Port Stephens Comprehensive Koala Plan of Management Steering Committee

Amy Spadaro
CKPoM Steering Committee Secretary

Committee Secretary
Senate Standing Committee on Environment and Communications
PO Box 6100
Parliament House
CANBERRA ACT 2600

Re: Inquiry into the status, health and sustainability of Australia's koala population

The Port Stephens Comprehensive Koala Plan of Management (PSCKPoM) Steering Committee represents community based wildlife volunteer rescue services including the Hunter Koala Preservation Society (HKPS) and the Native Animal Trust Fund (NATF), Port Stephens Council Sustainable Planning Section, a Port Stephens Councillor, various ecological consultancies, the NSW Department of Environment, Climate Change and Water (DECCW), Hunter Water Corporation (HWC), and community representatives.

The Steering Committee submission is framed around the points that the Senate Inquiry has particular reference to:

(a) the iconic status of the Koala and the history of its management;

History of management in Port Stephens

The Port Stephens Council Koala Plan of Management (CKPoM) was prepared by Port Stephens Council (PSC) and the Australian Koala Foundation (AKF) and printed in November 2000. Assistance was provided by the NSW National Parks & Wildlife Service (NPWS) along with the CKPoM Consultative Committee.

This 2000 Plan was preceded by the 1994 draft PS Koala Management Plan with input from NPWS, local wildlife groups and the Australian Wildlife Atlas.

The year 2000 Plan was intended to replace the State Environmental Planning Policy No 44, thus the principle aim of this CKPoM is identical to that of SEPP 44:

> "…*to encourage the proper conservation and management of areas of natural vegetation that provide habitat for Koalas, to ensure permanent free-living populations over their present range and to reverse the current trend of population decline"*

Considerable effort and resources of state and local government and NGOs have been expended over the past 15 years including by Port Stephens Council while supporting the CKPoM Steering committee and its initiatives.

Unfortunately, despite the CKPoM being in place, the simple fact is that loss of Koala habitat through vegetation clearing, fragmentation of existing habitat, cars, disease and dogs are the significant causes of the dramatic population decline in Port Stephens.

(b) estimates of Koala populations and the adequacy of current counting methods;

The Australian Koala Foundation estimates that just 400 to a maximum of 800 Koalas remain in the Paterson Federal Electorate as stated in their submission to the Federal Government Threatened Species Steering Committee on 10 November 2009. Three years ago in Port Stephens an undergraduate thesis indicated that an estimated 350-500 Koalas were all that remained (Allen, 2008). Much has changed for the worse in three years and it should be noted that these are estimates and no thorough population surveys have been undertaken.

There is no doubt Koala numbers are dwindling in Port Stephens. Fewer animals are being hit by cars, and this is because there are fewer around, not because driving techniques have improved. Anecdotally, many long term residents of Port Stephens LGA note that they would frequently see Koalas on and around their properties 5-7 years ago and for the last two years Koalas have rarely been sighted.

The data meticulously collected by Koala carer organisations in Port Stephens provides statistics that are founded on fact and over time they provide a valuable guide to what is happening to the Koala population. Conversely, presuming Koala populations based on the existence of habitat is not factual. There are no trends produced, and no accounting for the loss of Koalas within that habitat from dog attack, disease or fertility issues. Furthermore, estimations by others/ecologists of what is Koala habitat can be erroneous.

