

# Nesting Tricolored Blackbird Survey: Baja California 2007

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## SUMMARY

We surveyed 44 potential Tricolored Blackbird nesting sites in Baja California on 23 days from January through August 2007, for a total of 103 site visits. Tricolored Blackbirds were observed at 11 locations south to Rancho El Descanso, but nesting was confirmed (or even suspected) at only one. Single birds were seen in or near the marsh below the dam at Héroes de la Independencia on 30 January and 15 May, 80 birds had formed a colony there by 6 June, and 50 birds on 18 June included adults carrying food into the marsh. At other previously documented nesting sites, birds were observed at Presa Rodriguez, La Misión, and Valle Ojos Negros but none were found at Rancho Tres Posos (northern Sierra Juárez), the Maneadero Plain, or the San Quintín Plain. Maximum counts away from Héroes de la Independencia were recorded in May: 80 at Valle Ojos Negros, 50 at Presa Rodriguez, and 50 at Rancho Japá (northern Sierra Juárez). The region suffered extreme drought conditions throughout the period, depressing prey abundance and consequently reproduction in most terrestrial bird species. Tricolored Blackbird numbers in Baja California appeared to be lower than usual in the fall of 2007 as well.

The Tricolored Blackbird (*Agelaius tricolor*) is similar to the familiar and widespread Red-winged Blackbird (*Agelaius phoeniceus*), but is restricted to the Pacific coast of North America from Washington to northwestern Baja California. Although the species has expanded its range northward over the last 30 years, the vast majority of the population resides in the Central Valley of California. Recent declines in Tricolored Blackbird numbers there have led to increased concern for the species throughout its range. Accordingly, the Sonora Joint Venture funded this survey of nesting Tricolored Blackbirds in Baja California in 2007.

## METHODS

We examined historical occurrence data in order to identify known and potential nesting sites for the Tricolored Blackbird in Baja California. Useful information was obtained from Grinnell (1928), Wilbur (1987), Wurster et al. (2001), and a database maintained by Erickson since the 2000 initiation of reporting in the Baja California Peninsula Region for the quarterly journal *North American Birds*.

Forty-four sites were visited on 23 days from 7 January to 27 August for a total of 103 site visits (Table 1). With one exception, all of the locations identified in the process described above were visited. The Carriso Valley, where a specimen was collected in April 1894 (Grinnell 1928), now appears to be inundated by Presa el Carriso. Additional locations discovered while in the field or while examining satellite images were also visited, but further investigations along these lines were

discontinued when it became clear that very little nesting was undertaken by the Tricolored Blackbird in Baja California in 2007.

## **RESULTS**

Tricolored Blackbirds were found at nine traditional sites and two sites previously unknown: the drainage just east of Valle Bonito, and Leyes de Reforma. Birds were found at one more site after the survey period (La Salina in October). Complete survey results, along with a summary of all previous Tricolored Blackbird observations in Baja California, are shown in Table 1. Figure 1 shows much of the same information graphically. Blackbirds were found at two sites in January, two in February, eight in May, four in June, and one in August. The number of birds observed followed a similar pattern, with 11 seen in January, 30 in February, 198 in May, 112 in June, and 25 in August.

The only place where nesting was confirmed in 2007, or even suspected, was at Héroes de la Independencia. This community is located more than 1000 meters above sea level, essentially in the saddle between the Sierras Juárez and San Pedro Mártir. Tricolored Blackbirds are known to have nested in the marsh below the dam south of town since June 1991 (Howell and Webb 1992). Single birds were seen in town on 30 January and at the marsh on 15 May, 80 birds had formed a colony by 6 June, and 50 birds on 18 June included adults carrying food into the marsh. We do not know if any young fledged.

Among other sites where Tricolored Blackbirds are known to have nested in previous years, birds were observed at Presa Rodriguez, La Misión, and Valle Ojos Negros, but none were found at Rancho Tres Posos (northern Sierra Juárez), the Maneadero Plain, or the San Quintín Plain. Note the large gap between the areas where birds were seen in the south (El Rosario and Rancho El Descanso) and the north (from Héroes de la Independencia north and west).

