

Protecting Nesting Habitat for the Tricolored Blackbird on Private Rangelands in the Foothill Grassland Region of the Sierra Nevada

*Daniel A. Airola, Northwest Hydraulic Consultants, 3950 Industrial Blvd 100c,
West Sacramento, CA 9569; dairola@nhcweb.com*

*Lowell Young, Yosemite Area Audubon Society, PO Box 943, Mariposa, CA
95338; birder@yosemite.net*

The recent statewide Tricolored Blackbird (*Agelaius tricolor*) survey (Meese 2014, 2015) documented a dramatic decline in the population of this near-endemic California species. In response, on 3 December 2014, the California State Fish and Game Commission listed the species as Endangered under its emergency listing provisions for a minimum period of six months, with eventual full listing expected. A petition for listing under the Federal Endangered Species Act also is under evaluation.

As a follow-up to the April 2014 Statewide Tricolored Blackbird Survey (Meese 2014), Airola et al. (2015) surveyed for and monitored nesting colonies in the grassland-dominated lower foothills of the Sierra Nevada and eastern edge of the Central Valley. This area, east of predominantly cultivated lands, included lands within Placer, El Dorado, Sacramento, Amador, San Joaquin, Calaveras, and Stanislaus counties.

The 2014 foothill grassland surveys showed that a minimum of 43,000 Tricolored Blackbirds nested within the study area, representing 30% of the remaining statewide population. Unlike other areas where the species nests, this foothill grassland area appears to support moderate to high reproductive success (Airola et al. 2015). All colonies occurred on private lands. The habitat at many colony sites depends on management practices employed for livestock production, including water impoundments and irrigation of pastures. One-third of the colonies in the foothill region, which support 44% of the nesting population in the area, is on lands approved or proposed for residential and industrial development.

As a result of the study, there is broad agreement that foothill grassland areas are important to the Tricolored Blackbird and offers substantial opportunities to provide productive habitat for long-term conservation (Airola et al. 2015, Meese and Beedy 201, Meese et al. 2015, Young 2015). The recent species listing, however, raises fears among landowners that they will face burdensome regulation if they have tricolors on their lands. As noted by the California Cattlemen's Association and Farm Bureau Federation in their

comment letter on the listing action, listing could cause landowners to remove nesting habitat to avoid potential regulation.

We believe that the real potential for regulatory burden on livestock operators is minimal, mostly consisting of a prohibition of direct take (i.e., killing or injuring) of adults, eggs, and young during the two month nesting season. After young are fledged from nests, the California Endangered Species Act (CESA) has no basis to prevent landowners from modifying or removing nesting habitat (e.g., removing Himalayan blackberry (*Rubus armeniacus*)} stands to enhance livestock forage or removing cattails (*Typha latifolia*) or bulrushes (*Schoenoplectus californicus*) to increase pond storage, repair dams, or improve livestock access to water. Nonetheless, we recognize that some owners may want to actively remove nesting habitat solely to avoid the perceived potential unknown risk of regulatory obstruction of management activities.

In response to these concerns, we have proposed a pilot program to reward landowners financially for protecting Tricolored Blackbird nesting habitat. This program would make cash payments to landowners who agree to provide short-term protection for lands that support, or have recently supported, active Tricolored Blackbird nesting colonies. A small annual payment would be made to landowners who agree to maintain the ongoing management practices that created the high quality habitat and prevent any potential detrimental actions to or the removal of the habitat. In essence, we want to pay ranchers to continue their current activities and to raise Tricolored Blackbirds in addition to livestock.

PROGRAM GOALS

Goals of the program are to:

- protect Tricolored Blackbird nesting colonies on private lands in the foothill grassland region;
- increase landowner awareness and provide incentives to manage positively for tricolors (i.e., to view them as the asset they can be, not as a liability, especially after listing);
- encourage the creation and enhancement of other highly suitable tricolor nesting habitat by private landowners;
- maintain program flexibility so that funds can go to where they can do the most good in any given year; and
- publicize the program with the ranching community to shift potential negative views toward the species to something positive and beneficial to land owners.

