

Making headlines or saving a species?

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ABSTRACT

Although problems such as inaccurate coverage, lack of professionalism and maturity arise when scientists deal with the media, the media do increase the public profile of projects, help attain funding and inform the public of legislative processes. Overall, from the perspective of the Green and Golden Bell Frog *Litoria aurea* project, I believe the media has a positive role to play in conservation and management. The major contribution of the media from a conservation point of view has been, and will continue to be, two-fold: to assist in the preservation and conservation of *L. aurea* within New South Wales, specifically on the Year 2000 Olympic site, and, more broadly, to remind the authorities of their pledge to the public - to keep the green games green.

Introduction

The media in the late 20th century have become a significant force in people's lives. They disseminate information from sources both local and further afield, introduce us to people we have never met, topics we would otherwise know nothing about and take us to places we have never visited. Some could say they have even changed the way wars are fought. But what makes a topic newsworthy? How does the media decide what the public sees and what it doesn't? Most importantly, how can we as scientists make use of the media - if we should at all? This paper addresses these questions, drawing heavily on my own interactions with the media during the course of my doctoral research on Green and Golden Bell Frogs *Litoria aurea* in Sydney.

A topic considered newsworthy is usually one that has impact - the larger the event and the more people it involves the more publicity it is likely to attract. News must be current and preferably have some local content. Furthermore, the more prominent a person involved in the story, the more newsworthy it becomes, such as Charlton Heston becoming President of the American National Rifle Association. Most often, unusual, unexpected and quirky events attract coverage, particularly human interest stories and conflict. If the media conveys news which contains at least one of these attributes, they are in fact deciding what news the public has access to.

Making headlines

It is often implied that the more sensational the headline, the more likely the story will be broadcast to the public. The story relies on a catchy title or pithy '10 to 30 second grab' to entice the public to continue to watch, read or listen. There are times when certain subjects are considered by the media to be of particular interest and are frequently reported to saturation point. This phenomenon, often referred to as a 'media frenzy', can last from several days to several weeks, depending on the story. They often focus around disaster (e.g. the Thredbo disaster, Tiananmen Square, 1994 and 1997 Sydney fires), outstanding courage and hope (e.g. Tony Bullimore in the Southern Ocean), or controversy (e.g. Cheryl Kernot's "defection", the paedophilia inquiry).

Further, with television and print media, images are considered a fundamental device for drawing the public's attention to an issue. The more graphic or emotive the image, the more likely larger numbers of people will become interested in the subject matter. For example, famine is generally portrayed by images of starving children rather than adults as the perception of young and helpless children appears more emotive, regardless of whether children or adults suffer the most. A splattering of blood or the look of anguish or despair in the face of a victim often correlates with increased public interest in a particular story, due in part to macabre fascination, ghoulish desire to witness suffering, or interest in the display of the 'human side' of a story.

How then does a researcher bring to the world's attention the latest discoveries in the reproductive biology of jellyfish or a new organometallic synthesis route?

Science and the media

As with any topic covered by the media, favourite issues prevail in science. Space, dinosaurs, dangerous animals, medical accounts, cloning, greenhouse and the ozone layer are examples of scientific topics that remain popular in reports to the general public. More specifically, issues involving flora and fauna have usually rated well in the media. Nothing appears to please the press more than to feature a 'cute and cuddly' animal: how often has intense media interest focused on garden skinks or barnacles? Issues of human welfare involving animals, such as plaguing rats, mice or locusts, or disease carried by flies or mosquitoes, are considered important and therefore newsworthy. In addition, there is a fascination by the media and public alike with regard to certain threatened fauna such as the Koala, Platypus or, more recently, flora, such as the Wollomi Pine. On the other hand, it is curious that the extinction in the wild last year of Rufous Hare-wallaby *Bettongia rufesans* did not rate a mention anywhere (C. Dickman, University of Sydney *Pers. Comm.*). The public tends to display an affinity for plants and animals, whether that be via a love of bush

walking or gardening, visiting the zoo, acquiring pets or watching wild animal documentaries. Further, most news programs prefer to end with a light-hearted, positive story. Most stories featuring animals or plants are considered positive and fun, and therefore are often chosen.

