5.3.22 Tricolored Blackbird (*Agelaius tricolor*)

Tricolored blackbird
Photo Credit: California Department of Fish and Wildlife

Status

- State Threatened
- State Species of Special Concern

Ecological Requirements

- RCIS Regions: All terrestrial regions
- RCIS Natural Communities: Freshwater Emergent Wetland, Agriculture, Annual Grassland (CDFW 2020)
- Breeding habitat: Large, dense breeding colonies (March to August) in emergent wetlands with tall, dense cattails or tule (CDFW 2008, 2019; Hamilton 2004). Often associated with dairies and ripening grain heads (Hamilton 2004). Requires open water within 500 meters of colonies (Hamilton 2004).
- Foraging habitat: Croplands, grassy fields, flooded lands, irrigated pasture, dry rangelands, dairy operations and along edges of ponds, may be up to 4 miles from breeding areas (CDFW 2008, 2019; Hamilton 2004); particularly attracted to ephemeral pools (Hamilton 2004)
- Wintering habitat: Open rangeland, grasslands, and agricultural fields with low-growing vegetation, and dairies and feedlots (Hamilton 2004; Shuford and Gardali 2008).

- Colonies make extensive migrations and movements during the breeding season and in winter within their range (Shuford and Gardali 2008)
- Full species account available: Tricolored Blackbird (*Agelaius tricolor*). The Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in California (Hamilton 2004)
- RCIS Conservation Priority: High (steeply declining, breeding areas require management)

Associated Non-Focal Species

- Two-striped garter snake (*Thamnophis hammondii*)

Climate Change Vulnerability Assessment

The Audubon 2019 Climate Report (Wilsey et al. 2019) assessed the tricolored blackbird (TCBB) as moderately vulnerable to climate change. A substantial portion of the species' summer range around the Monterey Peninsula and Salinas River corridor and almost all its winter range throughout the RCIS area will become unsuitable under high emission scenarios (Wilsey et al. 2019). Climate threats include increased frequency and intensity of wildfires, increased spring heat waves, and heavy rain events (Wilsey et al. 2019).

Gardali et al. (2012) conducted a species-specific climate change vulnerability assessment for the tricolored blackbird (TRBB) on exposure and sensitivity factors:

Exposure Factors

- Habitat suitability-Moderate
- Extreme weather- Moderate
- Food availability- Low

Sensitivity Factors

- Habitat specialization-Moderate
- Dispersal ability-Low
- Physiological tolerances- Low
- Migratory status- Low

Though tricolored blackbirds are projected to experience a 10 to 50 percent decrease in habitat suitability and some increase in exposure to extreme weather events, they can tolerate some

variability in habitat types (Gardali et al. 2012). With a high ability to migrate and disperse to new habitats as well as an ability to successfully use appropriately managed agricultural lands, tricolored blackbirds are not included on the Climate Change Vulnerability Priority list (top 25 percent of highest assessed scores) (Gardali et al. 2012; Hamilton 2004).

The goals, objectives, and actions shown in Table 5-36. aim to protect, enhance, and restore present day suitable habitats for tricolored blackbird, as well as habitats that may become suitable in the future because of projected climate changes. Actions also address population stability, such as studies on basic life history, which may allow individuals to move to newly suitable habitats in the future.

A summary of natural communities where this species occurs is presented in Chapter 4. Figure 5-18 shows the range and modeled suitable habitat for the tricolored blackbird.

