

Ducking the Lessons

The Under-appreciated Waterfowl-driven Experience

All too often, when the history of bird conservation is recounted, we birders hear first about the grand effort to save the birds that started with our foremothers in the Bird Preservation Movement at the tail end of the nineteenth century, and then followed shortly by the efforts of Teddy Roosevelt (with the start of the refuge system); then, almost without a breath, the narrative skips to the rise of mid-century concern for pesticides (and the key role played by bird enthusiast and prescient eco-witness, Rachel Carson), with nary a word in between. In point of fact, the period of the 1930s and 1940s—particularly through the actions of the Bureau of Biological Survey and its successor, the U.S. Fish & Wildlife Service—was probably the most profoundly creative, on-the-ground era of bird conservation in our history. Its current neglect by birders has hampered the work of conservationists, preventing us from appreciating all that we can learn from its visionary waterfowl champions.

By the 1930s, wetlands—especially in America's heartland—were in drastic decline, prompted in particular by a World War I dictum that farmers “plow to the fences”. Widespread drainage for farmland, in combination with large bag-limits, devastated waterfowl populations continent-wide. The Bureau of Biological Survey, the predecessor to what would become the U.S. Fish & Wildlife Service a decade later, was still attached

to the Department of Agriculture and beholden to its farm-oriented priorities. Wed to a budget deeply intertwined with predator and rodent control, the agency was in no way forward-looking.

A national waterfowl census in the late 1920s had illustrated the need for action, and although bag limits were reduced (from 25 to 15 ducks), waterfowl numbers continued to plummet (Lendt 1989). One estimate had waterfowl populations sinking from 100 million in 1930 to 20 million four years later (Fox 1981).

Good science was seriously lagging. Frederick C. Lincoln, banding pioneer at the Biological Survey, had only begun tracking waterfowl migration in 1920. His work in this area was yet to culminate in the terse and influential *Waterfowl Flyways of North America* (1935), illuminating a management concept still applied today. In 1930 Lincoln and co-author and co-sportsman John Phillips addressed their duck-hunting colleagues: “[W]e believe it soon will be too late to save [waterfowl] in numbers sufficient to be of any real importance ... in the future” (Phillips and Lincoln 1930). Meanwhile, Aldo Leopold's new “science of wildlife management” was just beginning to gain acceptance.

Simultaneously, a crisis was ravaging the land—a crisis that would reach its terrible apogee in the Dust Bowl storms of the 1930s. The problem was that biological and social forces were

clashing, stripping the land and literally lifting it into the sky as the dry winds swept away the delicate ecological balance (Worster 1979).

Such was the backdrop against which bird conservationists in the 1930s were working, and waterfowl were clearly front-and-center among them. With probably the lowest duck populations in our continent's history, it soon became clear that restrictive measures alone (from smaller bag limits and shorter hunting seasons to banning nest harassment) would be ineffective in reversing waterfowl populations. Simply retarding the rate of decrease was insufficient; increased production of waterfowl and protection of wetland habitat would have to be achieved. A

seemingly prosaic concept today, it was genuinely innovative in the 1930s.

Three Visionaries

By the early 1930s, hunter-conservationists and bird-enthusiasts—the distinctions were not always evident—had realized that something had to be done. President Franklin D. Roosevelt appointed a waterfowl committee (the “Beck Committee”) at the beginning of

1934. Its members—Thomas Beck, J. Norwood “Ding” Darling, and Aldo Leopold—were charged with the task of devising a plan to address the wetlands-and-waterfowl situation, utilizing quite often bankrupted and sub-marginal farmlands forsaken in the ongoing Depression. This gathering of minds would soon result in the promotion of the “Duck Stamp”, the reinvigoration of the federal refuge system, and the professionalization of wildlife management.

The essence of those waterfowl-driven experiences can be measured in particular through the efforts of three giants of the times: **Ding Darling** (1876–1962), **Ira N. Gabrielson** (1889–1977), and **J. Clark Salyer II** (1902–1966).