Maximum counts away from Héroes de la Independencia were recorded in May, with 80 birds at Valle Ojos Negros, 50 at Presa Rodriguez, and 50 at Rancho Japá (northern Sierra Juárez).

## **DISCUSSION**

The Tricolored Blackbird's poor reproductive performance in Baja California in 2007 apparently matched that recorded in California in the same period. Extreme drought conditions in both states presumably led to drastically reduced availability of invertebrate prey for adults and nestlings. It is interesting to note that, with the exception of Presa Rodriguez, the largest concentrations of Tricolored Blackbirds in 2007 were at three higher elevation sites around the Sierra Juárez.

Conditions did not appear to be suitable at some former nesting sites. The flooded trees where blackbirds nested at Presa Rodriguez in 2002 were dry in 2007, as was the impoundment on the San Quintín Plain where blackbirds nested in 2003. Manual removal of marsh vegetation eliminated nesting habitat at Rancho Tres Posos and reduced the amount of suitable habitat available on the Maneadero Plain at the Baja Country Club.

Presumably Tricolored Blackbird numbers will rise again in Baja California when rains return to the region and recharge the system. However, the population in Baja California has probably never been

very large in modern times. Locations most worthy of surveys to document new or continued nesting are the El Rosario area and Valle Ojos Negros, respectively.

