

Document tendered by

MS PAULA FLACK

Received by

ANDREW RATCHFORD

Date: 4 / 2 / 20

Resolved to publish Yes / No



The Great Koala National Park

Protecting our National Icon



A BRIEF HISTORY OF KOALAS

Few animals highlight the conflict between humans and nature as neatly as the koala.

Koalas and people have been in conflict for space throughout the brief history of European settlement in Australia. Hardly anyone outside the country—and barely more inside—are aware of the impact Europeans have had on the world's favourite animal. But the impact has been rapid, profound and widespread. The conflict can be summed up by a simple observation: koalas and humans like the same places. This was true 200 years ago and it's still true today.

In 1924, two million koala pelts were exported from eastern Australia. So it's no surprise that eyewitness accounts from the late 1800s report large numbers of koalas¹. It's likely from these figures that, in areas of suitable habitat, koalas were once abundant. Nowhere in NSW today can koalas be described as abundant, and most people will never see an animal in the wild in their lifetimes. But hunting was only one way in which early settlers impacted on koalas.

Those settlers were also busy clearing land for agriculture. And the first land to be cleared was the most fertile. The koala population that centered on the Bega Valley in southern NSW once supported the booming koala pelt industry. But due to clearing of the fertile valley, widespread woodchipping of the remaining forests and a drying climate² the population has now been drastically reduced to a handful of animals in the forests between the Bega and Bermagui rivers. West of the Great Dividing Range, a continuous belt of woodland once stretched from Victoria to Queensland and would have provided extensive koala habitat. In the last few years we have seen crashes in important inland koala populations in the Pilliga and at Gunnedah, primarily due to extreme heatwaves and droughts. Every population in NSW bar one or two is believed to be in decline^{3,4}.

THE DECLINE OF KOALAS



PRE-EUROPEAN ARRIVAL

Koalas widespread and abundant in woodland and forest habitats of eastern Australia.

EUROPEAN ARRIVAL

Koala identified as a source of fur to trade, millions of koalas shot for their pelts.



1930s Public outrage over the slaughter of koalas forced governments in all states to declare the koala a protected species.

2012 Koalas listed as a 'vulnerable' species in NSW, Qld and ACT due to sharp population declines.



2017 Land clearing protections removed in Qld and NSW. All koala populations in NSW bar one or two are in decline, some sharply.

MAJOR THREATS TO KOALAS



URBAN EXPANSION

Growth of coastal settlements is rapidly eating into koala habitat in eastern Australia and planning protections for koalas are hopelessly ineffective.



LAND CLEARING

Both Queensland and NSW have removed legal protections for bushland, putting millions of hectares of koala habitat at the mercy of bulldozers.



NATIVE FOREST LOGGING

A high proportion of the best remaining koala habitat is on private land or in state forests. Industrial-scale native forest logging drastically reduces the quality of forest habitat for koalas.



CLIMATE CHANGE

Predictions are that eastern coastal areas will become more important for koalas, and we must ensure connectivity between coastal areas and the hinterland.

WHAT'S THE PROBLEM?

Koalas are in danger from several different, but interlinked, threats. Habitat loss has been the key driver of koala population declines⁵. Australian temperate forests, the ecosystem that koalas exclusively live in, have been described as a 'crisis ecoregion' by scientists due to the rapid loss of extent⁶, and eastern Australia is recognised as a global deforestation front⁷.

The area of habitat available for koalas continues to shrink rapidly as a result of land clearing and urban expansion.

Even where koala habitat still exists it's often not being managed in the best way for koalas. Koalas like big trees and mature forests^{8,9} that are well-connected across the landscape¹⁰ and don't like disturbances such as fire and intensive logging^{9,11}. Besides clearing habitat, we're also lowering the quality of that which remains.