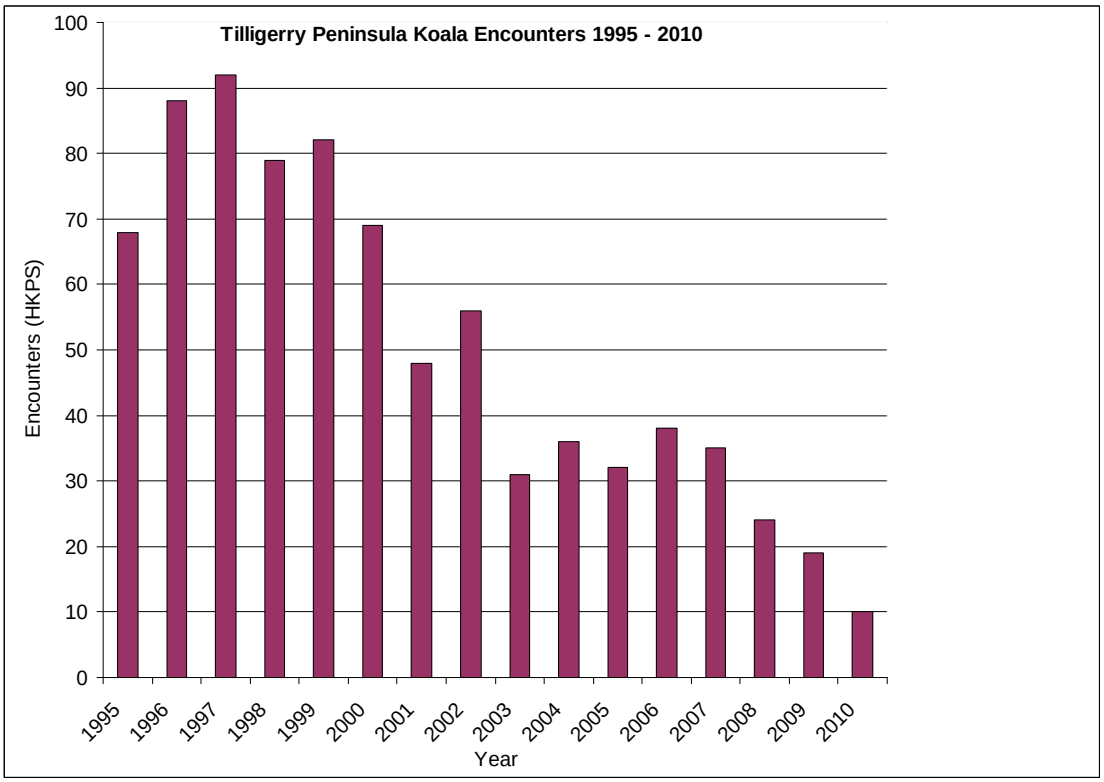


Figure 1: Hunter Koala Preservation Society data

In relation to the data input into the graph above, it is clear there has been a decline in rescues on the Tilligerry peninsula over the years. The decline has been dramatic since 2007.

For 2010 the Tilligerry peninsula only had 10 encounters. This reflects that there are not many left to hit, to be attacked by dogs or to be taken for treatment for Chlamydia. By comparison, there were more than double the number of encounters for each of the years 2003-2008, which is very concerning. It is thought that perhaps a critical level has been reached putting the species on the peninsula into a steep decline. Encounters once numbered 60-90 a year in the 1990s. It seems the late 1990s is where the damage was done and the tipping point approached.

Port Stephens Council soon plan to undertake population monitoring on the Tilligerry Peninsula.

There is no current adequate method of getting a good estimate of Koala population numbers. Over a small area the closest population estimate can come from an intensive survey by people experienced in koala spotting but this is so labour intensive that it is generally impractical. Koalas can sometimes be difficult to observe with daytime transect searches, and spotlighting is also difficult. Community observation surveys have limitations as they are biased toward sightings near human population centres, so that large bushland areas that include potential koala habitat show no sightings.

One concern with the Spot Assessment Technique surveying method is that sometimes presence of scats can indicate Koala presence in the past but not recent presence. It can be difficult to age scats. Often an ecologist will just look at complete pellets that appear fresh. When pellets are fresh, they have a greenish tinge, however even old scats take on a greenish tinge when it rains. The rate of decomposition of scats varies greatly depending where they are lying. If they are partially buried they are broken down by microorganisms much more quickly.

A major concern is that we don't really know how low the population numbers have to drop before the population becomes unviable. In Port Stephens the consensus is that it may already have reached that point in some localities.

(c) knowledge of Koala habitat;

The development of Port Stephens Comprehensive Koala Plan of Management involved mapping the Koala habitat in the local government area. The details of the mapping of preferred and supplementary habitat can be seen below, in addition to the level of protection that are offered to those habitat areas by reservation or Environmental Protection Zoning. In the Port Stephens LGA there is inadequate protection of preferred Koala habitat. The Koala habitat mainly occurs on the floodplains which are predominantly privately owned whereas the reserved land (eg. Tomaree National Park) is often away from the floodplains and primarily Smooth-barked Apple - Blackbutt forest or other poorer quality habitat.

	Total Area (ha)	% of total habitat that is 'reserved'	**Private land (ha)^**	**Private land that is currently not zoned Envl Protection (ha)**	% of private land habitat considered **inadequately protected**
Whole Port Stephens LGA (land only)	85016				
Preferred Koala habitat	7547	36%	4854	3613	74%
Supplementary Koala habitat	7765	54%	3543	2379	67%

^ Private land might be developed and the habitat lost. Hunter Water land is considered private, as the land they still own (hasn't been transferred to NPWS) could be developed for infrastructure etc.
Non private land that is considered 'reserved' is National Park Estate, State Forests, Port Stephens Council Controlled land (Community and Crown Trustee).

