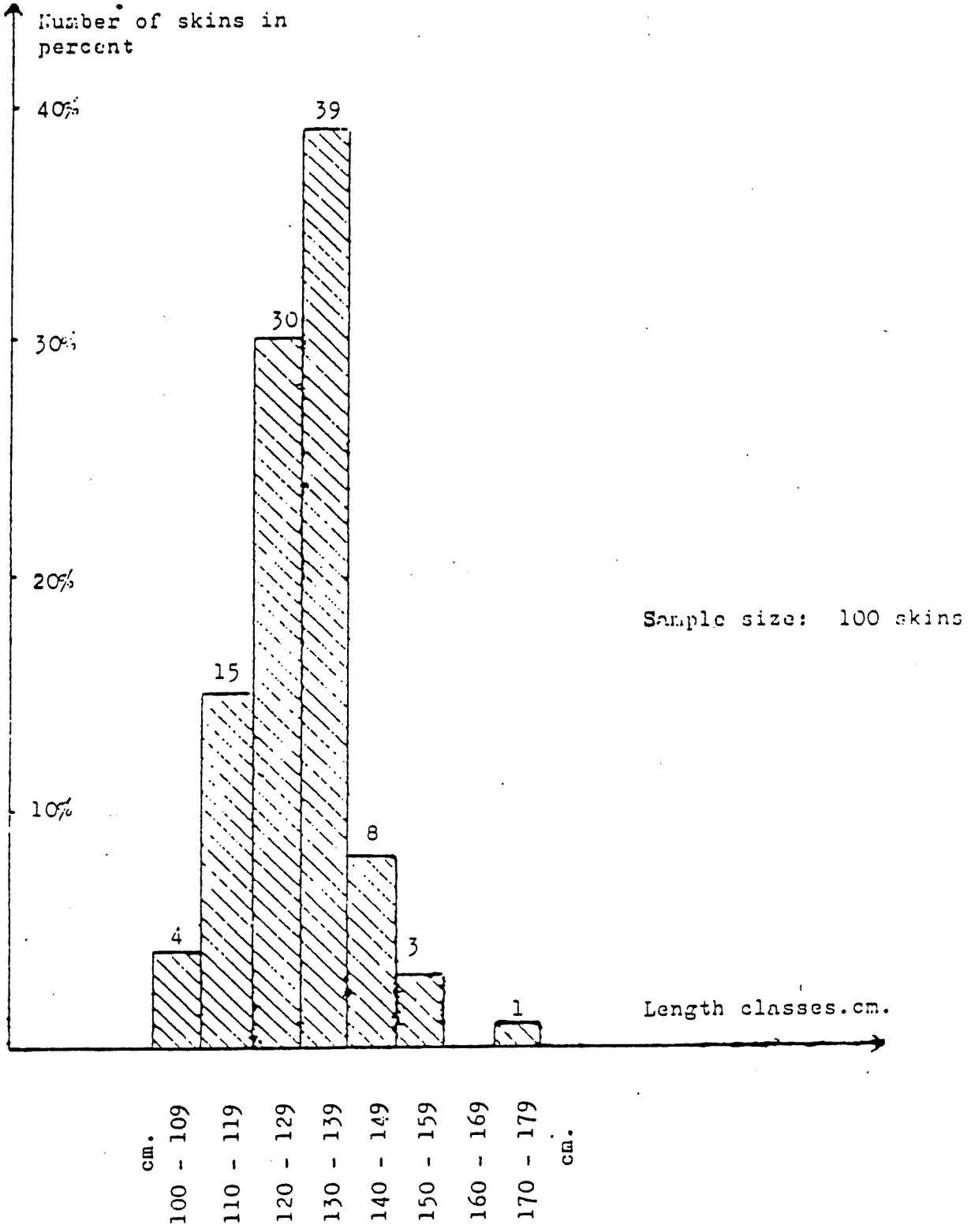
Relatively few skins go to Lima bought by the joint companies "Curtiembre Cocodrilo & Industrial Cocodrilo". These companies have previousl exported dryed skins, but are now buying skins which are tanned for use in factories in Lima mainly for footwear and gloves. Trade statistics show that about 1000 - 1500 skins are used locally every year. Two tanneries in

(Cont. page 5)

TRADE IN SKINS OF COLLARED PECCARY 1970



LENGTH OF COLLARED PECCARY SKINS



Arequipa, which in the early 1960's used about 500 - 1000 skins per year have now practically stopped tanning (only 70 skins in 1969).

SKIN QUALITY

Skins are graded in three quality classes. Skins are generally of a good and uniform quality, and downgrading is mainly based on small size and perforations occasioned by shots.

Graduation of 1969 exports is shown below:

TOTAL	1st Class	2nd Class	3rd Class
153,100	140,770	12,340	1,990
100%	91%	8%	1%

SKIN SIZES

The distribution according to length classes of a measured sample of skin is shown on page 4. The average weight of 100 skins was 655 grammes.

SKIN PRICES

The peccary is hunted mainly for its meat. Skins have little value, but the low income level of the people in the Selva guarantees that practically all skins reach the market. I only met one hunter who did not utilize his skins. Stories about hunters "slaughtering" peccaries just for the use of skins are, generally, untrue.