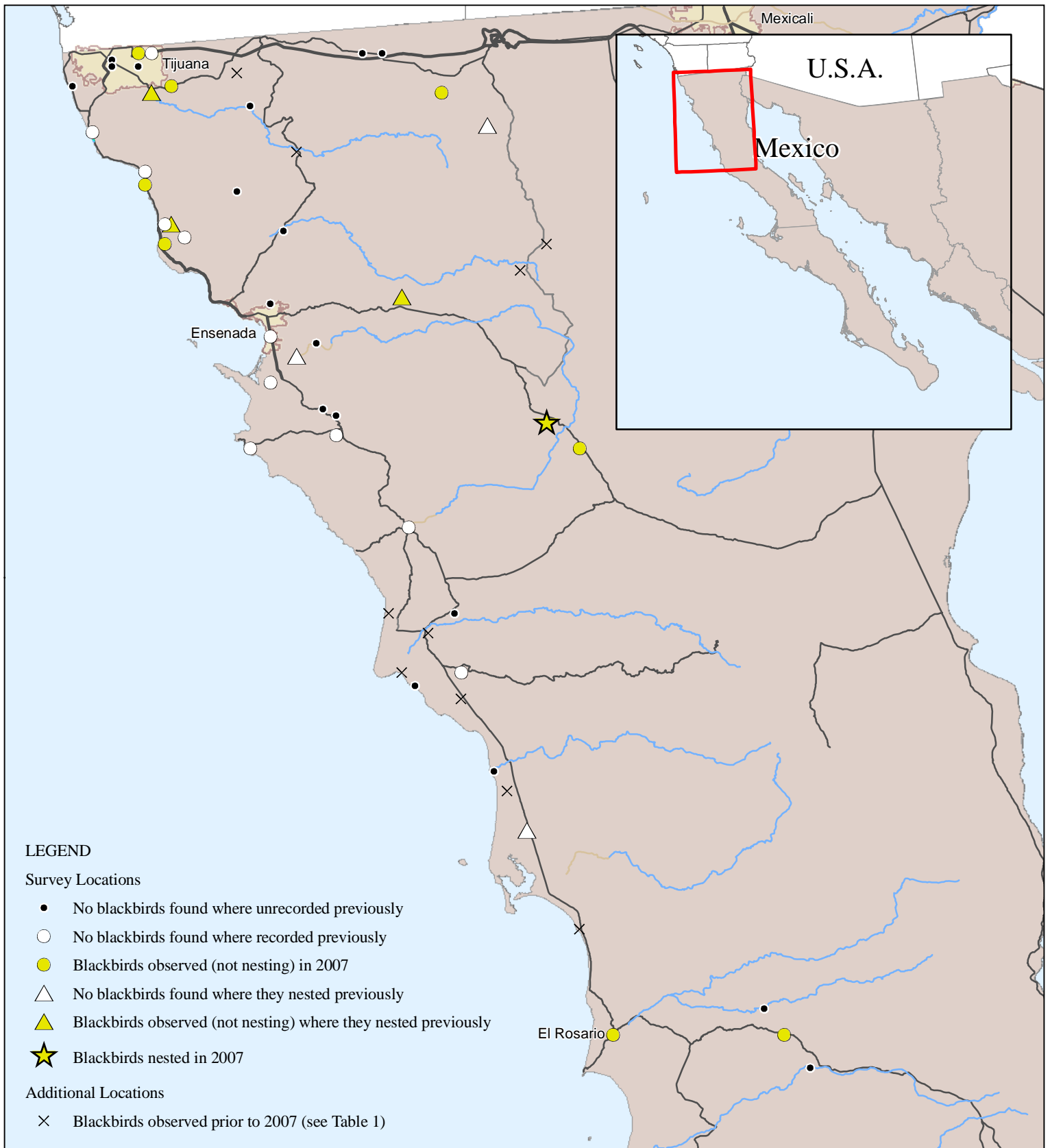
## ACKNOWLEDGEMENTS

We have summarized the observations of many individuals here, most notably W. Terry Hunefeld and Tim Manolis for 2007; Daniel S. Cooper, Robert A. Hamilton, Steve N.G. Howell, Marshall J. Iliff, Michael A. Patten, Kurt A. Rademaker, Mike San Miguel, Richard E. Webster, and Thomas E. Wurster for previous years; and Gorgonio Ruiz-Campos for both periods.

## LITERATURE CITED

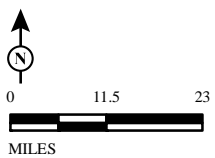
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Table 1. Tricolored Blackbird nesting survey results for 2007. Survey sites are divided into a more interior group and a more coastal group. Within each group locations are generally listed from north to south. Observations prior to, and after, the 2007 nesting season are summarized in the column for additional notes. Likewise, all other observations of Tricolored Blackbirds in Baja California that we know of are summarized at the end of the table under *Additional Locations*. Reports submitted through the *North American Birds* reporting system are cited as such; few were actually published in the journal.



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FIGURE 1



SOURCE: ESRI (2006)

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*Baja California Tricolored Blackbird Survey*  
 Tricolored Blackbird (*Agelaius tricolor*) occurrences and  
 2007 survey results in Baja California

| Location                           | date surveyed | observer(s)     | birds found | additional notes  |
|------------------------------------|---------------|-----------------|-------------|---|
| <b>Sites east of Highway 1</b>     |               |                 |             |   |
| vic. Tijuana                       |               |                 |             |   |
| Parque de la Amistad               | 10 Jan        | MJB             | none        | reported 2005–2006 with maximum of 8 on 30 Jul 2006;<br><i>North American Birds</i>                         |
|                                    | 8 May         | MJB             | 1           |   |
|                                    | 29 Jul        | MJB             | none        |   |
| Parque Morelos                     | 10 Jan        | MJB             | none        |   |
|                                    | 29 Jul        | MJB             | none        |   |
| Tijuana Country Club               | 9 Jan         | MJB             | none        |   |
|                                    | 11 Jan        | MJB             | none        |   |
|                                    | 14 May        | RAE             | none        |   |
| Tijuana race track                 | 14 May        | RAE             | none        |   |
| Río Tecate, east Tijuana           | 14 May        | HdlC, RAE       | none        | 20 seen on 18 Nov 2003; <i>North American Birds</i>   |
| drainage just east of Valle Bonito | 14 May        | RAE             | 5           |   |
|                                    | 18 Jun        | RAE, T. Manolis | 5           |   |
| vic. El Hongo                      |               |                 |             |   |
| Chula Vista                        | 14 May        | HdlC, RAE       | none        |   |
| Ciénega Redonda                    | 14 May        | HdlC, RAE       | none        |   |
| northern Sierra Juárez             |               |                 |             |   |
| Rancho Japá                        | 14 May        | HdlC, RAE       | 50          | 2 males on 19 May 2005 and 15 on 20 Nov 2006<br><i>North American Birds</i>                                 |
|                                    | 18 Jun        | RAE, T. Manolis | none        |   |
| Rancho Tres Posos                  | 14 May        | HdlC, RAE       | none        | 25 pairs nesting on 19 May 2005; <i>North American Birds</i>  |
| Valle las Palmas                   | 14 May        | HdlC, RAE       | none        |   |
| San José de la Zorra               | 27 May        | HdlC            | none        |   |
| Valle de Guadalupe                 | 14 May        | HdlC, RAE       | none        |   |
|                                    | 20 May        | HdlC            | none        |   |
| Valle Ojos Negros                  | 30 Jan        | MJB, RAE        | none        | large colony in the San Rafael Valley [east of Ensenada]<br>in May 1885; Bryant 1889, in Grinnell 1928      |
|                                    | 15 May        | RAE             | 80          | reported 1984–2000 with maximum of 250+ on 22 Feb 1998;<br>Wurster et al. 2001                              |
|                                    | 27 May        | HdlC            | 50          | reported 2001–2006 with maxima of 200+ on 8 Feb 2001<br>and 300 on 16 Mar 2002; <i>North American Birds</i> |
|                                    | 6 Jun         | RAE             | 15          |   |

