STAFF SUMMARY FOR AUGUST 4-5, 2015

21. TRICOLORED BLACKBIRD

Today's Item **Information** ☐ **Action** ☒

Receive Center for Biological Diversity's (CBD) request for FGC to reconsider its decision on whether listing tricolored blackbird as a threatened species is warranted.

Summary of Previous/Future Actions

- FGC transmitted petition to DFW — Oct 15, 2014
- Published notice of receipt of petition — Oct 21, 2014
- Took emergency action to list — Dec 3, 2014; Van Nuys
- Received DFW's petition evaluation — April 9, 2015; Santa Rosa
- Decision that listing is **not** warranted — Jun 11, 2015; Mammoth Lakes
- **Today's request to reconsider petition** — **Aug 5, 2015; Fortuna**

Background

In Dec 2014 FGC listed tricolored blackbird as endangered through emergency regulations that expired on June 30, 2015. In the interim, DFW prepared and submitted to FGC a petition evaluation as required by CESA; the petition evaluation was received by FGC at its Apr 9, 2015 meeting and on Jun 11, 2015 it made a decision that listing tricolored blackbird as endangered was not warranted.

Significant Public Comments

1. CBD requests reconsideration of the petition to list tricolored blackbird as a threatened or endangered species under the California Endangered Species Act, and urges FGC to take action at its Aug meeting (exhibits 1 and 2).
2. UC Davis Professor Marcel Holyoak, a population ecologist with extensive statistical expertise, corrects what he believes are substantial omissions and inaccuracies in the Dairy Cares comments and missing information from Graves et al. (2013), which was omitted from both the Dairy Cares comments and DFW's evaluation.
3. Audubon California urges FGC to reconsider its Jun 11, 2015 decision, suggesting the decision defies prior findings and was not made in accordance with statute.

Recommendation (N/A)

Exhibits

1. Letter from CBD, received Jun 19, 2015
2. Letter from CBD, received Jul 22, 2015
3. Letter from Dr. Marcel Holyoak, UC Davis, received Jul 20, 2015
4. Letter from Audubon California, received Jul 23, 2015

Motion/Direction (N/A)

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VIA ELECTRONIC MAIL

June 19, 2015

Fish and Game Commissioners
c/o Sonke Mastrup, Executive Director
1416 Ninth Street, Room 1320
Sacramento, CA 95814
fgc@fgc.ca.gov

Re: Request for Reconsideration of Petition to List the Tricolored Blackbird (*Agelaius tricolor*) as a threatened or endangered species may be warranted (Pursuant to Fish and Game Code Section 2074.2).

Dear Commissioners and Executive Director Mastrup,

I am writing on behalf of the Center for Biological Diversity ("Center") to request that the Commission reconsider its decision of June 11, 2015 (Item #28 on the June 11, 2015 Agenda) denying the Center's Petition to List the Tricolored Blackbird (*Agelaius tricolor*) as a Threatened or Endangered species at the August Commission meeting, that the Commission find that the petitioned action may be warranted, and initiate a status review of the species.

Request for Reconsideration

At the June 11, 2015 meeting the Commission decided – contrary to the facts in evidence – to find that the Petition to list the Tricolored Blackbird does not meet the "may be warranted" standard.. However, at that meeting the Commission did not present or adopt any findings to support the decision; therefore, the decision is not yet final and can be reconsidered in light of the information already before the Commission. Moreover, the administrative record for the consideration of the Petition was not closed at the June 11, 2015 meeting. (*See* Fish & G. Code §2074.2(a).) Because the Commission's decision is erroneous it must be reconsidered, rescinded, and reversed.

There is more than sufficient information to show that a listing of the Tricolored Blackbird may be warranted. On December 3, 2014, the Commission found that an Emergency Listing was needed for the species:

> [T]he Commission, pursuant to Section 2076.5 of the Fish and Game Code, finds that the petitioned action to list the tricolored blackbird as an endangered species on an emergency basis is warranted based on the information before the Commission and therefore amends Section 670.5, Title 14, California Code of Regulations, to add the tricolored blackbird as an endangered species.

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(December 3, 2014 Commission meeting summary at 6.[1])

That finding remains accurate and a similar finding should have been adopted at the June 11, 2015 meeting based on the Petition, the California Department of Fish & Wildlife's ("CDFW" or "Department") evaluation report, and the additional information provided to the Commission at the June 11, 2015 hearing by the Department – all of which clearly show that listing may be warranted. As the Department's evaluation report stated "there is sufficient scientific information to indicate that the petitioned action may be warranted." In light of the substantial evidence in the record and the legal standard, the Commission's contrary determination is clearly erroneous.

The standard for a "may be warranted" finding is quite low. (Fish & G. Code 2074.2.) As the Court of Appeal explained:

> The standard for accepting a petition for consideration is: "sufficient information to indicate that the petitioned action may be warranted." (§ 2074.2, subd. (a)(2).) As we explained in *Natural Resources Defense Council*, supra, 28 Cal.App.4th at page 1119, "the term 'sufficient information' in section 2074.2 means that amount of information, when considered with the Department's written report and the comments received, that would lead a reasonable person to conclude the petitioned action may be warranted." The phrase "may be warranted" "is appropriately characterized as a 'substantial possibility that listing could occur.'" (*Natural Resources Defense Council*, supra, at p. 1125.) "Substantial possibility," in turn, means something more than the one-sided "reasonable possibility" test for an environmental impact report but does not require that listing be more likely than not. (*Ibid*.)

