

Environmental education by wildlife carers.

**Deborah Turnbull
Centre for Innovative Conservation Strategies
Griffith University**

Introduction

Wildlife carers engage in some form of education every time they engage with the public, even if it is as simple as telling someone the name of the species they have rescued. Nicki Markus (1998) talks of a bond between humans and wildlife that is formed during rehabilitation and supervised educational sessions. This bond can be the beginning of a life-long interest in wildlife. Andrew Tribe and Peter Brown (2000) suggest that incidental outcomes of wildlife rehabilitation, such as education, may actually be more important than the rehabilitation itself.

My research has explored the environmental education aspect of the wildlife carer's life with wildlife. The carers I have spoken to agree that we do have a role to play in educating the general public about individual species and about wider environmental issues such as habitat destruction. This is something carers already do to varying degrees. Some carers go out of their way to find opportunities to educate, others simply make the most of every interaction they have with a wildlife rescuer.

I asked carers about all the educational situations they have been in and the result is a model of environmental education for wildlife carers. This model is not based on something I read in a book, it is based on what carers have told me over eighteen months of interviews. Once I had developed the model I went to the books to find ways of improving the things we already do.

This paper is presented in four sections:

- the aim of environmental education by wildlife carers;
- the affective domain;
- core environmental education skills for wildlife carers;
- teaching and learning processes.

The aim of environmental education by wildlife carers

In discussions with wildlife carers, three words kept recurring: understanding, responsibility and care. Carers try desperately, at times, to just get people to understand wildlife a bit better. If people understand why magpies swoop, or snakes lie in the sun on top of the guinea pig hutch, they may be more tolerant and seek more appropriate solutions to perceived problems. Carers would love to see people taking more responsibility for the impact they have on wildlife and the environment. In particular they would like to see people taking more responsibility for their domestic pets. Carers lament what they see as a 'don't care' attitude to wildlife. They want people to care a little more about all species: rare, common, cute, ordinary ...

I have taken the three key words (understanding, responsibility and care) and combined them into what I see as a fairly general aim of our education efforts:

*To increase people's understandings of wildlife and the environment,
resulting in increased environmental responsibility and care of wildlife.*

This aim encapsulates the reasons the carers in my study gave for taking on the role of environmental educator.

The affective domain

The affective domain refers to the emotional or 'feelings' part of education. I believe that wildlife carers address the affective domain somewhat intuitively through showing respect for the other person, acting with integrity, demonstrating an ethic of care, and by simply being passionate about what they do.

respect

Each member of the public comes from a different background, has different prior knowledge of wildlife, and brings with them a different set of values. When it comes to wildlife in their local area, not many people know more than the local wildlife carer, and it would be foolish to expect members of the public to share that level of knowledge. As one carer pointed out, "we didn't always know as much as we know now." The fact that someone comes to a carer with very little knowledge of wildlife does not mean that they cannot learn more. In an earlier phase of this study carers lamented the lack of knowledge of members of the general public. They do not demean people for this though. It just reinforces the role of carers in educating the general public. It is important to answer all the 'silly' questions as though they were the most interesting and important question that had been asked that day. The public do not like to be lectured or preached to, so care is needed in how answers are given. Interestingly, many carers noted that children seemed to know more about wildlife than their parents.

One carer said that humans were their least liked species and this sentiment was echoed by others. People could be ignorant, rude, obnoxious and demanding. Carers acknowledged that common courtesy and good manners were still necessary, no matter how much they want to swear at or abuse the person. As one carer said, "I have to bite my tongue sometimes." Many said they always made a point of thanking the person for what they did, even if it was just to ring a carer after their dog had mauled a koala. At the very least, suffering was minimised because they made the effort to ring someone. Diplomacy and tact were often required. "I choose to be very honest but tactful. If their dog caused the injury I tread carefully, being thankful that they phoned but suggesting ways of keeping the dog and wildlife separated."

Another common courtesy mentioned by many carers was providing feedback to the rescuer. Some people are particularly interested in the outcome of 'their' animal and will ring the carer for updates, or leave their number with the carer. Carers agreed that follow-up such as this was important. It extends the bond between the rescuer and the animal beyond the initial

time of rescue. It is also a way of reassuring people that everything possible is being done for the animal, and that their efforts in rescuing the animal were worthwhile.

ethic of care

Individuals need to care enough about something before they will act to save or protect it. In the case of injured wildlife, some people care enough to rescue the animal and get it to a wildlife carer. They care enough to act on behalf of that individual animal. But do they care enough to spend six months raising an orphaned possum, or to change their behaviour to save that animal's natural habitat? Wildlife carers do. It is an ethic of care for wildlife and the environment that sets wildlife carers apart from others. That is not to say that wildlife carers are the only people in the 'ethic of care' group. There are also many environmental activists, local environmental volunteers and individuals who choose a sustainable way of life.

