Western Specialty:
Dusky-capped Flycatcher

The Dusky-capped Flycatcher is one of seven species new for Washington detailed in the Washington Bird Records Committee’s report in this issue of Western Birds. Some 415 km north of the species’ previous northernmost record at Newport, Oregon, this occurrence is nevertheless part of a well-established pattern of dispersal northwest from the breeding range in late fall and winter—a pattern the Dusky-capped shares with some other flycatchers such as the Tropical Kingbird, Thick-billed Kingbird, and Greater Pewee. Neah Bay, near the northwestern tip of the Olympic Peninsula, is the site of many of Washington’s rare birds covered in this issue’s report.
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Front cover photo by © Thomas M. Edell of Cayucos, California: Two Emperor
Geese (Anser canagicus) that remained from 9 January to 15 March 2020 at
Point Piedras Blancas, San Luis Obispo Co., California—the southernmost
point the Emperor Goose reached that winter, as noted in this year's report of
the California Bird Records Committee.

Back cover photo by © Jack C. Daynes of Poway, California: Green-tailed To-
whee (Pipilo chlorurus), Tubac, Santa Cruz Co., Arizona, 26 October 2015. In
this issue of Western Birds, on the basis of nocturnal recordings near Nogales,
Arizona, William R. Evans outlines a basis for deducing the Green-tailed
Towhee's previously unknown nocturnal flight call.

Western Birds solicits papers that are both useful to and understandable by amateur
field ornithologists and also contribute significantly to scientific literature. The
journal welcomes contributions from both professionals and amateurs. Appropriate
topics include distribution, migration, status, identification, geographic variation,
conservation, behavior, ecology, population dynamics, habitat requirements, the
effects of pollution, and techniques for censusing, sound recording, and photo-
ographing birds in the field. Papers of general interest will be considered regardless
of their geographic origin, but particularly desired are reports of studies done in or
bearing on North America west of the 100th meridian, including Alaska and Hawaii,
northernwestern Mexico, and the northeastern Pacific Ocean.

Send manuscripts to Daniel D. Gibson, P. O. Box 155, Ester, AK 99725; avesalaska@
gmail.com. For matters of style consult the Suggestions to Contributors to Western

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ABSTRACT: Since its eleventh report (Merrill et al. 2019) the Washington Bird Records Committee has reviewed 219 new reports of 80 species and 9 subspecies. Of these, 163 were accepted, an acceptance rate of 74%. Seven species and two subspecies-groups were added to the Washington state checklist: the Purple Gallinule (Porphyrio martinicus), Swallow-tailed Gull (Creagrus furcatus), Zone-tailed Hawk (Buteo albonotatus), Dusky-capped Flycatcher (Myiarchus tuberculifer), Field Sparrow (Spizella pusilla), Painted Redstart (Myioborus pictus), and Blue Grosbeak (Passerina caerulea), plus an eastern subspecies of the Song Sparrow (Melospiza melodia melodia/atlantica group) and the White-winged Dark-eyed Junco (Junco hyemalis aikeni). In addition to the regular review of reports, the committee reconsidered species on the state list supported only by sight reports. After reviewing 25 reports of 17 species, it removed six species from the state list: the Ruby-throated Hummingbird (Archilochus colubris), Little Curlew (Numenius minutus), Great Knot (Calidris tenuirostris), Whiskered Auklet (Aethia pygmaea), Red-faced Cormorant (Urile urile), and Gray-cheeked Thrush (Catharus minimus). The Washington state list now stands at 515 species.

This 12th report of the Washington Bird Records Committee (WBRC) is the result of the deliberations of the WBRC from February 2017 through October 2018, during which it evaluated 246 reports. These include 219 new reports of 80 species and 9 subspecies. Most reports were from late 2016 into 2018, though 26 of the new reports were from earlier years, as far back as 1978. An additional two previously accepted reports were augmented with accepted details of sightings on later dates. Of the 219 new reports, 163 were accepted, resulting in an acceptance rate of 74%. One report, of the Whooper Swan (Cygnus cygnus), was not accepted because of concerns regarding the bird’s origin. The remaining 55 reports were not accepted because of insufficient documentation. Among the accepted records were those of seven species, one subspecies, and one subspecies-group new for Washington.
Six species were removed from the review list in 2018: the Short-tailed Albatross (*Phoebastria albatrus*) (29 records, 19 since 2009), Mottled Petrel (*Pterodroma inexpectata*) (27 records, 20 since 2009), Brown Booby (*Sula leucogaster*) (25 records, 21 since 2009), Black-and-white Warbler (*Mniotilta varia*) (51 records, 23 since 2009), Tennessee Warbler (*Leiothlypis peregrina*) (44 records, 25 since 2009), and Chestnut-sided Warbler (*Setophaga pensylvanica*) (43 records, 22 since 2009). In addition, one subspecies group, the Red Fox Sparrow (*Passerella iliaca iliaca* group) (28 records, 20 since 2008) was removed from the review list.

**PROCEDURES**

The committee’s procedures are consistent with those detailed in the introduction to the first WBRC report (Tweit and Paulson 1994), expanded on in the introduction to the sixth report (Mlodinow and Aanerud 2006) and repeated most recently in the eleventh report (Merrill et al. 2019).

Species accounts begin with English and scientific names, followed by the total number of records for Washington and the number of records accepted in this report in parentheses. An asterisk following the total number of records indicates that the species has been reviewed for a restricted period of time, so the number does not represent the total number of reports for the state. Each entry includes the following information: location and county of observation, date span, and (for accepted records) initials of the observer(s). To aid with record-keeping and future reference, each report includes a unique file number consisting of the species’ four-letter code, year of the sighting, and entry number, determined by the order received by the committee. For the sake of brevity, in the species accounts below, the four-letter code is omitted from file numbers after the first mentioned report. The initials of the observers who submitted only written descriptions are by convention listed first, followed by those who submitted photographic, video, or audio documentation. The discoverer of the bird is listed only if that person contributed evidence for committee review. When possible, we include additional details such as the number of birds present and notes on their sex, age, and/or plumage; these do not reflect a formal decision made by the committee. For reports not accepted, observers are not listed but the committee’s vote is included (votes to accept–votes not to accept–abstentions).

**COMMITTEE MEMBERS**

The WBRC is a committee of the Washington Ornithological Society. Committee members during the period covered by this report were Shawneen Finnegans, Ryan Merrill, Ryan Shaw, Bill Shelmerdine (from 2017), Dave Slager, Bill Tweit, Brad Waggoner (chair), and Charlie Wright (until 2017). Bill Shelmerdine joined the committee in 2016, replacing Ryan Merrill. Ryan Merrill rejoined the committee in 2017, replacing Charlie Wright. Matt Bartels (nonvoting) was the secretary throughout the period.
RE-REVIEW OF SIGHT RECORDS

After years of debate, in 2018 the committee decided to revisit those species on the state list supported only by sight reports. In recent years, much research has been published concerning the reliability of eyewitness accounts (see Mlodinow 2012), leading several bird records committees to re-evaluate their criteria for accepting sightings (e.g., Garvey et al. 2015), particularly single-observer sightings. After reviewing relevant literature, and debating the appropriate criteria for accepting sight reports over the course of several meetings, the committee adopted revised criteria that reflect the current state of scientific knowledge concerning human observers. Some of the ongoing debate was rooted in committee members’ concerns about revisiting past WBRC decisions, but the committee reached consensus that new evidence concerning the reliability of eyewitnesses, and consideration of the evidence by other rarities committees, justified re-evaluation.

Broadly stated, the committee adopted the principle “exceptional records require exceptional documentation” as the fundamental criterion for evaluating whether or not a species has been documented well enough to be included on the Washington list. In the committee’s judgment, this approach balances the known biases and errors that can influence human observers with the relative degree of rarity or the improbability of occurrence. Since the state list is intended to be a conservative baseline of status and distribution for future reference, both human fallibility and avian distributional probability must be taken into account. In general, the committee will be less inclined to accept sight reports of species with little history of vagrancy to the Pacific Northwest, even if the reports themselves have a high degree of credibility, than sightings of species with an established pattern of vagrancy extending to our region. The committee will apply the highest standards of proof to the former example, and might not require similar exceptional levels of proof for species in the latter category. The committee recognizes that some of these reconsiderations might result in the invalidation of accurate reports; the goal is to compile and maintain a list that confidently and accurately comprises the birds known from Washington State.

The WBRC re-examined all reports of all species on the Washington list supported only by written descriptions, which consisted of 27 reports of 18 species. We reversed the earlier decision in eight of these cases, resulting in the removal of six species from the Washington state list.

Removed from State List

The original decisions to accept these sightings were overturned on reconsideration at the February 2018 meeting. For all but the Philadelphia Vireo (*Vireo philadelphicus*), for which other records were reaffirmed, this resulted in the removal of these species from the state list.

Ruby-throated Hummingbird (*Archilochus colubris*) (0, 0). One reported in Liberty, Kittitas Co., 28 Jun 1992 [RTHU-1992-1, Tweit and Skriletz (1996), revote: 0-7-0]. On review the committee concluded that Anna’s Hummingbird (*Calypte anna*) had not been conclusively eliminated. At the time of the sighting, Anna’s Hummingbirds were still beginning their rapid expansion into the state and were especially rare on the east side of the Cascades where there were fewer than 10 previ-
ous reports. A forked tail, considered diagnostic at the time for the Ruby-throated but now also known for male Anna’s, was noted, as was red on the gorget but not on the crown. Since the only mark considered diagnostic was the absence of red on the crown, the committee determined that the record did not meet sufficiently stringent criteria, as the Ruby-throated Hummingbird remains an exceptional rarity in the Pacific Northwest. A recent record, supported by photographs (RTHU-2017-1), has been accepted by the WBRC but has yet to be published.

**Little Curlew** (*Numenius minutus*) (0, 0). One reported at Leadbetter Point, Pacific Co., 6 May 2001 [LICU-2001-1, Aanerud (2002), revote: 0-7-0]. Although the bird was possibly this species, the details observed and reported were not conclusive. In particular, the WBRC discussed at length the question of whether the report convincingly eliminated the Upland Sandpiper (*Bartramia longicauda*). The lack of barring on the underwings was used as one field mark, but this can be affected by lighting conditions, and the barring on an Upland Sandpiper can be subtle. The bill length as described was ambiguous. The description of the call, while not wrong for a Little Curlew, also did not eliminate some of the variations possible in Upland Sandpiper vocalizations. For such an extraordinary sighting of a species that remains exceptionally rare in the New World, the committee discontinued endorsing the report.

**Great Knot** (*Calidris tenuirostris*) (0, 0). One reported at La Push, Clallam Co., 6 Sep 1979 [GRKN-1979-1, Tweit and Paulson (1994), revote: 0-7-0]. The possibility of a Great Knot × Surfbird (*C. virgata*) was a concern because in 2009 and 2012 one was documented in California (*N. Am. Birds* 64:154, 2010; 66:733, 2013). When the WBRC initially reviewed the Washington report, it was not aware of this “Surfknot” hybrid as a possibility. The details provided for the Washington bird were not sufficient to make this distinction. One in Oregon (Marshall et al. 2003) remains the only Great Knot recorded on the west coast of North America south of Alaska.

**Whiskered Auklet** (*Aethia pygmaea*) (0, 0). One reported at Penn Cove, Whidbey L., Island Co., 16–17 May 1999 [WHAU-1999-1, Aanerud (2002), revote: 0-7-0]. The committee focused on whether a juvenile Cassin’s Auklet (*Ptychoramphus aleuticus*) was convincingly eliminated. Three factors influenced the re-evaluation: long-distance dispersal by the Whiskered Auklet is unknown (Gaston and Jones 1998); young Cassin’s Auklets can appear in May (Ainley et al. 2011), something not appreciated at the time of the initial review of this record; and the difficulty of distinguishing juvenile Cassin’s from juvenile Whiskered (Gaston and Jones 1998). These three factors combined with the great distance at which this bird was observed left the identification uncertain.

**Red-faced Cormorant** (*Urile urile*) (0, 0). One reported off the mouth of the Elwha River, Clallam Co., 8 May 1999 [RFCO-1999-1, Aanerud (2002), revote: 0-7-0]. A record from Haida Gwaii, British Columbia (BCBRC 2019) is the only one east of south-central Alaska and, in the western Pacific, there are few records south of Hokkaido (Brazil 1991). With no precedent for dispersal of this distance by a Red-faced Cormorant, the committee concluded the description did not eliminate a Pelagic Cormorant (*U. pelagicus*) with a pale gray bill, which can appear yellowish in some lights (see https://macaulaylibrary.org/asset/173694011, https://macaulaylibrary.org/asset/173694011, https://macaulaylibrary.org/asset/173694011).

**Philadelphia Vireo** (*Vireo philadelphicus*) (4, 1). One reported at Washtucna, Adams Co., 20 Aug 2005 [PHVI-2005-1, Merrill and Bartels (2015), revote: 1-6-0]. On review, the WBRC concluded the details did not eliminate a Warbling Vireo (*V. gilvus*). Another, reported at Hooper, Whitman Co., 3 Jun 2007 [PHVI-2007-1, Merrill and Bartels (2015), revote: 0-7-0] was observed briefly, and the description did not eliminate the possibility of a bright Warbling Vireo.
Gray-cheeked Thrush (*Catharus minimus*) (0, 0). One reported at McNary National Wildlife Refuge (NWR), Walla Walla Co., 6 Oct 1990 [GCTH-1990-1, Tweit and Paulson (1994), revote: 2-5-0]. Since this species is an exceptional rarity on the west coast south of Alaska (Clement 2000), the committee was concerned that this report, of a silent bird in the shade, did not adequately distinguish this species from other *Catharus* species. Without more detailed evidence, this report was not sufficient to add the Gray-cheeked Thrush to the state list.

Reaffirmed Sight Records

The following sightings were reaffirmed in this process, and their standing on the state list remains.

**Common Ringed Plover** (*Charadrius hiaticula*) (1, 0). An immature at Port Susan Bay, Snohomish Co., 23 Sep 2006 [CRPL-2006-1, Aanerud (2011), revote: 7-0-0] was identified by both field marks and call. There are now five documented records for California (Tietz and McCaskie 2021).

**Jack Snipe** (*Lymnocryptes minimus*) (1, 0). One reported at the Skagit Wildlife Area, Skagit Co., 9 Sep 1993 [JASN-1993-1, Tweit and Skriletz (1996), revote: 7-0-0]. This species has also been recorded in Alaska, Oregon, and California (Paulson 2005, Howell et al. 2014), and being so cryptic it is considered more likely to occur than current records imply. The committee was also persuaded by details about the bird’s “bobbing” behavior, a characteristic of the Jack Snipe not widely known at the time of the sighting.

**Wilson’s Storm-Petrel** (*Oceanites oceanicus*) (4, 0). One observed off Westport, Grays Harbor Co., 23 Jul 1984 [WISP-1984-1, Tweit and Paulson (1994), revote: 7-0-0]. Another found 48 km off Westport, Grays Harbor Co., 6 Sep 2001 [2001-1, Aanerud (2002), revote: 7-0-0]. One was 50 km W of Cape Shoalwater, Pacific Co. (46.733° N, 124.733° W), 12 Jul 2003 [2003-1, Mlodinow and Aanerud (2008), revote: 7-0-0]. One more off was found Westport, Grays Harbor Co., 7 Aug 2005 [2005-1, Aanerud (2011), revote: 7-0-0]. Wilson’s Storm-Petrel is a rare to locally uncommon visitor to the northeast Pacific (Howell 2012). A recent record, supported by photographs (WISP-2020-1), has been accepted by the WBRC but has yet to be published; it removes this species from the sight-record-only category.

**California Condor** (*Gymnogyps californianus*) (1, 0). One reported near Wind River, Skamania Co., 30 Oct 1805 [CACO-1805-1, Aanerud and Mattocks (1997), revote: 7-0-0]. This record, and another more recently accepted sight record (CACO-1805-2), are both documented in the journals of the Lewis and Clark expedition, which reference diagnostic measurements from specimens that apparently are no longer extant. Additional reports, and field sketches, from the Oregon side of the river can be found in the journals of the expedition, giving the committee confidence that the observers were familiar with the species and that it was of regular occurrence in the area.

**White-eyed Vireo** (*Vireo griseus*) (1, 0). A singing bird was found on Vashon I., King Co., 11 Jul 1981 [WEVI-1981-1, Tweit and Paulson (1994), revote: 6-1-0]. Details of the song as well as field marks were well described.

**Philadelphia Vireo** (*Vireo philadelphicus*) (4, 1). One was at Summer Falls, Grant Co., 25 Sep 1991 [PHVI-1991-1, Tweit and Paulson (1994), revote: 7-0-0]. One was at Upper Crab Creek near Ritzville, Lincoln Co., 7 Jun 2002 [2002-1, Mlodinow and Aanerud (2006), revote: 7-0-0]. Another was at Vantage, Kittitas Co., 29 May 2004 [2004-1, Mlodinow and Aanerud (2008), revote: 7-0-0]. A recent record, supported by photographs (PHVI-2021-1), has been accepted by the WBRC but has yet to be published; it removes this species from the sight-record-only category.
**Phainopepla** *(Phainopepla nitens) (1, 0).* One was in West Seattle, King Co., 24 Sep 1994 [PHA1-1994-1, Tweit and Skriletz (1996), revote: 7-0-0]. A recent record, supported by photographs (PHA1-2018-1), has been accepted by the WBRC but has yet to be published; it removes this species from the sight-record-only category.

**Dusky Thrush** *(Turdus eunomus) (1, 0).* One was at Mount Vernon, Skagit Co., 27 Jun 2002 [DUTH-2002-1, Mlodinow and Aanerud (2006), revote: 7-0-0]. Although the date is exceptional, there is a pattern of vagrancy of this species to both the western Palearctic and the New World, particularly Alaska (Clement 2000). Three late-spring and summer records of this distinctive species from areas other than western Alaska might represent birds that wintered in North America (Howell et al. 2014).

**Red-throated Pipit** *(Anthus cervinus) (2, 0).* One was at American Camp, San Juan I., San Juan Co., 14 and 16 Sep 1979 [RTPI-1979-1, Tweit and Paulson (1994), revote: 7-0-0]. One was found on Bainbridge I., Kitsap Co., 7 May 2004 [2004-1, Tweit and Paulson (1994), revote: 7-0-0].

