Tricolored Blackbird Survey 2011 Workshop

Merced National Wildlife Refuge

April 9, 2011
Distribution

- 95 – 99% of population in California
- Small populations in
  - Oregon
  - Washington
  - Nevada
  - Baja California
History

- Discovered by Nuttall near Santa Barbara in 1836 (sent a specimen to Audubon)
  - “Flocks of this vagrant bird...are very common around Santa Barbara in April” Nuttall, 1836.

- Noted as very abundant within its core range in 19th and early 20th centuries
  - “Darkened the skies...”

- Large-scale loss of wetlands primary cause of declines
  - March 4, 1932: colony 20 miles east of Sacramento estimated at 500,000 birds.
  - By 1936 the site had been abandoned due to habitat loss/modification.
Natural History

- North America’s most colonial landbird

- Semi-nomadic behavior - move among areas of suitable habitat between years

- Great variation in colony size natural:
  - Neff reported a range from < 15 nests to greater than 200,000 nests per colony.

- Polygynous species → males usually have more than one female
Dramatic population decline
Habitat
Native Habitat

- Tule and cattail marsh
- Prefer young marsh
- Also use dense upland vegetation such as nettles, willows, poison oak, and blackberry.
Alternative Habitats

Himalayan Blackberry thickets

Milk thistle
Use of Agricultural Fields

Use of grain crops for breeding reported as early as 1944

“Mega-colonies”

Silage Buyouts
2008

- 86% of population in San Joaquin Valley
- 9 of top 10 colonies are in San Joaquin Valley
Identification - Males

**Tricolored Blackbird**
Black or glossy bluish with bright brownish-red patches (epaulets) on wing, bordered in buffy white (August – February) or pure white (February–July)

**Red-winged blackbird**
Glossy black with wing red wing patch bordered with yellow on wrist (bend) of wing
Identification - Females

Tricolored Blackbird
Female Tricolored Blackbird mostly black, with distinct grayish streaks; relatively whitish chin and throat, rarely with faint pinkish or peach wash; and small but distinct reddish shoulder-patch

Red-winged blackbird
Red-winged blackbird females are mottled brown above and heavily streaked below with a prominent white eyebrow stripe. Third-year and older females are variable in throat (pink to buffy) and epaulet (dull orange to bright red-orange) color.
Identification
Identification
Identification
Juvenile Tricolored Blackbirds
Colonial behavior is an easy way to ID the Tricolor
Behavioral Cues to Identify Colonies

- **Dense colonies**
  - Defend small territories in immediate vicinity of 1 or 2 nests
  - Red-wings do not form such large, dense colonies

- **Flight Lines**
  - Often single file travel between colony and food or water sources

- **“Swarming” over colony**

- **Behavioral dominant to Red-winged blackbirds**
  - Red-wings often pushed to margins of habitat
Distinct Calls and Song

- Male Song
- Male Growl
- Male Flight Call
- Female Chatter

Figure 3
Sonograms of Tricolored Blackbird vocalizations a) Male Song (from Collier 1968); b) Male Growl; c) Male Flight Call Complex; and d) Female Chatter. Vocalizations b-d recorded at East Park Reservoir, Colusa County, CA (from Orians and Christman 1968).
Survey Method walk-through
Survey Methods-Where?

- **Priority One:** assigned colonies and other colonies you know about. Focus first on most recent colony sites (2001-2010)
- **Priority Two:** More historic colony sites (2000 or earlier)
- **Priority Three:** other areas in county where there is suitable habitat.
- *Keep track of miles driven.*
Survey Methods - How?

- Date
- Observer
- New Colony (Y/N)
- Location Name
  - Established Name
  - Descriptive name for new sites
- County
- Directions
  - Detailed so that site can be found again.
- Latitude, Longitude
Survey Methods-How?

