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## Reimagining the Duck Stamp, Hunting Licensure and Public Land Preservation

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REIMAGINING THE DUCK STAMP  
HUNTING LICENSURE AND PUBLIC LAND PRESERVATION

A Thesis  
Presented to  
The Faculty of the Department of History  
Western Kentucky University  
Bowling Green, Kentucky

In Partial Fulfillment  
Of the Requirements for the Degree  
Master of Arts

By  
Alec Boyd-Devine

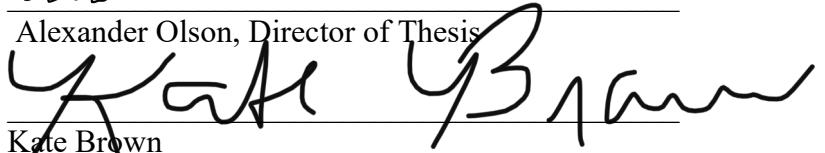
May 2021

REIMAGINING THE DUCK STAMP  
HUNTING LICENSURE AND PUBLIC LAND PRESERVATION

Date Recommended, April 13, 2021



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## TABLE OF CONTENTS

Introduction.....	1
The Stamp.....	1
Hunting and Conservation.....	4
Chapter 1: A Troubling Environment.....	11
State Conservation.....	12
Fowl Market Hunters.....	17
Chapter 2: The Federal Government Becomes Involved.....	21
International Waterfowl.....	24
Legislation by Treaty.....	26
Sportsmen Create the Audubon.....	28
Chapter 3: Creation of the Migratory Bird Hunting and Conservation Stamp.....	31
Habitat Loss.....	31
A Federal Stamp: Not from the Post.....	33
Encroachment: On the Land and on the People.....	36
Farmers for Conservation.....	37
The Duck Committee.....	40
Darling: King of Conservation.....	45
Chapter 4: Historic Success of the Stamp.....	50
Funds are Raised.....	51
Not Just Refuge.....	54
The Private Sector.....	56
Aerial Surveys.....	59

More Federal Involvement.....	66
Conclusion: A Threat to Conservation.....	68
A Snapshot of the Stamp.....	68
What Next? .....	72
Bibliography.....	75
Primary Sources.....	75
Secondary Sources.....	81

REIMAGINING THE DUCK STAMP  
HUNTING LICENSURE AND PUBLIC LAND PRESERVATION

Alec Boyd-Devine

May 2021

88 Pages

Directed by: Alexander Olson, Kate Brown, and Collin Hobbs

Department of History

Western Kentucky University

The American Migratory Bird Hunting and Conservation Stamp, or Duck Stamp, is a form of licensure issued by the Federal Government for waterfowl hunters. Why do physical stamps act as licensure to hunt waterfowl on both public and private land in the United States? How did the stamp become the key that grants access to resources that supposedly should be owned by the public? The duck stamp has been well-documented in conservation communities as a resource which has made significant positive impacts on the environment. The increase of anti-hunting sentiments in our society combined with fewer hunters per capita may result in decreased stamp sales, placing the conservation efforts funded by hunting and fishing licenses in jeopardy. This thesis is an effort to explain the importance of the history of hunting, as it relates to conservation efforts and public land. It will describe how the American Refuge System has been sustained by the funding from the Migratory Bird Hunting and Conservation Stamp. It will give a comprehensive history of how the duck stamp came into being as well as its historical ecological impact. It also raises questions regarding the current state of the duck stamp and its conservation efforts. In conclusion, the duck stamp has indeed been a historical success story, however its continued success as a form of conservation in the 21<sup>st</sup> century is another question. Additionally, the importance of public land and conservation will be highlighted.

“Our Fathers who pioneered this land accomplished much for which they should be praised but, in their ignorance, they did many things that had been better left undone. In retrospect the waste of soil, of water resources, of forests, and of wildlife seems appalling to a generation that must now dole out these things with miserly hands while working to rebuild them.” Ira Gabrielson, Director of the Fish and Wildlife Service, 1943.<sup>1</sup>

## Introduction

### The Stamp

The Migratory Bird Hunting and Conservation Stamp is one of the most popular collector's stamps in the United States.<sup>2</sup> The stamp, originally put into production in 1934, has multiple collectors' books and essays written about it. The stamp is redesigned every year by artists from all around the United States. The Biological Survey, now known as the United States Fish and Wildlife Service, is the department who originally oversaw the stamp.<sup>3</sup> To date, the stamp has generated over six-hundred million dollars in revenue that has funded the purchase and upkeep of over five million acres of waterfowl habitat across the United States.<sup>4</sup> Though the revenue generated by the stamp did not create the American Refuge System, the stamp is what funded the refuge system's long-term commitment to protecting wildlife, for almost a century.<sup>5</sup>

How the stamp has been designed over the past 80 years has a unique history. The design for the first stamp was created by Jay Norwood Darling, a cartoonist and avid conservationist. After Darling designed the first stamp, the Biological Survey began

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<sup>1</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 3.

<sup>2</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 74.

<sup>3</sup>Robert M. Wilson, “Directing the Flow: Migratory Waterfowl, Scale, and Mobility in Western North America,” *Environmental History*, vol. 7, no. 2, 2002, 251-253, [www.jstor.org/stable/3985684](http://www.jstor.org/stable/3985684). Accessed 19 Jan. 2021.

<sup>4</sup>Hunting and Conservation Stamp Tax, U.S. Code VII subchapter IV, (2006), <https://uscode.house.gov/view.xhtml?path=/prelim@title16/chapter7/subchapter4&edition=prelim>.

<sup>5</sup>Hunting and Conservation Stamp Tax, U.S. Code VII subchapter IV, (2006) <https://uscode.house.gov/view.xhtml?path=/prelim@title16/chapter7/subchapter4&edition=prelim>.

inviting different artists to create new designs for the stamp, on a yearly basis.<sup>6</sup> The popularity of the stamp rose, and multiple artists began submitting their work in hopes their art would be chosen. This eventually led to an open competition in 1950, where 88 different designs were submitted.<sup>7</sup> Popularity increased over the ensuing years and in 1982, the competition had over 2,000 entries. Recently, entries for the competition have sharply declined, with only 140 in the 2020 competition.<sup>8</sup> Though specific rules have changed over the past 70 years, design for the stamp is still decided through this art competition.<sup>9</sup> Eric Jay Dolin's book, *The Duck Stamp Story*, provides exemplary research on The Migratory Bird Hunting and Conservation Stamp. However, only a small portion of the book focuses on the legal history of the stamp. The rest discusses the trading value, the artwork, and the competitions regarding it. Though these are all part of the stamp's story, it is important to understand its legal history. The stamp's legal history is the basis for American conservation, and how the sustained funding for that conservation originated. The revenue collected by the stamp's sales goes towards purchasing, leasing, and rejuvenating wetlands. It has historically funded and continues to fund the American Refuge System, a large section of American public land.

Of the 855 million acres that have been put into the U.S. Refuge system, over 760 million acres of it are submerged land and water.<sup>10</sup> Protecting these wetlands is crucial

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<sup>6</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 127.

<sup>7</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 127.

<sup>8</sup>U.S. fish and Wildlife Service, "Duck Stamp Contest and Event Information," Accessed March, 20, 2021, <https://www.fws.gov/birds/get-involved/duck-stamp/duck-stamp-contest-and-event-information.php>.

<sup>9</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 127.

<sup>10</sup>U.S. fish and Wildlife Service, "Public Lands and Waters," Accessed March 19, 2020, <https://www.fws.gov/refuges/about/public-lands-waters/>.



for protecting wildlife, especially migratory birds. Wetlands are a critical portion of the refuge system. Wetlands provide opportunity for a wide range of recreational activities, such as kayaking, hiking, fishing and hunting. Wetlands protect towns and cities across the United States by acting as flood relief zones. Additionally, these marshes provide lumber, which drives the timber industry in the United States. Wetlands are presently and have historically been, extremely important to the economy of the United States. The history of the stamp tells the story of why wetlands were protected.

The ecological benefits of wetlands are also extremely important to the United States. Wetlands act as various filtration systems to the country.<sup>11</sup> Marshes are excellent at nutrient cycling, which is a natural form of filtration.<sup>12</sup> They are a “natural water purification mechanism” and provide “saltwater intrusion control.”<sup>13</sup> These estuaries provide habitat for many species of birds, fur-bearing mammals and aquatic life, including approximately 1/3 of the current endangered or threatened species which reside in the United States.<sup>14</sup> For waterfowl, wetlands provide the habitat where birds are born and live the first months of their lives. Without wetlands, waterfowl would have limited places to breed, resulting in the decrease of waterfowl populations. These vastly important wetland ecosystems were under severe threat in the late 19<sup>th</sup> and early 20<sup>th</sup> century. The solution to saving wetlands were to make them public land. The funding for these lands would come from the sales revenue of the Migratory Bird Hunting and

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<sup>11</sup>Laura Bies, "Policy News: Wetlands Management in the United States," *Wildlife Society Bulletin* (1973-2006) 34, no. 3 (2006): 894-96, Accessed March 20, 2021, <http://www.jstor.org/stable/3784727>.

<sup>12</sup>Megan H Reed, Tom Jenkins, and Lisa Kenyon, "Why Wetlands Matter: Using Modeling and Data Analysis to Understand Wetland Functions," *The Science Teacher* 87, no. 4 (2019): 34-42, Accessed March 20, 2021, doi:10.2307/26899235.

<sup>13</sup>"Facts: The Benefits of Wetlands," U.S. fish and Wildlife Service, March, 1984.

<sup>14</sup> Megan H Reed, Tom Jenkins, and Lisa Kenyon, "Why Wetlands Matter: Using Modeling and Data Analysis to Understand Wetland Functions," *The Science Teacher* 87, no. 4 (2019): 34-42, Accessed March 20, 2021, doi:10.2307/26899235.

Conservation Stamp. This federal stamp acts as required licensure to hunt waterfowl across the United States. Wetlands were under threat, causing the Migratory Bird Hunting and Conservation Stamp to be created to fund the protection of them.

### Hunting and Conservation

The Migratory Bird Hunting and Conservation Stamp, known as the duck stamp or the waterfowl stamp, was the original tax derived to secure funding for the United States' Refuge System. The stamp was a mechanism used to tax waterfowl hunters. This was decided because it was sportsmen, or men who hunted waterfowl for sport, that first noticed a decline in duck populations due to overharvest and destruction of habitat. Sportsmen ate what they killed and rarely sold their prey. In contrast, a market hunter was someone who made their primary living by hunting or trapping and selling the animal to the market. The sportsmen pitted themselves against market hunters and attempted to outlaw market hunting, especially for waterfowl. This was accomplished through the creation of the duck stamp. The stamp also funded the United States Refuge System. In addition to federal funding, the stamp was critical for the creation of conservation minded nonprofits. Historically nonprofits have aided the federal government in conservation projects across the United States.

In *American Sportsmen*, John F. Reiger discusses the sportsmen movement, taking the opinion that it was because of sportsmen that conservation even began in the United States. Sportsmen were the guiding figure in the creation of conservation. Reiger argues that conservation did not begin in the early 20<sup>th</sup> century, as many other historians have speculated, and instead he claims that it dates much earlier. Reiger defined sportsmen as men who practiced hunting and fishing as a past time, or for sport, instead

of market hunters and commercial fisherman who used their skills as a career. He sought to prove that conservation has historically been viewed as a middle-class struggle to protect the Earth's resources, however in reality, conservation began with wealthy sportsmen who were trying to protect their interests and traditions.<sup>15</sup>

Additionally, John Reiger dates the sportsmen's conservation movement as beginning far before legislation was actually enacted. Therefore, the conservation movement was a grassroots movement, perpetuated by both the middle and upper classes of the United States.<sup>16</sup> It was specifically the sportsmen movement that allowed for legislation to be passed which regulated the taking of migratory waterfowl. This led directly to the creation of the Migratory Bird Hunting and Conservation Stamp. This essay uses John Reiger's understanding and analysis of the sportsmen movement.

Not all historians discuss the sportsmen movement in such high regard as John Reiger. One such historian, George Reiger, sought to prove that the practices of the sportsmen who petitioned to create conservation policies often had motives less pure than is commonly depicted. Sportsmen wished to eliminate competition for birds, and thus targeted market hunters. He stated that many of these supposed sportsmen partook in similar destructive practices as market hunters. These practices included the use of large guns and shooting much more than what they could consume. Because refrigeration was not yet largely accessible, especially in individual homes, sportsmen who killed in excess had to sell their additional quarry. The key difference outlined by George Reiger is that market hunters did it with intent to sell the game killed. In contrast, sportsmen often killed more than they could consume, and then used the sale as a justification for taking

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<sup>15</sup>John Reiger, *American Sportsmen*, (Oregon: Oregon State University Press, 2001), 1-4.

<sup>16</sup>John Reiger, *American Sportsmen*, (Oregon: Oregon State University Press, 2001), 5.

more game.<sup>17</sup> George Reiger's example of sportsmen overindulging in their activities is valid yet does not discredit the tremendous amount of legislation passed due to a variety of sportsmen movements. These movements lobbied both state and federal government for legislation which would ban market hunting as well as protect the environment. Sportsmen's goals were to ensure their practices of hunting and fishing for recreation could be enjoyed by future generations. Sportsmen often ate what they killed; however, food and employment were not their primary goals. The sportsmen instead longed to make this pastime available for future generations, as John Reiger argued.<sup>18</sup>

Another conservation historian discredits the sportsmen movement and focuses on what science did for conservation. Samuel P. Hays explains it was scientists who were really behind the conservation movement, stating, "conservation leaders sprang from such fields as hydrology, forestry, agrostology, geology, and anthropology."<sup>19</sup> It was these scientists who made significant impacts on politicians such as Theodore Roosevelt. Hays argues that it was the politicians and the scientists who decided that individuals who managed natural resources should be those who used the resources. For example, foresters should manage the forest and agronomists should manage land for livestock grazing and crop production due to their experience in their field of study.<sup>20</sup> Hays is not wrong in his analysis. However, often these scientists were also sportsmen. George Bird Grinnell was an osteologist, naturalist, and conservationist. He also was an avid

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<sup>17</sup>George Reiger, *The Complete Book of North American Waterfowling, a Handbook of Techniques and Strategies*, (New York: The Lyons Press, 2000), 49.

<sup>18</sup>John F. Reiger, *American Sportsmen and the Origins of Conservation*, (Oregon: Oregon State University Press, 2016.)

<sup>19</sup>Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Pittsburgh, Pennsylvania: University of Pittsburgh Press, 2000), 2.

<sup>20</sup>Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Pittsburgh, Pennsylvania: University of Pittsburgh Press, 2000), 1-5.

sportsman and good friends with Theodore Roosevelt.<sup>21</sup> Grinnell's impact on conservation in the United States rivals that of any other individual. Another important scientist and sportsman to the conservation movement was Aldo Leopold, who is credited with creating the study of wildlife management.<sup>22</sup> Sportsmen often used scientific data to support their goals and defend their ideas. Scientists and sportsmen were rarely contradistinctive from one another.

Karl Jacoby writes a conservation history of the United States from a completely different perspective than any of the previous authors. Jacoby gives credit to the political conservationists like Theodore Roosevelt, Gifford Pinchot, and Carl Schenk for contributing to the creation of federal parks like Yellowstone.<sup>23</sup> Jacoby analyzes the effects of the legislation passed at this time, particularly its effect on those who lived in the involved areas. These people were mostly rural, poor, Whites and Native Americans.<sup>24</sup> Jacoby's areas of study were the Adirondacks, Yellowstone, and the Grand Canyon. Though the book does not focus on waterfowl directly, it gives significant background into the conservation movement in the United States, and the affects it had on American people. Most importantly, Jacoby highlights the controversial nature of conservation during its initial implementation, as multitudes of people spoke out against it. Today, very few people look at Yellowstone, the Adirondacks, or the Grand Canyon and imagine them as anything other than their present majestic expanses of land, which

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<sup>21</sup>"George Bird Grinnell," U.S. Fish and Wildlife Service, accessed March 2, 2021, <https://www.fws.gov/refuges/history/bio/grinnell.html>.

<sup>22</sup>Aldo Leopold, *A Sand County Almanac, with Essays on Conservation from Round River*, (New York: Random House Publishing Group, 1949), About Aldo Leopold.

<sup>23</sup>Karl Jacoby, *Crimes Against Nature* (California, University of Berkeley Press, 2001), 4-5.

<sup>24</sup>Karl Jacoby, *Crimes Against Nature* (California, University of Berkeley Press, 2001), 6.

for the most part remain undeveloped. However, Jacoby brings attention to the fact that this was not always the case.<sup>25</sup>

The idea that conservation projects like the refuge system were not bipartisan is important to understanding America's conservation history. The legality of the creation of the stamp and the federal hunting regulations which came with it were often called into question. Prior to the stamp's creation, President Theodore Roosevelt legally conserved over 230 million acres in the form of national forests, bird reserves, or national parks across the United States during his tenure in office.<sup>26</sup> Thus, the earliest form of the American Refuge System was born in 1903.<sup>27</sup> This expansion of the federal government on behalf of wildlife preservation drastically changed how the federal government interacted with conservation.