**Nelson's Sparrow** *(Ammospiza nelsoni) (1, 0).* One was seen at Sullivan Lake, Pend Oreille Co., 14 Sep 1986 [NESP-1986-1, Tweit and Paulson (1994), revote: 7-0-0].

**Kentucky Warbler** *(Geothlypis formosa) (1, 0).* One was found at Darrington, Snohomish Co., 14 Jun 1992 [KEWA-1992-1, Tweit and Paulson (1994), revote: 7-0-0]. Although this species is typically rare as a vagrant to the west coast, 1992 was exceptional with at least 38 recorded that spring and summer in California (Hamilton et al. 2007). The Washington report included descriptions of both field marks and song.

In addition to the above, four additional species supported only by sight reports remain on the state checklist. In the case of the Mourning Warbler *(Geothlypis philadelphia)*, the committee deferred review of MOUW-2001-1 (Aanerud 2002) and MOUW-2007-1 (Merrill and Bartels 2015) until it can reconsider the reports in the light of more information about hybridization with MacGillivray’s Warbler *(G. tolmiei)*. The other cases involve more recent sightings to which the WBRC’s current standards were already applied: a Spotted Redshank *(Tringa erythropus)* in 2014 (SPRE-2014-1, Merrill et al. 2019), a Greater Pewee *(Contopus pertinax)* in 2008 (GRPE-2014-1, Merrill and Bartels 2015), and a Thick-billed Longspur *(Rhynchophanes mccownii)* in 2013 (TBLO-2013-1, Mlodinow and Bartels 2016).

**NEW REPORTS ACCEPTED BY THE COMMITTEE**

**Emperor Goose** *(Anser canagicus) (14*, 1).* An adult at Dungeness Bay, Dungeness, Clallam Co., 11–27 Dec 2016 (EMGO-2016-1; photos: BBo, JoG, AP, BPe, JVa) fits the primarily coastal distribution of prior records.

**Falcated Duck** *(Mareca falcata) (5, 1).* A male was found in Padilla Bay, Skagit Co., 15–17 Jan 2017 (FADU-2017-1; photos: GBl, MCh, JGl, EHe, RKl, ToM, RJM, GO, OO, JRo, DSc, GTh; Figure 1). Three of Washington’s five Falcated Ducks have been found at Padilla Bay, a location for large flocks of wintering American Wigeons *(M. americana)* that often contain a high percentage of Eurasian Wigeons *(M. penelope)*. All of the state’s sightings of the Falcated Duck have been in western Washington, and all but one in the winter. Reports to https://eBird.org show a clear pattern linking occurrences of the Falcated Duck to years of high abundance of the Eurasian Wigeon: the Falcated Duck records since 2000 are from three of the five years of highest peaks of Eurasian Wigeon abundance from 2000 to 2019. The timing of the Falcated Ducks’ appearance also generally coincided with the Eurasian Wigeon’s peak in each year (Table 1). Likewise, Oregon’s first record, Feb–Mar
2004, coincided with a year of unusually high Eurasian Wigeon counts in that state (Mlodinow et al. 2004).

**Common Eider** (*Somateria mollissima*) (4, 1). A female was off Purdy Spit, Pierce Co., 6 Jan–9 May 2017 (COEI-2017-1; photos: JGL, EHe, LHu, JMi, GO, ŌO, MPe, CRi, CRu, DSc, RSh, RiM, JVa; video: WB). The photos were inadequate for the subspecies to be identified conclusively (Able et al. 2014). Oregon has one record of the Common Eider (Oregon Bird Records Committee [OBRC] 2021), California has three (Tietz and McCaskie 2021), and British Columbia has two (BCBRC 2019).

**White-winged Dove** (*Zenaida asiatica*) (15, 2). One was in Selah, Yakima Co., 10–13 Jul 2017 (WWDO-2017-2; photos: KLu, LML, EP). One was at Neah Bay, Clallam Co., 15 Dec 2017–5 Mar 2018 (2017-3; BT, photos: ToM, RJM, GO, ŌO, SPe, DPo). The latter is the first White-winged Dove known to have overwintered in Washington, while the former is the 11th for the period of April to July.

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**Table 1** Correlation of Washington Records of the Falcated Duck with Peak Counts of the Eurasian Wigeon, Skagit Co., Washington, 2000–2019

<table>
<thead>
<tr>
<th></th>
<th>Eurasian Wigeon</th>
<th></th>
<th>Falcated Duck</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Peak abundance</td>
<td>Timing of peak</td>
<td>Present?</td>
<td>Dates</td>
</tr>
<tr>
<td>2000–19 average</td>
<td>0.6</td>
<td>Early Mar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five years of greatest Eurasian Wigeon abundance</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2002</td>
<td>26.4</td>
<td>Early Mar</td>
<td>Yes</td>
<td>21 Feb–26 Mar</td>
</tr>
<tr>
<td>2003</td>
<td>4.0</td>
<td>Jan</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>1.6</td>
<td>Early Mar</td>
<td>Yes</td>
<td>27 Feb</td>
</tr>
<tr>
<td>2014</td>
<td>2.3</td>
<td>Early Mar</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>1.4</td>
<td>Mid-Jan</td>
<td>Yes</td>
<td>15–17 Jan</td>
</tr>
</tbody>
</table>

**Yellow-billed Cuckoo** (*Coccyzus americanus*) (13*, 1). One was found on the Little Pend Oreille NWR, Stevens Co., 2 Sep 2017 (YBCU-2017-1: ScH, PR). It is one of only three Yellow-billed Cuckoos found in Washington since 1979 in months other than June or July.

**Purple Gallinule** (*Porphyrio martinicus*) (1, 1). The first state record of this species is based on the wing of an adult found on Hobuck Beach, Neah Bay, Clallam Co., 14 Dec 2017 by surveyors with the Coastal Observation and Seabird Survey Team (COASST; PUGA-2017-1; photos: JL, NM, fide CWr, Univ. of Wash. Burke Mus. 107348; Figure 2). This species, like many other rallids, is well-known as a long-distance vagrant (see Farnsworth et al. 2014), but there are few records from western North America (Hamilton et al. 2007). The six California records are all in fall (Tietz and McCaskie 2021). As an adult, on a very late date, and at a coastal location, Washington's Purple Gallinule is especially noteworthy.

**Curlew Sandpiper** (*Calidris ferruginea*) (12, 1). A molting adult was at Point Roberts Lighthouse, Whatcom Co., 16 Sep 2017 (CUSA-2017-1; photos: MLa). This bird was also seen nearby in British Columbia before and after this sighting, on 10 and 17 Sep (BCBRC 2019).

**Red-necked Stint** (*Calidris ruficollis*) (8, 1). One in alternate plumage was at Crockett Lake, Whidbey I., Island Co., 8–12 Jul 2017 (RNST-2017-1; photos: BK, AL, ToM, RJM, AP, CRi, JSt, GTh, AMW). All Red-necked Stints seen in Washington have been adults, from late June to early August.

**White-rumped Sandpiper** (*Calidris fuscicollis*) (9, 1). One in alternate plumage was at the Hoquiam sewage-treatment plant, Hoquiam, Grays Harbor Co., 27 May 2018 (WRSA-2018-1; photos: PO). Although all eastern Washington records are from late May to late June, this is the first western Washington record in May, the others extending from 7 Jul to 1 Aug.

**Scripps's Murrelet** (*Synthliboramphus scrippsi*) (20*, 1). Two birds were about 30 km W of Westport, Grays Harbor Co. (46.9° N, 124.5° W), 13 Sep 1998 (SCMU-1998-2; BT). The WBRC removed Scripps's Murrelet from its review list in 2014 but continues reviewing earlier reports.

**Guadalupe Murrelet** (*Synthliboramphus hypoleucus*) (3, 1). Two birds were about 60 km WSW of Westport, Grays Harbor Co. (46.75° N, 124.90° W), 22 Jul 2017 (GUMU-2017-1; BSh, photos: MM). This species' occurrence in Washington's waters seems to correlate with anomalous ocean conditions, as the three records were in 2003 (a strong El Niño year), 2015 (a very strong marine heat wave), and 2017 (see the following discussion of the Swallow-tailed Gull).

**Swallow-tailed Gull** (*Creagrus furcatus*) (1, 1). Washington's first Swallow-tailed Gull appeared at Carkeek Park, Seattle, King Co., and then was found 8 and 34 km farther north, respectively, at Point Wells, Edmonds, and Everett Marina, Everett, Snohomish Co., 31 Aug–10 Sep 2017 (STGU-2017-1; MtB, photos: MBr, DGu, ToM, RJM, GO, OO, CRi, JSt, BWa, AMW; Figure 3). This is the northernmost record of this species. A subsequent record from Bodega Head, California, on 5 Oct 2017, might have represented the Puget Sound bird returning south (Singer et al. 2020).

Two prior California records were associated with significant warm-water anomalies in the eastern Pacific: the major El Niño of 1982/83 preceded the 1985 record, and the 1996 record followed a lengthy period of above-average sea-surface temperatures from 1991 to 1995. These factors led the California Bird Records Committee to accept both records as representing natural occurrences (Hamilton et al. 2007). The year 2017 was highly unusual in the eastern North Pacific: it followed both the very strong El Niño of 2015/16, which was comparable in intensity to that
Figure 2. This Purple Gallinule wing (PUGA-2017-1) was found by COASST volunteers on Hobuck Beach, Clallam Co., on 14 Dec 2017.

*Photo by Nancy Messmer and Janet Lamont*

Figure 3. Washington's first Swallow-tailed Gull (STGU-2017-1) was in King and Snohomish counties, 31 Aug–10 Sep 2017 (photo: 31 Aug 2017).

*Photo by Grace and Ollie Oliver*
of 1982/83 (Jacox et al. 2016), and the marine heat wave of 2014/15, the largest ever recorded (Di Lorenzo and Mantua 2016). These oceanographic events were almost certainly the cause of numerous anomalous distributions of pelagic organisms; examples included unprecedented dispersals of pyrosomes (Brodeur et al. 2018) and Nazca Boobies (Sula granti) into the North Pacific, with both reaching as far north as the Gulf of Alaska (Gibson et al. 2018).

**Black-headed Gull** (*Chroicocephalus ridibundus*) (22, 1). One in alternate plumage was observed over the Nisqually River mudflats, Nisqually, Pierce Co., 28–29 Apr 2018 (BHGU-2018-1; BLB, MRo, photos: WB).

**Little Gull** (*Hydrocoloeus minutus*) (4*, 2). A nonbreeding bird, apparently in second-year plumage, was found at Hobuck Beach, Neah Bay, Clallam Co., 17 May 2017 (LIGU-2017-1; photos: MiB). One was off Point No Point, Kitsap Co., 13 Oct 2017 (2017-2; KBe, photos: BWa). The Little Gull was added to the review list in 2011, following a decline in reports from a high of about six per year in the 1990s (Wahl et al. 2005) to only 13 records in the 2000s.

**Laughing Gull** (*Leucophaeus atricilla*) (9, 1). A breeding-plumaged adult was in Washington’s interior at Potholes Reservoir, Grant Co., 3 May 2017 (LAGU-2017-1; photos: MA). Only two of the nine records are from the interior. It is intriguing that this same location also hosted the only Elegant Tern recorded in interior Washington, on 26 Jun 2016 (https://ebird.org/checklist/S30404849). Both species breed in the Sea of Cortez and are regular post-breeding dispersants to the north as well as the west.


**Arctic Loon** (*Gavia arctica*) (5, 1). A molting adult was in Neah Bay, Clallam Co., 17–18 Dec 2017 (ARLO-2017-1; BWa, photos: BBn, JGl, SPe). The committee maintains a conservative approach to evaluating reports of this species because of its difficulty in identification.

**Short-tailed Albatross** (*Phoebastria albatrus*) (28, 9). The WBRC received data from a study tracking birds by GPS transmitters that included the following nine records (one of them previously reviewed), helping to illustrate how regular the Short-tailed Albatross has become off Washington’s coast (R. Orben pers. comm.). Because the birds were tracked over long distances, locations listed are limited here to the counties where they were confirmed: A male in its first flight year, Clallam, Jefferson, Grays Harbor and Pacific counties, 25–26 Sep and 15–16 Oct 2009. This individual had been previously reported on the basis of more limited data by Merrill and Bartels (2015; STAL-2009-1; fide RO). A female in its first and second flight years, Clallam, Jefferson, Grays Harbor, and Pacific counties, 27–29 Oct, 31 Oct–1 Nov, 6–11 Dec 2009; 5–7 and 10 Mar 2010; 19–22 Feb 2011 (STAL-2009-2; fide RO). A female in its first and second flight years, Clallam, Jefferson, Grays Harbor, and Pacific counties, 16–18 Mar and 31 May–1 Jun 2010 (STAL-2010-3; fide RO). A male in its first and second flight years, Clallam, Jefferson, Grays Harbor, and Pacific counties, 3–9 Mar, 2–5 and 8 Apr 2010; 14 Feb 2011 (STAL-2010-5; fide RO).

With now 28 records in the state, 20 of them since 2008, and especially given the compelling data provided by the GPS tracking study, the committee was satisfied that Short-tailed Albatross is currently a regular annual visitor to Washington waters, with records in every month of the year. The decision to remove this species from the review list is a recognition that its dramatic global population recovery has been reflected in Washington waters. It went unrecorded for almost a century, then after a sighting in 1993 (Wahl et al. 2005) it took another two decades to accrue 10 records. The global population was estimated at 4200 individuals in 2014 (BirdLife International 2021); recently, NOAA Fisheries (2020) characterized it as fewer than 9000 birds.

**Murphy’s Petrel** (*Pterodroma ultima*) (12, 3). One was 93 km WSW of Cape Disappointment, Pacific Co. (46.158° N, 125.265° W), 4 May 2016 (MUPE-2016-3; RTh). Two were seen on 4 May 2017, the first 100 km W of Seaside, Oregon, in Washington waters, Pacific Co. (45.990° N, 125.228° W; 2017-1; PL), and another was seen 3 km farther north on the same day, Pacific Co. (46.011° N, 125.229° W; 2017-2; PL, photos: AAb).

**Mottled Petrel** (*Pterodroma inexpectata*) (27, 2). Two were seen on 1 Dec 2017, the first 94 km W of Seaside, Oregon, in Washington waters, Pacific Co. (46.078° N, 125.142° W; MOPE-2017-1; LHa, RSh, DWa), and another farther north 37 km WSW of La Push, Clallam Co. (47.789° N, 125.098° W; 2017-2; OB). With 20 accepted records since 2009 and more unreviewed reports, the committee was satisfied that this species should be removed from the review list. All but four of Washington’s 27 records fall between late November and late March, a pattern noted by Lehman (2016) and Howell (2012), who suggested these Mottled Petrels are immatures migrating later than adults, as this interval broadly overlaps the species’ breeding season.

**Manx Shearwater** (*Puffinus puffinus*) (44*, 2). Though the WBRC removed the Manx Shearwater from its review list in 2008, it continues to review earlier sightings. One was reported from off Grays Harbor Co., 6 May 2001 (MASH-2001-3; Jbj, BLB). Another, found dead along the Palix River, Bay Center, Pacific Co. (46.632° N, 123.954° W), 14 May 2003 (2003-4; Univ. of Wash. Burke Mus. 80168, fide DSl), is one of few specimens preserved from the eastern North Pacific (see DeCicco et al. 2017).

**Brown Booby** (*Sula leucogaster*) (25, 7). An adult female was found dead on the beach by COASST observers in Aleck Bay, Lopez I., San Juan Co., 19 Aug 2017 (BRBO-2017-1; photos: DMo; specimen not preserved). One subadult male was in Kanaka Bay, San Juan I., San Juan Co., 22–23 Sep 2017 (2017-2; photos: MPi). An adult female was off Point Defiance, Tacoma, Pierce Co., 2 Oct 2017 (2017-3; EP, photos: WB, BLB). An adult female was off Cape Flattery, Neah Bay, Clallam Co., 4 Nov 2017 (2017-4; photos: AHl). One subadult male was resting on the beach at Three Crabs, Dungeness, Clallam Co., 15 Nov 2017 (2017-5; photos: SL). An adult
female was found on the jetty at Westport, Grays Harbor Co., 3 Feb 2018 (2018-1; BT, photos: JAn, MF, JRo). An adult was at the Hoh River mouth, Jefferson Co., 20 May 2018 (2018-3; DWa). All that could be identified to subspecies were the expected brewsteri, but considering the dramatic extent of the Brown Booby’s global range expansion, the WBRC continues to be interested in its identification to subspecies. After the state’s first Brown Booby was found in 1997, this species’ presence in Washington has increased dramatically, with 21 records in the last decade. This matches a pattern of increased abundance and expanded distribution along the California coast (Hamilton et al. 2007). Therefore the WBRC removed this species from its review list in 2018. Eighteen of the 25 records fall between August and November.

Snowy Egret (Egretta thula) (44, 4). One old report of one at the Whitman Mission, Walla Walla Co., 21–23 Apr 1987 (SNEG-1987-2; MLD, MDe, DGr, KKn, TWh, fide LMc). Another old report was from Tokeland, Pacific Co., 13 May 2000 (2000-4; BLB). An immature was at Ridgefield NWR, Clark Co., 30 Sep 2016 (2016-2; photos: LS). Two birds were in Vancouver, Clark Co., from 8 Sep through Dec 2017, then one continued to 4 Mar 2018, mostly at the end of Lower River Rd., but it was also seen briefly at nearby Ridgefield NWR (2017-1; photos: Lower River Rd.: MtB, JiD, GGe, RHi; Ridgefield NWR: RHi).

Zone-tailed Hawk (Buteo albonotatus) (1, 1). Washington’s first was an immature at Neah Bay, Clallam Co., 5–7 Nov 2017 (ZTHA-2017-1; RJM, photos: BBn, AHi, CRI, video: MD; Figure 4), last recorded moving east along the coast of the Strait of Juan de Fuca. This remarkable record is farther north than any other of the Zone-tailed Hawk in North America, including the two from Nova Scotia. Farther south along the west coast, the Zone-tailed Hawk occurs rarely, but regularly, in fall south of Point Conception, and more sporadically north to the San Francisco Bay area. Prior to the sighting at Neah Bay, the northernmost record along the west coast was from southern Humboldt County, California, in May 2016 (https://ebird.org/checklist/S33315992). More recently, one was photographed in Jackson County, Oregon, in October 2018 (OBRC 2021).

