

## Letters to the Editor

### Veterinary medicine and global food security

I was pleased to see the recent *JAVMA* commentary on the important role the veterinary profession can play in ensuring global food security.<sup>1</sup>

One important issue that I believe warrants more emphasis is the connection between increased consumption of animal products and global environmental harm. The authors note that climate change and overexploitation of land and water resources worsen global food shortages. Animal agriculture disproportionately contributes to both. A report<sup>2</sup> from the Food and Agricultural Association of the United Nations notes that the livestock sector is responsible for roughly 18% of greenhouse gas emissions, a higher share than that attributed to transportation. Counting land used for grazing and feed-crop production, livestock production accounts for 70% of all agricultural land use and 30% of the land surface of the planet. In addition, it is the largest sectoral source of water pollution and biodiversity loss.

I contend that, as veterinarians, we should encourage a diversion of food choices toward nonanimal sources and away from animal products. Meeting nutritional (including protein) needs via plant-based sources is generally more efficient than meeting them through animal sources. A 2019 United Nations report on climate change calls for a global shift toward plant-based diets to improve global food security.<sup>3</sup>

Unfortunately, it appears that the veterinary profession sometimes advocates greater reliance on animal-source foods.<sup>4</sup> Although the authors of the commentary seem to consider the increased demand for foods derived from animal sources as a background condition to which the veterinary profession must respond, I would argue that promoting food security

and combatting climate change require decreasing this demand.

Also deserving of more emphasis is the veterinary profession's role in advancing animal welfare.<sup>5</sup> The detrimental impacts on animal welfare of increasing animal production efficiency are well documented,<sup>6</sup> particularly when it comes to the harmful effects of intensive confinement on physical, psychological, and social well-being. Society looks to veterinarians as experts in animal welfare, and our obligation to lead on this issue must remain central in any discussion of our role in ensuring global food security.

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### More on declining wild bird populations

In their recent letter, Jessup and Hernandez<sup>1</sup> claim that “the chain of causality between free-roaming cats and bird deaths is much clearer than that of plastics” and that “trap-neuter-release programs do not reduce free-roaming cat populations.” However, we believe that a closer examination of the evidence provided by the authors challenges these sweeping assertions.

The predation estimates cited, for example, are a result of computer modeling that relies heavily on rural studies dating back 70 years and more,<sup>2</sup> rather than on more recent work<sup>3</sup> showing that far more cats are found in areas of dense human population where anthropogenic food sources are abundant. As a result, the model's estimates are incompatible with the most recent North American

### Instructions for Writing a Letter to the Editor

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Letters containing defamatory, libelous, or malicious statements will not be published, nor will letters representing attacks on or attempts to demean veterinary societies or their committees or agencies. Viewpoints expressed in published letters are those of the letter writers and do not necessarily represent the opinions or policies of the AVMA.

Breeding Bird Survey data<sup>4</sup> and, in fact, with the findings of the very study<sup>5</sup> that prompted the *JAVMA* News article, “Bird population sees massive decline.”<sup>6</sup>

Jessup and Hernandez<sup>1</sup> cite a review of wildlife rehabilitation center admission records indicating involvement of a cat<sup>7</sup> but fail to acknowledge that such admissions made up just 8% of total admission records and that birds made up only 52% of admissions involving a cat. Similarly, Jessup and Hernandez<sup>1</sup> note that “cats have been implicated in the extinction of 40 bird, 21 mammal, and 2 reptile species” but fail to acknowledge that these are extinctions from Australia, New Zealand, and small islands and that, in many cases, the precise cause of extinction remains a matter of speculation, with cats being just one contributing factor.<sup>8</sup> We argue that such findings are not relevant to declining bird numbers in North America.

To support the claim that “trap-neuter-release programs do not reduce free-roaming cat populations,” Jessup and Hernandez<sup>1</sup> refer to results of a population model,<sup>9</sup> but they ignore the growing body of evidence suggesting that targeted sterilization efforts can, and often do, reduce free-roaming cat populations.<sup>10,11</sup>

Jessup and Hernandez<sup>1</sup> also suggest that unowned, free-roaming cats are responsible for most bird deaths but offer solutions aimed only at pet cats (eg, confinement indoors and cat patios). Given the high rate of sterilization among pet cats, it seems likely that this population contributes relatively little to the overall population of free-roaming cats. In con-

trast, trap-neuter-return programs are aimed at unowned cats.

We believe that having the conservation community work with the animal welfare and veterinary communities to support and promote targeted trap-neuter-return programs would result in greater progress in reducing the number of free-roaming cats in our communities. Consider, for example, the DC Cat Count, an ambitious project aimed at better understanding free-roaming cat populations in the nation’s capital, described as “a highly visible example of constructive collaboration between animal welfare organizations, wildlife scientists, academic institutions, and citizens.” Such efforts promise to go a long way toward protecting cats and wildlife alike.

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