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Out of Hand

Biologists Grapple with Fungal Diseases

Map a Herp

Pilot Amphibian Disease Survey

Delmarva Fox Squirrel Recovery

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Biologists grapple with fungal diseases

By David Frey

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The Growth of Sport Shooting Participation

WHAT DOES THIS TREND MEAN FOR CONSERVATION REVENUE?

By Mark Damian Duda, Tom Beppler and John Organ

Enacted in 1937, the Federal Aid in Wildlife Restoration Act — more commonly known as the Pittman-Robertson Act — is one of the oldest and most reliable sources of funding for wild-

life conservation in the United States. The result of organized support from sportsmen, fish and wildlife agencies, firearms manufacturers, conservation organizations, and even garden clubs, the PR Act created an excise tax on so-called “long guns” and ammunition used by hunters, thereby establishing the first sustainable source of revenue dedicated to conservation and land management efforts throughout the country. Later, legislators amended the PR Act to include an excise tax on pistols, revolvers, bows, arrows and other archery equipment.

Today, its impact is widely recognized throughout the fish and wildlife communities. The PR tax base has not only been a stable source of funds supporting state-led wildlife conservation projects, but also hunter safety programs and the construction, operation and maintenance of public shooting ranges. In fact, the U.S. Fish and Wildlife Service has described the PR Act as a highly successful “user-pay, user-benefit” system ([U.S. Fish and Wildlife Service 2010](#)). And in a recent survey conducted for the Wildlife Management Institute, wildlife professionals — including agency directors, assistant directors and division/bureau chiefs — also named the PR Act as the most successful national conservation program over the past 100 years ([Responsive Management et al. 2015](#)).

Based on PR’s original ties to game hunting, many wildlife professionals and organizations have assumed that the taxes on purchases made by hunters are the primary source of PR funds. However, the results of a recent survey conducted for the National Shooting Sports Foundation comparing hunters and sport shooters show that sport shooters who *do not hunt* now make up an increasingly impor-

◀ **Since its enactment in the 1930s, the Federal Aid in Wildlife Restoration Act has provided one of the most important sustainable sources of revenue dedicated to wildlife conservation and land management in the United States. While many people have assumed that the taxes paid by hunters on guns, archery equipment and ammunition are the leading source of PR funding, a 2015 survey showed that sport shooters who *do not hunt* are becoming an increasingly larger percentage of the entire hunting and shooting population.**



Credit: Responsive Management



tant segment of the entire hunting and shooting population, a development that may have important implications on the future distribution of PR funds. The influx of new non-hunting sport shooters corresponds with a recent nationwide surge in firearms and ammunition purchases. Wildlife professionals, agencies and organizations will need to recognize the implications of this shifting demographic and take appropriate steps if the PR Act is to remain a viable user-pay, user-benefit program for wildlife conservation programs.

