POLITICS, PREJUDICE AND WILD DOGMA - PRESERVING THE ORIGINAL DINGO

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'In the end, we will conserve only what we love; we will love only what we understand and we will understand only what we are taught.' Baba Dioum —

This is so profound, sadly so true. Doesn't it all depend on the viewpoint any of us has on what should be conserved?

Do we know even today in 2016, exactly WHAT IS A DINGO? Permit me to teach a tiny amount, in the hopes that you may understand better, and if not to love, then at least help, to conserve.

"Teach the world the truth about dingoes" - was the mission we set for ourselves when my late husband and I established some thirty years ago our self-funded Dingo Discovery Sanctuary and Research Centre at Toolern Vale, near Gisborne. To preserve the original dingo for the future, to learn more about them and to educate the world.

Together, over these decades we combed the earth during every break opportunity, seeking possible relatives of our Australian national treasure, from Ethiopia to Alaska, from Tiera del Feugo to Bhutan in the Hilalayas, Scandinavia, Sharjah UAE, India, Indonesia, East Africa - everywhere there are wild canids. We learned from our travels that the dingo is unique, special and deserves the deepest human respect. For the wild canid role on every other continent of earth is as a subordinate predator to big cats and other large carnivores, whereas in Australia the dingo is the apex. We also learnt that the Asian village look-alikes are merely phenotypically similar, and have lost forever the true predatory prey drive, on the one way journey towards domestication. Contrary to deliberate propaganda and more myth, we contend that there are no true dingoes outside of Australia.

What does the word dingo evoke to you, personally? There is probably not one person present who perceives the dingo in the same way that I do. Those focussed on Koala rescue, for instance will see a totally different dingo than does the ecologist or the bird fancier. If you are motivated to conserve vegetation you will in all probability be quite indifferent to the plight of the dingo. After all it is only during this century that we are beginning to understand the tip of the iceberg when it comes to inter guild or holistic relationships, keystone species and top order predators and meso-predators on the continent of Australia, even if we are widely experienced in such things in other environments.

If there was ever an eight-ball in terrestrial environmental considerations, the dingo is right behind it, just as the shark is his counterpart in the marine kingdom. We all encourage our kids to watch Disney's Lion King, yet which of us understands that the story of the dingo fits right in there with Simba?

Year in and year out, without data to support, without an iota of substantiated evidence on reported losses, and with a myriad studies on dingo diet (Coman, Corbett, Allen), all arrive at the glaring truth that in less than 4% of all samples examined, was any trace of domestic meat detected. Yet millions of dollars are expended on continued eradication of Australia's apex land predator on the basis that it represents a threat to livestock. Further - in less than 27% of such cases is any vestige monitoring of actual outcomes of Control methods undertaken. *(Ritchie et al) In any other field such shocking lack of accountability would simply not be acceptable. Why do we put up with this situation in the

realms of pest animal 'control'? Most of all why do we in a social sense, sit back, and allow the continuation of the dingo as a declared pest animal in legislation, when any farmer can apply to control any animal whether it is designated pest or endangered species?

TEN MORE COMMONLY HELD FALSE BELIEFS ABOUT THE DINGO -

Dingoes are recently introduced Asian domestic dogs gone wild -

Fact: Dingoes figure in rock art and in indigenous people's legends as the precursor to humans on earth. Rock art found in Arnhem land dated at 26,000 years depict dog like animals co-operatively hunting with humans. Lack of fossils in this case does not necessarily translate to lack of dingoes. Australia has notably fossil - poor climatic conditions, and animals under 25 kgs do not generally fossilise at all. Dingoes weigh in at 13 - 20 kg. Nonetheless there are 3.5 thousand year old locally found dingo fossils in the Melbourne museum. Molecular researchers have recently estimated dingo DNA at around 18,000 years. The period for occupation of the Australian continent by dingoes is constantly being pushed back to the Palaeolithic era. It is the word "recent" which needs relevance here.