PROGRAM DESCRIPTION

The Tricolored Blackbird Nesting Habitat Protection Program would establish a fund from which individual private landowners could be paid to

maintain and protect active and recently used Tricolored Blackbird nesting habitat (primarily emergent wetlands and Himalayan blackberry patches) in the foothill rangeland areas of the Sierra Nevada. The fund could provide a small payment to landowners who have high quality nesting habitat and who enter into an agreement to protect the nesting area from disturbance during or after the nesting season for a period of one to two years. The agreements would be short-term so that payments could be focused on active nesting colonies. The agreements could be renewed if conditions remain favorable and birds continue to nest. The program funds will be administered through the Yosemite Area Audubon Society.

Volunteers, and landowners (if they wish to) would identify locations of active and recently active Tricolored Blackbird colonies. Locations would be ranked for their incorporation into the protection program based on several criteria, including:

- how recently the site supported an active colony,
- colony size,
- distance to other active colonies and other suitable nesting habitat,
- quality of nesting and foraging habitat, and
- susceptibility to disturbance if not protected.

To date, foothill sites active during 2014 have been ranked for their protection priority.

Under the proposed program, landowners will be contacted to see if they are willing to enter into protection agreements in exchange for a modest annual payment (estimated at \$300-500; the payment amount could vary based on landowner response, colony size and degree of threats). Volunteers would work with landowners to develop a customized agreement for use in protecting each colony. Volunteers would monitor sites where agreements are executed to verify compliance with agreement terms and evaluate effectiveness.

A standard agreement has been prepared that can be customized for individual landowners. Terms of the agreement would require continuation of ongoing management practices that created the habitat (i.e., irrigation) and would preclude measures that would detrimentally affect habitat conditions (removing emergent vegetation, or spraying, burning, or crushing blackberry patches). The fact that active colonies of birds can move from one nesting site to another on a yearly basis necessitates that the agreements be annual in nature. Over the long term, the program is intended to build appreciation for the species, provide incentives for beneficial management practices, and discourage habitat removal due to fears resulting from listing of the species.

The program will target landowners who are attempting to maintain a long-term ranching operation, rather than landowners who are intending to

eventually develop their lands. However, there may be times in which protection of large, important colonies may warrant payment to owners whose lands are scheduled for developed.

An ancillary benefit of the program likely will be identification of opportunities to work with landowners to create or enhance Tricolored Blackbird habitat on their lands.

RATIONALE FOR THE CONSERVATION APPROACH

The approach proposed in this program is intended to address a potential short-term problem—the loss of Tricolored Blackbird breeding colonies due to unintentional, incidental management actions or purposeful removal of habitat to avoid risk of regulation. The program is unique, in that it relies on direct payment to landowners to incentivize short term management actions. There are many advantages of such a program that are specific to the Tricolored Blackbird. These include:

- *Effort is focused on active or recently active colony sites.* This reduces cost compared to more expansive conservation approaches of acquiring lands in fee title or long-term conservation easements. Because Tricolored Blackbirds move nesting sites regularly, the program can efficiently follow the birds, rather than expect the birds to respond to on-paper land conservation.
- *Management activities are not substantially altered.* Ongoing management activities that have created suitable conditions for tricolors are encouraged to be maintained. Landowners do not have to accept or learn new ways to manage lands. No changes in management would occur that could create problems for adjacent landowners (increased fire risk, weed introduction, or regulatory reach).
- *Costs are expected to be low.* The program will offer to pay landowners to not change their existing management, so there is little or no cost to the landowners who participate in the program. This makes the cost needed to provide incentives for landowners low.

Notably, however, the program does not accomplish some needed long-term conservation needs. Specifically, it does not address impacts due to land use changes from ranching to more intensive uses (see Airola et al. 2015). Loss of nesting and foraging habitat to commercial development and mining is not likely to be effectively addressed by this program. These issues will have to be addressed through land use decision-making and project permitting, to avoid or mitigate habitat impacts. It also does not create new nesting habitat in areas where such habitat may be limiting (Young 2015), although the program could be readily adapted to encourage new habitat creation.