Center for Biological Diversity v. Fish & Game Com., 166 Cal. App. 4th 597, 609-610 (Cal. App. 3d Dist. 2008).

Only three of the five Commissioners were present at the June 11, 2015 meeting and only two Commissioners voted against the petitioned action. Neither of the Commissioners voting against the petitioned action provided findings to support that decision. Moreover, Commissioner Jacque Hostler-Carmesin made statements during the hearing that seemed to indicate that economic considerations of dairy farmers were a factor in her decision, which would be improper.

Therefore, the Center requests that the full Commission reconsider the Petition at the next scheduled meeting for August 4 and 5, 2015.[2] At that time, the Center urges the Commission to: adopt findings based on the information in the Petition, the Department's evaluation, and other

[1] Available at http://fgc.ca.gov/meetings/2014/dec/120314summary.pdf

[2] There is precedent for reconsideration of a finding on a listing petition. The Commission previously reconsidered its finding on the petition to list the fisher at the December 12, 2008 meeting – Agenda Item #10. *See* http://www.fgc.ca.gov/meetings/2008/121108agd.aspx

letters and information in the administrative record showing that the listing "may be warranted"; determine that listing may be warranted; initiate a one-year status review; and as a result, ensure that protections are provided to the Tricolored Blackbird as a candidate species for listing during the status review period.

To The Extent That There May Be A Gap In Protection, The Cal. Fish & Game Code § 5303 Should Be Enforced By California Department of Fish & Wildlife

While the majority of Tricolored Blackbird nesting in at-risk areas should be completed before the Emergency Listing expires on June 30, 2015, there is still some risk that a gap in protections will significantly impact populations of the species in the northern parts of its range in the southern Sacramento Valley, where breeding can occur as late as early August. (*See* Meese, R. J. 2014. Results of the 2014 Tricolored Blackbird Statewide Survey. U.C. Davis at 4.) As the Commission is aware, harvesting and plowing activities on private lands used for Tricolor breeding are in large part responsible for the recent precipitous decline of the species.

Harvesting and plowing activities that take nests are in clear violation of the California Fish and Game Code section 3503, which protects all birds' nests and eggs from destruction (Cal. Fish & G. Code § 3503 ["It is unlawful to "take, possess, or needlessly destroy the nest or eggs of any bird"]). While the Center hopes that the voluntary measures in place for 2015 will be sufficient to protect nesting Tricolored Blackbirds for the remainder of the 2015 breeding season, if they are not (as has been the case in the past) then the Department should diligently enforce the law to prevent "take" due to harvesting and plowing activities on private lands during the remaining Tricolor Blackbird nesting season after June 30, 2015.

In addition to risks to nesting Tricolored Blackbirds, a gap in protection could put adult Tricolored Blackbirds at higher risk of mortality in the autumn of 2015 when shooting of red-winged blackbirds to prevent depredation of ripening rice in the Sacramento Valley also kills an unknown number of Tricolored Blackbirds. (*See* Meese, R. J. 2014. Results of the 2014 Tricolored Blackbird Statewide Survey. U.C. Davis at 3, 12-13, 15.) For this reason as well, the Commission should Act expeditiously to reconsider the Petition at the August meeting.

In sum, as there is clearly more than sufficient scientific information to indicate that the listing of the Tricolored Blackbird may be warranted and the protections provided by listing the species are needed. The Center urges the Commission to reconsider the Petition at the August 4-5, 2015 meeting, make the appropriate findings, commence a status review of the Tricolor Blackbird, and provide the Tricolored Blackbird with the needed protections as a candidate species.

Sincerely,

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VIA ELECTRONIC MAIL

July 22, 2015

Fish and Game Commissioners
c/o Sonke Mastrup, Executive Director
1416 Ninth Street, Room 1320
Sacramento, CA 95814
fgc@fgc.ca.gov

Re: August 5, 2015 Agenda: Item #21. Receive request from Center for Biological Diversity to reconsider decision on whether listing tricolored blackbird (Agelaius tricolor) as a threatened or endangered species may be warranted; and Executive Session, Item (B) Possible litigation involving the Commission, I. Tricolored blackbird

Dear Commissioners and Executive Director Mastrup,

I am writing on behalf of the Center for Biological Diversity ("Center") regarding Item #21 on the August 5, 2015 Agenda which is the Center's request that the Commission reconsider its decision of June 11, 2015 denying the Center's Petition to List the Tricolored Blackbird (*Agelaius tricolor*) as a Threatened or Endangered species, and Item (B)I. in the Executive Session regarding possible litigation against the Commission.

Yesterday, I received a letter from Executive Director Mastrup regarding the Center's request for reconsideration (Item #21) stating that: "The Commission is scheduled to receive, discuss and act on your request at it August 4-5, 2015 meeting in Fortuna." The Center urges the Commission to take action at the August meeting: to reconsider its erroneous finding; make the appropriate finding based on the Petition and the record that the petitioned action may be warranted; commence a status review of the Tricolor Blackbird; and provide the Tricolored Blackbird with the needed protections as a candidate species.

I. Background

The Commission's vote on June 11, 2015 to reject the Tricolored Blackbird Petition was in error and has no basis in fact or law. To date, the Commission has not adopted or published any reasons to support its "finding" that the petition does not provide sufficient information to indicate that listing the Tricolored Blackbird may be warranted, although the Commission is required to do so by statute. Cal. Fish & G. Code § 2074.2(e)(1). Indeed, it is impossible to see how the Commission could publish any "reasons" where the evidence in the record makes it clear that the opposite is true.