The act of wildlife rescue requires an existing level of care, or at least a minimal level of concern, for wild animals, but also provides the opportunity for individuals to reconfirm their personal values relative to the natural world. At the same time, wildlife carers are in a position to help deepen or widen those values. Wildlife carers are role models for an ethic of care.

The potential for post-rescue deepening of environmental values is exemplified in the following passage by Nicki Markus. These comments are in relation to the rescue and care of flying foxes.

The bond of empathy formed during the caring process and during supervised education sessions using animals in rehabilitation often forms the basis for a life-long interest in the welfare of the species (Markus, 1998: 19).

The ways in which carers "value-add" to wildlife rescues are not documented. I hope my study has gone some way to rectifying this.

Public attitudes to wildlife rehabilitation are mostly positive (Aitken, 2004), and rehabilitation centres benefit from this through considerable donations of money and time. The general public know about the ethic of care demonstrated by wildlife carers and some try, in their own way, to

approach the same level of care for wildlife and for the environment. An example of this is seen in the efforts to rehabilitate oiled sea birds following an oil spill:

“An oil spill is a natural disaster by any standard but effects, most acutely, those living locally. Usually, however, there is little that can be done by local people to ameliorate the effects of the oil except the picking up of wildlife casualties – usually birds. Such rescue operations serve to assuage some of the frustration felt by those most touched by the disaster. Many people become involved in the rehabilitation effort, volunteering their services in catching, washing or caring for the casualties or in donating food, towels or cash to assist with the work. When much else appears bleak, a rescue and rehabilitation effort engenders hope and provides an arena for positive action. (Aitken, 2004: 155).”

Although the survival rate of oiled seabirds is low, the broader conservation outcomes of a story such as this are substantial. Wildlife rehabilitation links our innate sense of caring with the natural world, and triggers an emotional relationship with individual animals. Humans have a natural desire to interact with individuals from other species, a desire that engenders our ethical feelings (Aitken, 2004). The increased awareness and environmental consciousness that arise from rehabilitation efforts are primarily local, but not insignificant. Care at a species or ecosystem level is rooted largely in our experiences of care for individuals. It is the caring relationship with individuals that provides the cornerstone for care of the wider environment.

passion

Beck and Cable (2002) have described educational principles for interpreters in parks and reserves. One of these principles, passion, is particularly relevant to wildlife carers. Their language often contains words of passion or high emotion. Carers speak of their love and commitment to individual animals, disgust at how some humans treat animals, great sadness and loss when animals die unnecessarily, and of desperation as more and more habitats are lost.

According to Beck and Cable, passion is an essential ingredient for powerful, effective interpretation. Wildlife carers agree. In my study carers identified passion and dedication as two key elements when describing a good environmental educator.

Interpreters are passionate about the resource they interpret (Beck and Cable), and wildlife carers are passionate about wildlife. Both groups share that passion with others. Those who choose to interact more closely with the public also have a passion to educate and inspire. Interpreters (and

wildlife carers) who are passionate about their resource and enthusiastic with the public have greater credibility with their audience. They may give hope to people who feel helpless in the face of enormous environmental degradation and suffering (Beck and Cable).

integrity

A search of a thesaurus reveals a number of synonyms for integrity – all of which may describe wildlife carers. People with integrity are respected and admired, reliable and dependable, sincere, honest and trustworthy. I will focus on just four of these words: respect, reliability, honesty and trustworthiness.

One carer in my study said, "I believe that most people have respect for wildlife carers." Aitken (2004) supports this view. Respect is built on many years of contact between wildlife carers and the general public. People often acknowledge that we do something that is 'above and beyond' what others do. They say things like, "I admire what you do, but I couldn't do it." So, even though members of the general public may know little about wildlife and even less about rehabilitation, they know that wildlife carers do something extraordinary and that it is basically a good thing. It is up to each of us as individual carers to ensure that respect for our 'profession' is maintained. That is where reliability, honesty and trustworthiness are important.

Reliability is demonstrated in a number of ways. The prompt return of phone-calls, timely rescues, and follow-up contact are all examples of reliability. A person who is considered reliable by their peers is consistently reliable. They are always there to do what they have committed to doing. Most wildlife carers can be relied upon to provide assistance or advice, time and time again.

