

Extant giraffe taxonomy: statement from the IUCN SSC ASG International Giraffe Working Group

IGWG

Currently the giraffe is recognised as one species *Giraffa camelopardalis* with nine extant subspecies: *G. c. camelopardalis* (Nubian), *G. c. angolensis* (Angolan), *G. c. antiquorum* (Kordofan), *G. c. giraffa* (Cape), *G. c. peralta* (West African), *G. c. reticulata* (reticulated), *G. c. rothschildi* (Rothschild's), *G. c. thornicrofti* (Thornicroft's) and *G. c. tippelskirchi* (Masai).

The giraffe is a widespread and phenotypically diverse species. As a result, giraffe taxonomy has been revised a number of times since the late 19th century. Lydekker (1904) described two giraffe species: the monospecific reticulated giraffe (*G. reticulata*) and the netted giraffe (*G. camelopardalis*) containing ten subspecies. Dagg (1971) proposed the generally accepted taxonomy of one species consisting of nine subspecies. East (1998) proposed six population groups, though he did not describe these as taxonomic subspecies. Seymour (2001) supported at least six valid subspecies using phenotypic and genetic analyses. In 2007, genetics research on six (Brown *et al.* 2007) and eight (Hassanin *et al.* 2007) of the subspecies indicated that they are not interbreeding in the wild and are potentially reproductively isolated. In 2011, Groves and Grubb (2011) proposed eight full species of giraffe (subsuming the Rothschild's giraffe into the Nubian giraffe).

The IUCN SSC ASG International Giraffe Working Group (IGWG) recommends the following genetic samples should be collected and analysed as a priority:

1. Cameroon: northern areas including Waza, Bouba Ndjida, Faro and Bénoué National Parks and surrounding hunting zones
2. Central African Republic: Manovo-Gounda-St. Floris National Park
3. Chad: Zakouma National Park
4. Democratic Republic of Congo: Garamba National Park
5. Ethiopia: Gambella National Park
6. South Sudan: Boma National Park
7. Southern Tanzania: southern areas including Katavi, Ruaha and Selous National Parks and surrounding areas
8. Zimbabwe: Hwange National Park and surrounding areas
9. Zambia: Sioma-Ngwezi National Park and surrounding areas

Morphological analyses of additional museum specimens must also be prioritised.

Conservation of each currently recognised giraffe subspecies is important, as each of these groups represents unique evolutionary diversity within the genus *Giraffa* and in the remaining terrestrial large mammal fauna. The Rothschild's and West African giraffe are recognised as endangered on the IUCN Red List. Ongoing conservation evaluations of other giraffe subspecies (e.g. Thornicroft's, reticulated, Masai and Kordofan) will likely result in elevated conservation rankings for these groups as well.

Genetic sampling and analysis of the remaining populations is currently being undertaken in collaboration with the Giraffe Conservation Foundation and the Biodiversity and Climate Research Center, Senckenberg Museum, Germany.

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