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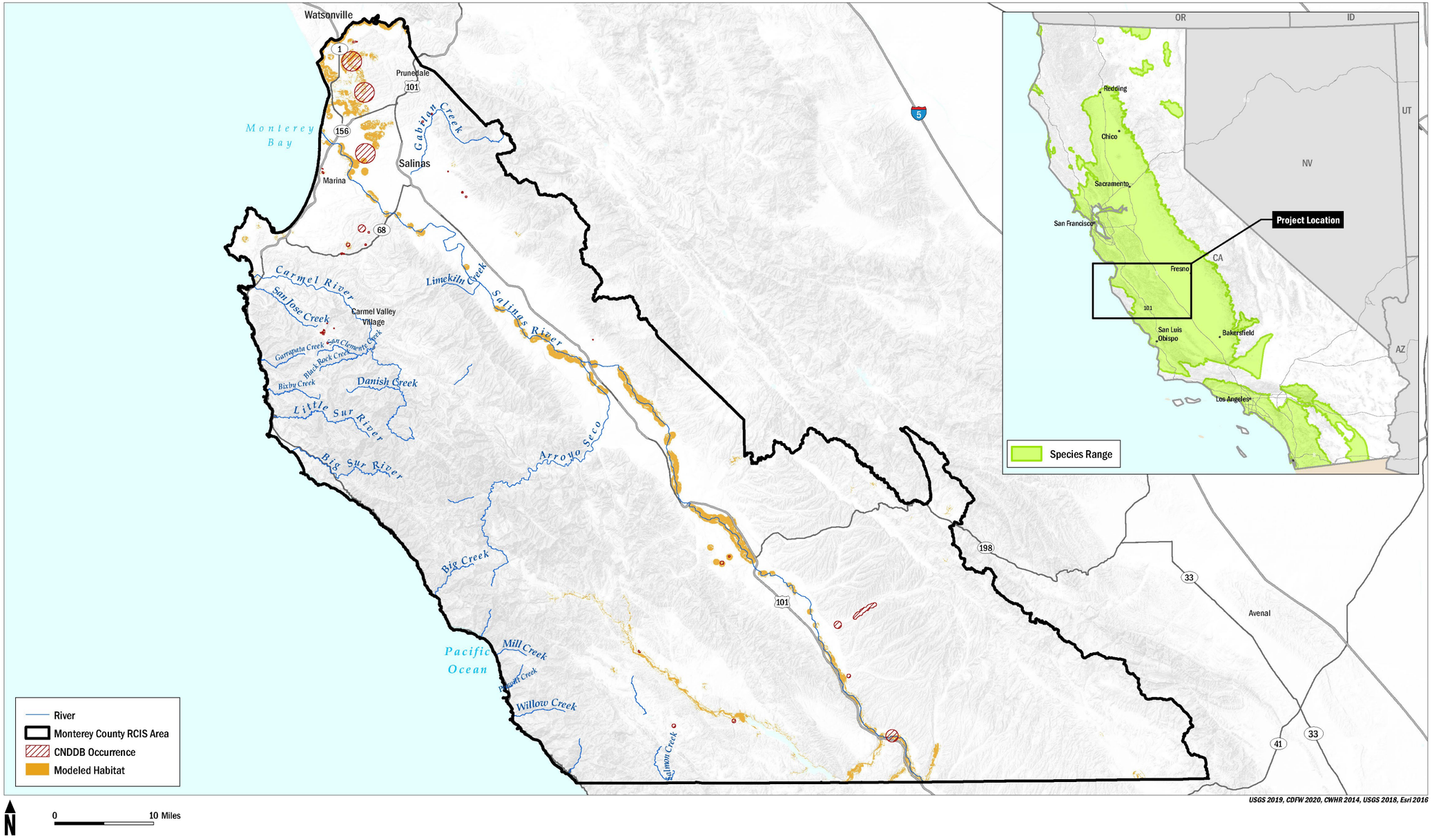

Transportation Agency for Monterey County
Monterey County Regional Conservation Investment Strategy

FIGURE 5-18
Tricolored Blackbird

Figure 5-18. Tricolored Blackbird Range and Modeled Habitat

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Tricolored Blackbird Conservation Priorities, Goals, Objectives, and Actions

RC Goal 1, Water 1.1.1, 1.1.3, 1.1.5, 1.1.6, 1.1.7, 1.1.8, and Water Objective 1.2 apply to tricolored blackbird. Table 5-35 summarizes specific goals, objectives, and actions for the species.

Conservation Priorities

- Acquire and protect known breeding colonies, and habitats that may support potential breeding colonies, including grassland habitats within 500 meters of open water. particularly habitats that are within 12.5 miles of known breeding locations in the Santa Lucia Preserve and the Laguna Seca Recreation Area (Wilson et al. 2016) (RC Objective 1.1).
- Enhance habitat to maintain or establish suitable vegetation structure in locations suitable for breeding and foraging, especially during the peak breeding season (March–June) (CDFW 2018g) (TCBB 1.2.1).