Honesty, respect and integrity are closely intertwined and it is difficult to imagine one without the other. Honesty is a characteristic that is universally admired in people, and is something the carers in my study all saw as important. Honesty was deemed to be important in a number of ways. Carers said things like, "It's better to tell it as it is." and "I am honest but not rude." There were two

contexts in which honesty was generally discussed. This first of these pertained to domestic animal attacks and the fact that if the pet had been restrained, the incident would not have occurred. The aim of the carer is not to burden the pet owner with guilt, but to hopefully encourage the person to think more carefully about their responsibilities as pet owners. The second situation involved discussing the probable outcome (death or euthanasia) of badly injured animals or undeveloped pouch young. This has to be done with honesty but compassion, particularly when children are involved.

A trustworthy person tells the truth. If you trust a person, you believe what they say. Members of the general public usually believe what they are told by wildlife carers, because they respect them. There are several ways in which carers can help promote the idea that wildlife carers are trustworthy. Admit not knowing something, rather than give out incorrect information. One piece of false information can destroy the credibility of both the individual carer and carers in general. Carers should stick within their comfort zone. Stick to the species they know best. If they are not comfortable dealing with the 'big issues' then don't. If you are going to put yourself at the interface with the general public it is important to have a high level of knowledge of wildlife and some of the bigger picture issues.

Beck and Cable (2002) stress that the information presented by park interpreters must be accurate if the interpreter is to maintain credibility. Exaggeration and the parroting of erroneous information will be detected by discerning people and the credibility of the whole presentation will be questioned. A smaller amount of higher quality interpretation is far more beneficial than a large quantity of dubious interpretation.

Jacobson (1999: 8) states that, "For environmental issues, source credibility is important." This is important for carers who lobby government and other large organizations. The trustworthiness of the sources you quote reflect on your own trustworthiness, so be judicious in your selection of supporting documentation for your arguments.

Core educational elements

knowledge

wildlife

When people rescue an animal, they often ask about its chance of survival or about what will happen to it in care. To answer these questions, carers need to be informed about the rehabilitation process. The public learn a lot about wildlife when we explain that some animals need to be raised in crèches, that every mammal species has its own specialised milk formula, and how we encouraging natural foraging behaviours. Some fledgling bird species don't need rescuing and can simply be reunited with their parents. It is more educational for the person if we can explain about natural fledging behaviour and involve the rescuer in returning the young bird to its family. Similarly, knowledge of release processes such as where and how the release is done help people understand more about the species of animal they have rescued.

Often we get rescue calls about animals that don't need rescuing at all. A tawny frogmouth sitting in a tree all day without moving, or a snake lying in the sun in early winter are normal behaviours for these species. Rather than a rescue situation, this is a perfect opportunity to educate people about the wildlife they live with. Wildlife carers need to be familiar with the natural behaviours of animals that live in their local area.

In my study, carers stated a need for training courses to go beyond care techniques and include topics such as animal behaviour. Training is especially important for wildlife hotline volunteers and for people who interact regularly with the public. Some carers have a natural ability to interact with the public and educate, but they may be lacking in experience and knowledge. Training and support from mentors can ensure these people acquire the right information to pass on.

environment

There was agreement among the wildlife carers in my study that broader environmental issues are important. They qualified that though, by saying that discussing big-picture environmental issues was not for every carer. Some carers have a good understanding of a range of environmental issues and are always ready to discuss these with the public. Other carers steer clear of controversy and distant problems, preferring to focus on local backyard issues. Both approaches are important.

Training for carers emerged as an important component of educating the public about broad environmental issues. One carer suggested, "It is a topic that needs to have education provided if the carers are to play an important role." Another carer said, "Training should be provided to carers on these topics so they can educate the public." This is an area that is important, but not an area in which all carers have expertise.

How then do carers gain knowledge of broader environmental issues? Some of the carers in my study are members of other 'environmental groups', such as state and national conservation organizations (both government and non-government), and local catchment groups. Many carers read widely, gaining information from a variety of sources and sharing that information amongst themselves. Local knowledge gained from personal observation also keeps carers up-to-date with what is happening to the environment beyond their backyard.

rules and regulations

It is important that wildlife carers are aware of their state's laws regarding permits for rehabilitation of wildlife, keeping native animals as pets (e.g. reptiles), and the relocation of wildlife. Local laws relating to the responsibilities of cat and dog owners may also be useful. Internet sites for all levels of government have all the necessary rules and regulations, and are essential reading for carers.

resources

The resources a carer may use for education purposes are limited only by their imagination. The lucky ones are creative, artistic, good writers, excellent speakers and have loads of time. There may be one or two of those. The rest of us need to work together with other carers and with other wildlife and environmental agencies.