Ding Darling is probably best known as the “father of the Duck Stamp”. A Pulitzer-Prize-winning editorial cartoonist for the *Des Moines Register*, a civic critic, and a life-long Republican, he found himself “aiding and abetting the opposition” when Franklin D. Roosevelt asked him to join the Beck Committee. He hammered out a set of recommendations from the highly contentious committee and was soon asked to head the Biological Survey (Lendt 1989, Dolin and Dumaine 2000, Dolin 2003).

Paul J. Baicich

Swarovski Birding
P.O. Box 404
Oxon Hill MD 20750
paul.baicich@swarovskibirding.com

Charismatic, vigorous, witty, incisive, physically imposing, and devoted to science, **Ira N.**

Gabrielson (1889–1977) was one of a group of bird-conservationists who used the drive to save waterfowl and wetlands in the 1930s and 1940s as the vehicle to re-shape American conservation, to build a real refuge system, and to set a standard for public service in the area of natural resources. © U.S. Fish & Wildlife Service.



Starting in March 1934, he agreed to head the agency for six months (through its planned reorganization), but he remained for twenty months. With an outsider's suspicion of conservation bureaucrats, Darling found himself beset with conflicting constituencies and demoralized employees. After the passage of the legislation for the "Migratory Bird Hunting Stamp", he created a Migratory Waterfowl Division within the Biological Survey. In 1935, Darling clamped down with the tightest hunting regulations in history (Lendt 1989). He then wheedled additional funding from Congress, found visionaries inside and outside the agency to build a functioning wildlife-wetland-and-waterfowl machine, began the task of supporting ambitious land acquisition for the refuges (usually called "reservations" or "preserves"), and redefined the goals of the Biological Survey. Among his achievements was the creation of the influential Cooperative Wildlife Research Unit Program, based on an Iowa model he knew well. Despite his short tenure at the Biological Survey, Darling had a huge long-term impact.

One employee promoted by Darling inside the Biological Survey was Ira Noel Gabrielson. Since 1916, Gabrielson had worked for the Biological Survey, mostly in the West, originally as an assistant in economic ornithology. In 1935, he was lured to Washington when Darling appointed him Assistant Chief of the Division of Wildlife Research. Darling actually groomed Gabrielson to be his successor, and he became Chief of the Biological Survey with Darling's departure. In the midst of the Depression and in the waning Dust Bowl years, Gabrielson oversaw a huge expansion of the refuge system, assisted by his second-in-command, J. Clark Salyer.

Gabrielson had organized a sizable contingent of CCC (Civilian Conservation Corps) workers, assigned to 35 camps in refuges in 25 states (leaving an infrastructure still in place on many refuges today), and in 1939 his dream of science-based bird-and-wildlife research was embodied in the creation of the Patuxent Research Center, Maryland. He

oversaw the writing of the first refuge manual in 1942. By the time he retired from the renamed U.S. Fish & Wildlife Service in 1946, the waterfowl-driven entity had been transformed. There had been 63 refuges when Gabrielson took over at the Biological Survey; there were 210 by the time he retired. Tireless in seeking appropriate wildlife habitat, he believed he had a once-in-a-lifetime opportunity to create a refuge system and professionalize the agency. Like George Bird Grinnell and Aldo Leopold, Gabrielson comfortably bridged the gap between bird hunters and bird watchers. He was a lifelong Audubon member, and he had one of the longest life lists among birders at the time (Fox 1981).

J. Clark Salyer II is the last in this triumvirate of builders. Ding Darling met Salyer when the latter was a young ornithologist engaged in the biological survey of Iowa in 1931–1932, sponsored by the Iowa Fish & Game Commission. In June 1934, when Salyer was 32 years old, Darling lured him to become the first head of the nation's refuges, consisting at the time mostly of non-administered areas. Salyer, like Darling, was clearly an outsider when it

came to the Bureau of Biological Survey. But Darling convinced Salyer to set aside his pursuit of a doctorate at the University of Michigan for a single year, to assess national waterfowl projects (Laycock 1965).