- Colony Size
  - Best Estimate #
  - Minimum #
  - Maximum #

- Type of Estimate
  - Visual

- Precision of Estimate
  - Precise Count
  - Scanning
    - Count birds in defined field of view → scan across site counting numbers of “views” there are.
Tricolored Blackbird Portal

This website provides information on the tricolored blackbird (Agelaius tricolor), a near-endemic California passerine and the most colonial songbird in North America. We seek to develop a site with content appropriate for the largest audience, with basic natural history and conservation information, access to reports, images and videos, links to tricolored in the news, summaries of past and current research and monitoring efforts, and data entry capability for participants in the triennial tricolored blackbird survey (an every three year volunteer effort to estimate the number of tricolored in California) and persons observing color-banded tricolors.

2011 Statewide Survey

Date: 2011-03-02

The 2011 Tricolored Blackbird Statewide Survey is fast approaching.

The 2011 statewide survey will be conducted over three days - April 13th through the 17th.

Participants in the 2011 Statewide Survey should click here (http://tricolor.ice.ucdavis.edu/node/4875) to obtain additional information and to download survey materials.

We are seeking additional participants to survey both historical colony locations as well as to survey in appropriate regions for new, previously undocumented colony locations and to estimate the number of birds at occupied sites. No prior experience is necessary and any level of commitment, big or small, is welcome to help to make this year's survey as complete as possible.
The US Fish and Wildlife Service is supporting Audubon California to coordinate the 2011 Tricolored Blackbird Statewide Survey. The survey will be conducted over three days - April 19th through the 21st, 2011.

We are currently seeking volunteer participants to survey both historical colony locations as well as to survey in appropriate regions for new, previously undocumented colony locations and to estimate the number of birds at occupied sites. No prior experience is necessary and any level of commitment, big or small, is welcome to help to make this year’s survey as complete as possible.

Training Sessions

Three training sessions will be offered to help survey participants identify tricolor colonies and to estimate the number of breeding birds.

- The first training session will be held at the Yolo Bypass Wildlife Area between Sacramento and Davis on March 12th.
- The second training session will be held at the San Jacinto Wildlife Area, Riverside County on March 28th.
- The third training session will be held in Los Banos in conjunction with San Luis National Wildlife Refuge on April 9th.
## Colony Site Maps by County

### Colony Location Maps

<table>
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<th>County</th>
<th>Black and White Maps</th>
<th>Color Maps</th>
<th>Location Data</th>
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Black and White Maps
Color Maps
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## Signing up for Search Areas

**Tricolored Blackbird Survey**

**SACRAMENTO VALLEY**

These areas are the surveys areas for the Sacramento Valley. Choose one or more areas to survey and find the corresponding maps and colony lists on the Tricolored Blackbird Portal (tricolored.ucdavis.edu)

**DATE:** 4/15/2011 (Fri 6:00AM - 7:00PM)

**CREATED BY:** Keiller Kyle [CONTACT ME](#)

### Available Slot

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Data Entry

Observer Menu
- Online Help
- Add Observation
- Add Location
- Add Image
- Add Web Resource
- Add color-banded Tricolor
- Resighting
- Add Survey Maps
- My account

Data Access Menu
- Help: Data Access
- Locations: All Colonies
- Locations: Non-Colonies
- Locations: Private
- Locations: Public
- Observations: Banded Birds
- Observations: Non-survey
- Observers
- Organizations
- Results: 2006 Survey

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**Recent Enhancements to the Portal**

**Date:** 2011-03-11

Information for the Environment (ICE) staff at the University of California, Davis has recently upgraded the Tricolored Blackbird Portal to facilitate access to data, provide greater data input functionality, and to support the 2011 Statewide Survey and all future statewide surveys.