In 1903, a refuge system was created; its existence did not guarantee protection of flora and fauna found across the United States. This was especially true in game that migrated and lived in many different areas throughout the year. Though they were protected in some areas, migratory game was not protected in others. This lack of protection was shown in the ensuing years as migratory game began to sharply decline. This time period saw the extinction of the passenger pigeon and other birds. It would take an additional 30 years to determine a way to fund both the Refuge System and protect migratory game. This 30-year period was full of failed attempts at both the state and federal levels to conserve American wild species and the places they inhabit. Finally, in 1934, the first federally required hunting licensure was made available to purchase in the

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<sup>25</sup>Karl Jacoby, *Crimes Against Nature* (California, University of Berkeley Press, 2001).

<sup>26</sup>"The Conservation Legacy of Theodore Roosevelt," U.S. Department of Interior, Accessed March 4, 2021. <https://www.doi.gov/blog/conservation-legacy-theodore-roosevelt>.

<sup>27</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 8.

form of a stamp. The Migratory Bird Hunting and Conservation Stamp continues to be the only federally required hunting license. This stamp, as well as other hunting licenses fund the creation and protection of government-managed lands.

This is a history of American conservation through public land, and the stamp which funds it. The essay will discuss why sportsmen petitioned for more regulation regarding waterfowl hunting. It will outline why the Migratory Bird Hunting and Conservation Stamp took so long to create, and how sportsmen began petitioning for regulation over 40 years before its enactment. Specifically, it will showcase the failures of multiple state conservation techniques as well as various federal efforts, which resulted in largely unsuccessful waterfowl conservation. It will outline the legislative history which led to the stamp's creation and will credit individuals like Aldo Leopold and Jay Norwood "Ding" Darling with advancing conservation in the United States. In addition to these men, nonprofit groups will be recognized for putting forth incredible amounts of effort to protect American wild spaces. The essay will detail why the federal government's involvement was crucial for conservation because it made treaties with other nations. Additionally, it was the federal government who could successfully regulate animals which migrated across state and federal boundaries. Questions will be raised regarding the historic importance of the stamp on conservation efforts as well as the programs and organizations created due to its success. The paper will explain how key conservation groups began with hunters, and how key figures in the conservation movement were also sportsmen. The historic success the stamp has had on waterfowl, despite the constant decline of habitat due to population increase in the United States, will be covered. Additional scientific research will also be used to show how detrimental

humans have historically been to various environments in the United States. Finally, it will showcase the important dynamic the stamp created between federal intervention and the private sector resulting in conservation.

The collectability of the stamp is well known and documented by authors like Eric Dolin. In fact, it may appear that the stamp's success story is because of the artwork and collectability it has historically been known for. Though these are parts of its story, the history of the stamp began far before its creation. It began with hunters and continues to be successful because of hunters. The stamp is a tax placed on waterfowl hunters in the United States. All hunters aged 16 and older must purchase and have signed in their possession the stamp while pursuing migratory waterfowl. These waterfowl hunters have seen the necessity of paying the licensure fee and supporting the conservation projects which it funds. This has allowed for the stamp's historic success in protecting and conserving lands for the past 80 years. This historically successful way of funding conservation and public lands is diminishing due to the decline of hunters in the United States. To understand the importance of public land, the history of their creation must be closely examined; this is accomplished through understanding the history of the Migratory Bird Hunting and Conservation Stamp.



## Chapter One: A Troubling Environment

### Introduction

The story of the Migratory Bird Hunting and Wildlife Conservation Stamp is one that is complicated by politicians, sportsmen, market hunters, and, of course, waterfowl. In 1934, Franklin Roosevelt officially made the stamp a mandatory license in order to hunt migratory waterfowl in all 48 states in the United States. Though the stamp was first enacted in 1934, conservation legalities began far earlier. Various legislation which attempted to federally regulate waterfowl hunting was adopted before 1919.

Waterfowl species, along with many other wildlife found in North America, were experiencing rapid decline due to over harvest by sportsmen and market hunters, as well as loss of habitat. Sportsmen were commonly wealthy individuals who enjoyed hunting as a pastime. In contrast, market hunters made a career from hunting various American species. One common form of market hunter were the bison hunters of the American plains who sold bison pelts and meat.<sup>28</sup> Another type of market hunter was one who targeted birds, to sell to the feather industry. Feathers were used in fashion in the United States as well as various parts of Europe. Feathers would often be worn in hats as well as brochettes.<sup>29</sup> The passenger pigeon was hunted by sportsmen and market hunters alike.<sup>30</sup> The birds were extirpated in most parts of the United States by the turn of the 20<sup>th</sup> century; in fact, the last known large flock was seen in Indiana in 1880.<sup>31</sup> The passenger

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<sup>28</sup>“Timeline of the American Bison,” U.S. Fish and Wildlife Service, accessed March 2, 2021, <https://www.fws.gov/bisonrange/timeline.htm>.

<sup>29</sup> *The Audubon Magazine, Published in the Interest of the Audubon Society for the Protection of Birds*, Volume 1: February 1887- January 1888, New York: Forest and Stream Publishing Company, 159. <https://books.google.com/books?id-9FAQAAMAAJ&pg=PA159&lpg=>.

<sup>30</sup>W.B. Mershon, *The Passenger Pigeon*, (New York: The Outing Publishing Company, 1907), <https://www.gutenberg.org/files/44729/44729-h/44729-h.htm>.

<sup>31</sup>W.B. Mershon, *The Passenger Pigeon* (New York: The Outing Publishing Company, 1907), 141-146, <https://www.gutenberg.org/files/44729/44729-h/44729-h.htm>.

pigeon was driven to extinction largely due to overharvest.<sup>32</sup> The idea that an animal can be pushed to extinction by hunters drove the creation of more legislation for hunters, especially market hunters. This legislation was lobbied for by sportsmen in many states. When inadequate state conservation efforts failed, the federal government stepped in. The federal government also failed at protecting migratory species multiple times. However, eventually the Migratory Bird Hunting and Wildlife Conservation Stamp was created. It was through this federal management of migratory birds that protected various species from extirpation or extinction.

### State Conservation

Like much of the American legal system, conservation law can be traced back to English common law.<sup>33</sup> English conservation law governed wildlife in the form of limiting the killing or capturing of certain species.<sup>34</sup> It also governed different legal methodology in which species could be taken.<sup>35</sup> The authority by which game shall be governed in the United States came into question. Additionally, which citizens could hunt different game species was unknown. Thus, the creation of game law in the United States was controversial. This game law however made strides in successfully regulating hunters to some extent. This regulation was an attempt to ensure wild game was bountiful

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<sup>32</sup>Collette Adkins Geise, "Spreading its Wings, Using the Migratory Bird Treaty Act to Protect Habitat." *William Mitchell School of Law, Volume 36, Issue 3*, <https://open.mitchellhamline.edu/wmlr/vol36/iss3/6/>.

<sup>33</sup>Sir William Blackstone, *Commentaries on the Laws of England: Book Two: Of the Rights of Things* (England, November 1765), 177.

<sup>34</sup>"The Property in Game," *Forrest and Stream*, August 16, 1883, <https://babel.hathitrust.org/cgi/pt?id=mdp.39015012335983&view=1up&seq=43>.

<sup>35</sup>George Reiger, *The Complete Book of North American Waterfowling, a Handbook of Techniques and Strategies*, (New York: The Lyons Press, 2000), 51.

enough to continue harvesting.<sup>36</sup> Though it did not save all species from extirpation or extinction, it did help perpetuate the survival of some.<sup>37</sup>

In the United States, conservation regulation began at the state level. For example, in New York the banning of hunting from sink boxes, a form of hunting waterfowl from beneath the water's surface, was enacted as early as 1838.<sup>38</sup> Additionally, some states such as Maryland declared certain days as "rest days," or days where waterfowl could not be hunted, in the late 19<sup>th</sup> century.<sup>39</sup> Other states like Texas created legislation banning the trapping of waterfowl in the early 1900s.<sup>40</sup> Moreover, market hunting was directly banned in some states like Arkansas as early as 1875.<sup>41</sup>

Sportsmen began lobbying state governments to create legislation which regulated market hunting in subsequent years. One example of this was Michigan sportsmen lobbying against market hunting as early as 1875.<sup>42</sup> Though waterfowl were an especially important and large industry in market hunting, other animals like whitetail deer were often hunted for the market as well. Michigan passed a law which effectively banned market hunting with a set limit of five deer per person.<sup>43</sup> This infringed on market hunter's success because they could not generate as much revenue. Though market

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<sup>36</sup>John Quincy Adams, *Life in a New England Town: 1787, 1788*, (Boston: Little, Brown and Company, 1903), 22-23, <https://babel.hathitrust.org/cgi/pt?id=yale.39002004924693&view=2up&seq=30>.

<sup>37</sup>John Quincy Adams, *Life in a New England Town: 1787, 1788*, (Boston: Little, Brown and Company, 1903), 22-23, <https://babel.hathitrust.org/cgi/pt?id=yale.39002004924693&view=2up&seq=30>.

<sup>38</sup>George Reiger, *The Complete Book of North American Waterfowling, a Handbook of Techniques and Strategies*, (New York: The Lyons Press, 2000), 51.

<sup>39</sup>George Reiger, *The Complete Book of North American Waterfowling, a Handbook of Techniques and Strategies*, (New York: The Lyons Press, 2000), 66.

<sup>40</sup>R.K. Sawyer, *Texas Market Hunting Stories of Waterfowl, Games Laws, and Outlaws*, (College Station: Texas A&M University Press, 2013), 106.

<sup>41</sup>George Reiger, *The Complete Book of North American Waterfowling, a Handbook of Techniques and Strategies*, (New York: The Lyons Press, 2000), 66.

<sup>42</sup>"Deer Management History in Michigan," Michigan Department of Natural Resources, Accessed March 3, 2021. <https://www.michigan.gov/dnr/0,4570,7-350--28543--,00.html>.

<sup>43</sup>"Deer Management History in Michigan," Michigan Department of Natural Resources, Accessed March 3, 2021. <https://www.michigan.gov/dnr/0,4570,7-350--28543--,00.html>.

hunters could still travel to Michigan to hunt for whitetail deer, it became far less advantageous and lucrative for them to do so. They could instead travel to other states to hunt for free or significantly cheaper and shoot many more deer.<sup>44</sup> Michigan sportsmen were concerned with limiting market hunting, this is an example of the sportsmen movement successfully lobbying for legislation to aid conservation efforts.

Maryland also attempted to limit market hunters in attempts to protect migratory game populations. They accomplished this through limiting waterfowl hunting to three days a week.<sup>45</sup> Specific taxes were also issued on various methods that were used to kill waterfowl. Sink boxes, a way to kill waterfowl while hiding under water, were taxed at \$20 a season. Sneak boats, a way to sneak up on waterfowl, were only subject to a \$5 tax per season. For comparison, the highest quality birds were only selling for approximately \$0.20 a piece.<sup>46</sup> Additionally, Maryland only allowed residents to hunt within the state, thus legally banning traveling market hunters.<sup>47</sup> This law was created to reduce the amount of out-of-state market hunters that flooded to the state, often from New York. The statute read, “every applicant for a license to use a sink box or, sneak boat, shall be required to make an oath before the clerk of the court authorized to issue the same that he is a bona fide resident of the State and that he will obey and comply with all the

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<sup>44</sup>“Deer Management History in Michigan,” Michigan Department of Natural Resources, Accessed March 3, 2021. <https://www.michigan.gov/dnr/0,4570,7-350--28543--,00.html>.

<sup>45</sup>Lewis Mayer, Louis C. Fischer, E.J.D. Cross, *Revised Code of the General Laws of the State of Maryland: With Constitution of the State*, (Baltimore: John Murphy and Company, 1879), 173, <https://play.google.com/books/reader?id=T-IXAAAAYAAJ&hl=en&pg=GBS.PA173>.

<sup>46</sup>Old Time Market Hunter Reminisces: Says Protection Bringing Game Back,” U.S. Fish and Wildlife Service, January 21, 1941, <https://www.fws.gov/news/Historic/NewsReleases/1941/19410121.pdf>.

<sup>47</sup>Lewis Mayer, Louis C. Fischer, E.J.D. Cross, *Revised Code of the General Laws of the State of Maryland: With Constitution of the State*, (Baltimore: John Murphy and Company, 1879), 174, <https://play.google.com/books/reader?id=T-IXAAAAYAAJ&hl=en&pg=GBS.PA173>.

provisions of this act, regulating shooting of wild waterfowl.”<sup>48</sup> Maryland’s location was beneficial to market hunters for multiple reasons. First, it had an extremely diverse number of waterfowl population living and migrating through the state. Maryland’s location on the ocean allowed for the presence of sea duck species such as eider, scoter, and old squaw, all were very popular breeds used in the garment industry.<sup>49</sup> Additionally, waterfowl which were popular as table fare in the late 19<sup>th</sup> century such as canvas backs, wood ducks, and mallards were commonly found here.<sup>50</sup> Finally, waterfowl tended to be shot near where it would be consumed since refrigerated commercial transportation was limited at this time. It was not until the late 1890s that cooled rail transportation became more prevalent.<sup>51</sup> Thus, Maryland was an extremely lucrative area for market hunters, due to its geographical location near large cities, and its wide range of waterfowl that provided both meat and feathers.

Maine began regulating waterfowl hunting at the same time as Maryland. Maine outlawed harvesting wood ducks, black ducks, teal, and grey ducks between the months of May through September. This was because many of these species nested and reproduced in the state at this time of year. If hunters harvested them during these months, they would often kill mothers whose ducklings still depended on her for food. Maine did not stop with the regulation of waterfowl hunting, but also regulated the sale of prairie chickens, woodcock, and ruffed grouse. In addition, they also banned the taking of songbirds at any time. Interestingly, Maine included a special provision which allowed

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<sup>48</sup>Lewis Mayer, Louis C. Fischer, E.J.D. Cross, *Revised Code of the General Laws of the State of Maryland: With Constitution of the State*, (Baltimore: John Murphy and Company, 1879), 174, <https://play.google.com/books/reader?id=T-IXAAAAYAAJ&hl=en&pg=GBS.PA173>.

<sup>49</sup>“Identifying Ducks,” Maryland Department of Natural Resources, Accessed March 2, 2021, [https://dnr.maryland.gov/wildlife/Pages/hunt\\_trap/waterfowl\\_identification.aspx](https://dnr.maryland.gov/wildlife/Pages/hunt_trap/waterfowl_identification.aspx).

<sup>50</sup>John Reiger, *American Sportsmen* (Oregon: Oregon State University Press, 2001), 47.

<sup>51</sup>Susanne Freidburg, *Fresh: A Perishable History* (Massachusetts, Harvard University Press, 2010), 90-92.

the taking of hawk and owl eggs to remain legal.<sup>52</sup> This was more than likely because these birds of prey often killed chickens and other livestock. The fines for illegally killing, transporting, or selling of fowl resulted in fines between \$1 and \$10.<sup>53</sup> Due to inflation, \$1 in 1893 would be equivalent to about \$28 in 2021.<sup>54</sup>

While these states attempted to be progressive and create legislation regulating wildlife, they did not have law enforcement personnel that were trained to regulate the laws regarding fishing, hunting, and trapping. Maine stated, “Sheriffs, deputy sheriffs, police officers and constables are vested with the power of game wardens and their deputies.”<sup>55</sup> Additionally, states that did employ conservation officers, or game wardens, often did not have a large enough force to actually enforce the legislation which had been passed. Illinois had only three game wardens to patrol the entire state in 1887.<sup>56</sup> Though states could somewhat successfully regulate illegal hunting, black market hunters began to quickly and secretively move product across state lines. This created a condition in which law enforcement in one state could not legally do anything if the animal was supposedly killed in another state. Eventually states could not stop the poachers and black-market hunters. State law enforcement and sportsmen turned to the federal

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<sup>52</sup>Commissioners of Fish and Game and Commissioner of Sea and Shore Fisheries, "Fish and Game Laws of the State of Maine, 1893,"(Inland Fisheries and Wildlife Law Books), 13-14, [http://digitalmaine.com/ifw\\_law\\_books/101](http://digitalmaine.com/ifw_law_books/101).

<sup>53</sup>Commissioners of Fish and Game and Commissioner of Sea and Shore Fisheries, "Fish and Game Laws of the State of Maine, 1893,"(Inland Fisheries and Wildlife Law Books), 13-14 [http://digitalmaine.com/ifw\\_law\\_books/101](http://digitalmaine.com/ifw_law_books/101).

<sup>54</sup>“Value in 1893 to 2021,” CPI Inflation Calculator, Accessed March 2, 2021, <https://www.in2013dollars.com/us/inflation/1893?amount=1#:~:text=%241%20in%21893%20is%20worth%20%2428.93%20today&text=In%20other%20words%2C%20%241%20in,%20is%20now%201.18%25%201.>

<sup>55</sup>Commissioners of Fish and Game and Commissioner of Sea and Shore Fisheries, "Fish and Game Laws of the State of Maine, 1893,"(Inland Fisheries and Wildlife Law Books), 7.