As a consequence of habitat loss and fragmentation, koalas must spend more time on the ground which makes them more vulnerable to dog attacks and vehicle strikes⁵. These threats are particularly important as urban and infrastructure footprints expand and encroach on koala habitat—such as with the Pacific Highway bisecting koala populations and the growth of coastal communities.

And of course climate change is a key threat. Drought and heatwaves have already led to population crashes on the Liverpool Plains⁴ and in Queensland¹², and climate change interacts with habitat loss and degradation¹² to drive koala declines. A more subtle threat of climate changes in leaf chemistry of koala food trees and associated stress to animals¹³. Land clearing and climate change on a regional level are linked: clearing of forests has led to declines in rainfall, higher temperatures and longer droughts^{14,15}. Climate change is predicted to shift the range of the koala and its food sources eastwards towards coastal areas¹⁶, and therefore prioritising conservation efforts in these areas is important¹⁷.

GOVERNMENT POLICY ON KOALA CONSERVATION

In recent years NSW has gone backwards in nature conservation, including protection of koalas. Although classed as an 'icon species' under the Saving Our Species (SOS) strategy, the government has shown no willingness to protect habitat, choosing instead to focus on secondary threats and small-scale revegetation. We await a 'whole of government koala strategy', but fear it is already compromised by a failure to explicitly recommend the protection of koala habitat and the effective exemption of forestry from the plan^{i,ii}.

The repeal of the Native Vegetation Act threatens a return to broad-scale land clearing in NSW. WWF has estimated that up to 2.2 million hectares of koala habitat could be cleared¹⁸ under the 'equity code' that permits the clearing of up to 625ha in a three-year period. The loss of paddock trees and small woodland patches as a result of the 'farm plan code' will reduce connectivity for koalas and remove refuges used in times of heat stress¹⁹. Although the government has stated that core koala habitat cannot be cleared, only five local governments have mapped core koala habitat in statutory koala plans of management and the majority remains unprotected. Where koala habitat has been mapped, the failure to consider adjacent public land means its effectiveness is undermined.

On public land, native forest logging is intensifying²⁰ and it's having a huge impact on the ecological values of the forests²¹. New laws are currently being developed that propose to escalate logging even further in coastal forests.

As most of the remaining koala habitat is on private land and in state forests, the combination of intensive logging and land clearing is a major threat to koalas.

i. See NPA's submission here: https://drive.google.com/open?id=0B_ZbagoizgjzSi1UN21pYmtaWVU

ii. See Stand up For Nature's submission here: https://drive.google.com/open?id=0B_Zbagoizgjzc2NGLV9sMUJ3RkE

POLITICAL SUPPORT

“ My view is that we've just got to act. If we're going to be fair dinkum about saving the koala in the wild, we have to protect the koala's habitat. ”



– Luke Foley,
NSW Labor
Leader.

“ Further development of ecotourism and a National Koala Park is a must, thanks to the incredible natural assets we have stretching from the coast up to Dorrigo. ”



– Dominic
King, Mayor of
Bellingen Shire.

WHAT'S THE SOLUTION?

The Great Koala National Park (GKNP) would see 175,000ha of state forests added to existing protected areas to form a 315,000ha reserve in the Coffs Harbour hinterland. It would be the flagship of a suite of proposed koala reserves between Port Stephens and the Qld border.

The GKNP would be Australia's first large national park dedicated to protecting our global treasure. It would protect koala habitat in five local government areas: Coffs Harbour, Clarence Valley, Bellinger, Nambucca and Kempsey.

The GKNP is delimited by the estimated boundaries of two koala metapopulations of national significance²⁴. A metapopulation is a group of smaller populations that exchange individuals on a periodic basis, and we know that metapopulation dynamics are important in maintaining local koala populations²⁵.

Scientists have described the koala population in the Coffs Harbour region as stable to slowly declining, which is most likely due to the protection of high quality koala habitat in Bongil Bongil national park that is acting as a source of koalas to the surrounding landscape^{3,26}—the metapopulation in action.

