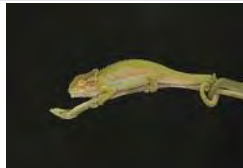


SCIENTIFIC AUTHORITY

Process to review opinion on risks and controls associated with colour variants and intensive breeding in the game industry



BACKGROUND

- In 2009, the Scientific Authority was asked to advise on the potential (genetic) risks associated with breeding of colour variants
- This was due to queries from various stakeholders, linked to apparent increase in the number of game farms wanting to undertake breeding of colour variants and uncertainty about how to respond at provincial and national level



2010 OPINION OF THE SCIENTIFIC AUTHORITY

three main points:

1. Breeding for the expression of colour variants did not add value to conservation efforts for the species concerned and should not be incentivized.
2. At the time, breeding for the expression of colour variants was not regarded as a high risk to wild populations as long as the ratio of colour variants was low relative to the overall population size.
3. Recommended that the extent of breeding for colour variants should be monitored and evaluated on a regular basis (DEA was going to look into mechanisms to facilitate monitoring)



Since 2010

Remains an unresolved issue that keeps on resurfacing

- The extent of selective breeding and associated intensification within the game industry has increased;
- Based on some analyses, there is likely to be increased investment in breeding for colour or morphological variants;
- Government has released a National Biodiversity Economy Strategy, which includes game breeding;
- Some stakeholders believe that this greatly increases the risk associated with selective breeding

The Scientific Authority was therefore asked to review the evidence and to update its opinion regarding the risks and if/how they should be managed.



The Scientific Authority review process

- The Scientific Authority process is running simultaneously with the public dialogue managed by Dept of Environmental Affairs.
- The review builds upon work already undertaken by the Scientific Authority*
- The review will follow latest assessment methodologies, specifically designed to assess evidence/ risk within a policy context, e.g. those used by the Intergovernmental Platform on Biodiversity & Ecosystem Services (IPBES).

* e.g. report developed by Stellenbosch university, inputs from Scientific Authority working group



FRAMEWORK FOR REVIEWING EVIDENCE (e.g. IPBES framework)

1. Define concerns to (i) identify the potential harms, and (ii) frame the questions accurately appropriately so that the evidence can be assessed as objectively as possible.

Main Concerns Raised (as submitted to Scientific Authority*)

- Impact of colour variants on the national population (e.g. inbreeding, hybridization, loss of fitness)
- Impact of shift from extensive to intensive farming systems (e.g. fragmentation of landscape, predator control, resistant parasites due to veterinary inputs, loss of conservation value, implications for hunting, implications for regulation of 'wildlife')

* These are not necessarily the views of the Scientific Authority, but have been raised by different interest groups

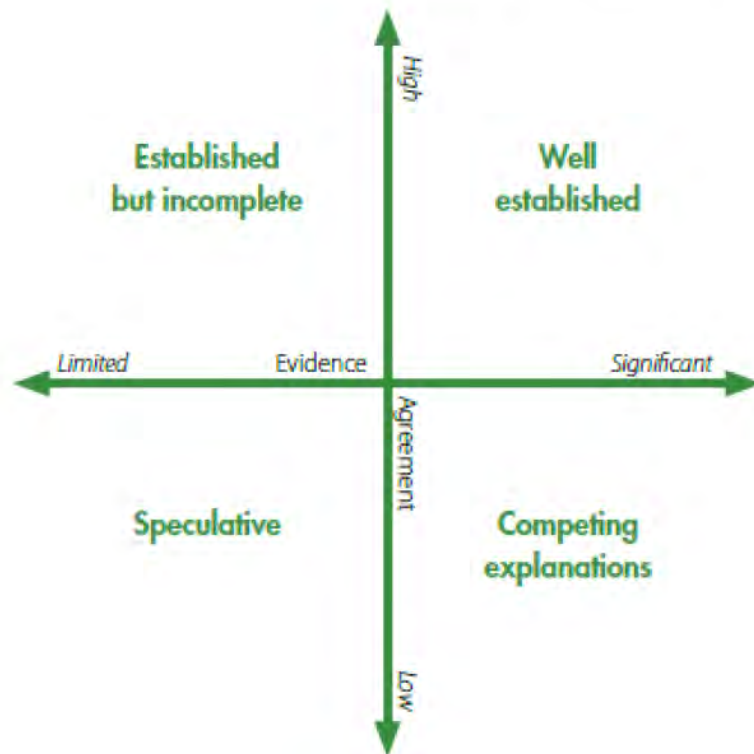
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FRAMEWORK FOR REVIEWING EVIDENCE (e.g. IPBES framework)

Assessing the evidence relating to potential harms or policy questions (agreement/ significance)

1. **Well established:** high agreement based on significant evidence
2. **Established but incomplete evidence:** high agreement based on limited evidence
3. **Competing explanations:** low agreement, albeit with significant evidence
4. **Speculative:** low agreement based on limited evidence



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FRAMEWORK FOR REVIEWING EVIDENCE (e.g. IPBES framework)

Assessing the evidence relating to potential harms or policy questions (probability)

- | | |
|-----------------------------------|--------------------------------|
| a. Virtually certain: | >99% probability of occurrence |
| b. Very likely: | >90% probability |
| c. Likely: | >66% probability |
| d. About as likely as not: | >33-66% probability |
| e. Unlikely: | <33% probability |
| f. Very unlikely: | <10% probability |
| g. Exceptionally unlikely: | <1% probability |



OUTPUT:

report from the Scientific Authority to
the Minister/ Department of Environmental
Affairs

Planning for completion of initial report by end of April
2016



THANK YOU

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