Yellow-bellied Sapsucker (Sphyrapicus varius) (15, 1). A female at least one year old was at Juanita Bay Park, Kirkland, King Co., 22–26 Sep 2017 (YBSA-2017-1; photos: BBn, AL, JRo). It was just the second Yellow-bellied Sapsucker recorded in Washington in the fall. All but three records are for the period from December to April, the others being for October and June.

Dusky-capped Flycatcher (Myiarchus tuberculifer) (1, 1). Washington’s first recorded Dusky-capped Flycatcher appeared at Neah Bay, Clallam Co., 16–21 Nov 2016 (DCFL-2016-1; MtB, RHi, photos: BBn, KBy, WB, RFl, CWr, audio: CWr; Figure 5, this issue’s inside front cover), consistent with the species’ clear pattern of northward dispersal in late fall along the west coast (Hamilton et al. 2007). The mid-November date fits the California pattern, where there are no fall records prior to 1 November, and also parallels the coastal pattern of vagrancy of the Tropical Kingbird (Tyrannus melancholicus) (Wahl et al. 2005). Since the Arizona population disappears from breeding areas in August (Tweit and Tweit 2002), the origin of these vagrants that appear over two months later is unclear, leading to speculation that they could originate from populations farther south.

Scissor-tailed Flycatcher (Tyrannus forficatus) (18, 3). An adult was found 10 km SW of Ellensburg at Umtanum and Overlook roads, Kittitas Co., 3 Jun 2017 (STFL-2017-1; photos: LiM). An adult was seen at two locations, first Cape Alava, Clallam Co., 1 May 2018, and then Sand Point, Clallam Co., 11 Jun 2018 (2018-1; Cape Alava: DC; Sand Point: photos: CH). Another adult was at Sekiu, Clallam Co., 12–13 Jun 2018 (2018-3; video: ME). Like these three, 16 of Washington’s 18 Scissor-tailed Flycatchers have occurred between May and August.

*Photo by Adrian Hinkle*

Figure 5. This Dusky-capped Flycatcher (DCFL-2016-1), the first found in Washington, was at Neah Bay, Clallam Co., 16–21 Nov 2016 (photo: 21 Nov 2016).

*Photo by Charlie Wright*
Alder Flycatcher (*Empidonax alnorum*) (5, 1). One was along Dike Road on the Kalispell Reservation, Pend Oreille Co., 18–24 Jun 2018 (ALFL-2018-1; video: JI, audio: JI, RKo, TL). All of Washington's five recorded Alder Flycatchers have been singing birds in June, with four to the east of the Cascade Range and one to the west.

Eastern Phoebe (*Sayornis phoebe*) (13, 1). A juvenile was at Julia Butler Hanson NWR, Cathlamet, Wahkiakum Co., 24 Jun 2018 (EAPH-2018-1; photos, video, audio: MtB). Ten of Washington's 13 records are from May or June, but this is the first on the west side of the state in these months.

Philadelphia Vireo (*Vireo philadelphicus*) (4, 1). One singing Philadelphia Vireo was well described from Lyons Ferry State Park (SP), Franklin Co., 28 May 2018 (PHVI-2018-1: SHi). All four records of this species in Washington have been sight records, of which three fall between 28 May and 7 Jun.

Eurasian Skylark (*Alauda arvensis*) (3*, 3). Three reports, all treated as separate records, of birds unidentified to subspecies but suspected to be *pekinensis* at Hobuck Beach, Clallam Co.: one on 13 May 2017 (EUSK-2017-1; BWa, photos: RJM), one 6–10 Nov 2017 (2017-4; photos: JGu, ToM, RJM, BWa; Figure 6), and one 19–24 Mar 2018 (2018-1; photos: BWa). These are the first skylarks recorded in Washington since the species was added to the review list in 2000 following the extirpation of the small non-native breeding population on San Juan I. (subspecies *arvensis*) that had spread from nearby Vancouver I. (Wahl et al. 2005).

Blue-gray Gnatcatcher (*Polioptila caerulea*) (31, 13). Seven from Neah Bay, Clallam Co., including one (eastern subspecies *P. c. caerulea*) on 7 Oct 2016 (BGGN-2016-1; photos: BWa); one (eastern subspecies) 16–29 Oct 2016 (2016-2; photos: AdA, HA, MiB, JoG, JGu, EHe, ToM, AP, DPn, DSc, BWa); one (eastern subspecies) 31 Oct–1 Dec 2016 (2016-3; photos: BBn, JoG, RJM, audio: CWr); one (eastern subspecies) 3 Nov–5 Dec 2016 (2016-4; photos: MiB, BBn, JoG, EHe, RJM, CRI, DSc); one 29–30 Sep 2017 (2017-3; photos: LMa, BWa); one (eastern subspecies) 24–26 Oct 2017 (2017-5; photos: AP); and one (eastern subspecies) 7 Nov 2017 (2017-7; photos, audio: DPo). Away from Neah Bay, Blue-gray Gnatcatchers were recorded as follows: one at Bethel Ridge, Yakima Co., 7 May 2017 (2017-1; DPo); one (western subspecies *P. c. obscura*) at Horn Rapids Park, Richland, Benton Co., 22 May 2017 (2017-2; LHf, photos: JAb); one (western subspecies) at Central Ferry SP, Whitman Co., 8 Oct 2017 (2017-4; photos, audio: RJB); one at Crow Butte SP, Benton Co., 27 Oct–14 Nov 2017 (2017-6; LN, photos: CLI); one in Kennewick, Benton Co., 22 Apr 2018 (2018-1; DH); and one (western subspecies) along the Klickitat trail near Centerville, Klickitat Co., 5–6 May 2018 (2018-2; photos: MiH, JH, video: MiH, audio: MtB, MiH, SaH).


Northern Wheatear (*Oenanthe oenanthe*) (4, 1). An immature was at Sunrise, Mt. Rainier National Park, Pierce Co., 27 Aug 2018 (NOWH-2018-1; photos: TD). All of Washington's wheatears have been recorded in the fall, three in the last week of August or first week of September. This is the first Washington record away from the coast or the Salish Sea. Although most wheatears noted in the western contiguous states have been along the coast, both Oregon and California also have inland records.

White Wagtail (*Motacilla alba*) (11, 1). One female, of subspecies *ocularis*, was at Neal Rd. and SE 19th Way, Fall City, King Co., 24–28 Jan 2018 (WHWA-2018-1; photos: Bbn, JGl, JGu, ToM, GO, OO). This is only the second White Wagtail recorded in Washington in January, most of the prior sightings being in April and May.

Hoary Redpoll (*Acanthis hornemanni*) (24, 3). A male was at the Reardan Ponds,

**Rustic Bunting** (*Emberiza rustica*) (6, 2). An old report resurfaced of a male that returned two winters to the same location along Loop Road, near the Grays River, Wahkiakum Co., 7 Jan–3 Apr 2001 and 31 Dec 2001–early spring 2002 (RUBU-2001-1; RKo, RP, ARi). One adult male was at Neah Bay, Clallam Co., 6–12 Dec 2016 (2016-2; MtB, MiH, photos: AdA, MCh, JoG, EHe, RJM, video: CB). All but one of Washington’s Rustic Buntings have been recorded in winter west of the Cascades.

**Field Sparrow** (*Spizella pusilla*) (1, 1). Washington’s first Field Sparrow appeared at Neah Bay, Clallam Co., 29 Oct 2016 (FISP-2016-1; ScD, photos: JGu, EHe, ToM, TeM, DPn, DSc; Figure 7). A short-distance migrant with a southerly distribution in eastern North America, the Field Sparrow was not thought to be a likely addition to the Washington list. Until 2015, the nearest coastal record was one in mid-summer 2005 at Blue Lake, Humboldt Co., California (Iliff et al. 2007). Two recent British Columbia records add some context to the one for Washington: one Field Sparrow on 30 Oct 2015 near Squamish was the first recorded along the coast north of California, and one at Esquimalt, Vancouver I., on 20 Nov 2016 occurred less than a month after the one at Neah Bay and about 86 km away across the Strait of Juan de Fuca (BCBRC 2019).

Figure 7. Washington's first Field Sparrow (FISP-2016-1), found on 29 Oct 2016, at Neah Bay, Clallam Co.

Photos by Eric Helsey (A) and Jordan Gunn (B).
Red Fox Sparrow (*Passerella iliaca iliaca* group) (28*, 5). One was at the Yakima Arboretum, Yakima, Yakima Co., 21 Oct 2016 (RFSP-2016-1; photos: DGr). One was in Gig Harbor, Pierce Co., 19–23 Dec 2016 (2016-2; photos: MSh). One was on 3rd Ave. NW, Seattle, King Co., 25 Jan–7 Feb 2017 (2017-1; photos: JGu, RJM, SPe, DSc). One was at Bingen School Inn, Bingen, Klickitat Co., 3–12 Feb 2017 (2017-2; SJ). One lingered in Bellingham, Whatcom Co., 13–27 Mar 2017 (2017-3; photos: JMa). The WBRC reviewed reports of these Fox Sparrows from 2004 to 2017, taking care to distinguish them from *P. i. altivagans* and from Red × Sooty Fox Sparrow intergrades. With 20 records since 2018, this subspecies group is now regarded as a regular winter visitor to Washington.

White-winged Dark-eyed Junco (*Junco hyemalis aikeni*) (1, 1). Washington's first record of this subspecies was of one at Washougal, Skamania Co., 13–17 Apr 2018 (WWJU-2018-1; photos: WC; Figure 8). The White-winged Junco is very rare in western North America, consistent with the short distance between its limited breeding and winter ranges in central North America. The mid-April date is consistent with the typical movement of juncos in Washington.

Gray-headed Dark-eyed Junco (*Junco hyemalis caniceps*) (2, 1). Even though this taxon is almost as unlikely in Washington as the White-winged subspecies, the second state record was of one at Trout Lake, Klickitat Co., from 2 Jan to about 12 Feb 2017 (GHJU-2017-1; photos: LS, JWh, KWh).

LeConte's Sparrow (*Ammospiza leconteii*) (6, 1). An immature was at Discovery Park, Seattle, King Co., 31 Aug 2018 (LCSP-2-18-1; MD, photos: BBn, JPu, GTh, JVa, audio: JVa). Washington's six records are evenly split between east and west of the Cascades. Four are from May and June, one is from November, and this latest occurrence is the first from late-summer/fall. By the end of August, the species has mostly departed the northern portion of its breeding range, in Canada (https://ebird.org/science/status-and-trends/lecspa/abundance-map-weekly; 11 Apr 2021).

Eastern Song Sparrow (*Melospiza melodia melodia/atlantica* group) (3, 3). Paulson (1992) reported a specimen from the Union Bay Natural Area (Montlake Fill), Seattle, King Co., 27 Feb 1978 (SOSP-1978-1; UWBM 32610, fide DPn, DSl). One was at Potlatch SP, Mason Co., 9 Jan 2016 (2016-1; photos: JAn). One was at Neah Bay, Clallam Co., 28–29 Oct and 5 Dec 2016 (2016-2; photos: JCo, JGu, RSh, BWa). The committee began evaluating reports of this subspecies-group following two reports in 2016. Washington observers' awareness of eastern Song Sparrows is increasing, and as a result almost all of the Pacific Northwest reports are from 2016 or later.

Orchard Oriole (*Icterus spurius*) (14, 4). One was at Neah Bay, Clallam Co., 28 Oct–5 Nov 2016 (OROR-2016-1; MRe, photos: JoG, JGu, EHe, RJM, DSc, BWa), and another was there 28 Oct–22 Nov 2016 (2016-2; MRe, photos: BBr, JoG). One was at Johnson Point, Olympia, Thurston Co., 18–24 Dec 2016 (2016-3; BT, photos: LHu). One was at Tsoo-Yess Beach, Neah Bay, Clallam Co., 24 Sep 2017 (2017-1; photos: AP). All but one of Washington's Orchard Orioles have been in fall or winter, two birds persisting into spring. The one in Thurston County was the third recorded in the Salish Sea region, whereas 10 of the 14 have been from the outer coast. Of those, seven have been from the Neah Bay area.

Hooded Oriole (*Icterus cucullatus*) (11, 1). A second-year male was in Renton, King Co., 30 May–3 Jun 2017 (HOOR-2017-1; JRu, photos: ND, audio: DSl). In contrast to the Orchard Oriole's pattern in Washington, Hooded Oriole records are more geographically dispersed and all but one are from April to July rather than fall or winter.

Common Grackle (*Quiscalus quiscula*) (28, 6). A male was at Latah Valley, Spokane, Spokane Co., 23 Apr 2017 (CÖGR-2017-1; photos: HC). One was in Mansfield,
Figure 8. A White-winged Dark-eyed Junco (WWJU-2018-1) was an unexpected new subspecies for Washington when it appeared in Washougal, Skamania Co., 13–17 Apr 2018 (photo: 13 Apr 2018).

Photo by Wilson Cady

Figure 9. This male Bay-breasted Warbler (BBWA-2018-1) was found singing in Ephrata, Grant Co., on 24 May 2018.

Photo by Matt Yawney
Douglas Co., 5 May 2017 (2017-2; photos: SCI). Another male was in Huntsville, Columbia Co., 11 May 2017 (2017-3; photos: GGa). A male was in Newhalem, Whatcom Co., 20 May 2018 (2018-1; photos: EHe). Another male was at Wàatch Beach Rd. and Butler’s Motel, Neah Bay, Clallam Co., 7–8 Jun 2018 (2018-2; photos: AdA, CH). One more male was on Healy Rd., near Cockreham I., Skagit Co., 8 Jun 2018 (2018-3; photos: GBl). Like Washington’s previous Common Grackles, these all appeared to be of the subspecies versicolor.

Great-tailed Grackle (Quiscalus mexicanus) (15, 5). Adult males were at Konnowac Pass, Moxee, Yakima Co., 3 Jul 2010 (GTGR-2010-2; photos: DGr), in Pullman, Whitman Co., 11 May 2017 (2017-1; photos: MHk), and at Potholes SP, Grant Co., 31 May and 16 Jul 2017 (2017-2; ARo, photos: SMu, CRi, audio: CRi). Females were found at the Sprague rest area along I-90, Sprague, Lincoln Co., 29 May 2018 (2018-1; photos: LG, DPo) and at Point Roberts, Whatcom Co., 1 Sep 2018 (2018-2; KKL). The latter may have been the same female recorded from May through Aug 2018 at several locations around Vancouver, British Columbia.

Ovenbird (Seiurus aurocapilla) (29, 1). One singing male was at Snow Mountain Ranch, Yakima Co., 1 Jun 2018 (OVEN-2018-1; ASt, audio: ESt). Eighteen of Washington’s 29 records are for June or July, a period when this species is often detected because of its singing.

Black-and-white Warbler (Mniotilta varia) (51, 6). One male was found in Mansfield, Douglas Co., 6 May 2017 (BAWW-2017-1; photos, video: SCI). One was at the Montlake Fill, Seattle, King Co., 23 Sep 2017 (2017-2; BH, AL). One was along the Dungeness River, Clallam Co., 18 Dec 2017 (2017-3; photos: SG, FL, fide BBo). A male was at Lind Coulee, Grant Co., 30 May 2018 (2018-1; photos: MY). Another male was at Discovery Park, Seattle, King Co., 19 Aug 2018 (2018-2; AG, photos: SHi). One was near Hooper, Adams Co., 5 Sep 2018 (2018-3; RFL). Over half Washington’s Black-and-white Warblers (28 of 51) have been found in May or June, but there are sightings in every month. Of the 51, 29 are from eastern Washington, 22 from western Washington. With 23 records in the past decade and a long history of regular occurrence in the state, the committee removed this species from the review list in 2018.

Prothonotary Warbler (Protonotaria citrea) (4, 1). One was found at Neah Bay, Clallam Co., 5 Nov 2016 (PROW-2016-1; MtB, MRe, photos: BWa). This is the first record in western Washington.

Tennessee Warbler (Leiothlypis peregrina) (44, 5). Three records from Neah Bay, Clallam Co.: one on 25 Sep 2017 (TEWA-2017-2; photos: AP), one 29–30 Aug 2018 (2018-2; KBn, BLB, RJM, EP), and one recorded singing on 8 Sep 2018 (2018-4; CWr, audio: RJM). An adult male was found at Chelan Ridge, Okanogan Co., 30 Aug 2018 (2018-3; AM). One was at Lind Coulee, Grant Co., 14 Sep 2018 (2018-5; photos: MY). Almost ¾ of Washington’s records (32 of 44) are from August and September during fall migration. They are split evenly between east and west of the Cascades. With 25 records since 2009, the committee removed the Tennessee Warbler from the review list in 2018.

Hooded Warbler (Setophaga citrina) (8, 1). A male was in Vancouver, Clark Co., 9 Jun 2017 (HOWA-2017-1; RFl, RHi, photos: RAb, audio: JiD).

Northern Parula (Setophaga americana) (19, 1). One was at Orondo School, Orondo, Douglas Co., 12 Sep 2017 (NOPA-2017-1; photos: BWa).

Magnolia Warbler (Setophaga magnolia) (30, 4). A singing male was at East Wenatchee, Douglas Co., 7 Jun 2017 (MAWA-2017-1; audio: JT). A second-year male was at Discovery Park, Seattle, King Co., 22 Jun 2017 (2017-2; photos: DO). One was at W. E. Johnson Park, Richland, Benton Co., 4 Sep 2018 (2018-1; photos: BLF, NLF). One more was at Potholes SP, Grant Co., 6 Sep 2018 (2018-2; photos: MY).
Figure 10. A hatch-year female Blackburnian Warbler (BLBW-2016-3) visited a yard in Blaine, Whatcom Co., 19 Oct 2016.

*Photo by Robert and Virginia Small*

**Bay-breasted Warbler** (*Setophaga castanea*) (4, 1). A singing male in alternate plumage was at Lions Park, Ephrata, Grant Co., 24 May 2018 (BBWA-2018-1; photos, audio: MY; Figure 9).