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Quite simply, the Petition, the California Department of Fish & Wildlife's ("Department") evaluation report, comment letters, and the additional information provided to the Commission at the June 11, 2015 hearing by the Department, all provide more than sufficient information to show that listing may be warranted. As the Department's evaluation report stated "there is sufficient scientific information to indicate that the petitioned action may be warranted." In light of the substantial evidence in the record and the legal standard, the Commission's contrary determination is clearly erroneous.

The Commission has apparently anticipated that it is likely to be sued for its erroneous decision regarding this Petition as indicated by Item (B)I. in the Executive Session on the August 5, 2015 Agenda.

At this juncture, the Commission has two choices—to fix its own mistake or wait for a court to order the Commission to fix its mistake. If the Commission refuses to fix its own mistake through reconsideration, the Center will initiate litigation, seek a writ of mandate against the Commission for these violations, and seek reasonable attorneys fees and costs of the litigation.

II. The Commission Has Not Yet Published Its Finding or the Reasons for its Erroneous Finding; Therefore the Decision Is Not Final

The decision is not "final" simply because the Commission voted on June 11, 2015, the Commission must complete all of the statutory steps before the decision is final. Until that time, the Commission has the power to reconsider.

> The power of *administrative* reconsideration is consistent with the principle that "'notions of administrative autonomy require that the agency be given a chance to discover and correct its own errors.'" (*In re Muszalski* (1975) 52 Cal.App.3d 500, 506 [125 Cal.Rptr. 286] [quoting *McKart v. United States* (1969) 395 U.S. 185, 195 (23 L.Ed.2d 194, 204, 89 S.Ct. 1657)].)

In re Fain (1976) 65 Cal. App. 3d 376, 389 (emphasis in original). Where, as here, the decision is not yet final the Commission retains authority to reconsider the matter. *See, e.g., Talmo v. Civil Serv. Comm'n* (1991) 231 Cal. App. 3d 210, 219-20; *In re Fain* (1976) 65 Cal. App. 3d 376, 389-90.

The Commission's vote on the Center's Tricolored Blackbird Petition is not yet "final" because the Commission has not completed all the required steps, i.e., the Commission has not published its finding "including the reasons why the petition is not sufficient." Cal. Fish & G. Code § 2074.2(e). This was precisely the same situation when the Commission previously reconsidered its initial finding on the Pacific Fisher Petition in 2008—the finding and reasons had not been published several months after the Commission voted, and the Commission reconsidered its finding and reversed.

Further, the Commission's practice has been for many years to vote on findings and then have the Executive director present draft reasons at a later meeting for the Commission to approve for the required publication of the finding and reasons. This shows that the Commission retains jurisdiction and authority regarding petition findings until the reasons are approved and publication of the finding and reasons is made.

Because the Commission still retains jurisdiction over this matter until the findings and reasons are published regarding the Petition, the Commission should use this opportunity to reconsider and to correct its mistake.

III. Alternatively, If the Commission Asserts that the Finding is a Final Decision, Then Litigation Is Ripe and Will Commence

If the Commission however asserts that it has no jurisdiction to reconsider the June 11, 201 finding on the Petition because the finding is a final decision, then the decision is ripe to be challenged in court. The Commission appears to have already anticipated that the erroneous finding on the Petition will be challenged as it has a closed session discussion scheduled regarding "Possible litigation involving the Commission . . . Tricolored blackbird" listed as Item (B)I in the Executive Session on the August 5, 2015 Agenda.

In *Center for Biological Diversity v. Fish and Game Commission*, the Court explained the standard for a finding on a listing petition as required in Fish and Game Code section 2074.2. *CBD v. FGC* (2008) 166 Cal. App. 4th 597, 609-610. The Court first noted that the petition "presents a prima facie showing that the California tiger salamander species is a threatened or endangered species within the meaning of CESA." *Id*. at 611. The Court then found that the petition met the statutory standards.

> [T]he petition, when considered with the Department Report and the comments received, clearly affords sufficient information to indicate that some listing action may be warranted. The Commission acted outside the range of its discretion in denying the petition. This record requires, as a matter of law, a determination granting candidate species status. ([Fish & G. Code] § 2068.)

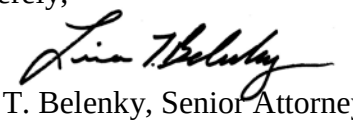
CBD v. FGC (2008) 166 Cal. App. 4th 597, 613. So too here, the court will find that the Commission acted outside its discretion in denying the Tricolor Blackbird Petition where the Petition, the Department report, and the comments received clearly provide sufficient information that listing may be warranted. Indeed, the Commission itself already made that same finding in ruling on the Emergency Petition in December 2014. As a matter of law, the Commission should have found that the petitioned action may be warranted and advanced the Tricolored Blackbird to candidate status.

If the Commission refuses to reconsider its finding on the Petition or claims it has no jurisdiction to do so, the Center will seek a writ of mandate from the court ordering the erroneous finding to be set aside and "directing the Commission to enter a decision accepting the petition." *CBD v. FGC* (2008) 166 Cal. App. 4th 597, 613.