These enhancements include:
- An improved menu structure that allows easier access to data and facilitates data input
- Structural changes to the underlying database to accommodate data from multiple statewide surveys
- Online help files to provide guidance to new Portal users
- Links to provide data downloads in csv and xlsx file formats
- A share button that enables users to recommend the Portal to numerous social networking sites
- Improvements to the image gallery that make it easier to add photos and digital imagery
- A link on the Contents Menu to a page for suggestions on where to see tricolors.
Data Entry

For those who have access to this website, we encourage you to log observations of Tricolored Blackbirds. Observations during the annual survey should also be logged here.

- Add an Observation
- Add Location
- Add Images
- Add Observer

Printer-friendly version  Add new comment
Submitting Data

Is the site a new location?

- Yes
  - Enter a New Location
- No
  - Enter a New Observation?
Add a new Location

Create Location

Enter the necessary fields to create a location for which the target species was spotted. These "sites" will then become a "pick-list" while people enter their observations, and ensuring consistent data (and locations) across years.

Please enter a good name for this site, such as: "Sierra Wildlife Refuge" or "Hwy 36 and Mesa Blvd".

Below in the "Location Description" field, please write details about the locations, landmarks, and directions to this site.

Name:

Ownership:

Please enter 'public', 'private', or the name of the agency that is the owner.

Colony:*  
No

Does this site represent a breeding colony?

County:*

-Lone-

Latitude:

Enter the latitude of this location.

Longitude:

Enter the Longitude of this location.

Datum:*  

Select the geographical datum of the coordinates entered.
Add a New Location

- Click on “Add Location”
- Fill in fields:
  - **Name**: make descriptive name
  - Ownership: Private or Public
  - Colony (yes/no)
  - County
  - Elevation
  - **Detailed description** (so that it could be easily found again)
  - Substrate (habitat/vegetation)
  - Photos (can link this observation to photos that you have uploaded previously)
  - **Latitude and Longitude**: use Google Map
Required Fields

Observer: *
[Kevin Kyle [nid:4769]]
This field should automatically populate with the current logged in user. If you are entering data for another individual, please enter the name of their user name in this field and they should see it appear in the list. If the name does not appear, then you must add new observer to the system first.

Location: *

Enter the name of the location of this observation. For the 2008 survey, you should have the name of the locations you have visited. Start to type the name in this field, and a list of possible locations will appear which you can select from. If this is a new location, you must first add the location to the system before adding this observation.

Data Source: *
[Personal Observation [nid:1651]]
Type in part of the title of the publication to filter the list. The year is visible to help identify the correct report; typing in the year will not return reports of that year.

Observation Date: *

Enter the date the colony or flock is observed.

Best Estimate for Number of Birds Observed: *

Enter what you believe to be the number of birds.

Minimum Estimate for Number of Birds Observed:

Enter the minimum number of birds present at this location.

Maximum Estimate for Number of Birds Observed:

Enter the maximum number of birds present at this location.

Type of Estimate: *

Enter the method used to arrive at your count estimate.

Precision of Estimate: *

Select the option which best describes your confidence in the bird count estimation.

Minutes spent at observation site:

Enter the number of minutes you spent at the site (e.g. for an hour and a half, enter 90).
Add an Observation

- **Observer**: should be filled in with your name. Reenter if not filled in or you are submitting observation for someone else.
- **Location**: type in name (location names will show up as you type and you can select from this list)
- **Data Source**: should indicate 2011 survey
- **Date**
- **Best, Minimum and Maximum estimate number of birds**
- **Confirm zero** if you have entered zero birds at site.
- **Type of estimate** (see instructions)
- **Precision of estimate** (see instructions)
- **Minutes at site**
Behavioral and Colony Observations

- Behaviors (click on word to show options for data entry)
  - Singing (yes/no)
  - Carrying nest material (yes/no)
  - Colony quiet (yes/no)
  - Adults carrying food (yes/no)
  - Fledglings (yes/no)

- Colony Attributes (click to show options for data entry)
  - Distance to stored grain
  - Distance to water
  - Area estimate

- Comments: observations made of colony or bird behavior.