The Office of Environment and Heritage has described the area around Coffs Harbour as containing "koala habitats of national significance"ⁱⁱⁱ.

This is a good start, as focusing conservation effort where it's most likely to be successful makes sense. However, we need to act now! There are alarming reports from individuals and community groups that places where koalas were once found regularly are yielding fewer and fewer. We must protect vital habitat before it's too late.

The GKNP incorporates all public land within the metapopulation boundaries. This is not to say that private land is not important, but reserving public land is more tractable in the short term. The GKNP would create an opportunity for the NSW government to work with adjacent landholders to encourage koala conservation on private land to complement the GKNP. This could be in the form of economic incentives which would offer an alternative source of income to manage land to benefit koalas.

iii A Preliminary Map of the Likelihood of Koala Occurrence in NSW: comparison of preliminary baseline likelihood of occurrence mapping with koala habitat mapping on the NSW north coast.

MORE THAN JUST A WALK IN THE PARK!

BUSHWALKING

The GKNP would create a large number of new walks and by connecting existing national park tracks through the GKNP we could create iconic multi-day hikes.



BIKING

The idyllic Bellinger and Nambucca Valleys could be a cycling mecca!



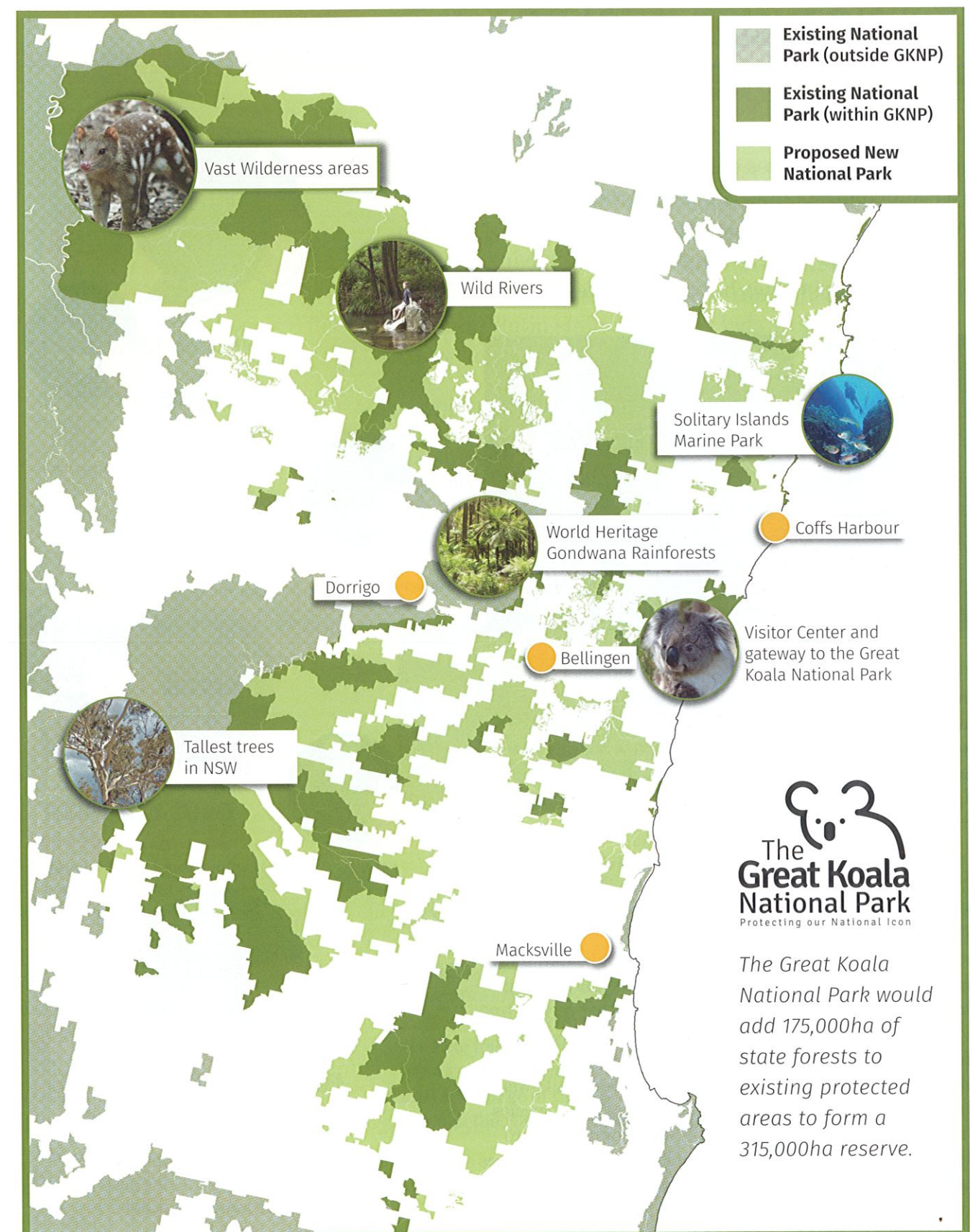
WILDLIFE WATCHING

Seeing koalas in the wild is on everyone's bucket list! But besides koalas the GKNP supports an extraordinary diversity of plants and animals.



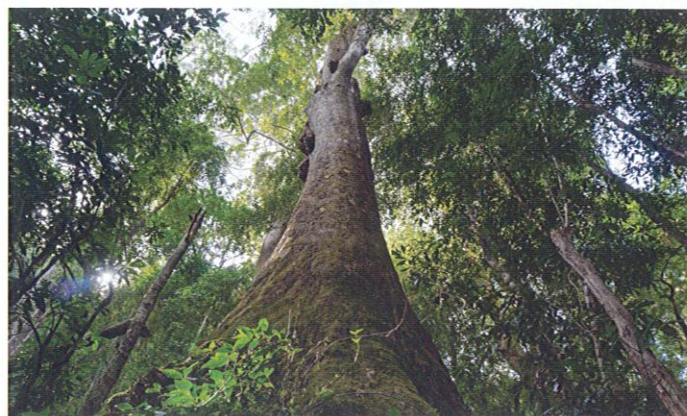
AROUND TOWN