Litoria aurea - A species in the spotlight

The media has always played a role in conservation, albeit often by default, and this is where the media's involvement in my project on *Litoria aurea* begins. The project aims to determine the ecology and life history of the Green and Golden Bell Frog with regard to possible mechanisms for management. This project has attracted a fair degree of media attention as it is considered news-worthy. But what makes this project interesting to the media and, hopefully, to the public?

There is a number of reasons why the conservation of *L. aurea* may be considered interesting. First, the species is endangered. Although the present legal conservation status of *L. aurea* varies from state to state, the species has been protected since 1992 under Schedule 12 of the NSW *National Parks and Wildlife Act 1974*, following enactment of the *Endangered Fauna (Interim Protection) Act* in 1991. It is listed currently as 'Endangered' under Schedule 1 of the *Threatened Species Conservation Act 1995* within New South Wales, where more than 80% of its range occurs (Goldingay 1996). As previously mentioned, a species threatened with extinction is generally of interest to the public.

Second, *L. aurea* is a strikingly attractive and quite conspicuous frog. The adults range in size from approximately 40 - 90 mm snout-urostyle length, with males generally smaller than females. They have a distinctive tri-colour canthal stripe, gold iris and bright blue to turquoise flashing on the groin and hind side and sometimes under the arms (Cogger 1992). Although individuals can be quite dull and brown to copper in the winter months, their colour turns to bright green and pure gold in the summer, making them a particularly stunning frog (Greer 1994). Furthermore, due to their striking colouration, they are intensely photogenic, making them even more appealing to the press.

Most children and some adults like frogs. They are so appealing that many stories, toys, trinkets, pictures, movies, even confectionery feature frogs: Frog Prince, Kermit the frog, Freddo Frog, Lester and Clyde, Toad from Toad Hall to name but a few. But more serious is the frog's role in the environment. Amphibians have long been considered environmental indicators, or monitoring organisms (Tyler 1989). Contaminants such as insecticides and pesticides can affect amphibians quite profoundly, even when quantities in the environment are low. Further, there is considerable concern with respect to the potential effects of chemical pollutants on amphibian declines in both the short term (e.g. Johnson 1976, Mann and Alexander 1997) and longer term (eg. Osborn *et al.* 1981). Just as the canary was important to the coal miners as a method of detecting carbon monoxide in mines, so too are frogs as an 'early warning system' for environmental contamination.

The popularity of *L. aurea* can be explained, in part, by the species prominent location and accessibility to the public. *L. aurea* is found almost exclusively in eastern and south-eastern NSW extending into far eastern Victoria (Cogger

1992). Prior to the 1970s, it occurred over much of the Sydney metropolitan area and at scattered locations within NSW and Victoria (Barker and Grigg 1977, Cogger 1992, Osborne 1990, White and Pyke 1996). It was often used for dissections in schools and universities, and as a food source for captive snakes (A. Greer Australian Museum *Pers. comm.*). Therefore, for most long-term Sydney residents, it is a frog that is reminiscent of their past. As the public tends to be interested in issues relating directly to them, such as news regarding a person they or their family knew, or a place they visited, it seems reasonable to suppose that a frog they caught when they were young could be considered more relevant to them than, for example, the Painted Reed Frog of southern Africa which they have never seen.

In addition to its proximity to people, *L. aurea* is considered interesting because it is found on the site of the Year 2000 Sydney Olympic Games. Whether the public supports the Sydney 2000 Olympic Games or not is immaterial, the event is considered interesting to the public and therefore newsworthy. Since *L. aurea* was first identified in an abandoned 16 hectare brick quarry, known as the brickpit, at the Olympic site in 1993 (Greer 1994), the media has been interested in its progress, especially considering that the pit is currently considered to be the largest single population of the frog remaining.

There is a lot of speculation as to whether *L. aurea* populations within New South Wales, and more specifically the Sydney Olympic site, are viable in the long term. There is great concern by scientists and the public alike as to whether the development of areas of frog habitat, coupled with pollution and increased human activity in these areas, will cause further decline and possible extinction of the species. Moreover, stories regarding endangered fauna can be made more 'exciting' by emphasising the element of possible extinction, no matter how remote or unlikely this outcome may occur. *L. aurea* is a good example of that principle (e.g. Brooks 1995).

