

Napa Solano Audubon Society Birding Notes #8

Hello NSAS friends and members –

Happy Holidays! Our “*Winter Song Sparrow Newsletter*,” introduced this story about Tricolored Blackbirds and their struggle for survival. If you would like to read this introduction, a copy of the Newsletter can be found on our website at http://www.napasolanoaudubon.com/nsas/newsletters/2020_winter-newsletter.pdf

Tricolored Blackbirds’ Battle for Survival: A Victory in 2020

The genesis of this article on Tricolored Blackbirds was an e-mail from Audubon California declaring “*VICTORY: 177,000 Tricolored Blackbirds Saved in 2020.*” I knew there was a history of the Napa Solano Audubon Society working with these birds and was curious as to how our work was related to this announcement.

Tricolored blackbirds, or Trikes as long-time observers call them, look very much like the abundant and widespread Red-winged Blackbird to which they are closely related. However, unlike Red-winged Blackbirds, which are found throughout North America, ***the Tricolored Blackbird is nearly endemic to California and over 95% of the Trike population resides in the state***, mainly in the Central Valley. At one time, Trikes were very abundant birds in California and were found both in coastal areas, where they were considered the most abundant bird from Santa Barbara to San Diego as reported in 1859, and in the Central Valley where in the 1930’s a single colony of 282,000 nests was reported and population estimates made via extrapolation were at ~ 3 million birds. By 2017, estimates from a statewide survey indicated that the population of Trikes had dwindled to less than 200,000 birds. Currently, the Tricolored Blackbird is listed as a Threatened species under the California Endangered Species Act, is considered a Species of Concern by the U.S.

Fish and Wildlife Service, and is included in the IUCN's Red List of endangered species.



Photo by Mark Stephenson

Napa Solano Audubon Society's (NSAS) involvement in Tricolored Blackbird research activities began in 1992 when Drs. Ted Beedy and Bill Hamilton organized a statewide survey effort to obtain an estimate of the entire California Trike population. For this survey they assembled a cadre of volunteers, derived mainly from local Audubon groups, to help estimate the number of breeding birds during a single weekend count in April. For NSAS, Robin Leong took the lead in organizing a group of birders to conduct the survey for tricolors in Napa and Solano counties. This informal monitoring effort continued in April, roughly every third year, until 2005, when the U.S. Fish & Wildlife Service supported a more formal survey effort. Unfortunately, this 2005 effort suffered from a lack of coordination, standardization, and documentation of results.

To address these deficiencies prior to the 2008 Statewide Survey, the U.S. Fish and Wildlife Service contracted with Dr. Robert Meese at U.C. Davis to develop and host the Tricolored Blackbird Portal. This new Portal provided participants in the 2008 Survey with on-line data entry, maps of colony locations, and standardized field forms. In addition to the new portal, the 2008 count featured a new 3-tier system of coordination with a survey management team consisting of a Statewide Coordinator, County Coordinators, and local participants. With these changes in place, the statewide Trike population was estimated to be 400,000 birds. Since 2008, the Statewide Survey has continued every 3 years with NSAS members Robin Leong in Solano County and Murray Berner in Napa County serving as our local county coordinators. These subsequent surveys have indicated that the Trike population has continued to decline and was most recently estimated to be ~ 175,000 birds in 2017. Due to the pandemic the count that was planned for April 2020 was delayed and is now scheduled for April 2021.

In addition to our participation in the triennial Statewide Surveys, Wendy Schackwitz, past NSAS president, applied for grant monies in 2016 to study and monitor nesting Tricolored Blackbird colonies in Solano County. Her initial work was focused on the colony near Rush Ranch on Grizzly Island where she started her efforts to use bioacoustic monitoring to document vocalizations associated with the behaviors of breeding Tricolored Blackbirds. Since receiving the original funding for this research she has continued her work with a group of UC Davis biologists that are researching Trikes, and more recently is now working with both UC Davis and Point Blue in this effort. She has recently published a report in the *Journal of Fish and Wildlife Management* on her work in bioacoustic monitoring.

