

# Leopold

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The next question is which of those factors are the most and least important to the wildlife we're discussing today. Then there is the interaction of those factors. Poor nutrition for the hen meant she delayed egg laying. Because her brood hatched late, they weren't mature enough to fly by the middle of the summer when drought dried up the wetland.

Alternatively, a harsh winter led to songbirds having trouble finding food. Because of this, they were weakened and more susceptible to diseases. Weakened from poor nutrition and disease, the chickadee was easy prey for the sharp-shinned hawk.

We can come up with any variety of scenarios for any species of wildlife with any variety of factors affecting individuals and populations.

In his book "Chaos, Making a New Science," James Gleick writes that wildlife biologists and ecologists made substantial contributions to the development of the mathematics of chaos theory because they knew that no matter how hard they tried, the best they could do were "thin approximations of the seething real world."

We need only to look at the U.S. Fish and Wildlife Service's waterfowl breeding population survey results over the past seven decades. There are long-term ups and downs. Then there are the year-to-year bounces. What factors, combination of factors, or relative contributions of those factors lead to each up and down?

In the accompanying graph, trends in mallard and blue-winged teal numbers are generally similar. However, there are a lot of times when mallards increase from one year to the next and bluewings decrease, or vice versa.

Why? And why are both of them slightly different than all the other prairie-nesting ducks?

Those numbers are always changing. Sometimes we can explain those numbers, such as the drought of the late 1980s reducing waterfowl numbers. But all too often, no one can figure out exactly what's going on. That can be frustrating for scientists, managers, hunters, and others who enjoy the outdoors.

It's not total chaos, of course. We know the importance of habitat. Abundant, high-quality habitat will produce more wildlife than areas with no habitat. However, it's hard to come up with an exact number.

Everyone intuitively sees and knows this. Ding, my four-legged companion, and I have walked through our woods thousands of times. It's different each time. We've never had two mornings in the duck blind that were the same. There are always different numbers of ducks of different species that we see at different times throughout the morning.

All of that seems like a good reason to take another walk tomorrow morning and sit in a blind next fall. We don't know what we'll see. We just know we'll have fun, and we'll return home more relaxed than when we started.



## 35th ANNUAL BEST BUCK CONTEST


The 35th annual **Outdoor News Best Buck Contest** offers great prizes and awards to 18 winners!

This is a photo contest. **Outdoor News** would rather support the notion of sportsmen and women enjoying the experience and creating memories than just concentrating on antler size. The rating system will be on photo quality, including composition and clarity. Check the rules and tips below.

A panel of judges representing various interests will be selected in the weeks ahead to assist in the final selection of the winners. The contest is for either archery or firearms. Make sure that everyone in your hunting party carries a camera this deer hunting season. Every buck has a chance to win!

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