

Kangaroos are shaping as the elephant in the room of the climate debate - a source of intense continuous grazing pressure that impacts on carbon flows, but one that is being all but ignored at policy level. JAMES NASON reports:

Why the climate debate must not skip kangaroos

KANGAROOS could play a far greater role in increasing methane emissions and reducing soil carbon levels than existing scientific theory suggests, according to grazing management specialist Alan Lauder.

While sheep and cattle bear the brunt of environmental concerns about climate change, kangaroos have been all but ruled out as contributors to negative climate outcomes, largely because they have been found to emit far less methane than livestock by virtue of their unique digestive systems.

However, new linkages being formed in the understanding of how grazing animals interact with the landscape suggest that it is not what kangaroos emit but how they effect the emissions of other animals that is the real - and currently overlooked - story of the carbon debate.

Alan Lauder believes the impact that kangaroos have on overall carbon outcomes is significant and should be accounted for in any future policy response to climate change.

As continuous and highly selective grazers, he points out that kangaroos significantly affect the quality of diet available to commercial grazing animals.

It was widely accepted that the best way to reduce methane emissions of livestock animals per kilogram of production was to improve the quality of their diet. However kangaroos made that task much harder because they removed the most digestible parts of the grass before livestock could access it.

By eating the leaf and leaving the stem

Kangaroos are the catalyst for higher methane emissions by consuming a high quality diet.

they effectively reduced the quality of diet available to livestock and caused them to produce higher methane emissions as a result.

"Kangaroos are the catalyst for higher methane emissions by consuming a high quality diet," Mr Lauder said. "Everybody is saying we have to take animals on and off pastures all the time to get pastures to function properly, but - this is the critical part - kangaroos are not controlled. We are talking about managing animals but we have an animal that we can't manage."

While some scientists make the claim that kangaroos eat less than initially thought, Mr Lauder believes such comments miss the point. This was because it was not what kangaroos ate but what they shut down that was the key issue.

As kangaroo populations followed storms and ate new growth - the best part of pastures - they were shutting down grass growth and preventing the transfer of carbon from the atmosphere to the soil.

"In a nutshell what the kangaroos are doing is restricting and sometimes shutting down the carbon cycle," Mr Lauder said. "By eating grass when it is trying to grow, especially when coming out of dormancy, kangaroos are stopping plants from photosynthesising."

"If they can't photosynthesise they can't transfer carbon from the atmosphere into the landscape, it is that simple."

A key subtlety was that because kangaroos were mobile, they could always turn up where the green pick was available, the phase during which grass was at its most vulnerable.

Over-eating grasses at that stage of the growth cycle reduced the resilience of pastures and made them more vulnerable.

Grazing pressure should be controlled so animals feed on a plant's excess growth, not on the first flush after rain, Mr Lauder said. However, scientific research

confirmed that kangaroos always went for the first flush because it was the most digestible.

"The worst form of land management is continuous grazing and kangaroos are continuous grazers in the most extreme extent. If kangaroos keep hammering a patch of landscape, in the end they erode all the plant energy reserves and the plant will die (see picture story below).

"Then you have to get another perennial plant back via seed to get the carbon cycle going again."

Mr Lauder said that before the widespread distribution of artificial watering points in Queensland, up to 80pc of kangaroos would perish in times of drought. This was an inbuilt survival mechanism developed by nature to allow landscapes to regenerate after droughts free from overwhelming grazing pressure.

"When the season broke there was only 20pc of the population so the landscape was able to recover."

"Now of course we don't have that 80pc die, and we don't have that same recovery phase in the landscape."

Government policy settings had to be reviewed, he said, because current policies relating to kangaroos effectively maintained a permanent breeding nucleus regardless of seasonal conditions and prevented landscape recovery.

"If the Government and the coalition ignore the kangaroos they cannot get the carbon outcomes they want."

The spread of watering points throughout inland Queensland had also allowed populations of non-migratory Grey species of kangaroo to establish further and further west. This placed unprecedented grazing pressure on western landscapes, which had traditionally been populated by migratory species such as red kangaroos that moved around and did not maintain continuous grazing pressure on the landscape.

The predominant species of kangaroo in most western areas was now the Grey kangaroos, which was the worst culprit of continuous grazing of all.

"Government policy is now protecting species of kangaroos in areas where they did not exist at the time of settlement."

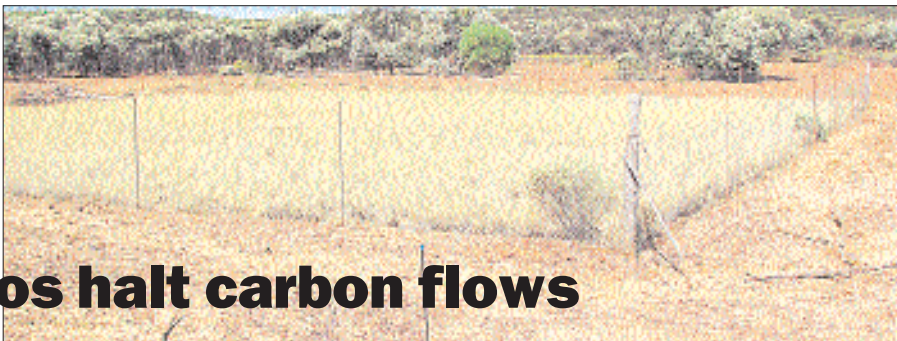
"Legislation has been passed that means that all of those non-migratory kangaroos are allowed to reproduce before they can be legally harvested."

● For further information visit www.carbon-grazing.com.au

New linkages formed by grazing management expert Alan Lauder suggest kangaroos may cause more environmental damage than existing public debate suggests. - Picture: PAUL HARRIS.

Kangaroos halt carbon flows

THIS fenced off area (pictured above) inside Idalia National Park near Blackall documents the ability of kangaroos to reduce soil carbon levels by shutting down the carbon cycle.



Carbon Grazing founder Alan Lauder said kangaroos caused increased methane emissions from livestock because they took leaf from dry grass and left behind just stems, reducing the digestibility of

the diet available to commercial livestock and forcing their methane emissions up. This picture was taken in Idalia National Park on November 14.

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