

Changes in the Atlantic Flyway Mallard Bag Limit

The decline of eastern mallards

Mallards in the U.S. portion of the Atlantic Flyway are largely the result of released live decoys and game farm birds starting in the early 1900s. Mallards became prominent in the flyway's duck harvest during the 1970s and have consistently been one of the most abundant duck species in eastern North America for the last few decades. In the past 20 years, however, eastern mallards have been on the decline. Spring surveys conducted throughout eastern Canada and northeastern U.S. every year since 1998 have provided reliable annual estimates of the breeding population size of eastern mallards. Those surveys indicate that mallard numbers in eastern Canada have not changed much, but they have decreased steadily in northeastern U.S., declining by about 38% since 1998 (Figure 1). When these two survey areas are combined, the total breeding mallard population in eastern North America is declining at a steady rate of approximately 1% per year (Figure 2). Based on banding data, about 60% of the mallards harvested in Atlantic Flyway states are northeastern U.S. birds, so that means there are fewer mallards available to Atlantic Flyway hunters in

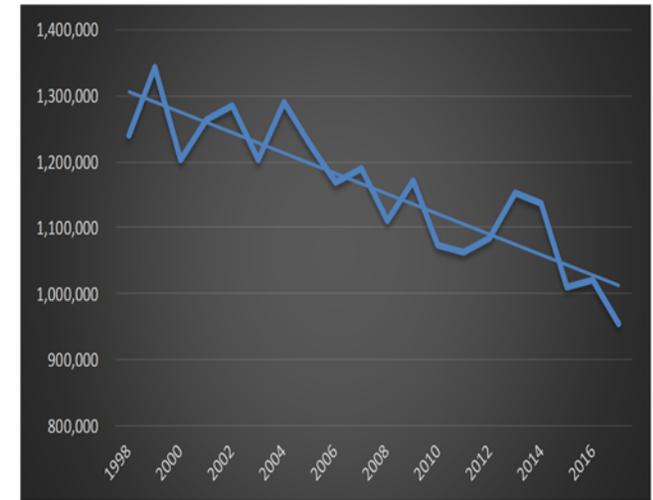


Figure 2. Mallard breeding population in eastern North America in the combined Total Survey Area

the U.S. now. This is reflected in harvest estimates from the annual USFWS survey of waterfowl hunters; from 1998 – 2016 the mallard harvest in the U.S. portion of the Atlantic Flyway has decreased by about 40% (Figure 3; page 2). To put this in perspective, eastern mallards are now only marginally more abundant than American black ducks in eastern North America.

At this time, biologists are unable to pinpoint why the decline has occurred. Breeding population size in any year depends on how many birds from the previous year's population survived the full year (survival rate), and how many young-of-the-year birds from the previous year's nesting season made it through the winter and early spring (production rate). A long-term decline means that either survival or production (or both) is too low to maintain the population size. However, banding data indicate that eastern mallard survival rates are not measurably different now than they were in the 1990s, when the population was stable. Production estimates obtained from the USFWS Parts Collection Survey have not decreased

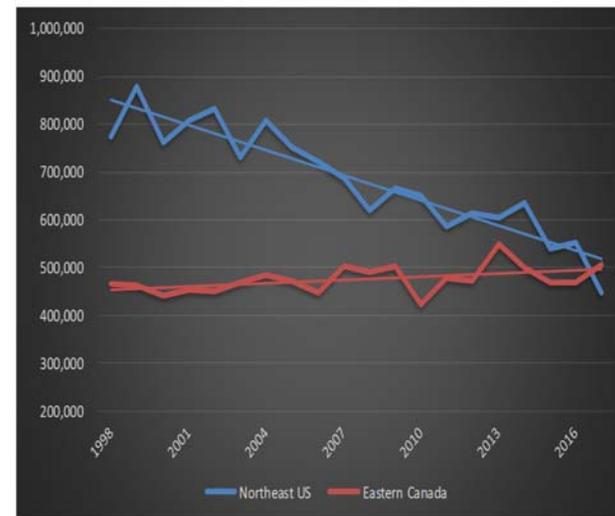
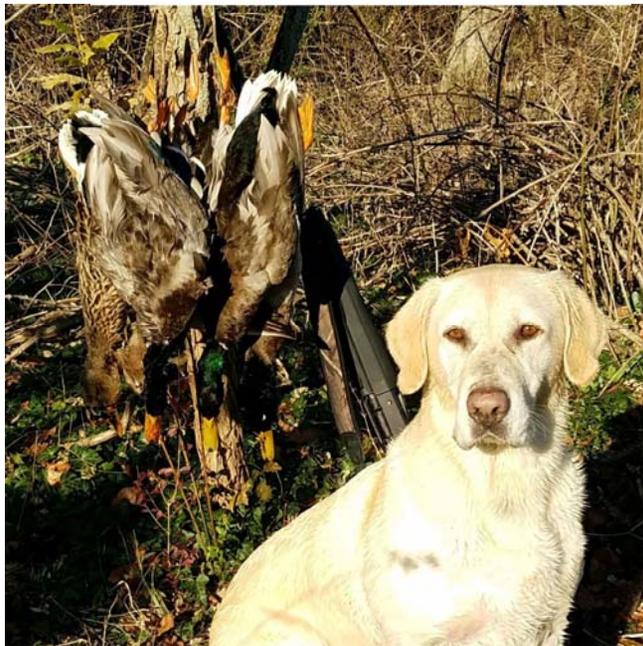