Salyer was directed to develop a waterfowl program under the principles of wildlife management articulated by Aldo Leopold. This approach, based on the habitat needs of migratory bird species, had never before been attempted on a national scale. The relatively new understanding of flyways was used by Salyer as a "roadmap for land purchases" (Chase and Madison 2004). He became a relentless acquisition-master for the refuge system, crisscrossing the country in his government-issued Oldsmobile and lining up properties for potential acquisition. In one six-week period, Salyer drove 18,000 miles and drew up plans for an additional 600,000 acres of refuge land (Laycock 1965). Armed with a vision of modern wildlife management, a grasp of



Jay Norwood "Ding" Darling, best known as the "father of the Duck Stamp", was a Pulitzer-Prize-winning editorial cartoonist for the *Des Moines Register*, a civic critic, and a bird conservationist. For twenty months in the mid-1930s he headed the Bureau of Biological Survey, transforming and modernizing that organization. © NCTC Archives/Museum (USFWS) and *The Des Moines Register*.

flyway concepts, a full tank of gas, and supportive leadership—first with Darling and then with Gabrielson—Salyer became the principal architect for the waterfowl-restoration program of the late 1930s. Darling would write many years later that there were others in the Biological Survey whose contributions during his tenure as Chief were substantial, but he wrote of Salyer that “that boy was my salvation” (Lendt 1989). Salyer’s tenure at the U.S. Fish & Wildlife Service would not end until 1961.

The lives and works of these three visionaries—Darling, Gabrielson, and Salyer—were driven by the challenges of wetland restoration, waterfowl conservation, and can-do wildlife management. These three men also epitomized a mindset that personified the spirit and direction of hundreds of unsung toilers in the field, the very people who helped reshape American bird conservation.

Stephen Fox (1981) aptly summarizes some of the successes of that era:

The duck population gradually recovered, from a total of 40 million in 1937 to 70 million four years later. Darling’s successor at the Biological Survey, Ira N. Gabrielson, continued the program of acquiring new refuges. By 1940 the New Deal had created 159 new refuges, a total of 7,459,823 acres, more than doubling the federal holding as of 1934. Roosevelt in 1940 took the Bureau of Fisheries from the Commerce Department and the Biological Survey from Agriculture and combined them into a new agency, the Fish & Wildlife Service in the Interior Department. Under Gabrielson’s direction it imparted a new coherence and continuity to federal wildlife policy.

Something From Nothing

It was not only creativity, innovation, and sheer real estate that characterized this era of bird conservation. It was also the ability to operate with limited resources. It can be relatively easy to be an effective conservation leader when times are prosperous and resources plentiful. During the 1930s, however, resources were scarce and prosperity distant, making the achievements of these bird conservationists all the more astonishing.

There were simply few resources of any sort. Unemployment in the U.S. in 1934, the year of the first Federal Duck Stamp, was at almost 22 percent. The government structures

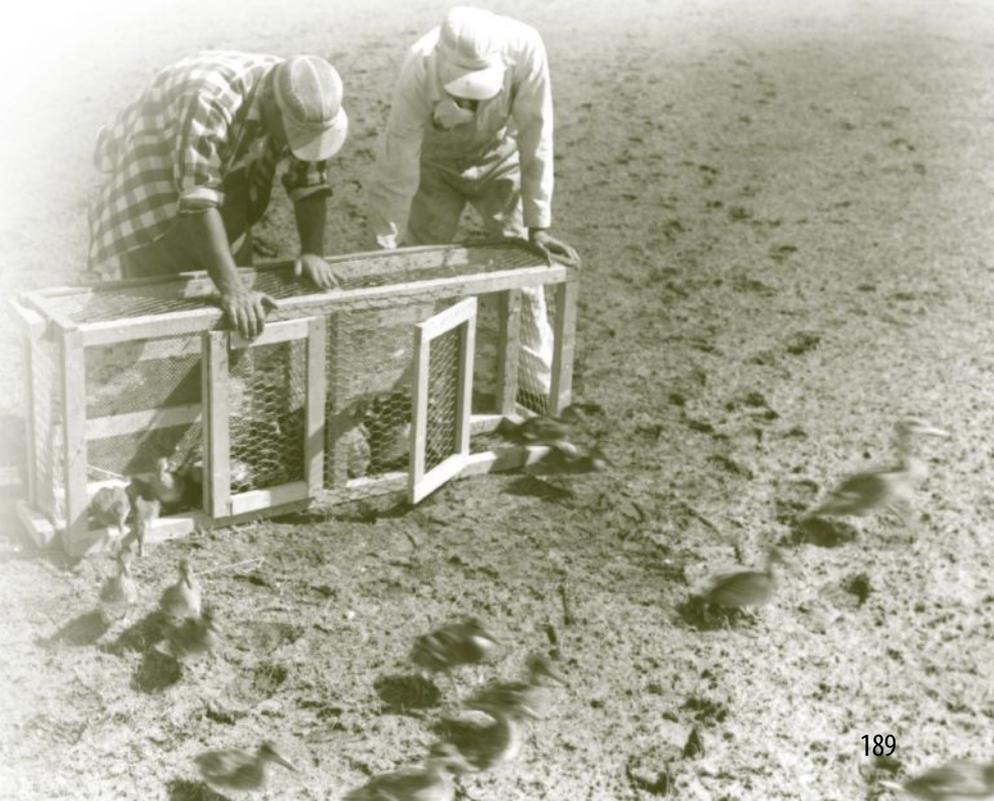
(federal and state) dealing with wildlife were anachronistic, with the federal wildlife bureaucracy attached to the U.S. Department of Agriculture, and the parallel state agencies, more often than not, dealing with “varmints”.

