Marsh Bird Surveys at Conservation Areas

2014–2016 Annual Report

Work conducted under LCR MSCP Work Task F7
Lower Colorado River Multi-Species Conservation Program
Steering Committee Members

**Federal Participant Group**

- Bureau of Reclamation
- U.S. Fish and Wildlife Service
- National Park Service
- Bureau of Land Management
- Bureau of Indian Affairs
- Western Area Power Administration

**California Participant Group**

- California Department of Fish and Wildlife
- City of Needles
- Coachella Valley Water District
- Colorado River Board of California
- Bard Water District
- Imperial Irrigation District
- Los Angeles Department of Water and Power
- Palo Verde Irrigation District
- San Diego County Water Authority
- Southern California Edison Company
- Southern California Public Power Authority
- The Metropolitan Water District of Southern California

**Arizona Participant Group**

- Arizona Department of Water Resources
- Arizona Electric Power Cooperative, Inc.
- Arizona Game and Fish Department
- Arizona Power Authority
- Central Arizona Water Conservation District
- Cibola Valley Irrigation and Drainage District
- City of Bullhead City
- City of Lake Havasu City
- City of Mesa
- City of Somerton
- City of Yuma
- Electrical District No. 3, Pinal County, Arizona
- Golden Shores Water Conservation District
- Mohave County Water Authority
- Mohave Valley Irrigation and Drainage District
- Mohave Water Conservation District
- North Gila Valley Irrigation and Drainage District
- Town of Fredonia
- Town of Thatcher
- Town of Wickenburg
- Salt River Project Agricultural Improvement and Power District
- Unit “B” Irrigation and Drainage District
- Wellton-Mohawk Irrigation and Drainage District
- Yuma County Water Users’ Association
- Yuma Irrigation District
- Yuma Mesa Irrigation and Drainage District

**Nevada Participant Group**

- Colorado River Commission of Nevada
- Nevada Department of Wildlife
- Southern Nevada Water Authority
- Colorado River Commission Power Users
- Basic Water Company

**Native American Participant Group**

- Hualapai Tribe
- Colorado River Indian Tribes
- Chemehuevi Indian Tribe

**Conservation Participant Group**

- Ducks Unlimited
- Lower Colorado River RC&D Area, Inc.
- The Nature Conservancy

**Other Interested Parties Participant Group**

- QuadState Local Governments Authority
- Desert Wildlife Unlimited
Lower Colorado River
Multi-Species Conservation Program

Marsh Bird Surveys at Conservation Areas

2014–2016 Annual Report

Prepared by:
Carolyn J. Ronning, Wildlife Group
Joseph Kahl, Wildlife Group

November 2017
## ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCR MSCP</td>
<td>Lower Colorado River Multi-Species Conservation Program</td>
</tr>
<tr>
<td>Reclamation</td>
<td>Bureau of Reclamation</td>
</tr>
<tr>
<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
</tr>
</tbody>
</table>
# CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>v</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Survey Areas</td>
<td>1</td>
</tr>
<tr>
<td>Big Bend Conservation Area</td>
<td>3</td>
</tr>
<tr>
<td>Beal Lake Conservation Area</td>
<td>4</td>
</tr>
<tr>
<td>Hart Mine Marsh</td>
<td>5</td>
</tr>
<tr>
<td>Imperial Ponds Conservation Area</td>
<td>6</td>
</tr>
<tr>
<td>Laguna Division Conservation Area</td>
<td>7</td>
</tr>
<tr>
<td>Yuma East Wetlands</td>
<td>8</td>
</tr>
<tr>
<td>Hunters Hole</td>
<td>9</td>
</tr>
<tr>
<td>Methods</td>
<td>10</td>
</tr>
<tr>
<td>Results</td>
<td>11</td>
</tr>
<tr>
<td>Big Bend Conservation Area</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>11</td>
</tr>
<tr>
<td>2015</td>
<td>12</td>
</tr>
<tr>
<td>2016</td>
<td>13</td>
</tr>
<tr>
<td>Beal Lake Conservation Area</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>15</td>
</tr>
<tr>
<td>2015</td>
<td>17</td>
</tr>
<tr>
<td>2016</td>
<td>20</td>
</tr>
<tr>
<td>Hart Mine Marsh</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>23</td>
</tr>
<tr>
<td>2015</td>
<td>25</td>
</tr>
<tr>
<td>2016</td>
<td>27</td>
</tr>
<tr>
<td>Imperial Ponds Conservation Area</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>29</td>
</tr>
<tr>
<td>2015</td>
<td>30</td>
</tr>
<tr>
<td>2016</td>
<td>32</td>
</tr>
<tr>
<td>Laguna Division Conservation Area</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>33</td>
</tr>
<tr>
<td>2016</td>
<td>35</td>
</tr>
<tr>
<td>Yuma East Wetlands</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>38</td>
</tr>
<tr>
<td>2015</td>
<td>41</td>
</tr>
<tr>
<td>2016</td>
<td>44</td>
</tr>
<tr>
<td>Hunters Hole</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>46</td>
</tr>
<tr>
<td>2015 and 2016</td>
<td>46</td>
</tr>
<tr>
<td>Literature Cited</td>
<td>47</td>
</tr>
</tbody>
</table>
## Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Big Bend Conservation Area marsh bird survey results, March 27, 2014</td>
</tr>
<tr>
<td>2</td>
<td>Big Bend Conservation Area marsh bird survey results, April 3, 2014</td>
</tr>
<tr>
<td>3</td>
<td>Big Bend Conservation Area marsh bird survey results, April 24, 2014</td>
</tr>
<tr>
<td>4</td>
<td>Big Bend Conservation Area marsh bird survey results, March 16, 2015</td>
</tr>
<tr>
<td>5</td>
<td>Big Bend Conservation Area marsh bird survey results, April 10, 2015</td>
</tr>
<tr>
<td>6</td>
<td>Big Bend Conservation Area marsh bird survey results, April 21, 2015</td>
</tr>
<tr>
<td>7</td>
<td>Big Bend Conservation Area marsh bird survey results, March 17, 2016</td>
</tr>
<tr>
<td>8</td>
<td>Big Bend Conservation Area marsh bird survey results, April 7, 2016</td>
</tr>
<tr>
<td>9</td>
<td>Big Bend Conservation Area marsh bird survey results, April 26, 2016</td>
</tr>
<tr>
<td>10</td>
<td>Beal Lake marsh bird survey results, March 28, 2014</td>
</tr>
<tr>
<td>11</td>
<td>Beal Lake marsh bird survey results, April 4, 2014</td>
</tr>
<tr>
<td>12</td>
<td>Beal Lake marsh bird survey results, April 25, 2014</td>
</tr>
<tr>
<td>13</td>
<td>Willow Marsh marsh bird survey results, April 4, 2014</td>
</tr>
<tr>
<td>14</td>
<td>Willow Marsh marsh bird survey results, April 25, 2014</td>
</tr>
<tr>
<td>15</td>
<td>Beal Lake marsh bird survey results, March 31, 2015</td>
</tr>
<tr>
<td>16</td>
<td>Willow Marsh marsh bird survey results, March 31, 2015</td>
</tr>
<tr>
<td>17</td>
<td>Beal Lake marsh bird survey results, April 9, 2015</td>
</tr>
<tr>
<td>18</td>
<td>Willow Marsh marsh bird survey results, April 9, 2015</td>
</tr>
<tr>
<td>19</td>
<td>Beal Lake marsh bird survey results, April 22, 2015</td>
</tr>
<tr>
<td>20</td>
<td>Willow Marsh marsh bird survey results, April 22, 2015</td>
</tr>
<tr>
<td>21</td>
<td>Beal Lake marsh bird survey results, March 18, 2016</td>
</tr>
<tr>
<td>22</td>
<td>Willow Marsh marsh bird survey results, March 31, 2016</td>
</tr>
<tr>
<td>23</td>
<td>Beal Lake marsh bird survey results, April 8, 2016</td>
</tr>
<tr>
<td>24</td>
<td>Willow Marsh marsh bird survey results, April 8, 2016</td>
</tr>
<tr>
<td>25</td>
<td>Beal Lake marsh bird survey results, April 27, 2016</td>
</tr>
<tr>
<td>26</td>
<td>Willow Marsh marsh bird survey results, April 27, 2016</td>
</tr>
<tr>
<td>27</td>
<td>Hart Mine Marsh survey results, March 17, 2014</td>
</tr>
<tr>
<td>28</td>
<td>Hart Mine Marsh survey results, April 7, 2014</td>
</tr>
<tr>
<td>29</td>
<td>Hart Mine Marsh survey results, April 28, 2014</td>
</tr>
<tr>
<td>30</td>
<td>Hart Mine Marsh survey results, May 15, 2014</td>
</tr>
<tr>
<td>31</td>
<td>Hart Mine Marsh survey results, March 27, 2015</td>
</tr>
<tr>
<td>32</td>
<td>Hart Mine Marsh survey results, April 14, 2015</td>
</tr>
<tr>
<td>33</td>
<td>Hart Mine Marsh survey results, May 9, 2015</td>
</tr>
</tbody>
</table>
### Tables (continued)