Tourists can linger to sample local produce and enjoy the laid-back, friendly atmosphere.



IT'S NOT JUST KOALAS THAT WOULD BENEFIT

The Great Koala National Park also includes outstanding examples of important natural assets including hundreds of forest species, the World Heritage listed Gondwana Rainforests of Australia²⁷ and other forests assessed as having World Heritage values but not yet listed²⁸.



The proposal includes extensive areas of eucalypt forests from a region recognized as having the most diverse tall eucalypt forests on earth. These eucalypt forests were accepted by Commonwealth and New South Wales Governments in the North East NSW Regional Forest Agreement 1999²⁹, for assessment for potential World Heritage Listing.

Of course, removing a key threat like logging from 175,000ha of forests would have huge benefits for a range of species besides koalas. For example, logging is a driver of the loss of hollow-bearing trees, and the loss of hollow-bearing trees is identified by the NSW Scientific Committee as a Key Threatening Process³⁰. This means it is a strong driver of species declines. So forest species that rely on tree hollows would see a positive benefit from the GKNP. This includes some of the most charismatic Australian species like yellow-bellied gliders, greater gliders, powerful owls, sooty owls and glossy black cockatoos. All of these species are threatened, and the loss of hollows is contributing to declines. And because we know that logging forests reduces carbon stores and drives carbon emissions^{31,32}, the GKNP would make a positive contribution to Australia's efforts to meet its commitments under the Paris Agreement.

PROTECT KOALAS, PROTECT FORESTS!



AUSTRALIA'S GOLDEN GOOSE!



