

# Zebras versus cattle: Not so black and white

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Grazing by wild animals doesn't always harm, and may benefit, livestock like cattle. Credit: Rob Pringle

African ranchers often prefer to keep wild grazers like zebra off the grass that fattens their cattle. But a new study by UC Davis and Kenyan researchers shows that grazing by wild animals doesn't always harm -- and can sometimes benefit -- cattle. The results are published Sept. 23 in the journal *Science*.

"Although savanna rangelands worldwide are managed on the premise that [cattle](#) and wildlife compete for food, there is little scientific information to support this assumption," said Wilfred Odadi, a researcher at the Mpala Research Centre in Kenya.

"Our findings provide further evidence that biodiversity conservation and economic development can be simultaneously achieved in human-occupied savanna [landscapes](#)," he said.



Cattle and wild animals like zebra: not always mutually exclusive on African rangelands. Credit: Ryan Sensenig

Truman Young, a professor of [plant sciences](#) at UC Davis and senior author of the study, said the interaction between cattle and wildlife is more complicated than has been appreciated.

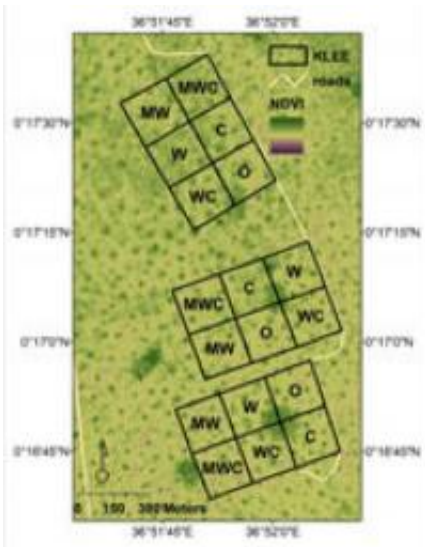
"When we look at the effect of wildlife on cattle, we find that they sometimes do suppress weight gain by cattle, but also sometimes enhance it," Young said.

"Generally the decision has been to exclude wild animals, but we're saying that things are not that simple," he said.

The researchers enclosed 10-acre plots of savanna rangeland inside fences to exclude wild animals (principally zebra). Then they weighed the cattle grazing inside and outside the fences to measure how much weight they put on at different times of the year.

The research team found that during the dry season, cattle that grazed with [wild animals](#) had reduced [weight gain](#) – the bottom line for ranchers. But in the wet season, cattle actually put on more weight when

they grazed alongside wildlife.



This is a map of the study site in Africa where the research on ungulates and cattle was conducted. Credit: Truman Young et al.

The explanation is that during the wet season, [grass](#) can grow long and become rank, inaccessible and poor in nutritional value.

"When the grass grows very fast and is at risk of becoming rank, having zebras is beneficial," Young said. "They are more than willing to knock back the rank grass."

That means higher-quality, fresher grass for the cattle.

It's not yet clear whether there is a net benefit over a whole year or series of years, Young said, because conditions can vary considerably from year to year. Ranchers are beginning to explore additional ways to control rank grass, such as controlled burns.

Provided by University of California - Davis

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