Most news concerning the Year 2000 Olympic Games tends to focus on more conventional issues relating to the planning and execution of such a large project, such as site construction, funding, politics and the athletes themselves (e.g. Bourlioufas 1998, Moore 1998). The frogs are a change from the regular types of news stories and can be seen as special interest.

The final reason for the *L. aurea* project's perceived newsworthiness relates to the ease in which catchy, funny or interesting headlines can be achieved. Due to the nature of the project and the frog itself, a variety of headlines incorporating night time fieldwork in rain, radio tracking and individual marking of controversial, endangered but beautiful frogs found in areas of high public interest, prevail (e.g. Anonymous 1995, Huxley 1997, Nichoson 1996, Stevens 1996, Woodford 1995). Most stories include 'catch words' such as 'hop, croak, leap, knee deep, kermit' or 'read it' (e.g. Asbury 1997, Nichoson 1996, Woodford 1995), which act as catalysts to encourage the public to become further involved in the topic. The fact that *L. aurea* sports a 'coat' of the Australian Olympic colours (green and gold) increases its appeal to the media (e.g. Nichoson 1996). In fact, it was the media who influenced the nation to consider the frog as the official mascot for the Sydney 2000 Olympic Games (e.g. Stephens 1996).

No matter the reasons behind the media attention, the question must be - what role, if any, does the media play in the conservation of *L. aurea* within NSW and does that role impact positively or negatively upon the frog?

Negative points

Occasionally, inaccurate coverage occurs. The causes are often related to incompatibility of motives between the researcher and the journalist, unclear explanations of often difficult subjects leading to misinterpretation and ambiguity, uninteresting subject matter, inexperience, or the need by the sub-editor to reduce the story size. Despite the reasons, the results can be disappointing and frustrating.

The practice of producing a press release and circulating it widely is a technique utilised often by the media. Once the press release is distributed, often world wide, journalists write stories using the release. However, as it is sometimes difficult to contact the story's source, there is a tendency to 'fill in the gaps' in the story, a scenario which often takes the ensuing stories further away from the truth. Therefore, no matter how good the original article, subsequent articles may bear little or no resemblance to the original. For example, in 1991 *People Magazine* published an article in which Dr C. Dickman's long-term desert ecology research project was overshadowed by an accompanying photograph of the researcher allegedly eating a fly sandwich. Likewise, an article on *L. aurea* research published in the *Sydney Morning Herald* was inaccurately reported in Great Britain from a press release (Anonymous 1995, Woodford 1995). Woodford's original article was a well-written piece reporting on radio tracking research, however, the British article was grossly inaccurate. For example, while Woodford (1995) explains the material and construction of the radio-tracking harness, Anonymous (1995) describes it as a 'catgut, a kind of reptilian G-string'. Imprecise reporting can distort the public's perception of the *L. aurea* management issues to the detriment of the species. For example, many stories discuss the concept of simply 'relocating frogs to safer habitat', thereby giving the public and relevant decision makers the impression this is an easy and straight-forward exercise rather than one fraught with difficulty.

Occasionally, the pursuit of a catchy anecdote overshadows the worth of a story. That is, stories are sometimes produced to fill in a gap, and thus end up being fun, light, quirky. Although there is nothing wrong with this type of reporting, there are times when these types of stories are geared too much for entertainment and may not get the desired message across to the public.

Professionalism and integrity are important aspects of science. It is not possible to conduct good research, held in high esteem by your peers if the quality of the work is in doubt. Because of this concern, scientists are often reluctant to utilise the media to promote their research for fear of being branded 'unscientific' and 'unprofessional'. Scientists have always been taught, somewhat surreptitiously, to be modest. Media attention is considered a means by which scientists can self-promote and whereby research is perceived generally as being trivialised and popularised, thus decreasing its importance in 'true' scientific circles. Therefore, it is considered more

professional to remain out of the public eye and publish exclusively in reputable scientific journals. However, in the case of *L. aurea*, public awareness is of crucial importance in the long term survival of the species. If the public are not aware of the issues, people are not able to modify their behaviour to coexist with the frog.