ECONOMIC VALUE

Tourism is one of Australia's biggest industries, and protected areas are a key driver of regional economies. The last estimate of the value of the koala to Australia was \$3.2 billion³³ per year. They're just too valuable to lose!



REGIONAL JOBS

The GKNP would provide opportunities for small business establishment to run nature-based experiences, jobs in the service industries and jobs in forest management and restoration. Importantly, these jobs are sustainable, secure and satisfying.

³³ The Economic Value of the Koala, Australian Koala Foundation 2014.

THE TRIPLE BOTTOM LINE

The GKNP delivers on environmental, social and economic grounds. The environmental outcomes are clear: we take huge strides towards saving koalas by protecting some of the most diverse tall forests on earth. But we think the economic and social benefits to the region are just as big. Remember, the emotive power of the koala is vast. That's why Barack Obama hugged a koala when he came to Australia, why even Vladimir Putin smiled and why kids around the globe adore koalas.

The GKNP would add another string to the bow of a region whose natural environment is the envy of the world. Our tourism industry tells us that the number one reason people come to Australia is nature³³. Nowhere is this nature more spectacular than on the Coffs Coast that boasts the towering Gondwana World Heritage Rainforests, beautiful valleys, sweeping mountain ranges and the Solitary Islands Marine Park. Just imagine adding the Great Koala National Park to that list!



We have designed a gateway visitor center to be situated on the Pacific Highway to house a koala hospital, café and education centre, to act as a launch point for koala spotting in Bongil Bongil National Park. The GKNP would offer opportunities for outdoor recreation and adventure tourism—one of the fastest growing tourism sectors. And of course, with increased visitation comes opportunities for small businesses and individuals to take advantage of the new national park and direct employment through the National Parks and Wildlife Service.

SUPPORT IS GROWING!

We're well on the way! The Great Koala National Park has been supported by NSW Labor and The Greens, meaning it's now policy for them. This is a great start, but we also need to build support within the Coalition government so that the Great Koala National Park has support across the political spectrum. Protecting koalas should be a no-brainer for anyone who cares about Australian nature, jobs and regional communities.

GET INVOLVED

There are in a number of ways for businesses and individuals to show their support for the Great Koala National Park. To get involved or find out more about the campaign visit:

WWW.KOALAPARK.ORG.AU

ABOUT NPA

The National Parks Association of NSW (NPA) is a not for profit conservation organisation who has run and won community led conservation campaigns since 1957. We also run Australia's largest bushwalking program and connect people with nature through our community engagement and citizen science programs.

To Join NPA or for more information about NPA our conservation campaigns or bushwalking program visit: **www.npansw.org.au**

"I support the Great Koala National Park because I believe that it is the best chance we have of securing the future of our koalas in NSW."



– Tim Faulkner,
Australian
Geographic's
Conservationist
of the year
(2015).



National Parks Association Of NSW Inc
Phone: 02 9299 0000
Email: npansw@npansw.org.au
Website: www.npansw.org.au

