What's in a name? Well, 'this ere "tortis" is a insect'

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Abstract: *When I analysed the diversity of (non-human) animal life in the abstracts from the Australian Animals Study Group conference in July 2013, I identified a concentration on large, well-known mammals, which from a zoological standpoint are a miniscule proportion of the world's animals, and even a highly skewed sample of mammals. It raises questions about the interpretation of 'animal' if for one person it denotes 'big mammal' and for another a rat, a bat or even a bristle worm. As a zoologist, I work in a world where animals are classified in orders, genera and species. The formal Linnaean system of classification, with its Latin names, is the best way we have of coping with understanding the diversity of all life. I argue that it puts all animals on an equal footing, including humans. In contrast to Latin names, common names are not standardised, yet this was the only way in which animals were identified in the abstracts. The process of classification of animals raises many issues. While I argue for the use of the binomial Latin names, the challenge is to remain cognisant of the contestability of any system of classifying animals. It would be a mistake to draw, from an analysis of a small, skewed sample of animals, conclusions which supposedly hold for all animals. In my view, there is an evident bias in the abstracts towards companion animals and farm animals. There are ethical, ecological and cultural consequences of playing favourites with species. The invisibility of most native animal species within human cultural constructs can have dire consequences for their survival. As such, this paper was written to help integrate a zoologist's view of animal life into the discourse on the study of animals.*

In her engaging book *The Platypus and the Mermaid and Other Figments of the Classifying Imagination*, historian Harriet Ritvo (xi) opened with an entertaining sentence: 'A Punch cartoon of 1869 featured a railway porter astonishing a prospective traveller with the news that "cats" is "dogs", and rabbits is "dogs", and so's parrots, but this ere "tortis" is a insect.' Ritvo pointed out that even the most self-consciously enlightened rail customers, the experts themselves, had to adopt the taxonomic perspective embedded in the schedule of rail freight charges if they wished to transport their specimens. Ritvo expanded on that point by saying that railway bureaucracies were not the only British interest groups to develop systems of classification that reflected their particular needs. Butchers, artists and farmers, among others, all used distinctive taxonomies. With respect to zoological and botanical classification in the 19th century, Ritvo noted that anthropologists have pointed out that the classification of animals is apt to tell us as much about the classifiers as the classified. With this symmetrical approach to the politics of classification in mind, my endeavour is to examine the animal names in the abstracts from the 2013 Australian Animal Study Group (AASG) conference from a zoological viewpoint.

My paper at the 2013 AASG conference was entitled 'Rats, bats and koalas: ecologically absorbing native animals with vastly differing public personas'. I had not planned to comment on the diversity of animals in the abstracts. I concluded my presented paper by stating that while we continue to enrich our understanding of a few large, magnificent mammals with international profiles, we need to keep all animals in mind, including those most disliked and feared. I could have stuck to that thesis, because native rats, bats and koalas are fauna in which I have had a sustained working interest for many decades. At the conference, while I was struck by both the depth of the questions, and the insights from the presentations, I could not attend most sessions because there were six parallel streams. Thus, for everyone present and for those who could not attend, the abstracts are the main, or even only, source of information about most of the papers, and one particular aspect of the abstracts caught my attention.

I am a zoologist. From my disciplinary perspective, the predominant worldview that I see in AASG conferences emanates from the humanities. To help make my basic discipline of zoology more relevant and interesting to AASG members, I decided to juxtapose the diversity of animal life contained in the conference abstracts[1] against the diversity of animal life as seen by a practising zoologist. As a result, I identified that there was an intense concentration in the

abstracts on large and very large mammals. From a zoological standpoint, they are a miniscule proportion of the world's animals, as well as being a highly skewed sample of mammals. Like the 'elephant in the room', this is an issue that needs to be acknowledged and confronted. In my mind, these findings raise questions about whether the meaning of the word 'animal' is the same to all AASG members, and if not, whether the differences potentially warp or problematise claims to any common understanding of the aims and practices of wildlife management?

My focus as a scientist has been on the conservation and management of Australian wildlife, and the Australian landscapes upon which it depends. This paper was written to help integrate one zoologist's view of animal life into the humanities-based studies of animals, and to show that the cultural invisibility of most species can have dire consequences for their survival. For those trained in disciplines other than science, these findings should be shocking. Many species are sliding silently to extinction, while a few common, high profile species capture most of the public and academic attention.