In my experience, there is also a difference in the way the media regards the age and sex of scientists. With regard to the *L. aurea* conservation project, would the media portray the researcher as fantasising about a movie star, or getting hot and flustered every time a frog calls (Huxley 1997) if that researcher was not a young female? There is no doubt that dealing with the media requires a certain level of maturity and experience in order to maintain professionalism and integrity. Although there are a great many journalists and reporters who report accurately and fairly, there are others who appear to have a hidden agenda (e.g. Edwards 1998). Unless the researcher has experience in guiding an interview the way he or she wishes it to proceed, there is a danger the media will push their own agenda. For example, a few interviews regarding the *L. aurea* project have been orchestrated in an attempt to glean politically-based information, such as staff resignations or alleged use of non-environmentally friendly products. Although some questions come across as innocuous, they have little, if anything, to do with the project itself and can have serious repercussions, particularly to the researcher.

Maturity and experience also assist the researcher in determining the level of enthusiasm displayed when communicating with the media without jeopardising their professionalism. As I can speak only from a female perspective, it appears that the amount of enthusiasm exhibited is the difference between being considered an 'airhead' or a dry, scientific type. I believe there is a perceived problem with being young, enthusiastic and female. Males have the luxury of being able to exude fanaticism regarding their subject matter without detrimental effects to their professionalism; for example, Bellamy, Attenborough, Ehrlich, Suzuki, Flannery, Archer, Lunney. Although the number of women scientists is far lower than men, there are even fewer who can afford to be enthusiastic and continue to be considered professional. In the case of the *L. aurea* project, my enthusiasm has been occasionally interpreted as 'quirky'.

Positive points

On a more positive note, the media is responsible for bringing issues to the attention of the public. More specifically, the media has been instrumental in introducing *L. aurea* to the local, national and international public, and enlightening them on issues faced by the species. Within articles, no matter how frivolous they may be, specific points of interest, such as the value of the brickpit as *L. aurea* habitat or the proposed use of the brickpit as water storage (Huxley 1997), may be brought to the fore. Once acquainted with the species, issues involving *L. aurea* are kept recent in the public's mind with regular stories. The regularity in which stories are reported is considered important in the conservation of the species.

The media also plays a role in the success of a project by its

potential to procure funding. This can be achieved in one of two ways. First, directly via the media through fund-raising drives. For example, Eric the Pliosaur (a fossil reptile) was purchased by the public and housed in the Australian Museum after an overwhelmingly successful public campaign. Second, funding can be obtained indirectly through increasing the profile of the project and potentially making it more attractive to other forms of funding. As funding is a major limiting factor for research, the media's role in potential funding is of utmost importance.

When funding for a project is limited, there is often not the money to employ adequate staff, particularly for field-based research. Many projects overcome this problem by employing volunteers to assist in a variety of tasks with respect to the research. It is often through the media that projects, which potentially involve the public, recruit interested people or organisations to volunteer for the project (e.g. Australian Museum Nest Test, Australian Bird Count, Stream watch, Frog watch). Further, the *L. aurea* project is a great example of using the media to accumulate vital information that would otherwise be difficult or impossible to acquire. Due to logistical constraints such as time or resources, it is often not possible to survey potential locations for flora or fauna. Furthermore, historical information is often locked in the minds of individuals, which is difficult to obtain, except through serendipitous or specific means. As the media are a valuable means by which a large proportion of the public

may be accessed, historical data, vital for building up a picture of distribution, behaviour and habitat preferences prior to *L. aurea*'s decline, can potentially be gleaned more effectively and proficiently than by any other means (e.g. Levi 1997).

There is no doubt that the media play a role in the conservation of many species, including *L. aurea*. Issues of conservation can be as broad as ozone depletion or forest destruction, or as specific as small-scale habitat modification, or microhabitat creation. Many media articles have included information on how to create habitat within peoples backyards, local areas and beyond, such as ponds for frogs, planting *Eucalyptus* trees for Koalas, or creating rockeries for reptiles. These articles often include names and contacts of people or organisations to whom the public can speak or write with regard to specific environmental issues.

