

FULL ACCOUNT FOR: Sus scrofa

Sus scrofa 🚺 简体	4中文 正體中文	System: Terrestria		
Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Artiodactyla	Suidae
Common name	pig (English), Wildschwein (German), razorback (English), te poaka (Maori), kuhukuhu (Maori), poretere (Maori), petapeta (Maori), kune-kune (Maori, New Zealand)			
Synonym				
Similar species				
Summary	<i>Sus scrofa</i> (feral pigs) are escaped or released domestic animals which have been introduced to many parts of the world. They damage crops, stock and property, and transmit many diseases such as Leptospirosis and Foot and Mouth disease. Rooting pigs dig up large areas of native vegetation and spread weeds, disrupting ecological processes such as succession and species composition. <i>Sus scrofa</i> are omnivorous and their diet can include juvenile land tortoises, sea turtles, sea birds, endemic reptiles and macro- invertebrates. Management of Sus scrofa is complicated by the fact that complete eradication is often not acceptable to communities that value feral pigs for hunting and food.			
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Species Description

Pigs are large omnivorous mammals with powerful bodies and coarse hairy coats. Their thick necks, wedgeshaped heads and mobile snouts are used in feeding to uproot the ground and find prey or plant material. Feral pigs are easily distinguished from domestic pigs via a smaller leaner and more muscular stature, shorter hind quarters, longer snouts and tusks. Older boars usually develop a thick keratinous shield over their shoulders, which provides some protection during fights with other boars. Feral pig hair is longer and coarser than a domestic pigs and sometimes forms in a tuft along their back (hence, the name razorback). The tails of feral pigs are not curly as in domestic pigs, they are instead long and straight with a bushy tip.

Ecological characteristics of feral pig activity, group size and home range size should be considered in any management strategy aimed to control pig numbers or reduce their negative impact. Feral pig activity varies between different habitats and climates. High activity has been reported to occur in early morning and late afternoon in tropical climates (Diong 1982). However, in India pigs have been reported to feed nocturnally to raid croplands (Sekhar 1998, in Wolf and Conover 2003). On Santa Cruz Island (California) the milder weather of fall and late winter causes pigs to be more active in the morning and evening, while the short cool and often rainy days of winter causes midday activity. Pigs on the island were active at night mostly when conditions were warm and dry (Van Vuren 1984, in Wolf and Conover 2003).

In terms of group structure, in North-western Australia mob sizes are generally about 12 or less, although occasionally mobs of 30 pigs are seen. Adult boars are mostly solitary.. In South Carolina the average home range of boars is 226 hectares, while the average for sows is 181 hectares (Wood and Brenneman 1980, in Wolf and Conover 2003).Whereas in Australia average home range can vary from 140 hectares for a boar in Namagdi National park, Australian capital territory (McIlroy and Saillard 1989), to 430 hectares for a boar in Western New South Wale (Giles 1980).

Feral pigs are polyoestrous, adult sows have a 21 day oestrous cycle and a gestation period of 112-114 days (Choquenot et al.1996). Estimated litter size is 4.5-6.3 viable young per sow (Twigg *et al.* 2005, Choquenot *et al.* 1996) but in good conditions 10 piglets can be born to one sow.

Lifecycle Stages

Pigs are normally social animals but adult boars over 18 months old are invariably solitary (McIlroy 1990).

Uses

Captain Cook used the pig in trading with the natives as early as 1777. \"A small pig of 10 or 12 pounds\" was traded for a spike but a \"hog\" was exchanged for a hatchet (Cook 1784, in Diong 1982).\r\n In central Europe the false spruce webworm (*Cephalcia abietis*) causes defoliation of Norway spruce trees; high densities of boars are able to cause high mortality to insect larvae by up to 70%, however they also cause damage to tree roots making the perceived benefit negligible (Fuhrer and Fischer 1991, in Wolf and Conover 2003).\r\n

In many highland areas of New Guinea pigs are deliberately placed into gardens at the end of a harvest sequence and prior to gardening to remove remaining sweet potato tubers and to assist in turning and aerating the soil before replanting (Westermann 1968, Paglau 1982, Wood and Humphreys 1982, Tucker 1986, Kohun in hide 2003).