For the purposes of this paper, the analysis of the abstracts was limited to the names of animals. From one point of view, this is a superficial exercise. It does not do justice to the abstracts' rich content, their depth of scholarship, or their ability to compress many complex ideas into a few sentences. Indeed, it is their content that continues to draw me to participate in the AASG conferences. It is the contrast to my working world of science that is so refreshing, and as an editor of a scientific journal (*Australian Zoologist*), I would welcome more such skilfully constructed papers to broaden the base of the thinking in the zoological community of scholars.

Animals in the 2013 AASG conference abstracts

The first table of the species groups in the AAGS abstracts is a broad classification into the five classes of vertebrates (mammals, birds, reptiles, amphibians and fish) recognised by zoologists, and a separate group called 'invertebrates' (Table 1). Many of my colleagues who study invertebrates are appalled at the discrimination against what is unarguably by far the biggest group of animals, which they label 'the other 99%' to point to the fact that 99% of all animal species are invertebrates (Ponder and Lunney). What is striking is that the list in Table 1 is dominated by mammals. Table 2 contains a list of the names of the mammals in the abstracts. Some are species-specific, such as koala, Tasmanian devil and quagga, but others are more generic, such as deer or dolphin, or refer to higher order classifications, such as bats. Two abstracts refer to groups in a descriptive manner ('Bigger mammal' and 'aquatic mammal'). I note too that scientific names are not used in the abstracts, the only exception being *Homo sapiens*, a term used in lieu of saying people or humans, and which I did not count in the list of mammals.

Table 1. The zoological classification of the animal groups in the abstracts for the 2013 Australian Animal Studies Group conference.

The heading for the first column, 'Class', denotes the group to which the vertebrate animals belong in zoological nomenclature. Invertebrates form a separate group to the five classes of vertebrates, but are included in this list for economy of space and because the other column headings are relevant. Column 2 shows the number of species in each of the groups as listed in the abstracts. The term 'Australian' means that the species lives in Australia, 'international' means that the animal occurs across the world, and 'domestic' means that it is a companion or farm animal. Not all animals mentioned in the abstracts were named to species level – some were more general, such as fish, but fish are separate from the other classes of vertebrates, so I have listed fish as a class. For mammals, there were 30 names, plus 2 categories, i.e. bigger mammal and aquatic mammal. For birds, there were 5 names, plus 1 category, i.e. shorebird.

Table 1.

Class	Number of species	Australian	International	Domestic
Mammal	32	Yes = 20	Yes = 27	Yes =11
Birds	6	Yes = 6	Yes = 5	Yes = 1
Reptiles	1	Yes = 1	Yes = 1	Yes = 0
Frogs	1	Yes = 1	Yes = 1	Yes = 1
Fish	3	Yes = 3	Yes = 0	No = 3
Invertebrates	3	Yes = 3	Yes = 3	No = 3

Table 2. The zoological classification of the mammals listed in the abstracts for the 2013 Australian Animal Studies Group conference.

Some entries are species-specific, such as koala, but others are more generic, such as deer or dolphin, or refer to higher order classifications, such as bats. 'Australian' means that the species lives in Australia, 'international' means that the animal occurs across the world, and 'domestic' means that it is a companion or farm animal. The final column is split into four size classes that reflect a common approach to grouping animals according to body mass. The final rows show the totals for the columns.

Table 2.

Mammal name	Number of Abstracts	Australian	International	Domestic	Size (small, medium, large, very large)
Dog	14	yes	yes	yes	large
Horse	4	yes	yes	yes	very large
Cattle/ cow	3	yes	yes	yes	very large
Elephant	3	no	yes	no	very large
Chimp	2	no	yes	no	large
Orang-utan	2	no	yes	no	large
Monkey	2	no	yes	no	large
Cat	2	yes	yes	yes	medium
Rhino	2	no	yes	no	very large
Pig	2	yes	yes	yes	large
Deer	2	yes	yes	yes	very large
Rodent	2	yes	yes	yes	small
Flying-fox	2	yes	yes	no	medium
Kangaroo	2	yes	no	no	very large
Silvery gibbon	1	no	yes	no	large
Gorilla	1	no	yes	no	very large

Table 2. (continued)

Mammal name	Number of Abstracts	Australian	International	Domestic	Size (small, medium, large, very large)
Possum	1	yes	no	no	medium
Lion	1	no	yes	no	very large
Giraffe	1	no	yes	no	very large
Hippo	1	no	yes	no	very large
Donkey	1	yes	yes	yes	very large
Quagga	1	no	yes	no	very large
Dolphin	1	yes	yes	no	very large
Rat	1	yes	yes	yes	small
Bat	1	yes	yes	no	small
Koala	1	yes	no	no	medium
Tasmanian devil	1	yes	no	no	medium
Tasmanian tiger	1	yes	no	no	large
Sheep	1	yes	yes	yes	large
'Bigger mammal'	1	yes	yes	yes	very large
'Aquatic mammal'	1	yes	yes	no	large
Wolf	1	no	yes	no	large