Now that we have the dingo genome, science is finding more evidence that dingoes not only originated in Palaeolithic times from a wolf- like now extinct ancestor, but to this day pure dingoes exhibit Palaeolithic metabolism which renders them unable to digest grains or fats, both products of human domestication

– which we know to be around 30,000 years. Conversely, domestic dogs, especially those which look phenotypically like dingoes, are showing up to 19 copies of the gene AMY2B, lacking in dingoes, which is responsible for producing the enzyme which digests grain. That is telling me that the Asian dingo-like dogs are in fact descendents of the dingo, rather than the ancestors. A great percentage of the population of Asian dogs live on rice, and all of them have domesticated away from having any prey drive at all. Dingoes cannot metabolise rice, or fatty foods. Given choice between a meal of mutton or a meal of rabbit dingoes will take the rabbit every time. The moral of this information is that dingoes will never choose a diet of sheep when there is lean rabbit, possum or wallaby available. In our experience even a bowl of crickets will be preferred to a bowl of lamb by our sanctuary dingoes.

Dingoes are not native

FACT - by every official definition in legislation and law the dingo falls well within the description for Native. There is now no justifiable reason to cling to any other.

Dingoes feast on sheep

FACT – dingoes at a maximum weight of 20 kg require only around 350 grams of food per day. They also prefer freshly caught food and are not known to cache prey as do foxes. The introduction of the rabbit to Australia by our hunting gentry ancestors was the greatest gift anybody could bestow upon the dingo population. Perfect meal size for one or two dingoes, fat free, tasty and nutritious. The rabbit probably saved many a possum and quoll and even kangaroo joeys from becoming dingo

meals or snacks. Dingoes are naturally energy conserving as a species, and certainly don't require anything like their own weight for a daily subsistence, they also suffer from pancreatitis if they ingest animal fat, so the sheep never has been favoured as dingo dietary choice. Every study carried out on the gut contents or scats of thousands of dingoes trapped, shot or poisoned over the last half century to this date has clearly shown that at most only 3% - 4% of dingoes (or wild dogs) had consumed any farmed meat at all, and further that there was no way of knowing whether this farmed meat was not in fact bait for the traps or carrion, or represented the domestic dogs unfortunate enough to be caught up in the sampling. That translates to a 96+% chance that no sheep will ever become a dingo meal. The figures are identical in studies for gut content today as for those done a century ago.

Of course that is not to say that placing freshly shorn heavily pregnant ewes out in marginal paddocks abutting dingo home range is not akin to placing northern hemisphere prey species in predator inhabited terrain in Europe. In Europe, however, there would be guardian shepherds or dogs to protect the panicking prey. In Australia we just resort to exterminating any perceived threat to these flocks bred for slaughter. The silence on the three million lambs that die every year of exposure, and beside which true dingo predation pales into total insignificance, is staggering. Why question husbandry methods when there is such a convenient scapegoat?

Dingoes are pack hunting animals

FACT – since the daily requirement of 300 grams does not justify the wasted energy required to slaughter something as large or larger than itself, pack hunting will only ever be resorted to when nothing else is procurable, and that includes invertebrates, lizards, bush rats, mice or even vegetable forms of nutrition. Unlike the wolf of northern hemisphere, which co-exists with and preys naturally upon large annual breeding ungulates, or likewise those of Tundra and reindeer, or Africa and the wildebeest or antelope species, all in annual migrations to grasses, the dingo has evolved over thousands of years on this drought scourged continent to co-exist with wallabies, kangaroos and marsupials which can regulate their young in harmony with the erratic environment. This has made the dingo into a virtual transformer. We now know that there are three fairly distinct eco-types of dingo, which coincide with the nature of the ecosystems they inhabit. Genome studies are confirming slight evolutionary differences between the dingoes which inhabit the Kimberley/Pilbara area, and the dingoes which have evolved on the eastern seaboard, highlands and south of Australia. In the vast inland open deserts, yet a further discernable change is evident. There are to us, also clear behavioural and biological differences between the three ecotypes of dingo. We are comfortable to use the descriptive terms "Tropical", "Inland/Desert" and "Alpine". Each has adapted to vastly differing terrain, conditions and prey type. In Australia evolution is quite clearly delineated as far as the dingo goes. Dingoes reflect their environment in their morphology and specialised conformation. Australia's native dog needed to develop intelligence and hunting skills which is co-operative intra-species, and even inter-species; ambush tactics, and other sensory skills, which we are only just beginning to discern today. Researchers from Yale university will very shortly publish some groundbreaking articles and papers on just how the dingo eclipses other world canid species in independent thinking techniques. Dingoes, therefore, are solitary hunters or develop cooperative tactics with bonded conspecifics rather than hunt in packs. Where more than two dingoes are observed together, this is likely to be simply a family group on a territory exploration and