**Blackburnian Warbler** (*Setophaga fusca*) (8, 1). One hatch-year female was at Birch Bay Village, Blaine, Whatcom Co., 19 Oct 2016 (BLBW-2016-3; photos: RoS, VS; Figure 10).

**Chestnut-sided Warbler** (*Setophaga pensylvanica*) (43, 11). One male was at Tatoosh I., Clallam Co., 17 Aug 2016 (CSWA-2016-3; TWo). A singing male was at Lion’s Park and Ephrata Cemetery, Ephrata, Grant Co., 9 Jun 2017 (2017-1; audio: MY). Another male was at Umtanum Creek, Yakima Co., 10 Jun 2017 (2017-2; photos: MCh). One was at Nisqually NWR, Thurston Co., 16 Aug 2017 (2017-3; photos: JAn, DLC). One immature was at Washougal, Skamania Co., 6 Sep 2017 (2017-4; photos: WC). One immature was at Neah Bay, Clallam Co., 23 Sep 2017 (2017-5; photos, audio: RJM). One immature was at Rocky Coulee Recreation Area, Vantage, Kittitas Co., 3 Sep 2018 (2018-1; photos: DLP) One was on Jetty Rd., Neah Bay, Clallam Co., 5 Sep 2018 (2018-2; photos: JGu). One immature was at Potholes SP, Grant Co., 5 Sep 2018 (2018-3; photos: MY). One was at Lyons Ferry SP, Franklin Co., 8 Sep 2018 (2018-4; MtB, KBrn, MiH, photos: ED, EP). One, likely an adult, was at Waatch Valley, Neah Bay, Clallam Co., 14 Sep 2018 (2018-5; photos: BBo). Washington’s 43 records of the Chestnut-sided Warbler are divided almost equally between spring and fall migration, with 19 from June, 20 from mid-August through September, and none from November through May. Two-thirds are from the eastern part of the state (28 of 43), one-third from the west (15 of 43). With 22 records since 2009, the committee removed this species from the review list in 2018.

**Blackpoll Warbler** (*Setophaga striata*) (40, 5). A male was at Tatoosh I., Clallam Co., 30 Jun 2015 (BLPW-2015-4; TWo). Another male was at Patrick Park, Ephrata,

Photo by Michael Charest

Figure 12. Of the three Blue Grosbeaks addressed in this report, two were at Neah Bay, Clallam Co., including this hatch-year bird (BLGR-2017-1) on 23 Oct 2017.

Photo by Ryan Shaw
Grant Co., 30 May 2017 (2017-1; photos: MY). One was at Point Whitehorn Marine Park, Whatcom Co., 23–24 Sep 2017 (2017-3; BrB, JiD, photos: CS). One was found at Beacon Hill, Seattle, King Co., 24 Sep 2017 (2017-4; AL, photos: EN). One was at Potholes SP, Grant Co., 5 Sep 2018 (2018-1; photos: MY).

**Black-throated Blue Warbler** (*Setophaga caerulescens*) (17, 2). A male was along Diablo Dam Rd., Whatcom Co., 17 Oct 2016 (BTBW-2016-2; DaD). Another male was found at Pumice Plain, Mt. St. Helens National Volcanic Monument, Skamania Co., 29 Jun 2017 (2017-2; EW).

**Painted Redstart** (*Myioborus pictus*) (1, 1). Washington's first Painted Redstart was a singing male at Cape Flattery, Clallam Co., 25 Aug–16 Sep 2018 (PARE-2018-1; EP, CWi, photos: MCb, JGu, RJM, AT, GV; audio: RJM, BT; Figure 11). Though the Painted Redstart is known sparingly as a vagrant across much of eastern North America, in the West its vagrancy has been confined primarily to southern California (Dunn and Garrett 1997). Records for northern California are considerably fewer (Hamilton et al. 2007), and there are only two farther north: one in West Vancouver, British Columbia, in November 1973 (Campbell et al. 2001) and one in Salem, Oregon, in October 1991 (OBRC 2021).

A singing male in early fall on Washington's outer coast was certainly unexpected, as most of the California records are from October to early Mar (https://ebird.org/pnw/barchart?r=US-CA&bmo=1&emo=12&byr=1900&eyr=2021&spp=paired; 26 Sep 2021).

**Summer Tanager** (*Piranga rubra*) (10, 1). One west of Mount Vernon, Skagit Flats, Skagit Co., 29 Nov–4 Dec 2016 (SUTA-2016-1; BT, photos: GBi, WhJ, RJM). Seven of Washington's ten records are from November or December, the remainder from May and June.

**Blue Grosbeak** (*Passerina caerulea*) (3, 3). The first Washington record was of an adult male at Chinook Bend Natural Area, Carnation, King Co., 24 Aug 2015 (BLGR-2015-1; photos: WF), followed in short order by two immatures, both at Neah Bay, Clallam Co., one on 16 Nov 2016 (2016-1; RHi, photos: RFl) and one on 23 Oct 2017 (2017-1; BT, photos: JI, DPo, RSh, BWa; video: DPo; audio: DSl; Figure 12). Given the frequency of the Blue Grosbeak's appearances in fall on the Atlantic coast north of its breeding range (Lowther and Ingold 2020) and the number of records from Oregon (13) (OBRC 2021), Idaho (at least 30) (IBRC 2021), and British Columbia (1 accepted) (BRBRC 2019), the appearance of this species in Washington was not unexpected.


**Painted Bunting** (*Passerina ciris*) (5, 2). A male was in La Conner, Skagit Co., 18–23 Nov 2017 (PABU-2017-1; photos: BrB, BBn, JGu, ToM, RJM, WR). Another, also a male, was in Bellingham, Whatcom Co., 3–6 Dec 2017 (2017-2; photos: JAG). The two sightings were separated by only about 40 km and 10 days. Nevertheless, the photographs were not useful for detailed plumage comparison and consequently the committee conservatively treated these as two separate birds. Neither bird showed feather wear, and the timing is consistent with the timing of northern California records, from late September to November (Mlodinow and Hamilton 2005).

**Dickcissel** (*Spiza americana*) (16, 4). Three records from Neah Bay, Clallam Co.: one male, likely immature, at the Butler Motel, 17–18 Oct 2016 (DICK-2016-2; photos: HA, MiB, JoG), one immature male along Waatch Beach Rd., 20–23 Oct 2016 (2016-3; photos: AdA, JI, RJM, AP, BPe, ST, BWa), and one the following year at Hobuck Beach from 11 to 12 Nov 2017 (2017-1; photos: ToM, RJM, BWa). One
additional record was of an adult male in alternate plumage along Pleasant Hill Rd., Kelso, Cowlitz Co., 1 Jun 2018 (2018-1; BC, photos: RC). The birds at Neah Bay in 2016 differed in plumage and were treated as separate individuals. Eight of Washington’s 16 records are from coastal counties in the fall or winter.

REPORTS NOT ACCEPTED BY THE COMMITTEE—IDENTIFICATION UNCERTAIN

**Bewick’s Tundra Swan** (*Cygnus columbianus bewickii*) (18*, 0). The report of one on the Samish Flats, Skagit Co., 15 Jan 2018 (BESW-2018-1, vote: 0-6-1) included a written description that left the extent of the yellow on the bill unclear.

**Baikal Teal** (*Sibirionetta formosa*) (4, 0). The report of one along Little Cove Rd., Whitman Co., 20 Jul 2017 (BATE-2017-1, vote: 0-7-0), combined photos showing a swimming Green-winged Teal (*Anas crecca*) and a Northern Pintail (*A. acuta*) in flight.

**Common Eider** (*Somateria mollissima*) (4, 1). A report of two at Clallam Bay, Clallam Co., 15 May 2017 (COEI-2017-2, vote: 0-7-0) included detail insufficient to confirm the identification.

**White-winged Dove** (*Zenaida asiatica*) (15, 2). A report of two birds along Mud Mountain Rd., Enumclaw, King Co., 12 Apr 2017 (WWDO-2017-1, vote: 0-6-1) was based on an observation of birds in flight too brief to convince the committee of their identity.

**Yellow-billed Cuckoo** (*Coccyzus americanus*) (13*, 1). One older report from Struthers Farm, Walla Walla Co., 25 Jun 2007 (YBCU-2007-1, vote: 4-3-0) included details insufficient to confirm the identification.

**Rivoli’s Hummingbird/Blue-throated Mountain-gem** (*Eugenes fulgens/Lampornis clemenciae*) (0, 0). A large hummingbird was reported from the Ravenna neighborhood of Seattle, King Co., 16 Jul 2018 (BLUH/RIHU-2018-1, vote: 0-7-0). While tantalizing, the details obtained by the observer were insufficient to even allow endorsing as this species pair.

**Costa’s Hummingbird** (*Calypte costae*) (14, 0). The report of one at Coupeville, Whidbey I., Island Co., 13–15 Dec 2017 (COHU-2017-1, vote: 0-6-1) included photos more consistent with an Anna’s Hummingbird (*C. anna*).

**Allen’s Hummingbird** (*Selasphorus sasin*) (1, 0). The report of one at Trout Lake, Klickitat Co., 19 Aug 2017 (ALHU-2017-1, vote: 0-6-1) included excellent photographs of the tail feathers that confirmed the bird was a Rufous Hummingbird (*S. rufus*).

**Xantus’s Hummingbird** (*Basilinna xantusii*) (0, 0). One reported in Port Angeles, Clallam Co., 24 Jul 2018 (XAHU-2018-1, vote: 0-7-0) was not described in enough detail to rule out most other species.

**Whooping Crane** (*Grus americana*) (0, 0). A report of two in flight with other cranes over Cassimer Bar, Okanogan Co., 8 Apr 2016 (WHCR-2016-1, vote: 0-7-0) was intriguing but not written until well after the sighting and lacked enough detail for the WBRC to endorse a first state record.

**Curlew Sandpiper** (*Calidris ferruginea*) (12, 1). A bird photographed at Shell Creek Spit, Edmonds, Snohomish Co., 13 Aug 2010 (USA-2010-1, vote: 1-4-2) looked superficially like this species, but the attenuated bill and likely pale legs led most of the committee to favor the Stilt Sandpiper (*C. himantopus*) as its likely identity. Another reported Curlew Sandpiper, at Cattle Point, San Juan I., San Juan Co.,
28 Sep 2017 (2017-2, vote: 0-6-1) looked more like a Dunlin (C. alpina) in the photos obtained. One reported at Bottle Beach, Grays Harbor Co., 27 Oct 2017 (2017-3, 0-7-0) included details insufficient for the WBRC to confidently eliminate the Dunlin.

**Red-necked Stint (Calidris ruficollis)** (8, 1). One reported at Deer Lagoon, Whidbey I., Island Co., 13–14 Jul 2017 (RNST-2017-2; vote: 0-7-0), concurrent with RNST-2017-1 (see above), appeared to be a Sanderling (C. alba) in the photos obtained.

**Long-billed Murrelet (Brachyramphus perdix)** (11, 0). The report of one off Point Wilson, Port Townsend, Jefferson Co., 15 Aug 2016 (LBMU-2016-1, vote: 0-7-0), was of a bird seen at a long distance, and the details provided were insufficient to establish the identity.

**Red-legged Kittiwake (Rissa brevirostris)** (12, 0). A report of one at Madame Dorian Park at the Walla Walla River delta, Walla Walla Co., 27 Dec 2016 (RLKI-2016-1, vote: 0-7-0) did not include details sufficient to eliminate other small gulls such as Bonaparte’s (Chroicocephalus philadelphia).

**Ivory Gull (Pagophila eburnea)** (2, 0). The report of one along the Columbia River near Prosser, Benton Co. (45.924° N, 119.558° W), 26 May 2017 (IVGU-2017-1, vote: 0-7-0) failed to eliminate the more likely possibility of more common gulls in worn or possibly leucistic plumage.

**Black-tailed Gull (Larus crassirostris)** (7, 0). One reported at San Juan County Park, San Juan I., San Juan Co., 16 Mar 2017 (BTGU-2017-1, vote: 0-7-0) appeared in photos to be a California Gull (L. californicus).

**Slaty-backed Gull (Larus schistisagus)** (25, 4). One old report from Fir I., Skagit Co., 18 Jan 1997 (SBGU-1997-1, vote: 0-7-0) did not include details sufficient to confirm this species. One reported at Redondo, King Co., 2–3 Dec 2017 (2017-4, vote: 0-7-0) appeared to be a Glaucous-winged × Western hybrid (L. glaucescens × L. occidentalis).

**Short-tailed Albatross (Phoebastria albatrus)** (28, 9). One of the GPS-tracked individuals mentioned above, although its identity is not in doubt, did not travel into Washington waters during the period tracked on 21 Feb 2013 (STAL-2013-2, location vote: 0-7-0).

**Wilson’s Storm-Petrel (Oceanites oceanicus)** (4, 0). The report of one seen and photographed 30 km W of Ocean City, Grays Harbor Co. (47.03° N, 124.57° W), 2 Sep 2017 (WISP-2017-1, vote: 1-6-0) left the committee unconvinced that the identity had been established. The wing shape in photos varied enough to leave several committee members unsure that Leach’s Storm-Petrel (Hydrobates leucorhous) was eliminated and others unsure that the Wedge-rumped Storm-Petrel (H. tethys) could be eliminated.

**Murphy’s Petrel (Pterodroma ultima)** (12, 3). The report of one 115 km W of Long Beach, Pacific Co. (46.407° N, 125.563° W), 12 May 2017 (MUPE-2017-3, vote: 2-5-0) did not include detail sufficient to confirm the identification.

**Brown Booby (Sula leucogaster)** (25, 7). The report of one at Diamond Point, Clallam Co., 3 Mar 2018 (BRBO-2018-2, vote: 0-7-0) did not include details sufficient to eliminate the Red-footed Booby (S. sula).

**Steller’s Sea-Eagle (Haliaeetus pelagicus)** (0, 0). An old report from between the Hoh and Quinault river mouths, Jefferson Co., in late Feb and early Mar 1989 (STSE-1989-1, vote: 0-7-0) possibly represented this species, but details were reported only years after the initial sighting.

**Red-headed Woodpecker (Melanerpes erythrocephalus)** (0, 0). Reports of one
at Lake Forest Park, King Co., 31 Oct 2016 (RHW0-2016-1, vote: 0-7-0) and in Bellingham, Whatcom Co., 24 May 2018 (2018-1, vote: 1-4-2) failed to convincingly eliminate the much more likely Red-breasted Sapsucker (*Sphyrapicus ruber*).

**Yellow-bellied Sapsucker** (*Sphyrapicus varius*) (15, 1). Two immature birds reported at Horn Rapids Park, Benton Co., 5 Oct 2016 (YBSA-2016-3, vote: 2-4-1) appeared more likely to be Red-naped Sapsuckers (*S. nuchalis*) despite the somewhat late date for being in juvenile plumage.

**Alder Flycatcher** (*Empidonax alnorum*) (5, 1). One reported at the Saltese Wetlands, Spokane Co., 13–19 Jun 2017 (ALFL-2017-1, vote: 0-7-0) was giving an unusual call but not singing, leaving the committee unwilling to endorse it as an Alder Flycatcher. One at Bacon Creek, Skagit Co., 24 Jun–11 Jul 2018 (2018-2, vote: 1-5-1), initially identified as an Alder, proved perhaps more interesting as it was possibly a hybrid Willow × Alder Flycatcher (*E. traillii × E. alnorum*). Because the song was ambiguous, the committee consulted outside experts. After reviewing recordings they agreed that the song and calls were not consistent with a pure Alder and suggested the potential of a hybrid (T. Brooks and A. McCallum pers. comm.). Stewart (1975) reported intermediate songs from North Dakota.

**Blue-headed Vireo** (*Vireo solitarius*) (7, 0). The report of one from Frenchman’s Bar Park, Vancouver, Clark Co., 15 Apr 2018 (BHVI-2018-1, vote: 0-4-3) did not include detail sufficient to eliminate the much more likely Cassin’s Vireo (*V. cassinii*).

**Eurasian Skylark** (*Alauda arvensis*) (3*, 3). The description of a supposed skylark at the Anacortes Airport, Skagit Co., 18 Jul 2017 (EUSK-2017-2, vote: 0-7-0) was insufficient to establish the identity and mentioned behavior unlikely for this species. The report of another at Grandma’s Cove, American Camp, San Juan I., San Juan Co., 2 Oct 2017 (2017-3, vote: 1-5-1) also included details insufficient to establish the identification.

**Phainopepla** (*Phainopepla nitens*) (1, 0). The report of one in Puyallup, Pierce Co., 4 May 2017 (PHAI-2017-1, vote: 0-6-1) provided details insufficient to establish the identity.

**Eastern Hermit Thrush** (*Catharus guttatus faxoni*) (0, 0). A specimen from Anacortes, Skagit Co., 5 Nov 2012 (Acad. Nat. Sci. Philadelphia 204312, HETH-2012-1, vote: 0-7-0) was forwarded from a researcher as a possible Eastern Hermit Thrush. Although the specimen appeared different from the Hermit Thrushes expected in western Washington, the criteria for distinguishing between the many subspecies were not clear enough to the WBRC for it to identify this individual confidently.

**Hoary Redpoll** (*Acanthis hornemanni*) (24, 3). One photographed at Sunnyside Park, Pullman, Whitman Co., 15 Dec 2017 (HORE-2017-2, vote: 0-7-0) was not clearly marked enough to eliminate a pale Common Redpoll (*A. flammea*).

**McKay’s Bunting** (*Plectrophenax hyperboreus*) (4, 0). One photographed on the Timentwa Flats, Okanogan Co., 20 Feb 2017 (MKBU-2017-1, vote: 0-5-2) was intriguing in that it showed four white rectrices. Nevertheless, other field marks including the amount of black on the wing coverts and in the wingtips eliminated a pure McKay’s. The committee speculated that the bird could have been a hybrid Snow × McKay’s (*P. nivalis × P. hyperboreus*) without affirming that identification.

**Lark Bunting** (*Calamospiza melanocorys*) (11, 0). The report of one in breeding plumage at the Millet Pond, McNary NWR, Walla Walla Co., 25 Aug 2018 (LARB-2018-2, vote: 3-4-0) was ultimately not accepted because of the brevity of the sighting.