IV. Conclusion

In sum, there is clearly more than sufficient scientific information to indicate that the listing of the Tricolored Blackbird may be warranted and the protections provided by listing the species are needed. The Center urges the Commission to reconsider the Tricolored Blackbird Petition at the August 5, 2015 meeting, make the appropriate findings, commence a status review of the Tricolor Blackbird, and provide the Tricolored Blackbird with the needed protections as a candidate species. Failing to do so, the Center will have no choice but to seek relief from the court to protect this declining and at risk species.

Sincerely,



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20 July 2015

VIA EMAIL to fgc@fgc.ca.gov

Jack Baylis, President,
California Fish and Game Commission,
1416 Ninth Street, Room 1320,
Sacramento, CA 95814

Re: Petition to List Tricolored Blackbird

Dear President Baylis:

I am writing as a population ecologist with extensive statistical expertise, and somebody who, as the Editor-in-Chief of one of the World's top ecology journals, *Ecology Letters*, since 2008 has extensive experience of evaluating peer-reviewed science. I am a professor in the department of Environmental Science and Policy at UC-Davis and have worked on Tricolored Blackbirds since 2009, and attended the statewide Tricolored Blackbird Working Group meetings since 2013. I am a member of the research subcommittee of the statewide Tricolored Blackbird Working Group and have published two peer-reviewed papers on the population ecology of the species (Graves et al. 2013, Holyoak et al. 2014), both of which are available freely to everybody in open access journals. As a member of the College of Agriculture and Environmental Sciences at UC-Davis, my federally-funded Hatch Project (approved in 2014) is about the population ecology of Tricolored Blackbirds.

My purpose in writing is to correct substantial omissions and inaccuracies in the Dairy Cares comments and to include missing information from Graves et al. (2013), which was omitted from both the Dairy Cares comments and The California Department of Fish and Wildlife (CDFW) evaluation. The only rigorous statistical evaluation of population trends in the species is Graves et al. (2013), and contains substantial information that would change the evaluation of the status of the species. The Dairy Cares comments also contain a substantial number of incorrect, misleading or unsupported statements about the species and I wish to correct these. Lastly I will give an opinion on the status of the species and spell out why I believe it needs protection under the California Endangered Species Act.

As both Dairy Cares and CDFW point out the species has suffered from a lack of rigorous statistical analyses of the population data and requires more rigorous surveys. Yet the only full statistical analysis of long-term population trends was ignored. Graves et al. (2013) collected together all literature (gray and peer-reviewed) records for Tricolored Blackbirds and entered them into the public Tricolor Blackbird Portal. We analyzed average breeding colony size to avoid the problem that numbers of colonies detected depend on survey effort, which varied substantially across years. Between 1935 and 1975 statistical analyses indicate that mean breeding colony size declined by 63% during this period. Between 1975 and 2009 no clear trends were apparent despite large numbers of records during this period. A possible reason is that the DeHaven (1975) surveys omitted large colonies in the Southern San Joaquin

Valley, which may have made numbers in 1975 appear low and prevented declines up to 2008 being detected (discussed in Graves et al. 2013). The 1935-1975 decline in average colony size was ignored in the petition, CDFW evaluation and Dairy Cares comments (discussion is about total numbers of birds in the petition and CDFW evaluation rather than colony sizes). Even within marshland sites such as Colusa National Wildlife Refuge similar declines were seen. Attempts to say why this occurred, not surprisingly, lack any uniform kind of quantification and are well summarized in the CDFW evaluation of the petition. The Dairy Cares comments are overly dismissive of the triennial statewide surveys carried out in 2008, 2011, and 2014. I was a collaborator this last winter with Dr. Julie Yee (US Geological Survey, Dixon, CA) and Dr. Robert J. Meese (UC-Davis) in analyzing these data to determine a more standardized annual survey protocol so I am familiar with their structure, collection methods and extent. The three surveys are comparable in methods, and the data show regional differences in population size that accord with the longer-term evaluations of Graves et al. (2013). It is striking that in these last three surveys the numbers of occupied breeding sites identified has changed rather little despite increased total numbers of previous sites visited (155 sites in 2008 down to 138 in 2011 and up to 143 in 2014; summarized in Meese 2015). Consequently the occupancy of sites has also declined, from 38% of sites examined in 2008, to 23% in 2011, and just 17.8% in 2014. Clearly the species has become more sparsely distributed, in other words less abundant, over the landscape. Total numbers of birds recorded in these surveys have also declined 63% between 2008 and 2014 (Figure 1 in the CDFW evaluation of the petition). The sizes of the largest recorded colonies per survey have also declined substantially (Meese 2014), and there is general agreement that large colonies are unlikely to be overlooked during surveys. Whatever metric available that we look at and regardless of whether it is a long historical record or 2008 to 2014 the species has declined dramatically. There is no indication that is has ceased to do so. The idea in the Dairy Cares comments that the number of colonies is now larger than historically is not supported by any data, and is questionable to me: the triennial surveys actually found no more colonies between 2008 and 2014 despite increased effort so there was no change during this time. I can only conclude that the species is in steep decline in numbers.

The Dairy Cares comments on the petition states the following: “The tricolored blackbird is unquestionably one of the state’s most ecologically adaptable species. Over time, it has assumed life-history responses and patterns of resource use, including smaller colony (breeding group) sizes, use of upland ecosystems, nesting in non-native vegetation, and foraging on agricultural lands. These adaptations have conferred to the species success in a California landscape that no longer offers vast wetlands, using a new resource template allowing the tricolored blackbird to exist in substantial numbers across most of its historical distribution.” The statement is flawed, incorrect and misleading in at least six ways.