Books are an excellent source of both information and ideas on how to present that information to others. Some carers cannot resist just one more book on their preferred species. They are constantly learning more about the animal's biology, behaviour and ecological needs. It may be useful to know what wildlife books are in the local library so interested members of the public can be referred there to borrow a specific book. People are far more likely to go to the library looking for a specific book they know is there, than they are to go to the library having to search for a book that may not even be there.

The carers in my study all said how important animal stories were in the education process. Experienced carers seem to have a story for every occasion. If someone-else's story is just perfect for getting a point across, then use it. The collective knowledge of carers is our greatest resource.

When it comes to displays at local shows, vet open days or schools, pooling resources is essential. One person may have excellent photo albums another, a collection of nests. Outside groups such as RSPCA, local government, and environmental groups may have flyers you can distribute. Working in conjunction with another group, such as a catchment care or bushcare group can also make meagre resources look more attractive. Hints for producing your own displays, brochures, and formal presentations will be discussed later. The important thing to remember is that quality is more important than quantity.

communication skills

Beck and Cable (2002) state that the interpreter, or in this case the wildlife carer, must not only be knowledgeable in their content area, but have good communication skills relevant to their selected form of presentation (e.g. speaking, writing, visual displays). In her book *Communication*

skills for conservation professionals Susan Jacobson stresses the importance of effective communication skills for influencing policy, changing behaviours and recruiting new volunteers. She believes that the fate of our natural environment depends on effective communications. Communications are most effective when they come from more than one credible source, have a simple and relevant message, and inspire personal interest and involvement.

effective listening

Two strategies for determining what information is relevant are asking questions and listening. "Finding out what happened, why and where," said one carer, "gives opportunity to advise and educate." Another carer noted the importance of listening to the person to hone in on where their need is. What these carers are talking about is referred to as 'active listening'.

Active listening means you are focused on what the other person is saying, not simply awaiting your turn to speak. Face the other person and lean slightly towards them, assume an open posture and maintain eye contact. These all show you are ready to listen.

Think about what the other person is saying, not about what YOU want to say next. Show you are interested by nodding, answering their questions or saying things like, "I see", "yes", and "go on". Use reflection to show you understand what the other person is saying. Check that you have understood what the other person has said by asking clarifying questions or paraphrasing what they have said. Paraphrasing is summarising what they have said in your own words, not just repeating what they have said. Parroting back at someone can become very annoying. You can also reflect the person's feelings. If they are looking and sounding distressed, acknowledge that by saying something like, "That must have been very distressing for you."

At the end of the conversation, summarise the main points of the discussion. Limit this to no more than five main points. You want the other person to take away a clear simple message. If you do the summarising for them, they will take away the message you want them to take away.

It is also important to be aware of blocks or barriers to effective communication. We humans cannot help but make judgments about other people the minute we see them. We judge the way they are dressed, how they speak, and their general demeanour. These judgments form filters through which communication must pass, and may jeopardise the effectiveness of the communication. Individual perceptions, values and biases will affect the way messages are heard. Preconceived ideas about the person or what they are saying can act as barriers to effective listening.

There are also external barriers to effective communication such as noise, disruptions, interruptions and physical discomfort. Internal factors such as how tired, busy or stressed we are may also form cause blocks to effective listening.

speaking

Jacobson (1999) offers six aspects to consider when presenting orally. Three of these refer to verbal considerations, and three to non-verbal considerations. The first two verbal considerations refer to the skill of speaking. The speech must be clear not mumbled. Speaking out to the audience rather than down at notes can help with the projection of clear speech. Also, the rate of speech must be right – too slow and listeners lose interest, too fast and the listener has difficulty keeping up and understanding the message. The third aspect to be considered is the actual words that are used. The language needs to be appropriate to the audience. A speech to veterinary surgeons may have complex sentences and technical vocabulary. A speech to children would have short sentences and use simple non-technical vocabulary.

non-verbal

There are also non-verbal aspects of communication that need to be considered. Jacobson (1999) discusses three. First, the speaker should be dressed appropriately. As a general rule, a neutral appearance will cover most situations. Dress should be neat, tidy and clean. Maintaining eye contact is another important aspect of non-verbal communication. Both

appearance and eye contact can contribute to a third, more general, aspect of non-verbal communication and that is to be confident. Knowing and really understanding the content of your speech and rehearsing for clarity and rate will help build confidence in the speaker and earn the respect of the audience.

problem solving

negotiating solutions

For professional negotiators the planning phase of any negotiation is seen as critical. This involves researching everything about the merits of the matter at hand, and about the individuals involved. Wildlife carers need to research too. They need to understand the wild behaviour of potentially problematic animals, know the main complaints people will have about the animal, and have a range of solutions to choose from.