On the land, things seemed little better. Until this point, refuge growth had been haphazard. Although the innovative eight-year administration (1901–1909) of Theodore Roosevelt had spawned 51 bird reservations and four big-game preserves, they were mainly isolated island-like sites without connecting links, and they lacked integration with larger natural habitats (Chase and Madison 2004). As Chase and Madison have put it:

[R]efuge expansion had been more opportunistic than strategic. For three decades, habitat had been protected based on local or species-specific needs. Interconnected, continental-scale conservation was not in the vocabulary of government biologists. Darling and Salyer were able, for the first time, to implement a grander strategy, with a scientifically based plan to guide their decision-making.

While waterfowl would dominate management actions during these years, the trend was neither exclusively government-dominated nor wetland-oriented. Organizational synergy accompanied biological and management advances. Without much in the way of resources, the late 1930s saw the creation of many important organizations

In this scene from the mid-1950s, at White Water Lake, Manitoba, **Bernard Gollop** (left), Wildlife Management Officer for the Canadian Wildlife Service, and **S. Storey** (right), a local Ducks Unlimited participant, release ducklings from cages after banding them. © NCTC Archives/Museum (USFWS) and Rex Gary Schmidt.





In this mid-1950s scene at Blackwater National Wildlife Refuge, Maryland, U.S. Fish & Wildlife Service workers are removing **Canada Geese** and **Mallards** from a cannon-net trap and banding them. © NCTC Archives/Museum (USFWS) and Luther C. Goldman.

(e.g., Ducks Unlimited, the National Wildlife Federation, The Wildlife Society, and the Wilderness Society). National Audubon was also recast; until that time, it had been a loose confederation of state societies. And it was probably no accident that Roger Tory Peterson's incandescent *Field Guide to the Birds* (1934) appeared during the period.

There was a flip side to the economic deprivation of the 1930s. Some resources *were* available. For example, an extraordinary availability of "surplus" lands could be managed for waterfowl. Also, there was an ironic availability of labor (e.g., the Civilian Conservation Corps), at least when resources could be found to pay for it.

Overall, the economic outlook was not much better for the refuges into the next decade, the 1940s. In the first year of World War II, a fifth of all refuge personnel were drafted or went into war industries. It was not unusual to have two or three refuges overseen by one employee. Despite these handicaps, and despite conservationists' realization that their priorities were secondary to the pressing and immediate needs of the nation, the network of wetland refuges continued to grow throughout the war years (Laycock 1965, Lendt 1989).

We would do well today to consider this history as we face

the present-day challenges of limited resources for bird conservation.

Planning For Today

As we have seen, creative approaches to bird conservation were forged during the Dust Bowl era. Even aerial surveys of waterfowl were pioneered with experiments by Frederick Lincoln in 1931. The ensuing Mid-winter Waterfowl Survey, with all its limitations (Eggeman and Johnson 1989), was also started at that time. This survey was the historic predecessor to many subsequent waterfowl monitoring efforts conducted today. Most notable among these is the widely-respected Waterfowl Population Survey Program, begun in 1955—and celebrating its fiftieth anniversary this year—surveying key breeding areas of the U.S. and Canada and involving federal, state, provincial, and non-governmental biologists in both countries.