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Habitat Description

The feral pig adapts to a variety of environments from Mediterranean oak woodland forests to the semi-arid rangelands of Eastern Australia, from the flood plains, billabongs and grassland savannas of tropical Northwestern Australia to the gray beech forests of the Smoky Mountains in America and from the wetland and lowland evergreen monsoon forests of Australia to the fresh water marshes and brackish water marshes of South Carolina (Wood and Brenneman 1980, in Wolf and Conover 2003). Wild pigs are rarely found over 1650m (Bulmer and Bulmer 1964, in hide 2003), but are known to be found at altitudes as high as 3000m in New Guinea (Flannery 1995, in Hide 2003).\r\n

Home ranges of pigs are smaller during the dry season than during the wet season. During the dry season on Santa Catalina pigs preferred cool moist canyon bottoms due to a physiological need for free water. Dense vegetation was more actively sought after than open areas such as grasslands (Baber and Coblentz 1986, in Wolf and Conover 2003). \r\n

The presence of crops in the near area (for example palm dates or oat hay cultivations) provide a food supplement and may greatly increase feral pig density; the close location of cereal crops in one study increased the density of feral pigs almost four-fold (Caley 1993, in Wolf and Conover 2003). Similarly the presence of adjacent palm cultivations in Malaysia was found to increase pigs density by 10 to 100 times (Ickes Paciorek and Thomas 2005). \r\n

High densities of pigs may also be attributed to water availability. The recent expansion in feral pig distribution in Australia has been attributed to the increase in suitable habitats, in particular, an increase in water availability from farm dams and developing forest industries (Spencer and Hampton 2005).

Reproduction

Feral pigs are polyoestrus: adult females have a 21-day oestrus cycle and a gestation period of about 112-114 days. In New Zealand they probably breed throughout the year, though mainly in spring and summer (Wodzicki 1950; J. McIlroy unpublished). Their litter size is usually between 6 and 10 piglets, but usually only half this number survives. They reach breeding age at between 10 and 12 months (Wodzicki 1950).

In one study females were found to have about 5 young every 0.86 years with some females having two litters per year. In this study fertility continued to increase with age until it peaked at two to three years of age. 58% of piglets died before weaning (Baber and Coblentz 1986, in Wolf and Conover 2003).



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Nutrition

Pigs lack the multiple stomachs found in ruminants such as cattle and goats. Feral pigs are omnivores with an opportunistic diet, including high-fibre (> 25%) low-protein grasses, legumes, herbs and roots. They readily feed on crops, fallen fruits, seeds and small animals (McIlroy 1990). Pigs regularly root the ground in search of roots, fungus, nuts, seeds and grubs (Frederick 1998, Sicuro 2002, in Wolf and Conover 2003). In their native Mediterranean woodland the wild boar compensates for the reduced supply of acorns in the spring by raiding underground hoards of acorns collected and buried by small mammals (the availability of acorns is critical to female boars as they need the extra nutrition for lactation) (Focardi Capizzi and Monetti 2000, in Wolf and Conover 2003).

Pigs adapt their diet to best utilise local resources. In the semi-arid rangelands of eastern Australia and in New Guinea feral pigs will regularly hunt and devour lambs (particularly twin lambs (which are weaker) (Choquenot, Lukins and Curran 1997, in Wolf and Conover 2003; Hide 2003). On Horn Island, Mississippi, hogs take advantage of high seasonal abundances of insects, crabs and dead fish (Baron 1982, in Wolf and Conover 2003). On Santa Cruz Island, California, acorns and new growth of grasses and forbs are major components of the feral pig's diet (Van Vuren 1984, in Wolf and Conover 2003).

In South Carolina fruits, especially acorns are the most common food type consumed in fall and winter; herbage and foliage are most common in the spring; roots are most common in the summer. Invertebrates and vertebrates are also consumed, though they were not as important. The consumption of woody plants may be underestimated in stomach contents surveys as the starches and sap obtained from the roots of such plants go undetected (Wood and Roark 1980, in Wolf and Conover 2003).

In the western South Texas Plains (introduced range) feral pigs have a spring-summer diet that consists mainly of vegetation, while acorns are their winter food source. Their autumn diet consists of roots and corn. Animal matter consisting of deer, morning doves, reptiles and other birds represents a small portion of the hog's diet. Of these, reptiles were the most susceptible to predation (Taylor and Hellgren 1997, in Wolf and Conover 2003). In one study conducted in Hawaii by Diong 1982, food habits were characterised by (1) an omnivorous diet consisting mainly of plant matter, (2) a staple of tree ferns, (3) a seasonal switch from tree ferns to strawberry guava, and (4) a strong reliance of earthworms as a source of animal protein. The dietary range covered 40 plant species (63% herbaceous species, 33% trees and woody vine). Tree ferns were the most concentrated source of sugar and starch.