(1) The idea that the species is “unquestionably one of the state’s most ecological adaptable species,” is belied by historical and recent population declines. Perfect adaptation implies no decline or even expansion and is probably best represented by nonnative invasive species and agricultural weeds that have become abundant or expanded their distribution to a point where they are now problems.
(2) There is no evidence that smaller breeding group sizes are adaptive. Analyses of the reproductive success data in Holyoak et al. (2014) found no evidence of an effect of colony size on per nest reproductive success, so in fact the net effect would likely be lower time-averaged reproductive success from these smaller colonies (and birds in them).
(3) We do not know in any certain way whether use of upland breeding sites has increased. In my opinion the fact that the number of known upland sites has increased might easily be explained by increasing attempts to find colonies in the last three triennial surveys.
(4) Likewise it is not known that nesting in nonnative vegetation is adaptive. There is no adequate data or studies that I know of comparing reproductive success and site use for native vs.

nonnative species, such as blackberries, or thistle species, each of which has native and nonnative species present. Any assertion about this seems misleading to me.

(5) The idea that "foraging" on agricultural lands makes a species especially adaptive is strange to me. The reports of declines in birds in agricultural lands from Europe and N America would lead me to reject this idea (e.g. Fuller et al. 1995, Herkert 1995, Donald et al. 2001, Murphy et al. 2003, Newton 2004). In the case of Tricolored Blackbirds we know that the use of triticale fields makes these colonies especially vulnerable to loss because of harvesting: such a scenario is commonly called an ecological trap, where an attractive breeding habitat may actually result in zero reproduction (e.g. Robertson and Hutto 2006).

(6) "These adaptations have conferred to the species success in a California landscape that no longer offers vast wetlands," is questionable on several grounds. Most pertinently the vast declines in population numbers, decreases in abundance even within marshland breeding habitats, and that the total number of active breeding colonies identified in the last three triennial surveys has showed no substantial increases in numbers of colonies located despite increasing effort. Therefore even based on recent (2008 on) numbers/surveys the species has seen declining numbers per colony and no increase in the number of colonies, which equates to a population decline, as indicated in the CDFW evaluation of the petition. The fact that colony sizes have declined even within existing (permanent) and protected marshland sites is also of concern (Graves et al. 2013)

The Dairy Cares comments criticize the CDFW evaluation on four grounds, which I offer comments on:

(1) *The Department fails to explain its prior determination regarding the species' status.* The criticism that the 2014 survey results fall within the range of the DeHaven et al. (1975) and Beedy and Hamilton (1997) estimates shows an inadequate reading of the published literature. First, the DeHaven et al. (1975) estimate was criticized in the literature for having excluded sites in the Southern San Joaquin Valley which typically had large colonies: see Beedy et al. (1991) and Graves et al. (2013). Secondly, as Meese (2015) points out the 1997 surveys (Beedy and Hamilton 1997) were conducted using a different methodology to the 2014 triennial statewide survey and should not be compared. Hence I find this criticism misleading and based on a failure of the Dairy Cares authors to read the relevant literature.

(2) *The Department claims a rigorous and consistent methodology has been used since 2008.* The criticisms point out that the survey protocol changed between 2011 and 2014, and that surveying the data in the portal shows that the survey protocol was not always followed. The updating of the protocol was an updating of the description of the method to provide more background information for participants rather than substantial changes in what participants were asked to do. It should be considered that this is a volunteer survey (as CDFW points out) and because of this it has limitations (statistically "sampling error" or "sampling variation" being the main one), nonetheless volunteer surveys are used for population evaluations for birds in many areas of the world. In my view the Dairy Cares criticism reveals the kinds of problems that arise with volunteer survey data, but the vast changes in abundance seen are inconsistent with the kinds of sampling variation among surveys or repeated visits seen in analyses led by Dr. Julie Yee (USGS, Dixon office). Specifically sampling variation was small compared to the 63% decline in abundance seen between 2008 and 2015. Additionally many of the sites were visited by the same volunteer in all three years of the survey. Overall I find the criticism nitpicky and out of proportion of the scale of the decline of the species.

(3) *The Department states that, perhaps most importantly, the number of colony sites visited in 2014 far exceeds any other survey.* The Dairy Cares criticism is that new survey sites were added but that these were not clearly ever occupied by the species and so do not constitute habitat. The criticism is incorrect, all sites added to the portal were sites that contained tricolored blackbird breeding colonies at the time of survey or previously. Sites were also noted as no longer being suitable habitat if the land use had

changed. Again the criticism reflects a failure to read the literature about the species. Holyoak et al. (2014) make clear that there is a turnover in occupancy in sites, with some old sites being abandoned and other sites from which the species was never previously known being occupied. Estimates of the rate of turnover of sites per year are given in Holyoak et al. (2014) and are comparable to a three-year accumulation of these annual rates seen in the triennial statewide surveys. Hence the actual data add credence to the reliability of the triennial surveys rather than discrediting the methodology.

