Handling Reptiles, Birds and Wildlife

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Introduction
While veterinary support personnel (VSP) are often adept at handling companion animals, they can sometimes be expected to deal with more challenging patients. This presentation will outline general principles and some important specific examples of handling that VSP can apply to some of the more unusual animals that can be presented to veterinary practices.

Appropriate handling serves to minimise the physiological stress these animals undergo during veterinary treatment. While this is true of all animals, it is even more significant for reptiles, birds, and wildlife as they are often prey animals (to which restraint and handling are a prelude to being eaten), may not have tactile contact interactions as part of their normal repertoire of behaviours, and usually have minimal desensitising habituation to handling by humans. Their “preservation reflex” also serves to conceal the true impact of handling on their recovery.

Appropriate handling also serves to decrease the stress and risk for the handler. Many of the reptiles, birds, and wild animals VSP may need to handle can cause very serious, and sometimes life-threatening, injuries. The safety of VSP at work is legally mandated by OHS legislation, but it also makes practice management sense to limit the chance that VSP are injured in the workplace.

General principles
- Safety of handler is paramount
- Be aware of species-specific physical dangers to handler
- Be aware of the zoonotic potential of the species, and practice appropriate hygiene
- Be gentle but firm - animals can sense hesitation
- Allow sufficient time
- Control immediate environment
- Have appropriate assistance
- Be prepared with redundant species-appropriate handling aids/devices
- Learn species-specific techniques
- Ensure the animal is aware of the impending restraint to limit chance of “explosive” defensive action
- Do not be afraid to complement physical restraint with chemical restraint
Reptiles
Reptiles should be housed temporarily in a container that is leak proof, crush proof and secure. Special legal conditions apply for the transport of venomous species. “Chilling” reptiles to slow their metabolism is an entirely unacceptable manner of restraint, and should never be performed.

There are several serious transmissible diseases that could be transferred between reptiles handled without appropriate quarantine measures. At the very least the washing of hands, and handling equipment, in antiseptic between individual should be mandatory.

Useful equipment for handling reptiles includes a range of hooks, tongs, plastic tubes, bags, tubs, and bins. Over-enthusiastic use of tongs has been associated with injuries in snakes, and so care must be taken with their use. Snake hooks or sticks that hold the head and neck in position must also be suitable padded to prevent injury to the animal.

There are specific things to note about classes of reptiles:

Freshwater Turtles are best restrained by hold the edges of the carapace (top shell), either side-to-side, or front-and-back. They have sharp claws, and in some individuals the centre of the plastron and carapace provide the best locations if the fingers and hands of the handler can be held perpendicular to the turtle’s shell. They have glands at either end of the bridge (between plastron and carapace) which discharge a pungent fluid when the turtle feels threatened. All but one of Australia’s freshwater turtle species are “side-necked”. The necks are usually very difficult to straighten and therefore the head can be frustrating to examine. The long-necked species tend to be more tractable, while the short-necked species are more belligerent and likely to bite. One should be careful to avoid the mouth in these individuals as a bite can be very painful.

These animals can move with surprising speed, and care must be taken to ensure that they cannot launch themselves from an examination table. Even minor falls can lead to serious shell trauma.

Lizards are a highly variable group with many handling peculiarities. As a group, they share with their close relatives, the snakes; they have a requirement for support when being handled. They become agitated and more difficult to handle when they do not sense their body being supported. Many species of lizards exhibit tail autotomy where they will “drop” their tails when stressed. Grabbing these animals by the tail will almost certainly lead to a very difficult discussion with the client who owns them. Almost all lizards will bite, and while none are dangerously venomous, the bite from a large individual can cause significant trauma and pain.

Monitor lizards (varanids or goannas) are especially worth note. Their very large size, and muscular active body type, sharp claws and cutting teeth make them especially dangerous. Special attention and care must be taken when handling monitor lizards. Techniques that involved careful pinning of the lizard at the neck/shoulders and tail butt over the back are most successful.