It is critical in these early stages of negotiation to establish personal and professional credibility. Respect and rapport are key elements of credibility and these can be enhanced through reasonableness, logic, practicality and honesty.

Once the negotiator has presented their position, they listen carefully to the other side's response and gently probe their line of thinking. Probing confirms and updates information already given. For carers, it sometimes takes some probing to get to the core of what the problem really is.

Negotiators will often use a carrot and stick approach to negotiation. This is a combination of friendly persuasion, or highlighting the benefits, and pressured persuasion, which for wildlife carers may include reference to wildlife regulations.

When negotiating, the tone should be kept friendly. As we know, it is very difficult to negotiate with someone who is angry. There is no benefit in burdening the situation by responding in an antagonistic, argumentative or aggressive manner.

asking questions

Broadly speaking there are two types of questions – open and closed. Open questions require more than a single-word answer and are very useful for encouraging the other person to reveal more information. We use open questions when we first meet with someone who has rescued an injured animal. We ask questions such as:

- How did you come to find to animal?
- What was it doing at the time?

Closed questions can be answered with a single word. They too have their place, and are useful for pinpointing more precise information. We might ask:

- Was the animal moving at all?
- Do you have free-ranging cats in your neighbourhood?

People do not always give long answers to open questions, and short answers to closed questions. If you ask what an animal was doing, you might get an answer of, "nothing." The simple question about cats in the neighbourhood may trigger a lengthy explanation about how their cat never catches wildlife and how they would know if it did because it would bring it home.

Open questions promote dialogue and are good for building rapport, but they are not as useful when your aim is to change attitudes or behaviour. In these situations, well-directed closed questions can be more effective.

Answering questions is an automatic response. If someone asks us a question, we cannot help but answer it – even if we do not answer out loud. If someone will not or cannot answer a question it raises doubts in our minds about the credibility or honesty of the person. If you are trying to convince someone to change their minds about an issue, asking questions puts you in the driver's seat. You are in a position to control the content, tone and pace of the conversation. Questions also allow you to keep a conversation heading in the direction you want. This is particularly useful when the other person is intent on sidetracking you or changing the topic.

Asking well-thought-out subtle questions allows you to plant a seed of thought into someone's mind, allowing them to come up with new ideas themselves. This is far more effective in terms of changing behaviour than if you were to just tell them what you wanted them to do. Subtle questions keep a conversation moving forward, whereas harsh statements can act as effective communication stoppers.

changing behaviour

Quite simply, it can't be done! No-one can change another person's behaviour. We can only change our own behaviour. We can, however, promote change, advocate new behaviours, and support and encourage people through change.

For change to occur, the person must first agree there is a need to change their behaviour.

Reasons people change their behaviour include dissatisfaction with the current situation, a moral or ethical obligation, to gain a reward or positive effect, to avoid a punishment or negative effect, or acceptance of the legitimacy of an argument.

Once a need for change has been identified, a person needs to be able to see a more desirable option, and a clear path to it. Finally, the cost of change must not exceed all the benefits. The new behaviour must be more attractive than the old behaviour, and it must be visibly achievable.

Teaching and learning processes

considering the learner

memory

Memory can be divided into short-term memory and long-term memory. A stimulus is first perceived through the senses. If attention is paid to that stimulus it will be transferred to short-term memory. It will disappear from short-term memory within about 30 seconds unless the person actively engages in a rehearsal process. Eventually, after a number of rehearsals, the stimulus is transferred to long-term memory. A conscious effort must be made to ensure a stimulus is

successfully transferred to long-term memory. Short-term memory is unstable and vulnerable to interruption. Long-term memory is far more stable.

If we want people to remember what we tell them, we have to make sure there is opportunity for active rehearsal of the information while it is in short-term memory. For rehearsal to be most effective, the person themselves must have some reason for transferring the information to long-term memory. The fact that the stimulus material is interesting or thought-provoking may be one such reason. Attaching the new experience to existing knowledge will make the stimulus more interesting and make the transfer to long-term memory easier.