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Hart Mine Marsh survey results, March 24, 2016</td>
</tr>
<tr>
<td>35</td>
<td>Hart Mine Marsh survey results, April 8, 2016</td>
</tr>
<tr>
<td>36</td>
<td>Hart Mine Marsh survey results, April 22, 2016</td>
</tr>
<tr>
<td>37</td>
<td>Imperial Ponds Conservation Area marsh bird survey results, March 24, 2014</td>
</tr>
<tr>
<td>38</td>
<td>Imperial Ponds Conservation Area marsh bird survey results, April 10, 2014</td>
</tr>
<tr>
<td>39</td>
<td>Imperial Ponds Conservation Area marsh bird survey results, May 5, 2014</td>
</tr>
<tr>
<td>40</td>
<td>Imperial Ponds Conservation Area marsh bird survey results, March 18, 2015</td>
</tr>
<tr>
<td>41</td>
<td>Imperial Ponds Conservation Area marsh bird survey results, April 8, 2015</td>
</tr>
<tr>
<td>42</td>
<td>Imperial Ponds Conservation Area marsh bird survey results, April 27, 2015</td>
</tr>
<tr>
<td>43</td>
<td>Imperial Ponds Conservation Area marsh bird survey results, April 28, 2015</td>
</tr>
<tr>
<td>44</td>
<td>Imperial Ponds Conservation Area marsh bird survey results, March 17, 2016</td>
</tr>
<tr>
<td>45</td>
<td>Imperial Ponds Conservation Area marsh bird survey results, April 5, 2016</td>
</tr>
<tr>
<td>46</td>
<td>Imperial Ponds Conservation Area marsh bird survey results, April 21, 2016</td>
</tr>
<tr>
<td>47</td>
<td>Laguna Division Conservation Area marsh bird survey results, March 26, 2015</td>
</tr>
<tr>
<td>48</td>
<td>Laguna Division Conservation Area marsh bird survey results, April 16, 2015</td>
</tr>
<tr>
<td>49</td>
<td>Laguna Division Conservation Area marsh bird survey results, April 30, 2015</td>
</tr>
<tr>
<td>50</td>
<td>Laguna Division Conservation Area marsh bird survey results, March 15–16, 2016</td>
</tr>
<tr>
<td>51</td>
<td>Laguna Division Conservation Area marsh bird survey results, April 12, 2016</td>
</tr>
<tr>
<td>52</td>
<td>Yuma East Wetlands marsh bird survey results, March 25 and 27, 2014</td>
</tr>
<tr>
<td>53</td>
<td>Yuma East Wetlands marsh bird survey results, April 16 and 17, 2014</td>
</tr>
<tr>
<td>54</td>
<td>Yuma East Wetlands marsh bird survey results, April 29 and 30, 2014</td>
</tr>
</tbody>
</table>
Tables (continued)

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 55</td>
<td>Yuma East Wetlands marsh bird survey results, March 24 and 25, 2015</td>
</tr>
<tr>
<td>Table 56</td>
<td>Yuma East Wetlands marsh bird survey results, April 14, 2015</td>
</tr>
<tr>
<td>Table 57</td>
<td>Yuma East Wetlands marsh bird survey results, April 28, 2015</td>
</tr>
<tr>
<td>Table 58</td>
<td>Yuma East Wetlands marsh bird survey results, March 17, 2016</td>
</tr>
<tr>
<td>Table 59</td>
<td>Yuma East Wetlands marsh bird survey results, April 14, 2016</td>
</tr>
<tr>
<td>Table 60</td>
<td>Yuma East Wetlands marsh bird survey results, May 18, 2016</td>
</tr>
</tbody>
</table>

Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>LCR MSCP planning area and conservation areas</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Big Bend Conservation Area</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Beal Lake Conservation Area survey areas: Beal Lake and Willow Marsh</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Hart Mine Marsh</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Imperial Ponds Conservation Area</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Laguna Division Conservation Area</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Yuma East Wetlands</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Hunters Hole</td>
</tr>
</tbody>
</table>

Attachments

<table>
<thead>
<tr>
<th>Attachment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment 1</td>
<td>Species Lists from Surveys Conducted by the Bureau of Reclamation</td>
</tr>
<tr>
<td>Attachment 2</td>
<td>Survey Data Sheet</td>
</tr>
</tbody>
</table>
ABSTRACT

In 2014, 2015, and 2016, surveys for marsh birds were conducted under the Lower Colorado River Multi-Species Conservation Program at conservation areas along portions of the lower Colorado River. Surveys for Yuma clapper rails (\textit{Rallus longirostris yumanensis} [also known as Yuma Ridgway’s rail = \textit{R. obsoletus yumanensis}]), California black rails (\textit{Laterallus jamaicensis coturniculus}), and least bitterns (\textit{Ixobrychus exilis}) were conducted annually between March and May after marsh habitat was created. Survey locations included the Big Bend Conservation Area near Laughlin, Nevada; the Beal Lake Conservation Area on the Havasu National Wildlife Refuge near Needles, California; Hart Mine Marsh on the Cibola National Wildlife Refuge near Cibola, Arizona; the Imperial Ponds Conservation Area on the Imperial National Wildlife Refuge near Yuma, Arizona; the Laguna Division Conservation Area near Yuma, Arizona; Yuma East Wetlands in Yuma, Arizona; and Hunters Hole near Gadsen, Arizona. Yuma clapper rails were detected at the Big Bend Conservation Area, the Beal Lake Conservation Area, Hart Mine Marsh, the Imperial Ponds Conservation Area, and Yuma East Wetlands. Least bitterns were detected at the Beal Lake Conservation Area, Hart Mine Marsh, the Imperial Ponds Conservation Area, the Laguna Division Conservation Area, and Yuma East Wetlands. California black rails were detected at Hart Mine Marsh and the Imperial Ponds Conservation Area.
INTRODUCTION

The Yuma clapper rail (*Rallus longirostris yumanensis* [also known as Yuma Ridgway’s rail = *R. obsoletus yumanensis]*) was listed as an endangered species by the U.S. Department of the Interior in 1967 under the Endangered Species Preservation Act of 1966 (Public Law 89-669) (U.S. Department of the Interior 1967). This protection continued under the Endangered Species Act of 1973, regulated by the U.S. Fish and Wildlife Service (USFWS). In addition, the species is presently listed as threatened in California and is a species of special concern in Arizona (Arizona Game and Fish Department 2006; California Department of Fish and Wildlife 2013). Nevada ranks the Yuma clapper rail as S1: critically imperiled and especially vulnerable to extinction or extirpation due to extreme rarity, imminent threats, or other factors (Nevada Natural Heritage Program 2010).