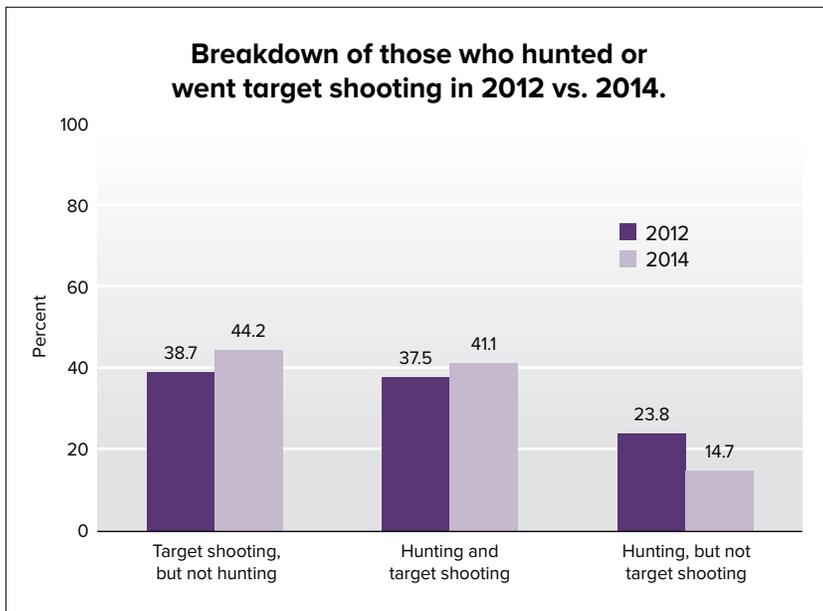
A look at the revenue

Since its inception, the PR Act has provided more than \$10 billion for conserving, restoring and managing wildlife, as well as other designated projects (National Shooting Sports Foundation 2016). These funds are apportioned and disbursed annually to states according to a prescribed formula: \$8 million for enhanced hunter education, including the construction and maintenance of public target ranges; \$3 million for designated projects involving cooperation between the states; and half of the excise tax on pistols, revolvers, bows and arrows for basic hunter education. For each of these categories, states are generally required to match 25 percent of the funds. The balance of the funds is then divided in two and distributed to the states for wildlife conservation and restoration projects, with half allocated in proportion to the area of the state and the other half in proportion to the number of hunting licenses sold in the state relative to the number sold nationally (Corn and Gravelle 2013).

Over the past decade, increases in firearms and ammunition sales nationally have led to a corresponding increase in the amount of PR funding generated for state agencies. Between 2006 and 2014 alone, PR excise tax gross receipts increased a whopping 196 percent (U.S. Fish and Wildlife Service).

This recent surge in the sale of firearms and ammunition has been well documented. For example, data on the eligibility of people attempting to purchase firearms in stores collected by the Federal Bureau of Investigation's National Instant Criminal Background Checks show that the number of checks rose from roughly 10 million in 2006 to more than 23 million in 2015, an uptick of 130 percent (Federal Bureau of Investigation 2016).

Economic impact reports from the firearms and ammunition industry also corroborate the jump in the



Credit: Responsive Management

sale of the relevant taxable items. A recent report calculating both the direct and total economic impacts of the industry showed a 162 percent increase in direct impacts and a 125 percent increase in total impacts between 2008 and 2014 (National Shooting Sports Foundation and John Dunham and Associates, Inc. 2014).

Other reports have documented the national increase in firearms and ammunition sales, with one noting that 26 million firearms had been manufactured for the personal-use market during the four-year period from 2009 to 2012, compared to 28 million firearms manufactured during the entire preceding eight years (Wilber 2014). Other reports have attributed the spike in firearms and ammunition purchases in response to concerns over potentially tightened restrictions on these items (Cooper 2013). Still other reports have documented the apparent growing popularity of shooting ranges, especially as new and established gun owners have frequented them to use the firearms and ammunition they have purchased (Weeks 2013).

Overall, these data reinforce a surge in firearms and ammunition sales spanning the last decade that is consistent with the recent increases in PR tax revenues.

Shifting sources of PR funding

National surveys have also borne out the trend in sport shooting participation. Since 2009, Americans' participation in recreational sport shooting — which includes target shooting — has been tracked by the National Shooting Sports Foundation and

▲ Data from a 2015 survey conducted for the National Shooting Sports Foundation show that non-hunting sport shooters are an increasingly predominant segment. In fact, hunting exclusive of sport shooting has declined from 2012 to 2014, just as sport shooting without hunting has risen.



Credit: Rich Legg

▲ In recent years, the number of people who take part in sport shooting at target ranges has surged. Access to nearby ranges is one of the top concerns of this group.

Responsive Management. In 2010, more than 8,000 American adults were surveyed about their participation in sport shooting during the prior year, followed by surveys in 2013 of roughly the same number and slightly more than 5,000 people in 2015. These phone surveys were designed so that the number of respondents in each state was exactly proportional to the state's population and within the U.S. population as a whole. Each survey was also representative of Americans 18 years old and older.

