

Microchipping exotics and wildlife

MICROCHIPS have become the standard method of absolutely identifying individual animals, being universally easy to read and difficult to tamper with (Cooper, 2002).

For racing horses, dogs in Northern Ireland and – in the next couple of years – dogs in England and Wales, microchipping is/will be mandatory to achieve an unequivocal identification of each animal.

Any dog, cat or ferret that intends to travel within the EU without quarantine must meet all the rules of the pet travel scheme, including being identified with a microchip. Microchipping should be considered as the

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discusses the importance of animal identification through microchips, design advances enabling usage in various animal species and implantation methods

gold standard method for identifying individual animals – regardless of the species.

All things exotic

Many exotic species are controlled by the Convention on International Trade in Endangered Species (CITES) and, as such, there is a legal obligation for identification and certification (for example, all tor-

toises – excluding Horsfield's – are listed and hence must be identified and licensed).

For an animal to be legally captive-bred (in line with CITES and the Wildlife and Countryside Act [WCA] 1981), its parents must have been legally in captivity at the time of egg laying or conception. Without identification and CITES licensing, this is

impossible to prove. Under the act there is a reverse burden of proof – that is, it is for the defendant to prove he or she is innocent, rather than the prosecution to prove guilt – so it is in the interest of owners and breeders of all captive-bred exotic animals to be able to confirm identification in support of their captive-bred status.

Captive-bred birds may have a closed (solid and entire) ring applied when less than 10 days old (when the tarso-phalangeal joint is small enough to get a ring on). It is vital for vets to be aware that if a closed ring is ever removed from a bird for

medical reasons (for example, a broken leg or self-trauma by the ring), or if it becomes illegible, the ring is removed by a vet and simultaneously replaced by a microchip. In smaller birds, placement SC (rather than IM, as is normal in avian patients) will suffice to maintain continuity of proof of provenance.

Wild side

Under the WCA 1981, it is permissible to take a sick or injured protected creature from the wild to tend to it until fit to be released. There is no provision in the act for any action other than release (if fit) or euthanasia.

In the event a wildlife casualty patient requires to be kept longer (more than six weeks) or permanently in captivity then the animal should be microchipped and certified by a suitably qualified and experienced vet as being "a temporary or permanent wildlife casualty".

Suitably worded certificates are available on the AHVLA wildlife website, but, under RCVS rules, no such certificate can be issued unless the animal is identified (that is, microchipped).



Bird microchip prep.

Responsible pet ownership

In a survey it was shown nearly 20 per cent of pet rabbits had escaped or gone missing, while only 20 per cent of UK pet rabbits were microchipped. Only 1.5 per cent of other small mammals and 2.5 per cent of all pet birds have a microchip.

With smaller species in mind, a number of manufacturers now supply smaller, lighter microchips. The small size of these modern devices, combined with newer technology, increases ease of implantation, causes less discomfort for the animal and makes microchipping suitable for almost any captive animal, including small birds, mammals and reptiles.

In the past, manufacturers have advised not to chip birds less than 100g; however, with the advent of genuine "micro" microchips, very small patients (even as small as 15g to 20g) are being regularly microchipped.

Many owners do not realise this, so, to promote microchipping as one aspect of responsible pet ownership for exotic pet owners, vets need to be

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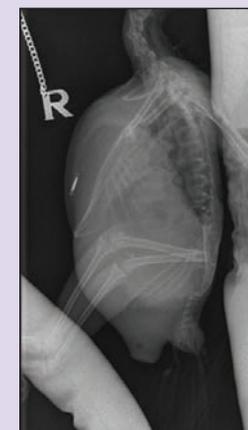
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A lizard microchip.



Above: Microchip in a ferret. Below: A bird microchip.



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Table 1. Adapted British Veterinary Zoological Society guidelines for correct microchip implantation location in various species

Genera	Species	Correct microchip implantation location
Birds	Ostriches	Pipping muscle
	Penguins	SC at base of neck
	All other avian species (if of appropriate size – generally > 100g)	Left pectoral muscle (this should be performed under anaesthetic to avoid pain of IM insertion). Smaller species can be chipped SC
Fish		Midline, anterior to dorsal fin
Amphibia		Lymphatic cavity dorsal lymph sac
Reptiles	Chelonians	SC in left hindleg: • IM in thin-skinned species (this should be performed under anaesthetic to avoid pain of IM insertion) • SC in the tarsal area in giant species
	Crocodylians	Anterior to nuchal cluster or the cranio-lateral tail. This is particularly good for hatchlings of smaller species (where anterior to the nuchal cluster would be difficult) that should be chipped within a few days of birth, as is the case for CITES species. It also has the advantage that if the crocodylian is big, the chip can be read away from the sharp end
	Lizards	Lateral aspect of left femoral area over quadriceps muscle, or SC on caudal half of left flank if too small or legs too skinny or absent
	Snakes	Left flank, anterior to cloaca. In this position the microchip is less likely to interfere with ingestion of very large prey or with handling. It is also much safer for the handler if dealing with venomous species and probably easier to implant, mainly in smaller species where fingers can get in the way
Mammals	Primates	Back of the hand (can be trained to present hand for scanning)
	Elephants	Behind the left ear
	All other mammalian species	Large: left mid-neck SC Medium and small: between scapulae



Microchip scanning.

cation without the stress of catching and restraining the animal. Likewise, automated readers can be placed on tunnels, gates and nest areas of free-living animals in dens or enclosures, so microchips are automatically read without handler intervention.