teaching expedition, rather than a hunting party gearing up for the chase and kill of something so large that could not be consumed on the spot.

Dingoes are yellow – and anything not that colour is a hybrid

FACT: DNA tested pure dingoes legitimately manifest in three main colour patterns. Yellow, which ranges from sandy to reddish, black-and-tan (tricolour) and white-cream. These colours are indicative of camouflage properties. Black and tan dingoes are most often found where they do best, in heavily vegetated regions. The colour allows them to blend and hide from prey and predators alike. Pale coloured dingoes do well on light clay pans or salt flats such as around Lake Eyre. Reddish and sandy coloured dingoes can blend with rocks, red soil deserts and dried grasses. All three colour patterns also exhibit white extremities and chest markings.

Solid black and brindle are not original dingo colours, being mutations of the modern domestic dog, and more than small amounts of white on extremities, tail tip or chest/underbelly are not typical of the original dingo. Blue, merle, part-colours are also more typically found in domestic dogs, and these colours if present in wild living specimens do signify ingress of modern dog genes.

There are no pure dingoes left, only wild dogs

FACT: The degree of "purity" of the dingo in the wild will always be very high, given that nature will ruthlessly cull any animal which cannot fulfil its natural purpose in the food chain. There are a number of unassailable traits which the successful dingo will require and without them it will be a miracle for that animal to survive to first birthday, let alone breeding age of two years. Even in captivity only the toughest make it out of the whelping den, and of those only 50% will survive the first summer. Dingoes produce only small litters of 3 – 5 after two years of survival and avoidance of hazards. If he made it to adulthood in a striped suit of brindle, then he also inherited sufficient of the remainder of necessary features of dingo success. In fact, the new fashion colour may serve him better than another as camouflage, so will not be a hindrance in any way. Our belittling a dingo on account of his off-colour is way off the mark. Evolution is in charge. Animals that cannot evolve die. That same animal must have inherited sufficient of the wherewithal required to simply exist. He is a dingo, and on account of his colour should not be devalued. Colour is not nature's priority criteria for success. Success is the criteria for living and reproducing in the tough environments presented to today's dingo.

As an annual breeding species, tied to nature's biorhythms, the dingo, unlike the rabbit, or the wild pig, can never exist in plague proportions. "Explosions" of dingo populations are just not possible in Australia's bush. Only dingoes can beget dingoes. Whilst domestic dogs may in the slimmest of possibilities ingress their genes into the dingo gene pool, only those genes which will enhance the survival of the future dingo population will prevail within the evolution of the dingo. Nature — not man — will be the arbiter. A dingo is a dingo via his natural role in his environment, and socially within his own species, not via his appearance or colour alone.

Dingoes prey on native fauna

FACT – this is true. This is the role of apex predators in the circle of life. Without them balance is lost, species become genetically vulnerable and fail by starvation when the food source is insufficient for perpetuation of life. In the presence of keystone predators such as the dingo, prey species remain viable, healthy as a population, and do not succumb to the pressures of environmental fluctuations. They learn to practice avoidance of predator activities and become resilient in their participation in the food chain. The process is called trophic cascade and is part of evolution.