REFERENCES

- 1 Ford, F. John Gould's Extinct and Endangered Mammals of Australia. (National Library of Australia, 2014).
- 2 Lunney, D., Stalenberg, E., Santika, T. & Rhodes, J. R. Extinction in Eden: identifying the role of climate change in the decline of the koala in south-eastern NSW. *Wildlife Research* 41, 22-34, doi:<http://dx.doi.org/10.1071/WR13054> (2014).
- 3 McAlpine, C. et al. Conserving koalas: A review of the contrasting regional trends, outlooks and policy challenges. *Biological Conservation* 192, 226-236, doi:<http://dx.doi.org/10.1016/j.biocon.2015.09.020> (2015).
- 4 Lunney, D. et al. in *Wildlife and climate change. Towards robust conservation strategies for Australian fauna* (eds D. Lunney & P. Hutchings) (Royal Zoological Society of New South Wales, 2012).
- 5 Shumway, N., Lunney, D., Seabrook, L. & McAlpine, C. Saving our national icon: An ecological analysis of the 2011 Australian Senate inquiry into status of the koala. *Environmental Science & Policy* 54, 297-303, doi:<http://dx.doi.org/10.1016/j.envsci.2015.07.024> (2015).
- 6 Watson, J. E. M. et al. Persistent Disparities between Recent Rates of Habitat Conversion and Protection and Implications for Future Global Conservation Targets. *Conservation Letters* 9, 413-421, doi:<http://dx.doi.org/10.1111/conl.12295> (2016).
- 7 WWF. WWF Living Forests Report: Chapter 5. Saving Forests at Risk, <http://www.wwf.org.au/news_resources/resource_library/?13360/Living-Forests-Report-Chapter-5-Saving-forests-at-risk> (2015).
- 8 Moore, B. D. & Foley, W. J. Tree use by koalas in a chemically complex landscape. *Nature* 435, 488-490, doi:http://www.nature.com/nature/journal/v435/n7041/supinfo/nature03551_S1.html (2005).
- 9 NSW Environment Protection Authority. Koala Habitat Mapping Pilot. NSW State Forests., <<http://www.epa.nsw.gov.au/resources/forestagreements/koala-habitat-mapping-pilot-160038.pdf>> (2016).
- 10 McAlpine, C. A. et al. The importance of forest area and configuration relative to local habitat factors for conserving forest mammals: A case study of koalas in Queensland, Australia. *Biological Conservation* 132, 153-165, doi:<http://dx.doi.org/10.1016/j.biocon.2006.03.021> (2006).
- 11 Smith, A. in *The Conservation of Australia's Forest Fauna* (ed D. Lunney) 591-611 (Royal Zoological Society of NSW, 2004).
- 12 Seabrook, L. et al. Drought-driven change in wildlife distribution and numbers: a case study of koalas in south west Queensland. *Wildlife Research* 38, 509-524, doi:<http://dx.doi.org/10.1071/WR11064> (2011).
- 13 Davies, N. A. et al. Physiological Stress in Koala Populations near the Arid Edge of Their Distribution. *PLOS ONE* 8, e79136, doi:<http://dx.doi.org/10.1371/journal.pone.0079136> (2013).
- 14 McAlpine, C. et al. An Australian continent under stress: A conceptual overview of processes, feedbacks and risks associated with interaction between increased land use pressures and a changing climate. *Global Change Biology* (2009).
- 15 McAlpine, C. A. et al. Modeling the impact of historical land cover change on Australia's regional climate. *Geophysical Research Letters* 34, n/a-n/a, doi:<http://dx.doi.org/10.1029/2007GL031524> (2007).
- 16 Adams-Hosking, C., McAlpine, C., Rhodes, J. R., Grantham, H. S. & Moss, P. T. Modelling changes in the distribution of the critical food resources of a specialist folivore in response to climate change. *Diversity and Distributions* 18, 847-860, doi:<http://dx.doi.org/10.1111/j.1472-4642.2012.00881.x> (2012).
- 17 Adams-Hosking, C., McAlpine, C. A., Rhodes, J. R., Moss, P. T. & Grantham, H. S. Prioritizing regions to conserve a specialist folivore: considering probability of occurrence, food resources, and climate change. *Conservation Letters*, n/a-n/a, doi:<http://dx.doi.org/10.1111/conl.12125> (2014).