| Location                               | date surveyed | observer(s)          | birds found    | additional notes  |
|--|---------------|----------------------|----------------|---|
| Héroes de la Independencia             | 30 Jan        | MJB, RAE             | 1              | 30–50 pairs nesting on 19 Jun 1991; Howell and Webb 1992  |
|  | 15 May        | RAE                  | 1 singing male | ten seen on 28 Nov 1992 and 50+ pairs nesting on 11 May 1997; Wurster et al. 2001                                 |
|  | 6 Jun         | RAE                  | 80 nesting     | 50 nesting pairs on 25 May 2001 and 30–40 males seen on 16 Apr 2004;  |
|  | 18 Jun        | RAE, T. Manolis      | 50 nesting     |   |
| Leyes de Reforma                       | 30 Jan        | MJB, RAE             | 10             |   |
|  | 15 May        | RAE                  | 1              |   |
| <b>Sites generally along Highway 1</b> |               |                      |                |   |
| Real del Mar                           | 30 Jan        | MJB, RAE             | none           |   |
|  | 11 Mar        | MJB, RAE, T. Manolis | none           |   |
|  | 8 May         | MJB                  | none           |   |
|  | 4 Jun         | RAE                  | none           |   |
|  | 26 Aug        | MJB                  | none           |   |
| Rosarito Creek                         | 11 Mar        | MJB, RAE, T. Manolis | none           | 12 seen on 14 Dec 1994, K.A. Radamaker pers. comm.  |
|  | 26 Aug        | MJB                  | none           |   |
| Cantamar                               | 30 Jan        | MJB, RAE             | none           | ten seen on 8 Oct 1994; Wurster et al. 2001   |
|  | 11 Mar        | MJB, RAE, T. Manolis | none           |   |
|  | 4 Jun         | RAE                  | none           |   |
|  | 18 Jun        | RAE, T. Manolis      | none           |   |
|  | 26 Aug        | MJB                  | none           |   |
| El Descanso                            | 29 Jan        | MJB, RAE             | none           | reported 1989–1994 with maxima of 50 on 15 Aug 1992 and 50+ on 23 Oct 1994; Wurster et al. 2001                   |
|  | 27 Feb        | MJB                  | 15             | reported 2003–2006 with maximum of 100 on 3 Oct 2004; <i>North American Birds</i>                                 |
|  | 11 Mar        | MJB, RAE, T. Manolis | none           |   |
|  | 4 Jun         | RAE                  | none           |   |
|  | 26 Aug        | MJB                  | 25             |   |
| Río Guadalupe estuary                  | 30 Jan        | MJB, RAE             | none           | eight seen on 24 Sep 2004; <i>North American Birds</i>  |
|  | 4 Jun         | RAE                  | none           |   |
|  | 26 Aug        | MJB                  | none           |   |
| La Misión                              | 30 Jan        | MJB, RAE             | none           | 1000–1200 birds at nesting colony 1 May 2002 and up to 40 birds seen April–July 2004; <i>North American Birds</i> |
|  | 14 May        | HdlC, RAE            | 15             |   |
|  | 20 May        | HdlC                 | none           |   |
|  | 27 May        | HdlC                 | none           |   |
|  | 4 Jun         | RAE                  | none           |   |