Table 5-35. Tricolored Blackbird Goals, Objectives, and Actions

Goal	Objective	Threats	Co-Benefits	Action
TCBB Goal 1. Promote persistence of tricolored blackbird populations in the RCIS area through protection and enhancement of habitat.	TCBB Objective 1.1: Protect known occurrences and allow expansion by protecting suitable habitat. Measure progress toward achieving this objective by the number of breeding locations, acres of adjacent foraging habitat, and associated/equivalent acres protected.	• Habitat loss, degradation, fragmentation • Climate change	• Other focal/ non-focal species • Biodiversity • Climate change resilience	RC Objective 1.1 (Protection) actions

Goal	Objective	Threats	Co-Benefits	Action
TCBB Goal 1.	TCBB Objective 1.1:	• Habitat loss, degradation, fragmentation		TCBB 1.1.1: Promote persistence of active breeding colonies by conducting community outreach programs to encourage private protection and appropriate management of occupied habitat (Tricolored Blackbird Working Group 2007).

Goal	Objective	Threats	Co-Benefits	Action
TCBB Goal 1.	TCBB Objective 1.2: Enhance occupied and suitable tricolored blackbird breeding, wintering, and foraging habitat. Measure progress toward achieving this objective by acres of habitat and adjacent/equivalent acres enhanced and occupied by tricolored blackbirds.	• Surface water diversion and vegetation maintenance • Climate change	• Other focal/ non-focal species • Biodiversity • Climate change resilience	TCBB 1.2.1: Maintain suitable vegetation structure in tricolored breeding and foraging habitat, including biennial burning of breeding habitat with heavily flattened cattails and modified grazing practices in irrigated pastures (Hamilton 2004; Shuford and Gardali 2008).

Goal	Objective	Threats	Co-Benefits	Action
TCBB Goal 1.	TCBB Objective 1.2:	• Agricultural practices (e.g., insecticide and herbicides, grazing, silage harvest) • Climate change	• Climate change resilience	TCBB 1.2.2: Manage water levels in breeding habitat to prevent flooding of nests and increased predator accessibility (Tricolored Blackbird Working Group 2007).
TCBB Goal 1.	TCBB Objective 1.2:	• Agricultural practices (e.g., insecticide and herbicides, grazing, silage harvest)		TCBB 1.2.3: Conduct studies on gaps in basic life history information, such as distribution, resource utilization, and survival of wintering birds (Shuford and Gardali 2008).

Goal	Objective	Threats	Co-Benefits	Action
TCBB Goal 1.	TCBB Objective 1.3: Restore occupied and suitable tricolored blackbird breeding, wintering, and foraging habitat and create new habitat. Measure progress toward achieving this objective by acres of habitat and adjacent/equivalent acres restored and occupied by tricolored blackbirds.	• Surface water diversion and vegetation maintenance • Climate change	• Climate change resilience	TCBB 1.3.1: Restore/create appropriate densities of nest substrate species in suitable breeding habitat near productive foraging habitat (Shuford and Gardali 2008), using appropriate vegetation management practices and active revegetation, where needed.

Goal	Objective	Threats	Co-Benefits	Action
TCBB Goal 1.	TCBB Objective 1.3:	• Surface water diversion and vegetation maintenance • Climate change	• Other focal/ non-focal species • Biodiversity • Climate change resilience	TCBB 1.3.2: Create ephemeral pools with appropriate native vegetation densities to encourage presence of breeding and foraging tricolored blackbird where its absence limits species' settlement (Hamilton 2004).
TCBB Goal 1.	TCBB Objective 1.4: Protect grain and silage-nesting tricolored blackbirds until sufficient permanent breeding habitat is available (Tricolored Blackbird Working Group 2007). Measure progress toward achieving this objective by acres of silage and grain habitat and adjacent/equivalent acres restored and occupied by tricolored blackbirds	• Habitat loss, degradation, fragmentation	• Working lands	TCBB 1.4.1: Fund and carryout silage buyout with willing private landowners (Tricolored Blackbird Working Group 2007).

Goal	Objective	Threats	Co-Benefits	Action
TCBB Goal 1.	TCBB Objective 1.4:	• Habitat loss, degradation, fragmentation	• Working lands	TCBB 1.4.2: Promote awareness of tricolored blackbird nesting behavior and conservation options on ranch and farmlands, such as deferring harvest of grain and silage crops when possible, until after the breeding season (Tricolored Blackbird Working Group 2007).

Sources: CDFW 2015, 2020; Hamilton 2004; Shuford and Gardali 2008; Tricolored Blackbird Working Group 2007