Testimony of Dr. Frank Rohwer
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Subcommittee on Water, Wildlife, and Fisheries
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Chairman Bentz, Ranking Member Huffman, and members of the subcommittee, thank you for the opportunity today to provide testimony on H.R. 6854, the HEN Act. My name is Dr. Frank Rohwer and I am the President and Chief Scientist at Delta Waterfowl. I am here today to express Delta's strong support for the HEN ACT and to thank Congresswoman Fischbach, Congressman LaMalfa, and Congressman Thompson for their leadership on this critical piece of legislation. As you know, the HEN Act would provide funding for the enhancement of duck production through the installation and maintenance of hen houses and the retention of nesting and brood habitat.

Delta Waterfowl

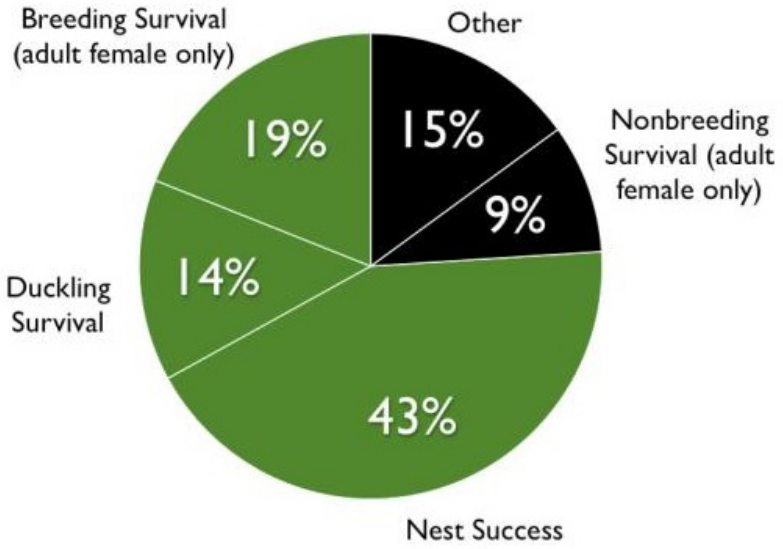
Founded in 1911, Delta Waterfowl is The Duck Hunters Organization, a leading conservation group founded at the famed Delta Marsh in Manitoba. Its U.S. headquarters is in Bismarck, North Dakota. Historically, Delta's work was intensely focused on researching the key issues facing ducks, geese and their habitat. Today, we continue to conduct high quality scientific research while also working to produce ducks through intensive management programs and conservation of breeding duck habitat. We also work to ensure the future of waterfowl hunting through a variety of hunter recruitment and retention activities.

Fig 1. A Delta research technician conducting a nest check on a Hen House in southwestern Manitoba.

I have had the opportunity to combine my true loves – duck hunting, duck science and duck management – throughout my professional career. As a kid, I was exposed to the wonders of the Chesapeake Bay, and the large flights of ducks that wintered there. I had the opportunity to follow the ducks west to Kansas in pursuit of my undergraduate degree. At that same time, I was exposed to the Prairie Pothole Region and the great Manitoba marshes. Surrounded by brilliant men and women answering some of the most pressing questions facing ducks and their habitat, I began to learn about what drives duck populations on the prairies. And while I have served in academic settings across the United States, my desire to be with the ducks always brought me back to the prairies-for a long stint as Delta's Scientific Director and finally in my capacity as President and Chief Scientist, a position I have held for the past twelve years.

Recipe for Success

Fig. 2. Hoekman et al. illustrates the vital rates that impact growth of mallard populations.



This journey revealed some very simple, fundamental concepts that drive duck production on the prairies. Breeding ducks need an abundance of small, shallow wetlands – the potholes you have heard about – to attract them to the best available landscapes and serve as nurseries for their broods. If landscapes have abundant wetlands, and frankly we have far fewer today than we had even twenty years ago, the job of waterfowl managers is to ensure that duck eggs hatch and ducklings fledge. All other factors that influence duck populations including hunting harvest, predation during the nonbreeding season, and diseases, all pale in comparison to the impact and importance of the very brief three to four month breeding season.

In fact, research by Dr. Hoekman documented that this small fraction of the annual cycle of a mallard is where 90% of the events occur that ultimately determine the size of the mallard fall flight that migrate down the flyways. It is settling on those small prairie ponds, hatching nests, raising broods and females surviving the breeding season that are the big drivers in duck populations.

Ducks in Need

The challenge is that we as people have made substantial changes to the prairies which have diminished the reproductive potential of ducks. We have drained wetlands and we have plowed up the vast tall, mixed, and short grass prairies which historically provided the nesting cover for females and their eggs. And one more subtle and less described change is the extirpation of large predators and thus creating an ecological niche for smaller more generalist predators. Of course, this fueled agricultural growth in the U.S. and Canada, creating food security and substantial economic activity, but it did come at a cost to ducks.

The prairie landscape we are managing today is largely a highly fragmented one; with a fraction of the nesting cover and as acknowledged earlier, far fewer wetlands. Additionally, the characteristics of this landscape make for highly efficient foraging for today's predator community. It is this confluence of habitat and predator community change that has resulted in far lower nest success than witnessed one hundred years ago. Hoekman noted that nest success was the single

greatest contributor to the annual change in mallard populations, so this decline in nest success comes with real consequences in duck populations. In fact, areas where I have worked throughout my career in southwestern Manitoba, have mallard nest success chronically below 10% and we have witnessed nest success under 1%, far below what is needed to support strong populations of ducks.

