Letter to the Editor

A call for proactive human–bear conflict mitigation

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American black bear (*Ursus americanus*) populations in North Carolina, USA have begun to expand as their populations have recovered significantly in the last few decades (Sasmal et al., in press). I was recently at a talk called "All About Bears" at the Wells Fargo IMAX Theater at Marbles Museum in Raleigh, North Carolina in July 2018. Wildlife biologist Mr. Joe Folta was featured and detailed his work with predictive models for these expanding bear populations (J. Folta[1], SUNY College of Environmental Science and Forestry, personal communication). His research provided a reasonable estimate as to when the expanding North Carolina bear population will establish in the Piedmont region (North Carolina Wildlife Resources Commission [NCWRC] 2018).

Knowing the extent to which black bears conflict with the North Carolina public, I thought this research might provide a tool to mitigate human–bear conflict. I asked Mr. Folta if the NCWRC had plans to implement any preemptive mitigation measures in the projected conflict areas. The short answer was no; the NCWRC has no plan in place to use his research for proactive human–bear conflict mitigation. This seems a missed opportunity to apply this research to see if education and public preparedness lessens conflict.

I asked this question because Mr. Folta described the current NCWRC policies regarding how North Carolina residents are "warned" about the potential for human–black bear conflicts. In essence, each spring, as bears are coming out of hibernation, residents of bear conflict areas are given a "few weeks' heads-up" by the NCWRC that hungry bears may be expected in their area. These communications suggest that residents should respond by taking control of their bear attractants, removing bird feeders that were placed out in the winter and not leaving garbage cans overnight (Figure 1). While these seem like easy things to do, the message has not been effective, and human–bear interactions are on the rise in North Carolina, especially as black bears expand their range (NCWRC 2018).

Being from central Indiana originally, one of the few places black bears have not made their home in the United States, I do not have any bear-proofing habits. In Indiana, I could leave my trash out at night and get a couple

Figure 1. Black bear (*Ursus americanus*) raiding a garbage can in Asheville, North Carolina, USA (*photo courtesy of North Carolina Wildlife Resources Commission*).

[1]Erratum: Mr. Joe Folta was misidentified in the article as a black bear biologist employed with the North Carolina Wildlife Resources Commission (WRC). Mr. Folta is a Ph.D. candidate with the SUNY College of Environmental Science and Forestry in Syracuse, New York. He is wildlife biologist who has studied bears and other species. Mr. Folta, in an email to HWI, stated that the results reported in the *Letter to the Editor* are preliminary and at a course scale, so that pinpointing areas of conflict would not be feasible. The WRC does work proactively to reduce incidences of human–bear interactions through the BearWise program, social media posts, community outreach, and Public Service Addresses published frequently from late spring through fall.

extra minutes of sleep in the morning with only the odd raccoon (*Procyon lotor*) to worry about. I have to imagine that others previously unaffected by bears would be in the habit of doing the same. People who live in areas with regular bear traffic, however, should be attuned to and educated about the necessary removal of "smellables" or attractants that draw bears into residential areas. As we have seen in North Carolina, this is not always the case.

What I propose is that a clear and well thought out plan of proactive mitigation measures be put in place in the regions predicted to have bear activity. This way, communities affected by bears will have a much more informed approach to bear proofing their homes and property. The message of mitigation should be concise and deemed feasible for just about any resident so as not to overwhelm or put off anyone from the necessary tasks. It is easy to continue to fall into previous habits that do not protect homes and people from bear conflict, but with careful consideration and preemptive measures, nuisance bear calls can start to diminish.

To me, there is an obvious gap between the science and the potential application of data to benefit both the subject of the study as well as the affected public. I believe it is essential, as scientists, to connect with the communities we study and promote good relationships between them and their environment. Members of a community should feel proud about the wildlife that share their environments instead of inconvenienced by their presence. Working together with communities will create a sense of accessibility to science that affects them as well as cultivate stewardship and a sense of responsibility for their environments. I also believe this will garner more public trust and interest in scientific research and its results.

Literature cited

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Annabella Helman is a sophomore pursuing degrees in environmental science and policy (B.S.) and biology (B.S.) at Duke University. She is interested in studying human conflict with carnivorous mammals, specifically bears. Currently, her research includes observations of scavenging behavior in black bears, coyotes, and bobcats. She plans to pursue further research in carnivore behavior and human activity encroachment.