Totals

Mammal name	Number of Abstracts	Australian	International	Domestic	Size (small, medium, large, very large)
32	63	yes 20	yes 27	yes 11	small 3
		no 12	no 5	no 21	medium 5
					large 10
					very large 14

Notwithstanding the difficulties of listing, the mammal list has 32 distinct entries, along with the number of abstracts with that species. The dog dominates (14 abstracts), followed by cattle/cow (4), horse (3), and elephant (3). The 11 domestic animals are mentioned in 36 abstracts, which is much higher than the proportion of animals that are domestic.

Besides the columns of Australian, international and domestic animals, there is an additional column of size. Here I used terms commonly used in mammalogy, and split the list into four size classes. A summary of Table 2 is presented in the Totals. The yes/no split is of the total of the 32 mammals on the list. It is also most striking that very large mammals form the dominant group (14), and when large mammals (10) are added, at 24, big mammals are mentioned three times more than small or medium-sized mammals. The logo of the 2013 AAGS conference of a horse and a dingo fit into the larger mammal groups. Even on a cursory reflection, big mammals do not dominate in terms of the number of species of mammals in the world. They do dominate in terms of herd/flock size on farms, as companion animals, and in some minor groups, such as game animals that are the subject of hunting. In terms of biomass, the mass of big animals is very noticeable, and in terms of animals that are the subject of attention for animal welfare, these few big species dominate, but in terms of species numbers, they are a very small percentage indeed.

In David Macdonald's *Encyclopedia of Mammals*, there are 5096 species. There are 1999 species of rodents, and 1100 species of bats, i.e. 62% of all mammal species. In the odd-toed ungulates, there are 16 species, and this order, Artiodactyla, includes the horse. Order Carnivora has 283 species, and this includes dog, cat, lion, tiger and wolf, that is, 5 of the 32 listed species in Table 2 and 15 of the 63 abstracts mentioning mammals. The self-selection of species by the contributors to the 2013 AASG conference shows a marked choice of mammals that are not from the most species-rich orders of mammals.

A table of species can also list other attributes, such as dietary preferences, shelter needs, and whether the species is ground-dwelling, arboreal, nocturnal or diurnal, migratory, goes into torpor under harsh conditions, is colonial, territorial, or depends on one habitat or is a generalist. These are ecological attributes, and there are many others, such as sound and colour. Imagine adding two columns to Table 2, with the heading 'attractive sound' on one column with a yes/no response option, and the same for a column on whether the colour of the animal was

eye-catching. Although anthropocentric in nature, these concerns do reflect a popular agenda – small, ugly animals that are nondescript in colour and are silent, or have a harsh call, generally do not capture the public imagination, attract funds for research or conservation, or feature in conferences.

The issue of the relative visibility of species is crucial to understanding the evident bias towards large mammals. When constructing the first list of threatened faunal species in NSW in 1992, my colleagues and I first had to prepare a list of all the fauna.[2] That list came to 891 species, of which 132 were mammals (Lunney et al.). In my experience, most people find it hard to recognise more than 20 to 30 faunal species, and naming any threatened species, which make up 26% of the total, is a challenge. In effect, our Australian native fauna is mostly invisible. Thus, it is logical that we confine our discussion of native or wild animals to those that we can see and understand. The problem arises when the relative visibility of certain species leads to them being privileged in areas such as animal protection law, as O'Sullivan has shown. Moreover, the cultural invisibility of certain species can limit non-zoologists from grasping the diversity of animal life, and zoologists and members of related disciplines from grasping the complexity of human-animal interactions.

What emerges from these detailed lists is an overpowering preference by speakers at the 2013 AASG conference for large mammals, mammals that have an international image, and also mammals that can be seen in Australia. This preference may be of no consequence for other species, except, in my opinion, when there is a debate on species conservation, or animal welfare or ethical issues. This applies when one or more parties extrapolate from the discourse on big, popular mammals to interpret how to manage, conserve or treat all animals. In my experience, the more vexatious debates occur when one party is talking about animal welfare or animal rights – and in doing so draws on the discussions based on big mammals – and the other party gives greater weight to a conservation objective that involves research, management of invasive species or giving preferential treatment to endangered species. In these circumstances what is needed is more understanding, or the exchanges between parties will remain aggressive, particularly when one party uses legal provisions to dominate. It can be argued that Animal Ethics Committees have become such a battleground, and that, furthermore, this can be

counterproductive because of the animosity it engenders (Jones et al. 79, and Lunney, 'Ethics and Australian mammalogy' 1).