<sup>56</sup>“Harvesting the River,” State of Illinois Museum, Accessed March 2, 2021. [http://www.museum.state.il.us/RiverWeb/harvesting/harvest/waterfowl/tools\\_techniques/markethunting.html](http://www.museum.state.il.us/RiverWeb/harvesting/harvest/waterfowl/tools_techniques/markethunting.html)

government in search of regulation to aid them in stopping illegal activities regarding market hunting. This led to legislation like the Lacey Act which attempted to regulate waterfowl hunting on a federal level.<sup>57</sup> However, it was not until 1919 that the idea of a federal waterfowl stamp arose.<sup>58</sup>

### Fowl Market Hunters

One significant factor which drastically decreased waterfowl and led to the necessity of a stamp, was market hunters. Market waterfowl hunters primarily sold the feathers from the birds they killed to the fashion industry.<sup>59</sup> Market hunters were especially proficient at killing large numbers of waterfowl and had to kill waterfowl year-round in order for the occupation to be lucrative. This was especially detrimental to many waterfowl species. Killing waterfowl in the spring was particularly damaging for waterfowl due to the propensity of many species to mate in the spring. Waterfowl also experience molts, this is when their feathers change colors. Waterfowl feathers are brightest in late winter and early spring. They then begin to change colors and become duller in the spring and through the summer. In waterfowl, “this partial body molt was highly sex-specific, occurring from 5 February to 19 April in females, and from 13 May to 1 July in males, and included a higher proportion of feathers in females than in males. Among males, bright upperpart and breast feathers were replaced by cryptic feathers.”<sup>60</sup> Therefore, it is when waterfowl are trying to find mates and mating that they have the

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<sup>57</sup> George Reiger, *The Complete Book of North American Waterfowling, a Handbook of Techniques and Strategies*, (New York: The Lyons Press, 2000), 70-71.

<sup>58</sup> Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 8-9.

<sup>59</sup> R.K. Sawyer, *Texas Market Hunting Stories of Waterfowl, Games Laws, and Outlaws*, (College Station: Texas A&M University Press, 2013), 2.

<sup>60</sup> Peter Pyle, "Molts and Plumages of Ducks (Anatinae)," *Waterbirds: The International Journal of Waterbird Biology*, no. 2 (2005): 208-19.

most vibrant coloring and are considered to be the most attractive to fashion-focused individuals. Market hunters targeted waterfowl the most when their feathers had brightened, and they were displaying their most vibrant feathers. This encouraged a higher price in the feather industry.

Market hunters were especially harmful to ducks due to when they harvested them. Ducks, like the harlequin, find their annual mate as early as December.<sup>61</sup> This quickly led to the extirpation of harlequin ducks in the eastern United States due to one mate being harvested by market hunters in the spring.<sup>62</sup> Other waterfowl species such as the mallards often find their mate in late winter or early spring. Though male waterfowl will sometimes breed multiple females, this is not always the case.<sup>63</sup> Therefore, the seasonal regulation of waterfowl hunting was crucial to ensuring the survival of many species. This seasonal regulation would result in negative effects for market hunters, but more waterfowl overall.

In 1940, the United States Fish and Wildlife Service attempted to locate historically known market hunters around the United States. The USFWS wished to record the experiences of these market hunters. One was Captain Theodore Johnson, who was a market hunter in the Mississippi Delta during the early 20<sup>th</sup> century. Johnson described “in the old days a good market hunter down here shot an average of 100 birds a day and thought nothing of it,” further stating that a good day he would kill 150, and a

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<sup>61</sup>Robertson, Gregory J., Fred Cooke, R. Ian Goudie, and W. Sean Boyd, "Spacing Patterns, Mating Systems, and Winter Philopatry in Harlequin Ducks," *The Auk* 117, no. 2 (2000): 299-307, doi:10.2307/4089712.

<sup>62</sup>George Reiger, *The Complete Book of North American Waterfowling, a Handbook of Techniques and Strategies*, (New York: The Lyons Press, 2000), 69.

<sup>63</sup>“Waterfowl Mating Systems II,” Ducks Unlimited, Accessed March 2, 2021, <https://www.ducks.org/conservation/waterfowl-research-science/waterfowl-mating-systems#~:text=The%20family%20breaks%20up%20only,mates%20on%20the%20wintering%20grounds.>



poor day of hunting would lead to only 30 birds. This resulted in Johnson killing on average 10,000 birds per year between the years 1902 and 1911.<sup>64</sup> To give a comparison, the national limit on ducks in 2021 is only six birds per day. In addition, these birds are limited by species and sex. For example, only four of the six birds allotted to hunters in 2020 can be mallards, the other two have to be an alternate species. Of these four mallards, only two can be hens. This is because hens can sometimes be bred by multiple drakes and therefore, if hunters take more drake birds the population is sustainable.

While Johnson was being interviewed, he discussed his feelings toward sportsmen hunters. Johnson explained that he felt that sportsmen were not absolved in the decline of waterfowl. Even after legal limits were set on sportsmen, these hunters did not count the waterfowl they crippled and did not retrieve towards their limit. Therefore, though they only took their legal limit of birds from the field, there were many other crippled birds left to die after the hunt.<sup>65</sup> The number of waterfowl and upland game birds that market hunters slaughtered compared to the killing that the sportsmen are not even comparable.

Johnson also stated the legislation which regulated market hunters like him effectively ended market hunting for waterfowl. Many ducks such as northern shovelers, scaup, and gadwalls were only sold at market for \$0.15 a piece. Prettier, more sought-after birds such as green wing teal, mallard, and pintails were purchased for upwards of \$0.22.<sup>66</sup> When adjusted to inflation, \$0.15 was about \$4 in current currency and \$0.22 is

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<sup>64</sup>“Old Time Market Hunter Reminisces: Says Protection Bringing Game Back,” U.S. Fish and Wildlife Service, January 21, 1941, <https://www.fws.gov/news/Historic/NewsReleases/1941/19410121.pdf>.

<sup>65</sup>“Old Time Market Hunter Reminisces: Says Protection Bringing Game Back,” U.S. Fish and Wildlife Service, January 21, 1941, <https://www.fws.gov/news/Historic/NewsReleases/1941/19410121.pdf>.

<sup>66</sup>“Old Time Market Hunter Reminisces: Says Protection Bringing Game Back,” U.S. Fish and Wildlife Service, January 21, 1941, <https://www.fws.gov/news/Historic/NewsReleases/1941/19410121.pdf>.

just shy of \$6.<sup>67</sup> When market hunters had to abide by the same limits as sportsmen, market hunters could not make enough revenue to afford hunting.

The technology that market hunters like Johnson possessed allowed them to be more successful in targeting waterfowl. The market for feathers for fashion continued to rise, thus presenting opportunity for more market hunters to enter the industry.

Additionally, states could not effectively legislate the end of market hunting as well as the trade in feathers. Due to successful market hunters, as well as failure to adequately protect wildlife on the state level, the federal government was compelled to act.

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<sup>67</sup>“Value of Inflation,” CPI Inflation Calculator, Accessed March 2, 2021, <https://www.in2013dollars.com/us/inflation/1893?amount=1#:~:text=%241%20in%201893%20is%20worth%20%2428.93%20today&text=In%20other%20words%2C%20%241%20in,%20is%20now%201.18%25%201.>

## Chapter Two: The Federal Government Becomes Involved

### Introduction

In May of 1900, President William McKinley signed into law the first federal legislation regulating hunting, known as the Lacey Act. While many attribute Theodore Roosevelt to be the first president to express interest in conservation, in actuality, Roosevelt's predecessor, McKinley, spurred the presidential movement toward conservation. This act was historic in the sense it was the first attempt to address the issue of the rapid decline of many waterfowl species at the hands of market hunters. This act was first proposed by John Lacey in 1897.<sup>68</sup> Lacey was a congressman from Iowa, an avid sportsman, a key figure in the American conservation movement. Lacey claimed he had always been "a lover of birds" as well as a hunter. Lacey claimed that birds had no better friend than the sportsmen who were lobbying for legislation to protect the birds during mating and molting seasons. The Lacey Act had multiple goals as outlined in Lacey's famous, "Let Us Save the Birds" speech.<sup>69</sup> Lacey brought this legislation to Congress in an attempt to enact federal laws which regulated human interaction with wildlife.

The first section of the Lacey Act authorized the secretary of agriculture to reintroduce "birds which have come locally extinct or are becoming so in parts of the United States."<sup>70</sup> This combatted the multiple fowl that had been hunted to extirpation in certain areas by market hunters and lost their habitats due to the country's rapid

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<sup>68</sup>George Reiger, *The Complete Book of North American Waterfowling, a Handbook of Techniques and Strategies*, (New York: The Lyons Press, 2000), 70-71.

<sup>69</sup> John F. Lacey, "Let Us Save the Birds," speech to the U.S. House of Representatives, 524, <https://play.google.com/books/reader?id=a2A2AQAAMAAJ&hl=en&pg=GBS.RA1-PA34>.

<sup>70</sup>John F. Lacey, "Let Us Save the Birds," speech to the U.S. House of Representatives, 523, <https://play.google.com/books/reader?id=a2A2AQAAMAAJ&hl=en&pg=GBS.RA1-PA34>.

industrialization. A reintroduction of the species was necessary, as much of the habitat conducive to breeding had been destroyed.

The second section of the bill allowed the secretary of Agriculture to regulate, “the importation of foreign wild birds and foreign wild animals.”<sup>71</sup> This was created to ensure non-native wild birds were not introduced to the United States. This was of critical importance because when nonnative species are introduced, they often compete for resources with the native fauna. This causes native species such as waterfowl to have limited resources and creates unnecessary strain on their ability to survive. Previous to 1900, predatory non-native animals like the mongoose had been released in Jamaica. The mongoose was released to help rid the island of the numerous rats which inhabited Jamaica.<sup>72</sup> However, once the rats had been annihilated, the mongoose began searching for other food sources. This often resulted in the slaughter of native birds, rodents, and small reptiles.<sup>73</sup> Lacey attempted to ensure that invasive species like mongoose, which would potentially be harmful to waterfowl and other native species, were not released.

The third section of the Lacey Act addressed issues of the sale of birds across state lines, which Lacey claimed was the “most vital one of all.”<sup>74</sup> The sale of birds across state lines is an example of interstate commerce. He likely felt this way because he was a sportsman. This section of the act specifically targeted what John F. Reiger claims was the nemesis of the sportsmen movement, market hunters. The regulation of interstate commerce was important because it attempted to ban the sale of fowl across state lines.

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<sup>71</sup> John F. Lacey, “Let Us Save the Birds,” speech to the U.S. House of Representatives, 523, <https://play.google.com/books/reader?id=a2A2AQAAMAAJ&hl=en&pg=GBS.RA1-PA34>.

<sup>72</sup> John F. Lacey, “Let Us Save the Birds,” speech to the U.S. House of Representatives, 523, <https://play.google.com/books/reader?id=a2A2AQAAMAAJ&hl=en&pg=GBS.RA1-PA34>.

<sup>73</sup> “Mongoose,” Hawaii Invasive Species Council, accessed November 15, 2020.

<sup>74</sup> John F. Lacey, “Let Us Save the Birds,” speech to the U.S. House of Representatives, 523, <https://play.google.com/books/reader?id=a2A2AQAAMAAJ&hl=en&pg=GBS.RA1-PA34>.

The act prohibited the sale of birds taken illegally. This was critical because often states regulated the taking of game birds. The states could not enforce many of the laws they created, especially once the bird was transported across state lines. The individuals who illegally poached the birds could no longer legally be held accountable because the evidence had been transferred into another state. Congressmen like Lacey knew if they could urge the federal government to enact legislation regulating this practice, poachers and illegal market hunters would inevitably be held accountable. Lacey stated, "Game wardens in various states long desired some legislation of this kind by which they can stop the nefarious traffic in birds and game in defiance of their state laws."<sup>75</sup> Lacey's speech has been recognized as a significant moment in the history of American conservation.

Unfortunately, many goals of the Lacey Act were not accomplished. This was due to the federal government's lack of ability to actually enforce the legislation it passed. Due to the Lacey Act banning legal transportation of game, some market hunters began selling waterfowl on the black market.<sup>76</sup> The Weeks-McLean Act was enacted in 1913 as a revision to the Lacey Act. The Weeks-McLean Act attempted to federally regulate waterfowl. However, this too failed in protecting waterfowl as the Weeks-McLean Act as it was deemed unconstitutional.<sup>77</sup> The Tenth Amendment of the United States Constitution explained, "the powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or

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<sup>75</sup>John F. Lacey, "Let Us Save the Birds," speech to the U.S. House of Representatives, 524, <https://play.google.com/books/reader?id=a2A2AQAAMAAJ&hl=en&pg=GBS.RA1-PA34>.

<sup>76</sup>Meredith Blaydes Lilley; Jeremy Firestone, "Wind Power, Wildlife, and the Migratory Bird Treaty Act: A Way Forward," *Environmental Law* 38, no. 4 (Fall 2008): 1167-1214.

<sup>77</sup>Meredith Blaydes Lilley; Jeremy Firestone, "Wind Power, Wildlife, and the Migratory Bird Treaty Act: A Way Forward," *Environmental Law* 38, no. 4 (Fall 2008): 1167-1214.

to the people.”<sup>78</sup> Due to waterfowl protection not being exclusively delegated by the constitution to the federal government, it was thought to be a state’s right.<sup>79</sup> The Weeks-McLean Act was later repealed in 1918.<sup>80</sup> Before the Weeks-McLean Act was repealed, it was replaced in 1916 with the forged with Great Britain. This treaty was ruled constitutional because it is the federal government’s role to enter treaties with foreign nations.<sup>81</sup>

### International Waterfowl

The United States entered a treaty with Great Britain on behalf of the dominion of Canada which regulated the taking of migratory birds, including migratory waterfowl. The treaty was signed August 16, 1916. It was created in an attempt to save multiple species of bird and stated,

“whereas, many of these species are of great value as a source of food or in destroying insects which are injurious to forests and forage plants on the public domain, as well as to agricultural crops, in both the United States and Canada, but are nevertheless in danger of extermination through lack of adequate protection during the nesting season or while on their way to and from their breeding grounds.”<sup>82</sup>

The treaty demonstrated the importance of insectivorous birds to both Canada and the United States. Both nations recognized that these birds provided economic protection to

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<sup>78</sup>U.S. Constitution, amendment 10. [https://www.law.cornell.edu/constitution/tenth\\_amendment](https://www.law.cornell.edu/constitution/tenth_amendment).

<sup>79</sup>U.S. Constitution, amendment 10. [https://www.law.cornell.edu/constitution/tenth\\_amendment](https://www.law.cornell.edu/constitution/tenth_amendment).

<sup>80</sup>Collette Adkins Geise, “Spreading its Wings, Using the Migratory Bird Treaty Act to Protect Habitat,” *William Mitchell School of Law, Volume 36, Issue 3*, 1160, <https://open.mitchellhamline.edu/wmlr/vol36/iss3/6/>.

<sup>81</sup>U.S. Constitution, Article II, section 2. <https://www.law.cornell.edu/constitution/articleii>.

<sup>82</sup>“Convention between the United States and Great Britain for the Protection of Migratory Birds,” Opened for signature August 16, 1916: 63, <https://www.fws.gov/migratorybirds/pdf/Treaties-Legislation/Treaty-Canada.pdf>.

agricultural practices. Additionally, both nations recognized that preventative measures had to be enacted to ensure the sustainability of these species.

This treaty circumvented the issue that the United States federally could not create legislation which governed hunting practices. The treaty protected multiple types of birds, not just waterfowl. This included cranes, rails, coots, shorebirds, insectivorous birds, as well as non-game birds such as herons. It specifically labeled wild ducks, geese, brant, and swans as being under protection in the treaty. It set seasons on certain birds and banned the killing of others. The treaty stated that no hunting of the birds could occur between March 10 and September 1.<sup>83</sup> This would adequately provide protection to the birds during the breeding and molting seasons. Additionally included was the rights of Native Americans and Inuits to take scoters and other birds specifically protected by the treaty. However, “the birds and eggs so taken shall not be sold or offered for sale.” This allowed the birds to only be consumed by Native Americans who harvested them.<sup>84</sup> The treaty provided for a closed season that was to be instated for all insectivorous birds year-round, which effectively banned hunting insectivorous birds at any time across North America. It included a closed season to be instated on wood ducks and eider ducks, which were two of the most endangered species at the time at the treaty’s inception.

One clause was designed specifically to raise awareness of two different species of waterfowl, the wood duck and the eider, both faced imminent extinction if immediate action was not taken. This clause turned the attention of the federal government toward

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<sup>83</sup>“Convention between the United States and Great Britain for the Protection of Migratory Birds,” Opened for signature August 16, 1916: 64, <https://www.fws.gov/migratorybirds/pdf/Treaties-Legislation/Treaty-Canada.pdf>.

<sup>84</sup>“Convention between the United States and Great Britain for the Protection of Migratory Birds,” Opened for signature August 16, 1916: 64, <https://www.fws.gov/migratorybirds/pdf/Treaties-Legislation/Treaty-Canada.pdf>.

the creation of a federally managed refuge system to aid in protecting migratory waterfowl. The clause stated that special protection should be provided to the wood duck and eider, possibly in the form of a banned season for five years, at which point the species numbers would be re-evaluated. Another option was presented, suggesting the nation could aid the birds, “by the establishment of refuges.”<sup>85</sup> Ira Gabrielson, director of Fish and Wildlife service 1940-1946, defined refuge as “a sanctuary for the preservation of individuals of one or more species.”<sup>86</sup> The treaty additionally regulated the states and banned interstate commerce and international commerce of waterfowl species or their eggs. The timeframe of the treaty was set for the following 15 years and, unless one party wished to end the treaty, would be re-evaluated on a yearly basis after the initial 15-year term.<sup>87</sup>

### Legislation by Treaty

The legislation that enacted the regulations outlined in the treaty with Great Britain was named the Migratory Bird Treaty Act of 1918. After ratifying this legislation, the case of *Missouri v. Holland* was brought to the Supreme Court. The state of Missouri sued the federal government, stating the regulation of the state’s waterfowl hunting was a direct violation of the Tenth Amendment. The Supreme Court ruled this act was constitutional because the federal government has the power to make treaties with foreign powers, as expressed in Article 2 Section 2 of the U.S. Constitution. Here it states that the president can “by and with the advice and consent of the Senate, to make treaties,

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<sup>85</sup>Convention between the United States and Great Britain for the Protection of Migratory Birds,” Opened for signature August 16, 1916: 64-66, <https://www.fws.gov/migratorybirds/pdf/Treaties-Legislation/Treaty-Canada.pdf>.

