Tricolored Blackbird *Agelaius tricolor*

The Tricolored Blackbird is one of California’s amazing natural treasures: a songbird whose biology follows the model of a colonial seabird. Tricolored Blackbirds nest in large, dense colonies, usually in freshwater marshes, and forage in nearby grassland, pastures, or agricultural fields. Colonies once ranged up to 200,000 nests, but elimination of marshes and development of surrounding uplands has reduced the population greatly, especially in southern California. The Tricolored Blackbird is recognized as a highest-priority species of special concern by the California Department of Fish and Game. The San Diego County population is probably 5000–8000 birds, concentrated in 20–30 colonies. In spite of the Tricolored Blackbird’s demanding requirements for breeding, in the nonbreeding season it forages readily in artificial habitats like dairies, lawns, garbage dumps, and parking lots.

Breeding distribution: Tricolored Blackbird colonies in San Diego County are now so few that they can be listed individually (Table 9). They are concentrated in two areas: north-central San Diego County from Dameron Valley and Oak Grove south to Ramona and Santa Ysabel, and the Campo Plateau from Potrero to Jacumba. The roster is not exhaustive; a few colonies undoubtedly passed undetected on private ranches or water-district lands we were unable to reach; such properties are the sites of most of the known colonies. Unconfirmed colonies are likely especially in La Jolla Valley (L10; 20 on 7 May 2000, K. J. Winter), at Miramar Lake (N10; 50 on 23 June 1999, K. J. Winter), Merigan Ranch, Descanso (P20; 15 on 18 April 1997, P. Unitt), Lake Murray (Q11; up to 30 on 9 June 2000, N. Osborn), La Posta Valley (S23; up to 20, males displaying, 11 April 1999, L. J. Hargrove), and McCain Valley (R26; 12 on 11 May 1999, L. J. Hargrove). Some colonies may remain active for years; that at
Jacumba has been used continuously since at least the 1970s. But others shift from year to year (a predator-avoidance strategy in many colonial birds), and others become unusable if the nesting marsh is trimmed or cut completely (as at the pond at Magnolia Ave. and Highway 78 in Ramona, K15) or the surrounding uplands are developed. The paucity of colonies in the coastal lowland where marshes are more numerous suggests that foraging habitat sufficient to support a large colony, not availability of nesting sites, has become the most important factor limiting the population.

Nesting: Most colonies are in cattail marshes, but Tricolored Blackbirds also nest in blackberry thickets (as in Santa Ysabel Valley, I18) or stands of black mustard (as on Otay Mesa, V13). Like the Red-winged Blackbird, the Tricolored attaches its nest to several usually vertical stems or leaves. But the male Tricolored defends a territory of as little as 1.8 square meters, and as many as six females build nests within one square meter (Beedy and Hamilton 1999). Nesting within a colony is often synchronized, so that all young may hatch and fledge within a few days of each other. Large colonies may include one or more successive waves of peripheral settlement. But different colonies are often unsynchronized, some establishing themselves up to nine weeks after others. The birds may shift to a second site and renest in the same season (Hamilton 1998). The schedule of Tricolored Blackbird nesting we observed in San Diego County 1997–2001 fits within that reported from the Central Valley by Beedy and Hamilton (1999), though with nest building at Twin Lakes, Potrero (U20), 19 June 1999 (R. and S. L. Breisch) it runs later than known from egg sets collected in the county 1890–1962 (latest 26 May).

Migration: Tricolored Blackbirds wander nomadically when not breeding, and some are seen sporadically away from nesting habitat through the breeding season. Some of these, such as 85 at a dairy 1.9 miles south of Ramona (L15) 22 April 2000 (P. Unitt), were within a few miles of known colonies. But others, such as eight at the east end of the basin of Lake Cuyamaca (L20) 14 July 2000 (E. C. Hall), and six along the Kelly Ditch Trail in the Cuyamaca Mountains (L20) 14 July 2000 (E. C. Hall), and two in Marron Valley (V17) 16 May 2000 (P. Beck), were far from any suspected colony. Particularly unusual were seven flying over a chaparral-covered ridge 1 mile east of Mount Laguna (O24) 16 June 2001 (P. Unitt) and the only recent records for the Anza–Borrego Desert, of 13 caught and released from a cowbird trap at

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**TABLE 9 Known Tricolored Blackbird Colonies in San Diego County, 1997–2001**

<table>
<thead>
<tr>
<th>Colony</th>
<th>Square</th>
<th>Years Known</th>
<th>Active</th>
<th>Maximum</th>
<th>Observers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dameron Valley</td>
<td>C15</td>
<td>1997, 1998</td>
<td></td>
<td>200</td>
<td>K. L. Weaver</td>
</tr>
<tr>
<td>Oak Grove</td>
<td>C16</td>
<td>1998, 1999</td>
<td></td>
<td>840</td>
<td>K. L. Weaver</td>
</tr>
<tr>
<td>Sunshine Summit</td>
<td>D17</td>
<td>1999, 2000</td>
<td></td>
<td>25</td>
<td>P. Unitt</td>
</tr>
<tr>
<td>Bonsall</td>
<td>F8</td>
<td>2000</td>
<td></td>
<td>20</td>
<td>E. C. Hall, J. O. Zimmer</td>
</tr>
<tr>
<td>Mesa Grande NW</td>
<td>H16</td>
<td>1999</td>
<td></td>
<td>12</td>
<td>W. E. Haas</td>
</tr>
<tr>
<td>Pamo Valley</td>
<td>I15</td>
<td>2000</td>
<td></td>
<td>1280</td>
<td>W. E. Haas</td>
</tr>
<tr>
<td>Santa Ysabel Ranch</td>
<td>I18</td>
<td>2000</td>
<td></td>
<td>260</td>
<td>S. E. Smith</td>
</tr>
<tr>
<td>East Ramona Pond</td>
<td>K15</td>
<td>1998, 1999</td>
<td></td>
<td>400</td>
<td>M. and B. McIntosh</td>
</tr>
<tr>
<td>Viejas Casino</td>
<td>P18</td>
<td>1999, 2000</td>
<td></td>
<td>600</td>
<td>K. J. Winter</td>
</tr>
<tr>
<td>Tule Lake</td>
<td>T27</td>
<td>2000</td>
<td></td>
<td>30</td>
<td>J. K. Wilson, F. L. Unmack</td>
</tr>
</tbody>
</table>