The California black rail (*Laterallus jamaicensis coturniculus*) has been identified by the USFWS as a bird of conservation concern (USFWS 2008). In California, this species is listed as threatened and is also listed as a species of special concern in Arizona (Arizona Game and Fish Department 2002; California Department of Fish and Wildlife 2013).

The least bittern (*Ixobrychus exilis*) has been identified by the USFWS as a bird of conservation concern (USFWS 2008) and a species of special concern in Arizona and California (Arizona Game and Fish Department 2001; Sterling 2008). It is a protected species in Nevada (Nevada Natural Heritage Program 2010).

Conservation measures under the Habitat Conservation Plan of the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) provide for monitoring and research of Yuma clapper rails, California black rails, and least bitterns (LCR MSCP 2004). Surveys for these three covered species are conducted at sites prior to and after creation of marshland habitat and in existing habitat as part of system-wide monitoring (LCR MSCP 2004).

SURVEY AREAS

Seven conservation areas were surveyed between 2014 and 2016: the Big Bend Conservation Area near Laughlin, Nevada; the Beal Lake Conservation Area on the Havasu National Wildlife Refuge near Needles, California; Hart Mine Marsh on the Cibola National Wildlife Refuge near Cibola, Arizona; the Imperial Ponds Conservation Area on the Imperial National Wildlife Refuge near Yuma, Arizona; the Laguna Division Conservation Area near Yuma, Arizona; Yuma East Wetlands in Yuma, Arizona; and Hunters Hole near Gadsen, Arizona (figure 1).
Figure 1.—LCR MSCP planning area and conservation areas.
Big Bend Conservation Area

The Big Bend Conservation Area is located along the Colorado River, south of Laughlin, Nevada (figures 1 and 2). It is a small marsh backwater (four survey points) that contains approximately 15 acres of backwater and 15 acres of upland. The predominant vegetation of the backwater is southern cattail (*Typha domingensis*). It is at the northern limit of Reach 3 and between River Miles 266 and 267 (figures 1 and 2). Surveys were conducted by the Bureau of Reclamation (Reclamation).

Figure 2.—Big Bend Conservation Area.
Beal Lake Conservation Area

There are two survey areas in the Beal Lake Conservation Area: Beal Lake and Willow Marsh. It is in Reach 3 between River Miles 238 and 239 and is located on the Havasu National Wildlife Refuge between Topock Marsh and the Colorado River (figures 1 and 3). There are nine survey points at Beal Lake within roughly 80 acres of emergent vegetation, predominantly cattail \((Typha\) spp.) and bulrush \((Schoenoplectus\) spp.) Willow Marsh is located adjacent to the riparian vegetation of the Beal Lake Conservation Area. It is a 14-acre site, constructed in 2012, which is predominately cattail and bulrush, and there are three survey points. Surveys were conducted by Reclamation.

Figure 3.—Beal Lake Conservation Area survey areas: Beal Lake and Willow Marsh.
Hart Mine Marsh

Hart Mine Marsh is located on the Cibola National Wildlife Refuge. It contains 163 acres of a decadent marsh, restored between 2009 and 2011, and is located at the southern limit of Reach 4, adjacent to River Miles 91 and 92 (figures 1 and 4). The vegetation consists of cattail, Olney threesquare (*Scirpus americanus*), California bulrush (*Schoenoplectus californicus*), common spikerush (*Eleocharis palustris*), softstem bulrush (*S. tabernaemontani*), saltgrass (*Distichlis spicata*) with quailbush (*Atriplex lentiformis*), and honey mesquite (*Prosopis glandulosa*). There are nine survey points. Surveys were conducted by the USFWS.

Figure 4.—Hart Mine Marsh.
Imperial Ponds Conservation Area

The Imperial Ponds Conservation Area is located on the Imperial National Wildlife Refuge. It is located in Reach 5 adjacent to River Miles 59 and 58 (figures 1 and 5). There are six constructed ponds with 80 acres of backwater habitat that contain some marsh habitat along the edges and in hummocks within the ponds. Field 18 is a 12-acre marsh converted from a farm field. It is dominated by bulrush and was constructed primarily for California black rails. There are four survey points for the six ponds (FMFD8–FMFD11) and two for Field 18 (FMFD3 and FMFD12). Surveys were conducted by the USFWS.

Figure 5.—Imperial Ponds Conservation Area.
Laguna Division Conservation Area

The Laguna Division Conservation Area is 1,100 acres nestled between Imperial Dam and Laguna Dam, with the Mittry Lake Wildlife Area to the east and the Laguna Settling Basin to the west (figures 1 and 6). It contains approximately 200 acres of open water and marsh and is located in the northern portion of Reach 6 adjacent to River Miles 49 and 43. Marsh species were planted in Phase 1 in 2013 and Phase 2 in 2014. Marsh vegetation includes California bulrush, Olney threesquare, alkali sacaton (*Sporobolus airoides*), saltgrass, and yerba mansa (*Anemopsis californica*). There were 9 survey points in 2015 and 18 survey points in 2016. Surveys were conducted by Reclamation.

Figure 6.—Laguna Division Conservation Area.
Yuma East Wetlands

Yuma East Wetlands is located in Yuma, Arizona (figures 1 and 7) in Reach 6 between River Miles 31 and 32. It includes two marshes totaling 66 acres: one north of the Colorado River and one south of the river. Marsh vegetation planted includes bulrush, alkali sacaton, and saltgrass. There were 21 survey points in 2014 and 2015 and 12 survey points in 2016. Surveys were conducted by Reclamation.

Figure 7.—Yuma East Wetlands.
Hunters Hole

Hunters Hole is a 44-acre site located near Gadsen, Arizona (figures 1 and 8) in Reach 7 at River Mile 3. It includes a small area of marsh in Cell 5 (approximately 4 acres), which was planted with sandbar willow (*Salix interior*) and three-square bulrush. Site conditions, including receding groundwater, poor soil, and limited irrigation water, were not adequate to maintain the wetlands after 2014, and they were allowed to convert naturally to cottonwood-willow (*Populus fremontii-Salix gooddingii*). There was one survey point in 2014. Surveys were conducted by Reclamation. No marsh bird surveys were conducted at this conservation area in 2015 or 2016.

Figure 8.—Hunters Hole.
METHODS

Surveys for California black rails, least bitterns, Virginia rails (*Rallus limicola*), and Yuma clapper rails were performed between March 15 and May 31 using a standardized call-playback protocol from the National Marsh Bird Monitoring Program (Conway 2009). Up to four surveys were conducted at each survey point. A standardized survey data sheet was used to record the date, start and end times, location, route, observers, environmental data, and other comments as well as selected marsh birds encountered, their responses, and the direction and distance from the survey point (attachment 2). The locations and numbers of common gallinules (*Gallinula galeata*), pied-billed grebes (*Podilymbus podiceps*), and soras (*Porzana carolina*) were also recorded.

Surveys began 30 minutes before sunrise and continued until marsh birds stopped calling, usually by 10:00 a.m. Surveys ceased when windspeeds were greater than 20 kilometers per hour, as the noise from rustling vegetation impaired the detection of birds. Surveys were not conducted during periods of sustained rain or heavy fog (Conway 2009).

Audio players with speakers were used to broadcast calls of California black rails, least bitterns, Virginia rails, and Yuma clapper rails for 9 minutes. The audio recordings consisted of 5 minutes of silence followed by 30 seconds of selected calls and 30 seconds of silence for each of the species. Specific calls used were “kicky-doo” and “grr” for California black rails, “coo” and “kak” for least bitterns, “grunt,” “ticket,” and “kicker” for Virginia rails, and “clatter,” “kek,” and “kek-burr” for Yuma clapper rails. Calls were played at a volume of 80–90 decibels measured 1 meter from the speakers.

