

## **Kangaroos - A History**

Kangaroos, wallabies and koalas are endemic to the Tomaree Peninsula. (i.e. specifically the eastern grey kangaroo, red-necked wallaby and the darker swamp wallaby).

But there is a history of change and variation in the numbers and distribution of marsupials in and around the course over the years. This is as a result of natural events (e.g. bushfires and predation) as well as man-made factors. These anthropogenic factors have at times resulted in a *decreasing* effect on the population (i.e. due to suburbanisation adjoining the course, loss of habitat, car strike and in more recent years, fertility control implants) as well as an *increasing* effect (i.e. interventions which introduced animals on to the course in previous years).



**Above:** (Left) An eastern grey kangaroo and joey (Centre) Red-necked wallaby (Right) The darker Swamp wallaby. All are endemic to the Tomaree peninsula.

## **The Early Days**

With construction of the original nine-hole golf course called 'Tomaree', commencing in 1960 on part of what is today Nelson Bay Golf Course, the natural environment was altered. The creation and continual improvement of grass covered fairways, creating a food source and open range, attracted both kangaroos and wallabies. Loftus Chalmers, one of the founders of the club and former Captain for sixteen years wrote the following in 1986 about the fauna on the course:

During the early days of the club, the wallabies (*sic*: probably also kangaroos) were quite a feature of the course, but unfortunately bushfires, dogs and encroaching habitation saw them gradually disappear. Kangaroos, wallabies and koalas have been introduced by recent committees and are occasionally found on the course. Birdlife

is far more prolific; magpies, kookaburras, galahs, rosellas, noisy minors and top-knot pigeons have become exceedingly tame. It is not unusual for a noisy minor to try and extract a woollen thread from a club cover or frighten a player with a playful 'snap' during the nesting season.

(Note: Port Stephens Shire Council employee, Merv Lynam also introduced some koalas on to the course.)

Former Board Member Sid Greedy recalls that pre-1980 there were 'kangaroos everywhere' on the course. With the encroachment of suburbia and houses (i.e. known as the 'Seabreeze Estate') bordering the course to the north on Lawson and Armidale Streets in the 1970s and 1980s, the situation changed. Many of the new homes brought with them domestic dogs which tended to roam the course unchecked in packs. Sid recalls that one particular dog was a great dane. 'It looked like a bloody horse' commented Sid, a then resident of Lawson St. The dogs ran about the course and through adjoining neighbour's properties.

Naturally, the presence of dog packs discouraged kangaroos and the even more timid wallabies from venturing onto the course. Sid Greedy remembers one of the Green Staff, irrigation expert Gordon Hilleary, declaring that the last kangaroo on the course was chased into the dam between the now 7<sup>th</sup> and 23<sup>rd</sup> fairways and drowned. This occurred in the mid 1980s.

Gordon worked at NBGC from 1976 to 2011, just on 35 years. As recently as April 2017, while enjoying a *Kangaroo Encounters Tour* with his son (who used to work in the Pro Shop) and family, Gordon commented that: 'in the early days, there were probably more wallabies on the course than kangaroos'. Gordon well remembers extracting that dead and decomposing kangaroo from the dam: 'worst job I ever had at the golf course'.

Gordon also commented on his experience with koalas on the course: '... over the years I was there, many koalas were released from time to time but they just hung around for a few days then would disappear. Also every now and then you would notice the odd koala (usually high in the trees) but they were just passing through and the same would be happening today with them.'

Primarily due to the presence of dogs, there followed a period of several years in which no kangaroos were seen on the course.

A number of playing members felt at the time that the re-establishment of kangaroos and wallabies on the course would add to the aesthetic and natural appeal of the golf course. Many considered: 'roos are part of the scene.' In the late 1980s Sid Greedy set about obtaining animals to re-establish a population. This would prove to be a convoluted bureaucratic task.

Kangaroos and wallabies, like all Australian wildlife, are protected species. Their stewardship and management falls under the control of what is now called the NSW National Parks and Wildlife Service (NPWS). In a very real sense, kangaroos and wallabies are the property of

the Crown, which is the representative of all Australians. Strict rules and guidelines apply to any intervention involving the marsupials.

Following discussions over many months, Mr Denis Aartzon from the NPWS obtained three kangaroos from *Oakvale Farm and Fauna World* which were gratefully received and released on the 18<sup>th</sup> tee in 1988. Sid recalls: 'The animals took off and a full year elapsed before a member commented to me: I've seen one of your roos.'

Word must have 'got out' that NBGC were seeking wallabies as well. A chap from Oakhampton outside of Maitland rang the then Course Superintendent, Kevin Wellard, and offered NBGC five red-necked wallabies. They were also received with thanks. Kevin, his assistant Anthony Ross and Sid Greedy travelled to Oakhampton and collected the animals which were then temporarily penned in Sid Greedy's Lawson St backyard prior to being released on the course in 1989.

DNA evidence collected since 2012 (from kangaroos only) would strongly suggest that the kangaroos that are seen on the course today in 2017 are descended from additional animals, and not solely the direct descendants of those three re-introduced animals. Unrelated kangaroos and wallabies, who were already present in the surrounding bush, would have ventured onto the course over the years to feed as conditions improved. The most likely answer is probably both factors—animals from a pre-existing bush population and re-introduced animals—contributed to our present population.