The Port Stephens CKPoM also includes other mapping categories. There is approximately 5,600 hectares identified as Linking Areas (including over cleared land). There is also approximately 4,200 hectares of habitat buffers identified around Preferred Habitat.

Although national parks and reserves such as Tomaree National Park, Moffats Swamp Nature Reserve, Tilligerry Nature Reserve and Tilligerry Habitat State Nature Reserve support Koalas, the majority of the LGA's Koala population occurs outside of these reserves.

Preferred habitat in the coastal strip of Port Stephens is frequently the intact Swamp Sclerophyll Forest community and Supplementary habitat includes areas where the Swamp Sclerophyll Forest intergrades with the Smooth-barked Apple Blackbutt Forest vegetation community.

There are many more rescues and encounters of Koalas on the Tomaree peninsula than the Tilligerry peninsula in Port Stephens. Areas considered the most vulnerable populations of Koalas, necessitating the most number of rescues are One Mile Beach/Boat Harbour/Anna Bay, followed by Salamander Bay/Taylor's Beach/Nelson Bay/Corlette/Soldier's Point. In the west of Port Stephens LGA, the next group at risk from future loss of habitat due to development are in Willimatown/Medowie/Campvale/Salt Ash/Raymond Terrace.

Community surveys have been undertaken in Port Stephens in the past. The surveys involve asking residents to report Koala encounters on a particular survey date in spring. When comparing encounters reported, the largest decrease in Koala numbers was evident from Tanilba Bay, Lemon Tree Passage and Mallabula on the Tilligerry peninsula. Between 1992 and 2004, residents also noted a decrease in the Koala populations within the Tomaree peninsula, Anna Bay, Boat Harbour, Fingal Bay, Corlette, One Mile Beach, Shoal Bay and Salamander Bay (Allen, 2008). These surveys did not give an indication of Koala population numbers per se, but can assist the understanding of trends.

(d) threats to Koala habitat such as logging, land clearing, poor management, attacks from feral and domestic animals, disease, roads and urban development;

It is not enough to protect the Preferred Koala Habitat mapped in Port Stephens. The areas of Supplementary Habitat and Habitat Linking Areas must also be protected to allow for the movement of Koalas within and surrounding their home ranges. The intergrade area between Preferred and Supplementary Habitat is considered to be very important for Koalas.

Another threat to Koalas is climate change. Associated habitat loss due to sea level rise, impacts on Eucalyptus species and their browsing value for Koalas, and the possibility of more frequent and catastrophic bushfires are important future threats that we don't yet fully understand.

