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Editor's Introduction

The cost of fear

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NO HUMAN FATALITIES occurred when US Airways Flight 1549 crash-landed in the Hudson River after colliding with a flock of Canada geese on January 15, 2009 (Caudell 2009). More broadly speaking, I am not sure the announcement of no fatalities was accurate, however. Admittedly, none of the plane's passengers and crew members was killed in the incident, but the collision of the aircraft with birds will reinforce a fear-of-flying that grips millions of people worldwide. As a result of this widely-publicized crash, many people will now drive to their destinations, rather than fly. Statistically, driving places people in greater peril than does flying. If one of the people who decided to drive rather than fly is killed in a car accident, it could be argued that US Airways Flight 1549 has suffered its first fatality, because someone indirectly has lost his or her life as a result of fear created by that airplane crash.

This scenario suggests one of the more serious, but unreported, costs of human–wildlife conflicts: fear of wildlife. Wildlife phobias are common and serious. They include fears about being attacked by a predator, bitten by a snake or rabid animal, or killed in airplane crash as a result of a bird strike. Victims of wildlife phobias suffer a diminished enjoyment of life.

Economists use the term lost-opportunity cost when they refer to the costs of forgoing opportunities with a resulting diminishment in life's joys. Lost-opportunity costs caused by wildlife also include economic losses suffered when someone is unable to take advantage of an opportunity because of a problem with wildlife. For instance, a farmer may not be able to use a pasture for grazing because he is afraid that coyotes will kill any livestock placed in the pasture.

Unfortunately, lost-opportunity costs are rarely considered or quantified when documenting the cost of human–wildlife conflicts.



Michael R. Conover

As a result, the cost of a bird strike, deer–vehicle collision, or wildlife attack is usually underestimated. I hope that someday, we will be able to quantify the lost-opportunity costs associated with human–wildlife conflicts. Until that day, I hope that wildlife biologists and other people who help to make air travel safer have the satisfaction of knowing that what they do is important. They help people live better, safer, and more enjoyable lives. I cannot think of a higher calling than that.

In tribute to them, I am pleased that this issue of *Human–Wildlife Conflicts* features several articles on the topic of bird–aircraft collisions. These include studies examining techniques that can reduce the danger of bird–aircraft collisions by modifying conditions at the airport and its general vicinity to make them less attractive to birds (Ball 2009, Bernhardt et al. 2009, Linnell et al. 2009, Hart and Allan 2009, Seamans et al. 2009). Other bird-strike articles in this issue delve into the issue of collecting and maintaining accurate wildlife-strike data (Dolbeer 2009, Dove 2009, Klope et al. 2009, Peurach et al. 2009) and the responsibilities of airport managers (Dale 2009). Several of these articles are based on presentations given at the

2009 joint meeting of the Bird Strike Committee–USA and Bird Strike Committee–Canada. They also helped fund the cost of printing and distributing this issue of *HWC*. This issue would not have been possible without both their support and the assistance of this issue's Associate Editor, Richard A. Dolbeer.

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