Birds encountered before or after the official 9-minute survey period were also noted on the survey form (attachment 2). Maps of the survey sites were marked with the general location of the birds encountered, and Universal Transverse Mercator coordinates for the survey sites were recorded using a Global Positioning System unit. Surveys at the Beal Lake Conservation Area were conducted using a motorized boat; surveys at the Big Bend Conservation Area, Hart Mine Marsh, Hunters Hole, Yuma East Wetlands, the Laguna Division Conservation Area, and the Imperial Ponds Conservation Area were conducted on foot and with vehicles.

Prior to 2006, surveys were conducted primarily for the detection of Yuma clapper rails. In 2006, the surveys were expanded to include California black rails, least bitterns, and Virginia rails (Conway 2005).
RESULTS

Big Bend Conservation Area

2014

Surveys at the Big Bend Conservation Area were conducted on March 27, April 3, and April 24, 2014 (tables 1–3). No LCR MSCP covered marsh bird species were detected; however, three other marsh birds targeted in the surveys were detected: pied-billed grebes, soras, and Virginia rails. A complete list of species observed is located in attachment 1, table 1-1.

Table 1.—Big Bend Conservation Area marsh bird survey results, March 27, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 2.—Big Bend Conservation Area marsh bird survey results, April 3, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 3.—Big Bend Conservation Area marsh bird survey results, April 24, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>4</strong></td>
<td><strong>3</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

2015

Surveys at the Big Bend Conservation Area were conducted on March 16, April 10, and April 21, 2015 (tables 4–6). One LCR MSCP covered marsh bird species was detected: the Yuma clapper rail. In addition, three other marsh birds targeted in the surveys were detected: pied-billed grebes, soras, and Virginia rails. A complete list of species observed is located in attachment 1, table 1-1.

Table 4.—Big Bend Conservation Area marsh bird survey results, March 16, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>1</strong></td>
<td><strong>2</strong></td>
<td><strong>3</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 5.—Big Bend Conservation Area marsh bird survey results, April 10, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 6.—Big Bend Conservation Area marsh bird survey results, April 21, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

2016

Surveys at the Big Bend Conservation Area were conducted on March 17, April 7, and April 26, 2016 (tables 7–9). No LCR MSCP covered marsh bird species were detected; however, three other marsh birds targeted in the surveys were detected: pied-billed grebes, soras, and Virginia rails. A complete list of species observed is located in attachment 1, table 1-1.
Table 7.—Big Bend Conservation Area marsh bird survey results, March 17, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 8.—Big Bend Conservation Area marsh bird survey results, April 7, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 9.—Big Bend Conservation Area marsh bird survey results, April 26, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Beal Lake Conservation Area

2014

Surveys at Beal Lake were conducted on March 28, April 4 and April 25, 2014, and at Willow Marsh on April 4 and April 25, 2014 (tables 10–14). The surveyor was unable to locate survey points 5 and 6 on March 28. The surveyor did not visit Willow Marsh on March 28. Two LCR MSCP covered marsh bird species were detected: least bitterns and Yuma clapper rails. In addition, all four other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, soras, and Virginia rails. A complete list of species observed is located in attachment 1, table 1-2.

Table 10.—Beal Lake marsh bird survey results, March 28, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>ns(^1)</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>6</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

\(^1\) ns = Not surveyed.
Table 11.—Beal Lake marsh bird survey results, April 4, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1</strong></td>
<td><strong>3</strong></td>
<td><strong>0</strong></td>
<td><strong>16</strong></td>
<td><strong>3</strong></td>
<td><strong>9</strong></td>
<td><strong>1</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 12.—Beal Lake marsh bird survey results, April 25, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
<td><strong>3</strong></td>
<td><strong>0</strong></td>
<td><strong>4</strong></td>
<td><strong>0</strong></td>
<td><strong>8</strong></td>
<td><strong>1</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Marsh Bird Surveys at Conservation Areas
2014–2016 Annual Report

Table 13.—Willow Marsh marsh bird survey results, April 4, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 14.—Willow Marsh marsh bird survey results, April 25, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

2015

Surveys at Beal Lake and Willow Marsh were conducted on March 31, April 9, and April 22, 2015 (tables 15–20). Two LCR MSCP covered marsh bird species were detected: least bitterns and Yuma clapper rails. In addition, all four other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, soras, and Virginia rails. A complete list of species observed is located in attachment 1, table 1-2.
Table 15.—Beal Lake marsh bird survey results, March 31, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>11</td>
<td>5</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 16.—Willow Marsh marsh bird survey results, March 31, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 17.—Beal Lake marsh bird survey results, April 9, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1</strong></td>
<td><strong>1</strong></td>
<td><strong>0</strong></td>
<td><strong>7</strong></td>
<td><strong>0</strong></td>
<td><strong>5</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 18.—Willow Marsh marsh bird survey results, April 9, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>1</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 19.—Beal Lake marsh bird survey results, April 22, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 20.—Willow Marsh marsh bird survey results, April 22, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

2016

Surveys at Beal Lake and Willow Marsh were conducted on March 18, March 31, April 8, and April 27, 2016 (tables 21–26). Two LCR MSCP covered marsh bird species were detected: least bitterns and Yuma clapper rails. In addition, all four other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, soras, and Virginia rails. A complete list of species observed is located in attachment 1, table 1-2.
Table 21.—Beal Lake marsh bird survey results, March 18, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>15</td>
<td>9</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 22.—Willow Marsh marsh bird survey results, March 31, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 23.—Beal Lake marsh bird survey results, April 8, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4</strong></td>
<td><strong>11</strong></td>
<td><strong>0</strong></td>
<td><strong>13</strong></td>
<td><strong>0</strong></td>
<td><strong>8</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 24.—Willow Marsh marsh bird survey results, April 8, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 25.—Beal Lake marsh bird survey results, April 27, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>11</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td>12</td>
<td>3</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 26.—Willow Marsh marsh bird survey results, April 27, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Hart Mine Marsh

2014

Surveys at Hart Mine Marsh were conducted on March 17, April 7, April 28, and May 15, 2014 (tables 27–30). All three LCR MSCP covered marsh bird species were detected: California black rails, least bitterns, and Yuma clapper rails. In addition, all four other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, soras, and Virginia rails.
Table 27.—Hart Mine Marsh survey results, March 17, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 28.—Hart Mine Marsh survey results, April 7, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 29.—Hart Mine Marsh survey results, April 28, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 30.—Hart Mine Marsh survey results, May 15, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>10</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

2015

Surveys at Hart Mine Marsh were conducted on March 27, April 14, and May 9, 2015 (tables 31–33). Two LCR MSCP covered marsh bird species were detected: least bitterns and Yuma clapper rails. In addition, all four other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, soras, and Virginia rails.
Table 31.—Hart Mine Marsh survey results, March 27, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5</strong></td>
<td><strong>5</strong></td>
<td><strong>0</strong></td>
<td><strong>6</strong></td>
<td><strong>2</strong></td>
<td><strong>0</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 32.—Hart Mine Marsh survey results, April 14, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>ns¹</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>5</strong></td>
<td><strong>0</strong></td>
<td><strong>5</strong></td>
<td><strong>4</strong></td>
<td><strong>6</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

¹ ns = Not surveyed.
Table 33.—Hart Mine Marsh survey results, May 9, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

2016

Surveys at Hart Mine Marsh were conducted on March 24, April 8, and April 22, 2016 (tables 34–36). Two LCR MSCP covered marsh bird species were detected: least bitterns and Yuma clapper rails. In addition, all four other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, soras, and Virginia rails.

Table 34.—Hart Mine Marsh survey results, March 24, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>3(^1)</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>5(^1)</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>2(^1)</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>ns(^2)</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>2(^1)</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>9</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

\(^1\) One pair of CLRA was detected.
\(^2\) ns = Not surveyed.
Table 35.—Hart Mine Marsh survey results, April 8, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>3¹</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>20</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

¹ One pair of CLRA was detected.