Long-term memory has virtually unlimited capacity, but short-term memory has a very limited capacity. The general rule is seven (plus or minus two) chunks of information. Although long-term memory is unlimited in capacity, any new information must first pass through short-term memory. Given the limitations of short-term memory, any single educational experience should offer no more than seven (five is better) main chunks of information, or main ideas. Also, since rehearsal is a critical component in transferring information to long-term memory, there must be opportunity for rehearsal. This could take the form of presenting the same information in several different formats. A person may only spend a few minutes at our display or in conversation with us, so we don't have a very large window of opportunity in which all this perceiving, attending, rehearsing and remembering must occur.

the learning environment

Learners need to feel comfortable in their learning environment for effective learning to occur. They need to be physically comfortable. If it is hot, find a cool place out of the sun. If talking to an audience give them a chance to get up and stretch their legs between speakers, and make sure the microphone volume is not too loud or too soft. Consider all five senses when checking for physical comfort: sound, vision, touch, smell and taste. Competition for the senses can impact on learning. Audiences, even an audience of one, can be distracted by noise, cold, strong smells and bright flashing lights.

There are also emotional needs to consider. If you display has a reptile, be aware that some people may be afraid of snakes. Even photos of snakes can upset some people. Most people like the cute cuddly photos, but use graphic trauma photos with care. A wildlife carer interacting with the public may encounter a range of emotions including: fear, anxiety, guilt, love, concern, compassion, hate, nervousness, frustration ...

The learning environment also takes into consideration cognitive factors. A talk given for children will have different content from one given to teenagers or seniors. Even if the same stimulus photos are used, the content and language will differ for each group. Consideration of prior knowledge is essential if a talk or display is to be understood and remembered. If you are given advance warning of a talk or display, it is useful to determine the existing knowledge and level of interest of your audience.

strategies for teaching and learning

story telling

Story telling is a time honoured method of human communication. Stories spark interest and help relate facts to something real and therefore easier to understand. Presenting information around a theme eliminates the problem of simply presenting a stream of unrelated facts. In the words of one carer, story telling, "allows people who may not have a great understanding of animals to better understand environmental principles."

Stories help personalise information. A number of strategies can be employed to make the story personal, meaningful and memorable: examples, cause and effect, problem and solution, analogies, similes, metaphors, anecdotes, humour, repetition, current news events, recount.

As well as getting the content right, the presentation of information should be appropriate for the situation. Humour may be appropriate in some situations but not others. Any carer who has raised babies will have a stock-pile of stories about young ones' first attempts to fly, climb,

lap or catch live prey. Even though the stories are told to amuse, they are told with affection for the animal. Humour helps people remember the cute little stories.

Novelty may be a good approach if there is some interesting and quirky fact about a species that is generally unknown to the general public, or a species that is not popular. For example, many people do not particularly like noisy miners but may be impressed when they see the extended family unit working together, or they may be surprised to see the white underfeathers of a crow.

The story must eliminate superfluous details and sidetracks that detract from the message (Beck and Cable, 2002). Stories should not be too long and tedious. If you try to present too much information all at once you lose your audience. Sharing stories with other carers and listening to experienced carers tell their stories are both strategies for refining story telling skills. A fairly new carer said that she used the stories of her mentor in the beginning, until she had acquired her own stories through her own experience. The stories of her mentor acted as a model on which she based her own stories. Stories become easier to tell with more caring experience.

People are encouraged by stories with a positive outcome. Carers said things such as, "An uplifting rescue story is enthralling," and, "Some individual animals are outstanding and their stories inspiring." As well as telling the inspiring stories with positive outcomes, some carers believe that the horror stories also need to be told. There are many horror stories and most of them are the consequence of human activity. A balance is needed between encouraging positive feelings towards wildlife through uplifting stories with happy endings, and educating people about the true horror that befalls wildlife as a result of human activity. If the balance is achieved, then people may begin to change some of their wildlife-unfriendly behaviours.

One strategy for making wildlife stories more relevant is to anthropomorphise, which is to give the animals human characteristics such as fear and love. It is natural for people to use familiar, everyday terms to explain the complexities of animal behaviour. While this may be a useful

strategy, care must be taken to not trivialise the experiences of the animal. While some carers find the practice of giving human names to animals demeaning and unnecessary, others find it a useful and easy to remember way of identifying individual animals.

There is also a generic procedural story about what happens when an animal comes into care. People often want to know what is going to happen to the animal they rescued. Carers seem to have their own fairly well rehearsed version of the story that may include: warm it up, examine it, feed it, take it to the vet if necessary, when it is bigger/better it will go into an aviary for rehabilitation and to strengthen muscles, hand-raised babies will learn how to recognise wild food.

Stories are used in virtually all types of interactions between carers and the public, including oral, written and picture stories. For stories to be engaging they must be interesting and they must follow a predictable story structure. The following discussion on story structure draws on the notion of top level structure (Bartlett, Barton and Turner, 1988) which suggests that all text follows one of four basic structures: list, problem-solution, cause-effect and comparison.