<sup>86</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 24.

<sup>87</sup>Convention between the United States and Great Britain for the Protection of Migratory Birds,” Opened for signature August 16, 1916: 64-66, <https://www.fws.gov/migratorybirds/pdf/Treaties-Legislation/Treaty-Canada.pdf>.



provided two thirds of the Senators present concur.”<sup>88</sup> The Supreme Court ruled that, “it is not enough to refer to the Tenth Amendment, reserving the powers not delegated to the United States, because by Article 2, Section 2, the power to make treaties is delegated expressly.”<sup>89</sup> However since migratory birds, “can be protected only by national action in concert with that of another power” and, “the subject matter is only transitorily within the State and has no permanent habitat therein,” the law was ruled as constitutional and the federal government could regulate citizens in individual states.<sup>90</sup> This law was ruled constitutional because of the fact that migratory birds traverse across state and federal boundaries. Therefore, the legislation that regulates them must also transcend state and federal boundaries. As a result, the Migratory Bird Treaty Act of 1918 made it legal to federally regulate the harvest of migratory birds in states. In order to federally regulate migratory waterfowl and other migratory species, the federal government had to enter a treaty with another nation. Without this treaty, the regulation by the federal government to manage waterfowl populations in the states would have been unconstitutional. The Supreme Court ruled that it was federally legal to regulate migratory game and ensure its continuation as a species after the treaty was signed. This legislation was passed largely due to the rise of the American sportsmen and their attempts to combat the practices of market hunters.

It would be erroneous to fail to mention that sportsmen were not exclusive among those who petitioned for the federal government to enact legislation. Women like Harriet Lawrence Hemenway spoke out against the use of feathers in fashion. Though

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<sup>88</sup>U.S. Constitution, Article II, section 2. <https://www.law.cornell.edu/constitution/articleii>.

<sup>89</sup>*State of Missouri v. Holland, U.S. Game Warden*, 252 U.S. 416 (1920).

<sup>90</sup>*State of Missouri v. Holland, U.S. Game Warden*, 252 U.S. 416 (1920).

Hemenway wore feathers throughout her life, upon reading a newspaper headline which articulated how many birds were being slaughtered solely for the garment industry, Hemenway decided that enough was enough. Hemenway was from a wealthy family that had significant influence in Boston and thus influence in Bostonian fashion. She was a key member in forming the Massachusetts Audubon Society whose primary goal was “to discourage buying and wearing for ornamental purposes the feathers of any wild bird.”<sup>91</sup> This organization also lobbied for legislation to be enacted regulating the taking of waterfowl, amongst other birds.<sup>92</sup>

### Sportsmen Create the Audubon

The American bird hunting industry was shipping thousands of birds to Europe to supplement the fashion industry. The Audubon Society was named after John James Audubon an avid hunter and outdoorsmen. He harvested thousands of birds in his attempts to annotate, chart, and sketch as many birds in North America as he could. Upon his passing, his wife, Mrs. Lucy Audubon, became a teacher. As an educator, she inspired George “Bird” Grinnell, a famous bird watcher and outdoorsmen. Grinnell would later become the man who founded the Audubon Society in 1886.<sup>93</sup> The Audubon Society was not concerned with birds like waterfowl or upland game birds since these were birds that were killed for food. The Society’s original purpose was the “protection of American

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<sup>91</sup>Joseph Kastner, “Long Before Furs it was Feathers that Stirred IRE” *Smithsonian*. Vol. 25 Issue 4 (July 1994) <http://web.b.ebscohost.com/libsrv.wku.edu/ehost/detail/detail?vid=0&sid=97b21cf7-f9d9-4c04-a665-3f92a320202d%40pdc-v-sessmgr05&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d#AN=9406307598&db=ulh>.

<sup>92</sup>Joseph Kastner, “Long Before Furs it was Feathers that Stirred IRE” *Smithsonian*. Vol. 25 Issue 4 (July 1994) <http://web.b.ebscohost.com/libsrv.wku.edu/ehost/detail/detail?vid=0&sid=97b21cf7-f9d9-4c04-a665-3f92a320202d%40pdc-v-sessmgr05&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d#AN=9406307598&db=ulh>.

<sup>93</sup>Mathew Wills, “The Early Audubon Society Helped Bridge the Gap Between Men and Women Conservationists,” *Jstor Daily*. Accessed March 2, 2021. <https://daily.jstor.org/the-early-audubon-society-helped-bridge-gapbetween-men-women-conservationists/>.

birds, not used for food, from destruction for mercantile purposes.”<sup>94</sup> Grinnell was the editor of the popular publication *Forest and Stream*, a publication produced for sportsmen to read about hunting and fishing laws, news, and opportunities.<sup>95</sup>

*Forest and Stream* publications additionally printed the very first Audubon Magazine in 1887.<sup>96</sup> This was entitled “*The Audubon Magazine*, published in the Interests of the Audubon Society, for the Protection of Birds.”<sup>97</sup> The periodical, created by sportsmen, felt birds needed protection due to the sheer number of birds exported for the fashion industry. Insectivorous birds as well as shore birds were commonly killed and exported. These birds have little to no value for food their only monetary value was for fashion. A single bird dealer in New York boasted that he purchased anywhere from “500,000 to 100,000 small American birds every year.”<sup>98</sup> This dealer supplied English bird buyers with product.<sup>99</sup>

Successful regulation through the Migratory Bird Treaty Act limited the number of birds taken and the times of years they could be taken. The regulations imposed by this act were a crucial step towards rebuilding the severely crippled population of waterfowl

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<sup>94</sup>*The Audubon Magazine, Published in the Interest of the Audubon Society for the Protection of Birds*, Volume 1: February 1887- January 1888, New York: Forest and Stream Publishing Company, 142.

<https://books.google.com/books?id-9FAQAAMAAJ&pg=PA159&lpg=>.

<sup>95</sup>Mathew Wills, “The Early Audubon Society Helped Bridge the Gap Between Men and Women Conservationists,” *Jstor Daily*. Accessed March 2, 2021. <https://daily.jstor.org/the-early-audubon-society-helped-bridge-gapbetween-men-women-conservationists/>.

<sup>96</sup>*The Audubon Magazine, Published in the Interest of the Audubon Society for the Protection of Birds*, Volume 1: February 1887- January 1888, New York: Forest and Stream Publishing Company, 142.

<https://books.google.com/books?id-9FAQAAMAAJ&pg=PA159&lpg=>.

<sup>97</sup>*The Audubon Magazine, Published in the Interest of the Audubon Society for the Protection of Birds*, Volume 1: February 1887- January 1888, New York: Forest and Stream Publishing Company, 1.

<https://books.google.com/books?id-9FAQAAMAAJ&pg=PA159&lpg=>.

<sup>98</sup>*The Audubon Magazine, Published in the Interest of the Audubon Society for the Protection of Birds*, Volume 1: February 1887- January 1888, New York: Forest and Stream Publishing Company, 159-160.

<https://books.google.com/books?id-9FAQAAMAAJ&pg=PA159&lpg=>.

<sup>99</sup>*The Audubon Magazine, Published in the Interest of the Audubon Society for the Protection of Birds*, Volume 1: February 1887- January 1888, New York: Forest and Stream Publishing Company, 159-160.

<https://books.google.com/books?id-9FAQAAMAAJ&pg=PA159&lpg=>.

across North America. Politicians and sportsmen felt that more was required to ensure the continued existence of the game they so desired to hunt. As outlined in the treaty with Great Britain, one significant way the federal government could provide additional support to waterfowl numbers was by the creation of protected wetlands. These wetlands had to be funded. To fund the creation and perpetual protection of the lands an additional tax was placed only on those who hunted migratory waterfowl. Thus, the Migratory Bird Hunting and Conservation Stamp was born.

Market hunters made the largest impact in the decrease of waterfowl species. However, other factors also had significant effects. The second largest factor that led to the rapid decrease of waterfowl was the fact that their habitat was quickly vanishing. This led to the creation of the Migratory Bird Hunting and Conservation Stamp. The Stamp's goal was to raise revenue to create and sustain waterfowl refuges. This notion was not new. As early as 1870, the state of California had legally purchased a refuge named Merritt Island.<sup>100</sup> This practice successfully protected some game species in California. Since it was only one refuge it could not benefit migratory waterfowl as much as a system of refuges would. However, the federal government was the only entity who could create an entire system of refuges.

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<sup>100</sup> Ira Gabrielson, *Wildlife Refuges* (New York: The Macmillan Company, 1943), 6.

“In my mind there can be no argument about the need of a large refuge in Green Bay. People who argue that because there are lots of ducks there, there must be plenty of ducks all over the continent, are either wholly ignorant of the waterfowl situation or are sticking their head in the sand out of self-interest. It is universally known that the radical decrease in waterfowl has been accompanied by heavier and heavier concentrations on such remnants of desirable duck water as remains in such places as Green Bay.”<sup>101</sup> – Aldo Leopold, 1934

### Chapter Three: Creation of the Migratory Bird Hunting and Conservation Stamp

#### Habitat Lost

The decline of habitat was significantly influenced by low crop rates in the late 1920s which affected much of the United States and Canada.<sup>102</sup> The cost of the machinery farmers used significantly increased during this time. To combat rising operational costs, farmers turned to land that had never been worked before. They also halted crop rotation practices. This practice helped soil rejuvenate between crop yielding years.<sup>103</sup> The compounding effects of these circumstances led to the well-documented period of the Dust Bowl, which was especially detrimental to waterfowl reproduction due to nesting grounds lost.<sup>104</sup> The very fact that farmers were working more land, meant that nesting areas were lost for waterfowl, which led to a decrease in their population. This pressed waterfowl hunters, biologists, and conservationists to act and lobby members of Congress to address the decline of waterfowl habitat.<sup>105</sup> Waterfowl hunters saw massive declines in waterfowl numbers.<sup>106</sup>

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<sup>101</sup>Aldo Leopold, Aldo Leopold to Carl Johnson, August 16, 1934, (letter.)

<sup>102</sup>Michael G. Anderson, Ray T. Alisauskas, Bruce D.J. Batt, etc., "The Migratory Bird Treaty and a Century of Waterfowl Conservation," *The Journal of Wildlife Management* 82, no. 2 (2018): 247-59, doi:10.2307/26608864.

<sup>103</sup>"The Dust Bowl," National Drought Mitigation Center: University of Nebraska, Accessed March 3, 2021, <https://drought.unl.edu/dustbowl/Home.aspx>.

<sup>104</sup>"About Ducks Unlimited," Ducks Unlimited, Accessed March 2, 2021, <https://www.ducks.org/about-du>.

<sup>105</sup>Eric G. Bolen, "Waterfowl Management: Yesterday and Tomorrow," *The Journal of Wildlife Management* 64, no. 2 (2000): 323-326 doi:10.2307/3803230.

<sup>106</sup>A.S. Hawkins, *Flyways: Pioneering Waterfowl Management in North America* (District of Columbia: The United States Department of the Interior, 1984), 107-112.

In 1929, the Norbeck-Andresen Migratory Bird Refuge Bill was presented and passed in Congress which made federal funding available for purchase of wetlands.<sup>107</sup> The Norbeck- Andresen Migratory Bird Conservation Act was put forth and was signed into law by President Hoover.<sup>108</sup> The bill was praised by many politicians as well as sportsmen, bird watchers, conservationists, and even farmers.

One man who praised this bill was William Jardine, the Secretary of Agriculture at the time. Jardine stated the bill was one of the “most important wild-life conservation measures that have been written on the statute books of any nation.”<sup>109</sup> Jardine was involved because the Secretary of Agriculture was part of the Migratory Bird Commission. Migratory bird management was also overseen by the biological survey section of the department of agriculture.<sup>110</sup> Additionally, Jardine knew that this would benefit not only waterfowl but also insectivorous birds which aided farmers in decreasing insect populations. With decreased insect populations, crops would theoretically grow larger and healthier. The Biological Survey Agency was appropriated \$75,000 in 1929 to conduct surveys regarding waterfowl. The following year, \$100,000 would be appropriated for surveys. In the subsequent six years, \$1,000,000 per year would be allocated for surveys as well as the purchase of lands for refuges. Every year after this

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<sup>107</sup>Theodore W. Cart, "'New Deal' for Wildlife: A Perspective on Federal Conservation Policy, 1933-40," *The Pacific Northwest Quarterly* 63, no. 3 (1972): 113-115, <http://www.jstor.org/stable/40489013>.

<sup>108</sup>Eric Jay Dollin, Bob Dumaine, *The Duck Stamp Story: Art- Conservation- History*, (Canada: Krause Publications, 2000), 40.

<sup>109</sup>“Migratory Bird Conservation Act Praised By Secretary Jardine,” U.S. Department of Agriculture, February 19, 1929, <https://www.fws.gov/news/Historic/NewsReleases/1929/19290219.pdf>.

<sup>110</sup>“Migratory Bird Conservation Act Praised By Secretary Jardine,” U.S. Department of Agriculture, February 19, 1929, <https://www.fws.gov/news/Historic/NewsReleases/1929/19290219.pdf>.

eight-year period, \$200,000 would be annually set aside for restoration, patrol, and maintenance of the Refuge System.<sup>111</sup>

#### A Federal Stamp: Not from the Post

In 1934, Franklin Roosevelt signed the Migratory Bird Hunting and Conservation Stamp Act into law. This act legislated that all waterfowl hunters who were aged 16 or older were legally required to purchase a Migratory Bird Hunting and Conservation Stamp before they pursued waterfowl.<sup>112</sup> The creation of the waterfowl stamp is unique in the sense that it is the only federal tax that is placed on hunters. No other licensure is sold at the federal level to hunt or fish for any other wildlife. This is logical in some regards. For example, whitetail deer are the most commonly hunted large game species in the United States. Whitetail typically inhabit a small range of anywhere from one to four square miles.<sup>113</sup> While they can cross state borders, its small range means that this had an insignificant impact on the population of either states the animal inhabits. Anyone looking to hunt whitetail deer in Indiana, for example, is required to buy a statewide hunting license and a statewide deer tag. No matter the state, no federal licensing is required- only licensing for the specific state where the pursuit will take place. This is true, even with some animals which migrate across state and federal boundaries, like salmon. When pursuing salmon, no federal tag or stamp is required, only a state fishing license in some circumstances.

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<sup>111</sup>“Migratory Bird Conservation Act Praised By Secretary Jardine,” U.S. Department of Agriculture, February 19, 1929, <https://www.fws.gov/news/Historic/NewsReleases/1929/19290219.pdf>.

<sup>112</sup>U.S. Fish and Wildlife Service, “Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service: Migratory Bird Hunting and Conservation Act,” Accessed March 18, 2021, <https://www.fws.gov/laws/lawsdigest/MIGHUNT.HTML>.

<sup>113</sup>Duane Diefenbach, “One Square Mile,” *Penn State, College of Agricultural Sciences*, December 19, 2014, <https://www.deer.psu.edu/one-square-mile/>.

This is especially interesting because salmon do cross state, and often federal lines, when migrating out to the ocean and back again to spawn. Therefore, why are migratory game birds treated differently than salmon, when both are species that cross state and federal boundaries? One suggestion is that salmon may not legally be federally regulated due to the fact that the United States has not entered into a treaty with another country regarding this species and therefore cannot regulate salmon at the federal level, since this would be unconstitutional, similar to the Weeks-McLean Act. However, the US has entered treaties regarding hunting and fishing with other nations in the form of Native American tribes. One example is the Medicine Creek Treaty, which specified that Native Americans, “the right of taking fish at all usual and accustomed grounds and stations, is further secured to said Indians.”<sup>114</sup> This treaty was upheld by the Boldt Decision, where it was determined that Native American tribes were entitled to 50% of the salmon runs.<sup>115</sup>

Additional suggestions are that salmon were not being overfished at the same time waterfowl were being over harvested and salmon habitat was not destroyed until a much later date. A potential difference here being the importance of conservation was better represented during the time of the waterfowl stamp, than it was when these treaties with Native Americans were signed.<sup>116</sup>

Though state hunting licenses were commonplace by 1934, the requirement of a stamp was unique to only this federal license. Many states began requiring licenses to hunt and fish as early as the late 19<sup>th</sup> century. Maryland, for example, created a statute

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<sup>114</sup>“Treaty of Medicine Creek, 1854,” Washington Governor’s Office of Indian Affairs, Accessed March 19, 2021, <https://goia.wa.gov/tribal-government/treaty-medicine-creek-1854>.

<sup>115</sup>Charles Wilkinson, *Messages From Frank’s Landing, a Story of Salmon Treaties, and the Indian Way*, (Seattle: University of Washington Press, 2000), 30-32.