Two of our more recent and sweeping waterfowl advances—the North American Waterfowl Management Plan of 1986 and the North American Wetlands Conservation Act (NAWCA) of 1989—could not have come about, had it not been for the waterfowl monitoring-and-management breakthroughs of an earlier generation.

Indeed, the North American Waterfowl Management Plan, with its science-based approach to monitoring, population goals, habitat priority-setting, and regionally based partnerships, has become the model for other "bird plans" (Fitzpatrick 2002). Combined with essential funding to make it all happen, the bird plans that have developed—Partners in Flight, the Waterbird Plan, the U.S. Shorebird Plan—have all looked at the waterfowl scene with a mixture of sincere admiration and minor envy. The can-do vision of bird conservation, based on waterfowl successes, was called to mind by Gary T. Myers, the insightful Executive Director of the Tennessee Wildlife Resources Agency, who, when considering the plight of Neotropical songbirds, proclaimed: "Birds are just like ducks!"

The success of the North American Wetlands Conservation Act has demonstrated that on-the-ground waterfowl conservation need not simply benefit other species through "leakage", but that other wetland-based avifauna can benefit directly from NAWCA. Similarly, functioning regional partnerships (the Joint Ventures), pioneered through waterfowl concerns, have spread to Canada and Mexico, and they are increasingly serving birds other than web-footed species. Moreover, the whole NABCI (North American Bird Conservation Initiative) effort, harmonizing the vision of

all the bird plans, should develop as the new paradigm for integrated bird conservation in the twenty-first century. The current NABCI goal of delivering the full spectrum of bird conservation through “regionally based, biologically driven, landscape-oriented partnerships” (NABCI 2000) would not be conceivable without the successes of earlier waterfowl-and-refuge conservationists.

The advances of the 1930s and 1940s involved thinking big—across state borders (e.g., flyways), into Canada, and, sometimes, even dipping into Mexico. When a new bird-conservation model for the twenty-first century has been established, it too will have to develop that think-out-of-the-box aspect of the original waterfowl model, realizing that our current bird issues don’t end at our borders, with common problems now spanning the Americas.

The Duck Stamp

There is one more area of potential bird-conservation overlap—again, evoking a combination of admiration and envy from non-waterfowlers—that can link the waterfowl experience with the future of all our birds. That remaining terrain, clearly linked to funding, is Ding Darling’s beloved duck stamp.

The “Migratory Bird Hunting Stamp” was a major advance for conservation, the crack of the starting-gun, as it were, in the race to save wetland habitat and its birds. Its 1934 legislative passage emerged from a decade of debate over regulating and funding the hunting and conservation of migratory waterfowl. The funds—used for 70 years to secure wetlands and adjacent uplands for the National Wildlife Refuge System—have totaled over \$670 million since 1934, and have been used to purchase or lease more than 5.2 million acres of wetland habitat.

Over the long haul, however, the stamp has been suffering from slipping sales. After a high point of almost 2.5 million stamps sold in 1971–1972, current sales are now at about 1.7 million. The last time more than two million stamps were sold nationally was 1980–1981. Clearly, the stamp program needs to be reinvigorated, and birder-conservationists might be able to participate in a creative fashion.

The stamp program has now reached a crossroads, presenting concerned birders with an opportunity to engage the U.S. Fish & Wildlife Service and the waterfowl community. There should be ways to improve and expand the

stamp beyond the vital, but limited, purpose of wetland-refuge habitat acquisition (Baicich 2003). Three areas deserve consideration: purpose, design, and sales.

Careful changes in purpose might involve the inclusion of a broader suite of species and habitats. Crafted in the 1930s, the stamp and the refuge system succeeded in saving wetlands and waterfowl in crisis. Now, as the multiple bird plans have made abundantly clear, other bird species are in comparable trouble, and other, “drier”, habitats need funding.