General Impacts

Please follow this link for details on the general impacts of *S. scrofa* compiled by the ISSG.



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Management Info

Poisoning with sodium monofluoracetate (1080) is the most popular method used to control feral pigs. Most pigs vomit within four hours of ingestion. This may be potentially hazardous to nontarget organisms and may result in the survival of the pig. The use of anti-emetics such as metoclopramide, thiethylperazine and prochlorperazine may prevent vomiting at high doses (O'Brien *et al.* 1986, in Wolf and Conover 2003).\r\n A vaccine for pseudorabies and swine brucellosis in fish meal bait may be used in late summer (when natural food supplies are low) to control these diseases (Fletcher *et al.* 1990, in Wolf and Conover 2003).\r\n In the mid 1900s New Zealand conservation practitioners applied mainland hunting techniques to eradicate feral pig populations from small islands (<200 ha, Veitch and Bell, 1990, in Cruz *et al.* 2005). More recently poisoning techniques have been developed to control or eradicate feral pig populations (Choquenot et al., 1990; O'Brien and Lukins, 1990, in Cruz *et al.* 2005). Hunting and poisoning techniques used in combination, now facilitate pig eradication efforts on larger islands (Lombardo and Faulkner, 2000, Schuyler et al., 2002, Veitch and Bell, 1990, in Cruz *et al.* 2005).\r\n

In Hawaii, snaring has been used to control pigs within 600–800 km2 fenced enclosures located in remote areas of rain forest in the Haleakala National Park (Maui) (Anderson and Stone 1993). Many people place a high cultural value on pigs (ie: using them as a food convenient food source) so that removing them from designated areas may not be acceptable without a clear idea of the benefits. Snaring would is not always be an acceptable method of control. In addition, the fact that pigs are highly mobile means it is uneconomic for an individual landowners or controlling agency to control them (as pigs as they quickly move in from adjacent properties to replace the removed ones).\r\n

Much wisdom and insight can be gained from the case study of pig removal from Santiago Island in the Galapagos Archipelago (off the coast of Ecuador). Factors that proved critical to the successful eradication of the feral pig on the island were: (1) a sustained effort, (2) an effective poisoning campaign, (3) a hunting program, (4) access to animals by cutting more trails and, (5) an intensive monitoring program. Throughout the 1970s and 1980s, hunting effort was low (<500 hunter-days/year), while in the early 1990s effort increased but fluctuated. In contrast, the revised campaign in the mid-1990s resulted in a continuous, minimum annual effort of 1500 hunter-days/year. Hunter access to pigs was critical. Extra trails were cut and goats were not hunted in order to keep vegetation suppressed (allowing hunters and dogs access to all areas of the island). Motivating hunters was a continual challenge, especially when pigs were at low densities. However, social, moral boosting events and financial incentives maintained hunter motivation. While the poisoning campaign killed relatively few pigs compared to hunting, the low cost of the poisoning made such efforts especially cost-effective. The compounds used were toxic to most species, and thus the pros of using them for eradication had to be balanced with the potential impact on non-target species (Donlan et al., 2003a, in Cruz et al. 2005). In 2000, six months after the last pig was shot, the last pig was poisoned following an intensive monitoring effort. A sustained monitoring effort was critical to successful eradication. The lack of such an effort is responsible for many eradication failures (Campbell et al., 2004, in Cruz et al. 2005).

Pathway

Expansion into new areas can result from transport for hunting, escape from confined facilities, dispersal of wild populations and escape of domestic swine from free ranging commercial ranches (Gipson Hlavachick And Berger 1998, in Wolf and Conover 2003).Released as food.

