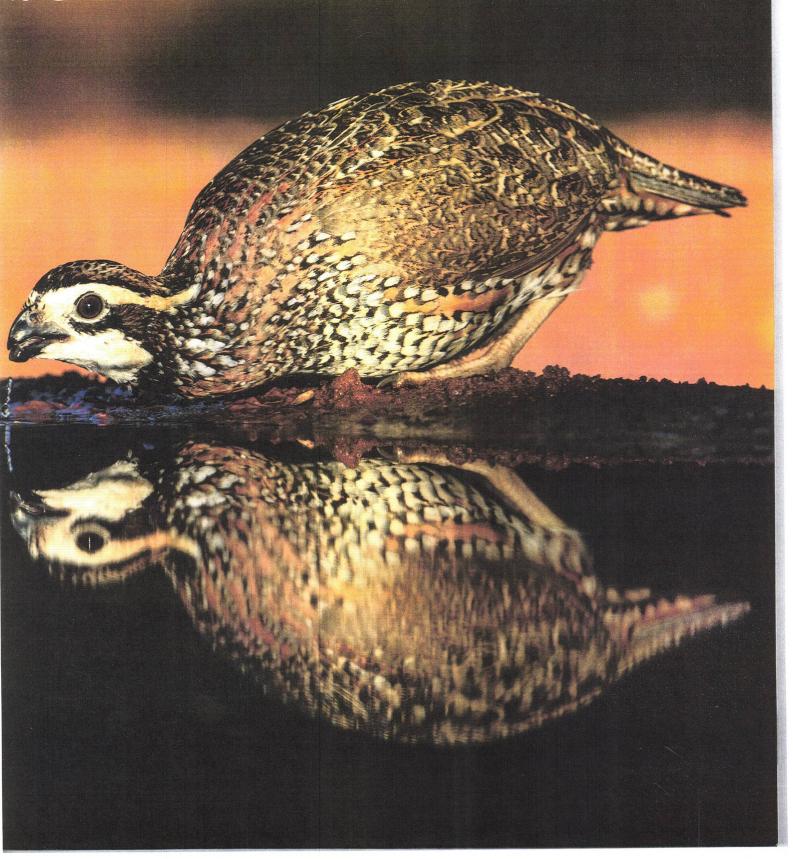
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2021 YEARLY REVIEW



2021 to document current occupancy of bobwhite on the area and tentatively confirm the lack of a resident population. As part of the translocation, WPQP will also study bobwhite population genetics to determine relative contributions of translocated versus resident populations, interbreeding, and offspring performance. The efforts of this research project will continue over the next five years, in addition to programmatic efforts to expand the amount of quail habitat in the Pinevwoods.

For more information about the Western Pineywoods Quail Program research, habitat management, or to support the WPQP endowment campaign, please contact Brad Kubecka at bkubecka@talltimbers.org.

HIGGINS BRANCHINI SHOOTING FOUNDATION

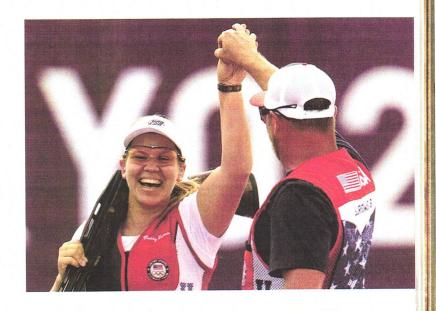
Giving Back to the Collegiate Shotgun-Shooting Community

By Mimi Wilfong

Anyone who has spent much time at a shooting range knows that shooting sports are not an inexpensive hobby. Even with the growing number of youth shooting-sports events and participation, it is common to see young adults stop shooting as they reach college. This is likely due to a number of factors: new-found freedom, heavy course loads, etc., but often, it's because of tightly stretched budgets that go hand in hand with college education. The Higgins Branchini Shooting Foundation is one organization committed to keeping youth involved in the shotgun sports throughout their collegiate years by lessening those burdens.

The Higgins Branchini Shooting Foundation was formed in 2011 by husband-and-wife team Mike Higgins and Melinda Branchini with the goal of supporting college students competing in the clay-target sports. This year the foundation celebrates its 10th anniversary. Mike and Melinda both share an appreciation of the commitment of collegiate shooters and recognize the tremendous sacrifices of time and resources that go along with being a collegiate shotgun athlete. They also believe that a sustainable pipeline of educated new shooters is critical for shotgun shooting sports to survive and thrive.