| Location                | date surveyed | observer(s)          | birds found | additional notes  |
|-------------------------|---------------|----------------------|-------------|---|
| Mesa la Misión          | 14 May        | HdlC, RAE            | none        | up to 20, including singing males, 7 Feb–1 Mar 1998; Wurster et al. 2001  |
|                         |               |                      |             | 30 seen on 6 Apr 2004; <i>North American Birds</i>  |
| La Salina               | 4 Jun         | RAE                  | none        | ten seen 2–3 Oct 2007; <i>North American Birds</i>  |
|                         | 26 Aug        | MJB                  | none        |   |
|                         | 27 Aug        | MJB                  | none        |   |
| Presa Emiliano Zapata   | 11 Mar        | MJB, RAE, T. Manolis | none        |   |
|                         | 15 May        | RAE                  | none        |   |
| Lagunita El Ciprés      | 29 Jan        | MJB, RAE             | none        | 45 leaving roost on 9 May 2004; <i>North American Birds</i>   |
|                         | 11 Mar        | MJB, RAE, T. Manolis | none        |   |
|                         | 15 May        | RAE                  | none        |   |
|                         | 5 Jun         | RAE                  | none        |   |
|                         | 27 Aug        | MJB                  | none        |   |
| Arroyo San Carlos       | 26 May        | HdlC                 | none        |   |
| Maneadero Plain         |               |                      |             |   |
| Baja Country Club       | 29 Jan        | MJB, RAE             | none        | 20+ nesting on 26 Mar 2000  |
|                         |               |                      |             | reported 2000–2006 with nesting confirmed in 2001, 2003, and 2004 (maximum of 110–130 pairs in 2001); <i>North American Birds</i> |
|                         | 11 Mar        | MJB, RAE, T. Manolis | none        |   |
|                         | 15 May        | RAE                  | none        |   |
| elsewhere               | 27 Aug        | MJB                  | none        |   |
|                         | 25 Feb        | MJB                  | none        | reported 1973–2000 with maxima of 200 on 15 Feb 1988 and 250 on 5 Jun 1994; Wurster et al. 2001                                   |
|                         | 11 Mar        | MJB, RAE, T. Manolis | none        | reported 2004–2007 with maximum of 60 on 20 Apr 2002; <i>North American Birds</i>   |
|                         | 15 May        | RAE                  | none        |   |
|                         | 5 Jun         | RAE                  | none        |   |
|                         | 26 Aug        | MJB                  | none        |   |
|                         | 27 Aug        | MJB                  | none        |   |
|                         |               |                      |             |   |
| Las Animas              | 5 Jun         | RAE                  | none        |   |
|                         | 6 Jun         | RAE                  | none        |   |
|                         | 27 Aug        | MJB                  | none        |   |
| Ejido Uruapan           | 11 Mar        | MJB, RAE, T. Manolis | none        |   |
|                         | 5 Jun         | RAE                  | none        |   |
| Río Santo Tomás estuary | 11 Mar        | MJB, RAE, T. Manolis | none        | 11 seen on 24 May 2001; <i>North American Birds</i>   |
|                         | 27 Aug        | MJB                  | none        |   |
| Valle Santo Tomás       | 5 Jun         | RAE                  | none        | 10 seen on 8 May 2004; <i>North American Birds</i>  |

