



**Animal and Plant  
Health Inspection  
Service**

Office of the WS  
Deputy Administrator

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July 10, 2018

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Dear Mr. Carlesco:

We have reviewed your request for correction made pursuant to the Data Quality Act (DQA), dated December 20, 2017. Your request claims that the USDA Animal and Plant Health Inspection Service (APHIS), inappropriately relies on the University of California, Coop. Ext. Serv. Bulletin 1872 publication, Connolly, G.E. and W.M. Longhurst, 1975, *The Effects of Control on Coyote Populations: A Simulation Model* (“Connolly and Longhurst”). Your request included three recommendations for correction:

1. Retract from current and future agency usage the USDA-funded study: Connolly, G.E., and W.M. Longhurst, 1975, *The effects of control on coyote populations: A simulation model*, University of California, Division of Agricultural Sciences Bulletin, Volume 1872, 37 pp.
2. Issue a public statement explaining the reasons for this retraction.
3. Send a letter to other relevant USDA offices, the Department of Interior, and all state game agencies requesting that they refrain from relying on this retracted study for any regulatory or public health purpose.

APHIS disagrees with your characterization of Connolly and Longhurst, and the agency is not persuaded that a correction is warranted. First we'd like to address the claim that Connolly and Longhurst is inaccurate and unreliable. Although the DQA establishes that peer-reviewed studies are considered scientifically objective, the inverse that non-peer reviewed are by default biased and not objective is a false premise. At the time it was authored, Connolly and Longhurst used state of the art computing power to develop coyote population models that were innovative for their time. Despite shortcomings which were acknowledged by the authors themselves, subsequent population modeling published in peer-reviewed sources since have substantiated the original findings of Connolly and Longhurst. For instance, Pitt et al. (2001), *A new approach to understanding canid populations using an individual-based computer model: preliminary results*, used a different approach to model coyote populations but similarly found that the removal of at least 60% of the population each year for 50 years would be necessary to affect a population level change. These results are consistent with Connolly and Longhurst, and revisited by Connolly (1995), which indicated that coyote populations could withstand an annual removal of up to 70% of their numbers and

still maintain a viable population. Connolly and Longhurst's use of a deterministic single-population model was an important step in increasing our understanding of coyote population dynamics with and without management. This and subsequent efforts have resulted in the effective management of coyote depredation through both non-lethal and lethal methods, while coyote populations have remained robust and have been expanding in North America.

Second, your letter mischaracterizes the underlying purpose of APHIS's integrated wildlife damage management approach to manage coyote depredation on livestock. Specifically, you state: "The Connolly and Longhurst study lacks utility for USDA's intended purpose of evaluating and authorizing large-scale coyote extermination." Your request repeatedly refers to "eradication," "extermination," or wide-scale control. In fact, APHIS Wildlife Services' mission is to provide Federal leadership for science-based wildlife – human conflict management to other wildlife management professionals, the public, external organizations, and research institutions that is both accountable and transparent. When APHIS conducts coyote damage management activities, its goal is to reduce livestock depredation while minimizing impacts on coyote populations. APHIS's annual coyote take must be put in context with the continental scale of the population, and the relatively small geographic extent of APHIS coyote damage management activities. APHIS does not rely on Connolly and Longhurst to justify maximum allowable take levels, but rather to demonstrate that APHIS's targeted removal is dramatically below levels that could be expected to impact coyote populations.

Third, your request implies that APHIS relies solely on Connolly and Longhurst in reaching conclusions that our actions do not threaten the long term viability of coyote populations and healthy ecosystems. In fact, APHIS National Environmental Policy Act (NEPA) documents rely upon an extensive body of scientific evidence in the decision making process. Coyote damage management is undertaken after completion of an Environmental Assessment, which includes a public comment period and, if appropriate, issuance of a subsequent Finding of No Significant Impact.

Therefore, after careful consideration of your claims, APHIS has determined that correction is not warranted, and it will not adopt the recommendations proposed in your request. APHIS will ensure that future environmental analyses clearly reference the entire relevant body of work related to coyote population dynamics.

If you are dissatisfied with this response, you may submit a Request for Reconsideration (RFR). Please file your RFR within 90 days of receipt of this response. The RFR should reference this letter. Additional requirements for an RFR are listed on the USDA Correction Information website: <https://www.ocio.usda.gov/policy-directives-records-forms/guidelines-quality-information/correction-information>.

An RFR should be submitted to the APHIS Information Quality Officer by mail, facsimile or email:

Ms. Connie Williams, USDA, APHIS, PPD  
Information Quality Officer  
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Sincerely,

Janet L. Bucknall  
Deputy Administrator

References:

Connolly, GE and WM Longhurst. 1975. The effects of control on coyote populations: a simulation model. Division of Agricultural Sciences, University of California, Davis, Bulletin 1872.

Connolly, G.E., 1995, April. The effects of control on coyote populations: another look. In *Symposium Proceedings--Coyotes in the Southwest: A Compendium of Our Knowledge (1995)* (p. 36).

Pitt, W.C., Knowlton, F.F. and Box, P.W., 2001. A new approach to understanding canid populations using an individual-based computer model: Preliminary results. *Endangered Species Update*, 18, pp.103-106.