(4) *The Department's evaluation states that the petition presents evidence that tricolored blackbirds have declined or disappeared from portions of their range.* I quote from Dairy Cares "The above inference (at page 10) is based on infrequent tricolored blackbird surveys (once every three years). It also appears to stem from the false premise that, when a species is absent from a location during such a temporally constrained survey period, such fact provides a basis for the conclusion that the sampled habitat area is unoccupied and that the range of the species has declined. Ample evidence indicates that the peripatetic colonies move freely among surveyed and unsurveyed areas, and habitat occupancy can be temporary and not recorded". Several points are relevant here. (1) The criticism that it is triennial survey data ignores the earlier parts of the CDFW petition evaluation that include reference to several longer term analyses of the species' abundance. It also ignores Graves et al. (2013), discussed above that showed a statistically significant decline in colony sizes. (2) Again the statement about range declines reflects an inadequate reading of the CDFW evaluation, which summarizes the historical literature on declines in the Sacramento Valley and Southern California. (3) That habitat occupancy is temporary and unrecorded is as CDFW summarize unlikely for large colonies, and neglects that spring breeding of the species takes weeks from nest building to young fledging. The risk relative to that of overlooking 63% of birds (the decline in total birds between 2008 and 2014, or the historical decline in birds per colony from 1935 to 1975) is therefore grossly overstated. Further parts of the Dairy Cares criticism correctly point out the need to vet the list of what are regarded as sites with suitable habitat. The conclusion that the species has not declined in abundance or range is simply incorrect based on current analyses and historical data.

Dairy Cares concludes that the wide distribution of the species indicates that the species defies the assertions of the petition. The rapid numerical declines in birds per site and occupancy of breeding sites survey indicate a thinning of the distribution and decline in absolute total numbers of birds. Based on the large colonies of breeding birds and presence of over 50% of breeding birds in temporary agriculture habitats (triticale crops; based on 2008 surveys), which are the concern of Dairy Cares, the species is likely vulnerable to further rapid declines unless action is taken to secure these temporary habitats.

In further comments on the CBD petition sent to the Secretary of the Department of the Interior Dairy Cares made several points (in italics below), which I would also like to respond to:

Accurate estimates of the size of the tricolored blackbird population are unavailable for any period in recorded history. That said, available data indicate that the species' abundance has been stable for the past 50 years. Again these comments ignore the analyses of Graves et al. (2013) and ignore problems in the deHaven et al. (1975) surveys, which ignored an important part of the species range. Hence the baseline population size for 50 years ago is not sound, but as Graves et al. (2013) report the longer term pattern is clear. The detailed criticisms made in the Dairy Cares letter are based on partial assessments of data by comparison to the fuller assessments in Graves et al. (2013). As a population biologist it is rare that we have a complete census of any species, instead the object is to use the best available science to evaluate the information at hand or to detail what new information is needed. The Dairy Cares comment failed to use two of the most recent scientific publications (Graves et al. 2013, Holyoak et al. 2014) that contain analyses to a higher standard than the works cited.

The range and distribution of the tricolored blackbird appears to have remained stable since Neff conducted range-wide surveys in the 1930s. The species appears to have adapted from pre-settlement conditions to a landscape dominated by non-native species and largely cultivated. The CDFW evaluation

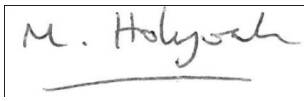
of the CBD petition included a reporting of the literature documenting declines in rice-growing areas of the Sacramento Valley and of declines in Southern California. These parts of the CDFW evaluation seem to be being overlooked in this criticism. Substantial range contracts have occurred since the 1930's.

Conclusions regarding colony size are tentative at best due to the potential for large colonies to skew such conclusions and the high margins of error associated with estimates of large colony size. Assuming colony size has decreased over time, there is no evidence that this places the species at greater risk of extinction. In fact, the contrary is more likely if there are a larger number of smaller, more dispersed colonies. This criticism is nonsensical and inaccurate. The skew can easily be taken care of by logarithmically transforming colony sizes, as is standard practice in population analyses, and was done in Graves et al. (2013) and Holyoak et al. (2014). Examination of log-transformed colony sizes shows not strong signs of skew being a problem, rather the average logarithm-transformed colony size has declined. Even the largest colony sizes have also declined substantially.

There are regulatory mechanisms in place to prevent direct harm to the species in the form of coverage under the Migratory Bird Treaty Act (MBTA) and California Endangered Species Act (CESA). A federal listing offers limited additional benefits. In fact, federal listing threatens both current conservation efforts and the welfare of the species because it may encourage dairy farmers, who cultivate valuable nesting habitat for the species annually, to halt the practice. A major document detailing the value of different habitats for reproductive success, Holyoak et al. (2014) was omitted from the petition (perhaps due to timing) and by the more recent comments. Holyoak et al. analyzed reproductive success data and breeding site occupancy data from 1992 to 2011 in different habitats. Net time averaged per colony reproductive output was greater from blackberry, thistle (and nettle in far N California) colonies than in triticale crops because of the high risk of colony failure in triticale due to harvesting and inconsistent use from year to year. As Kelsey (2008) points out with an estimated 50% of birds in triticale in 2008 the species is vulnerable because of reproductive failures in this habitat. As Cook and Toft (2005) reported and Holyoak et al. (2014) confirm for colonies that survive triticale colonies have the greatest average reproductive output per nest as well as containing large colonies. This makes them an essential part of any management strategy until a way to provide other habitats for breeding colonies can be found. The federal cost of short-term buy outs of triticale crop harvest and long-term alternative habitat creation and restoration make the need for a solid legal basis for protection essential. The fact that USFWS has provided funds for paying farmers to delay harvest of triticale crops creates the need for federal protection.

