

MORPHS, MUTATIONS AND SELECTIVE BREEDING: PROBLEMS WITH PEDIGREE BIRDS AND REPTILES

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As the popularity of exotic pets continues to expand, so too does the interest in their selective breeding. The deliberate propagation of animals for specific colour/pattern mutations or “morphs” has led to a spectrum of phenotypes being available in many species. The “fashion” of changes being seen varies based on taxon. In the avian world, mutations have been popular for many decades and many species (for example, the budgerigar, zebra finch and domestic chicken) are selectively bred to meet a certain show standard or set of “ideals”, for which they are judged on at exhibitions. This has led to a change in many physical attributes, with birds being far removed from their natural appearance. In the reptile world by contrast, there is no exhibition scene and animals are bred based on the principles of individual breeders and on what is most popular with other hobbyists. Animals are bred extensively for colour and pattern, but not so much for shape/size, as in aviculture.

There is growing interest in genetic disorders associated with selective breeding in companion animals and on the implications of those disorders on animal welfare. In comparison with dogs and cats, little research has been conducted on such disorders in exotic pets. However, there are an increasing number of such disorders being recognised in the field of exotics (Rose and Williams, 2014). This is of significance for veterinary professionals dealing with these species. The BVA has released a position statement on genetic issues seen in dogs and the breeding of such animals (BVA – Dog Breeding). Whether a similar position statement is required for exotics is up for question.

Issues covered in this presentation include:

- Hereditary neurological disorders in boids (e.g. “wobbler syndrome” in the spider royal python and jaguar carpet python)
- Miscellaneous hereditary disorders in boids (spinal kinking in the caramel albino mutation, jaw defects in the super cinnamon mutation, reproductive failure in the desert mutation)
- Scale-less reptiles – are there problems?
- Selective breeding of the budgerigar and the ethics of the so called modern-day “English” or “show” budgie.

References

- BVA. (2014). Dog breeding. Available: <http://www.bva.co.uk/News-campaigns-and-policies/Policies/Companion-animals/Hereditary-defects/>. Last accessed 26/09/2014.
- Rose, MP and Williams, DL. (2014). Neurological dysfunction in a ball python (*Python regius*) colour morph and implications for welfare. *Journal of Exotic Pet Medicine*. 23 (3), 234-239.