PROGRAM COST AND FUNDING

Cost of the program is somewhat uncertain, because the number of annual protection agreements and the cost of individual agreements are not known for certain. Currently, based on limited discussions with landowners, we believe a small payment of perhaps \$300-500 will be adequate to encourage landowner enrollment for 1-2 breeding seasons. Such modest amount should be sufficient because the protection effort will, for the most part, only require that landowners continue managing lands as they have previously done, the results of which created the suitable conditions for Tricolored Blackbird nesting.

If our per-site cost estimates are correct, annual costs for the program will be low. Assuming protection of 3-5 sites during 2015, costs could vary from \$900-2,500. If the program grows over time, costs could eventually reach \$5,000 -7,500 per year, assuming that up to 15 sites may eventually be protected annually. At present, the contract and funding will be administered through Yosemite Area Audubon Society (YAAS) overseen by Lowell Young.

Sources of funding are also still somewhat uncertain. Audubon California has offered \$2,000 to support the first year effort as a pilot project (G. George, pers. comm.). The YAAS has committed to make a small contribution. More traditional agency and other nonprofit groups have not yet come forward with funding. The program is innovative in ways that do not allow it to fit under many established agency and conservation group funding programs. We are considering raising funds through a “crowd-sourcing” website. We encourage organizations and individuals who are interested in supporting this conservation effort to contact us.

CONCLUSIONS

The dependence of a substantial component of the remaining depleted global population of the Tricolored Blackbird on privately owned rangelands in the lower Sierra Nevada foothills warrants action to maintain and enhance the species and its habitat there. Suitable conditions and apparently successful reproduction have been occurring under conditions created through incidental land management for livestock grazing (Airola et al. 2015). Also, a substantial component of the population in this area is threatened by changes in land use from grazing to development (Airola et al. 2015). The movement of Tricolored Blackbird colony locations between years also challenges existing conservation paradigms.

Effective conservation efforts in the foothill grassland region must be flexible and need to conform to the requirements and attitudes of the ranching community. We believe our proposed program to directly reimburse landowners whose management attracts active Tricolored Blackbird colonies has good potential to make Tricolored Blackbirds an asset to landowners,

rather than a liability. We hope to be able to implement the program to test its effectiveness as a cost-efficient approach to species conservation.

As described, however, the Tricolored Blackbird foothill nesting habitat protection program is a small scale pilot project intended to test key assumptions about landowner interest and program costs. Ultimately, to be successful on a larger scale, the program needs to be institutionalized with funding and administration by a government agency or a larger nonprofit organization.

ACKNOWLEDGEMENTS

Thanks to Bob Meese, Ted Beedy, Gary George, Megan Hertel, Samantha Arthur, and Jon Airola for useful discussion on this program and paper.

LITERATURE CITED

- Airola, D.A., R.J. Meese, and D. Krolick. 2015. Tricolored Blackbird conservation, status and opportunities in the Sierra Nevada foothills of California. Central Valley Bird Club Bulletin 17:57-78.
- Meese, R.J. 2014. Results of the 2014 Tricolored Blackbird Statewide Survey. University of California, Davis.
- Meese, R.J. 2015. Efforts to assess the status of the Tricolored Blackbird from 1931 to 2014. Central Valley Bird Club Bulletin 17:37-50.
- Meese, R.J. and E.C. Beedy. 2015. Managing nesting and foraging habitats to benefit breeding Tricolored Blackbirds. Central Valley Bird Club Bulletin 17:79-96.
- Meese, R.J., E.C. Beedy, D.A. Airola, and R. Cook. 2015b. Recovering the Tricolored Blackbird in California. Central Valley Bird Club Bulletin 17:97-109.
- Young, L. 2015. The genesis and program of the Audubon Chapter Tricolored Blackbird Action Team. Central Valley Bird Club Bulletin 17:110-115.