While it is possible to be wary of the potential damage to our understanding of animals by keeping too tight a focus on the so-called 'charismatic megafauna', there is a strong case for utilising this group to support conservation initiatives (Lunney, 'Charismatic megafauna' 63). Iconic species attract attention. Another advantage of using big, popular animals for ecological study is that their presence is noted in places where fauna records are rare. Newspapers are a major source, as are commercial records, such as scalp returns from pest species and sales of fur-bearing species. Farm records, stock reports and export and import records of commercial species on farms provide local records in Australia since European settlement. For these charismatic creatures, there exists a relative wealth of written and artistic records compared to that describing the more cryptic fauna, which comprise almost all of the animal life on the planet.

Human and nonhuman animals

What are not included in the tables are the two most commonly used words – 'animal' and 'non-human animal'. I counted 29 abstracts that used the word 'animal' or 'animals' and that did not mention a specific species or species group. This points to an implicit presumption that the reader will understand what is meant by 'animal(s)'. In my understanding of the 107 abstracts, it mostly means mammal, particularly large, well-known mammals. Also noticeable was the term 'non-human animal'. It is, as Yvette Watt (pers. comm.) pointed out, intended to acknowledge that humans are animals. This was not explicit in the abstracts. However, as Watt noted (pers. comm.), there is a growing recognition among scholars that the term is problematic, but no one has yet come up with a better term that includes humans as animals.

Presumably, one point of the term 'non-human animal' is to make a conscious effort to examine the distinction between animals and humans, as evident in the work of Paul Waldau, Kelly Oliver and Anna L. Peterson. The canonical philosopher Jacques Derrida (369) is another scholar who has examined the idea of the 'animal'. His interpretation of the word 'animal' is

arresting. As Derrida put it, 'Animal is a word that men have given themselves the right to give. … They have given themselves the word in order to corral a large number of living beings within a single concept: "the Animal," they say' (400). The relevance of this to the abstracts of the 2013 AASG conference pivots in part on what your views are on the role of science, biological science in particular, in creating or perpetuating a dichotomy between humans and animals through a formal system of classification of living things. For someone who sees science as a largely male-dominated discipline indifferent to animals, or one that regards them as lesser beings, then there would be intense hostility. If, on the other hand, you see the Darwinian insights as showing the evolutionary connections among all living things, and thereby breaking down the boundaries between humans and other species, then the formal Linnaean system, with its Latin names, is the best way we have of coping with understanding the diversity of all life. I would argue that it puts all animals on an equal footing, including humans, thereby breaking down notions of human exceptionalism.

Rats, bats and koalas — my paper at the 2013 AASG conference

In my presentation at the AASG conference I examined the public view of rats, bats and koalas. Previous examinations of public perceptions of rats include those of Robert Hendrickson, Jonathan Burt, Robert Sullivan and Jerry Langton. Taken as a collective these studies show that rats are among the most despised animals in the world. Bats have an equally poor public profile. They evoke fear even though they are almost invisible. Indeed, the case has been made that the public is culturally 'blind' to bats (Lunney and Moon 52). Rodents and bats comprise half of Australia's mammal species, but they are among the most unloved of animal groups. Rodents are so unloved that it seems inconsequential to many people that they are the most extinction-prone of all the mammal groups in NSW (Dickman et al. 347). Koalas are at the opposite end of that spectrum of public affection and concern, being the subject of a sympathetic Australian Senate enquiry in 2011 (Commonwealth of Australia).

Ecological studies of native rats, bats and koalas reveal different elements of the habitats in which they live. It is the build-up of the species-specific responses from detailed research that

is needed to provide the basis for the sustainable management of forest fauna. Since much of Australia's forest fauna is cryptic, nocturnal or small, it is almost invisible, and thus far less likely to attract attention and gain support for its conservation.