HBSF provides support to college students who compete in collegiate, national, and international clay-target sports through grants geared towards offsetting the ongoing ex-



HBSF grant recipient Maddy Bernau celebrates after winning a bronze medal in mixed trap at the 2020 Olympic Games in Tokyo.

penses of competitive shooting. Beyond supporting athletes at only the highest level of competition, it is the intention of HBSF that grant recipients hone skills, gain or maintain proficiency, and compete at venues that might otherwise be out of reach. To date, HBSF has awarded \$212,508 in total to 181 deserving collegiate athletes from across the country and \$23,108 of that in 2021. These grants have helped cover costs of ammunition, targets, entry fees for competitive events, and additional costs (such as airfare, hotel, meals, travel, and gun licenses for international travel). In the past nine years, HBSF grant recipients have won 13 ACUI National Collegiate Championship titles in skeet, trap, sporting clays, and high overall titles, a number have gone on to win world championship titles in international games, and most recently, have been named to the 2020 United States Olympic Team. Grant recipient Maddy Bernau won a bronze medal in mixed trap at the 2020 Olympic Games in Tokyo. More importantly, these grant recipients are all excellent representatives of the shotgun sports and are a group of young adults who will continue to be advocates for this industry for decades to come.

College students who are members of their college or university shotgun-shooting team are eligible to apply for grants. HBSF does not provide scholarships, but rather grants to individuals, not teams or universities. To be eligible for grants, students must complete HBSF information requests and the application form on the HBSF website at hbshootingfoundation.org.

Typically, grant assistance is given to qualified individuals competing in the United States but extends abroad when eligible competitors are representing the US in qualified international competitions. Grants for 2021 have already

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been awarded, but applicants can begin preparing for the 2022 deadline, which is January 9, 2022. Grant recipients are asked to complete the application, submit letters of recommendation, and submit an itemized budget of their planned expenses related to the grant application. All grant applications are reviewed by a powerhouse group that make up the HBSF Advisory Committee, that includes Derrick Mein, Travis Mears, Ed Arrighi, and Sean McLelland, to name a few.

HBSF is proudly supported by several great organizations, including Lone Star Ag Credit and the Park Cities Quail Coalition, and has held fundraising events and receptions throughout the country. HBFS's largest annual fundraiser is a quail hunt hosted at Greystone Castle in Mingus, Texas. This year's event will be held November 12 through 14 and is an excellent opportunity to support HBSF and collegiate athletes. There are a number of hunt packages to choose from for this event, all of which allow for sending afield eight groups of three hunters apiece. Each group is provided with a guide and dogs and is transported via hunt trucks to the field and back. These hunts feature quail, pheasants, and chukar, and include complimentary on-site processing of birds.

If you're unable to attend, but would still like to support HBSF, please reach out via the website hbshootingfoundation.org for more information.

THE QUAIL-TECH ALLIANCE

By Brad Dabbert

Broadcasting Supplemental Protein Feed

The Quail-Tech Alliance has demonstrated the demographic benefits of broadcasting sorghum as an energy source for bobwhite in Texas since 2010. However, protein is generally more limiting than energy in ecosystems during the reproductive season. Growth of reproductive organs, eggs, and embryos is limited by protein availability. Multiple studies indicate that protein supplementation can increase the clutch size, egg size, and chick size above energy supplementation alone for a variety of wild-bird species.

There are periods in the life of bobwhite (i.e. molting, egg laying) when a more protein-rich food would be beneficial. The late winter to early spring is one such period where protein-rich foods are limiting in the environment in the Rolling Plains of Texas. The limited availability of protein in the diet of bobwhite during late winter and spring suggests providing supplemental protein might increase bobwhite clutch and egg size. Larger eggs produce larger chicks. Many studies indicate that the probability of chick survival increases as chicks hatch at a larger size, because they are more able to travel, thermoregulate, and have a larger yolk size.



Autonomous listening device funded by PCQC customized to monitor quail calls to estimate density.

We have developed a high-protein, moisture-resistant ration for wild bobwhite and proven that they will use it in field tests. We initiated large-scale feeding trials during February 2020 to experimentally determine if broadcasting a protein supplement during late winter, spring, and summer can increase bobwhite nest success, clutch size, and chick survival. Nest success and chick survival to 60 days of age during the 2020 breeding season averaged 42 percent and 35 percent, respectively. Unfortunately, the COVID-19 pandemic forced us to constrict our research efforts to only one site per treatment which restricted sample sizes and delayed us from making inferences regarding survival rates between treatments on this first year of data. However, data from this first year suggest that hens in the site that received the highprotein ration laid 1.5 more eggs per clutch as compared to hens in areas that did not receive any feed.

Anecdotally, we observed gang broods of 30 to 40 chicks in the high-protein feed site four times during the breeding season but observed no gang broods in the control site that did not receive feed. The second year of the study is currently underway on two separate study sites allowing us to expand our sample sizes and increase our knowledge about the influences of our high-protein feed ration on bobwhite population demographics.

An Automated Covey Call Recording and Localization System

Assessing the effectiveness of research and management efforts requires the ability to accurately measure quail density. Unfortunately, current methods used to estimate quail density lack precision and require significant manpower and expense. Because money and manpower are usually limiting, the most common method of estimating bobwhite density is to use a fall covey count. Unfortunately, density estimates derived using fall covey counts are affected by such things as differences in human hearing acuity and experience, bird calling variability among days, and bird detectability among cover types. This variability causes