**Thick-billed Fox Sparrow** (*Passerella iliaca megarhyncha* group) (4*, 2). One reported from Laurel Rd., near Conboy NWR, Klickitat Co., 26 May 2013 (TBFS-2013-2, vote: 1-6-0), was well described, but the committee remained hesitant to
accept reports of this subspecies without definitive audio recordings, given the difficulty of distinguishing between the local Thick-billed subspecies and Slate-colored Fox Sparrow (*P. i. schistacea* group) or possible intergrades.

**Red Fox Sparrow** (*Passerella iliaca iliaca* group) (28*, 5). One reported at Mansfield, Douglas Co., 2 May 2017 (RFSP-2017-4, vote: 1-5-1) appeared more likely to be an intergrade of *P. i. zaboria* with some other subspecies.

**Pink-sided Dark-eyed Junco** (*Junco hyemalis mearnsi*) (0, 0). The report of one from the University of Puget Sound, Tacoma, Pierce Co., 20 Oct 2016 (PSJU-2016-1, vote: 1-6-0) was intriguing, but adequate documentation of field marks necessary to distinguish *J. h. mearnsi* from similar subspecies was not obtained.

**Hooded Oriole** (*Icterus cucullatus*) (11, 1). One reported near Warwick, Klickitat Co., 9 Jun 2018 (HOOR-2018-1, vote: 1-4-2) was observed only briefly in flight. The short view did not allow elimination of other species such as a young Orchard Oriole (*I. spurius*).

**Black-and-white Warbler** (*Mniotilta varia*) (51, 6). One reported at Nisqually NWR, Thurston Co., 12 Jun 2017 (BAWW-2017-4, vote: 3-4-0) was possibly this species, but the description did not adequately eliminate other species such as the Black-throated Gray Warbler (*Setophaga nigriceps*).

**Tennessee Warbler** (*Leiothlypis peregrina*) (44, 5). Reports of one at the Beaver Ponds trail, Winthrop, Okanogan Co., 25 May 2015 (TEWA-2015-6, vote: 2-5-0), of one at Bridgeport, Douglas Co., 6–7 May 2017 (2017-1, vote: 2-4-1), and of one along the Methow River between Twisp and Winthrop, Okanogan Co., 4 May 2018 (2018-1, vote: 0-6-1) included detail insufficient to establish the birds’ identity. One reported at Neah Bay, Clallam Co., 4 Dec 2016 (2016-1, vote: 2-5-0) was seen too briefly for confident identification. One in flight, observed from a moving car at Sekiu, Clallam Co., 7 Dec 2016 (2016-2, vote: 0-7-0), was seen too briefly to instill confidence in the identification. The description of a supposed Tennessee Warbler at Neah Bay, Clallam Co., 4 Oct 2017 (2017-3, vote: 1-4-2) included details unlikely for this season.

**Eastern Nashville Warbler** (*Leiothlypis ruficapilla ruficapilla*) (1, 0). The report of one heard but not seen at Neah Bay, Clallam Co., 16 Oct 2016 (NAWA-2016-1, vote: 0-7-0) was not sufficient to allow acceptance of this subspecies.

**Blackpoll Warbler** (*Setophaga striata*) (40, 5). The report of one offshore close to the 12-Mile Bank, Clallam Co. (48.243° N, 124.995° W), 30 Jun 2017 (BLPW-2017-2, vote: 3-4-0) mentioned field marks inconsistent with this species.

**Black-throated Blue Warbler** (*Setophaga caerulescens*) (17, 2). The report of one from Battle Ground, Clark Co., 3 Apr 2017 (BTBW-2017-1, vote: 1-6-0) provided detail insufficient to establish the identification.

**Yellow-throated Warbler** (*Setophaga dominica*) (3, 0). The report of one from Ritzville, Adams Co., 21 and 28 Oct 2017 (YTWA-2017-1, vote: 2-4-1) provided detail insufficient to establish the identification.

**Indigo Bunting** (*Passerina cyanea*) (39, 1). One reported at Steptoe Canyon, Whitman Co., 8 Aug 2017 (INBU-2017-2, vote: 2-4-1) was seen too briefly for the possibility of a hybrid Indigo × Lazuli Bunting (*P. cyanea × P. amoena*) to be eliminated.

**Painted Bunting** (*Passerina ciris*) (5, 2). The report of one at Orting, Pierce Co., 6–7 Jun 2018 (PABU-2018-1, vote: 2-5-0) provided detail insufficient to establish the identification.
Whooper Swan (*Cygnus cygnus*) (1, 0). The report of one 8 km S of Elma, Grays Harbor Co., 1–3 Apr 2018 (WHOS-2018-1, origin vote: 0–7–0) left no doubt as to the identification, but later investigation revealed a local aviculturist who occasionally lost track of his Whooper Swans.

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**ABSTRACT:** From its last report through 2020, the California Bird Records Committee reached decisions on 206 records involving 195 individuals of 67 species and two species groups, endorsing 180 records of 169 individuals. Especially notable records detailed in this report include those of California’s third Common Crane (*Grus grus*), third Bristle-thighed Curlew (*Numenius tahitiensis*), third Marsh Sandpiper (*Tringa stagnatalis*), third Eurasian Skylark (*Alauda arvensis*), fourth Chuck-will’s-widow (*Antrostomus carolinensis*), and fourth Fork-tailed Flycatcher (*Tyrannus savanna*).

This 46th report of the California Bird Records Committee (CBRC), a committee of Western Field Ornithologists, summarizes evaluations of 206 records involving 195 individuals of 67 species and two species groups. The committee accepted 180 of the 206 records, involving 169 individuals of 59 species and two species groups, for an acceptance rate of 87.3%. A record is considered accepted if it receives no more than one “not accept” vote from the nine voting members on the grounds of questionable identification, or no more than two “not accept” votes on the grounds of questionable natural occurrence. We consider 24 records of 19 individuals to represent returning or continuing birds that were accepted previously. Twenty-four records, involving 24 individuals of 21 species, were not accepted because the identification was not considered to be substantiated. In two cases, involving two individuals of two species, we considered the species correctly identified but did not accept the records because we questioned the birds’ natural occurrence. For review, reports of multiple individuals together are given the same record number; we report the total number of accepted individuals, which may be different from the number of accepted records. Most of the records in this report are of birds first documented in 2020, although a few are earlier.

Since the period covered by this report, the committee has accepted the first California record of the Mexican Duck (*Anas diazi*), the details of which will be published in the next (47th) report. This addition brings the California list to 677 species. The only changes to the review list were the removal of the Broad-billed Hummingbird (*Cynanthus latirostris*) at the January 2021 annual meeting and the addition of the Mexican Duck following acceptance of the first state record. The committee is currently evaluating a record of the Eastern Towhee (*Pipilo erythrophthalmus*), representing a potential addition to the state list.
Species-account headings are organized with English and scientific names first, followed in parentheses by the total number of individuals accepted for California (this report included) and the number of new individuals accepted in this report. Accounts summarize records accepted (as applicable), followed by records not accepted because the identification was not established, the date or location was uncertain, or the natural occurrence was questionable (as applicable). A double asterisk (***) following the number of accepted individuals indicates that the species has been reviewed for a restricted period, so the number of accepted individuals does not represent the total number known for the state. When the observer(s) who originally discovered the bird provided documentation, their initials are listed first in italics, followed by the initials of subsequent observers supplying documentation. A symbol following an observer's initials indicates s/he submitted a photograph (†), sketch ($), audio recording ($§), and/or video (‡). The absence of a symbol following the observer's initials indicates the submission of written documentation only. Following the initials of the observer(s) is the identifying number assigned by the CBRC's secretary. A (#) precedes a specimen number; we cite the collections of the California Academy of Sciences (CAS), Humboldt State University (HSU), and San Diego Natural History Museum (SDNHM) in this report.

As of the CBRC's 43rd report (Singer et al. 2020), age terminology follows that of Humphrey and Parkes (1959) as modified by Howell et al. (2003) and Howell and Pyle (2015). Age determinations largely follow the criteria of Pyle (1997, 2008). If, in the species accounts, we do not specify a bird's age or sex, those characteristics could not be assessed from the information available. Definitions of abbreviations and additional details regarding minutiae of formatting may be found in the CBRC's previous annual reports and in CBRC (2007), both available via the CBRC's website, www.californiabirds.org. Also available through this website are the California bird list, the review list, an online form for submitting documentation of review species, committee news, the CBRC's bylaws, and a form for querying the CBRC's database. Observers are encouraged to submit documentation for all species on the CBRC's review list to the secretary via e-mail (secretary@californiabirds.org) or the website. Documentation of all records is archived at the Western Foundation of Vertebrate Zoology (www.wfvz.org) and is available for public review by appointment or by contacting the CBRC's secretary.

**EMPEROR GOOSE** *Anser canagicus* (99, 3). We consider two adults at San Gregorio State Beach, SM, 20 Mar–3 Apr 2020 (MDeF†, ChH†; 2020-022) to be the same individuals as two adults that spent much of the winter to the south at Point Piedras Blancas, SLO, 9 Jan–15 Mar 2020 (JAM†, BBo†, PCl†, RDe†, TME†, APa†, KP†, BKS†, AJS†, JSto†, JT†, ST†; 2020-007; see this issue's front cover). We consider an adult at Bodega Head, SON, 18 Mar 2020 (SC†; 2020-021) to have been a different bird.

**RUDDY SHELDUCK** *Tadorna ferruginea* (0, 0). NATURAL OCCURRENCE QUESTIONABLE: A male was at Carmel River State Beach, MTY, 4 Dec 2020 (EH†; 2020-189); this species is not likely to reach California as a natural vagrant (see Chesser et al. 2017, Pyle et al. 2017, Benson et al. 2020, Singer et al. 2020).

**GARGANEY** *Anas querquedula* (30, 2). An adult male in West Sacramento, YOL, 3–31 Jan 2020 (ZP†, MJR†; 2020-002) was presumably the same bird that was at this...
location the previous winter (2019-021; Benson et al. 2021). Different adult males were at the Border Tule Wildlife Habitat 12.5 km east-southeast of Arbuckle, COL, 26 Feb–13 Apr 2020 (BD, KCK†, LP†, MJR†, KRS†, BCS †; 2020-015) and at Staten Island, SJ, 19 Mar 2020 (BeS†; 2020-023). We considered an adult female associating with Blue-winged Teal (A. discors) at the Salton Sea State Recreation Area, RIV, 19 Oct 2020–10 Mar 2021 (TABe†, AlH†, RLM†; 2020-141) as the same bird there the previous winter (2019-174; Benson et al. 2021).

NORTHERN BOBWHITE Colinus virginianus (0, 0). NATURAL OCCURRENCE QUESTIONABLE: The committee considered a male of the virginianus subspecies group in Escondido, SD, 4 Jun 2020 (JDa†; 2020-062) to be an obvious escapee.

RUDDY GROUND DOVE Columbina talpacoti (120**, 2). A male in formative plumage was at Bellevue Memorial Park in Ontario, SBE, 15 Oct 2020 (SS†, MAG†; 2020-133), and a female in formative plumage was at North Island Naval Air Station adjacent to Coronado, SD, 15 Oct 2020 (BC†, EC†, GMcC, MSE†; 2020-134).

CHUCK-WILL’S-WIDOW Antrostomus carolinensis (4, 1). One in formative plumage near Bolinas, MRN, 7 Dec 2020 (MD†, DSS†; 2020-200; Figure 1) represents the fourth record for California and the first for Marin County. All four California records are from coastal counties in the northern half of the state, with the dates of three falling between 2 December and 4 January. The three previous records are of sick or injured individuals: one found injured at Half Moon Bay, SM, 16 Oct 1986 (CAS #83955); one struck by a car near Loleta, HUM, 4 Jan 1989 (HSU #7749); and one found in poor health in Crescent City, DN, 2 Dec 2005, that was rehabilitated and released in February 2006 (CBRC 2007, Illiff et al. 2007).

RUBY-THROATED HUMMINGBIRD Archilochus colubris (22, 1). A juvenile male (on the basis of its throat spotting and tail-fork length) was in Tomales, MRN, 5–10 Sep 2020 (CC†, LC†, DLe†, RAR†, ANW†; 2020-085).

BROAD-BILLED HUMMINGBIRD Cynanthus latirostris (122, 10). Males frequented hummingbird feeders near the Allied Gardens Recreation Center in San Diego, SD, 25–27 Sep 2020 (MRa†, AD†, NJD†, JTS†; 2020-102) and at Sea Ranch, SON, 2–6 Oct 2020 (MB†, JBa†, DH; 2020-113). Males in formative plumage were in Pacific Beach, SD, 1–3 Oct 2020 (GNu†; 2020-109); Loma Linda, SBE, 15–16 Oct 2020 (TABe†, MAG†, BCS†; 2020-132); Half Moon Bay, SM, 22–23 Oct 2020 (ChH†, MD†, RFi, JM†; 2020-143); Poway, SD, 25 Oct–1 Nov 2020 (MA, LSh†, TBT, TH†, TKo†; 2020-151); Oak View, VEN, 9 Nov 2020–7 Jan 2021 (JC†; 2020-168); Montecito, SBA, 10–16 Nov 2020 (DN†, JC†, NL; 2020-169); Pasadena, LA, 20 Nov 2020–20 Feb 2021 (T†, TABe†, JSF†, SY†; 2020-179); and Paradise Estates, 16 km southeast of Crowley Lake, MNO, 5–16 Nov 2020 (MO†, DJH§; 2020-202). IDENTIFICATION NOT ESTABLISHED: A male hummingbird photographed in Blythe, RIV, 5 Jul–13 Aug 2020 (2020-069) appeared to be a hybrid between a Broad-billed and a Costa’s Hummingbird (Calypte costae), while a Broad-billed Hummingbird described at the same location 10 Jul 2020 (2020-081) was not endorsed by a majority of members. The committee has discontinued reviewing records of the Broad-billed Hummingbird subsequent to 2020.

VIOLET-CROWNED HUMMINGBIRD Leucolia violiceps (8, 1). One undergoing its second prebasic molt visited a hummingbird feeder at the De Anza Springs Resort, 4 km north of Jacumba, SD, 20–23 May 2020 (NChS, PEL, GMcC, BMu†; 2020-049).

COMMON CRANE Grus grus (3, 1). An adult was associating with Sandhill Cranes (Antigone canadensis) near the town of Davis Creek, MOD, 26 Jul–20 Sep 2020 (KMck†, JDo†, ChH†, LHu†, MM†, NJO†, DEQ, RAR†, SBT; 2020-072).
Figure 1. This Chuck-will’s Widow roosting near Bolinas, Marin County, 7 Dec 2020 (2020-200) was observed that day only. The rounded shape and barred pattern to the rectrices indicate juvenile feathers retained on a bird in formative plumage.

Photo by Daniel S. Singer

Figure 2. This adult Bristle-thighed Curlew at Abbotts Lagoon, Marin County, 19 May 2020 (2020-048) was only the third recorded in California, following two in May 1998. The species remains in its winter range on tropical Pacific islands for its first one to three summers (Pyle 2008), so only adults, distinguished by their broad and dark basic flight feathers, should have a chance of reaching California in spring.

Photo by Matt Lau
All three of California's records have come from the extreme northern end of the state with one for Del Norte County and two for Modoc County.

COMMON RINGED PLOVER Charadrius hiaticula (5, 2). One recorded calling in flight at the mouth of Elk Creek, DN, 16 Aug 2020 (RN†; 2020-075) and an adult male in definitive alternate plumage at Morro Bay, SLO, 1–7 Oct 2020 (KIZ†, TME†, LFr†, BH†, WHK†, BKSt†, MST†, ST†, EW†; 2020-110) provided the first records for Del Norte County and San Luis Obispo County, respectively.

BRISTLE-THIGHED CURLEW Numenius tahitiensis (3, 1). An adult at Abbotts Lagoon, MRN, 19 May 2020 (MLau†§; 2020-048; Figure 2) represented the second record for Marin County. All three of California’s recorded Bristle-thighed Curlews have occurred on the northern California coast within the relatively narrow window of 14–25 May following periods of strong westerly or northerly winds (Mlodinow et al. 1999, CBRC 2007).

BAR-TAILED GODWIT Limosa lapponica (59, 5). Juveniles were at Waddell State Beach, SCZ, 12–15 Sep 2020 (LSt, AMR†, MST†, PsO†, GT†, SBT†; 2020-089); Limantour Beach, MRN, 14–19 Oct 2020 (JG, DLu†; 2020-139); and the Garcia River mouth, MEN, 19 Oct 2020 (ZV†; 2020-140). An adult was at the mouth of Colma Creek, SM, 1 Sep 2020 (CD†; 2020-082). The committee also endorsed a recently submitted report of one from Berkeley Aquatic Park, ALA, 13 Apr 1979 (LBR, DLD†; 1979-502). Only four of California’s 59 accepted records of the Bar-tailed Godwit have been of spring migrants, with this being the earliest; the other three are for May and early June.

HUDSONIAN GODWIT Limosa haemastica (62, 3). An adult male in definitive alternate plumage was at the Wister Unit of the Imperial National Wildlife Refuge (NWR), IMP, 30 May 2020 (GMcC; 2020-058). Juveniles were at the west end of Young Road along the southeast shore of the Salton Sea, IMP, 10 Oct 2020 (GMcC, PA†; 2020-127) and near the Salton Sea NWR headquarters, IMP, 10–12 Oct 2020 (GMcC, GL†; 2020-128).

CURLEW SANDPIPER Calidris ferruginea (55, 3). Juveniles were at Grimes, COL, 17 Sep 2020 (MFo†, LHub†, LK, LP†; 2020-092) and Goleta, SBA, 16 Sep–2 Dec 2020 (FJS, TABe†, BC-B†, DMC†, SDC†, BH†, ALH†, DK-B†, NL, ESa†, LSa†, AJS†, RST†, LDW†; 2020-091). An adult that completed definitive prebasic molt was at the Tulare Lake Drainage District’s south evaporation ponds, KIN/KER, 5 Sep–18 Nov 2020 (SSu†, LK, MES†; 2020-129). IDENTIFICATION NOT ESTABLISHED: One described at Red Hill, IMP, 20 Apr 2004 (2004-613) failed to receive support from a majority of committee members.