Dingoes are aggressive and vicious

FACT: Only in the instance of protection of territory, young, food, or bonded mate, or when there is no other alternative will dingoes display aggression. Wherever an alternative of retreat is possible this is the route a dingo will take. To observe them in interaction with familiar conspecifics or humans, reveals dingoes displaying the utmost gentleness and altruistic behaviour. Fathers treat young with tolerance and gentleness, will provision mate and young during nurture season, and teach boundaries and hunting techniques on locally available prey. First season females which have not bred themselves will all parent the young of older females. Such behaviour is a necessity in hard times if the population is to survive. This is precisely why domestic dogs cannot establish in the wild, without human assistance, as is so misunderstood. Dingoes have amazing social culture.

Dingoes "Stalk" humans.

FACT: Dingoes are curious and very catlike, and it is in their nature to investigate intruders into the home range by circling behind the interloper in order to sample scents which may have been left while remaining out of range or of direct human gaze and able to escape in the event of threat. This is nothing but defensive and curious dingo behaviour. To project the human meaning of "stalking" is to do the dingo a disservice and just another demonstration of misplaced fear and human ignorance. Dingoes do not and never have viewed humans as prey. Dingoes prey species are those in the range of 30 grams to 3 kgs. Only in extremes are larger prey species sought.

Dingoes are extremely cunning.

FACT: this is true. I am surprised that dingoes are given credit for being clever – but then, with such experts out there making a living from "controlling" them, there must be some reason to attribute to the fact that there are any surviving at all. The very fact that in spite of all the arsenal in use against them today should shine the light of wonder and respect upon Australia's native dog survival.

Dingoes are venomous - Dingoes have no dew claws - Dingoes steal human babies.

... the list continues of nonsensical propaganda and scare campaigning. It is not so many years since Australia realised that the Wedge Tailed Eagle should be removed from vermin lists and protected, and the white pointer shark likewise. Each day I wonder whether I will live to see the day that the masterful gamekeeper of our terrestrial bushlands will finally enjoy the same treatment.

In the meantime the Dingo Discovery Sanctuary, now bequeathed to the Australian Dingo Foundation in perpetuity, holds what is probably the world's largest collection of entire DNA tested

dingoes and permits approved non invasive research opportunities. Each year the puppies we breed are reserved by the zoos and fauna parks which generally keep only desexed exhibits.

There remain many dingo secrets yet to be uncovered and documented. We have certainly learned in our 24/7 - 365 days per year observations that much of what is written in early text books is unreliable. Dingoes are extremely intelligent and each has its own developed personality. Aside from that the changing seasons dictate shifts in individuals behaviour which will be missed via camera trap studies or even the lengthiest observation expeditions.

Currently the Adelaide University Veterinary School is undertaking a detailed dissection of those unique anatomical features which we have identified from our close-up hands-on studies. And these are features which without captive knowledge would never be discernable. They set the dingo apart in the canid realm. Data collected at DDC forms the basis of well reviewed papers emanating from many universities worldwide. Sadly not nearly enough from Australia.

Since the sanctuary dingoes are given opportunities to indulge in near wild behaviours in our large galloping fields, they retain their instinctive, hard wired predator traits. In fact, keeping our dingoes tame beyond puberty is an achievement which we can claim for only a handful of particular animals. Pure dingoes can be tamed, but not domesticated. Far from losing their natural wild abilities, we are aware of unintended re-wilding of captive born dingoes in a number of cases around Australia. There is much to uncover. In the race for survival in nature's climatic whims, Australia's native dog will shine supreme – provided it is given quarter rather than the continued policy of eradication.

In conservation of the dingo as keystone predator in Australia, so too will a natural aid to conservation of all the ecosystems inhabited by this species, and all the organisms which in the circle of life depend on the presence of such for healthy balance. It is simply a matter of understanding, and teaching.