But what is certain is that a debt of gratitude is owed to Sid Greedy for his foresight and years of negotiation with NPWS, and also to the course staff such as Gordon Hilleary who further assisted by ensuring animals were not harassed by, what was then, the odd dog on the course. The enjoyment so many golfers and tourists derive today in seeing that most quintessential of Australian animals, the kangaroo, in full flight across our fairways was certainly greatly assisted by their efforts. Thankyou gentlemen.

## Science

It would take several more years, until 23 July 2012, before the next intervention in the management of the kangaroos on NBGC would be undertaken. That was the first day Dr. Catherine Herbert from the University of Sydney, accompanied by research students Angeles Roca & Jaycee Britter, visited NBGC.

In the years preceding this initial visit, playing members and the Board of NBGC had concerns about the growing numbers of kangaroos on the golf course. Animals can obstruct play at times, dig holes on fairways and an animal care issue can arise if kangaroos are struck by golf balls. Golf ball strike can result in fractured skulls and broken legs. Both cases require euthanasia.

A Memorandum of Understanding (MoU) was drawn up in 2012 between NBGC and the University of Sydney and the Kangaroo Management Plan began. Member Phil Murray (now

forever known as 'Kangaroo' Phil) was instrumental in instigating both the research study and subsequent Kangaroo Encounters Tours tourist venture. Volunteering as a wildlife animal rescuer at the time, and having an interest in science, Phil with the consent of the Board, contacted the three leading kangaroo experts in the country to discuss NBGC's issues and needs. Fortunately, Dr. Catherine Herbert from the University of Sydney was looking for a research site to enable students to have hands-on experience and to test fertility control drugs—exactly what NBGC required. That was in 2012.

The aim of the Kangaroo Management Plan is to manage a sustainable population of Eastern Grey Kangaroos on Nelson Bay Golf Course and at the same time reduce or eliminate any negative impacts that may affect the golf course, players, the kangaroos themselves or the broader community.

The main feature of the project was the use of fertility control implants in 60 females. The implants had a maximum effectiveness period of about eighteen months to two years. The implants, together with two instances over the last four years (2012-2016) of feral dingocross dogs entering the course and hunting/killing kangaroos, as well as reasonably high rates of road mortality, has significantly reduced the population. Having a maximum count of approximately 220 eastern greys in 2012, the current population in March 2017 is about half. i.e. 110.

As at early 2017, over the past four year period, the university researchers have made 46 visits and undertaken 150 days of field work on site, assisted by numerous member volunteers. Research and monitoring of kangaroo numbers continues with a series of counts being undertaken every three months. In 2012 NBGC knew nothing about the kangaroo population, not even an estimate of numbers. Four years later, a comprehensive data base has been developed so that any decisions about future interventions will have a scientific basis.







**Previous Page:** (Top left) 'Kangaroo Phil' releases an eastern grey following measurement and processing. (Top right) Joeys are measured and DNA samples taken. (Bottom left) Head Researcher, Dr Catherine Herbert, with gas-powered dart gun, about to sedate an animal. (Bottom right) University of Sydney Researchers left to right: Dr. Catherine Herbert, Dr Derek Spielman (kneeling) with PhD students Holly Cope and Georgia Thomas.



**Above:** Dr Catherine Herbert, Georgia Thomas and Angeles Roca (from Chile).

**Below:** PhD student Holly Cope assisting Dr. Herbert.



**Below:** Feral dogs (dingoes crossed with feral domestic dogs) on course and their impact. Photos taken between 2012 and 2016.





## **Tourism**

In 2015 member Phil Murray had an idea. During the 2014 World Blind Golf Tournament held at NBGC, Phil ran informal, free kangaroo tours for the friends and guides of blind golfers. Having been instrumental in developing the research program with the University of Sydney, Phil had the knowledge and hands-on experience to be a kangaroo guide. The overseas visitors loved the unique Aussie experience.

With the devastating clubhouse fire of September 2015 and a general need for golf clubs to broaden their activity base and attract guests who would not normally visit a golf club, Phil identified a business opportunity—a way to develop an additional income stream.

But turning an idea into a reality required hundreds of hours of volunteer work by Phil and his dedicated team of NBGC member guides: Max Stocker, Keith Bryars, Nick Ledingham, Barry Schultz, John Wade, Sandra Pride and John Townsend.

On 28 October 2015 Phil walked out onto the course accompanied by a couple of English tourists and Sue George, wife of member Neville George. These were the first paying customers. *Kangaroo Encounters Tours* had begun.

A little over sixteen months later, over 300 tours have introduced 1400 guests from 54 countries to the beauty of NBGC and our mobs of eastern grey kangaroos. Walking tours have been mostly replaced by six-seater golf cart tours. Though Phil has done the bulk of the tours (250 to date, i.e. 80%), the team of volunteer guides has grown to eight.

Over \$20,000 has been raised for the club and an additional \$2,000 for wildlife carer Anne Williams through donations and the sale of Anne's book *Caring for Kangaroos and Wallabies*. TripAdvisor reviews have overwhelmingly given the highest rating: 'Excellent'.

The tourist potential is enormous, the future looks bright and the sky is the limit.

Written by Phil Murray

12 April 2017



**Above:** *Kangaroo Encounters Tours* has proven to be an outstanding success—and even managed to recently get a favourable mention in the prestigious newspaper *The New York Times*.