Table 36.—Hart Mine Marsh survey results, April 22, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>5¹</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>2¹</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>ns²</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>17</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

¹ One pair of CLRA was detected.

² ns = Not surveyed.
Imperial Ponds Conservation Area

2014

Surveys at the Imperial Ponds Conservation Area were conducted on March 24, April 10, and May 5, 2014 (tables 37–39). Points 3 and 12 are located in Field 18, and Points 8–11 are located in the adjacent ponds. All three LCR MSCP covered marsh bird species were detected: California black rails, least bitterns, and Yuma clapper rails. In addition, all four other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, soras, and Virginia rails.

Table 37.—Imperial Ponds Conservation Area marsh bird survey results, March 24, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD12</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ponds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FMFD9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>FMFD10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 38.—Imperial Ponds Conservation Area marsh bird survey results, April 10, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD12</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ponds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FMFD9</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FMFD10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>FMFD11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
## Marsh Bird Surveys at Conservation Areas

### 2014–2016 Annual Report

### Table 39.—Imperial Ponds Conservation Area marsh bird survey results, May 5, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD3</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD12</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ponds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD9</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>FMFD10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

### 2015

Surveys at the Imperial Ponds Conservation Area were conducted on March 18, April 8, April 27, and April 28, 2015 (tables 40–43). Points 3 and 12 are located in Field 18, and Points 8–11 are located in the adjacent ponds. Two LCR MSCP covered marsh bird species were detected: least bitterns and Yuma clapper rails. In addition, three other marsh birds targeted in the surveys were detected: pied-billed grebes, soras, and Virginia rails.

### Table 40.—Imperial Ponds Conservation Area marsh bird survey results, March 18, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD12</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ponds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FMFD9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FMFD10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>FMFD11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 41.—Imperial Ponds Conservation Area marsh bird survey results, April 8, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD3</td>
<td>1(^1)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>FMFD12</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Ponds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FMFD9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FMFD10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FMFD11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>12</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

\(^1\) One CLRA was detected in transit between monitoring points.

Table 42.—Imperial Ponds Conservation Area marsh bird survey results, April 27, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ponds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>FMFD9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>FMFD10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>FMFD11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 43.—Imperial Ponds Conservation Area marsh bird survey results, April 28, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD12</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Ponds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>FMFD11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

2016

Surveys at the Imperial Ponds Conservation Area were conducted on March 17, April 5, and April 21, 2016 (tables 43–45). Points 3 and 12 are located in Field 18, and Points 8–11 are located in the six adjacent ponds. All three LCR MSCP covered marsh bird species were detected: California black rails, least bitterns, and Yuma clapper rails. In addition, all four other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, soras, and Virginia rails.

Table 43.—Imperial Ponds Conservation Area marsh bird survey results, March 17, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ponds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD8</td>
<td>ns¹</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>FMFD9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>FMFD10</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>1²</td>
<td>ns</td>
</tr>
<tr>
<td>FMFD11</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

¹ ns = Not surveyed, as there was no marsh habitat near that monitoring point.
² Detected without call-playback.
Table 44.—Imperial Ponds Conservation Area marsh bird survey results, April 5, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD12</td>
<td>3¹</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ponds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD8</td>
<td>ns²</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>FMFD9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>FMFD10</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>2³</td>
<td>ns</td>
</tr>
<tr>
<td>FMFD11</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

¹ One pair of CLRA was detected (paired clatter).
² ns = Not surveyed, as there was open water with no marsh habitat near that monitoring point.
³ Detected without call-playback.

Table 45.—Imperial Ponds Conservation Area marsh bird survey results, April 21, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FMFD12</td>
<td>2¹</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ponds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMFD8</td>
<td>ns²</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>FMFD9</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FMFD10</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>2³</td>
<td>ns</td>
</tr>
<tr>
<td>FMFD11</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

¹ One pair of CLRA was detected.
² ns = Not surveyed, as there was no marsh habitat near that monitoring point.
³ Detected without call-playback.

Laguna Division Conservation Area

2015

Surveys at the Laguna Division Conservation Area were conducted on March 26, April 16, and April 30, 2015, at nine survey points in the newly created habitat in Phase 1 (tables 46–48). One LCR MSCP covered marsh bird species was detected: the least bittern. In addition, one other marsh bird targeted in the surveys was detected: sora. A complete list of species observed is located in attachment 1, table 1-3.
Table 46.—Laguna Division Conservation Area marsh bird survey results, March 26, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>3</strong></td>
<td><strong>0</strong></td>
<td><strong>2</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 47.—Laguna Division Conservation Area marsh bird survey results, April 16, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 48.—Laguna Division Conservation Area marsh bird survey results, April 30, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

2016

Surveys at the Laguna Division Conservation Area were conducted on March 15–16, April 12, and May 19–20, 2016 (tables 49–51). Nine survey points were added in 2016 to cover the newly create habitat in Phase 2. One LCR MSCP covered marsh bird species was detected: the least bittern. In addition, all four other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, soras, and Virginia rails. A complete list of species observed is located in attachment 1, table 1-3.
Table 49.—Laguna Division Conservation Area marsh bird survey results, March 15–16, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 50.—Laguna Division Conservation Area marsh bird survey results, April 12, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
Table 51.—Laguna Division Conservation Area marsh bird survey results, May 19–20, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

**Yuma East Wetlands**

**2014**

Surveys at Yuma East Wetlands were conducted on March 25 and 27, April 16 and 17, and April 29 and 30, 2014 (tables 52–54). The surveys were conducted at the 20 points previously monitored by the Yuma Crossing National Heritage Area prior to the LCR MSCP incorporating the site as a LCR MSCP conservation area in fiscal year 2013. Point RV8 was not surveyed. The fiscal year 2014 marsh bird survey results are the first collected by the LCR MSCP at this conservation area. Each survey took 2 days to complete, as only one-half of the 20 points could be completed by a single biologist in a morning. Two LCR MSCP covered marsh bird species were detected: least bitterns and Yuma clapper rails. In
addition, all four other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, soras, and Virginia rails. A complete list of species observed is located in attachment 1, table 1-4.

Table 52.—Yuma East Wetlands marsh bird survey results, March 25 and 27, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RV3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RV4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV8</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>RV10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>RW2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RW4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RW5</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>CW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

ns = Not surveyed.
Table 53.—Yuma East Wetlands marsh bird survey results, April 16 and 17, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV8</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>RV10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RW2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RW4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>RW6</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CW2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CW6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

ns = Not surveyed.
Table 54.—Yuma East Wetlands marsh bird survey results, April 29 and 30, 2014

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV8</td>
<td>ns¹</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>RV10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW4</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule. ¹ ns = Not surveyed.

2015

Surveys at Yuma East Wetlands were conducted on March 24 and 25, April 14, and April 28, 2015 (tables 55–57). The first survey session survey was conducted by one biologist and took 2 days to complete. Point RV8 was not surveyed. On the second session, nine survey points were omitted to determine if the remaining points could be surveyed in a single day and if they provided adequate coverage of the marsh habitat within the conservation area (RV6, RV8, RV10, CW2, CW3, CW4, CW6, CW7 and CW8). On the third survey session, seven survey points were omitted (RV6, RV8, RV10, CW2, CW6, CW7, and CW8). Two LCR MSCP covered marsh bird species were detected: least bitterns and Yuma clapper rails. In addition, three other marsh birds targeted in the surveys were detected: common gallinules, pied-billed grebes, and soras. A complete list of species observed is located in attachment 1, table 1-4.
Table 55.—Yuma East Wetlands marsh bird survey results, March 24 and 25, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>RV3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>RV4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV8</td>
<td>ns³</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>RV10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>RW4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>RW5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>RW6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>CW6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>CW7</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>CW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>3</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>9</strong></td>
<td><strong>8</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
³ ns = Not surveyed.
Table 56.—Yuma East Wetlands marsh bird survey results, April 14, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV6</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>RV8</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>RV10</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>RW1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RW4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW2</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>CW3</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>CW4</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>CW6</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>CW7</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>CW8</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

1 ns = Not surveyed.
Table 57.—Yuma East Wetlands marsh bird survey results, April 28, 2015

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV6</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>RV8</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>RV10</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>RW1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>RW3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW2</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>CW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CW6</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>CW7</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>CW8</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule. ns = Not surveyed.