Snakes can be divided into venomous and non-venomous categories for the purposes of handling. Venomous snakes must be accurately identified before the physical examination and should only be handled by experienced, trustworthy, competent handlers. Fortunately there are exceptionally few circumstances where VSP in private practice are going to be expected to handle venomous snakes.
Even if it is thought that the type of snake in a bag is known, do NOT ever just reach in to grab it. Snakes whose identification is not known for certain by the VSP should be treated as “hot” until proven otherwise.

Pythons are the snakes most commonly presented to private veterinary practitioners. If they have been habituated to handling a python is likely to become quite tolerant of it, though there are species and individual specimens that have a temperament that makes it difficult to handle them. Pythons that have just fed will be more inclined to bite, and snakes should be allowed to digest their meals until there is no visible bulge in their body before being handled.

A snake hook can serve a useful purpose even though we are not dealing with a venomous snake. Although a snake may be quite accustomed to handling, the movement and sensation of the initial ‘grab’ can surprise the snake and elicit a reflex defensive bite. The snake hook can be used to gently rouse a resting snake, and partially lift its body, before the free hand can move in and properly lift the snake from the enclosure, where after the hook is put away to free that hand, and allow greater support of the snake during handling. Unless there is a need to medicate the snake, inspect its mouth or reconfirm its sex, you should never grab it anywhere near its head or along the first third of its body. Restraint of a python in the cranial third tends to aggravate and stress the snake. Similarly, tension applied to the caudal third also stresses the snake as well. Instead, support the entire snake with your palms pointing upward. If it attempts to crawl forward, you can alternate your hands one in front of the other, so that the snake will move along the equivalent of a never-ending treadmill.

**Birds**

Birds can be most easily temporarily contained in cardboard boxes, but care must be taken with birds like parrots who may chew their way out of such confinement. The sense of concealment decreases stress on the bird, and tends to lessen the likelihood of excessive flapping. If wire cages or pet carriers are employed then a loose towel or sheet (which will still permit ventilation, but provide a physical barrier) should be draped over the cage to provide that sense of “being hidden”.

The most important thing to understand about handling birds is that they require the ability to move their whole body in order to ventilate. A tight grip will mean the bird is unable to ventilate properly, and may even lead the bird to ventilator failure. Hands restraining the body of the bird should form a “cage” around the body very slightly larger than the bird at inspiration and not close down on the body during expiration. If a towel is used then care must be taken to ensure it is not wrapped too tight, and that ventilation can still be observed.

**Parrots and cockatoos** are the most commonly encountered birds in private veterinary practice. They usually have a powerful beak, and even smaller species can inflict a painful bite. A macaw is capable of severing a finger. The head of these birds should be restrained initially, and this is best effected by grasping the head from behind with digits pressed firmly against the base of the mandible on both sides. This leaves the ventral space between the mandibles free (so the bird can breathe), but affords excellent control of the beak.

Many handlers of parrots use gloves to protect their hands from being bitten, but it often decreases sensitivity to the bird’s subtle movements and makes handling more difficult. A towel or cloth allows more sensitive handling, and can be draped over the parrot’s head to help control the loud vocalisations.

When dealing with waterbirds, special attention must be paid to the bird’s beak. The beaks of this type of bird are often equipped with a sharp point, as well as knife-sharp ridges, and they can cause very serious injuries. Controlling and restraining the beak is therefore the
first priority when working with these birds. Care must be taken to protect a handler’s eyes during these manoeuvres, and protective glasses are useful aids.

Many aquatic birds have sharp claws and they will use these to scratch, and some will use their wings to deliver powerful strikes. Immediately the beak is under control the handler should move the secure the feet and wings. In the case of birds such as pelicans, two handlers may be required. The bird should have the long beak secured, and then held under one arm with the body supported. The arm supporting the body may also grasp the tibiotarsus of each leg, and use those to hold the legs flexed against the body. In pelicans and other diving birds that have no external nares, the beak should not be restrained in a closed position, but should have a wedge placed between the beaks so that the bird can continue to ventilate.