Principal source:

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ALIEN RANGE

[1] AMERICAN SAMOA [7] AUSTRALIA [1] BRAZIL [7] COOK ISLANDS [1] DOMINICA [2] ECUADOR **[1]** FRANCE [1] FRENCH SOUTHERN TERRITORIES [1] INDIA [9] KIRIBATI [2] MAURITIUS [1] MEXICO [1] MONTSERRAT [7] NEW CALEDONIA [8] NEW ZEALAND [4] NORTHERN MARIANA ISLANDS [1] PALAU [1] PITCAIRN [1] REUNION [2] SAMOA [1] SOUTH AMERICA [22] UNITED STATES [1] WALLIS AND FUTUNA

[1] ARGENTINA [1] BAHAMAS [1] CHILE [1] CURACAO [1] DOMINICAN REPUBLIC [4] FIII [8] FRENCH POLYNESIA [1] GUAM [1] JAMAICA [1] MARSHALL ISLANDS [1] MAYOTTE [3] MICRONESIA, FEDERATED STATES OF [1] NAURU [1] NEW GUINEA [1] NIUE [1] PAKISTAN [13] PAPUA NEW GUINEA [1] PUERTO RICO [1] SAINT LUCIA [8] SOLOMON ISLANDS [1] TONGA [1] VIRGIN ISLANDS, U.S.

Red List assessed species 281: EX = 7; EW = 5; CR = 109; EN = 81; VU = 54; LR/nt = 1; NT = 14; DD = 1; LC = 9;

Abutilon sandwicense CR Alectryon macrococcus CR Alsinidendron lychnoides CR Alsinidendron trinerve CR Anas aucklandica VU Aphelocoma insularis NT Araucaria hunsteinii LR/nt Argyroxiphium sandwicense VU Bidens conjuncta VU Bidens populifolia VU Bonamia menziesii CR Bulimulus darwini VU Calamagrostis expansa VU Callerya neocaledonica CR Canavalia molokaiensis CR Casuarius bennetti NT Chamaesyce deppeana CR Chamaesyce remyi CR Chamaesyce sparsiflora VU Cheirodendron dominii EN Christella boydiae EN Clermontia drepanomorpha EN Clermontia lindseyana EN Clermontia pyrularia CR Clermontia waimeae EN Coenocorypha aucklandica NT

Acacia koaia VU Alphitonia ponderosa VU Alsinidendron obovatum CR Alsinidendron viscosum CR Anas wyvilliana EN Apteryx haastii VU Argyroxiphium kauense CR Astelia waialealae CR Bidens cosmoides EN Bobea sandwicensis VU Branta sandvicensis VU Buteo solitarius NT Calamagrostis hillebrandii EN Camarhynchus pauper CR Caretta caretta EN Cenchrus agrimonioides CR Chamaesyce halemanui CR Chamaesyce rockii CR Charpentiera densiflora CR Chelonia mydas EN Clermontia calophylla EN Clermontia hawaiiensis VU Clermontia peleana EW Clermontia tuberculata EN Coccyzus ferrugineus VU Colubrina oppositifolia CR



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Ctenitis squamigera CR Cyanea asarifolia CR Cyanea crispa CR Cyanea eleeleensis CR Cyanea horrida CR Cyanea st-johnii CR Cyanea truncata EW Cyclura cornuta **VU** Cyrtandra giffardii EN Cyrtandra polyantha CR Dasyornis brachypterus EN Diomedea antipodensis VU Diomedea epomophora VU Ducula galeata EN Engaeus martigener EN Engaewa similis LC Epicrates monensis EN Erythrura gouldiae EN Euastacus australasiensis LC Euastacus bidawalis EN Euastacus brachythorax EN Euastacus claytoni EN Euastacus dalagarbe CR Euastacus diversus EN Euastacus fleckeri EN Euastacus girurmulayn CR Euastacus guruhgi CR Euastacus hirsutus EN Euastacus jagabar CR Euastacus maccai EN Euastacus mirangudjin CR Euastacus pilosus EN Euastacus rieki EN Euastacus setosus CR Euastacus spinichelatus EN Euastacus suttoni VU Euastacus valentulus LC Euastacus yanga LC Euastacus yigara CR Euphorbia haeleeleana EN Gallicolumba sanctaecrucis EN Gallinula pacifica CR Gallirallus sylvestris EN Geocrinia vitellina VU <u>Gymnomyza aubryana</u> CR Hemignathus parvus VU Hesperomannia arbuscula CR Hibiscus clayi CR Hypericum corsicum LC Labordia cyrtandrae CR Leptodactylus fallax CR Lioscincus steindachneri EN Litoria lorica CR Litoria nyakalensis CR