LITTLE STINT Calidris minuta (36, 2). One at the south end of San Diego Bay, SD, 4 Jul 2020–10 Apr 2021 (PEL†, GMcC, MSA†; 2020-068) is considered a bird returning for a third consecutive winter (2018-219; Benson et al. 2020). Little Stints in alternate plumage at the Napa-Sonoma Wildlife Area, SOL, 23 Jul 2020 (LS†; 2020-071) and the San Joaquin Wildlife Sanctuary, ORA, 17 Aug 2020 (WB†; 2020-076) were fall migrants.

MARSH SANDPIPER Tringa stagnatilis (3, 1). One in formative or basic plumage at the Kern NWR, KER, 29 Mar 2020 (WR†; 2020-026) provided the third record for California and the first for Kern County.

BLACK-HEADED GULL Chroicocephalus ridibundus (33, 2). We consider an adult in definitive basic plumage associating with Bonaparte’s Gulls (C. philadelphia) on the Salton Sea at North Shore, RIV, 2 Jan–3 Mar 2020 (GMcC, DVP†; 2020-001) as a returning individual (2014-003; Singer et al. 2016). Another adult in definitive basic plumage was at Ormond Beach, VEN, 7–11 Apr 2020 (ZA†, DK-B†, AJS†; 2020-031), and a first-year bird in formative plumage was at the Stockton Water...
Treatment Plant, SJ, 4 Dec 2020–17 Jan 2021 (JMB†, RFi, JMo†, LP†, AMR†, BTo†, ANW†; 2020-191).

BLACK-TAILED GULL *Larus crassirostris* (7, 0). An adult in definitive alternate plumage on Southeast Farallon Island, SF, 4 Apr 2020 (GPD†; 2020-029) and in definitive basic plumage 23–24 Oct 2020 (EL†, JRT†; 2020-147), then in flight over the ocean at Fort Funston, SF, 1 Nov 2020 (PSa†; 2020-197) were all considered the same bird first found on the mainland coast at the Gazos Creek mouth, SM, 30 May 2019 (2019-041; Benson et al. 2021).

SLATY-BACKED GULL *Larus schistisagus* (79, 7). One undergoing second prebasic molt at Ten Mile Beach, MEN, 16–21 Sep 2020 (TE†, RA†, JRW; 2020-097; Figure 3) represents the only record accepted in California between mid-April and mid-November; it was possibly oversummering locally. Adults were at Half Moon Bay, SM, 14–15 Jan 2020 (AJ†, MDeF†, ChH†; 2020-003); at the Marina landfill, MTY, 23 Jan–13 Feb 2020 (BTM†; 2020-008); near the Yolo County Central Landfill, 7 km northeast of Davis, YOL, 31 Jan–15 Feb 2020 (SCH†, ZP†, BW†; 2020-010); and at the Crescent City harbor, DN, 25–26 Feb 2020 (LB†, TKu†; 2020-014). A male in second alternate plumage was at Point Pinos, MTY, 27 Mar–15 Apr 2020 (BTM†; 2020-025), and a bird in third basic plumage was in Eureka, HUM, 27 Dec 2018 (EAE†; 2018-255). IDENTIFICATION NOT ESTABLISHED: The photograph of a reported Slaty-backed Gull at the Marina landfill, MTY, 20 Nov 2020 (2020-181) did not support the identification adequately.

YELLOW-BILLED LOON *Gavia adamsii* (105, 1). A juvenile at Stone Lagoon, HUM, 14 Jan–12 Mar 2020 (TKu†, BE†, RFo†; 2020-004; Figure 4) commenced its preformative molt before departing. IDENTIFICATION NOT ESTABLISHED: A description of a supposed Yellow-billed Loon seen under poor viewing conditions at Point Reyes, MRN, 25 Mar 2020 (2020-024) did not eliminate a Common Loon (*G. immer*).

SHORT-TAILED ALBATROSS *Phoebastria albatrus* (42, 1). A juvenile was photographed during a whale-watching trip near the submarine Monterey Canyon, southwest of Point Pinos, HUM, 28 Feb 2020 (SSc†; 2020-016; Figure 5).

STREAKED SHEARWATER *Calonectris leucomelas* (19, 1). One ~40 km west-southwest of Pillar Point, SM, 24 Oct 2020 (PP, ID†, A†; 2020-149) was the first identified in California since 2008. Except for the one inland at Red Bluff, TEH, 5 Aug 1993 (Garrett and Singer 1998), all 19 records are from offshore waters between Mendocino and Santa Barbara counties from 17 August to 24 October (CBRC 2007, 2022).

WOOD STORK *Mycteria americana* (1**, 1). The only new records since the Wood Stork was added to the review list in 2020 were of an adult at the San Diego Zoo’s Safari Park, San Pasqual, SD, 13–15 May 2020 (DHa†, AL; 2020-043) that subsequently moved north to Perris, Lake Elsinore, and Mystic Lake, RIV, 18 Jul–25 Sep 2020 (SJ†, TABe†, MAG†, BH†, GmC, SJM†, CS†; 2020-070; Figure 6) before returning to the Safari Park, SD, 3–15 Oct 2020 (NJD†, JTS†; 2020-116).

MASKED BOOBY *Sula dactylatra* (54, 8). An adult was offshore from Point Loma, SD, 18 Jan 2020 (PN†; 2020-005), and another at Pescadero State Beach, SM, 12 Mar 2020 (SM†; 2020-019) subsequently visited Southeast Farallon Island, SF, 18 Mar–5 Apr 2020 (GPD†; 2020-020). Masked Boobies undergoing their second prebasic molt were at the Playa del Rey breakwater, LA, 8–24 Feb 2020 (RST†, TABe†, LFe†, DDS†; 2020-013); ~13 km south-southwest of Point Loma, SD, 28 Feb 2020 (TABI†, PEL, GmC, DpV; 2020-017); at Crystal Cove State Beach, ORA, 3 Apr 2020 (DB†; 2020-030); at Crescent Bay and Newport Beach, ORA, 13 Sep–3 Nov 2020 (MG†, GNo†, NJO†, Esa†, RS†, DT†; 2020-090); at Dana Point harbor, ORA, 29
Figure 3. This second-cycle Slaty-backed Gull at Ten Mile Beach, Mendocino County, 16 Sep 2020 (2020-097) was the first found in California in summer.

Photo by Todd Easterla

Figure 4. The brownish plumage, yellow coloration of the distal culmen, and mandibular ramus recurved from the gonys to the base of the bill identify this as a juvenile Yellow-billed Loon, photographed 19 Jan 2020 at Stone Lagoon, Humboldt County (2020-004).

Photo by Brad Elvert
Figure 5. This striking juvenile Short-tailed Albatross, photographed 28 Feb 2020 off of Point Pinos, Monterey County (2020-016), shows the large pink bill characteristic of this species. The pointed outer primaries are characteristic of juvenile plumage, as opposed to second basic plumage in which the outer three primaries are usually replaced.

Photo by Scottie Schmidt

Figure 6. Photos of spread wings, like this one of a Wood Stork taken 26 Jul 2020 near Perris, Riverside County (2020-070), allow the evaluation of molt stage and whether the bird may be the same individual as one photographed elsewhere. This Wood Stork is an adult undergoing definitive prebasic molt, as its fifth primary is growing.

Photo by Stephen J. Myers
IDENTIFICATION NOT ESTABLISHED: An adult described from Point La Jolla, SD, 27 Jul 2019 (CW; 2019-090). IDENTIFICATION NOT ESTABLISHED: The report of one photographed at Point Arguello, SBA, 30 Jul 2019 (2019-083) did not receive enough votes for acceptance and was re-evaluated as a Masked/Nazca Booby (see below). The committee considers records of the Nazca Booby only through 2019, having discontinued review of subsequent reports in light of the species’ remarkable surge into California.

MASKED/NAZCA BOOBY Sula dactylatra/granti (50, 2). Single adults were at Point La Jolla, SD, 27 Jul 2019 (DJ†; 2019-073A) and at Point Arguello, SBA, 30 Jul 2019 (JuH†; 2019-083A). The committee reviews records of Masked/Nazca Boobies through 2019 only.

TRICOLORED HERON Egretta tricolor (91**, 10). An adult at Fig Lagoon, 3 km south of Seeley, IMP, 8–15 May 2020 (DJ†, GMcC, NJD†; 2020-040), and one in formative plumage at Rock Hill at the Salton Sea, IMP, 27 Dec 2020–2 Apr 2021 (CAM†, GMcc; 2020-201), represented the first records for Imperial County since 2008. Five occurred in San Diego County: an adult at Mission Bay, SD, 5–8 June 2020 (SHa†; 2020-061); a juvenile or one in preformative molt at the San Dieguito River mouth, SD, 3 Sep 2020 (SES$; 2020-083); and birds in formative plumage at and near the San Diego River mouth, SD, 14 Oct 2020–26 Apr 2021 (DJ†, TABl†, GMcc; 2020-130), the Sweetwater Marsh Unit of the San Diego Bay NWR, SD, 12 Nov 2020–30 Mar 2021 (MSa†; 2020-171), and San Elijo Lagoon, SD, 16 Nov–5 Dec 2020 (SGb, TD†; 2020-177). In Orange County, birds in formative plumage were observed at Bolsa Chica Ecological Reserve, ORA, 2 Oct–18 Dec 2020 (JA†, CCa†, HF†, JHo†, CaJ†, ChJ†, JMi†, ESa†; 2020-114) and Upper Newport Bay, ORA, 22 Dec–4 Apr 2021 (DGo†, CaH†, EMa†, ESa†, JSta†; 2020-198). We consider an adult at Point Mugu Naval Air Station, VEN, 4 Nov 2019–24 Feb 2020 (MRu†; 2019-216) and 25 Nov 2020–16 Mar 2021 (MRu†; 2020-190), to be the same as one present there 18 Oct 2018–25 Jan 2019 (2018-205; Benson et al. 2020).

GLOSSY IBIS Plegadis falcinellus (42, 2). Two adults were photographed at the Susanville sewage ponds, LAS, 7–9 May 2020 (SJS†; 2020-039). IDENTIFICATION NOT ESTABLISHED: The report of one photographed along Stockdale Highway west of Bakersfield, KER, 23 Apr 2019 (2019-027) was not accepted after four rounds of circulation, as two committee members believed this individual showed signs of hybridization. The continuing introgression of Glossy Ibis alleles into White-faced Ibis (P. chihi) populations creates challenges in evaluating records of these species (Leukering 2008, Oswald et al. 2018). Good-quality photos showing facial features, along with eye, bill, and leg color, are needed for assessment.

ROSEATE SPOONBILL Platalea ajaja (150, 3). One in formative plumage was at Unit 1 of the Salton Sea NWR, IMP, 3 Apr–27 Sep 2020 (GMcc, NJD†, TGM, JTS†; 2020-028), and another of uncertain age was at the San Jacinto Wildlife Area, RIV, 8 Apr 2020 (NP; 2020-032). One undergoing its second prebasic molt or in second basic plumage at the Mad River Slough and along the Eel River at Fernbridge, HUM, 31 Oct–7 Nov 2020 (ABe†, MW†; 2020-161; Figure 7) was the first for Humboldt County and the northernmost recorded in California.

BLACK VULTURE Coragyps atratus (11, 0). The committee treats the five records in 2020 as representing the same individual that has remained in the San
Francisco Bay area since March 2014 (2014-027 et seq.; Singer et al. 2016): Willow Creek near Bridgehaven, SON, 31 Mar 2020 (JSn†; 2020-027); near Point Reyes Station, MRN, 3 May–12 Aug 2020 (EMo†; 2020-036); around Kentfield and San Rafael, MRN, 30 Jul–16 Aug 2020 (JSn†, DLe†; 2020-074); around Sonoma, SON, and Novato and San Rafael, MRN, 2–22 Oct 2020 (AS†, MFi; 2020-135); and around Bolinas Lagoon, MRN, 14 Dec 2020–24 Mar 2021 (PP†; 2020-194). The records sufficient to verify the bird’s age confirmed it to be an adult.

**MISSISSIPPI KITE Ictinia mississippiensis** (57, 4). The two reports of spring migrants were of one in formative plumage in San Francisco, SF, 16 May 2020 (MLar†; 2020-045) and an adult at Mojave Narrows Regional Park, SBE, 13–14 Jun 2020 (MAG†, TABe†; 2020-063). An adult at Palm Springs, RIV, 7 Aug 2020 (JaR†; 2020-077) may have summered locally or have been a very early fall migrant. A Mississippi Kite in formative plumage or undergoing its second prebasic molt was seen in flight over Chula Vista, Mission Bay, and Ocean Beach, SD, 9 Sep 2020 (PEl; 2020-086). IDENTIFICATION NOT ESTABLISHED: One described over Encinitas, SD, 9 Sep 2019 (2019-212) was seen without the aid of binoculars, and the committee did not endorse the identification.

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**Figure 7.** This Roseate Spoonbill, photographed 7 Nov 2020 along the Eel River near Fernbridge, Humboldt County (2020-161), represents one of only two records in California north of Santa Barbara County. The pink wing coverts combined with the short white feathering to the head a bird in second basic plumage or completing the second prebasic molt; the head is naked in an adult Roseate Spoonbill.

*Photo by Matthew Wells*
ELF OWL *Micrathene whitneyi* (12, 1). One calling at Pachalka Spring in the Mojave National Preserve, SBE, 23 May 2020 (*EAE*, *KC*; 2020-054) was the northernmost yet reported in California and the first recorded in San Bernardino County since a population along the Colorado River near Needles was extirpated in 1988 (McCaskie 1988).

AMAZON KINGFISHER *Chloroceryle amazona* (0, 0). IDENTIFICATION NOT ESTABLISHED: The written description of a supposed Amazon Kingfisher seen in poor light near Blythe, RIV, 23 Oct 2020 (2020-159) lacked sufficient documentation to establish a first state record.

DUSKY-CAPPED FLYCATCHER *Myiarchus tuberculifer* (116, 1). One was at Fort Rosecrans National Cemetery, SD, 17 Nov 2003 (SBM; 2003-214). IDENTIFICATION NOT ESTABLISHED: The committee received previously unsubmitted photographs of a bird at Southeast Farallon Island, SF, 24 Oct 2004, which it had previously not accepted as a Dusky-capped Flycatcher (2004-208; Cole et al. 2006). Per the committee’s bylaws, the members voted in favor of re-evaluating the record on the basis of new and substantial evidence, and a new record number (2004-208A) was assigned. Upon re-review, however, the committee still considered the documentation insufficient to support the identification. The committee reviews records of this species through 2017 only.

GREAT CRESTED FLYCATCHER *Myiarchus crinitus* (68, 4). Fall migrants, all birds that had suspended the preformative molt, were at Drakes Beach, MRN, 30 Sep–3 Oct 2020 (*LC†*, *LHug†*, *DEQ†*, *DSS†*, *JCS†; 2020-108), Sea Ranch, SON, 1 Oct 2020 (*KMB†*; 2020-107), Morro Bay High School, SLO, 23 Oct 2020 (*MDH†*, *WHK†*, *MSti†*, *ST†; 2020-145), and Columbia Park in Torrance, LA, 24 Oct 2020 (*TABe†*, *Ch†*, *KMo†*, *JN; 2020-146).

GREAT KISKADEE *Pitangus sulphuratus* (0, 0). IDENTIFICATION NOT ESTABLISHED: One was described from Santa Cruz Island, SBA, 12 Apr 2020 (2020-035). While several committee members thought the description was consistent with this species, all considered the documentation inadequate for a first state record.

SULPHUR-BELLIED FLYCATCHER *Myiodynastes luteiventris* (22, 1). An adult in fresh definitive basic plumage was at Long Beach, LA, 21–24 Sep 2020 (*JBo*, *TABe†*, *BED†*, *ND†*, *Ch†*, *KMo†*, *NJO†*, *JTS†*, *JCS†, *RST†; 2020-099). Only eight of California’s 22 records are of birds that have remained for multiple days.

THICK-BILLED KINGBIRD *Tyrannus crassirostris* (26, 2). An adult returned for its 11th winter to the mouth of Poggi Canyon in Otay Valley, Chula Vista, SD, 27 Oct 2020–24 Apr 2021 (*DJ†*, *RU†; 2020-153), and another adult returned to Horsethief Canyon Park, San Dimas, LA, 7 Feb–8 Mar 2020 (*KPC†*, *MP†; 2020-012) and 8 Dec 2020–1 Feb 2021 (*KPC†; 2020-193) for its seventh and eighth winters, respectively. A third adult wintered at Laguna Niguel Regional Park, ORA, 6 Dec 2020–7 Apr 2021 (*JoR†*, *TABe†*, *NJO†*, *ES†*, *RS†; 2020-203). One in formative plumage at Mount Umunhum, SCL, 7 Oct 2020 (*WGB†; 2020-123; Figure 8) was the first for Santa Clara County and one of only seven fall migrants recorded in California.

FORK-TAILED FLYCATCHER *Tyrannus savanna* (4, 1). An adult at Vandenberg Air Force Base, SBA, 22 Oct 2020 (*AA†; 2020-144) furnished the first record for Santa Barbara County and for southern California. This is the latest record for the state by over three weeks; the previous three Fork-tailed Flycatchers occurred between 4 and 28 September (CBRC 2007, 2022).

Figure 8. This Thick-billed Kingbird at Mount Umunhum, Santa Clara County, 7 Oct 2020 (2020-123) was only the third found in northern California and one of very few fall migrants recorded in the state. The blunt outer primary, narrow tapered rectrices, and two evident generations of greater coverts (inner two feathers replaced) confirm a bird in formative plumage.

*Photo by William G. Bousman*

Figure 9. This Cave Swallow at the Tulare Water Pollution Control Facility, 3 km southwest of Tulare, Tulare County (2020-009; photo taken the first day of its 29 Jan–1 Feb 2020 stay), was the first recorded in the Central Valley. The inner primaries are being replaced and contrast with the brown and worn juvenile outer primaries, indicating an individual undergoing its complete preformative molt.