| <b>Location</b>   | <b>date surveyed</b> | <b>observer(s)</b> | <b>birds found</b> | <b>additional notes</b>   |
|---|----------------------|--------------------|--------------------|---|
| San Vicente   | 5 Jun                | RAE                | none               | 50 seen on 17 Mar 1984, Wurster et al. 2001;<br>20 seen on 11 Jan 1992, H.A. Green pers. comm.  |
| Valle San Rafael, northeast of Colonet  | 5 Jun                | RAE                | none               |   |
| lower Valle San Telmo   | 6 Jun                | RAE                | none               | ten on 3 Jul 1993, 30 on 23 Mar 1996; Wurster et al. 2001<br>200+ roosting on 20 Apr 2002; <i>North American Birds</i>  |
| Arroyo San Telmo, below the highway   | 6/6/07               | RAE                | none               |   |
| lower Arroyo Santo Domingo  | 6 Jun                | RAE                | none               |   |
| San Quintín Plain   | 26 Feb               | MJB                | none               | first recorded in April 1910; Howell 1911<br>25 nesting 19–20 May 2003 and one seen 17 Dec 2000;<br><i>North American Birds</i>                                 |
|   | 27 Feb               | MJB                | none               |   |
|   | 6 Jun                | RAE                | none               |   |
| El Rosario  | 5 Jun                | RAE                | none               | first recorded in November 1906; Thayer and Bangs 1907<br>reported 1995–1999 with maxima of 100+ in January 1996<br>and 250 on 26 Sep 1999; Wurster et al. 2001 |
|   | 6 Jun                | RAE                | 12                 | reported 2000–2006 with 15 juveniles seen on 19 May 2003 and<br>maximum of 120–150 on 9 Oct 2001; <i>North American Birds</i>                                   |
| Arroyo San Juan de Dios, at Lagunita del Saucito<br>near the junction with Arroyo El Cartabon | 27 Feb               | MJB                | none               |   |
|   | 27 Apr               | G. Ruiz-Campos     | none               |   |
| Rancho El Descanso  | 27 Feb               | MJB                | 15                 | 15 seen on 6 Nov 1998; Wurster et al. 2001<br>reported 2000–2004 with maximum of 75 on 29 Oct 2002;<br><i>North American Birds</i>                              |
|   | 5 Jun                | RAE                | none               |   |
| Misión San Fernando   | 27 Feb               | MJB                | none               |   |
|   | 5 Jun                | RAE                | none               |   |
| <b>Additional Locations</b>   |                      |                    |                    |   |
| Carriso Valley  |                      |                    |                    | specimen taken on 4 Apr 1894; Grinnell 1928   |
| just south of El Testerazo  |                      |                    |                    | two on 28 Feb 2001; <i>North American Birds</i>   |
| Laguna Hanson   |                      |                    |                    | up to 60 seen in December 2005–January 2006;<br><i>North American Birds</i>   |
| vic. El Rayo, south of Laguna Hanson  |                      |                    |                    | one seen on 18 Dec 2003; <i>North American Birds</i>  |
| “northwest coast”   |                      |                    |                    | “rather common...breeding in all freshwater marshes”<br>Bryant 1889 quoting A.W. Anthony, in Grinnell 1928  |
| near Ensenada   |                      |                    |                    | 1979–1980; Wilbur 1987  |
| San Antonio del Mar, north of Punta Colonet   |                      |                    |                    | dozen males in blackbird flock on 2 Mar 1925; Huey 1926   |
| Bahía Colonet   |                      |                    |                    | three seen on 28 May 1994; Wurster et al. 2001  |
| vic. Colonet  |                      |                    |                    | 16 Jan 1981; Wilbur 1987  |
| Rancho Ybarra, Mesa de San Jacinto  |                      |                    |                    | 32 seen on 15 Feb 1991; Wurster et al. 2001   |



| <b>Location</b> | <b>date surveyed</b> | <b>observer(s)</b> | <b>birds found</b> | <b>additional notes</b>                      |
|-----------------|----------------------|--------------------|--------------------|--|
| Laguna Figueroa |                      |                    |                    | two seen on 31 Jan 1995; Wurster et al. 2001 |
| El Socorro      |                      |                    |                    | one seen on 23 Oct 1995; Wurster et al. 2001 |