Arguably, the most important role of the media in conservation issues, including those pertaining to *L. aurea*, is the ability to disseminate information related to the legislative process. That is, the media can inform the public of developments that affect flora and fauna, endangered species in particular. Thus the public becomes aware of legislative procedures such as public displays of Environmental Impact Statements and Species Impact Statements, and can make informed comments if so desired.

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GORDON GRIGG (University of Queensland): I have been very surprised that nobody picked up on the green and golden bell frog on its colours as being those of the Australian Olympic team, Australia's colours. I would have thought it was an absolute sitter - - -

MICHELLE CHRISTY: I pushed that.

GORDON GRIGG: - - - to be the logo for the Games, the animal for the Games and instead we end up with - I don't even know what they are, a platypus and echidna, is it, or something? I don't know.

MICHELLE CHRISTY: I better not say what my opinion of the Olympic mascots is. All I can say is that I pushed very hard and organised people from all over Australia to write letters. I believe that the frog was not chosen because it's so controversial and they didn't want it to get to the stage where they had the beautiful opening games and this wonderful bright frog that jumps high, the right colours, moves long distances, does everything it should but it's actually extinct. I just have a feeling that might have been the underlying reason, but I don't know that for a fact.

GORDON GRIGG: I suspect it is.

MICHELLE CHRISTY: I have some very strong opinions on that but I should keep them to myself.

MR: One of the issues that has been rolling around the world with frogs in the last few years is, as you mentioned, extinctions. Every so often we see a fresh theory popping up, environmental issues versus virus issues versus protozoan issues, all sorts of different theories around the world at different times. Has that been an asset or a hindrance to talking about this piece of work? Have you tried to avoid getting dragged into those issues?

MICHELLE CHRISTY: I find that people are more interested in the fact that the frog is on the site rather than what's causing its decline, so I'm finding that people are rarely connecting the two. If they do it's usually, "Is this anything to do with the frog declines worldwide?" as an afterthought. So it has not been an issue because all they want - and I get told this so many times, "We just want a quirky story to fill in a gap or because we want to do something on the Olympics and we're sick of watching the buildings go up or hearing about the funding." So, no, I don't think people have twigged that there might be a correlation between the two.

BOB BEALE: Were you able to plug the mascot idea to journalists when you were being interviewed, or were you under any restrictions from the sponsors of your research not to do that?

MICHELLE CHRISTY: Don't ask me that. No, I was and I did. Until I was told not to I did help with the suggestion that maybe it would be good. That's all I can say.

MIKE ARCHER: Bob, did you ever write that article on the Animal Olympics? I would have thought here was our cardinal contributor to the Animal Olympics.

BOB BEALE: I did but it didn't get a run. Are you going to record that?

MIKE ARCHER: Could you put that in the footnote to your article?

DAN LUNNEY: Michelle, when you made comparisons you asked whether there's a male-female difference in reporting, and also whether there's an age difference. However, you were comparing a set of older males - over 50 - with young females. A better comparison is to ask some older females whether they went through the same trials as you. Also, you could ask whether younger males, a young Mike Archer or young Dan Lunney, had the same sorts of things happen and were worked over by the press or set up in an amusing way. My stories are similar to others who were put in the same position; so I think that you're actually looking at a learning curve and not a comparison of treatment. This is part of the apprenticeship.

MICHELLE CHRISTY: That's exactly why I put you and Mike in there as the young pups up and coming, you see.

MIKE ARCHER: Yes, I was going to say, I got sick of hearing Indiana Jones music come on every time I got interviewed by the media, so we did get a bit of the same thing.

MICHELLE CHRISTY: Yes, I know.

LEN MARTIN: Speaking as a geriatric from Queensland, one of the reasons that I was going to cite, in terms of people keeping quiet, was lack of support by employers. As I was listening to you one could also think of being gagged by one's employers. It was along the lines of: you have got this frog and it's green and gold and you did mutter something about the hidden agenda and you could use it, but you can't. What a pity.