The results showed that sport shooting participation has increased substantially: over 51 million Americans engaged in sport shooting in 2014, compared to roughly 41 million in 2012 ([Responsive Management 2015](#)).

Characteristics of sport shooters today

In addition to measuring basic participation in the shooting sports, one of the purposes of the three surveys was to examine the characteristics of sport shooters. Echoing findings from the earlier surveys, the 2015 survey found that participation in target shooting is correlated with being a hunter, male, 18 to 34 years old, and residing in a rural area in the midwest region of the country.

The surveys also examined characteristics of new shooters. Among all sport shooters in 2014 — the last year for which the survey measured participation — 15 percent were new shooters who had first been initiated into the sport within the previous five years. These new shooters were different demographically than the overall population of sport shooters in several key ways. New shooters were primarily female,

18 to 34 years old, non-hunters, and living in urban areas ([Responsive Management 2015](#)).

A final point of interest from the most recent sport shooting participation survey concerns the extent of the overlap between sport shooting and hunting participation. While about two in five of those who either hunted or participated in sport shooting did *both* activities (41.1 percent), the largest group is made up of those who participated in sport shooting but *not* hunting (44.2 percent). Those who *only* hunted comprised only 14.7 percent of respondents.

Implications for the future

The wildlife management community has grown accustomed to the notion that hunters are the major providers of funding for wildlife conservation. While the exact proportions of PR contributions from hunters and sport shooters would only be known through longer-term participation and expenditure data, what is clear is that sport shooters who do *not* hunt have recently become a larger segment of the entire hunting and shooting population; as a result, these sport shooters have increased their collective contribution to the PR funds that are distributed to states for wildlife conservation. Even if the changing proportions of hunters and sport shooters prove to be temporary, wildlife professionals and the larger community need to be aware of what these types of shifts mean for the future. Currently, not only is there a shift in the activities of users (i.e., doing *both* hunting and sport shooting versus doing *only* one or the other of the two activities), but the demographics are also changing as more urban residents and women take up sport shooting.

In contrast to hunters, who are familiar with how their purchases connect to wildlife conservation, we cannot assume that sport shooters will have the same understanding. It's likely that educational efforts through coordinated partnerships will be needed to ensure that non-hunting sport shooters have a firm understanding of the goals of the PR Act and how the funds are used to establish new shooting ranges as well as manage wildlife and habitat conservation in their state. These educational efforts will be especially important in urban areas where wildlife management is a less important issue than the demand for adequate shooting ranges.

Having access to nearby shooting ranges is a top concern of sport shooters. Data from one study suggest that a travel time to a range longer than 30 minutes is a disincentive to shooting participation.



Specifically, the research found that ex-shooters typically had to travel farther to go target shooting than did active shooters, indicating that the inconvenience leads to a higher drop-out rate ([Responsive Management et al. 2011](#)). In the absence of conveniently located ranges, the number of new firearm and ammunition purchasers may shrink, thereby reducing PR funding.

While the PR formula currently apportions funds specifically for public shooting ranges, the data also suggest that access to shooting ranges will become an increasingly important issue. If the development and maintenance of public shooting ranges does not remain a priority, the wildlife community risks a potential drop-off in conservation funding. Of course, if the recent surge in firearms and ammunition purchases and associated sport shooting begins to plateau, state agencies may be left with less funding for wildlife management. For now, though, the rise in sport shooting participation appears to be counterbalancing the downward trend in the national hunting rate.

However, wildlife agencies and groups will need to stay abreast of the demographic and participatory trends described here. By remaining cognizant of the needs and attitudes of today's purchasers of firearms

and ammunition and by continually reinforcing awareness of the essential conservation projects funded through the PR Act and its legacy of wildlife for future generations, we can ensure that these funds will remain strong well into the future. ■



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A NWRC researcher (right) and WS Operations biologist attach a satellite transmitter to a snowy owl, part of a national effort to learn more about the species and aviation hazards

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