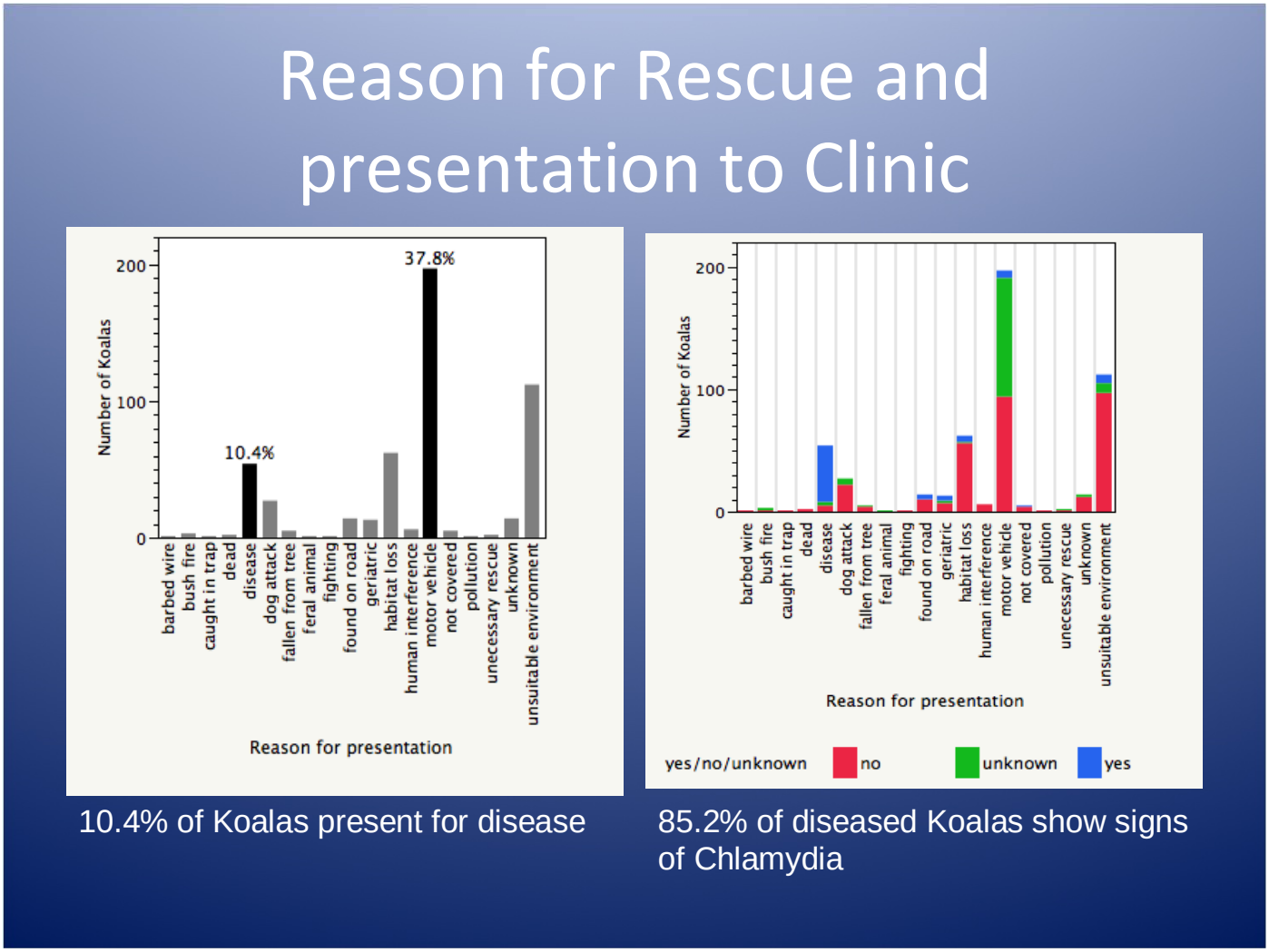
The number of cars and roads in Port Stephens are on the increase. In areas that Koalas are commonly hit, the issue of speed is definitely a factor, as is the continuous flow of traffic. Floppy-top fencing is often ineffective if poorly maintained or incomplete.

In areas of urban expansion, there are examples of where Koala corridors have been blocked by the installation of colourbond fences which a Koala cannot climb. Barriers to movement, in combination with habitat loss, results

in more deaths of Koalas as they are forced to search for food, but have limited dispersal routes and increasing contact with urban hazards such as cars and dogs.

Veterinarian Dr Donald Hudson's research

This research into Chlamydia analyses data collected by Port Stephen's two Koala care organisations and three veterinarian clinics. The study involves data from over 500 Koalas collected over a four year period from 2005 to 2008.