Prices vary according to the distance from Iquitos, because the cost of freight influences the prices of cheap skins considerably.

Prices at different trade levels are shown below:

PRICES OF 1st CLASS SKINS OF COLLARED PECCARY - 1970

	SOLES	EQUIVALENT VALUE US$ *
Price paid by travelling dealers in Madre de Dios area	15 - 25	0.3 - 0.6
Price paid by established dealers in P.Maldonado	25 - 30	0.6 - 0.7
Price paid by travelling dealers Pucallpa area	30 - 45	0.7 - 1.0
Price paid by travelling dealers Iquitos area	45 - 50	1.0 - 1.2
Price paid by established dealers in Pucallpa	50 - 55	1.2 - 1.3

* Exchange rate 1US$ = Soles 43.3

	Soles	Equivalent value US$
Price of sale of established dealers selling directly to exporters	60 - 76	1.[illegible] - 1.[illegible]
Price declared by exporters in Iquitos		
Purchase price	25 - 44	0.6 - 1.0
Selling price		1.20- 1.25

The information obtained shows that prices declared by exporters are unrealistic.

VALUE OF SKIN EXPORTS

The invoiced value of 1969 exports is indicated below. Besides that, a more realistic value has been calculated based on the average true purchase price of the exporters, of Soles 68, plus a 15% profit, which comes to Soles 78 (US$ 1.81). Estimated value has been based on the above classification.

Invoiced value:

155,100 skins — US$ 178,065.00

Estimated value:

155,100 skins — US$ 266,860.

I believe the exporters invoice a low value for the following reasons:

a. It reduces taxes, which are paid as a percentage of the export value.

b. It allows the balance to be paid into foreign bank accounts.

HUNTING METHODS

The collared peccary is the most important of the wild animals hunted for food; numbers and weight of the yearly kill exceed any other species. It is killed by all categories of hunters, from professionals to small-scale farmers, who supply their household by hunting now and then.

Sixty one hunters were interviewed; of these, 16 were professional hunters, others semi-professional and some only hunted occasionally. They

obtained the following numbers of animals per year:

1 hunter	animals per year	
2 hunters	10	" "
1 hunter	11	" "
1 "	14	" "
1 "	18	" "
4 hunters	20	" "
1 hunter	25	" "
6 hunters	30	" "
1 hunter	36	" "
2 hunters	45	" "
3 "	48	" "
4 "	50	" "
4 "	60	" "
1 hunter	80	" "
1 "	90	" "
4 hunters	100	" "
4 "	120	" "
1 hunter	130	" "
1 "	150	" "
3 hunters	180	" "
1 hunter	192	" "
2 hunters	200	" "
6 "	240	" "
1 hunter	250	" "
2 hunters	300	" "
1 hunter	360	" "
1 "	440	" "
1 "	600	" "
61 hunters		
Average:	118 animals per hunter, per year	

All the hunters owned shotguns (Cal.16, one barrel). Eight hunters used also Cal.'22 rifles, and three also used bow and arrow. Examination

of 60 skins showed that 87% had perforations deriving from the use of shotguns.

The collared peccary is hunted during daytime. Most hunters prefer the early morning for their activity, additionally, some hunters mentioned the late afternoon as a preferable time for hunting. Nineteen hunters used dogs. Most hunters preferred the driest time of the year (June, July, August, September), which can be seen below, where the preference is shown for each month.

MONTH	J	F	M	A	M	J	J	A	S	O	N	D
PREFERENCE	21	21	24	24	25	30	42	41	33	21	20	20

Most hunters carry the entire animal to their house or camp, where skinning and preparation of the meat and skins takes place. Only five of the questioned hunters would skin the animal at the shooting site. The average time spent to carry the carcass to the house/camp was 3 hours and 20 minutes, which gives an idea of the distance the hunters have to search for the animals

Skins are traded fairly shortly after being dried as indicated below:

15	hunters	stored	their	skins up to	10 days
9	hunters	stored	their	skins about	15 days
11	"	"	"	"	20 "
18	"	"	"	"	30 "
4	"	"	"	"	60 "
2	"	"	"	"	70 "
1	hunter	"	his	"	120 "

HUNTING PRESSURE

Export figures since 1962 show an increasing trend which is no doubt caused by hunters penetrating into areas which were previously not hunted. The high level of export figures, and the average kill of 118 animals per hunter, per year, shows that this species is common. However, 47 hunters found that hunting now was more difficult than five years ago, while 12 hunters found that the situation had not changed. Fifty hunters

claimed that they had to search in a larger area than five years before to obtain the same number of animals, but [illegible] hunters hunted in an area of the same extension as earlier. However, the fact that the hunters obtained their animals at about 3½ hours time from their houses, shows that most of them hunt this species in a rather limited area.

RECOMMENDATIONS

The present closed season has no significance because people in the Selva are too dependent on the meat of this species throughout the year.

Instead of curbing the hunting by a closed season it would be recommendable to establish a system of sanctuaries where all hunting would be prohibited. Human population is rapidly increasing in the Selva and a system of sanctuaries would also preserve this natural resource in areas close to human settlement.

REFERENCES

Grimwood, I.R. 1968 — Appendix III to "Recommendations on the Conservation of Wildlife and the Establishment of National Parks and Reserves in Peru"

HEH/cr
29.10.70