<sup>116</sup>Charles Wilkinson, *Messages From Frank’s Landing, a Story of Salmon Treaties, and the Indian Way*, (Seattle: University of Washington Press, 2000), 30-32.



that required the purchase of a license to hunt waterfowl as early as 1872. It stated that no person shall shoot at wild waterfowl “without first obtaining a license to so use and employ.”<sup>117</sup> The state additionally required the license was specifically held by the hunter while pursuing game. If asked by law enforcement, the hunter must present personal identification and his personal license. Some states also began regulating methods of capturing and killing waterfowl as well as limiting the seasons that waterfowl could be taken.<sup>118</sup>

The creation of the waterfowl stamp was intended to solve habitat loss, particularly in the habitat of suitable waterfowl breeding grounds. This loss of habitat was largely caused by the extreme rise in population of the United States. For example, the population of the United States in 1790 was a mere 4 million. One hundred years later, the population had increased by over 59 million people. This caused not only the migration of people but also the altering of landscapes to allow for better accommodation of people near cities.<sup>119</sup> During this time, cities were often built near bodies of water during this time. This allowed for necessary amenities such as mills to be built. Additionally, fresh water provided a source of drinking water for the inhabitants as well as a host of foods that would support populations. This meant that migratory waterfowl such as ducks and geese, which often nested near water sources where settlements were suddenly being constructed, were facing an alarming rate of habitat loss.

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<sup>117</sup>Lewis Mayer, Louis C. Fischer, E.J.D. Cross, *Revised Code of the General Laws of the State of Maryland: With Constitution of the State*, (Baltimore: John Murphy and Company, 1879), 172, <https://play.google.com/books/reader?id=T-IXAAAAYAAJ&hl=en&pg=GBS.PA173>.

<sup>118</sup>Lewis Mayer, Louis C. Fischer, E.J.D. Cross, *Revised Code of the General Laws of the State of Maryland: With Constitution of the State*, (Baltimore: John Murphy and Company, 1879), 172, <https://play.google.com/books/reader?id=T-IXAAAAYAAJ&hl=en&pg=GBS.PA173>.

<sup>119</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 13.

## Encroachment: On the Land and on the People

With the rise of larger settlements, suitable habitat began to be lost for nesting sites. Additionally, humans brought a host of other issues which negatively impacted waterfowl populations. For example, modern research on common house cats has proven their deadliness on native fauna, including small reptiles, amphibians, mammals, and especially birds. This is due to the fact that cats often kill grown adult birds, and raid nests, eating and killing young birds and destroying the eggs in which they are growing.<sup>120</sup> People often brought cats with them to new settlements to decrease the number of rodents which naturally resided in the areas. These cats added to the decline in populations of many wild animals, especially birds.

Due to this deterioration of habitat caused by human population expansion, acts to raise federal funding for wetlands were presented. Early attempts were made to create a federal stamp which would be required to hunt migratory waterfowl. In addition, funding for federal refuges was also presented as early as 1897. These attempts were struck down by Congress.<sup>121</sup> There was still too much support for unmanaged game across the United States, making the concept of federally managed game incredibly unpopular. Congressmen additionally felt that federally managed game laws as well as a federal stamp would lead to only the wealthy landowners having the ability to access hunting and fishing on private land.<sup>122</sup> This was because some politicians were attempting to make hunting on federal land illegal, thereby stripping the opportunity to hunt away from

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<sup>120</sup>William M Twarddek, Kathryn S. Peiman, Austin J. Gallagher, and Steven J. Cooke, "Fido, Fluffy, and Wildlife Conservation: The Environmental Consequences of Domesticated Animals," *Environmental Reviews* 25, no. 4 (2017): 381-95, doi:10.2307/90015900.

<sup>121</sup>Eric G Bolen, "Waterfowl Management: Yesterday and Tomorrow," *The Journal of Wildlife Management* 64, no. 2 (2000): 323-35, doi:10.2307/3803230.

<sup>122</sup>Theodore W Cart, "'New Deal' for Wildlife: A Perspective on Federal Conservation Policy, 1933-40," *The Pacific Northwest Quarterly* 63, no. 3 (1972): 113-115, <http://www.jstor.org/stable/40489013>.

citizens who were not wealthy enough to own their own land to partake in these activities.<sup>123</sup> In addition, various attempts at creating legislation were struck down because congressmen felt they were unconstitutional acts of the federal government. Wealthy hunters also felt that if some of these laws were passed, they would lose opportunity to hunt their private ground because they feared the federal government would force them to open their land to the public.<sup>124</sup>

### Farmers for Conservation

It is important to recognize it was not only sportsmen and conservationists that lobbied funding for conservation efforts. Farmers were also involved in creation and protection of wetland ecosystems, due to the decline in insectivorous birds. These birds were and continue to be important to farmers due to their ability to ecologically control insects in and around agricultural areas. Jardine stated that “the measure as passed is a national acknowledgment of the tremendous importance of the birds of America as aids in the development of agriculture.”<sup>125</sup> Even the Secretary of Agriculture recognized that migratory birds had an important role in the American way of life, claiming they were “primarily as an incentive to the healthful sport, study, and recreational activity.”<sup>126</sup> Jardine explained that it was more than just the overharvest of the waterfowl that was causing the issue. When the Norbeck-Andresen Bill was passed, there was not nearly as much research into habitat importance for migratory game birds as there is today.

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<sup>123</sup>“Migratory Bird Conservation Act Praised By Secretary Jardine,” U.S. Department of Agriculture, February 19, 1929, <https://www.fws.gov/news/Historic/NewsReleases/1929/19290219.pdf>.

<sup>124</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000.)

<sup>125</sup>“Migratory Bird Conservation Act Praised By Secretary Jardine,” U.S. Department of Agriculture, February 19, 1929, <https://www.fws.gov/news/Historic/NewsReleases/1929/19290219.pdf>.

<sup>126</sup>“Migratory Bird Conservation Act Praised By Secretary Jardine,” U.S. Department of Agriculture, February 19, 1929, <https://www.fws.gov/news/Historic/NewsReleases/1929/19290219.pdf>.

However, even with the minimal formal research available, citizens understood the relationship between a decline in habitat and a decline in birds. Jardin stated that it was apparent that any amount of legislation regarding bag limits, closed season, and gunner restrictions “will all prove ultimately ineffectual to perpetuate our birds if the destruction of their habitat is allowed to continue unchecked.”<sup>127</sup> Thus, land across the United States had to be preserved in multiple separate refuges.

The original ideas presented in the Norbeck-Andresen Bill included a stamp provision that would tax hunters \$1 per season. Sixty percent of the funds collected from the stamp would go directly into securing land for refuges. However, this section of the bill was met with significant opposition. Though proponents of the stamp provision made harrowing arguments that it would be beneficial, the idea of federally taxing hunters was not popular and thus not upheld. However, some politicians found it necessary. One senator who supported the creation of the federal stamp was Senator Thaddeus Caraway from Arkansas. Arkansas is one of the most popular duck hunting locations in the United States due to its unique positioning in the heart of the Mississippi flyways and habitat for wintering waterfowl.<sup>128</sup> Caraway stated, “I would imagine that nearly anybody would rather pay a dollar for a license to hunt when there is something to hunt than to hunt all day and find nothing.”<sup>129</sup>

Consequently, there were multiple reasons presented to not federally tax hunters as well. One reason cited is that many states already had state licenses in place.

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<sup>127</sup>“Migratory Bird Conservation Act Praised By Secretary Jardine,” U.S. Department of Agriculture, February 19, 1929, <https://www.fws.gov/news/Historic/NewsReleases/1929/19290219.pdf>.

<sup>128</sup>“Duck Hunting in Arkansas,” RealTree, Accessed March 2, 2021, <https://www.realtree.com/waterfowl-hunting/duck-hunting-nation/2018/arkansas-duck-hunting>.

<sup>129</sup>U.S. Congress, Senate, Congress on the Whole, *Protection of Migratory Birds: Migratory Bird Treaty with Great Britain*, 70<sup>th</sup> Congress., April 17, 1928, 6603- 6615.

Congressmen felt that if their state already had taxes in place for their hunters it would be unfair to tax them additionally on a federal level. Millard Tydings was one senator who argued against the stamp provision in stating that, Maryland residents would be “penalized for our progressiveness in protecting birds and appropriating our own money therefor by being compelled to pay a double tax to the Federal Government?”<sup>130</sup> The final argument against the stamp provision regarded the idea that hunters are not the only people who should be taxed. This suggestion was raised by Claude Swanson from Virginia. Swanson agreed that refuges should be set aside and money should be provided for this system. However, Swanson felt that “if a national interest is to be subserved, if the purpose is to aid the entire Nation, and to protect the birds everywhere, the money ought to come out of the Treasury.”<sup>131</sup> Therefore, though funding was set aside in the Norbeck-Andresen Bill, it would not be provided via a stamp or tax placed on waterfowl hunters.

Though some viewed the creation and passage of the Norbeck-Andresen Migratory Bird Conservation Acts a success, others viewed it as a complete failure. Since no specific fundraising technique was outlined, hunters and conservationists were worried that no actual funding would be presented to uphold the acts. These fears were proven correct largely due to the crash of the stock market in October of 1920, just a few months after the bill’s passage. The funding for the wetlands preserves vanished almost as quickly as the wetlands did due to another catastrophic drought that plagued the United States. This, along with the Dust Bowl storms exacerbated by poor farming techniques,

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<sup>130</sup>U.S. Congress, Senate, Congress on the Whole, *Protection of Migratory Birds: Migratory Bird Treaty with Great Britain*, 70<sup>th</sup> Congress., April 17, 1928, 6603- 6615.

<sup>131</sup>U.S. Congress, Senate, Congress on the Whole, *Protection of Migratory Birds: Migratory Bird Treaty with Great Britain*, 70<sup>th</sup> Congress., April 17, 1928, 6603- 6615.

wreaked havoc on waterfowl nesting, and consequently waterfowl populations. The droughts which occurred in 1931 were the worst of the previous years. They covered much of the Midwest as well as most of Kansas, Colorado, New Mexico, Oklahoma, and Texas. Waterfowl roosting locations alongside nesting and feeding areas were devastated. In addition, due to low water quality caused by high concentrations of decaying plant life, high amounts of avian botulism, were transferred and spread throughout migratory waterfowl.<sup>132</sup> Today, Avian Botulism kills more wetland birds than any other disease.<sup>133</sup> Innovative investigating of ecology and wildlife as a whole began to arise. One new discipline was popularly known as wildlife management. Studies in wildlife management were consistently attesting that refuges for waterfowl were necessary to save the ever-dwindling populations due to over harvest, habitat mismanagement, and drought.

#### The Duck Committee

As previously mentioned, the creation of federal refuges had already passed in the Migratory Bird Conservation Act. Funding for these was the key element missing from saving migratory waterfowl and their habitats. Conservationists and the American Game Protection Agency once again attempted to create a tax on hunters. The American Game Protection Agency lobbied under the slogan “Ducks for a Dollar.”<sup>134</sup> Finally, in 1933, Franklin Roosevelt, being pestered by insistent scientists, sportsmen, and conservationists, was presented with the idea of a “duck stamp.”<sup>135</sup> Though much was

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<sup>132</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 40.

<sup>133</sup>T. Adler, "Making Wetlands Safe from Avian Botulism," *Science News* 149, no. 1 (1996): 5, Accessed March 21, 2021, <http://www.jstor.org.libsrv.wku.edu/stable/3979634>.

<sup>134</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 41.

<sup>135</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 41.

happening in the United States, FDR knew he “couldn’t duck what to do about ducks.”<sup>136</sup> He created a presidential committee to handle the questions regarding how to raise funds for waterfowl called the “Duck Committee.”<sup>137</sup> Though the Dust Bowl and droughts made devastating impacts on waterfowl and the Great Depression eliminated funding from the Norbeck-Andresen Bill, key elements of waterfowl conservation began to fall into place through the creation of the “Duck Committee.” Darling, an avid conservationist, was extremely outspoken against Franklin D. Roosevelt’s attempted solution to end the Great Depression. Darling disagreed with the New Deal on multiple platforms primarily because of its potential of creating a negative impact on wildlife across the United States. New Deal programs like mosquito control projects had the potential to devastate waterfowl habitat via the drainage of wetlands. These mosquito control projects were attempts to destroy mosquito nesting areas thus attempting to reduce the population of the insects.<sup>138</sup> Despite these disagreements, FDR asked Darling to be a leading member of the “Duck Committee.”

Despite their disagreements, FDR asked Darling to assist him with his conservation efforts. FDR potentially asked Darling because he knew that Darling was an excellent addition to his team. Conversely, FDR could have asked Darling as a means to appease the men and women who were lobbying for more conservation’s efforts from the president. In either case there was no one better suited for this position than Darling.

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<sup>136</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 41.

<sup>137</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 41.

<sup>138</sup>Theodore W. Cart, "'New Deal' for Wildlife: A Perspective on Federal Conservation Policy, 1933-40," *The Pacific Northwest Quarterly* 63, no. 3 (1972): 113-20, <http://www.jstor.org/stable/40489013>.

Darling's political cartoons showcased his ability to persuade the public's political opinions. Additionally, Darling was a hard worker that would not take no for an answer, especially when it came to protecting wild lands and the animals that inhabited them. Roosevelt had significant pressure to enact conservation minded policies. This pressure came from biologists, conservationists, and sportsmen.

Other members of the Duck Committee included Aldo Leopold and Thomas Beck.<sup>139</sup> Aldo Leopold has historically been credited with creating the study and profession of wildlife management. Additionally, Leopold was a member of the Forest Service, Associate Director of the Forest Products Laboratory, a professor at the University of Wisconsin, and a founder of the Wilderness Society.<sup>140</sup> Leopold was also an avid hunter, which is what inspired him to study wildlife and forestry.<sup>141</sup> Thomas Beck is credited with championing the organization More Game Birds in America.<sup>142</sup> This organization sought to "create and assure for the future, greater opportunities for recreation, sport, and enjoyment of the great outdoors."<sup>143</sup> They would lay groundwork for the exceptionally popular and well-known Ducks Unlimited to emerge.<sup>144</sup> Ducks Unlimited continues to be an incredibly popular and successful wetland conservation

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<sup>139</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 42.

<sup>140</sup>Aldo Leopold, *A Sand County Almanac, with Essays on Conservation from Round River*, (New York: Random House Publishing Group, 1949), About Aldo Leopold.

<sup>141</sup>Aldo Leopold, *The Hunting and Fishing Journal of Aldo Leopold, Beginning August of 1917*, Aldo Leopold Hunting Diary, <https://search.library.wisc.edu/digital/A4H7W7SOLVJ6YI8I/pages/ADXFHU6YZALXFY9A>.

<sup>142</sup>Paul A. Smith, "The Federal Duck Stamp Has Blazed Trails for Outdoors Opportunities," *Milwaukee Journal Sentinel*, March 12, 2014, <http://archive.jsonline.com/sports/outdoors/the-federal-duck-stamp-has-blazed-trails-for-outdoors-opportunities-b99224016z1-250000871.html/>.

<sup>143</sup>More Game Birds In America, *The 1935 International Wild Duck Census*. New York: More Game Birds In America, 1935, 84, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>144</sup>Theodore W. Cart, "'New Deal' for Wildlife: A Perspective on Federal Conservation Policy, 1933-40," *The Pacific Northwest Quarterly* 63, no. 3 (1972): 113-20, <http://www.jstor.org/stable/40489013>.



organization. The three men produced reports explaining what they felt the federal government needed to accomplish in order to save waterfowl species. Yet again, little was actually accomplished in the form of policy despite this professional commission producing well-researched and well-articulated recommendations.

The committee communicated with various hunting clubs, gun clubs, and state wildlife conservation organizations, asking for recommendations for land to purchase and label as refuges.<sup>145</sup> The report, known as the Beck Report, described that the federal government would need to invest fifty million dollars into purchasing game refuges. If this was accomplished, the federal government would secure about seventeen million acres, which equated to just under \$3 an acre.<sup>146</sup> Due to the Great Depression, land was selling at a low cost, especially large tracts like the ones which would be required. Additionally, much of the land that supported waterfowl, supported little else in terms of infrastructure or agriculture. Swamp land requires a great deal of investment before it is suitable for agriculture or has the ability to support infrastructure. Therefore, the land that was best for waterfowl, was of little value to the average American.

The Duck Committee determined the funding should come from two places- twenty-five million that had been set aside by the Surplus Relief Corporation and an additional twenty-five million dollars from the Public and Civil Works Administrations. The report outlined that four million acres be purchased specifically as waterfowl nesting

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<sup>145</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 42-43.

<sup>146</sup>“50,000,000 Asked for Game Refuges,” *New York Times*, February 11, 1934, <https://timesmachine.nytimes.com/timesmachine/1934/02/11/93748788.html?pageNumber=37>.

sites. Additionally, five million acres would be purchased as upland game preserves, meaning it would serve as a refuge for species such as woodcock, quail, and grouse. Though the purchases had separate species in mind, land which supported one likely also supported the other in some ways. If these tracts were purchased, Leopold speculated that song, insectivorous, ornamental, and non-game birds would benefit as well. In addition to these tracts benefitting bird species, land would be set aside specifically to assist furbearers and large game mammals. Land would not only be purchased in the plan presented but would also be leased with the option to purchase once the term of the lease expired. In addition to purchasing land, employment of caretakers for the land would be necessary. Due to Leopold's background in wildlife management, he had a vast understanding of how to properly manage game lands. The committee suggested that one game manager be placed to oversee every three thousand acres with one supervisor to oversee every ten game managers. The managers would be paid through the aforementioned funding techniques and would have the opportunity to generate personal revenue through trapping furbearers on the properties they managed. The committee outlined over six million acres across the United States they specifically felt would be beneficial to the program. Finally, the Duck Committee suggested the creation of a Duck Stamp Bill. This would take over the funding of acquisition and management of land after the initial project was finished.<sup>147</sup>

After the Duck Committee submitted their recommendations, they disbanded and returned to their various homes across the country. Roosevelt had other plans and asked

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<sup>147</sup>“50,000,000 Asked for Game Refuges,” *New York Times*, February 11, 1934, <https://timesmachine.nytimes.com/timesmachine/1934/02/11/93748788.html?pageNumber=37>.