In summary whether we look at long-term historical data or more recent (best available) survey data Tricolored Blackbirds have declined in geographic range, occupancy of sites, and average colony size. This supports the idea of a large scale decline in total population size. The species is expected to be vulnerable based on breeding in large colonies, and the largest of these are subject to agricultural practices controlling reproductive success. Cook and Toft (2005) drew parallels with the passenger pigeon because of the similarity of life history of the species, which are not unreasonable. Abundances within permanent sites (National Wildlife Refuges) have also declined, reflecting things like marsh management practices to create breeding habitats for ducks rather than Tricolored Blackbirds. Habitat loss is undoubtedly a major cause of decline, but predator populations, pesticides and other threats are harder to quantify. There is a strong need to protect current large colonies in agriculture habitats and to invest in habitat creation and restoration in native habitats, all of which requires legal protection and requires a strong need to leverage funds for the latter activities.

Most sincerely



Marcel Holyoak, Professor

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July 23, 2015

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RE: Tricolored Blackbird Listing Review Process. August 5, 2015 Agenda Item 21. Receive request from Center for Biological Diversity to reconsider decision on whether listing tricolored blackbird (*Agelaius tricolor*) as a threatened or endangered species may be warranted.

Dear Commissioners:

Audubon California writes on behalf of its members to urge the California Fish & Game Commission to reconsider its June 2015 decision to deny the petition to list the Tricolored Blackbird as an endangered or threatened species under the California Endangered Species Act (CESA). The Commission's decision defied its prior findings and was not made in accordance with the law.

At its June 2015 meeting, the Commission voted to reject advancing the Tricolored Blackbird as a candidate for listing, reversing course from its December 2014 emergency listing of the species. The Commissioners who voted to not proceed with the listing evaluation ignored the California Department of Fish & Wildlife's (Department) objective findings and recommendation and the broad scientific consensus that the species is imperiled.

Prior to the June vote, Commission staff explained that the threshold to accept a petition and advance a species to candidacy is low. Accepting the petition would initiate a year-long, scientific-based review of the subject species. At the end of that year, the Commission would consider the available scientific evidence, the Department's recommendation, and the input of stakeholders to then make a final determination as to whether or not the species ought to be listed.

Audubon California understands that listing a species demands a further commitment from the Department and can impose significant responsibilities on some private landowners. We do not advocate for this listing lightly and only do so after decades of other efforts that have not stemmed the species' decline. The listing does not represent an end to collaborative efforts, including partnerships with the agricultural industry and members of the Tricolored Blackbird Working Group, which are more necessary than ever if the species is to remain viable.

For this reason and those listed below, the Commission should reconsider its June decision, follow the Department's recommendation, and advance the species to candidacy. Such action would be consistent with previous Commission rulings, would allow the Department to complete a year-long scientific review, and would provide the Commission with an opportunity to review all evidence so that the Commission can make an informed, final determination regarding this species. It would be a decision that demonstrates the Commission's commitment to relying on clear, transparent processes and the best available science.

Tricolored Blackbird Population Decline

Nearly ninety percent of Tricolored Blackbirds are located in California with smaller breeding colonies occurring in Nevada, Oregon, Washington, and Baja California (Beedy and Hamilton 1999). It is the last North American landbird that breeds in large colonies. The Passenger Pigeon and the Carolina Parakeet are two colonial North American bird species that, notably, were lost to extinction due to human activities. Tricolors nest predominantly in California's Central Valley, historically in native wetlands, but more recently in agricultural fields due to lack of available natural habitat. This combination of narrow geographic range and highly colonial breeding make Tricolored Blackbirds particularly susceptible to disturbance and habitat loss. Over ninety percent of the species' historic habitat, wetlands in the Central Valley, have been replaced with agriculture or urbanization. As a result of this large-scale habitat loss and ongoing mortality, Tricolored Blackbirds have declined significantly in the last 80 years.

Once numbering in the millions (Hamilton et al. 1995; Neff 1937), the Tricolored Blackbird population has declined to approximately 145,000 birds according to the 2014 statewide survey (Meese 2014). The triennial survey was developed and employed to track the Tricolored Blackbird population abundance and distribution. The most extensive and replicable surveys – conducted in 2008, 2011, and 2014 – show a steep decline in Tricolored Blackbird abundance. The Tricolored Blackbird population declined by 64 percent between 2008 and 2014, despite an increase in the number of sites surveyed (Meese 2014). Additionally, Graves et al. (2013) identified a 63 percent decline in mean breeding colony size from 1935 to 1975. By any measure, the species has suffered very significant declines from its historic numbers and recent losses are a source of immense concern for the species' continued viability.

The Commission Findings Supported Emergency Protections

At its December 3, 2014 meeting in Van Nuys, California, the Commission voted to take emergency action to list the Tricolored Blackbird as an endangered species pursuant to Fish and Game Code section 2076.5. The Commission determined a biological emergency existed that justified their immediate action to list the Tricolored Blackbird as endangered under CESA based on the following findings of fact:

1. Rapid population decline despite increased survey effort.
2. Diminishing colony size.
3. Habitat destruction particularly in the San Joaquin Valley.

4. Voluntary programs were ineffective to eliminate mortality because not all farmers with tricolored blackbird colonies on their lands elected to participate.
5. Other potential threats exist from insecticide use that diminishes Tricolored Blackbird's insect food source and mortality from shooting of blackbirds on rice fields in early fall.
6. Listing provides needed protections and will direct agency focus towards Tricolored Blackbird recovery.

(Commission Statement of Proposed Emergency Regulatory Action, at 1-2)

There was no new information between the Commission's findings in December 2014 and its June 2015 vote to reject the petition and not advance the species to candidacy. Moreover, the Commission did not make any findings to support its June 2015 decision, let alone findings that cast doubt upon its prior findings that supported the emergency listing.