New stamp designs, reflecting parallel changes in purpose, could be entertained. This might mean cycling the images through other family groups (e.g., shorebirds, passerines, raptors, upland gamebirds), or simply including an additional bird species on the stamp alongside the pictured waterfowl.

Without changing a perfectly good name—“Migratory Bird Hunting and Conservation Stamp”—the stamp could seek a broader constituency beyond hunters, collectors, and dedicated conservationists. Specifically, a drive for “added value” could also result in increased sales, if the stamp served as a discount card or an expanded entrance



On 4 July 1957, near Brooks, Alberta, **Dennis Carter** (left) of the Iowa Conservation Commission and **Robert Ham** (right) of the Arkansas Game and Fish Commission, participants with a U.S. Fish & Wildlife Service banding crew, band a young **Northern Pintail**. © NCTC Archives/Museum (USFWS) and Rex Gary Schmidt.

pass—beyond its current use at refuges that charge an entrance fee (Baicich 2004).

Conclusion

Champions for change should see that the legacy and grand achievements of long-term waterfowl advances are under-

stood, respected, and maintained, while building on those past accomplishments. Appreciating our collective history, especially our debt to the waterfowl-driven conservation movement of the 1930s and 1940s, means valuing biological advances, on-the-ground habitat preservation, and creative models. There should be no question over what has been achieved and how we *all* got here as we enter a dialogue with colleagues in the U.S. Fish & Wildlife Service and the waterfowl-community over future possibilities.

Acknowledgments

I thank the following colleagues in bird conservation for their thoughts, comments, and encouragement: Robert J. Blohm, Dave Davis, Eric J. Dolin, Robert P. Ford, Mark Madison, Wayne Petersen, Terry Rich, Marta Wagner, David K. Weaver, and James J. Williams. While they may not have agreed with every conclusion I have made, their sharing of ideas was invaluable and is much appreciated.

Literature Cited

- Baicich, P.J. 2003. 2003–2004 “Duck Stamp” celebrates NWR Centennial. *Winging It* 15(6):5.
- Baicich, P.J. 2004. The “Duck” Stamp: A birder’s imperative? *Bird Observer* 32:163–165.
- Chase, S., and M. Madison. 2004. The expanding ark: 100 years of wildlife refuges. *Wild Earth* 13(4):18–27.

- Dolin, E.J. 2003. *Smithsonian Book of National Wildlife Refuges*. Smithsonian Institution, Washington.
- Dolin, E.J., and B. Dumaine. 2000. *The Duck Stamp Story*. Krause Publications, Iola.
- Eggeman, D.R., and F.A. Johnson. 1989. Variation in effort and methodology for the midwinter waterfowl inventory in the Atlantic Flyway. *Wildlife Society Bulletin* 17:227–233.
- Fitzpatrick, J.W. 2002. The AOU and bird conservation: Recommitment to the revolution. *Auk* 119:907–913.
- Fox, S. 1981. *The American Conservation Movement: John Muir and His Legacy*. Little Brown, Boston.
- Laycock, G. 1965. *The Sign of the Flying Goose: A Guide to the National Wildlife Refuges*. Garden City Press, Garden City.
- Lendt, D.J. 1989. *Ding: The Life of Jay Norwood Darling*. Iowa State University Press, Ames.
- Lincoln, F.C. 1935. *Waterfowl Flyways of North America*. USDA Circular no. 342, Washington.
- North American Bird Conservation Initiative [NABCI] Committee. 2000. *North American Bird Conservation Initiative: Bird Conservation Region Descriptions*. U.S. Fish & Wildlife Service, Division of Bird Habitat Conservation, Washington.
- Peterson, R.T. 1934. *A Field Guide to the Birds*, first edition. Houghton Mifflin, Boston.
- Phillips, J., and F.C. Lincoln. 1930. *American Waterfowl: Their Present Situation and Outlook for the Future*. Houghton Mifflin, Boston.
- Worster, D. 1979. *Dust Bowl: The Southern Plains in the 1930s*. Oxford University Press, New York.



At Sacramento National Wildlife Refuge, in the mid-1950s, **Snow Geese** (and one **Cackling Goose**) are about to be rounded up from this versatile cannon-net trap and then banded. © NCTC Archives/Museum (USFWS) and David B. Marshall.