Darling to return to Washington and take over the Biological Survey Department. Darling hesitantly accepted after negotiating a minimum of one million dollars would be secured for purchasing some of the land the Beck Report outlined. Roosevelt accepted this condition and appointed him to head the Biological Survey Agency.<sup>148</sup>

### Darling: King of Conservation

On March 16, 1934, a few days after Darling took over the Biological Survey Department, President Theodore Roosevelt signed the Migratory Bird Hunting Stamp Act into law.<sup>149</sup> Senator Norbeck, who had created the Migratory Bird Conservation Act of 1929, headed up the lobbying efforts for the Migratory Bird Hunting Stamp Act of 1934. Norbeck worked with Fredric Wolcott in the Senate and with Congressman Richard Kleberg of the House, and both petitioned their respected houses in congress to pass the Migratory Bird Hunting Stamp Act in 1934. Wolcott was a Republican from Connecticut and Kleberg was a Democrat from Texas, creating bipartisan support for the regulation. With the passage of the Migratory Bird Hunting Stamp Act, Roosevelt signed it into law, thus requiring all waterfowl hunters aged 16 and older to acquire a \$1 stamp per season in order to pursue their quarry.<sup>150</sup>

Though the Migratory Bird Hunting Stamp Act had been passed as a measure to secure funds in the future, Darling needed money quicker than what the stamp could deliver. The million dollars that FDR promised Darling never came to fruition. Darling

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<sup>148</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 42-43.

<sup>149</sup>“Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service: Migratory Bird Conservation Act.” U.S. Fish and Wildlife Service.

<https://www.fws.gov/laws/lawsdigest/MIGHUNT.HTML>.

<sup>150</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 42-43.

stated that he felt he was in a game of “cat and mouse” while attempting to secure the funding that had been promised to him. Darling gave up trying to solicit funds from Roosevelt, and instead went to senator Norbeck. Norbeck at this point was dying of cancer and had recently acquired dentures. Norbeck added six million dollars to funding waterfowl refuges into a bill concerning the biological survey. When he arrived at the Senate floor to describe what the addition would mean for the bill, he had forgotten to put his dentures in. No one on the senate floor could understand him, but due to his cancer and respectable career as a senator, the bill passed almost unanimously and was signed by President Roosevelt. Roosevelt, and most other congressmen had no idea that the six-million-dollar addition had been included in the bill.<sup>151</sup>

Darling was finally awarded funds to purchase lands to create refuge systems. This was what he needed to start a refuge system that funds from the duck stamp could continue to support. Though he had acquired the funds, he had little knowledge of country-wide wetlands which required protection. Therefore, he enlisted help from J.C. Salyer II.<sup>152</sup> Salyer was a biologist with a masters from the University of Michigan.<sup>153</sup> He also taught biology at Bethel College in Kansas. Darling appointed Salyer to the Division of Migratory Waterfowl, a federal position.<sup>154</sup> This position managed the wildlife refuges across the United States. Upon Salyer’s enlistment there were very few refuges.<sup>155</sup> The

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<sup>151</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 44-45.

<sup>152</sup>Jay Norwood Darling, Jay Norwood Darling to Aldo Leopold, July 3, 1934, (Letter).

<sup>153</sup>“John Clark Salyer, II,” U.S. Fish and Wildlife Service, Accessed March 2, 2021, [https://www.fws.gov/refuges/history/bio/salyer\\_fs.html](https://www.fws.gov/refuges/history/bio/salyer_fs.html).

<sup>154</sup> A.S. Hawkins, *Flyways, Pioneering Waterfowl Management in North America*, (Washington D.C.: U.S. Department of the Interior Fish and Wildlife Service, 1984), 6-8.

<sup>155</sup>David L. Lendt, *Ding, the life of Jay Norwood Darling* (Iowa: Iowa State University Press, 1979), 69-72.

land that made up these refuges totaled around 1.5 million acres.<sup>156</sup> Darling hoped that with Salyer's biology background and Leopold's wildlife management skills, he could draft a management technique for North American waterfowl on the United States refuge land.<sup>157</sup> On July 3, 1934, Darling told Leopold that Salyer "had arrived and jumped into the work of organizing the migratory waterfowl refuge purchase."<sup>158</sup> Darling felt he had made the correct decision in appointing Salyer to this position.<sup>159</sup>

Darling and Salyer worked at finding properties all over the United States to enlist in the creation of the Refuge System. With the help of friends and co-workers he began to find land. However, he had limited time since the funding would expire in March of 1935. He was also required to obtain the approval of the Department of Justice prior to purchasing properties.<sup>160</sup>

This available six million dollars was used to purchase over 225,000 acres that benefitted waterfowl, but also reached outside the scope of migratory game birds. For example, the Hart Mountain and the Desert Game Range were both purchased additionally benefitting antelope and mountain sheep.<sup>161</sup>

Darling again attempted to solicit even more funds from Roosevelt. It seems Roosevelt was less than pleased when he learned of the amount of money Darling had secured for waterfowl projects. Roosevelt wrote Darling and stated he has to be "the only man in history who got an appropriation through Congress, past the Budget and signed by

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<sup>156</sup>"John Clark Salyer, II," U.S. Fish and Wildlife Service, Accessed March 2, 2021, [https://www.fws.gov/refuges/history/bio/salyer\\_fs.html](https://www.fws.gov/refuges/history/bio/salyer_fs.html).

<sup>157</sup>"John Clark Salyer, II," U.S. Fish and Wildlife Service, Accessed March 2, 2021, [https://www.fws.gov/refuges/history/bio/salyer\\_fs.html](https://www.fws.gov/refuges/history/bio/salyer_fs.html).

<sup>158</sup>Jay Norwood Darling, Jay Norwood Darling to Aldo Leopold, July 3, 1934, (Letter).

<sup>159</sup>Jay Norwood Darling, Jay Norwood Darling to Aldo Leopold, July 3, 1934, (Letter).

<sup>160</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 20-21.

<sup>161</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 20-21.

the President without anybody realizing that the Treasury had been raided.”<sup>162</sup> When Darling asked for an additional 4.8 million, Roosevelt responded by putting off his plea and stating “talk with me about a month in regard to additional lands, if I have any more money left.”<sup>163</sup> Roosevelt did not want to give Darling more money. Though the Duck Committee was created by Roosevelt, he did not necessarily uphold any of the suggestions they put forth. Thus, it seems that Roosevelt’s creation of the Duck Committee was simply to appease the American citizens who were involved with hunting and conservation. However, due to Darling’s success as well as sportsmen lobbying for a method to fund conservation, a mechanism to fund this conservation was finally in place via the Waterfowl Stamp.

Since the purpose of creating refuges was to ensure the proliferation of waterfowl species, knowing where ducks frequented was important to understand what properties to purchase. Darling devoted himself to learning this through projects like bird banding. Bird banding is a method of tracking migratory birds. It is accomplished by capturing the bird and affixing a small metal tag around the bird’s leg. Information is collected on the bird, like species, age approximation, and location. The bird is then released, in hopes that it is recaptured in the future or killed by a hunter who would then report the band. Across the United States biologists had been banding birds, however it was the biological survey that combined data from bird banders to better understand bird migrations on the whole. Through bird banding, biologists learned that it was in fact not as important for many migratory waterfowl species to return to their birth places to nest. However, often times birds did return to their wintering grounds year after year. This was new

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<sup>162</sup>Franklin D. Roosevelt, Franklin D. Roosevelt to Jay Norwood Darling, July 29, 1935, (Letter.)

<sup>163</sup>Franklin D. Roosevelt, Franklin D. Roosevelt to Jay Norwood Darling, July 29, 1935, (Letter.)

information that researchers could use to better understand waterfowl and their behavior.<sup>164</sup> Additionally, it was due to this research that the Biological Survey recognized how important it was to establish refuges in the south, where many American waterfowl spend their winters.<sup>165</sup> Finally, it was something that could help the Biological Survey understand which land was important to purchase, now that the stamp had been approved and the federal refuges had annual fiscal support.<sup>166</sup>

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<sup>164</sup>Frederick C. Lincoln, "The Operation of Homing Instinct," *Bird-Banding* 5, no. 4 (1934): 149-55, doi:10.2307/4509315.

<sup>165</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 20.

<sup>166</sup>Frederick C. Lincoln, "The Operation of Homing Instinct," *Bird-Banding* 5, no. 4 (1934): 149-55, doi:10.2307/4509315.

## Chapter Four: Historic Success of the Stamp

### Introduction

After years of debate over how to fund waterfowl refuges, the Federal Migratory Bird Hunting and Conservation Stamp was created as a long-term solution to fund waterfowl refuges. The physical design of the stamp was yet another aspect that Jay Darling headed. Darling was a trained cartoonist and immediately began drafting ideas for the duck stamp design, submitting prototype designs to the Bureau of Engraving and Printing. Darling assumed his roughly drawn stamps would be edited and he would be able to re-draw the stamp after receiving constructive criticisms. However, the chief of the Bureau, Colonel Sheldon, was in a rush to begin printing the stamps. He approved one of the designs and printing of the stamp began, unbeknownst to Darling. When Darling found out what had happened, he stated, “I could have murdered Colonel Sheldon.”<sup>167</sup> Though Darling was upset about what the first stamp looked like. Even with this miscommunication, the stamp still generated significant revenue, and thus was a success.

The first duck stamp was a success by bringing in significant revenue. In the first year of duck stamp sales a total of 635,001 stamps were sold.<sup>168</sup> Since 90% of the funds raised by the duck stamp went directly into purchasing or leasing waterfowl refuges, this meant that the stamp raised over \$571,500 in its first year enacted. This amount of money, adjusted for inflation, would be equivalent to over \$11,000,000 today.<sup>169</sup> This

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<sup>167</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 47-48.

<sup>168</sup>“Federal Duck Stamp Sale by Year,” U.S. Fish and Wildlife Service, Accessed, March 2, 2021, <https://www.fws.gov/migratorybirds/pdf/get-involved/DuckStampSales.pdf>.

<sup>169</sup>“Inflation Calculator,” U.S. Inflation Calculator, Accessed March 2, 2021, <https://www.usinflationcalculator.com>.



amount of funds raised in one year alone is a success in itself. The funds which have been raised have gone into securing and wetlands to make into refuges for birds across the United States. The stamp gave publicity to the conservation movement through the waterfowl hunters who had to purchase it. Though some hunters previously cared about conservation, some did not know of its importance. This publicity aided in the continued rise of the conservation movement. The publicity also allowed for private sector conservation organizations to start. This came in the form of organizations dedicated to conservation as well as companies fundraising and volunteering for various wildlife protection programs. The stamp continues to be a successful fundraising conservation technique in the present. The stamp was successful in the first year it was created as a tax system. The concept of collecting revenue from hunting and fishing licenses continues to support American public lands today, came from the creation of the waterfowl stamp. However, it also set a precedent that all hunting and fishing licenses would pay for conservation that continues to this day.

#### Funds are Raised

The money raised by stamp sales was put into the Migratory Bird Conservation Fund.<sup>170</sup> This fund was created as a way to separate the revenue generated by the duck stamp sales from other federally collected taxes. It ensured that the money generated from the stamp went directly into purchasing and leasing wetland habitat which would benefit migratory waterfowl.

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<sup>170</sup>U.S. Department of Interior. "Migratory Bird Legislation." Accessed March 2, 2021. [https://www.doi.gov/ocl/hearings/111/HR1916HR2062andHR2188\\_051309](https://www.doi.gov/ocl/hearings/111/HR1916HR2062andHR2188_051309).

Regions were divided and individuals with knowledge of land management were placed in positions to research and buy lands. For example, Noble Clark, a good friend of Aldo Leopold and head of the Agricultural Experiment Station in Madison, Wisconsin was placed in charge of the Lake State Region.<sup>171</sup> Clark was one of the first to study the effects of soil erosion. As a survivor of the Great Depression and Dust Bowl, Clark sought to prove that farming on unproductive lands was fruitless. He, along with Leopold, created reforestation projects across Wisconsin in hopes of positively benefiting wildlife.<sup>172</sup> As head of the Biological Survey, Darling approved the funding for Leopold and Clark's work to simultaneously practice erosion control and wildlife management. This aided conservation both by hindering the possibility of another dust bowl like storm as well as providing habitat for wildlife.<sup>173</sup>

Leopold and Darling were in constant communication about how best to locate lands suitable for the establishment of refuges. Though Leopold was not directly working for Darling, their friendship, created while working on the Duck Committee, allowed them to successfully find land especially around the Great Lakes. Leopold suggested to Darling that he would likely need to "expand his land buying personnel."<sup>174</sup> Leopold gave Darling multiple suggestions of individuals that would be adequate professionals for the position.<sup>175</sup>

When purchasing, leasing, and creating refuges, the Biological Survey specifically tried to be present in multiple areas across America. This ensured one flyway

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<sup>171</sup>Aldo Leopold, Aldo Leopold to Jay Norwood Darling, May 7, 1934, (Letter.)

<sup>172</sup>"W. Noble Clark," Wisconsin Conservation Hall of Fame, Accessed March 2, 2021, <https://wchf.org/w-noble-clark/>.

<sup>173</sup>Jay Norwood Darling, Jay Norwood Darling to Aldo Leopold, July 3, 1934, (Telegram.)

<sup>174</sup>Aldo Leopold, Aldo Leopold to Jay Norwood Darling, May 7, 1934, (Letter.)

<sup>175</sup>Aldo Leopold, Aldo Leopold to Jay Norwood Darling, May 7, 1934, (Letter.)

did not benefit more than another.<sup>176</sup> Waterfowl hunters who never saw the benefit of the taxes they were paying could have been a result if one flyway benefitted significantly more than another flyway. Additionally, only certain birds live in certain flyways, thus if one flyway is left unattended to certain species could be not only extirpated, but also driven extinct. One refuge that was established outside of the Great Lakes Region was the White River Refuge, purchased in 1934.<sup>177</sup> This land is now known as Dale Bumpers Wildlife Refuge, and is located in St. Charles, Arkansas. This refuge's location in the flood plains of the White River near where the White and the Mississippi converge, provides crucial support for wintering waterfowl due to their usage of rivers and natural landmarks to fly south during winter. This expansive flood zone provides roosting locations as well as food for migrating waterfowl. The waterfowl migration would be next to impossible without these sorts of supports in place that were made possible by the tax revenue collected from the Federal Migratory Bird Hunting and Conservation Stamp.<sup>178</sup> Knowledge of where to create these refuges would have been nearly impossible without programs like bird banding.

The banding project showed there were definitive flyways as well as proved the notion that waterfowl often returned to their wintering grounds.<sup>179</sup> The Biological Survey endeavored to focus on creating significant refuges in the south. Some of these projects included the Muleshoe Lake in Texas, Swan Lake in Missouri, and Sabine Refuge in Louisiana.<sup>180</sup> The Muleshoe Lake project was extremely important due to its location in

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<sup>176</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 20-21.

<sup>177</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 20.

<sup>178</sup>"Dale Bumpers White River," U.S. Fish and Wildlife Service, Accessed March 2, 2021, [https://www.fws.gov/refuge/White\\_River/about.html](https://www.fws.gov/refuge/White_River/about.html)

<sup>179</sup>Frederick C. Lincoln, "The Operation of Homing Instinct," *Bird-Banding* 5, no. 4 (1934): 149-55, doi:10.2307/4509315.

<sup>180</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 20-21.

west Texas, near the town of Muleshoe. This area has hardly any water, and therefore all migrating waterfowl are forced to congregate in one area. If this area ceases to exist, the waterfowl that use it as a roost would suffer. Ira Gabrielson, the future Director of Fish and Wildlife Service, stated that due to the stamp, “a magnificent job was done in getting under way quickly a program far beyond anything that had ever been possible.”<sup>181</sup> As proven, the government’s role in creating the stamp, and the conservation projects that were built with stamp revenue proved to be beneficial to waterfowl. However, more was being done due to the stamp’s creation and the programs the stamp created.

### Not Just Refuge

Jay Darling saw an opportunity to combine government work with university studies. While serving as head of the Biological Survey, he began to reach out to universities in hopes to create connections with them that would benefit the government, the university, and most of all, waterfowl. Darling and Aldo Leopold had discussed this possibility, likely while they were serving on FDR’s Duck Committee, but it came to fruition in 1934. Darling told Leopold that he had “managed to talk with the presidents of five state universities on the project you and I have so often discussed, namely, the establishment of coordinated research departments throughout the educational institutions of the country.”<sup>182</sup> This would mean that specialized research could be educationally funded in different areas across the United States revolutionizing the methods by which research on a university level could be accomplished.

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<sup>181</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 21.