One cannot manage a forest just by studying one species, such as what has become the most iconic of species – the koala. It is inevitable that there are ethical, ecological and cultural consequences of such a bias in our understanding of biodiversity or, more bluntly, playing favourites with species[3]. I constructed the tables of all the species mentioned in the 2013 AASG abstracts partly to make that point about favourites. For a zoologist, especially in field ecology, which is where I specialise, compiling a species list is among the first things to do when beginning a research project. Preparing lists of species can be a challenge if that is not one's initial training, but it does help in understanding our immediate world. I have often heard people gasp when they learn of the biodiversity of Sydney Harbour, with its 3000 species of all records of crustaceans, molluscs, polychaetes (bristle worms), echinoderms and fishes (Hutchings et al. 255). For the specialists in this watery world, the human community's focus on a few big mammal species is an obsession that overshadows serious attempts to conserve all our native animals and their habitats.

The eye of the beholder

In question time following my paper at the conference, Peta Tait asked whether it was defensible for her to study only horses. My answer was that it is perfectly reasonable to study only horses, or any animal, but an error in our understanding of human-animal relations can arise from extrapolating from knowledge of a tiny number of such grand animals as horses to all animals. I call it an error because of the bias that it engenders in our conservation and management of the Australian fauna.

I was, however, far from indifferent to Peta Tait's thesis in her paper. On occasion I have mused as to whether my English grandfather, born in 1880 and raised on a farm in Lincolnshire, where he worked the horses that pulled the plough, would have understood the modern conservation ethic and the devastating impact of English farming methods and farm

stock on the Australian landscape and its fauna. When I knew him, my grandfather lived in Grafton on the Clarence River in northern NSW. When I was a small boy he took me for long rides in his sulky (an open, light, two-wheeled, one horse carriage) through the farmland on the drained wetlands of the Clarence that reminded him of his youth on the drained fens of Lincolnshire. His empathy with animals was a critical part of my upbringing. Among its lessons was the need to understand the animals that one is working with. Another lesson was to understand that others can perceive animals differently. This is an important point when discussing wildlife conservation in a wide variety of contexts. A horse's eye was one of the two visual logos for the 2013 AASG conference, along with a dingo. On closer inspection, the horse's eye was reflecting the photographer. That is, it is a human presence that dominates. Although my grandfather held a personal affection for an individual farm animal, his eye was that of an English farmer with myopic vision, preoccupied with the buying and selling of stock and unable to recognise the consequences of the British farm ethic for the Australian environment. One consequence was the clearing of the Australian wilderness for cropping and grazing by English farm animals, with its terrible consequences for the native wildlife – including the draining of the wetlands of the Clarence, which had huge, adverse impacts on waterbird populations (Smith 788).

Formal, zoological classifications reflect situated knowledge

Specificity is essential for managing wildlife

In reading the abstracts, I recognised that my paper on rats, bats and koalas was making the point that we need to be species-specific if our management efforts are to be effective. Notably, there was a lack of such specificity in most of the other abstracts. I was also aware that wildlife was barely a theme at the conference, rather, the papers were illuminating many aspects of the meaning of animal in cultural contexts other than wildlife management. Thus there appeared to be little need for specific names that followed a formal code of nomenclature, especially for such well-known animal names as dog and horse. However, in the future, as animal studies papers extend into more cryptic animal groups, or groups with many species of similar appearance,

then common names lose their value as a means of conveying which animal is under discussion. In such cases, drawing on acknowledged formal lists of names becomes increasingly important. One current example is the public discussion in the media of flying-foxes, including the vexatious matters of the Hendra virus and of relocating flying-fox camps (e.g. Jemison; Roberts et al.; Degeling and Kerridge; Rose; Needham). To the practised eye, the four large flying-fox species in mainland Australia can be distinguished, but to the untrained eye, they cannot be differentiated. It may not matter if the issue is cruelty to flying-foxes legally shot in orchards, because all species suffer. But given that two species are on the Commonwealth schedule of threatened species, and the Grey-headed Flying-fox *Pteropus poliocephalus* is also listed as threatened under NSW threatened species legislation, knowing the differences among the species matters when dealing with policy formulation, public complaints and official responses. This raises the long-debated case for adopting a formal, universally-agreed set of names for animals. Simultaneously, it raises the question of whether a critical evaluation of the classificatory schemes of zoologists is needed in the context of AASG scholars.

The scientific Latin names

Scientists classify nature for the purposes of understanding relationships between living things and their environments so that there is a common and mutual understanding of what is under consideration. Classifications also, and crucially, enable a multitude of legal, planning, policy and management instruments to be constructed. We can acknowledge that formal, zoological classifications reflect situated knowledge that in turn reflects the interests of zoologists, or more broadly, biologists. This acknowledgement applies widely to any endeavour to establish a system of classification, but here we are looking at the scientific Latin names given to animals. The Linnean Society states that, 'By grouping living things into defined hierarchies and giving them individual names we create order which allows us more easily to study the seemingly chaotic world of nature[4]. Carl Linnaeus is most famous for creating a system of naming plants and animals – a system we still use today. This system is known as the *binomial system*, whereby each species of plant and animal is given a genus name followed by a specific name (species), with both names being in Latin. For example, we are *Homo sapiens*.