- 18 Eco Logical Australia. NSW proposed Local Land Services Act. Potential Vegetation Clearing under the Equity Code - Analysis Paper. Prepared for WWF Australia., <<http://www.wwf.org.au/ArticleDocuments/353/pub-potential-vegetation-clearing-under-the-equity-code-14oct16.pdf.aspx?Embed=Y>> (2016).
- 19 Crowther, M. S. et al. Climate-mediated habitat selection in an arboreal folivore. *Ecography* 37, 336-343, doi:<http://dx.doi.org/10.1111/j.1600-0587.2013.00413.x> (2014).
- 20 NSW Environment Protection Authority. New South Wales State of the Environment 2015, <<http://www.epa.nsw.gov.au/resources/soe/20150817soe-2015.pdf>> (2015).
- 21 Sweeney, O. F. Regional Forest Agreements in NSW: have they achieved their aims?, <<https://drive.google.com/open?id=0BxrDWhFTAAwBaVRNUzhSNHNEeTQ>> (2016).
- 22 Commonwealth of Australia. The koala - saving our national icon, <http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Completed_inquiries/2010-13/koalas/report/~media/wopapub/senate/committee/ec_ctte/completed_inquiries/2010-13/koalas/report/report.ashx> (2011).
- 23 Barnes, M. D. et al. Wildlife population trends in protected areas predicted by national socio-economic metrics and body size. *Nature Communications* 7, 12747, doi:<http://dx.doi.org/10.1038/ncomms12747>: <http://www.nature.com/articles/ncomms12747#supplementary-information> (2016).
- 24 Scotts, D. Conserving koala populations of the NSW upper mid-north coast: preliminary mapping of populations as a basis for further survey, research and planning. (2013).
- 25 Lunney, D., O'Neill, L., Matthews, A. & Sherwin, W. B. Modelling mammalian extinction and forecasting recovery: koalas at Iluka (NSW, Australia). *Biological Conservation* 106, 101-113, doi:[http://dx.doi.org/10.1016/S0006-3207\(01\)00233-6](http://dx.doi.org/10.1016/S0006-3207(01)00233-6) (2002).
- 26 Lunney, D. et al. Interpreting patterns of population change in koalas from long-term datasets in Coffs Harbour on the north coast of New South Wales. *Australian Mammalogy* 38, 29-43, doi:<http://dx.doi.org/10.1071/AM15019> (2016).
- 27 UNESCO World Heritage Centre. Gondwana Rainforests of Australia, <<http://whc.unesco.org/en/list/368/>> (2014).
- 28 Ceresse, B. The Eucalypt Forests of Northeast New South Wales: A Preliminary Assessment and Documentation of their World Heritage Values. (National Parks Association of New South Wales, Sydney, 2012).
- 29 Commonwealth of Australia. NSW - North East Regional Forest Agreement, <<http://www.agriculture.gov.au/forestry/policies/rfa/regions/nsw-northeast>> (2014).
- 30 NSW Scientific Committee. Loss of hollow-bearing trees - key threatening process determination, <<http://www.environment.nsw.gov.au/determinations/lossofhollowtreestp.htm>> (2007).
- 31 Keith, H., Lindenmayer, D., Macintosh, A. & Mackey, B. Under what circumstances do wood products from native forests benefit climate change mitigation? *PLOS ONE* 10, e0139640, doi:<http://dx.doi.org/10.1371/journal.pone.0139640> (2015).
- 32 Macintosh, A., Keith, H. & Lindenmayer, D. Rethinking forest carbon assessments to account for policy institutions. *Nature Climate Change* 5, 946-949, doi:<http://www.nature.com/nclimate/journal/vaop/ncurrent/abs/nclimate2695.html#supplementary-information> (2015).
- 33 Tourism Australia. 2020: New research to help Australian tourism reach its potential, <http://www.tourism.australia.com/documents/Statistics/Research_130624_CDP6pagesummary.pdf> (2016).

Photo Credits

Cover, top right and page 6, 'around town': Bellingen, North Coast © Destination NSW
Cover, center right and page 9, bottom: Family bushwalking near Bellingen © Destination NSW
Page 6 'Bushwalking' Wonga Walk, Dorrigo NP © Graham Groves
Page 6, 'Biking' © Destination NSW
Page 7: 'Wild Rivers' © Destination NSW
Page 7 'Solitary Islands Marine Park' © Destination NSW