2016

Surveys at Yuma East Wetlands were conducted on March 17, April 14, and May 18, 2016 (tables 58–60). Survey points were reduced in 2016 to those only within the Yuma East Wetlands LCR MSCP conservation area boundary. The survey points not surveyed in 2016 were RV6, RV8, RV10, CW2, CW3, CW4, CW6, CW7, and CW8. All surveys were conducted in a single day. Two LCR MSCP covered marsh bird species were detected: least bitterns and Yuma clapper rails. In addition, three other marsh birds targeted in the surveys were detected: pied-billed grebes, soras, and Virginia rails. A complete list of species observed is located in attachment 1, table 1-4.
Table 58.—Yuma East Wetlands marsh bird survey results, March 17, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>RV2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW6</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

Table 59.—Yuma East Wetlands marsh bird survey results, April 14, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>RV3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW4</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>RW5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.
### Table 60.—Yuma East Wetlands marsh bird survey results, May 18, 2016

<table>
<thead>
<tr>
<th>Point</th>
<th>CLRA</th>
<th>LEBI</th>
<th>BLRA</th>
<th>VIRA</th>
<th>SORA</th>
<th>PBGR</th>
<th>COGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RV4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW5</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RW8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

CLRA = Yuma clapper rail, LEBI = least bittern, BLRA = California black rail, VIRA = Virginia rail, SORA = sora, PBGR = pied-billed grebe, and COGA = common gallinule.

### Hunters Hole

#### 2014

Surveys were conducted on March 26, April 15, and May 1, 2014, at the small patch of marsh vegetation at Hunters Hole. None of the LCR MSCP marsh birds species or the four other targeted marsh bird species were detected. A complete list of species observed is located in attachment 1, table 1-5.

#### 2015 and 2016

No marsh bird surveys were conducted at Hunters Hole in 2015 or 2016, as the marsh habitat was not of sufficient size or quality to support the LCR MSCP marsh bird species and it was transitioning to riparian vegetation. The marsh was being encroached by coyote willow (*Salix exigua*) and the soils were too sandy to support a marsh without constant irrigation (which was not available).
LITERATURE CITED


ATTACHMENT 1

Species Lists from Surveys Conducted by the Bureau of Reclamation
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Abert's towhee</td>
<td>Melozone aberti</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American coot</td>
<td>Fulica americana</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>American kestrel</td>
<td>Falco sparverius</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anna's hummingbird</td>
<td>Calypte anna</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barn swallow</td>
<td>Hirundo rustica</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black phoebe</td>
<td>Sayornis nigricans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Black-crowned night heron</td>
<td>Nycticorax nycticorax</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Black-tailed gnatcatcher</td>
<td>Polioptila melanura</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Brown-headed cowbird</td>
<td>Molothrus ater</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Common raven</td>
<td>Corvus corax</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common yellowthroat</td>
<td>Geothlypis trichas</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Double-crested cormorant</td>
<td>Phalacrocorax auritus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eared grebe</td>
<td>Podiceps nigricolis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Eurasian collared dove</td>
<td>Streptopelia decaocto</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Gadwall</td>
<td>Anas strepera</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gambel's quail</td>
<td>Callipepla gambelii</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Great blue heron</td>
<td>Ardea herodias</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater roadrunner</td>
<td>Geococcyx californianus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great-tailed grackle</td>
<td>Quiscalus mexicanus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Green heron</td>
<td>Butorides virescens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Green-tailed towhee</td>
<td>Piptilo chlorurus</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hooded merganser</td>
<td>Lophodytes cucullatus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>House finch</td>
<td>Haemorhous mexicanus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Kildeer</td>
<td>Charadrius vociferus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Table 1-1.—Birds observed or encountered during marsh bird surveys at the Big Bend Conservation Area in 2014–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lincoln’s sparrow</td>
<td>Melospiza lincolnii</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Lucy’s warbler</td>
<td>Oreothlypis luciae</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mallard</td>
<td>Anas platyrhynchos</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Marsh wren</td>
<td>Cistothorus palustris</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mourning dove</td>
<td>Zenaida macroura</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Nashville warbler</td>
<td>Oreothlypis ruficapilla</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Northern rough-winged swallow</td>
<td>Stelgidopteryx serripennis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Orange-crowned warbler</td>
<td>Oreothlypis celata</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Osprey</td>
<td>Pandion haliaetus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Peregrine falcon</td>
<td>Falco peregrinus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Phainopepla</td>
<td>Phainopepla nitens</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Pied-billed grebe</td>
<td>Podilymbus podiceps</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Red-winged blackbird</td>
<td>Agelaius phoeniceus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ring-necked duck</td>
<td>Atyhyta collaris</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ruby-crowned kinglet</td>
<td>Regulus calendula</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ruddy duck</td>
<td>Oxyura jamaicensis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Say’s phoebe</td>
<td>Sayornis saya</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Song sparrow</td>
<td>Melospiza melodia</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sora</td>
<td>Porzana carolina</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Tree swallow</td>
<td>Tachycineta bicolor</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Turkey vulture</td>
<td>Cathartes aura</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Verdin</td>
<td>Auriparus flaviceps</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Virginia rail</td>
<td>Rallus limicola</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>White-winged dove</td>
<td>Zenaida asiatica</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Wilson’s warbler</td>
<td>Cardellina pusilla</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Table 1.1.—Birds observed or encountered during marsh bird surveys at the Big Bend Conservation Area in 2014–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow warbler</td>
<td><em>Setophaga petechia</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yellow-breasted chat</td>
<td><em>Icteria virens</em></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yellow-headed blackbird</td>
<td><em>Xanthocephalus</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Yellow-rumped warbler</td>
<td><em>Setophaga coronata</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yuma clapper rail</td>
<td><em>Rallus longirostris yumanensis</em> (also known as Ridgway’s rail [<em>R. obsoletus</em>])</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1-2.—Birds observed or encountered during marsh bird surveys at the Beal Lake Conservation Area in 2014–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>American bittern</td>
<td><em>Botaurus lentiginosus</em></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>American coot</td>
<td><em>Fulica americana</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>American white pelican</td>
<td><em>Pelecanus erythrorhynchos</em></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>American wigeon</td>
<td><em>Anas americana</em></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ash-throated flycatcher</td>
<td><em>Myiarchus cinerascens</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank swallow</td>
<td><em>Riparia riparia</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bell's vireo</td>
<td><em>Vireo bellii</em></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belted kingfisher</td>
<td><em>Megaceryle alcyon</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bewick's wren</td>
<td><em>Thryomanes bewickii</em></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black phoebe</td>
<td><em>Sayornis nigricans</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Black-crowned night heron</td>
<td><em>Nycticorax</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Black-necked stilt</td>
<td><em>Himantopus mexicanus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black-tailed gnatcatcher</td>
<td><em>Polioptila melanura</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Blue-winged teal</td>
<td><em>Anas discors</em></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown-headed cowbird</td>
<td><em>Molothrus ater</em></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bufflehead</td>
<td><em>Bucephala albeola</em></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Canada goose</td>
<td><em>Branta canadensis</em></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cinnamon teal</td>
<td><em>Anas cyanoptera</em></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Clark's grebe</td>
<td><em>Aechmophorus clarkii</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cliff swallow</td>
<td><em>Petrochelidon pyrrhonota</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common gallinule</td>
<td><em>Gallinula galeata</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Common yellowthroat</td>
<td><em>Geothlypis trichas</em></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Cooper's hawk</td>
<td><em>Accipiter cooperii</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Crissal thrasher</td>
<td><em>Toxostoma crissale</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double-crested cormorant</td>
<td><em>Phalacrocorax auritus</em></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Table 1-2.—Birds observed or encountered during marsh bird surveys at the Beal Lake Conservation Area in 2014–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eared grebe</td>
<td>Podiceps nigricollis</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Gadwall</td>
<td>Anas strepera</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gambel's quail</td>
<td>Callipepla gambelii</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great egret</td>
<td>Ardea alba</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Great blue heron</td>
<td>Ardea herodias</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Greater yellowlegs</td>
<td>Tringa melanoleuca</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great-tailed grackle</td>
<td>Quiscalus mexicanus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Green-winged teal</td>
<td>Anas crecca</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Killdeer</td>
<td>Charadrius vociferus</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Least bittern</td>
<td>Ixobrychus exilis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Lucy's warbler</td>
<td>Oreothlypis luciae</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mallard</td>
<td>Anas platyrhynchos</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marsh wren</td>
<td>Cistothorus palustris</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mourning dove</td>
<td>Zenaida macroura</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern harrier</td>
<td>Circus cyaneus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern rough-winged swallow</td>
<td>Stelgidopteryx serripennis</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern shoveler</td>
<td>Anas clypeata</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Osprey</td>
<td>Pandion haliaetus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pied-billed grebe</td>
<td>Podilymbus podiceps</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Redhead</td>
<td>Aythya americana</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red-shafted flicker</td>
<td>Colaptes auratus cafer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Red-winged blackbird</td>
<td>Agelaius phoeniceus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ruddy duck</td>
<td>Oxyura jamaicensis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snowy egret</td>
<td>Egretta thula</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Song sparrow</td>
<td>Melospiza melodia</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1-2.—Birds observed or encountered during marsh bird surveys at the Beal Lake Conservation Area in 2014–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sora</td>
<td><em>Porzana carolina</em></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Tree swallow</td>
<td><em>Tachycineta bicolor</em></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Turkey vulture</td>
<td><em>Cathartes aura</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virginia rail</td>
<td><em>Rallus limicola</em></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Western grebe</td>
<td><em>Aechmophorus occidentalis</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White-faced ibis</td>
<td><em>Plegadis chihi</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White-winged dove</td>
<td><em>Zenaida asiatica</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilson's phalarope</td>
<td><em>Phalaropus tricolor</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilson's snipe</td>
<td><em>Gallinago delicata</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yellow-breasted chat</td>
<td><em>Icteria virens</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Yellow-headed blackbird</td>
<td><em>Xanthocephalus xanthocephalus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Yellow-rumped warbler</td>
<td><em>Setophaga coronata</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yuma clapper rail</td>
<td><em>Rallus longirostris yumanensis</em> <em>Rallus longirostris yumanensis</em> (also known as Ridgway's rail [R. obsoletus])</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