<sup>182</sup>Jay Norwood Darling, Jay Norwood Darling to Aldo Leopold. May 31, 1934, (Letter.)

Due to the success of America's refuge and conservation system, spurred by the stamp, a treaty between Mexico and America, similar to the one forged with Great Britain and the United States, was sought. This was known as the Mexican Migratory Bird Treaty and became effective in 1937. It was very similar to the American and Canadian treaty in that it protected migratory bird species that traveled into Mexico. Additionally, it increased the number of species of birds that were protected in the United States from those originally protected in the Migratory Bird Treaty Act of 1918.<sup>183</sup> The point of the treaty was to ensure "that the species may not be exterminated, the high contracting parties declare that it is right and proper to protect birds denominated as migratory, whatever may be their origin, which in their movements live temporarily in the United States of America and the United Mexican States." Additionally, it outlined refuge zones where the taking of migratory birds was completely prohibited. The treaty established closed seasons on taking of birds which would transcend borders. It limited the sale, exportation, and transportation of migratory birds. The treaty completely banned the hunting and harvesting of insectivorous birds as well as prohibited hunting from aircraft.<sup>184</sup>

In 1939, the special funds that were given to the Biological Survey by the president and congress had were depleted. It was at this point the success of the American Refuge System relied exclusively on the Migratory Bird Hunting and Conservation

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<sup>183</sup>Ira Gabrielson, *Wildlife Refuges*, (New York: The Macmillan Company, 1943), 20-21.

<sup>184</sup>"Mexico-United States: Convention for the Protection of Migratory Birds and Game Mammals," U.S. Fish and Wildlife Service, Accessed March 3, 2021, <https://www.fws.gov/migratorybirds/pdf/Treaties-Legislation/Treaty-Mexico.pdf>.

Stamp. This stamp was now the only thing federally funding the creation and sustainment of waterfowl refuges.

### The Private Sector

Conservation was first sought out by individuals, primarily in the form of sportsmen. After sportsmen petitioned the federal government to act, the stamp was created. In turn, the stamp raised even more awareness for the importance of conservation. From this awareness nonprofits were created specifically to support conservation practices, creating an even larger body of organizations working to increase bird populations.

With the federal government creating wildlife refuges, other nonprofits and companies began looking at how they could aid conservation efforts both independently and with financial aid from the federal government.<sup>185</sup> Organizations now did not have to buy land to conduct research, as they could use the federally managed refuges to study waterfowl. This was one factor which led to the very first waterfowl survey to be conducted by More Game Birds in America.<sup>186</sup> Waterfowl surveys are conducted to count the number of birds of each species inhabiting certain areas as well as determine the specific species which were present. This allowed ecologists and biologists to determine the status of various waterfowl populations as well as the efficiency of different conservation techniques on different species. This was critical when considering the various nesting and feeding habits which were needed to sustain various populations.

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<sup>185</sup>More Game Birds In America, *The 1935 International Wild Duck Census*. New York: More Game Birds In America, 1935, 8, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>186</sup>A.S. Hawkins, *Flyways, Pioneering Waterfowl Management in North America*, (Washington D.C.: U.S. Department of the Interior Fish and Wildlife Service, 1984), 6-8.

Additionally, private sector companies could conduct business on both sides of the Canadian and American Border. This is crucial to successful waterfowl management because much of North America's waterfowl nests near the Canadian and American border.<sup>187</sup> In 1934, an estimated 40,500,000 waterfowl resided in Alberta, Saskatchewan, and Manitoba, and 2,200,200 inhabited North Dakota, South Dakota, and Minnesota.<sup>188</sup>

Significant attention had been turned toward conservation due to the stamp upon its creation. Though More Game Birds in America had started in 1930, its most significant work was accomplished once the stamp had been produced and began selling.<sup>189</sup> This may have been due to the common hunter viewing the federal government as actually taking action regarding the waterfowl decline so they felt called to do more than just buy the stamp. This could also be because other companies such as Dodge Automobiles and various firearm and ammunition companies began financially assisting waterfowl research projects. Dodge Automobiles donated cars to More Game Birds in America, allowing volunteers to drive to and in refuges while conducting waterfowl surveys.<sup>190</sup>

Ground surveys were conducted in North and South Dakota and Minnesota in the United States and Manitoba, Saskatchewan, and Alberta in Canada. The volunteers ranged from conservationists to biologists. Sportsmen's leagues, comprised mostly of

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<sup>187</sup>A.S. Hawkins, *Flyways, Pioneering Waterfowl Management in North America* (Washington D.C.: U.S. Department of the Interior Fish and Wildlife Service, 1984), 15-17.

<sup>188</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America, 1935), 11, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>189</sup>\*\*When interpreting this data it is important to recognize that over 750,000 acres were surveyed in Canada compared to a mere 233,000 acres in the United States. Though obviously more waterfowl nests and breeds in Canada, not as much of a gap in population exists as originally appears.

<sup>189</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America, 1935), <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>190</sup>A.S. Hawkins, *Flyways, Pioneering Waterfowl Management in North America* (Washington D.C.: U.S. Department of the Interior Fish and Wildlife Service, 1984), 15-17.

hunters and fishermen, also aided in counting waterfowl.<sup>191</sup> In some cases such as with the Canadian Bankers Association, companies would take a day off and volunteer together to count waterfowl.<sup>192</sup>

In addition to ground counts, More Game Birds in America began conducting experimental aerial surveys. The first aerial surveys were conducted in Manitoba, Canada at Lake Winnipeg and Saskatchewan.<sup>193</sup> Aerial surveys were primarily conducted in areas that were inaccessible by vehicle.<sup>194</sup> Volunteers would fly planes over known roosting and nesting areas and attempt to count waterfowl populations. After endeavoring to count birds from the air, More Game Birds in America wrote that, “the airplane affords excellent opportunities for the study in detail of hundreds of square miles in hours as against weeks and months of arduous effort on the ground.”<sup>195</sup> Volunteers were quizzed at guessing the number of waterfowl when viewing photos of birds as well as large groups of actual wild waterfowl. Volunteers were shown groups of 25, 50, 100, 500, and 1000 birds, so they could learn to be accurate when approximating the number of waterfowl seen from the air. Volunteers were also trained on how waterfowl took flight to know if the ducks were diving ducks or puddle ducks. Puddle ducks, also known as surface feeding ducks, are species like pintail, green and blue wing teal, widgeon, and mallards. Species of diving ducks are ring neck, barrow’s golden eye, scaup, and red

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<sup>191</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America, 1935), 13, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>192</sup>A.S. Hawkins, *Flyways, Pioneering Waterfowl Management in North America* (Washington D.C.: U.S. Department of the Interior Fish and Wildlife Service, 1984), 15-17.

<sup>193</sup>More Game Birds In America, *The 1935 International Wild Duck Census* (New York: More Game Birds In America, 1935), 13, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>194</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 13, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>195</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 17-18, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.



heads. The planes flew at elevations under 200 feet to allow for volunteers to see the birds sitting on the water as well as birds which were located in vegetation. Volunteers also took photos of nesting sites from the sky.<sup>196</sup> Not only were duck numbers ascertained through aerial counts but new information on the breeding grounds was also acquired. Areas in the north had previously been inaccessible due to less robust vehicles and inadequate funding for exploration. Therefore, knowledge of aquatic vegetation had not been gathered. Scientists could not previously comprehend how much of the land was wetlands because attention had not been given to learning this information. However, once aerial surveys could report on wetland acreage, ecologists could better guess at the amount of suitable habitat for breeding waterfowl.<sup>197</sup>

#### Aerial Surveys

Data collected from these surveys was compiled by More Game Birds in America. From this data, overall populations of waterfowl could be better estimated along with various species and their individual population estimates. Broods were counted and watched in attempts to understand how many goslings and ducklings hatched and how many were killed in their first stages of life. The research conducted on broods also allowed waterfowl biologists to understand when birds nested, allowing them to make future predictions of productivity of waterfowl. Early season breeders included mallard, pintails, and canvasbacks, while waterfowl like scoter and ruddy ducks bred later in the season.<sup>198</sup> Other data was collected regarding what types of wildlife

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<sup>196</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 22-25, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>197</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America, 1935), 23, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>198</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 64, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

threatened nest losses like cats and crows. With this information in hand, ecologists, wildlife managers, and biologists could better determine effective methods for the protection and creation of nesting sites for waterfowl.<sup>199</sup> This information led to the improvement of duck breeding conditions, allowing for more waterfowl to be present in North America.

Both the aerial and ground survey results were published by *More Game Birds in America*. This publication began by explaining that, “The decline of wild ducks and geese, which has taken place during recent years, can be stopped. Their numbers can be increased substantially within a comparatively short period of time.”<sup>200</sup> The hopefulness exuded in this article stems from the knowledge that was gained via the waterfowl survey reports. The writing then described the survey that took place and began dissecting some of the information that was gained through it. It broke down the estimated number of waterfowl in each of the areas that was selected for the survey.

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<sup>199</sup> More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 8, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>200</sup> More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 6, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

SUMMARY OF DUCK POPULATIONS	
In the entire census area there were at least 42,700,000 ducks during August, 1935, distributed as follows—	
1. Alberta—Southern section .....	1,600,000
2. Saskatchewan—Southern section .....	2,400,000
3. Manitoba—Southern section .....	1,400,000
4. Alberta-Saskatchewan, Central Lake Area.....	10,900,000
5. Saskatchewan, between Central Lake Area and edge of the Canadian Shield .....	1,800,000
6. Manitoba-Saskatchewan, The Pas Area.....	3,500,000
7. Manitoba, Winnipegosis-Winnipeg Lakes Area.....	2,200,000
8. Alberta—Northern section (north of 53rd parallel and Central Lake Area, exclusive of 9 and 10).....	5,500,000
9. Alberta—Lake Claire Area .....	900,000
10. Alberta-MacKenzie, Slave River Area.....	7,300,000
11. The Canadian Shield in Saskatchewan and all areas in Manitoba, exclusive of 3, 6 and 7.....	3,000,000
Total .....	40,500,000
North Dakota, South Dakota, and Minnesota.....	2,200,000
Grand Total .....	42,700,000
Totals by provinces:	
Alberta .....	16,400,000
Saskatchewan .....	12,000,000
Manitoba .....	7,500,000
Portion of MacKenzie District..	4,600,000
	40,500,000
Totals by states:	
North Dakota .....	1,200,000
South Dakota .....	350,000
Minnesota .....	650,000
	2,200,000
	42,700,000

Taken from, *The 1935 international wild duck census; a report on the duck population in Alberta, Saskatchewan, Manitoba, North Dakota, South Dakota and Minnesota during August, 1935.*

Aerial surveys also ascertained information regarding where certain waterfowl typically breed, how many can inhabit a certain breeding area, predominate sex, and how many and what species had adapted to breeding in areas that had been converted to predominantly agricultural areas. The study found that agricultural areas had essentially made breeding of diving ducks non-existent, though it was unknown if diving ducks had historically bred in these areas. Due to the 1935 waterfowl survey, it is known that surface-feeding ducks or puddle ducks are generally the only breeding waterfowl found in agricultural areas.<sup>201</sup> This is likely due to diving ducks primarily consuming fish whereas puddle ducks typically consume grains and vegetation.

<sup>201</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 56, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

The most common species in the agricultural range in Canada was mallards while in North Dakota and Minnesota the most common species were blue wing teal. From the survey, More Game Birds in America deducted that blue wing teal and mallards had the highest potential of low reproduction years due to their nesting locations. Their nesting locations mostly included small ponds and potholes, which are most dramatically affected by droughts.<sup>202</sup> The surveys also found that nesting diving ducks were much more common in the northern boundaries of the area surveyed.

Species	Total	Percentages of Total	Alberta	Saskatchewan	Manitoba	North Dakota	South Dakota	Minnesota
Mallard .....	483,647	38.92	176,825	56,038	31,496	27,935	31,141	160,212
Teal (bl. & gr.-w.)	304,376	24.49	54,493	15,505	16,032	13,928	59,279	165,079
Pintail .....	169,711	13.66	68,421	12,055	20,238	18,842	27,914	22,241
Shoveller .....	76,292	6.14	15,598	5,341	11,529	9,007	24,328	10,489
Scaup .....	58,033	4.67	23,664	1,793	242	1,082	18,580	12,672
Bufflehead .....	42,926	3.43	42,226	303	242	93	19	39
Canvasback .....	41,566	3.34	18,949	5,282	11,482	3,050	2,163	640
Widgeon .....	16,228	1.30	3,641	399	8,961	1,999	508	720
Redhead .....	16,639	1.34	2,808	79	9,111	2,483	137	2,021
Gadwall .....	12,112	.97	3,102	3,112	1,291	2,510	838	1,259
Golden-eye .....	9,341	.77	7,781	.....	.....	331	.....	1,429
Scoter .....	6,417	.52	6,392	17	.....	.....	.....	8
Ruddy .....	2,830	.23	48	.....	330	1,179	80	1,193
Wood Duck ....	2,320	.19	.....	.....	.....	24	16	2,280
Ring-necked ....	125	.01	.....	.....	.....	.....	.....	125
<b>TOTAL</b> ...	<b>1,242,763</b>	<b>100.00</b>	<b>423,948</b>	<b>99,926</b>	<b>111,014</b>	<b>82,463</b>	<b>143,003</b>	<b>380,407</b>
Unidentified ....	670,860	.....	99,434	65,943	34,184	273,231	114,178	63,870
	<b>1,913,623</b>	.....	<b>523,382</b>	<b>165,869</b>	<b>165,198</b>	<b>355,716</b>	<b>259,181</b>	<b>444,277</b>

Taken from, *The 1935 international wild duck census; a report on the duck population in Alberta, Saskatchewan, Manitoba, North Dakota, South Dakota and Minnesota during August, 1935.*

Finally, the organization ascertained information regarding why waterfowl numbers were decreasing in the breeding grounds. They attributed this decline to five main reasons; weather conditions, natural enemies, agricultural activities, prairie and

<sup>202</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 56, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

forest fires, and disease. Since the organization had access to limited comparable data, “it is not possible to classify them in their order of importance. Their destructiveness varied from year to year, since some appear to have significant influence the entire breeding season every year, whereas others are effective occasionally and with varying intensity.”<sup>203</sup> Weather conditions, like drought, mainly affected agricultural breeding regions. Droughts were especially harmful when wet springs led to dry summers. This was due to waterfowl nesting in temporarily wet areas in early spring, that would dry in later spring. Additionally, ducks with smaller breeding ranges were particularly affected by this. If their small breeding area is dramatically affected by drought, then their entire breeding area is affected, unlike waterfowl with a more expansive breeding ground. Drought was not the only weather that came into play. Floods would wash away eggs and nests thus resulting in low reproduction rates in flood zones. Due to the information gained from breeding surveys, biologists began to understand how precipitation or the lack thereof throughout different seasons could affect late or early nesting species of birds. In 1935 specifically, drought in the agricultural lands was again harsh. However, weather systems in the north where many diving duck populations bred were favorable.<sup>204</sup> With this information the federal government, through the Biological Survey, could accurately adjust federal bag limits to be raised for diving duck species and lowered for surface feeding ducks. Thus, if less surface feeding ducks were harvested there likely would be more breeding, resulting in a higher population in subsequent years.

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<sup>203</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 65, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>204</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 67, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

Research conducted also found that natural enemies had a significant role in waterfowl populations. Crows seemed to be the most significant predatory factor on young waterfowl. Crow populations were on the rise in the 1930's, thought to be due to the significant increase in agricultural practices brought forth by droughts and the Dust Bowl which had dramatically affected American farmers. Due to the increase in farmland, crows could maintain a higher carrying capacity than ever before. Crows also fed on eggs. Additionally, crows summering ranges were expanding due to agricultural practices and increase in population. Crows were beginning to be seen in areas they previously had not been present.<sup>205</sup> Other natural enemies, or predators that were not man, were turtles, hawks, coyotes, and owls. Cats, which had been introduced by farmers, also ranked rather high on the list. Of the 1000 total predations of birds reported, cats had killed 49. This meant that almost 5% of the birds that were killed by predators were killed by cats. Both cat and crow populations were significantly impacted by farmers, causing both to make an impact on migratory waterfowl.<sup>206</sup> These unforeseen negative impacts caused by man drove down migratory bird populations and had to be attended to. Cats and crows were not the only problems which resulted from agriculture that waterfowl had to deal with.

Agriculture had other noteworthy negative impact on waterfowl species were. Plowing wet areas to grow crops, cattle stepping on nests and eggs, and the cutting of grasses all had degraded nesting sites. More Game Birds in America attempted to compensate farmers for attempting to avoid nesting areas while conducting agricultural

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<sup>205</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 68, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>206</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 69, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

practices. They later found that predatory species quickly adapted to this and knew that tall grasses near water often meant there was a waterfowl nest in the area.<sup>207</sup>

Disease and fire were the final two significant impacts on waterfowl nesting sites. Both prescribed burns and wild burns occurred across the prairies and equally destroyed waterfowl nesting locations. Additionally, disease had significantly more impact during drought years.<sup>208</sup> This was due to the fact birds were often very heavily concentrated in the few remaining areas with water. Therefore, disease was spread much easier due to proximity of the species.