A list could be a description, or a list of characteristics, of an animal. A list could also be a recount where a series of events are listed in chronological order. As the name suggests, the problem-solution structure contains a problem, complication or crisis that is resolved later in the story. The cause and effect structure is sometimes also referred to as 'before and after' because the conclusion or end event happens as a consequence of earlier events.

Comparison can take many forms. It may explore similarities or differences among objects, or both. Comparison may be made of features within a single unit, or between different units.

Top Level Structure is just one system of organising text. It does not matter which theoretical system is used, or even that any formal system is used at all, just that the story is organised in a predictable, easily understood, and easily remembered pattern.

People expect stories to follow a certain pattern, with a beginning, middle and an end. The beginning introduces the characters and sets the scene. The middle can consist of a chronological recount, a problem that needs to be solved, a set of actions that have some later consequence, or a comparison between two or more objects, events or ideas. The end of the story may be a culminating event, the solution to a problem, the consequence of an earlier action, or a concluding comment of overall similarity or difference.

role model

The aim is to not just to inform people, but also to prompt them to act on their new learnings. Beck and Cable (2002) suggest this can be achieved by simply acting as a role model, or by tackling a controversial issue. Wildlife carers agree that enthusiasm can be contagious, as one carer in my study said, "Many carers can pass along knowledge and foster an increased awareness in the public simply by sharing their love and enthusiasm for the animals they are caring for."

People not only listen to the words of wildlife carers, they also watch the way they interact with wildlife. "It's clear when facts and strategies are backed up with compassion," said one carer. Anyone who can 'walk the talk' provides a good role model for others. It is what earns respect.

If injured wildlife is delivered to the carer's house, practical examples of living with wildlife can be demonstrated. Some carer's have pet cats, and can show visitors their cat run. Others may have strategies for keeping the local possums out of their herb garden, or an effective system for keeping the rodent population down without using poisons. There are many things wildlife carers do in their daily life that may inspire others to make similar adjustments in their own lives.

guest speaker

There are two aspects to a guest speaker presentation. The first is preparation of the text for the speech. This is covered in the next section on 'writing' and, also in the section on 'story telling'. The

second aspect of being a guest speaker is the presentation itself. As with speaking to an individual, eye contact is important. Look towards the audience, not down at your notes or behind at the screen. Use a strong clear voice and do not rush your speech. Use language appropriate to your audience – this is not a time to ‘show off’ with big words. Your presentation will be appreciated more if it is clearly understood. If possible, try to gauge your audience’s prior knowledge on the topic. This will help you pitch the speech at just the right level.

If you are using a power point slide presentation, use light coloured text on a darker background. A consistent background colour and text type will add consistency to your presentation. Make the font at least 16 point. Aim to have about two slides per minute, so a thirty minute talk would have no more than fifteen slides. Do not clutter the slides with too much information – keep it simple. Structure your talk around no more than five key points. Most importantly, do not just read from the slides. This is very annoying.

If you are using other forms of visual aid to support your presentation, make sure they are larger enough and clear enough to be seen from all parts of the room. Having artefacts that can be passed around may add to a talk, but be aware of how long it will take for it to pass around the whole audience. It can be very distracting for the last person if you are on to a different topic by the time they have the artefact in their hands. Be aware that passing an object around the room will probably stimulate conversation.

resources for learning and teaching

writing

Writing must be done with the reader in mind – it is done for the reader, not for the writer. The art is in making new things familiar and familiar things new.

Preciseness is important for clarity and readability. It is a process to find just the right word for a situation.

Features such as grammar and spelling are important as they add credibility to the whole text. When a person reads a poorly written text they may question the credibility of the content as well as the form.

Achieving the appropriate length is critical. The message must be complete, but not full of irrelevant information. The use of short sentences, short paragraphs and non-technical language will enhance readability.

brochures and pamphlets

There are some basic design principles that are relevant to all forms of printed publication. First, each page or spread must be balanced. Large photos are heavier than smaller ones, colour is heavier than black and white, and dark areas are heavier than light areas. An element appears heavier if it is placed on the outer edge of the page than if placed in the centre of the page.

Sequence guides the reader through a publication. People tend to move from left to right, top to bottom, from pictures to text, colour to black and white, large to small, irregular to regular.

Graphics must be kept as close as possible to the text they illustrate.

Contrast adds interest and highlights important ideas. Contrast can be achieved through varying type size, illustration style, colour and shape.