1-7
Table 1-3.—Birds observed or encountered during marsh bird surveys at the Laguna Division Conservation Area in 2015–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Abert's towhee</td>
<td>Melozone aberti</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American coot</td>
<td>Fulica americana</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>American kestrel</td>
<td>Falco sparverius</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American white pelican</td>
<td>Pelecanus erythrorhynchos</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ash-throated flycatcher</td>
<td>Myiarchus cinerascens</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belted kingfisher</td>
<td>Megaceryle alcyon</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bewick's wren</td>
<td>Thryomanes bewickii</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black phoebe</td>
<td>Sayornis nigricans</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black-crowned night heron</td>
<td>Nycticorax nycticorax</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Black-necked stilt</td>
<td>Himantopus mexicanus</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue grosbeak</td>
<td>Passerina caerulea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brewer's sparrow</td>
<td>Spizella breweri</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown-headed cowbird</td>
<td>Molothrus ater</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Bufflehead</td>
<td>Bucephala albeola</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Cliff Swallow</td>
<td>Petrochelidon pyrrhonota</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common gallinule</td>
<td>Gallinula galeata</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common yellowthroat</td>
<td>Geothlypis trichas</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Double-crested cormorant</td>
<td>Phalacrocorax auritus</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Eared grebe</td>
<td>Podiceps nigricollis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Gamble's quail</td>
<td>Calipeplia gambeli</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Gila woodpecker</td>
<td>Melanerpes uropygialis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Great blue heron</td>
<td>Ardea herodias</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Great egret</td>
<td>Ardea alba</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Great horned owl</td>
<td>Bubo virginianus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Table 1-3.—Birds observed or encountered during marsh bird surveys at the Laguna Division Conservation Area in 2015–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Great-tailed grackle</td>
<td><em>Quiscalus mexicanus</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>House finch</td>
<td><em>Haemorhous mexicanus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Killdeer</td>
<td><em>Charadrius voceros</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Lesser nighthawk</td>
<td><em>Chordeiles acutipennis</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Lincoln's sparrow</td>
<td><em>Melospiza lincolnii</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Mallard</td>
<td><em>Anas platyrhynchos</em></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Marsh wren</td>
<td><em>Cistothorus palustris</em></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mourning dove</td>
<td><em>Zenaida macroura</em></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Northern flicker</td>
<td><em>Colaptes auratus</em></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern harrier</td>
<td><em>Circus cyanus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Northern rough-winged swallow</td>
<td><em>Stelgidopteryx serripennis</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern shoveler</td>
<td><em>anas clypeata</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Osprey</td>
<td><em>Pandion haliaetus</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Pied-billed grebe</td>
<td><em>Podilymbus podiceps</em></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Redhead</td>
<td><em>Aythya americana</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Red-winged blackbird</td>
<td><em>Agelaius phoeniceus</em></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Ring-billed gull</td>
<td><em>Larus delawarensis</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ring-necked duck</td>
<td><em>Aythya collaris</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Ruby-crowned kinglet</td>
<td><em>Regulus calendula</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Ruddy duck</td>
<td><em>Oxyura jamaicensis</em></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-billed dowitcher</td>
<td><em>Limnodromus griseus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Snowy egret</td>
<td><em>Egretta thula</em></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Song sparrow</td>
<td><em>Melospiza melodia</em></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sora</td>
<td><em>Porzana carolina</em></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Table 1-3.—Birds observed or encountered during marsh bird surveys at the Laguna Division Conservation Area in 2015–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree swallow</td>
<td>Tachycineta bicolor</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey vulture</td>
<td>Cathartes aura</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vermilion flycatcher</td>
<td>Pyrocephalus rubinus</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virginia rail</td>
<td>Rallus limicola</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Western grebe</td>
<td>Aechmophorus occidentalis</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western least bittern</td>
<td>Ixobrychus exilis</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Western meadowlark</td>
<td>Sturnella neglecta</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White-winged dove</td>
<td>Zenaida asiatica</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willet</td>
<td>Tringa semipalmata</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willow flycatcher</td>
<td>Empidonax trailii</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Yellow-breasted chat</td>
<td>Icteria virens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Yellow-headed blackbird</td>
<td>Xanthocephalus xanthocephalus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Table 1-4.— Birds observed or encountered during marsh bird surveys at Yuma East Wetlands in 2014–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Abert's towhee</td>
<td>Melozone aberti</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>American coot</td>
<td>Fulica americana</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>American kestrel</td>
<td>Falco sparverius</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>American robin</td>
<td>Turdus migratorius</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>American wigeon</td>
<td>Anas americana</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Anna's hummingbird</td>
<td>Calypte anna</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ash-throated flycatcher</td>
<td>Myiarchus cinerascens</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Barn swallow</td>
<td>Hirundo rustica</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Belted kingfisher</td>
<td>Megaceryle alcyon</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Black crowned night heron</td>
<td>Nycticorax nycticorax</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Black phoebe</td>
<td>Sayornis nigricans</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Black-chinned hummingbird</td>
<td>Archilochus alexandri</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Black-headed grosbeak</td>
<td>Pheucticus melanocephalus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Black-necked stilt</td>
<td>Himantopus mexicanus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Black-tailed gnatcatcher</td>
<td>Polioptila melanura</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Blue grosbeak</td>
<td>Passerina caerulea</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Brown-headed cowbird</td>
<td>Molothrus ater</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Bullock's oriole</td>
<td>Icterus bullockii</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Cinnamon teal</td>
<td>Anas cyanoptera</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Cliff swallow</td>
<td>Petrochelidon pyrrhnotota</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Common gallinule</td>
<td>Gallinula galeata</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Common merganser</td>
<td>Mergus merganser</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Common yellowthroat</td>
<td>Geothlypis trichas</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Cooper's hawk</td>
<td>Accipiter cooperii</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Table 1-4.— Birds observed or encountered during marsh bird surveys at Yuma East Wetlands in 2014–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Crissal thrasher</td>
<td>Toxostoma crissale</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double-crested cormorant</td>
<td>Phalacrocorax auritus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Eurasian collared dove</td>
<td>Streptopelia decaocto</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forster's tern</td>
<td>Sterna forsteri</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gamble's quail</td>
<td>Calipepla gambelii</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gila woodpecker</td>
<td>Melanerpes uropygialis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great blue heron</td>
<td>ardea herodias</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Great egret</td>
<td>Ardea alba</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater roadrunner</td>
<td>Geococcyx californicus</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great-tailed grackle</td>
<td>Quiscalus mexicanus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>House finch</td>
<td>Haemorhous mexicanus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Killdeer</td>
<td>Charadrius vociferus</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ladder-back woodpecker</td>
<td>Picoides scalaris</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Lesser goldfinch</td>
<td>Spinus psaltria</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesser nighthawk</td>
<td>Chordeiles acutipennis</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-billed dowitcher</td>
<td>Limnodromus scolopaceus</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lucy’s warbler</td>
<td>Oreothlypis luciae</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mallard</td>
<td>Anas platyrhynchos</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Marsh wren</td>
<td>Cistothorus palustris</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Mourning dove</td>
<td>Zenaida macroura</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Northern flicker</td>
<td>Colaptes auratus</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern harrier</td>
<td>Circus cyaneus</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern mockingbird</td>
<td>Mimus polyglottos</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Table 1-4.— Birds observed or encountered during marsh bird surveys at Yuma East Wetlands in 2014–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern pintail</td>
<td>Anas acuta</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern rough-winged swallow</td>
<td>Stelgidopteryx serripennis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern shoveler</td>
<td>Anas clypeata</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange-crowned warbler</td>
<td>Oreothlypis celata</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Osprey</td>
<td>Pandion haliaetus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pied-billed grebe</td>
<td>Podilymbus podiceps</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Red-winged blackbird</td>
<td>Anas clypeata</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ring-necked duck</td>
<td>Aythya collaris</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ruby-crowned kinglet</td>
<td>Regulus calendula</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snowy egret</td>
<td>Egretta thula</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Song sparrow</td>
<td>Melospiza melodia</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sora</td>
<td>Porzana carolina</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree swallow</td>
<td>Tachycineta bicolor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey vulture</td>
<td>Cathartes aura</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verdin</td>
<td>Auriparus flaviceps</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Virginia rail</td>
<td>Rallus limicola</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western kingbird</td>
<td>Tyrannus verticalis</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western least bittern</td>
<td>Ixyobrychus exilis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White-crowned sparrow</td>
<td>Sonotrichia leucophrys</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White-faced ibis</td>
<td>Pelagadis chihi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White-winged dove</td>
<td>Zenaida asiatica</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilson’s warbler</td>
<td>Cardellina pusilla</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yellow-breasted chat</td>
<td>Icteria virens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Table 1-4.— Birds observed or encountered during marsh bird surveys at Yuma East Wetlands in 2014–16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow-headed blackbird</td>
<td>Xanthocephalus xanthocephalus</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Yellow-rumped warbler</td>
<td>Setophaga coronata</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yuma clapper rail</td>
<td>Rallus longirostris yumanensis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>(also known as Ridgway's rail</td>
<td>R. obsoletus)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1-5.— Birds observed or encountered during marsh bird surveys at Hunters Hole in 2014