Ludmilla Jordanova (32, 38) approached the subject of classification in her studies of science and literature in the 18th and 19th centuries as a way of offering important insights into cultural history. Jordanova identified a controversy that has been the subject of debate since the 17th century – whether humankind uniquely possessed language and was thereby of a different order from all other living creatures. Jordanova acknowledged that there were many different approaches to classification, but that they all emphasised a natural order discovered by humans. The approaches differed, Jordanova pointed out, as to where the order emanated from God, nature itself or from the human mind. This leaves the issue of the advantages and disadvantages of classification wide open for interpretation, which is why this matter takes up such a large proportion of this paper, particularly as this writer is promoting the advantages of a zoological outlook on animal studies.

Common names

In contrast to Latin names, common names are not standardised. This does not create confusion if the binomial names are used with the common names. Germaine Greer (15) provides a neat example in her book *White Beech*. As Greer points out, the name White Beech is used for any of five Australian tree species, *Gmelia leichhardtii, G. dalrympleana, G. fasciuliflora, G. schlechteri* and one member of a totally different genus, *Eleaocarpus kirktonii*. Greer (16) identified the White Beech in her book as *Gmelia leichhardtii.* Such detailed botanical knowledge is part of her enterprise to restore a rainforest in south-east Queensland. An animal example is *Isoodon obesulus,* which has the widely-agreed common name of Southern Brown Bandicoot in most of Australia, but in Western Australia it is also called by its local indigenous name of Quenda (Paull 180). In her book on the loss of mammals of the Flinders Ranges, South Australia, Dorothy Tunbridge (8) drew extensively on the evidence of the Adnyamathanha people, scientists and old documents. The detailed use of the local Aboriginal language for mammal names, used in conjunction with standard scientific names, as used in the South Australian Museum and CSIRO in her study, revealed the loss of species, although the primary point here is that the local language had its own taxonomy. Tunbridge (27) also noted that the

names of the mammals differed among the nearby Aboriginal language groups. As an Australian mammalogist, I can immediately recognise all the native mammals of the Flinders ranges because of the use of the Latin names. This is not to discount the significance of the Aboriginal names, rather, it is to point out that a universal language has merit for being certain as to what species is being discussed other than when you are a local, or belong to a tight group. It is that point that I am making here for AASG scholars given that the aim is to reach a wide audience of scholars, including scientists.

The nature of zoological classification continues to be a contested field, and although I support the inclusion of Latin names, I also recognise that its usefulness would limit one's understanding of how others see animals if only one name, the Latin name, is used. In his encyclopaedic book on *The Animal World of the Pharaohs*, Patrick Houlihan concluded his preface with a brief note on the taxonomic nomenclature he followed, and he named his modern reference books. In the text, he included the Latin names of the animals. This did not limit his interpretation of animals in ancient Egypt; instead, it has just given more certainty as to what species were being discussed. Tunbridge (71) presents another way in which common names convey meaning. She commented that the importance of the red kangaroo *Macropus rufus* to the Adnyamathanha people is reflected in the number of Yura Ngawarla words used to describe it in its various forms and colours. Urdlu is the main word, then twelve other words are listed with their meaning (71), such as arnarrunha (big kangaroo, old man kangaroo/euro).

One might note that common names, i.e. those in common use, but not standardised beyond the dictionary definition of well-known animals, form a classificatory system. Animal names carry meaning, often descriptive, sometimes pejorative, and usually evocative because of the associations with the names, and these associations are also culturally determined. Thus, using the common names for animals in the abstracts of the 2013 AASG conference was not culturally neutral. My intent here is not to look at common names, but to look more broadly at classification systems for names as part of my exercise in advocating the additional use of Latin names to expand the zoological horizon of AASG scholars. The history of naming animals is a rich subject for study.

