

# Science

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# LETTERS



## Life on Earth

The effect on endangered wild dogs (a group from Zimbabwe are shown above) to being studied in Tanzania's Serengeti National Park; the sturdy resistance of some bacteria's genes to challenges such as heat, dryness, and solar radiation; signs of cannibalism that may have been practiced among early humans in Spain; a controversy over evolution and science textbooks in Alabama's public schools; protein kinases at work outside the cell; and what astronomers do in their spare time—these are some of the concerns of this week's letter writers.

## Alabama and Evolution

With respect to the Random Samples item "Alabama schools disclaim evolution" (24 Nov., p. 1305) concerning the actions of Alabama's governor in response to the State Board of Education's adoption of a biology text insert, we submit that an important aspect of the story was missed.

The Alabama State Board of Education, over the objections of the Eagle Forum and other religious fundamentalist groups, has adopted one of the most progressive kindergarten through 12th-grade science curricula in the country and the appropriate texts with which to implement it. The controversial insert was an ill-advised political attempt to placate such groups. Their actions are not representative of the people of Alabama. Requests have been made to have this offensive insert rescinded. Scientists throughout Alabama are working to achieve this end.

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## Wild Dogs in the Serengeti

The Research News article "Dogfight erupts over animal studies in the Serengeti" by Virginia Morell (24 Nov., p. 1302) on the effect of intervention on Serengeti wild dogs is misleading and does not include important data on the effect of handling. Burrows *et al.* (1) in the *Proceedings of the Royal Society (PRS)* demonstrated that the survival of Serengeti wild dogs that experienced intervention was significantly less than that of unhandled animals. Comparison of the survival of wild dogs after anti-rabies vaccination ( $N = 17$ ) with that of radio-collared dogs ( $N = 12$ ) also demonstrated that vaccinated animals had a significantly shorter period of survival than radio-collared animals. Data and sample sizes were not "porous" or "sparse," but sufficient to warn of the negative impact of vaccination on this endangered canid.

The impact of anti-rabies vaccinations on the survival of wild dogs in the Masai Mara could have been examined by Kat *et al.* (2) in the November 1995 issue of *PRS*, but they did not present these highly relevant data. Using the limited published information on Mara wild dogs available so far, Burrows *et al.*, in the same issue of *PRS* (3), found that survival of wild dogs after intervention was also significantly reduced in the Mara. Morell states that, in *PRS*, "several groups attempt to take the hypothesis apart, reporting data that show no mortality differences between handled and unhandled dogs." None of these papers present mortality data for handled and unhandled wild dogs. Instead, all replies cited an analysis by Ginsberg *et al.* (4) that specifically excluded anti-rabies vaccination as a form of handling and assumed that all uncollared potential dispersers in five ecosystems died following their disappearance from a pack.

Morell states that "a 14-year study of the dwarf mongoose came to an end in 1992," which seems to imply that research was stopped due to the wild dog debate. The mongoose study was concluded in early 1991 before the death of Serengeti wild dog study packs. The Ngorongoro Conservation Authority has not permitted handling of lions in the Ngorongoro Crater since the late 1980s, thus an impression that such interventions have been denied due to the wild dog debate would be wrong. The Tanzanian National Parks Authority permits immobilization and radio-collaring when they consider such intervention justified.