Figure 1. Mallard breeding populations in eastern Canada and Northeast U.S.



from that time either. Yet the population decline is evident. This indicates a problem with either one or both of these critical data streams.

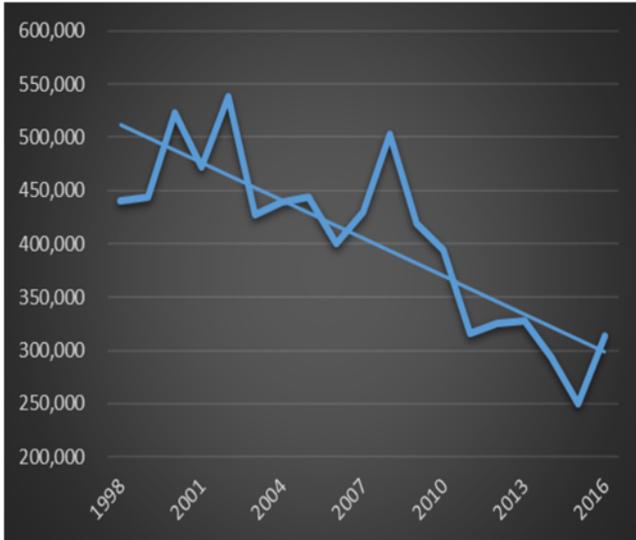


Figure 3. Harvest of mallards in the U.S. portion of the Atlantic Flyway

Changes to the mallard bag limit

Based upon biologists' present understanding of eastern mallard population dynamics, contemporary harvest rates from a 60-day season with a 4-mallard daily bag limit may result in harvest rates that are above a sustainable level. Thus, biologists are recommending that the mallard bag limit be reduced from 4 birds to 2, beginning in the 2019-20 hunting season. Hopefully, this change will stabilize the eastern mallard population. Should the population start to grow again, biologists will have a better understanding of the effects of harvest on the population. Meanwhile, biologists from the Atlantic Flyway and USFWS will keep trying to determine what caused the mallard decline in northeastern U.S. and if that mecha-



nism can be mitigated. Further, biologists will work toward a new eastern mallard harvest strategy that incorporates the best available population data, demographic data (i.e. survival and productivity), and hunter preferences.

How future duck season frameworks will be set

Since 2000, the status of eastern mallards has been used to set the general duck hunting season frameworks (season length and total duck bag limit) in the Atlantic Flyway. The declining trend in mallard population levels nearly resulted in the general duck season being closed or restricted to 30 days in recent years. Thankfully, mallard population levels were just high enough to avoid a closure or shortened season. Setting all duck seasons based on mallards' status is no longer the optimal approach because most other important duck species in the Atlantic Flyway (such as wood ducks, ring-necked ducks, and green-winged teal) are either stable or increasing while mallards continue to decline. By setting overall frameworks based on multiple important species, there is a greater chance of continuing more liberal frameworks in the Atlantic Flyway in the foreseeable future.

Over the past five years the Atlantic Flyway Council and USFWS have been developing a new approach to duck harvest management by using an Adaptive Harvest Man-

agement strategy based on the status of 4 species (green-winged teal, wood ducks, ring-necked ducks and golden-eyes) instead of relying solely upon the status of eastern mallards. By moving away from a reliance on mallard population status to set the general duck hunting season, the objective is to continue maximizing hunting opportunity commensurate with the population levels of a more representative suite of duck species that breed and are harvested largely within the Atlantic Flyway. Removing eastern mallards from the "driver seat" for setting general duck seasons and bag limits, and managing them independently, is a more reasonable strategy at this time. There is precedence for this type of management approach for other duck species that are below population objectives (i.e. pintails, scaup) while being within a larger duck harvest management framework. Waterfowl managers are seeking to implement the new framework for setting general duck seasons for the 2019-20 hunting season.