Science is contestable and contested

In her paper on situated knowledges in relation to science and feminism, Donna Haraway ('Situated knowledges' 575) opened with the issue of the term 'objectivity'. Academic and activist feminist enquiry, Haraway contended, have decried what 'they' have meant and how it has hurt 'us'. The imagined 'they', says Haraway, constitute a kind of invisible conspiracy of masculinist scientists and philosophers replete with grants and laboratories. Haraway (577) posits that science – the real game in town – is rhetoric and a series of efforts to persuade social actors that one's manufactured knowledge is a route to a desired form of objective power. Science, Haraway (590) proposed, is the paradigmatic model of that which is contestable and contested. It takes little imagination to see that this view could be more narrowly focused on any classification system.

Haraway made that point in her paper on encounters with companion species ('Encounters' 100). Debates, she said, about whether species are earthly organic entities or taxonomic conveniences are co-extensive with a discourse we call biology. The word species, Haraway maintained, also structures conservation and environmental discourses, with the term 'endangered species' functioning to simultaneously locate value and evoke death and extinction in ways familiar in colonial representations of the always vanishing indigene. Haraway then stated that the discursive tie among the colonised, the enslaved, the non-citizen, and the animal is at the heart of racism and, lethally, Haraway added, flourishes in the entrails of humanism. Species, says Haraway ('Encounters' 101) reeks of race and sex and 'where and when species meet, that heritage must be untied and better knots of companion species attempted…'. Among the many observations that could be drawn from Haraway's writing is the conclusion that a system of classification, such as one that names species, is contested because of the power that it reflects of the oppression of some groups of people, and of animals, and sub groups of animals (e.g. endangered species), by the classifiers. One cannot blindly continue to advocate the use of Latin names for animals without acknowledging that development and application of the knowledge of classifying living things will remain contestable. The challenge is to use the Latin names, but remain cognisant of its contestability.

While I may choose to hold my ground for this practical way of encompassing the diversity of animal life with less confusion as to what animals are being referred to, the point is taken that the international classification of animals by scientists is part of a broader picture of science and the use of animals. My particular interest is in the conservation of Australia's wildlife. I contend that abandoning their conservation, walking away from any future research on live animals, or failing to construct policies to manage our wildlife would be irresponsible. It would allow extinction processes free reign while allowing invasive species to gain an ever stronger foot-hold. It would also result in widespread public dismay and would have little political support. I have argued elsewhere that the debate on the ethical use of animals in wildlife management has not been captured within the debate by the animal protection movement (Lunney, 'Ethics and Australian mammalogy'; 'Wildlife management I'; 'Wildlife management II'). While I acknowledge the contribution of the writers such as Haraway, Dunayer, Adams and Ford to the contested position of animals within the contestable hegemony of science, I could not derive a wildlife management strategy from these writings. What these authors do make clear, however, is that not only do zoological classifications of nature reflect particular social orientations, attitudes and interests of those doing the classifying, in this case conservation biologists, it does not amount to a case for abandoning them. It does, nevertheless, make it clear that future wildlife strategies should not be produced and implemented in isolation, that word choice matters, and the scientists and wildlife managers need to be clear about what is happening, for what reason, and use plain words so as not to conceal intent or results.

A sociological perspective on classifications of nature

Waterton ('Classification of nature') reflected on the ways we observe and describe the natural world using prior orderings or classifications to do so. She noted that classifications have fascinated anthropologists and other social scientists because of their central role in making sense of complex phenomena. Classifications, Waterton (112) noted, have largely been studied as being analytically inseparable from the historical, cultural, social and political contexts in which

they take place and this has included insights about formal knowledge, such as in modern science.

In their commentary on taxonomy, biodiversity and their publics in the 21st century through barcoding of life based on DNA, Ellis et al. (1) noted that possibilities are opened up for identifying, classifying and protecting the natural world. Also reflecting on barcoding living things, Waterton ('barcoding nature' 152) cited Durkheim and Mauss' essay of 1903 stating that their achievement was to move discussion about classifications away from the idea of a pre-existing logic in nature. Waterton ('barcoding nature'168) concluded that the making of new categories is not just about the natural and cultural aspects in the practice of ordering, but also whether the new technologies are breaking free of old cultural bonds, or whether they are just re-affirming the old ways of classifying human beings. Waterton considered that both forces are at play. Her warning is that we need to get used to these new genomic technologies.

A series of studies from the University of Lancaster puts the matter of classification and standardisation into a new realm of thinking. Waterton and Wynne (421) examined the science and cultural dimensions of environmental policy of the European Union. Their viewpoint is arresting in that they saw that the presence of science was ambiguous, being both a force of alienation and standardisation, as well as a source of binding authority. This conflict is complex in the policy domain of the environment. In their theoretical approach, they identified that rational discourses describing the natural world for the benefit of policy also tacitly construct the human policy world, by importing cultural constructs into it. They concluded their paper by recognising that the political, social and cultural influences on scientific knowledge play a defining and legitimate part in its make-up.