So, there has been a long history of the NSAS's involvement in helping to monitor the Trike population which leads to the question, **what caused this significant population decline?** A combination of factors can be attributed, including the unique behavior characteristics of this species and the significant loss of preferred habitat. Historically, Trikes nested in wetlands with cattails, bulrushes, and willows, but as the state's wetlands have been converted to agricultural fields, towns, and business

parks these birds have lost most of their preferred habitat and consequently many birds now nest in agricultural fields, primarily triticale (a vigorous wheat x rye hybrid grain) fields, that are adjacent to dairies. Triticale is a major component of the silage fed to dairy cows and a significant percentage of the current Trike population's first nesting attempt each year are in these fields in the San Joaquin Valley. Birds in the Sacramento Valley and Delta continue to nest in remnant or restored wetlands, often associated with National Wildlife Refuges in Colusa and Glenn counties. Many of these nests are second nesting attempts by birds from the San Joaquin Valley. You will also find smaller Trike colonies around the state in locations outside of the Central Valley. The colonies will usually be found in Himalayan blackberry patches that are near water. However, only a small percentage of the Trike population will find suitable wetland or blackberry sites for nesting in these more remote locations.

A key issue for a suitable nesting habitat for Trikes is the need for insects to feed their young. Unfortunately, much of the San Joaquin Valley has been planted with perennial crops like vineyards or nut trees, neither of which support large insect populations. The only agriculture crops that provide lots of insects are alfalfa and rice. And, if the alfalfa is sprayed with insecticides, the insects are not even there. Insecticides may reduce insect populations; however, **the real cause of the population decline is the change from annual to perennial crops and the continuing loss of habitat that will support the necessary insect populations required to feed a large colony of young.**

The behavior that may make Trikes especially vulnerable to habitat loss is their colonial nesting habit: **Tricolored Blackbirds form the largest nesting colonies of any North American land bird.** They are very social birds. Rather than stake out a larger territory that will serve as both a nesting site and a source of food for their family, a Trike's nesting territory can be as small as 2 meters square, and many thousands of birds nest next to each other and sometimes above or below each other. When foraging for food they leave the nesting site in long head to tail flight lines and routinely travel up to 3 or more miles to find suitable foraging sites. This colonial nesting habit may predispose the birds to predation. Larger birds such as Cattle Egrets, Black-crowned Night Herons, White-

faced Ibis, and Ravens and mammals like coyotes, raccoons, and river otters can feast at a Trike colony, consuming large numbers of nestlings and/or eggs. However, far larger rates of mortality occur when farmers harvest triticale fields that are occupied by nesting birds. Often, the triticale is mature and farmers wish to harvest their fields for optimum feed quality while the eggs or chicks are still in the nests; as a result, whole colonies have been destroyed and thousands or tens of thousands of chicks have been lost to the harvest. Such devastating losses of complete colonies may also occur when these birds nest in weedy fields and landowners chop the weeds while the young are still in the nests.

This potential for a catastrophic loss of Tricolor breeding colonies brings me back to the e-mail that was the genesis of this article. Since 2014, *CA Audubon has been assisting efforts to conserve at-risk colonies by working with the dairy industry, landowners, USDA and CDFA.* This effort seeks to identify at-risk colonies and work with affected landowners to delay their harvests until the young have fledged. However, by delaying the harvest the farmer reduces the quality of the triticale as a feed for the cows, so additional sources of silage must be obtained to offset these losses. The USDA program in which Audubon participates provides compensation to the affected farmers participating in this program for losses they may incur by delaying harvesting. The end result is that the program is protecting the nesting Tricolored Blackbirds and in 2020 all 15 colonies located on agricultural fields enrolled in this USDA program were protected and the young fledged. The result for 2020 is more than 177,000 Trikes were protected! The need is for continued efforts by all involved to keep working to not only have a victory this year, but to continue the struggle to win the war and save these birds from extinction. Your efforts are also needed to ***help with the Tricolored Blackbird Statewide Surveys and to support government actions like Assembly Bill 3030 which will help to create the habitat that is needed for the long-term survival of this charismatic native California species.***

For more information about Trikes and the conservation efforts to protect them check out the Tricolored Blackbird portal at <https://tricolor.ice.ucdavis.edu/>.

For information on CA Audubon's work to save the Trikes check out <https://ca.audubon.org/birds-0/tricolored-blackbirds>.

For general information about the life history of Tricolors the Cornell Lab "All About Birds" website is an excellent resource at https://www.allaboutbirds.org/guide/Tricolored_Blackbird/overview.

And, if you would like a copy of Wendy Schackwitz's article "Bioacoustic Monitoring Reveals Details of Tricolored Blackbird Breeding Phenology" contact Wendy, who is the corresponding author at wschackwitz-RA@pointblue.org.

All these resources as well as communications with Robin Leong and Dr. Robert Meese were used as sources for this article.