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New World Blackbirds and Orioles — Family Icteridae
Whitaker Horse Camp (D24)
24 April 2002 (N. Collin) and
one feeding in horse corrals at
Borrego Springs (G24) 11 May
Old records from the desert
slope are of specimens collected
by Frank Stephens at “Palmetto
Spring” (i.e., Palm Spring, N27)
1 April 1895 (SDNHM 792)
and in San Felipe Valley near
Scissors Crossing (J22) 4 April
1895 (SDNHM 793).

Winter: Though Tricolored
Blackbirds may leave their
breeding colonies in the win-
ter, they still prefer to roost in
marshes. In San Diego County it
appears that most of the popula-
tion does not shift a great dis-
tance. Sometimes large flocks
are seen in winter at nesting
colonies: up to 700 at Swan Lake 10 December 2000 (M.
G. Mathos, J. R. Barth) and 500 at Oak Grove 26 February
2000 (K. L. Weaver). Some large winter flocks elsewhere
could represent undiscovered nesting colonies: 300 in
Lawson Valley (R17) 1 December 2001 (M. B. Stowe), 250
dur Neil Valley (T16) 31 January 2001 (D. W. Povey), 400
in Japatul Valley (Q18) 17 January 2001, and 525 in Hill
Valley (T25) 4 February 2001 (P. Unitt). In north-coastal
San Diego County wintering Tricolored Blackbirds are
generally inconsistent (most regular around Bonsall and
in the Dieguito Valley), but the numbers may be
much larger than are known to breed in this area (up to
200 in Rancho Santa Fe, L8, 28 December 1997; 190 at
the Hollandia Dairy, San Marcos, L9, 27 February 1999,
W. E. Haas). In south-coastal San Diego County a few
still winter around Mission Bay and the San Diego River
mouth, where they forage on lawns (maximum 20 at Robb
Field, R7, 1 March 1999, V. F. Johnson). Considerable
numbers wintered at the Otay dump (U12) until 1998
(135 on 19 December 1998, W. E. Haas), and Santee Lakes
(P12) remains a regular wintering site, possibly for birds
originating from the Lindo Lake colony (up to 70 on 19
December 1997, E. Post—fewer since). But over most of
metropolitan San Diego the Tricolored Blackbird is now
rare even as a winter visitor.

Conservation: The history of the Tricolored Blackbird in
San Diego County has been one of continuous decline. In
the early 1860s, J. G. Cooper (in Baird 1870) considered
the Tricolored Blackbird ”the most abundant species near
San Diego.” Neff (1937) listed five colonies in San Diego
County’s coastal lowland in 1935 and 1936, of up to 1000
nests. None of these persists today. The Dairy Mart pond
in the Tijuana River valley (V11; Unitt 1984) is no longer
a colony. San Diego Christmas bird count results show
a sharp decline from the mid 1980s through 2001, with
only a single Tricolored Blackbird reported in the latter
year. The pattern on the Oceanside count is similar: the
Tricolored Blackbird was formerly abundant in the lower
San Luis Rey River valley, but a 95% drop from 1990 to
1991 was never reversed; the species was missed on the
count for the first time in 2001.

Elimination of marshes undoubtedly contributed to
the Tricolored Blackbird’s population collapse, but loss of
foraging habitat to development probably played an even
greater role. For the species to nest successfully, it may
need large colonies for proper social stimulation (Orians
1980). And a large colony requires a considerable habitat
with abundant prey like grasshoppers. The critical mass
for the population to be self sustaining is doubtless larger
for the Tricolored Blackbird than for species that live as
dispersed pairs.

Can the decline be arrested or reversed? Critical ques-
tions that still need to be answered include the extent of
foraging habitat needed to support a viable colony and
the number of alternative colony sites needed to support
a viable population. Only one of the colonies, in Boden
Canyon, lies on land devoted primarily to conservation,
but the water in the pond was taken to fight a fire in
August 2001; the pond did not refill in the following year
of drought, and the blackbirds abandoned the colony in
2002 (L. Comrack). The only colony on public parkland,
that at Lindo Lake, is already surrounded by develop-
ment. Sustaining the Tricolored Blackbird will require
the cooperation of water districts and private landown-
ers. Can new colonies be attracted to restored or artificial
marshes put near foraging habitat? Even though it lasted
only two years, a colony formed in 1990 in a revegetation
project in Mission Valley (R9) the first year after artificial
islands were installed in the San Diego River. But the
Tricolored Blackbird likely poses one of the most difficult
conservation problems among North American birds.