A simple design is best. Leave plenty of white space and do not be tempted to overfill the page with clutter. Keep headings and illustrations simple, and avoid the overuse of decorative borders. Do not vary the typefaces too much.

A proportion between 3 to 4 and 3 to 5 is generally more pleasing to the eye than using square paper, photos or illustrations. A4 paper is in this proportion, as is a television screen. Dividing pages into thirds, fifths or sevenths produces visually pleasing proportions.

A document needs to look unified. Unity can be achieved through maintaining the same typeface throughout the document or repeating a graphic element. Make sure paper and ink colours are complementary. Stick to one graphic style. Each part must match and tie in with the whole document.

displays

For community education projects, displays need to be visually arresting as well as having accurate information. An uncluttered, well organised display will be easier for people to view and learn from than a cluttered disorganised display.

Jacobson (1999) offers a set of guidelines for effective display communication that she refers to as the ABCDs of exhibit design. The exhibit should be **a**tttractive with the appropriate use of colour, graphics and other visuals. It should be **b**rief with no more than five main ideas, just enough text to communicate the theme, and graphics to support the text. An exhibit should also be **c**lear. The message should stand out so that passers by can identify what the display is about in just a few seconds. It also need to be clear of obstructions and well lit. Finally, an exhibit needs to be **d**ynamic, arousing curiosity and encouraging participation. An effective display will have the power to *attract* people and get them to stop, *hold* their attention, *teach* them, and *motivate* them to take action or to learn more. Further suggestions for increasing the effectiveness of public displays are summarised in Box 1.

wildlife

The carers in my study acknowledged that a live animal can be a great educational resource. This has to be carefully balanced with the fact that the animal is either injured or orphaned. Often a member of the public has already found or rescued the animal. Some ring a wildlife hotline for advice. This initial stage of care, before the animals gets to a carer, is critical for the animal and also helps the rescuer bond to the animal. It elicits the ethic of care in the person.

Sometimes people ask if their children can see, hold, or pat an animal in care. This can be a positive experience for the human, but may not be so good for the animal. Carers are in a position

Features of Effective Exhibits

- The title is clear and obvious, and at or above eye level.
- The introductory panel stands out from other information.
- There is a clear theme or focus to the display.
- Graphics and text are large and clear.
- Fonts and styles are consistent throughout.
- Text and graphics are well balanced.
- Panels are uncrowded.
- Colours and shapes are in harmony.
- There are visual cues leading from one panel to the next.
- Use non-technical common language.
- Text is short and concise and sticks to the theme.
- Sentences and paragraphs are short and concise.
- Use subtitles (no more than five) to identify separate components of the theme.
- Break text into small chunks to make reading easier.
- Place text close to eye level.
- Include novel and interesting items rather than just presenting data.
- Make the display interactive, participatory and multi-sensory.
- Ensure the display is well lit and has adequate viewing space.

from Jacobson, S. K. (1999). Communication skills for conservation professionals.

Box 1: Features of effective exhibits.

where they can demonstrate respect for wildlife by saying no, the animal is too sick or too small. Explaining why animals cannot be handled helps people understand the principles of respect for wildlife. If an animal is strong enough to be looked at or patted, strict supervision and modelling of appropriate handling is required. Sometimes, allowing the person to take a photograph while the carer holds the animal is a satisfactory compromise.

References

Aitken, G. (2004). *A New Approach to Conservation: The importance of the individual through wildlife rehabilitation*. Ashgate Studies in Environmental Policy and Practice. Aldershot: Ashgate Publishing Limited.

Beck, L. and Cable, T. T. (2002). *Interpretation for the 21st Century: Fifteen guiding principles for interpreting nature and culture*. Champaign IL.: Sagamore Publishing.

Jacobson, S. K. (1999). *Communication skills for conservation professionals*. Washington DC: Island Press.

Markus, N. (1998). The cost of caring. *Wildlife Australia* 35 (4) 19-20.

Tribe, A. and Brown, P. R. (2000). The role of rescue groups in the care and rehabilitation of Australian fauna. *Human Dimensions of Wildlife*, 5 (2), 69-85.

to increase environmental understanding, responsibility and care

values **respect** — **ethic of care** — **passion** — **integrity**

core skills **knowledge** — **communication skills** — **problem solving**

- wildlife*
- effective listening*
- negotiating solution*
- rules and regulations*
- speaking*
- asking questions*
- resources*
- non-verbal*
- change*
- environment*

teaching learning processes

considering the learner — **strategies** — **resources**

- learning environment*
- story telling*
- writing*
- memory*
- role model*
- brochures*
- guest speaker*
- displays*
- wildlife*