MARK CARWARDINE WILD THOUGHTS

Last night, I asked a group of friends if they could give me a few examples of the likely impacts of climate change on wildlife (I'm a lot of fun in the pub). Not surprisingly, they came up with just one: malnourished polar bears. An iconic species, affected by the simple story of melting ice, the polar bear has come to symbolise the whole problem.

But a report just published by the IUCN's Red List of Threatened Species, *Species and Climate Change*, shows just how much of an impact it is likely to have on all kinds of wildlife. I thought the science and politics behind climate change itself were complicated enough, but the report shows just how subtle, unpredictable and downright convoluted many of its impacts are likely to be.

Take the koala, for example. Australia's favourite marsupial is likely to be affected in two ways. First, increasing levels of carbon dioxide will reduce the nutritional quality of its food

- *Eucalyptus* leaves are already poor quality, and the koalas have to eat vast quantities to survive, so they may not be able to cope with a further decline.

Second, as the intensity and frequency of droughts increases, the koalas are likely to spend more time on the ground in search of water and new sources of food, and this makes them particularly vulnerable to predators and to being hit by cars.

Elsewhere, the impact of global warming is just as whimsical. As seawater turns more acidic, for



Up a gum tree: koalas may be badly affected by climate change.

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instance, it will become harder for clownfish to find their host anemones by smell; this could be disastrous, since they rely on anemones for protection.

Meanwhile, rising sea levels and increased storm activity are destroying the nesting habitats of leatherback turtles, while hikes in temperature may lead to an increase in the number of females relative to males.

And so it goes on.

Species and Climate Change is scary. We all know that climate change is going to have a big impact on wildlife – but trying to predict exactly how is another matter altogether.

Mark Carwardine is a zoologist, photographer and tv presenter, and will be presenting a series about the Natural History Museum soon.