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Abert's towhee</td>
<td><em>Melozone aberti</em></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ash-throated flycatcher</td>
<td><em>Myiarchus cinerascens</em></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Black-chinned hummingbird</td>
<td><em>Archilochus alexandri</em></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Black-tailed gnatcatcher</td>
<td><em>Polioptila melanura</em></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Bullock's oriole</td>
<td><em>Icterus bullockii</em></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Common yellowthroat</td>
<td><em>Geothlypis trichas</em></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Gamble's quail</td>
<td><em>Calipepla gambelii</em></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>House finch</td>
<td><em>Haemorhous mexicanus</em></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Killdeer</td>
<td><em>Charadrius vociferus</em></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ladder-backed woodpecker</td>
<td><em>Picoides scalaris</em></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Mallard</td>
<td><em>Anas platyrhynchos</em></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Mourning dove</td>
<td><em>Zenaida macroura</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Northern rough-winged swallow</td>
<td><em>Stelgidopteryx serripennis</em></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Red-winged blackbird</td>
<td><em>Agelaius phoeniceus</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ring-necked pheasant</td>
<td><em>Phasianus colchicus</em></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ruby-crowned kinglet</td>
<td><em>Regulus calendula</em></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Verdin</td>
<td><em>Auriparus flaviceps</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Western kingbird</td>
<td><em>Tyrannus verticalis</em></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>White-winged dove</td>
<td><em>Zenaida asiatica</em></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Yellow-headed blackbird</td>
<td><em>Xanthocephalus xanthocephalus</em></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
ATTACHMENT 2

Survey Data Sheet
# National Marsh Bird Monitoring Program Survey Data Sheet

Date (eg 10-May-04):  
Name of marsh or route:  
Observer(s) (list all)*:  

Multiple Observer Survey: Y / N  
List all non-focal species surveyed:  

**List all observers in order of their contribution to the data collected**  
Put an "S" in the appropriate column if the bird was seen, a "T" if the bird was heard, and "IS" if both heard and seen.

<table>
<thead>
<tr>
<th>Station</th>
<th>Start Time</th>
<th>Surface (Calm / Rough)</th>
<th>Sky</th>
<th>Wind (Gale)</th>
<th>Salinity</th>
<th>Background noise</th>
<th>Species</th>
<th>Pass 0-1</th>
<th>Pass 1-2</th>
<th>Pass 2-3</th>
<th>Pass 3-4</th>
<th>Pass 4-5</th>
<th>BLKA</th>
<th>LEKI</th>
<th>WRIA</th>
<th>CLWA</th>
<th>Outside survey period</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Background noise:**  
1. No noise  
2. Quiet noise  
3. Loud noise (probably can't hear some birds beyond 100m)  
4. Intense noise (probably can't hear some birds beyond 25m)

**Beaufort scale:**  
0. Smoke rises vertically  
1. Wind direction shown by smoke drift  
2. Wind felt on face; leaves rustle  
3. Leaves, small twigs in constant motion; light flag extended  
4. A raised dust and loose paper; small branches are moved  
5. Small trees with leaves away; crested waveslets on inland waters

**Sky:**  
0. Clear or a few clouds  
1. Partly cloudy or variable sky  
2. Cloudy or overcast  
3. Fog or smoke  
4. Drizzle  
5. Snow  
6. Showers

**Distance Alive:**  
0. None  
1. Range finder  
2. Distance bands on aerial photo  
3. Surveyor flags tied to vegetation

Page 2 of 1