Cause of Mortality	Number of Cases Reported						Totals
	Alberta	Sask.	Man.	N. Dak.	S. Dak.	Minn.	
Natural enemies .....	89	80	39	86	25	84	403
Drying up of water.....	41	69	10	40	37	18	215
Mowing, plowing, grazing .....	20	27	3	16	20	35	121
Flooding .....	2	..	15	1	..	10	28
Fire .....	6	5	2	4	..	..	17
Disease .....	5	..	1	2	3	1	12
Illegal shooting and taking of eggs	5	1	2	1	..	1	10
Hail .....	5	..	3	..	..	..	8
Miscellaneous .....	3	1	1	5	2	8	20
	176	183	76	155	87	157	834

[ 66 ]

Taken from, *The 1935 international wild duck census; a report on the duck population in Alberta, Saskatchewan, Manitoba, North Dakota, South Dakota and Minnesota during August, 1935.*

From this data, the organization published a list of recommendations for improving the conditions of waterfowl nesting grounds. This list included items such as controlling predation, water conservation through dam building, and other manmade

<sup>207</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 70, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>208</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 70, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

means and increasing waterfowl foods. The publication concluded by stating waterfowl surveys should be done annually. With the information collected from the survey legislation regarding the season length and species limit could be more accurately created. Therefore, a “business-like management of our wildlife resources” could be accomplished.<sup>209</sup> Finally, the publication stated its sole objective; “an increase in the number of game birds in America”- an objective extremely similar to that of the Migratory Bird Hunting and Conservation Stamp.<sup>210</sup>

### More Federal Involvement

An additional method of securing funds for conservation was created by the federal government in 1937, known as the Pitman Robertson Act, which appoints federal funding to state wildlife restoration projects. Funding from the Pitman Robertson Act is directed towards a wide variety of wild land restoration projects, not just the wetlands occupied by migratory birds. The Pitman Robertson Act was created as an additional way to fund conservation in the United states.<sup>211</sup> It is an 11% tax placed on firearms, ammunition, and other goods used in the outdoors.<sup>212</sup> This act is what continues to fund an individual state’s ability to purchase public lands. It also funds the research wildlife on a state level.<sup>213</sup> The tax has raised over 11 billion dollars in funds for state conservation

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<sup>209</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 79, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>210</sup>More Game Birds In America, *The 1935 International Wild Duck Census*, (New York: More Game Birds In America), 1935, 84, <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>211</sup>H.S. Mosby, and W. W. H. Gunn, "The Dingell-Johnson Act: Will It Benefit Bird-Life?," *The Wilson Bulletin* 63, no. 1 (1951): 60-62, <http://www.jstor.org/stable/4157929>.

<sup>212</sup>“Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service: Federal Aid and Wildlife Restoration Act,” U.S. Fish and Wildlife Service, Accessed March 3, 2021, <https://www.fws.gov/laws/lawsdigest/FAWILD.HTML>.

<sup>213</sup>“Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service: Federal Aid and Wildlife Restoration Act,” U.S. Fish and Wildlife Service, Accessed March 3, 2021, <https://www.fws.gov/laws/lawsdigest/FAWILD.HTML>.



over the past 80 years.<sup>214</sup> Pittman Robertson has raised significant money for conservation. It also placed a tax on some of the individuals who commonly enjoyed wildlife, in the form of hunters and fishermen, though it was not the original tax which funded government managed land. Though the Pittman Robertson Act is credited with much of American conservation, it was the Migratory Bird Hunting and Conservation Stamp that served as the catalyst for federally funded American conservation.

American conservation efforts were making consistent progress until World War II. Once American financial efforts shifted to war efforts, the vast progress that was made in conserving the United States and protecting its many ecosystems experienced, “quite a lapse.”<sup>215</sup> However, because of the duck stamp, places like wetlands were protected. Due to previous funds raised from the stamp’s sale there was still money that was being spent on purchasing refuges. The Mingo in Missouri, Chincoteague in Maryland and the Columbia in Washington were just three refuges purchased during the war. These three refuges total over 60,000 acres and were not the only refuges purchased during this time.<sup>216</sup> The revenue from the Migratory Bird Hunting and Conservation Stamp continued to save and re-establish wetlands in the United States even during war time.

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<sup>214</sup>Ben Obrien, “Where does all that Pittman-Robertson Tax Money Really Go?,” *MeatEater*, January 2, 2019 <https://www.themeateater.com/conservation/policy-andlegislation/where-does-all-that-pittman-robertson-tax-money-really-go>.

<sup>215</sup>Jay Norwood Darling, Jay Norwood Darling to Aldo Leopold. August 20, 1942, (Letter.)

<sup>216</sup>“Annual Report of Lands Under Control of the U.S. Fish and Wildlife Service, As of September 30, 2010,” U.S. Fish and Wildlife Service, Accessed March 20, 2021, [https://www.fws.gov/refuges/realty/archives/pdf/2010\\_Annual\\_Report\\_of\\_Lands.pdf](https://www.fws.gov/refuges/realty/archives/pdf/2010_Annual_Report_of_Lands.pdf).

## Conclusion: A Threat to Conservation

### A Snapshot of the Stamp

The Migratory Bird Hunting and Conservation Stamp has impacted the American system of conservation in a multitude of ways. Its creation set up a system of taxation which would annually generate revenue that supported and continues to support wildlife. Historically the price of the stamp has been raised from its original cost of \$1.<sup>217</sup> One example was through P.L. 99-645 in 1987, which increased the price of the stamp to \$10. P.L. 99-645 also presented the price of the stamp be raised in 1989 to \$12.50 and in 1991 to \$15. In 2010, H.R. 1916 proposed the cost of the stamp be raised from \$15 to \$25. These increases have had a significant positive impact on the amount of money raised for conservation.<sup>218</sup> Waterfowl hunters willingly pay the tax increase because they see its necessity.

The stamp's success is rooted in the support from hunters over the past 80 years, which continues presently. It was sportsmen and conservationists who saw a decline in waterfowl that then lobbied for action to be taken at a federal level. These sportsmen saw their passion dying due to a waning of wildlife across America. The decline was caused by man both directly and indirectly through overharvest as well as destruction of habitat. The sportsmen who lobbied for action to be taken are ultimately responsible for the restoration of America's migratory game birds. It was the sportsmen who spoke out, and as a result, paid for American conservation, through the American Refuge System.

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<sup>217</sup>Eric Jay Dolin, *The Duck Stamp Story, Art, Conservation, History*, (Wisconsin, Krause Publications, 2000), 175-195.

<sup>218</sup>"Migratory Bird Legislation," U.S. Department of the Interior, Accessed March 3, 2021, [https://www.doi.gov/oc/hearings/111/HR1916HR2062andHR2188\\_051309](https://www.doi.gov/oc/hearings/111/HR1916HR2062andHR2188_051309).

The idea that sportsmen, or hunters, pay for America's conservation is no longer unique to waterfowl hunting. Though waterfowl hunters are the only group that pay a federal license fee, sportsmen across the United States pay for state licenses. It is this license revenue which continues to fund conservation projects, environmental law enforcement, species rehabilitation, and so much more. It is not only the game that the hunters and fisherman target that are benefitted from the license revenue generated. The funds generated benefit all wildlife which inhabit areas that were made into public lands. This impacts everything from endangered species to insectivorous birds, to the insects they prey upon. America's various ecosystems largely rely upon funds generated from hunters and fisherman. The Migratory Bird Hunting and Conservation Stamp is one case study which proves that these ecosystems have relied upon these funds for the past 87 years. Though the stamp set out to federally generate money for refuges specifically for waterfowl, it has accomplished much more. The federal duck stamp set the precedent that sportsmen would pay for conservation in the United States, through paying for public lands that many Americans enjoy, through hiking, backpacking, mountain biking, fishing, hunting, etc.

The Migratory Bird Hunting and Conservation Stamp allowed for a system to be created which states have mimicked. Most, if not all, states currently require a state stamp in addition to the federal stamp to hunt waterfowl. Additionally, many states have added other stamps to hunt and fish for certain game. There are various examples of other states which use stamps as licensure to hunt and fish which raise funds for conservation. One is Alaska which requires a state stamp to fish for salmon.<sup>219</sup> Indiana requires a game bird

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<sup>219</sup>“Sport Fishing licenses, King Salmon Stamps, ID and Harvest Record Cards,” Alaska Department of Fish and Game, March 2, 2021, <https://www.adfg.alaska.gov/index.cfm?adfg=sportlicense.main>.

stamp to hunt turkeys and other upland game.<sup>220</sup> Wyoming requires a habitat stamp to fish or hunt any type of game.<sup>221</sup> Most states require some sort of stamp to pursue game in one way or another. These state stamps generate revenue for state-wide projects which benefit waterfowl or whichever species the license represents. Often, when a project benefits one species, many others are also assisted. When waterfowl projects have been accomplished, historically, wetland ecology in general has benefitted.

The Migratory Bird Hunting and Conservation Stamp allowed for the private sector to begin conservation projects, particularly through nonprofits like More Game Birds in America. It was More Game Birds in America who built the foundation for Ducks Unlimited, to be created. Ducks Unlimited's mission is very similar to that of the original duck stamp: to, "conserve, restore, and manage wetlands and associated habitats for North America's waterfowl."<sup>222</sup> Ducks Unlimited laid the groundwork for the creation of multiple nonprofits that benefit wildlife, including organizations like Trout Unlimited, Pheasants Forever, Whitetail Unlimited, and Rocky Mountain Elk Foundation. All of these nonprofits have two critical aspects in common- they are largely funded by hunters and anglers and they benefit more species than the one for which they are named.

The original intentions of the Migratory Bird Hunting and Conservation Stamp was to increase waterfowl populations across the United States. Through funding the protection of acreage in the United States, conservationists hoped to increase waterfowl populations. Waterfowl populations have remained stagnant or in some cases declined

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<sup>220</sup>"Waterfowl and Migratory Game Birds," Indiana Department of Natural Resources, Accessed March 2, 2021, <https://www.in.gov/dnr/fishwild/2713.htm>.

<sup>221</sup>"Hunters- Make Sure You Have Your Conservation Stamp," Wyoming Game and Fish Department, Accessed March 2, 2021, <https://wgfd.wyo.gov/News/Hunters-Make-sure-you-have-a-conservation-stamp>.

<sup>222</sup>"Our Mission," Ducks Unlimited, Accessed March 2, 2021, <https://www.ducks.org/about-ducks-unlimited/mission-statement/>.

over the past 80 years, since the creation of the stamp. In 1934, there were estimated to be about forty-three million ducks in North America.<sup>223</sup> In 2013, this number was estimated to be about forty-eight million ducks. Between these dates some years show significant declines in populations. Namely in the 1960s and 1990s, populations dropped to below thirty million.<sup>224</sup> Despite all that has historically been done to increase waterfowl populations in North America, when analyzing the data, little has changed.

Though the waterfowl populations have not increased drastically, it is blatantly false to say that the stamp and its many accomplishments were in vain. Despite waterfowl populations not increasing significantly, millions of acres have been conserved. Additionally, if nothing had been done, the population of waterfowl would have continued to decline much more sharply. If market hunting would not have been banned, ducks would have certainly been extirpated from the areas where they were heavily slaughtered for the fashion and meat markets. If habitats had not been created to support nesting waterfowl, perhaps ducks would have become extinct all together, like both the passenger pigeon and Labrador duck. It was the stamp that allowed for nonprofits, additional government programs, and the general increase in public knowledge towards conservation that has occurred over the past 80 years. The stamp can also be credited for securing the involvement of the general hunting community. Finally, the stamp ensured that every hunter is in turn a conservationist. Overall, bird watchers, environmentalists,

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<sup>223</sup>More Game Birds In America,*The 1935 International Wild Duck Census*, (New York: More Game Birds In America, 1935,) <https://babel.hathitrust.org/cgi/pt?id=coo.31924000120620&view=1up&seq=7>.

<sup>224</sup>U.S. Fish and Wildlife Service, *Trends in Duck Breeding Populations 1955-2013*, Nathan L. Zimpfer, Walter E. Rhodes, Emily D. Silverman, etc. (Maryland, U.S. Fish & Wildlife Service Division of Migratory Bird Management, 2013), <https://fws.gov/migratorybirds/pdf/surveys-and-data/Populationstatus/Trends/TrendsinDuckBreedingPopulations13.pdf>.

and anyone who enjoys nature should give the stamp, the politicians which supported it, and the hunters who funded it substantial credit.

### What Next?

The amount of hunting licenses sold in the past 50 years has not experienced much variation, despite the population of the United States nearly doubling in that same timespan. The United States population was estimated at 157 million in 1958.<sup>225</sup> That same year, just over 14 million hunting licenses were sold in the United States.<sup>226</sup> In 2015, the United States population was estimated to be approximately 320 million.<sup>227</sup> The amount of hunting licenses sold were approximately 14.8 million.<sup>228</sup> Not even a million more hunting licenses were sold in 2015 than were sold in 1958, despite the United States population nearly doubling.

American culture is shifting away from accepting both hunters and the firearms they use to secure their prey. Legislation banning the pursuit of many species is beginning to arise nationwide. California, for instance, recently attempted to ban bear hunting with SB252. The bill attempted to “make it unlawful to hunt, trap, or otherwise take a bear of the genus *Euarctos* or the species *Ursus americanus*, except under specified circumstances, including under a depredation permit.”<sup>229</sup> Similar bills have passed banning trapping or different methods of hunting. California passed a bill banning the

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<sup>225</sup>U.S. Census Bureau, “Population Assessment, 1958,”

[https://www2.census.gov/library/publications/1958/compendia/statab/79ed/1958\\_02.pdf](https://www2.census.gov/library/publications/1958/compendia/statab/79ed/1958_02.pdf).

<sup>226</sup>“National Hunting License Report, 1958-2003,” U.S. Fish and Wildlife Service, Accessed March 3, 2021, <https://www.fws.gov/wsfrprograms/subpages/licenseinfo/HuntingLicCertHistory.pdf>

<sup>227</sup>“Census Bureau Projects U.S. and World Populations on New Year’s Day,” U.S. Census Bureau, December 30, 2015, <https://www.census.gov/newsroom/press-releases/2015/cb15-tps113.html>.

<sup>228</sup>“National Hunting License Report, 2004-2015,” U.S. Fish and Wildlife Service, Accessed March 3, 2021.

<https://www.fws.gov/wsfrprograms/subpages/licenseinfo/HuntingLicCertHistory20042015.pdf>.

<sup>229</sup>California Legislature, Senate, Senate Bill Number 252, *Bears: Take Prohibition*, Introduced January 25, 2021, [https://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=20210220SB252](https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=20210220SB252).

hunting of black bears and bobcats with hounds with Senate Bill 1221. This bill was passed and signed into law in 2012.<sup>230</sup> This did not end black bear hunting in California, however it banned one of the most effective methods of hunting bear. In the 2013 bear hunting season, a 45% decrease in the number of bears taken by hunters was documented. This reduction in number of bears harvested could have devastating effects on not only bear populations but also overall ecology of an area. Published statistics indicate that the bear population rose from about 28,000 to 34,000 bears in California in 2013.<sup>231</sup> This growth in population results in outward movement of bears into new territory which often results in more interactions with humans in populated areas. As a result, bears are forced to be eradicated by the state government. When this occurs, the bear is completely discarded, not only wasting the meat and pelt, but also losing the opportunity for a hunter to purchase a tag or license which would bring revenue to California wildlife.<sup>232</sup>

It also appears there has been an increasing lack of interest in waterfowl hunting as shown by the decline of Migratory Bird Hunting and Conservation Stamps sold in recent years.<sup>233</sup> As hunter numbers decline, who will be tasked with funding and supporting public lands and refuges?<sup>234</sup> As herby proven, sportsmen have historically supported the preservation of American wild places. Should the future of all of the

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<sup>230</sup>California Legislature, Senate, Senate Bill Number 252, *Bears: Take Prohibition*, Introduced January 25, 2021, [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=202120220SB252](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB252).

<sup>231</sup>Ypema, Robyn, "2013 California Black Bear Take Report," *California Department of Fish and Wildlife*, January 30, 2015, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=89695&inline>.

<sup>232</sup>Sam Lungren, "New Legislation Could Ban Bear Hunting in California Forever," Accessed March 2, 2021, <https://www.themeateater.com/conservation/policy-and-legislation/new-legislation-could-ban-bear-hunting-in-california-forever>.

<sup>233</sup>"Federal Duck Stamp Sale by Year," U.S. Fish and Wildlife Service, Accessed, March 2, 2021, <https://www.fws.gov/migratorybirds/pdf/get-involved/DuckStampSales.pdf>.

<sup>234</sup>Nathan Rott, "Decline in Hunters Threatens how U.S. Pays for Conservation," *National Public Radio*, March 20, 2018, <https://www.npr.org/2018/03/20/593001800/decline-in-hunters-threatens-how-u-s-pays-for-conservation>.

wildlife in the United States be paid for by hunters and fisherman, as it has historically been done? What does this future hold for American wildlife with the decline of the sportsmen?

Though the stamp has benefitted more than just ducks, it is the only federal stamp that exclusively targets one type of animal in the form of waterfowl. There is no federal funding for any other animal. Though the federal government does protect certain animals through legislation like the Endangered Species Act, it does not specifically raise funding for these species like it does for waterfowl. Perhaps there should be a federal stamp for the protection of endangered species. Perhaps individuals other than hunters should be required to fund the protection and proliferation of species around the United States, especially non-game species. With the positive impact that the Migratory Bird and Conservation Stamp has had on American conservation, should it not be replicated for other species that are facing habitat loss in the United States?



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