It is germane to note that wildlife management strategies are embedded in the political structures in Australia, and thus since the late 19th century have been increasingly responsive to the public via the standard processes of politics, the relevant Acts of parliament, and the bureaucracies that implement policies. In recent decades this has particularly manifested as responses to community demands for nature conservation and ethical treatment of (nonhuman) animals. It might be noted that all researchers, at least in NSW, need a scientific licence to study native wildlife, and if the study animals are live vertebrates, then every researcher in Australia

must have an approved protocol from an Animal Ethics Committee (Lunney, 'Wildlife management II', 'Ethics and Australian mammalogy'1).

My comment from my last 43 years in a government environment department in NSW is that wildlife management decisions have been alert to the political process, including public opinion and the media. However, an expanded network that includes scholars from other disciplines would enhance our capacity to see and manage our native wildlife and natural areas, and reduce the barriers to scholars interested in animals but not part of a bureaucracy. As a scientist, an editor, and someone keen on public communications, I am keen to publish my research, as well as my views on wildlife management, and I encourage others to do so. My participation in AASG forums, and the writing of this paper, is part of that process. I look forward to seeing a more nuanced view of the issues facing our wildlife from a cultural perspective rather than the we-they dichotomy I see in some writing where wildlife scientists are portrayed as insensitive to the cultural dimension of their work.

That 'tiny snail ... is my cousin'

On 25 October 2013, Germaine Greer spoke at the Great Hall, University of Sydney, and shared her experiences of rehabilitating an area of rainforest in south-east Queensland. After her presentation, she signed copies of her book, *White Beech*. Germaine patiently talked to each person who bought her book. She asked me about my interests. Besides stating that I was interested in fauna conservation, and the protection of native habitats and the restoration of those that have been degraded, I added that I valued her writing because it came from a different base than that of the scientific world in which I work. Her book encapsulated that sense of both wonder and practicality needed for a rainforest restoration project, and a strong sense of outrage of what has been lost. In her words, Greer (3) said that the realm of biodiversity is every earth-ling's birthright. 'Biodiversity', she added, 'is our real heritage as the ostentation of extinct aristocracies is not'. Greer sees that the 'tiny snail negotiating the edge of that lettuce leaf is my cousin; that it and I share most of our genes. Its survival and most of its kind depend on me.'

Greer has bridged the boundary as a humanities scholar into the science-based world of wildlife management and the conservation of natural areas. AASG aims to achieve that goal through the encouraging a wide range of interests and backgrounds to exchange ideas. The idea that I am promoting is that zoology is both interesting in its understanding of animals, and it has much to contribute to a wider understanding of animals. The particular focus in this paper was an analysis of the animal names in the abstracts of the 2013 AASG conference. The use of just the word 'animal', and the heavy concentration on a narrow range of animals, mostly large, well-known mammals, potentially limits the aim of AASG to foster a community of animal studies scholars, scientists, creative artists and animal advocates. In raising the issue of using a formal, universal classification of animals, there are many barriers for those interested in the cultural importance of classification and its potential uses and abuses. Accordingly, this paper examined a range of these concerns by looking at this issue of classification from a number of different perspectives, and identified many elements of apprehension. In my view the case for using the formal Latin names remains intact, but what should not remain untouched is any lack of understanding by scientists and others that such systems are cultural constructs that serve a particular purpose and are not without their human frailties in design or application. The point of this exercise was not to argue for one way of looking at the world of animals versus another, but to pursue the case for reversing the extinction process. As Greer (3) noted, biodiversity is every earthling's birthright. To sustain that birthright, we need to increase our collective efforts to manage wildlife, the threats to it, and to protect natural areas and repair those that have been damaged. There is vast scope here for scholars steeped in the humanities disciplines to participate in that endeavour. This paper has made the point that an intense focus on large, well-known mammals, without reference to the modern world's principal classification system for animals in all their diversity, is a potential constraint on that scope.

Notes

[1] http://aasgconference.com/ (last accessed 3 March 2014).

[2] Under NSW legislation, 'fauna' comprises four classes of vertebrates: birds, mammals, reptiles and amphibians.

[3] A term used effectively by Deborah Bird Rose in her undergraduate course at Macquarie University in 2012.

[4] http://www.linnean.org/Education+Resources/who_was_linnaeus . (Last accessed 3 March 2014).

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