*Photo by Steve Summers*
EASTERN WOOD-PEWEE *Contopus virens* (16, 1). One vocalizing at Point Reyes National Seashore, MRN, 2 Jun 2019 (LC†§; 2019-048) provided California’s earliest record of a spring migrant yet, edging out the previous early date by one day.

YELLOW-BELLIED FLYCATCHER *Empidonax flaviventris* (30, 0). IDENTIFICATION NOT ESTABLISHED: The identity of a supposed Yellow-bellied Flycatcher photographed at the mouth of Hardy Creek, MEN, 23 Sep 2020 (2020-158) was not endorsed by a majority of committee members.

ALDER FLYCATCHER *Empidonax alnorum* (9, 1). One in first alternate plumage (as determined by retained juvenile primary coverts and replaced alternate inner secondary coverts; see Carnes et al. 2021) at California City, KER, 25–26 May 2020 (EI§, LK, DS, GMcC, NJO, RO†, LSa†, BoS†, JCS†, RST§; 2020-055) represents California’s earliest record of a spring migrant by five days. All three of California’s spring and early summer records (25 May–11 July) are of singing males in Kern County.

WHITE-EYED VIREO *Vireo griseus* (94, 6). Six individuals found in 2020 were considerably more than California’s recent 10-year (2010–2019) annual average of 2.1 (CBRC 2022). Spring reports were of one at San Luis Obispo, SLO, 19 May 2020 (EW†§, TME†; 2020-047); an adult at Camino Corto Open Space, Isla Vista, SBA, 23–31 May and nearby Goleta Monarch Butterfly Grove at Ellwood Mesa, SBA, 3–4 Jul 2020 (JCa†§, DMC, NL, AO †, SBT†§; 2020-052); and one in formative plumage on Patterson Pass Road, near Livermore, ALA, 24 May 2020 (SHu†, TF†§; 2020-053). Three individuals that likely summered locally included one undergoing its second prebasic molt at El Camino Memorial Park, SD, 3–29 Aug 2020 (PCh, NCh§, AD†, BFT, MCN†, AN†, JTS; 2020-073); one at Usal Beach Campground, MEN, 22 Aug–20 Sep 2020 (AdH†§, LK, JCS†; 2020-078); and an adult at Matilija Lake, VEN, 27 Aug–22 Sep 2020 (BC-B†§, SDC†§, LK, DK-B, AJS†§, JCS†, SBT†; 2020-079).

BLUE-HEADED VIREO *Vireo solitarius* (90, 1). A male in formative plumage at Ken Malloy Harbor Regional Park, Harbor City, LA, 2–16 Mar 2020 (TABe†, CAD†, TG†; 2020-018) likely wintered locally. The four wintering Blue-headed Vireos recorded previously in California were last seen in early spring between 4 March and 8 April, with the average of these dates being 24 March (CBRC 2007, 2022).

EURASIAN SKYLARK *Alauda arvensis* (3, 1). One at Lake Tolowa, DN, 3 Nov 2020 (LB†; 2020-162) was the third recorded in California, but unlike the two known previously, this individual apparently did not winter. This bird’s boldly patterned and overall russet plumage suggests *A. a. pekinensis* (Vaurie 1951), the subspecies to which California’s two previous skylarks, as well as those occurring in Alaska and the Northwest Hawaiian Islands (Gibson and Withrow 2015, Pyle and Pyle 2017, Benson et al. 2020), have been attributed.

CAVE SWALLOW *Petrochelidon fulva* (14, 2). One undergoing its preformative molt at Tulare Water Pollution Control Facility, 3 km southwest of Tulare, TUL, 29 Jan–1 Feb 2020 (SSu†, LC†, LP†, SLS; 2020-009; Figure 9) was the northernmost yet recorded in the state and the first for Tulare County. An adult at Blythe, RIV, 2 Jul 2013 (OJ†; 2013-293) provided the first record for Riverside County. The latter is the first accepted for California in July; all but two of the state’s now 14 records fall between 28 November and 21 May.

ARCTIC/KAMCHATKA LEAF WARBLER *Phylloscopus borealis/examinandus* (10, 1). One in formative plumage photographed at Mile Square Park, Fountain Valley, ORA, 20 Sep 2020 (TABe†, RS†, ESA†; 2020-095) furnished the first record of this species pair for Orange County. As with all other California records (see Singer et al. 2020), neither recordings of diagnostic vocalizations nor genetic data were available to allow specific identification of this individual.

WINTER WREN *Troglodytes hiemalis* (27, 0). IDENTIFICATION NOT ESTAB-
LISHED: The calls of a supposed Winter Wren recorded at Clear Lake State Park, LAK, 5 Dec 2020–2 Jan 2021 (2020-192) lacked the distinctive harmonic bands and peak energy in the frequency range of 3–5 kHz that are typical of this species (see Hejl et al. 2020). The report of another photographed and audio-recorded from Bannon Creek, SAC, 21 Dec 2019 (2019-208) failed to garner support from a majority of committee members.

**CURVE-BILLED THRASHER** *Toxostoma curvirostre* (38, 1). An adult was at the Cactus City rest area, RIV, 28 Sep 2020 (PAG, CAM†; 2020-106).

**VEERY** *Catharus fuscescens* (15, 0). IDENTIFICATION NOT ESTABLISHED: The committee agreed to re-review an accepted record of the Veery from the Lamphere Dunes near Arcata, HUM, 3 Nov 2010 (2010-177; Johnson et al. 2012). The original record had been unanimously accepted in its second circulation; nearly a decade later, a majority of members believed that the record deserved re-evaluation because of the relatively late date and the lack of other records from northwestern California. After four rounds of circulation of the new record (2010-177A), a narrow majority of committee members decided that the documentation did not conclusively eliminate the possibility of a Hermit Thrush (*C. guttatus*), perhaps of a brighter eastern subspecies, and voted not to accept the record. In addition to the issues noted above, members cited the lack of photos, similarity to other *Catharus* thrushes, paucity of Veery records in the state, and the committee’s low acceptance rate (now 42%) for this species. This lowers the total number of accepted records for California from 16 to 15.

**WOOD THRUSH** *Hylocichla mustelina* (36, 0). IDENTIFICATION NOT ESTABLISHED: One described from the outer point at Point Reyes National Seashore, MRN, 18 Oct 2020 (2020-164) did not receive sufficient support from the committee.

**NORTHERN WHEATEAR** *Oenanthe oenanthe* (16, 2). Two found in 2020 were the first confirmed in California since 2011. One in formative plumage was at the McKinleyville bottoms, HUM, 18 Sep 2020 (LC†, RFo†, GG†, RN, RAR†; 2020-093), and an adult female was at San Clemente Island, LA, 3 Oct 2020 (NJD†, JTS†; 2020-117; Figure 10).

**EASTERN YELLOW WAGTAIL** *Motacilla tschutschensis* (20, 1). One in formative plumage was at the Loleta bottoms, HUM, 24–27 Sep 2020 (KMS†, RN†; 2020-100). All Eastern Yellow Wagtails accepted for California, including this one, have occurred within 10 km of the coast or on offshore islands between 27 August and 25 September (CBRC 2007, 2022).

**WHITE WAGTAIL** *Motacilla alba* (44, 6). A remarkable six individuals in fall 2020 was more than have been seen in California in any previous year. Four individuals in formative plumage showing characteristics of the subspecies *M. a. ocularis* included one along the Los Angeles River in Long Beach, LA, 27–28 Sep (GMo†, RB†, CAD†, ChJ†, KMo†, ESA†; 2020-104), reappearing at the same location 18–19 Oct 2020 (BMu †; 2020-138); one at Malibu Lagoon, LA, 5–7 Oct 2020 (ESr†, CAI, DJB†, BH†, DK-B†; 2020-121); one at the mouth of Villa Creek, SLO, 27–28 Oct 2020 (CCom†, TME†, MDH†, ST†; 2020-154); and one at Leadbetter Beach, Santa Barbara, SBA, 7–8 Nov 2020 (AJS†, DMC†, NL, SBT†; 2020-166). The two remaining White Wagtails were apparently of the subspecies *M. a. lugens*. One in formative plumage was at Ocean Beach County Park at the mouth of the Santa Ynez River, SBA, 19 Nov 2020 (LDW†; 2020-178) and an adult female initially at Corcoran Lagoon, SCZ, 14 Nov 2020 returned to winter at Corcoran Lagoon and the San Lorenzo River mouth, SCZ, 21 Nov 2020–26 Mar 2021 (LDJ†, SL†, JMo†, MJR†, AMRT§, SBT†, BT†, ANW†; 2020-173; Figure 11) after a brief jaunt to Bean Hollow State Beach, SM, 15 Nov 2020 (LG †; 2020-174).
Figure 10. This accommodating Northern Wheatear was on San Clemente Island, Los Angeles County, 3 Oct 2020 (2020-117). The broad and fresh flight feathers indicate an adult and, among adults, the lack of a sharp black mask indicates a female.

Photo by Nicole J. Desnoyers

Figure 11. This adult female White Wagtail, seen undergoing a prealternate molt at the San Lorenzo River mouth, Santa Cruz County (2020-173), in this photo taken 29 Nov 2020, was one of an exceptional six White Wagtails found in California in fall 2020. The extent of white in the primaries indicates an adult female *M. a. lugens*; birds in formative plumage show less white, whereas adult males of this subspecies show extensive bright white in the primaries.

Photo by Mark J. Rauzon
SNOW BUNTING *Plectrophenax nivalis* (152, 7). All seven Snow Buntings noted in 2020 were in coastal northern California where the majority of those recorded in the state have been found (CBRC 2007, 2022). These included, at Humboldt Bay, HUM, a female in formative plumage, 5 Jan–29 Feb 2020 (OTM†; 2020-006) and one on 19 Nov 2020 (RHR†; 2020-186). An adult female was at Lynch Canyon Open Space Park, 5 km southwest of Cordelia, SOL, 24–26 Oct 2020 (SdT†; 2020-150). At Abbotts Lagoon, MRN, were one on 27 Oct 2020 (TF; 2020-156) and a male in formative plumage, 4–12 Nov 2020 (JMB†, ChH†; 2020-167). Two were together at Lake Tolowa, DN, 26 Oct 2020 (LB†; 2020-152), at least one of these being a female in formative plumage.

CASSIN’S SPARROW *Peucaea cassinii* (99, 3). The first Cassin’s Sparrow recorded in Mendocino County, in preformative molt, was near the mouth of the Big River, MEN, 20–22 Sep 2020 (AM, LK; 2020-096). One was at Furnace Creek Ranch, INY, 27 Sep 2020 (LK†; 2020-105). One completing preformative molt at the mouth of the Mad River, HUM, 2–29 Dec 2020 (RFo†, LK; 2020-188) provided the latest record yet for California. Previous fall migrants have been recorded between 4 September and 2 November, and except for one on Southeast Farallon Island that remained 14 days, none had stayed more than five days (CBRC 2007, 2022). IDENTIFICATION NOT ESTABLISHED: The description of a reported Cassin’s Sparrow from Terwer Valley, DN, 3 Oct 2020 (2020-115) was not accepted.

FIELD SPARROW *Spizella pusilla* (20, 1). The first record of this species for San Luis Obispo County was of a pale individual, likely of the western subspecies *arenacea*, in formative plumage, in Los Osos, SLO, 20–27 Nov 2020 (SBT†, BTo†; 2020-180).

LECONTE’S SPARROW *Ammospiza leconteii* (45, 4). One in first alternate plumage (as aged by retained juvenile flight feathers) at Hahamongna Watershed Park, Pasadena, LA, 16–20 Apr 2020 (JV†; 2020-033) represents the earliest of only four spring records of LeConte’s Sparrow for California. The other three occurred within the narrow window of 21–26 May (CBRC 2007). More in line with dates of the state’s previous records were one at Coyote Point, SM, 2 Oct 2020 (RST, MDeF; 2020-111), one at Arrowhead Marsh, Oakland, ALA, 14 Nov 2020 (RL†, BTh†; 2020-175), and an adult with fresh flight feathers of the definitive basic plumage at the Carmel River mouth, MTY, 17 Oct 2020 (TD†; 2020-157). IDENTIFICATION NOT ESTABLISHED: A report from Sacramento NWR, GLE, 24 Nov 2020 (2020-183) received no support.

STREAK-BACKED ORIOLE *Icterus pustulatus* (10, 1). An apparent adult female, with fresh basic primary coverts and dusky orange rectrices, overwintered at Montaña de Oro State Park, SLO, 4 Nov 2020–28 Mar 2021 (AC†, TME†, MFe†, DLK†, WHK†, RST†, BTto†; 2020-163; Figure 12). Besides one from Monterey County in 2003, this makes the most northerly record on the Pacific coast and the first for San Luis Obispo County of this species that breeds in western mainland Mexico and Central America.

COMMON GRACKLE *Quiscalus quiscula* (104, 3). One male in formative plumage was in the Arcata bottoms, HUM, 21 Oct 2020–5 Nov 2020 (GG†, RFo†, RN†; 2020-142). A female was at the mouth of the San Dieguito River, Del Mar, SD, 29 Nov 2020 (SGB†; 2020-184), and a female in formative plumage was at Naval Air Weapons Station China Lake, KER, 20 Dec 2020 (SLS†; 2020-206). Like all other Common Grackles in California, these individuals were of subspecies *Q. q. versicolor*. IDENTIFICATION NOT ESTABLISHED: One described from Windy Hollow Road in Manchester, MEN, 14 Jun 2020 (2020-065) did not receive majority support.

WORM-EATING WARBLER *Helmitheros vermivorum* (142, 3). Singing Worm-
Figure 12. This Streak-backed Oriole at Montaña de Oro State Park, San Luis Obispo County (2020-163) spent much of its time skulking in dense vegetation, but it posed nicely for this photo taken 25 Feb 2021. The apparent single generation of feathers in the wing, blackish primary coverts, and dusky (not greenish or blackish) rectrices suggest that this is an adult female.

Photo by Alice Cahill

Figure 13. This cooperative Connecticut Warbler at Vandenberg Air Force Base, Santa Barbara County (2020-112), was photographed 22 Sep 2020. The relatively dull olive-brown head indicates formative plumage.

Photo by Will H. Knowlton
eating Warblers, presumably males, were at Bald Hill Open Space Preserve, MRN, 4 May 2020 (EMo, LC; 2020-037) and along the South Fork of Clear Creek near Igo, SHA, 16 May 2020 (EO; 2020-044). One in formative plumage at Half Moon Bay State Beach, SM, 27 Oct–29 Nov 2020 (JMo, DPom†, SBT, BTo†; 2020-155) may have been attempting to overwinter.

BLUE-WINGED WARBLER Vernimora cyanoptera (56, 1). An adult male at Pitts Ranch Park in Camarillo, VEN, 26–27 Sep 2020 (JMu†, SDC, DK-B†, DP†; 2020-103) provided the first record for Ventura County. This individual showed some suggestions of hybridization with the Golden-winged Warbler (V. chrysoptera), namely, a light wash of yellow to the wing bars and a slight “hook” of black behind the eye. However, after consulting recent literature and outside experts the committee concluded that these characters do not necessarily indicate a hybrid between these two closely related species.

CONNECTICUT WARBLER Oporornis agilis (128, 1). One in formative plumage was photographed at Vandenberg Air Force Base, SBA, 22–23 Sep 2020 (WHK†; 2020-112; Figure 13). IDENTIFICATION NOT ESTABLISHED: A report from Muir Beach, MRN, 11–13 Sep 2020 (2020-087) did not garner enough support for acceptance.

MOURNING WARBLER Geothlypis philadelphia (169, 2). Birds in formative plumage were in Hatton Canyon, MTY, 3–5 Oct 2020 (RC, CR†, BTM†; 2020-118) and at an industrial park in Goleta, SBA, 18–20 Oct 2020 (DMC, BH†, DK-B, JKe†, NL, AJSt†; 2020-137). IDENTIFICATION NOT ESTABLISHED: A warbler photographed and audio-recorded at Muir Beach, MRN, 11 Oct 2020 (2020-131) appeared to show the dull grayish-white throat and broad broken eye-ring of a MacGillivray’s Warbler (G. tolmiei).

KENTUCKY WARBLER Geothlypis formosa (121**, 11). The 11 reports accepted during 2020 made the third highest annual count of this species in California following 38 in 1992 and 14 in 1987 (CBRC 2007). Spring migrants included two females, one at Lake Tamarisk Golf Club, RIV, 10–11 May 2020 (JStP†; 2020-041) and one in formative plumage at Pachalka Spring, SBE, 24 May 2020 (TABe†, DKa†, BO†; 2020-051); three males in formative plumage, at Butterbredt Spring, KER, 22 May 2020 (RST†; 2020-050), at Cerro Alto Campground, SLO, 29–30 May 2020 (EW†§, LFr†, TME†§, WHK†, SBT†§; 2020-057), and along Old Womans Creek, SM, 14 Jun 2020 (AMR†; 2020-064); and four of undetermined age and sex along San Pedro Creek, Pacifica, SM, 12 May 2020 (JMo§, MDeF§, ChH§; 2020-042); at Jacumba, SD, 18 May 2020 (PEL; 2020-046); at Grasslands Regional Park, 7 km southeast of Davis, YOL, 27 May 2020 (SCH$, SSm†, GS†, ZV; 2020-056); and in Rockhouse Basin, TUL, 31 May 2020 (BoSS, SL$: 2020-059; Figure 14). Late summer records of an adult male near San Marcos Pass, SBA, 19 Aug 2020 (JKu†; 2020-170) and one at Matilija Lake, VEN, 28 Aug–18 Sep 2020 (CAD$, JiH, AJS§; 2020-084) may have represented oversummering birds or early fall migrants. IDENTIFICATION NOT ESTABLISHED: A description from Laguna Road in Oxnard, VEN, 12 Sep 2020 (2020-088) did not garner enough support for acceptance.

CAPE MAY WARBLER Setophaga tigrina (54**, 3). A spring migrant female in first alternate plumage was on Southeast Farallon Island, SF, 5 Jun 2020 (MVBT; 2020-060). A fall migrant male in formative plumage was in Inyokern, KER, 3–4 Oct 2020 (BoSt†, SL$: BBa, KH-L†, NJO†; 2020-119). A female that wintered at Lake Murray, SD, 29 Nov 2020–18 Apr 2021 (CAD†, AD†, JN, MSe†, JTS†; 2020-185; Figure 15) arrived in formative plumage and started its first prealternate molt before departing.