Pigeons are more amenable to handling than other birds, but they will surprise novices with a large number of feathers falling out when they are loosely handled. This causes little problem to the bird, but can be a shock to the handler. The traditional method of handling domestic pigeons by fanciers, by grasping the hindquarters including the wing tips, rump and tail, and both feet, is not suitable for other species of pigeons and doves. These other birds will struggle and often damage their complex shoulder joints as they attempt to flap and escape.

Raptors generally use their powerful talons as their primary defence, and the flexor muscles attached to these talons can be powerful enough to drive the sharp claws through all the overlying tissue and INTO the bone. The feet should be secured at the earliest opportunity. Many raptors will fall to the back, using the feet to strike out in defence. A strategically positioned towel can occupy the feet long enough to permit them to be restrained. Using a small bag or sock as a hood will calm many raptors.

Wildlife

Bats should only be handled by people appropriately vaccinated so that they have protection against lyssavirus, and trained in the handling of bats. The general principle is to wrap the bat in a towel or cloth, keeping its wings folded against its body, and with the feet exposed and able to grasp something. Restrained in this way it can be transferred quickly to an enclosure, or anaesthesia can be induced to facilitate further handling.

Marsupials are a varied group of mammals that require a variety of handling techniques. Some members of the order present a particular dilemma in that they are susceptible to capture myopathy, and so restraint techniques must make allowances for this increased risk. Planning ahead to avoid the heat of the day, and ensuring a quick capture and restraint can go a long way to preventing the occurrence of capture myopathy.

Small macropods can be caught in a net and transferred to a sack of open weave material such as hessian. The can be grasped by the base of their stout tail, and swiftly lifted so that the hind feet at directed away from the handler or assistants. Large macropods present complex problems with restraint and handling, and often require experienced teams and even remote sedation techniques. Macropods often require sedation immediately on capture to lessen the likelihood of capture myopathy.

Wombats can be approached from behind, grasped in the axilla on each side, and then lifted swiftly off the ground. Hand-reared wombats are renowned for their potential aggression, especially inflicting quite nasty bites with their chisel-like incisors, so it is important to plan an escape route or protected area to get away. Some handlers use an upturned metal garbage bin to stand on if chased by a wombat.
Koalas are more easily stressed than their close relatives the wombats, but fortunately are also easier to handle. They can often be guided down from an arboreal perch into a sack, thereby minimising the stress of handling. They have sharp claws and will bite, but can be restrained by grasping the scruff of the neck near the shoulders from behind, and supporting their weight by placing the other hand under the rump.

Dasyurids and platypus can both be suspended by the base of their tails. Male platypuses have spurs on the ankles which can introduce a painful toxin if they manage to stab into the skin of a handler. Keeping the hand holding the tail on the dorsal surface of the tail makes it almost impossible for the spurs to be used. The same technique can be applied to larger possums, but they have the capacity to climb up the tail and will sometimes bite the handler this way. Gently swing the possum, or presenting it with something to grab with its forelegs (like a towel) will dramatically lessen the likelihood of attempts to tail-climb. Smaller possums and bandicoots can be placed into a calico bag of suitable size, and held firmly therein, manipulated until the required part of their anatomy is exposed. Echidnas will curl into a most difficult ball of spikes, and will thrust parts of that ball at any contact that tries to manipulate them. If the exposed toes of the hind feet are grasped and gently manoeuvred to gradually be withdrawn from the “ball” the animals can be suspended by the two hind feet.

Handling aids
Nets should be of a size (both handle and netting) appropriate to the species being caught. Care must be taken when using nets as the rigid frame, if swung with any force, can strike the bird and cause injury or even death. Some nets have the rigid components padded for this reason. Some avicultural texts will suggest swooping on a flying bird from behind to prevent a direct collision, but waiting until the bird has just landed on the wire, or a perch near a wall, or the floor and pinning the bird there is the safest way to use the net.

Towels and blankets are extremely useful to cover and restrain a wide variety of unusual patients. It is worth making sure that there are no hanging or loose threads that might ensnare a digit or even limb and lead to a serious injury.

Gloves are often used when handling these animals, but may engender a false sense of security in the handler. They definitely result in a decrease in the sensitivity of touch when handling these unusual patients and this may conceal adverse effects of handling, leading to potentially critical consequences for the animal.

References