Cvanea acuminata CR Cyanea asplenifolia CR Cyanea dunbariae CR Cyanea glabra CR Cyanea pinnatifida EW Cyanea superba EW Cyclura collei CR Cyclura stejnegeri EN Cyrtandra kaulantha CR Cyrtandra waiolani EW Dermochelys coriacea CR Diomedea dabbenena CR Diploglossus montisserrati CR Emoia adspersa EN Engaeus urostrictus VU Engaewa walpolea EN Eretmochelys imbricata CR Euastacus armatus DD Euastacus balanesis EN **Euastacus bindal CR** Euastacus clarkae CR Euastacus crassus EN Euastacus dharawalus CR Euastacus eungella CR Euastacus gamilaroi CR Euastacus gumar EN Euastacus guwinus CR Euastacus hystricosus EN Euastacus jagara CR Euastacus maidae CR Euastacus monteithorum CR Euastacus polysetosus EN Euastacus robertsi CR Euastacus simplex VU Euastacus sulcatus VU Euastacus urospinosus EN Euastacus wiowuru NT Euastacus yarreansis VU Eugenia koolauensis EN Gallicolumba salamonis **EX** Gallinula nesiotis VU Gallirallus lafresnayanus CR Gardenia mannii CR Gouania vitifolia CR Hemignathus lucidus CR Hesperomannia arborescens CR Hibiscadelphus woodii CR Himantoglossum adriaticum LC Icterus oberi CR Laterallus spilonotus VU Lewinia muelleri VU Litoria dayi EN Litoria nannotis EN



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Litoria rheocola EN Loxops coccineus EN Marmorosphax kaala CR Marmorosphax taom CR Mastacomys fuscus NT Megacrex inepta NT Megapodius laperouse EN Melamprosops phaeosoma CR Melicope saint-johnii EN Metrosideros bartlettii EN Mimus trifasciatus CR Moho bishopi **EX** Myadestes lanaiensis CR Myadestes obscurus VU Nannoscincus garrulus EN Nannoscincus manautei CR Nesotriccus ridgwayi VU Numenius tahitiensis VU Oreomystis bairdi CR Palmeria dolei CR Pelagodoxa henryana CR Phalacrocorax colensoi VU Phalacrocorax onslowi CR Phlegmariurus nutans CR Phyllostegia kaalaensis CR Pinaroloxias inornata VU Potorous longipes EN Pritchardia glabrata EN Pritchardia lanaiensis EN Pritchardia limahuliensis CR Pritchardia perlmanii EN Procellaria conspicillata VU Psephotus chrysopterygius EN Pseudonestor xanthophrys CR Psittacula eques EN Pteralyxia kauaiensis EN Pterodroma axillaris EN Pterodroma caribbaea CR Pterodroma leucoptera VU Pterodroma phaeopygia **CR** Pterodroma solandri VU Puffinus auricularis CR Puffinus huttoni EN Rhacodactylus auriculatus LC Rhionaeschna galapagoensis EN Rhynochetos jubatus EN Setonix brachyurus VU Sus cebifrons CR Sus philippensis VU Tacheocampylaea cyrniaca EN Tacheocampylaea romagnolii CR Taudactylus diurnus EX Taudactylus rheophilus CR Thalassarche steadi NT

Lonchura stygia NT Marmorosphax boulinda VU Marmorosphax montana VU Marmorosphax tricolor LC Masticophis anthonyi CR Megalurus albolimbatus VU Megapodius pritchardii EN Melicope balloui EN Mergus australis EX Mimus macdonaldi VU Mixophyes fleavi EN Moho braccatus **EX** Myadestes myadestinus EX Myadestes palmeri CR Nannoscincus hanchisteus CR Nannoscincus rankini VU Nothocestrum peltatum CR Oedodera marmorata CR Oreomystis mana EN Paroreomyza montana EN Phaeognathus hubrichti EN Phalacrocorax featherstoni EN Phalanger alexandrae EN Phylloscopus amoenus VU Phyllostegia mollis CR Potamon fluviatile NT Pritchardia affinis CR Pritchardia kaalae CR Pritchardia lanigera EN Pritchardia napaliensis CR Pritchardia viscosa CR Procellaria parkinsoni VU Pseudobulweria rostrata NT Pseudophryne pengilleyi EN Psittirostra psittacea CR Pterodroma arminjoniana VU Pterodroma brevipes VU Pterodroma hasitata EN Pterodroma magentae CR Pterodroma sandwichensis VU Pteropus mariannus EN Puffinus bulleri VU Puffinus newelli EN Rheobatrachus silus **EX** Rhynchomeles prattorum EN Schiedea kaalae CR Simiscincus aurantiacus VU Sus oliveri EN Sylvilagus graysoni EN Tacheocampylaea raspailii VU Taudactylus acutirostris CR Taudactylus pleione CR Tetraplasandra gymnocarpa CR Thylogale calabyi EN