10.4% of Koalas present for disease

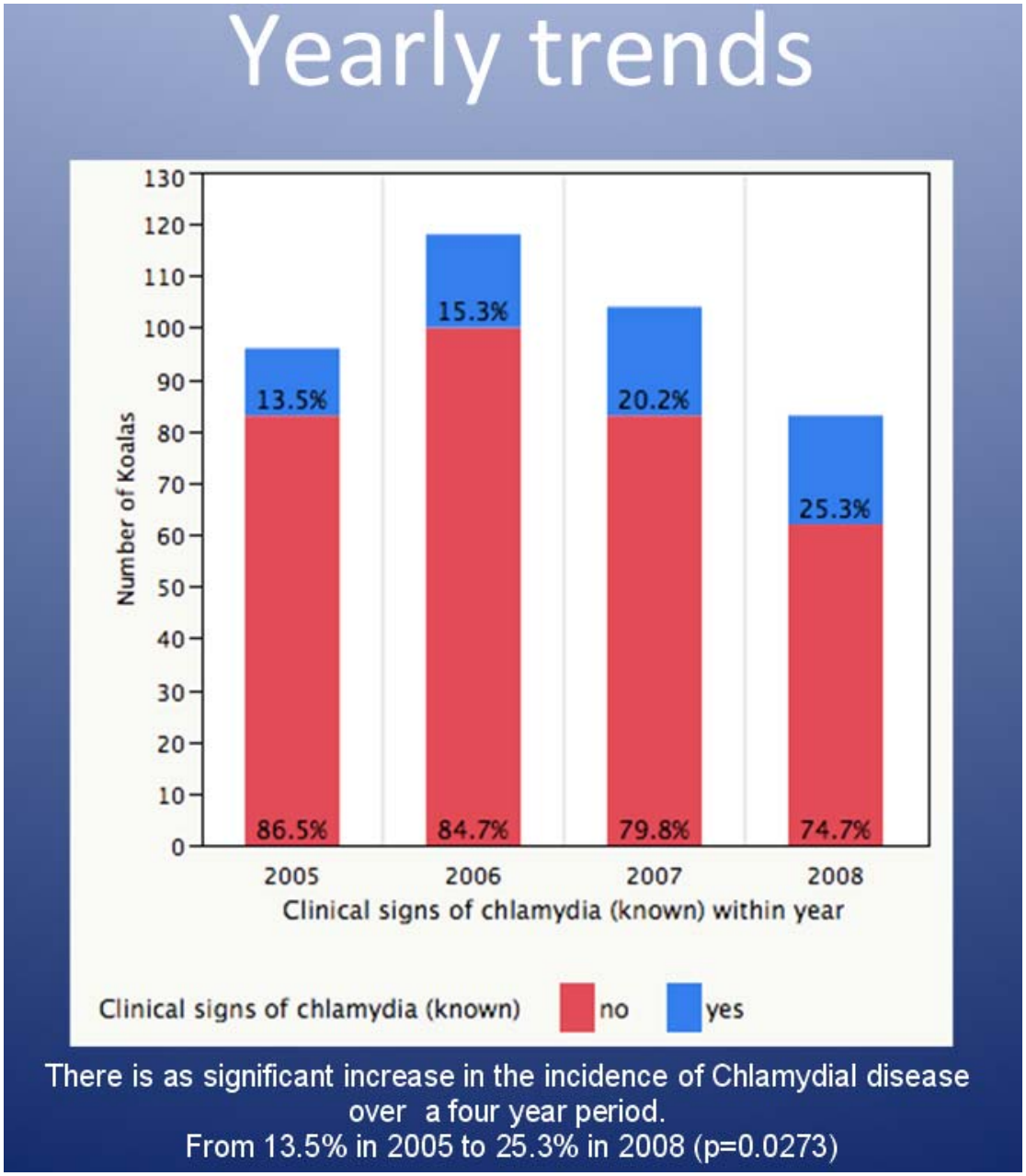
85.2% of diseased Koalas show signs of Chlamydia

- The main reason for presentation at 37.8% is motor vehicle accident, but there are the 10.4% of Koalas that are presented for disease.

- You can also see here the other major reasons for rescue, such as
  - habitat loss 11.9%,
  - being found in an unsuitable environment 21.5% and
  - dog attack 5.2%.

Unsuitable environment can consist of back yards, shopping centres, and roads.

The blue shows those with clinical signs attributed to Chlamydia. 85.2% of diseased Koalas show signs of Chlamydia.



- This graph above shows overall Koalas presented each year as well as the percentage showing signs of Chlamydial disease.

- There is a significant and worrying yearly trend towards an increasing percentage of the population having clinical signs of Chlamydia.

- The percentage having Chlamydia has increased in four years from 13.5% in 2005 to 25.3% in 2008

- This is of concern, and further investigation of data and analysis of regional differences in factors such as weather, habitat loss and urban development would be valuable. Veterinarian Dr Hudson is wanting to

move forward with such investigation however there is a lack of available funding.

- Dr Hudson is also looking at how we can improve the release rates of Chlamydia affected koalas as well as any controllable factors that may lower the incidence of Chlamydia in the population.

The percentage of animals presented that have clinical signs of Chlamydia increase in December, January and February compared to the rest of the year. Dr Hudson has indicated it is possible that the combination of increased temperatures and decreased rainfall may result in an increase in disease (lower leaf moisture content may lead to dehydration stress in Koalas and more disease prevalence).

It appears that despite some hope of a human Chlamydia vaccine about four years ago, nothing has eventuated and we are unsure how the University of Newcastle's Chlamydia vaccine research project is progressing. Given the difficulty experienced in treating Koalas with antibiotics, a vaccine would appear to offer the best chance of increasing Koala numbers in outer urban areas where so many come into care as a result of injury and are nursed back to health only to be released otherwise healthy but for the Chlamydia infection and of course, infertile.

Anecdotally, the years when more joeys are recorded are those following a year of good leaf quality. In drought times, (eg. prior to 2007) and following bushfires, there are few joeys recorded. During droughts the lower leaf moisture content results in dehydration stress in Koalas and they are less likely to breed successfully and Chlamydia is more likely to affect weakened Koalas.

