

Position Statement

Standing Of White (Leucistic and Albinistic) Lions and Tigers in the Association's Species Management Programs

Background

White forms of wildlife that are not normally white in their natural state are typically caused as a result of two conditions; leucism which affects some pigmentation (often white with blue eyes) and albinism (typically white all over with red/pink eyes). Both conditions are commonly encountered in many domestic animal strains. White lions and tigers are both leucistic forms, whilst most white wallabies are typically albino.

Leucism is a condition characterised by the reduction of all skin pigmentation and is observed in both animals and humans¹. Leucistic animals appear white in colour. This observable characteristic is expressed during the early stages of embryonic development and describes an effect rather than a particular gene. As the development of the skin is separate from the development of the eyes, animals expressing leucism tend to lack skin pigmentation but have pigmented (often blue) eyes. This is different from albinism, which is caused by a lack of melanin; albinistic animals have white pigmentation and red eyes. Albinism is a congenital disorder which is associated with a number of vision defects.

Leucism and albinism are observed in a range of species from tigers² and lions³ to reptiles⁴, amphibia⁵, birds⁶, seals⁷, rodents⁸ and marsupials⁹. Due to their uniqueness they are often selectively bred, which can lead to health problems. Health problems may be more frequently encountered due to the inbreeding which is typically required to maintain the white characteristic. They include cleft palates, immune deficiencies, mental impairments, spinal problems and issues with lung development¹⁰. An important consideration for the southern hemisphere is that leucistic and albinistic specimens can be more prone to UV related skin conditions (including cancer) due to the lack of skin pigmentation.

The long-term welfare of the individual should be considered before animals exhibiting leucism or albinism are selectively bred, irrespective of whether the species is in a zoo breeding program.

Position

The Association does not manage any programs for the propagation of white colour morphs, as these are not taxonomically distinct forms and make little contribution to biodiversity conservation in the context of capturing genetic diversity. Therefore leucism and albinism

are not desired traits for the Zoo and Aquarium Association’s ASMP^a programs for lions or tigers. The ASMP programs strive to maintain genetic diversity representative of wild populations, acknowledging that on occasion white animals will appear within the context of a managed program. Decisions regarding breeding are not made on colour type.

The occurrence of white lions and tigers in the wild is rare and they do not form a discrete or sustained portion of any population. White lions and tigers propagated in captivity tend to have reduced gene diversity (and associated fitness) and so are not optimum candidates for ASMP programs. The Association does not advocate the continued propagation of either leucistic or albinistic traits in its formally managed programs. Where the targeted acquisition or propagation of white lions or tigers is desired by a member of the Association, a commitment equal to the average holding of the Program species needs to be maintained. Any white animals are considered additional and external to the program, unless there is a proven overriding benefit to the goals of that program.

References

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^a The ASMP (Australasian Species Management Program) is the species management arm of the Zoo and Aquarium Association, see www.zooaquarium.org.au