

Catalysing conservation action and raising the profile of pangolins - the IUCN-SSC Pangolin Specialist Group (PangolinSG)

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Pangolins, or scaly anteaters (Manidae, Pholidota), are atypical mammals covered in individual, overlapping scales comprised of keratin. There are eight extant species which inhabit tropical and subtropical forests, dry woodlands and open savannahs of the Old World. Four are native to Asia: the Chinese Pangolin *Manis pentadactyla*, Sunda Pangolin *M. javanica*, Thick-tailed Pangolin *M. crassicaudata* and Philippine Pangolin *M. culionensis*, while four species inhabit sub-Saharan Africa: Temminck's Ground Pangolin *Smutsia temminckii*, the African White-bellied Pangolin *Phataginus tricuspis*, the Black-bellied Pangolin *Uromanis tetradactyla* and the Giant Ground Pangolin *S. gigantea*. It is understood pangolins evolved from the Carnivora around 70 million years ago, dispersing from Europe into Africa and subsequently South and Southeast Asia. Further, they are myrmecophagous and provide an important ecosystem service through the regulation of ant and termite populations.

Pangolins worldwide are threatened by exploitation for consumptive use, by habitat loss and fragmentation and by land management practices. They have been consumed locally through history across Asia, however in the last few decades local use has largely been replaced by illicit international trade, which takes place on an industrial scale and is widespread in the region. For example in the last few years seizures involving up to 17 tonnes of pangolins have been made and have taken place in Cambodia, China, India, Indonesia, Malaysia, Myanmar, Nepal, Philippines, Singapore, Thailand and Vietnam. This illegal trade occurs despite pangolins having protected status under national legislation throughout their ranges in addition to being listed in CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) Appendix II, with an annotation of zero export quotas for the four Asian species, which prohibits international trade in wild-caught specimens for commercial purposes. This trade is driven by demand for pangolin meat and scales in East Asia, primarily in China and Vietnam, where pangolin meat is considered a delicacy and pangolin scales are used as an ingredient in traditional Asian medicine. In Africa, pangolins are also hunted for bush meat and their scales are used for cultural and ethno-medicinal purposes in traditional African bush medicine, 'muti' or 'juju'. The installation of electric fences also comprises a serious threat to the ground-dwelling African species and concomitantly there is now a tangible threat from intercontinental trade in African pangolins to East Asian markets.

The Chinese and Sunda Pangolins are categorized as Endangered on the IUCN (World Conservation Union) Red List of Threatened Species™ as well as being ranked in the top 100 Evolutionarily Distinct and Globally Endangered (EDGE) mammals. Moreover, evidence suggests the conservation status of the remaining six species is worsening, though they are currently categorized as Near Threatened or of Least Concern. Historically pangolins have received limited research attention, thus there is a poor understanding of their conservation needs, which further escalates the urgency for conservation action. The IUCN-SSC Pangolin Specialist Group (PangolinSG) was re-established in early 2012 in recognition of the deteriorating conservation status of pangolins twinned with this lack of knowledge. Although a previous IUCN-SSC Pangolin Specialist Group existed between 1996 and 2004, the current PangolinSG was conceived in recognition that while pangolins are under increasing threat and their ecology and conservation needs are poorly understood, tangible conservation benefits can be reaped by engaging researchers currently involved in pangolin conservation as a pro-active network of expert volunteers through the auspices of an IUCN-SSC specialist group.



Figure 1. Adult male Sunda Pangolin *Manis javanica*. Photo taken at the Carnivore & Pangolin Conservation Programme, Vietnam. Photo by Dan Challender.

IUCN-SSC (World Conservation Union – Species Survival Commission) specialist groups form part of the IUCN-SSC's 7,500+ strong volunteer network, which functions through specialist groups, Red List authorities

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and task forces which work towards a vision of ‘*a world that values and conserves present levels of biodiversity*’. Groups are governed and operate independently by leading experts within IUCN-SSC guidelines, and have memberships ranging from a handful of experts to more than 700 members. The PangolinSG has 76 members from 25 countries and exists as a quorum of scientific expertise on pangolins and their conservation, comprising, *inter alia*, field biologists, zoologists, veterinarians, geneticists and social scientists. The group’s mission is to “*be a global voice for pangolins by working to advance worldwide knowledge and understanding of pangolins, their conservation, natural history and ecology and to catalyze action to meet these needs.*”

Core activities of the PangolinSG include updating species assessments on the IUCN Red List of Threatened Species and providing advice to the IUCN and other conservation organizations where appropriate. The group is also working towards its mission by building awareness of pangolins and their conservation predicament, raising funds for conservation research and action, and both acting as a catalyst for and undertaking urgently needed behavioral, ecological, biological, and human dimensions research. Since its re-establishment in February 2012, the PangolinSG has held two meet-

ings of members, collated current knowledge of pangolin status and trends worldwide, and has launched a website (www.pangolinsg.org) with accompanying Facebook and Twitter social media sites. In the next 12 months the PangolinSG will publish a monograph showcasing the eight species of pangolin, organize its first conservation conference, update Red List assessments and devise conservation strategies for the eight pangolin species. The group is currently seeking researchers, particularly M.Sc. and Ph.D. candidates, with whom to pursue research and for which limited in-kind and financial support is available from current PangolinSG members. Priority research areas include: 1) understanding demand for pangolin commodities in consumer markets in Asia; 2) understanding illicit hunting and international trade in Asia; 3) examining intercontinental trade between Africa and Asia; 4) investigating pangolin ecology in Africa and Asia; and 5) determining protocols for the captive husbandry, rescue, rehabilitation and release of pangolins in Africa and Asia. These actions can both inform current conservation interventions and help mitigate the threats to pangolins. For more information on the IUCN-SSC PangolinSG visit www.pangolinsg.org.