Retrovirus

Local veterinarian Dr Rod Starr took samples from 33 Koalas over a 12 month period for testing by Queensland University. All of these were positive for retrovirus. We are uncertain whether the virus levels were high in each tested Koala. It is thought that in combination with fragmented habitat and stress, reduced fertility due to Chlamydia, in years to come, the retrovirus and lymphoma, leukaemia and immune suppression could result in extinctions. Dr Donald Hudson commented that in Port Stephens they haven't yet seen symptoms presenting – they haven't found tumours/sick Koalas.

(e) the listing of the Koala under the Environment Protection and Biodiversity Conservation Act 1999;

The Committee formally supports the listing of the Koala under the Environmental Protection and Biodiversity Conservation Act 1999.

The regional conservation Status of the Koala varies from secure in some states to vulnerable in other states and even extinct in some areas which had

Koala colonies, due to land clearing and urban expansion. Koala habitat is poorly protected in all areas, thus Koala numbers have declined rapidly over the last 10 – 20 years, with increasing human population competing for the remaining habitat.

It is anticipated that the Senate Inquiry will show regional differences in the status of the Koala (there are Koalas present in high numbers in parts of South Australia and Victoria). Therefore, the Committee would like to suggest if it is more appropriate:

- **that the listing under the EPBC Act be: "Koala populations on the east coast of NSW and QLD"**

If the Koala was listed in this way indicated above, there might be merit in having the listing as Endangered rather than Vulnerable.

The simple fact is that loss of Koala habitat through vegetation clearing, fragmentation, cars, disease and dogs are the significant causes of population decline in Port Stephens. As Koalas are impacted upon by each of these causes, the resultant effect is a steep decline in the population.

Evidence mounted by the Australian Koala Foundation and recently placed before the National Threatened Species Scientific Committee by 20 of Australia's leading Koala scientists recommends that the Koala be placed on the Vulnerable Species list because of the decline of numbers over the past four years.

Ms Deborah Tabart CEO of the Australian Koala Foundation says there has been a population decline from hundreds of thousands of Koalas to as few as 43,000 across the nation. "Since European settlement hunting, disease and habitat loss have greatly reduced Koala numbers".

Hunting of Koalas was a significant factor in reduction of Koalas in Australia until the late 1930's but since then the decline can clearly be attributed to habitat loss through vegetation clearing for mainly residential, infrastructure and industrial purposes. As well, bushfires have taken their toll throughout the past two decades and are likely to become more frequent and catastrophic.

Declaration of the Koala as nationally vulnerable may bring some constraints upon infrastructure building and development. Additionally, we can strive to be smarter in the way development takes place.

We know what Koala habitat looks like. We must begin to consider Koala habitat as a valuable and economic natural resource.

It can be said that Port Stephens rides on the back of the Koala in so many ways. Australian and international tourists are encouraged to visit Port Stephens for the experience of observing Koalas in the wild - a privilege not found in many coastal areas of Australia.

Many businesses, accommodation facilities and Council utilise the image of the Koala at will in advertising and promotion. Local maps portray places to see Koalas in the wild and Koala souvenirs are popular.

Our fear is that Port Stephens will be just another region of localised extinction - because we didn't care enough and we didn't take heed of dwindling numbers over the past 15 years.

Analysis shows the average percentage of Koalas returned to the wild after recovery from trauma is around forty two percent taking into account all fatality causes. Therefore, between 1993 and 1999 the number of Koalas lost to Port Stephens was 398. For the period 2000 to 2009 the fatality number was 791.

The Australian Koala Foundation estimates that just 400 to a maximum of 800 Koalas remain in the Paterson Federal Electorate as stated in their submission to the Federal Government Threatened Species Steering Committee on 10 November 2009.

In other words, Port Stephens appears to have lost in 10 years the highest estimated remaining population of the Paterson Electorate. If the lower end of the population estimate of 400 is accepted, the tipping point for localised extinction will be irreversible in four years.

AKF CEO Deborah Tabart says, "The population in New South Wales has absolutely plummeted (5,435 - 8,800). Our scientists have scoured every inch of the maps, read every piece of literature available. We are sure we have it right. There could be as few as 43,000 and no more than 80,000 left on the mainland of Australia".

"We know this because we have the science, and the Koala habitat is just not there." Ms Tabart said.

Legislative action and political action cannot be delayed. Another 12 months means another 60 or more Koala fatalities in Port Stephens.

Similarly we need immediate, strong on-ground action and political leadership. In Port Stephens, we cannot wait until a national Koala recovery plan is developed.

The crash of Koala activity in Hawks Nest in the neighbouring Great Lakes LGA and now on the Tilligerry Peninsula is a precursor, and a wake-up call, for the Tomaree Peninsula and all points west of the Port Stephens LGA.