The Department of Fish and Wildlife Petition Evaluation Recommended that the Commission Accept the Petition

After more than five months of reviewing all available information, the Department determined that listing "may be warranted" and recommended that the Commission advance the Tricolored Blackbird as a candidate species and initiate the one-year scientific review period. The Department came to this recommendation after preparing a petition evaluation in response to the October 8, 2014 petition submitted to the Commission by the Center for Biological Diversity. Their evaluation, in accordance with CESA, "delineat[ed] the categories of information required in the petition, evaluat[ed] the sufficiency of information in the petition, and incorporate[ed] additional relevant information that the Department possessed or received during the review period" (Memorandum from Charlton H. Bonham, May 13, 2015). The Department is to be commended for taking a deliberative approach that followed established procedures and law.

The Department determined that the petitioned action may be warranted based on the degree and immediacy of the threats faced by the species, including:

1. Historical and continuing loss of nesting substrate, including wetlands, Himalayan blackberry (*Rubus discolor*) patches, upland weedy vegetation, and marsh vegetation in reservoirs and ponds.
2. Historical and continuing loss of uplands used for foraging.
3. Declines in tricolored blackbird populations in the past 80 years, including ongoing declines documented since 2008.
4. Significant, large-scale reproductive failures in tricolored blackbird colonies nesting in agricultural areas of the San Joaquin and Sacramento valleys.
5. Limited, inconsistent, and sometimes ineffective protection of colonies nesting in agricultural settings.
6. Ineffectiveness of existing regulatory mechanisms to protect tricolored blackbird breeding habitat and nesting colonies on privately-owned land.
7. Predation by the black-crowned night heron (*Nycticorax nycticorax*), cattle egret (*Bubulcus ibis*), common raven (*Corvus corax*), coyote (*Canis latrans*), and other

> predators, especially in areas in which predator populations may be artificially high due to concentrated food sources.

(CDFW Evaluation of the Petition, at 2)

The Department provided an objective scientific analysis and recommendation in its petition evaluation consistent with the consensus of researchers. Again, the Commission did not make any findings at its June 2015 meeting that contravene the Department's evaluation.

The Commission's June 2015 Vote Is Invalid

The Commission's vote to reject the petition did not follow the standards set forth in *Center for Biological Diversity v. California Fish and Game Commission* (2008) 166 Cal.App.4th 597 (CBD) or *Natural Resources Defense Council v. California Fish and Game Commission* (1994) 28 Cal.App.4th 1104, 1114. The requisite standard of proof to be used by the Commission in deciding whether listing may be warranted (i.e. whether to accept or reject a petition) was described in CBD as such:

> As we explained in *Natural Resources Defense Council* [citation], "the term 'sufficient information' in section 2074.2 means that amount of information, when considered with the Department's written report and the comments received, that would lead a reasonable person to conclude the petitioned action may be warranted." The phrase "may be warranted" "is appropriately characterized as a 'substantial possibility that listing could occur.'" [citation] "Substantial possibility," in turn, means something more than the one-sided "reasonable possibility" test for an environmental impact report but does not require that listing be more likely than not.

(*Center for Biological Diversity*, at pp. 609-10 (internal citations omitted))

If the Commission's decision is challenged, a reviewing court will apply a "substantial evidence" test; given that the Commission failed to make any new findings and contravened its own prior findings, the best available scientific evidence, and the Department's recommendation, the Commission's vote will not survive scrutiny in court.

Moreover, the Commissioners appeared to misunderstand the item before them on the June 2015 calendar. The vote before the Commission in June was whether or not the listing may be warranted and if a full year review of the scientific information by the Department was warranted; however it is clear from remarks made by Commissioners who voted against candidacy during the hearing that they based their vote on potential impacts of the listing on farmers and a general antipathy toward listing under CESA. The absence of a statement of findings that supports the June vote also indicates that the Commissioners had no basis for their vote to reject the Department's recommendation to advance the species to candidacy.

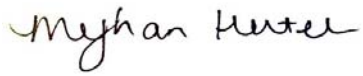
The Commission Should Reconsider its June 2015 Ruling and Advance the Tricolored Blackbird to Candidacy

Audubon California requests that the Commission reconsider the Department's recommendation to advance the Tricolored Blackbird to candidacy. As discussed above, the Commission contravened its own prior findings and the recommendation of the Department. Moreover, the Commission appeared to undervalue the protections provided by CESA, which this year alone prevented the unnecessary destruction of two sizeable colonies. If the Commission's mission is truly to safeguard California's fish and wildlife for future generations, then it must act to follow the best available science that the species warrants a one-year review and then consideration for full listing.

The goal of Audubon California, along with the researchers, agencies, conservation organizations and industry groups in the Tricolored Blackbird Working Group, is population recovery. Listing is a tool to protect vulnerable breeding colonies and direct agency efforts towards providing safe, long-term habitat. Audubon and our partners remain committed to collaboration to achieve recovery. Please give the Department an opportunity to fully review the scientific information on this species to recommend whether or not full listing is needed. This would also give the Commission the opportunity to consider full information on the species and input from a wide range of stakeholders.

Thank you for consideration of our comments. If you would like to discuss this matter further, please do not hesitate to contact me at (916) 737-5707 or via email at mhertel@audubon.org.

Respectfully submitted,



Meghan Hertel
Director Working Lands

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