The implanter is important too. Features such as ergonomic design, non-return "click" systems and removable needles make implantation smoother and subsequent sharps disposal easier and more cost-effective.

Procedure

SC microchip placement may be carried out by vets or suitably trained laypersons, while IM, intracoelemic and other invasive microchip insertion is defined as a veterinary procedure and may only be carried out by a vet.

Table 1 gives recommended anatomical microchip placement by genera. Each individual animal should be checked for a pre-existing microchip prior to any insertion. Microchip placement is carried out in most species with manual restraint; however, the smaller the species, the greater justification for immobilisation with anaesthesia to minimise risk of iatrogenic damage.

References and further reading

Becker B (2008). Pigeon husbandry and racing management. In Chitty J and Lierz M (eds), *BSAVA Manual of Raptors, Pigeons and Passerine Birds*, BSAVA, Gloucester: 14-18.
BVA (2014). *Compulsatory Microchipping of Dogs*, www.bva.co.uk/activity_and_advice/CompulsoryMicrochippingofDogs.aspx
BVZS (2014). *Guidelines for Microchip Transponder Sites*, www.bvzs.org/images/uploads/BVZS_GUIDELINES_FOR_MICROCHIP_TRANSPONDER_SITES.pdf

Cooper M E (2002). British legislation. In Meredith A and Redrobe S (eds), *BSAVA Manual of Exotic Pets* (4th edn), BSAVA, Gloucester: Chapter 24.

Dahlborn K, Bugnon P, Nevalainen T et al (2013). Report of the Federation of European Laboratory Animal Science Associations Working Group on animal identification, *Lab Anim* 47(1): 2-11.

Defra (2013). *Promoting More Responsible Dog Ownership – Summary of Responses to Consultation and Way Forward*, www.defra.gov.uk/consult/2012/04/23/dangerous-dogs-1204

Gruda M C, Pinto A, Craelius A et al (2010). A system for implanting laboratory mice with light-activated microtransponders, *J Am Assoc Lab Anim Sci* 49(6): 826-831.

Microchip Advisory Group (2006). *Code of Practice for Microchip Distributors*, www.bsava.com/Portals/4/knowledgevault/resources/files/MAG_150709_database_code_of_practice.pdf
Microchip Advisory Group (2006). *Microchip Implant Manual Cats/Dogs*, www.bsava.com/Portals/4/knowledgevault/resources/files/MAG_implant_manual.pdf

Scott P (2008). Legal, zoonotic and ethical considerations. In Chitty J and Lierz M (eds), *BSAVA Manual of Raptors, Pigeons and Passerine Birds*, BSAVA, Gloucester: 377-383.

Stockdale B (2008). Passerine bird husbandry and show management. In Chitty J and Lierz M (eds), *BSAVA Manual of Raptors, Pigeons and Passerine Birds*, BSAVA, Gloucester: 19-24.

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proactively raising the subject at every available opportunity. Being sure to scan all patients for a microchip during each consult – regardless of species – is one way to help ingrain the idea of microchipping as the norm with clients. Included in client education about microchipping should be the importance of them ensuring their details are kept up-to-date on the database in the event of house moves or change of pet ownership.

Which to choose?

In addition to size, other factors can affect the most appropriate choice of microchip for exotic patients. Microchips encapsulated with biopolymers are reported to be 10 times stronger than glass chips, less likely to shatter and also weigh less, which can be important in very small species.

Reading distances do also vary between chips from different manufacturers. Some animals do not tolerate handling well and longer reading distances (up to 30cm in some products) will allow identifi-

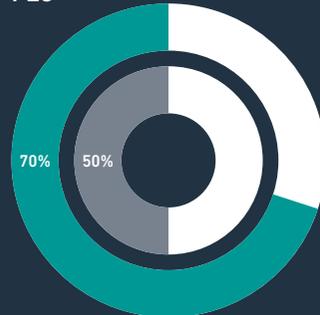
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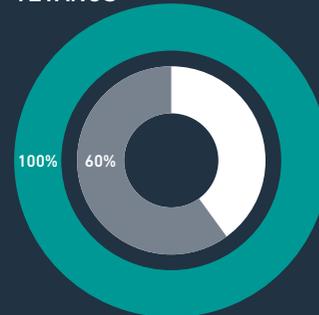
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