Elsewhere, Koala populations have already disappeared from Pittwater. Surveys showed no sign of Koalas in Popran National Park and numbers are dwindling in Brisbane Waters National Park.

(f) the adequacy of the National Koala Conservation and Management Strategy;

The National Koala Conservation and Management Strategy does not, by its nature, have any legislative powers to achieve Koala conservation. The only legislative tools we currently have to stem Koala habitat loss exist under State legislation.

Perhaps a way to implement action to conserve the Koala is the federal listing of Koalas as Vulnerable (or Koala populations on the East Coast of NSW) in addition to the federal listing of the vegetation communities that the Koala utilises. For example, ***Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions*** becoming listed as threatened ecological community on the EPBC Act would be helpful.

(g) appropriate future regulation for the protection of Koala habitat;

Port Stephen's Comprehensive Koala Plan of Management (PSCKPoM) is council's official attempt to bring the threats to Koalas under control.

In Port Stephens Council area, even when applying the 7 Part Test Assessment of Significance and the performance criteria in the Comprehensive Koala Plan of Management, we are still seeing preferred Koala habitat lost to development projects. It is threatening the survival of the species in the Port Stephens area.

The Port Stephens CKPoM has raised awareness of impacts on Koalas by development, dogs, cars and disease, however it has not had a large influence on reducing actual Koala impacts. Encounter data from Koala caring organisations active in Port Stephens, which are an index of abundance, indicate the Koala population is still in decline in Port Stephens due to car fatalities and habitat destruction through development, despite having a functioning CKPoM implemented into its planning processes.

The best opportunity to protect habitat is to change the zoning to Environmental Protection. There can be political unwillingness within Council's to implement this type of action.

Within Schedule 2 of SEPP 44, the Feed Tree Species list is inadequate in detail. Different regions have different important tree species. In Port Stephens *Eucalyptus propinqua* and *Melaleuca quinquenervia* are important feed trees for Koalas. (The key species utilised by Port Stephens Koalas which are listed under Schedule 2 include *Eucalyptus robusta, E. tereticornis, E. punctata and E. microcorys.*)

In the western parts of Port Stephens LGA, Koalas favour Spotted Gum *Eucalyptus moluccana* within the Spotted Gum - Ironbark forests, in addition

to Forest Red Gum *Eucalyptus tereticornis* in riparian zones and Tallowwood *Eucalyptus microcorys* where it occurs in moister forests.

Individual Koalas or Koala populations sometimes have odd taste preferences. *Melaleuca quinquenervia* in Port Stephens Koalas is a common example. To be able to recognise *Melaleuca quinquenervia* as a Koala feed tree there would need to be studies on the geographic distribution of its use, seasonability of use, etc.

Estimations by others of what is Koala habitat can be erroneous. There are examples of consultants indicating lack of Koala habitat in areas where Koala habitat has been long regarded as occurring and Koala presence known.

Comments include that every tree in Port Stephens recognised as a Koala food tree should be the subject to a DA in order to offer better protection. If removal is consented to, replacement planting of 10 Koala feed trees in the immediate vicinity should be conditioned and compliance checked.

To stem the population decline, large, connected habitat areas must be set aside and zoned environmental protection. A benefit that may come from EPBC listing is the hope that there may be the chance of increased funding.

There must be sufficient funding from Federal & State Departments to maintain and enrich the required large habitat areas. It is futile turning over land to National Park estate if there will be no budget to allow ongoing weed management, wild dog and fox management in key Koala habitat areas.

There should be financial incentives to private landowners of Koala habitat.

It has also been suggested that sufficient State funding be provided to Councils to employ officers to enforce the problem of roaming dogs and tree preservation.

Ecologist work associated with development involves a desktop assessment of the NSW Wildlife Atlas for Koala locations and distribution at the outset of any assessment. The statistics regarding Koala encounters/rescues/deaths are kept meticulously by the Native Animal Trust Fund and Hunter Koala Preservation Society carers, however this data does not get entered into the Wildlife Atlas.

It would be beneficial if more Councils with koala populations had Comprehensive Koala Plan of Managements in place, to better incorporate koala habitat considerations into the planning process. SEPP 44 does not include lists of trees from different regions – Koala's have taste preference for each area and this can be accommodated in a local government CKPoM.