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Tinostoma smaragditis EN Todiramphus godeffroyi CR Trigonostemon cherrieri CR Typhlops biminiensis NT Urosaurus clarionensis VU Vini ultramarina EN Xylosma crenatum CR Todiramphus farquhari NT Todiramphus ruficollaris VU Turnix melanogaster VU Urera kaalae CR Vestiaria coccinea VU Xantusia riversiana LC

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Summary: This report reviews available information on the adverse effects of 14 alien vertebrates considered to be �significant invasive species on islands of the South Pacific and Hawaii, supplementing the authors � experience with that of other workers.

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IUCN 2010. IUCN Red List of Threatened Species. Version 2010.4.

Summary: The IUCN Red List of Threatened Species provides taxonomic, conservation status and distribution information on taxa that have been globally evaluated using the IUCN Red List Categories and Criteria. This system is designed to determine the relative risk of extinction, and the main purpose of the IUCN Red List is to catalogue and highlight those taxa that are facing a higher risk of global extinction (i.e. those listed as Critically Endangered, Endangered and Vulnerable). The IUCN Red List also includes information on taxa that are categorized as Extinct or Extinct in the Wild; on taxa that cannot be evaluated because of insufficient information (i.e. are Data Deficient); and on taxa that are either close to meeting the threatened thresholds or that would be threatened were it not for an ongoing taxon-specific conservation programme (i.e. are Near Threatened).

Available from: http://www.iucnredlist.org/ [Accessed 25 May 2011]

IUCN/SSC Invasive Species Specialist Group (ISSG)., 2010. A Compilation of Information Sources for Conservation Managers.

Summary: This compilation of information sources can be sorted on keywords for example: Baits & Lures, Non Target Species, Eradication, Monitoring, Risk Assessment, Weeds, Herbicides etc. This compilation is at present in Excel format, this will be web-enabled as a searchable database shortly. This version of the database has been developed by the IUCN SSC ISSG as part of an Overseas Territories Environmental Programme funded project XOT603 in partnership with the Cayman Islands Government - Department of Environment. The compilation is a work under progress, the ISSG will manage, maintain and enhance the database with current and newly published information, reports, journal articles etc.

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Butaud and Meyer, pers. comm. 2007

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Summary: English:

The species list sheet for the Mexican information system on invasive species currently provides information related to Scientific names, family, group and common names, as well as habitat, status of invasion in Mexico, pathways of introduction and links to other specialised websites. Some of the higher risk species already have a direct link to the alert page. It is important to notice that these lists are constantly being updated, please refer to the main page (http://www.conabio.gob.mx/invasoras/index.php/Portada), under the section Novedades for information on updates.

Invasive species - mammals is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Mam%C3%ADferos [Accessed 30 July 2008]

Spanish:

La lista de especies del Sistema de informaci\u00f3n sobre especies invasoras de m\u00f3xico cuenta actualmente con informaci\u00f3n aceca de nombre cient\u00f3fico, familia, grupo y nombre com\u00f3n, as\u00f3 como h\u00f3bitat, estado de la invasi\u00f3n en M\u00f3xico, rutas de introducci\u00f3n y ligas a otros sitios especializados. Algunas de las especies de mayor riesgo ya tienen una liga directa a la p\u00f3gina de alertas. Es importante resaltar que estas listas se encuentran en constante proceso de actualizaci\u00f3n, por favor consulte la portada

(http://www.conabio.gob.mx/invasoras/index.php/Portada), en la secci@n novedades, para conocer los cambios.

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FULL ACCOUNT FOR: Sus scrofa

ITIS (Integrated Taxonomic Information System), 2005. Online Database Sus scrofa

Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.

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