Fig. 3. Figure from Beauchamp et. al showing declining nest success.

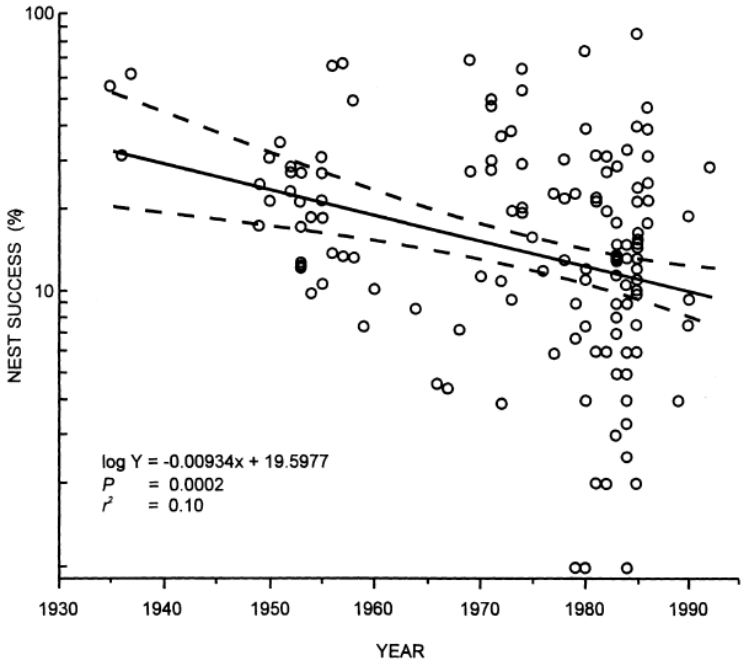


Fig. 2. Decline in nest success of 5 upland-nesting species of ducks (pooled) at 67 study sites in Prairie Pothole Region during 1935–92 (n = 143). Predicted nest success (——) and confidence intervals (– – –) are shown for the regression.

Hen Houses

It was in light of the historic decline in nest success and the observations of generations of Delta students working on the breeding grounds, that it became abundantly clear that many landscapes needed extra tools to ensure duck production occurred. In the early 1990's Delta began testing what is today known as the Hen House. Members of the Committee have likely seen or heard of the success of the wood duck box to aid in the restoration of the wood duck population, and Hen Houses are a very similar concept. Originally used in Europe, these nest tunnels, placed in prairie marshes offer a female mallard a place to safely nest away from predators.

Delta has published numerous studies on the efficacy of Hen Houses back to the early 1990's and my written testimony will provide a number of independent peer reviewed research papers which document the usage and nest success of Hen Houses across a variety of areas of the breeding grounds. Overall, nest success averages over 60% in Hen Houses in comparison with the nest success values in the uplands of frequently under 5%. This is 12 times increase in nest success-a very significant net gain in ducks produced.

Delta targets Hen Houses to those landscapes where wetland and mallard breeding densities are high and where nest success is modeled to be low, such as highly fragmented landscapes or the prairie parklands of Canada. This strategy allows for us to generate the most significant biological return in ducks produced but also do so in the most cost-effective manner. At authorized funding levels provided in the Hen Act, Delta or other contractors could install over 19,730 Hen Houses and produce over 440,000 mallards over the 10-year lifespan of the nest structures.

Fig. 4. Map of the Four North American Flyways- note linkage amongst all four flyways to the Prairie Pothole Region.

Pacific Flyway

Moving west, mallards are facing similar challenges in the Central Valley of California. Loss of historic wetlands has been extensive there as well. Yet, the extensive rice farming in the region has provided both breeding and wintering waterfowl with surrogate wetland habitat, a truly symbiotic relationship between the region's rice producers and waterfowl.

The landscapes in the Central Valley though continue to evolve. Factors such as drought, which leads to less rice production, and the increasing amount of land converted from seasonal crops, like rice and other grains, to orchards has reduced the amount of available breeding habitat. This change has resulted in decreased reproductive potential of local breeding ducks in California like mallards, gadwall, cinnamon teal and others. As a result, additional tools are needed to provide breeding ducks places to nest and rear their broods.

The best available science in California shows that breeding ducks need more brood habitat –small brood ponds and the seasonal flooding of these ponds and the establishment of nesting cover. Work by our partners like the California Waterfowl Association and the California Rice Commission has shown that there is strong demand from willing landowners for incentivized approaches for them to work on their lands and within their agricultural operations to provide this much needed habitat.

As a lifelong waterfowl scientist, as a dedicated conservationist, and as a duck hunter, I am confident that the tools provided by the HEN Act represent a new, incremental way to help enhance duck production in a complementary way to the many sources of support for habitat conservation, restoration, and creation. It will take this full complement of approaches and a wide array of partners to ensure the large fall flights of ducks we all desire.

We greatly appreciate the leadership of Representative Fischbach, Representative LaMalfa and Representative Thompson for the introduction of the HEN Act and we appreciate the Committees due consideration and approval of this needed legislation.

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