Offsets

Questions arise about what constitutes a legitimate offset. Often with offsets, habitat is still being lost. Ultimately, offsets do not increase the habitat. This is the case unless it is an area that's being planted out, but revegetation projects

have inherent risks and there are no guarantees re-creation of Koala habitat will be successful. There are many cases where the land used as an offset previously had the same level of protection as offered to it following the execution of the offset, that is, the land was already undevelopable land.

(h) interaction of state and federal laws and regulations; and

The federal listing of vegetation communities that are suffering from the expansion of coastal development in addition to the listing of the Koala federally under the EPBC act would be beneficial. However, such listing would better reduce the threats facing the Koala if there was a **stringent and clear process for assessing the significance of a proposed development's impacts on Koalas and their habitat**. The NSW Threatened Species Conservation Act's Assessment of Significance (7-Part Test) under part 5A of the EP&A Act is not stringent or effective enough. It is difficult for a consultant to say that it is likely that a viable local population will be placed at risk of extinction through a development and substantiate that in court (when answering part (a) of the 7 Part Test: *in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction*).

The nature of coastal development generally means no significant impact is determined under the 7 Part Test and we end up with 'death by a thousand cuts' and the endangerment or extinction of local Koala populations.

(i) any other related matters.

Unique to Port Stephens
Port Stephens Koala habitat has been severely depleted over the last 40 years by sand mining and sand extraction. This has been widespread within the Tomago sand beds. It has been found that Koalas are not feeding on newly planted trees, perhaps because certain minerals aren't in the soil anymore which may make the leaves not as attractive for browsing. Another explanation is that early revegetation did not use local provenance stock for the revegetation.

Climate Change The Committee would like to highlight the importance of research and development of actions to understand and where possible protect Koalas from the impacts of climate change on habitat loss (eg. due to sea level change, altered bushfire regime), impacts on eucalyptus species and their browsing value for Koalas, and increased susceptibility to Chlamydia. However the need for further research is not a reason to delay action, the precautionary principal should be enacted and the Koala, and its habitat, given greater protection.

The Port Stephens CKPoM Steering Committee thank you for your attention to this matter.

Yours sincerely

Amy Spadaro
Secretary - CKPoM Steering Committee

References

Allen, Kristy (2008) *Developing a Koala Monitoring Plan for the Port Stephens Council Comprehensive Koala Plan of Management (CKPoM).* University of Newcastle. Thesis.

DS Hudson, CA McCartney, RM Starr & JC Rodger (2010) Chlamydial infections in Port Stephens Koalas. Presentation to Conference in Queensland

Attachments

Details of data for Port Stephens Council area collected by:

- Hunter Koala Preservation Society for Tilligerry peninsula; and
- Native Animal Trust Fund for the LGA, excluding the Tilligerry peninsula

Hunter Koala Preservation Society
Statistics for 2010 as at 6/11/2010

	Disease	Dog	Fire	Vehicle	Unsuitable Environment	Other	Total
TOMAREE							
Rescues	11	3		10	16	5	45
Released	5			4	16	2	27
Deaths	6	3		6		3	18
TILLIGERRY							
Rescues	2			5		1	8
Released	2			2			4
Deaths	0			3		1	4
COMBINED							
Rescues	13	3	0	15	16	6	53
Released	7	0	0	6	16	2	31
Deaths	6	3	0	9	0	4	22

NATIVE ANIMAL TRUST FUND INC. KOLALA COUNT FOR 2009/ 2010
CURRENT TO 14/11/2010

TOTAL FOR 2009 = 96		**TOTAL FOR 2010 = 35**	
COUNT	**CAUSE**	**COUNT**	**CAUSE**
1	BEACH WASH		BEACH WASH
6	DOG ATTACK	4	DOG ATTACK
8	DISEASE	6	DISEASE
4	GERIATRIC	4	GERIATRIC
4	HABITAT LOSS	2	HABITAT LOSS
32	MOTOR VECHILE	12	MOTOR VECHILE
1	WEATHER CONDITIONS		WEATHER CONDITIONS
1	SEPERATED FROM PARENT	2	SEPERATED FROM PARENT
37	UNSUITABLE ENVIRONMENT	1	UNSUITABLE ENVIRONMENT
2	NO CODE	3	NO CODE
	FERAL ANIMAL ATTACK	1	FERAL ANIMAL ATTACK
TOTAL 96		**TOTAL 35**	
FATE		**FATE**	
RE/RL/LO	58	RE/RL/LO	20
FOUND DEAD	22	FOUND DEAD	8
DIED	8	DIED	5
EUTHANASED	8	EUTHANASED	2
	96		**35**

DATA SUPPLIED REFLECTS THE DATA RECEIVED FOR THE STATED PERIOD