GRACE’S WARBLER Setophaga graciae (85, 1). A singing adult male returned
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for its third summer to Charlton Flats, LA, 16 Apr–24 Jul 2020, (LMB§, NS†, TGM; 2020-034). A fall migrant was on Point Loma, SD, 14 Sep 2020 (PEL; 2020-094). Overwintering adults returned to Villa La Jolla Park, La Jolla, SD, 7–30 Oct 2020 (ARA†, NCh†; 2020-124); Del Mar, SD, 8 Oct 2020–31 Mar 2020 (ARA†; 2020-126); and Encinitas, SD, 17 Oct 2020–21 Mar 2021 (SES, AD†; 2020-136). Approximately half of California's records of overwintering Grace's Warblers are from coastal San Diego County.

MISCELLANEOUS

The long-staying Northern Gannet (Morus bassanus; 2012-058) first seen at Southeast Farallon Island, SF, 25 Apr 2012 (Pike et al. 2014) was still present through 31 Dec 2020, and the female Common Black Hawk (Buteogallus anthracinus; 2005-060 et seq.) resident near Santa Rosa, SON, since 14 May 2005 (Iliff et al. 2007) was last reported 24 Jul 2020.

CORRIGENDA

The caption for Figure 1 in the 45th report of the California Bird Records Committee (Benson et al. 2021) is potentially misleading. It makes a general comparison about the plumage similarity between the female Garganey and female Blue-winged Teal, but the bird pictured with the female Garganey is a male Blue-winged Teal in formative plumage. Also in the 45th report, the date of a Curve-billed Thrasher at the Palo Verde Ecological Reserve, RIV, should have been 15 Jan 2019 instead of 1 Jan 2019 (2019-004); the end date for the wintering Thick-billed Kingbird in Chula Vista, SD, should have been 7 Mar 2020 instead of 27 Mar 2020 (2019-160); and the date of a Snow Bunting reported at the Hayward Regional Shoreline, ALA, should have been 16 Nov 2019 instead of 11 Nov 2019 (2019-184). In the 44th report (Benson et al. 2020), the date for a Slaty-backed Gull near Vernalis, SJ, 18 Feb 2018, was omitted (2018-073); a Cory’s Shearwater (Calonectris diomedea; not accepted) was reported offshore from San Diego, SD, 26 Jul 2014, not 27 Jul 2014 (2014-188); a Red-footed Booby (Sula sula) was at Don Edwards NWR, ALA, 7 Oct 2018, not 6 Oct 2018 (2018-179); the Thick-billed Kingbird wintering in Chula Vista, SD, remained until 27 Mar 2019, not 24 Mar 2019 (2018-194); a Rusty Blackbird (Euphagus carolinus; not accepted) was reported at Goodwin Pond, DN, 15 Oct 2018, not 25 Dec 2018 (2018-254); and the record number for a Golden-winged × Blue-winged Warbler (Vermivora chrysoptera × cyanoptera) at the Carmel River mouth, MTY, 8–10 Oct

Figure 14. This diagnostic audio recording of an unseen Kentucky Warbler, singing in the Rockhouse Basin, Tulare County (2020-059), on 31 May 2020 represents the first record of the species for Tulare County and the second for the Sierra Nevada.

Recording by Bob Steele
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2018 should have been 2018-175A, not 2018-175. In the 22nd report (McCaskie and San Miguel 1999) the date span for a Violet-crowned Hummingbird (Leucolia violiceps) in Carlsbad, SD, was published as 13 Nov–3 Dec 1996; the correct interval is 3 Nov–3 Dec 1996 (1996-154).

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Figure 15. This female Cape May Warbler, photographed here 21 Mar 2021, wintered at Lake Murray, San Diego County (2020-185).

Photo by Justyn T. Stahl
LITERATURE CITED


Oswald, J. A., Harvey, M. G., Remsen, R. C., Foxworth, D. U., Dittmann, D. L., Cardiff, S. W., and Brumfield, R. T. 2018. Evolutionary dynamics of hybridization and introgression following the recent colonization of Glossy Ibis (Aves:

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PRESUMED NOCTURNAL FLIGHT CALL OF THE GREEN-TAILED TOWHEE

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ABSTRACT: A large sample of nocturnal flight calls of warblers and sparrows recorded on the outskirts of Nogales, Arizona, from mid-August through October 2015 included an unknown call-type that has not been documented in extensive monitoring of nocturnal flight calls across the eastern United States. Though variable, it averages 213 milliseconds in duration and consists of two simultaneous sounds differing in pitch and whose frequency is often modulated at a rate about 59 hertz. The call-type occurred primarily during September with a peak in the middle of the month. This corresponds with the peak in migration of the Green-tailed Towhee (Pipilo chlorurus) near Nogales. That species affords the closest match to a diurnal contact call of a migratory species common in the area whose nocturnal flight call is as yet undescribed.

An emerging field of birds' aeroecology is the recording and analysis of their nocturnal vocalizations (flight calls). Many species vocalize while migrating at night, and monitoring these calls at one or more sites currently provides the only direct means of learning what species are in active nocturnal migration and the geographic and temporal extents of their flights. Such information is becoming increasingly important to help predict (and possibly mitigate) potential collisions with man-made structures and to assist with long-term population monitoring (Evans and Mellinger 1999, Evans and Rosenberg 2000, Farnsworth 2005).

One of the challenges inherent in monitoring nocturnal flight calls is confidence in species identification by sound alone. The ease of establishing the species identity of a nocturnal call varies with the ease of matching it with its cognate call from a species visually confirmed during the day. The extent to which there may be other species with similar calls that need distinguishing is also a major factor. For example, the Killdeer (Charadrius vociferus) is a widespread species in North America that is quite vocal during the day and easily recognized by its distinctive calls. It is known to migrate at night largely because nocturnal flight calls that sound like the Killdeer are regularly recorded, but it is easily identifiable at night because no other North American species gives a similar call with which it might be confused.

Evans and O'Brien (2002) compiled recorded audio examples and documented what was known about the flight calls of migrant passerines in east-central North America. Of the species they covered, many have quite distinct calls, but calls of others are remarkably similar. This compilation was complete enough that a recorded nocturnal flight call of a passerine in that region can in most cases be categorized to species or species complex by sound alone. In western North America, no overarching compendium of passerine flight calls has been produced. Lanzone et al. (2009) presented spectrographs of the flight calls of five species of western warblers, and Farnsworth (2011) followed with single spectrographic examples that included all the warblers breeding in the western United States. Many species of western passerines also migrate through eastern North America, and their flight calls are covered by Evans and O'Brien (2002).
With the advent of online bird-sound archives such as Xeno-Canto (http://www.xeno-canto.org) and the Macaulay Library (https://www.macaulaylibrary.org), flight calls of other passerines in western North America are becoming known. From mid-August through October 2015, I recorded a large sample of nocturnal flight calls of warblers and sparrows in the foothills northeast of Nogales, Arizona. During my analysis of these calls, I noticed a distinctive call-type that I did not recognize from my 35 years of studying nocturnal flight calls across eastern North America. Here I describe this call and present indirect evidence implying the caller was the Green-tailed Towhee (*Pipilo chlorurus*).

**METHODS**

I made audio recordings of the sky from 20:00 to 06:00 MST (UTC-7) on 72 nights during the period 18 August–30 October at 78 Circulo Montana Dr., Nogales, Arizona (Santa Cruz County; 31.4655° N, 110.8575° W; one night missed). I used the software Tseep (http://www.oldbird.org) on the 10-hr audio files to extract the nocturnal flight calls of warblers and sparrows. See Evans (2021) for more details on the recording station and process of extracting and categorizing the calls.

For spectrographic analysis of the unknown calls, I used the program Raven Pro 1.6 (http://ravensoundsoftware.com). Spectrograms were computed with a 180-sample Hanning window, a hop size of 20 samples, and a discrete Fourier transform size of 256 samples (Charif et al. 2010). For measurement, I selected spectrograms that appeared to show the complete call. To reduce the chances of an individual bird contributing multiple calls to measurement statistics, I selected calls separated by at least 2 minutes.

I measured the calls’ duration, modulation rate, modulation bandwidth, and the maximum frequency range between the call’s two simultaneous tones (see Figure 1). This last variable was an approximation based on measuring the apparent broadest separation between the tracks representing the two simultaneous sounds. A call’s modulation rate was based on the duration of the longest segment of a call with at least four uniform cycles of modulation, calculating the average duration of a cycle in that segment, and expressed as cycles per second (hertz). The duration, modulation rate, and frequency bandwidth of the calls are reported as average values plus or minus standard deviation. I conservatively estimate the accuracy of my measurements as ±5 milliseconds (ms) and ±100 hertz (Hz). I also assessed the spectrograms visually to categorize the call as ascending, descending, or steady in frequency over the middle two thirds of the call. The beginning and end portions of the calls often have steeper inflections and unique modulations that differ from the typically more homogeneous middle portion.

To link the unidentified calls to a species, I assessed calls of all passerines known to migrate regularly through the Nogales region during September, the primary period when the unknown call-type was detected. I excluded from the comparisons species such as the Fox Sparrow (*Passerella iliaca*) and the White-throated Sparrow (*Zonotrichia albicollis*), which, although they have a flight call somewhat similar to the unknown, do not normally migrate near my study site in September. For species whose flight call had not been clearly described, I searched the public archives of the Macaulay Library (ML) and
Xeno-Canto (XC) for any diurnal calls similar to the unknown call I recorded. Upon finding a potential match, I inspected the frequency of its reports to eBird (https://www.ebird.org) in Santa Cruz County to see how well the temporal pattern of reports fit the seasonal detection pattern of the unknown call (e.g., Evans and Conway 2021). In the case of one prospective matching species, the Spotted Towhee (*P. maculatus*), I also included reports from Pima County, adjacent to Santa Cruz County to the west and north, because of its proximity and because the high number of checklists submitted to eBird from the Tucson area enlarged the sample substantially. I presumed that the larger dataset should improve the resolution of a weak migration signal.

**RESULTS**

Calls of the unknown type stood out from other calls by their relatively long duration and wide frequency range between coincident tones. But within the subset of calls with this commonality, there was a wide range in modulation bandwidth. I found 195 examples of the unknown call-type among more than 20,000 flight calls of other species with sound energy between the frequencies of 6 and 10 kHz. The period of detection of the unknown call was from 1 September through 7 October with a peak in mid-September.

**Call Characteristics**

Of the 195 examples, there were 159 cases of the unknown calls being separated by at least 2 minutes. Spectrograms of 117 of these show a distinct beginning and end that allow the call’s duration to be measured—average 213 ms (SD ±40, range 100–308 ms).
Figure 2. Examples of spectrograms of the unknown nocturnal flight call recorded near Nogales, Arizona, selected to show its range of variation. The $x$ axis is time in milliseconds (ms), and most calls are between 200 and 300 ms in duration. The $y$ axis is frequency in kilohertz (kHz), presented linearly within the range 0–11 kHz. The calls occur in the 5- to 10-kHz range.
The call’s frequency modulation most often appears as uniform sinusoids but also commonly as irregularly shaped toothed cycles in which the modulation bandwidth, rate, and the slope of a cycle’s rise and descent may vary from one cycle to the next. The modulation bandwidth ranges from roughly 100 to 1400 Hz. Only 58 of the spectrograms have uniformly modulated sections with at least 4 continuous cycles that can be measured for modulation rate. Of these the average rate is 59 cycles per second (SD ±9, range 42–79).

Nearly all calls are composed of two concurrent sounds, each generated independently in the syrinx—none of their spectrograms show harmonics or side-band phenomena (as defined by Greenewalt 1968). Figure 2 illustrates a range of spectrograms. The dual tracks tend to parallel one another but occasionally deviate in unique ways; for example, see Figure 2(p, t). In a few cases they are very different, for example, as in Figure 2(n), in which the upper track is strongly modulated and the lower purer toned. In several cases, the higher-frequency track is louder in amplitude, for example, as in Figure 2(h). A distinctive characteristic apparent in most of the calls is the relatively large difference in frequency between the two tracks, for example, as in Figure 2(c). In 142 calls where it can be measured, the largest difference in frequency averages 1600 Hz (SD ±300, range 950–2600 Hz). I recorded three cases in which it appears that just one sound track was produced—the distinctive characteristics of call length and modulation of the single track resemble those of an individual track in the two-tracked versions. The calls often begin with a segment that descends in frequency, but thereafter the bulk of the call tends to be evenly pitched or slightly rising, as in Figure 2(e), for example, and less commonly slightly descending in frequency, as in Figure 2(g).

Species Determination

My experience with identifying nocturnal flight calls in eastern North America led to me to suspect the mystery call to be an undescribed nocturnal flight call from a western passerine. From this presumption, I eliminated the vireos and tyrant flycatchers from consideration because in east-central North America species of these families rarely vocalize in their fall nocturnal migrations. Then elimination of the species whose calls Evans and O’Brien (2002), Lanzone et al. (2009), and Farnsworth (2011) identified left few passerines that migrate regularly through Santa Cruz County in September whose nocturnal flight call is not known or suspected. These are the Botteri’s, Cassin’s, and Black-throated Sparrows (Peucaea cassinii, P. botterii, and Amphispiza bilineata, respectively) along with the Green-tailed Towhee. I tentatively eliminated the first three from consideration because none of their calls in the XC and ML archives resembles the unknown call. Initially, I did not suspect the Green-tailed Towhee because common phonetic descriptions of the call surmised to be its flight call represent it as disyllabic (Sibley 2000, Pieplow 2019), while the unknown call-type is monosyllabic. But in the process of inspecting examples of Green-tailed Towhee calls in the XC and ML archives, among the more common longer disyllabic examples, I found several shorter monosyllabic-sounding examples that bear resemblance to the unknown call-type (Figure 3).
NOCTURNAL FLIGHT CALL OF THE GREEN-TAILED TOWHEE

Figure 3. Spectrographic examples of the Green-tailed Towhee's diurnal contact call that resemble the unknown nocturnal flight call. The x axis is time in milliseconds (ms). The y axis is frequency in kilohertz (kHz), presented linearly within a range from 0 to 11 kHz. (a) Call recorded by Matt Wistrand, central Colorado, 18 October 2018 (https://www.xeno-canto.org/438092). Duration 402 ms; modulation rate 70 Hz (8 cycles measured beginning at 30 ms). (b) Call recorded by Richard E. Webster, Cochise County, Arizona, 29 September 2010 (https://www.xeno-canto.org/112052). Duration 394 ms; modulation rate 54 Hz (7 cycles measured beginning at 83 ms). (c) Call recorded by Tom Johnson, Cassia County, Idaho, 16 July 2018. (https://macaulaylibrary.org/asset/107809051). Duration 314 ms; modulation rate 69 Hz (7 cycles measured beginning at 160 ms). (d) Call recorded by Michael O’Brien, Big Bend National Park, Texas, 14 April 2021 (https://macaulaylibrary.org/asset/329982521). Duration 175 ms; modulation rate 37 Hz (5 cycles measured over whole length of call).

Temporal Correspondence with Reports to eBird

The temporal occurrence of the unknown nocturnal flight call suggests that in 2015 the species’ migration near Nogales lasted about 5 weeks and peaked during the third week of September. Figure 4 shows the correspondence of the seasonal occurrence of the unknown call with reports of the Green-tailed Towhee via eBird during fall migration in Santa Cruz County from 2010 to 2020. Of the 846 eBird checklists submitted from Santa Cruz County in the third week of September during this period, 18% reported the Green-tailed Towhee, the highest rate of all weeks in the year.

DISCUSSION

The Green-tailed Towhee breeds across much of the mountainous interior western United States. The closest substantial breeding to Nogales is about 250 km to the northeast, with the bulk of the breeding population north of that latitude, extending north to Oregon, southeastern Washington, Idaho, and Montana (Dobbs et al. 2012). Post-breeding, the nocturnal flight call of the Green-tailed Towhee is not anticipated over a Nogales recording station until late summer dispersal and fall migration begin. It is a fairly common wintering species in Santa Cruz County, so reports to eBird should increase as its fall migration through the area begins, then plateau depending on the consistency of the wintering population. The eBird data shown in Figures 4 and 5 reflect these expectations. The acoustic evidence of a peak of the unknown nocturnal
flight call in the third week of September corresponds well with the reports of the Green-tailed Towhee in Santa Cruz County, a well-birded region of south-central Arizona (Figure 4). Although the Spotted Towhee is reported to have a diurnal flight call similar to the Green-tailed Towhee's (Pieplow 2019, Sibley 2000), so its nocturnal flight call may also be similar, there is no correspondence in the rate of reports of the Spotted Towhee to eBird from Santa Cruz and neighboring Pima County with the pulse of the unknown call (Figure 5). In mid-September the rate of Spotted Towhee reports is at its lowest point during the fall migration season in this region (Figure 5). In fact, Figure 5 implies there is little signal of fall migration of the Spotted Towhee in Santa Cruz and Pima counties at all, unless it begins in October. Inspection of eBird data across the wider region of southern Arizona, southern New Mexico, and central Texas reveals clear evidence of migration of the Spotted Towhee in this broader latitudinal stratum in October. Although I cannot rule out that some of the unknown calls may belong to the Spotted Towhee, the eBird data for Santa Cruz County support the idea that the bulk of the unknown calls are likely from the Green-tailed Towhee.

The 195 examples of the unknown call-type I recorded in 2015 vary widely

![Graph showing eBird report frequency and unknown call average number per night](image-url)
in the bandwidth of their frequency modulation. My initial inclination was not

to group together calls with extremes in modulation bandwidth such as those

shown between Figure 2(s) and Figure 2(t). But as the call analysis progressed,

I discovered intermediate calls in which the modulation bandwidth is broader

in a portion of the call and narrower in another portion. For example, Figure

2(a) shows a call that has alternating sections of modulation bandwidth wider

and narrower, and in Figure 2(n) the bandwidth of frequency modulation of

the top track is much wider than that of the lower track. I gained further con-

fidence that these variations represent a single species when I found examples

of the Green-tailed Towhee’s diurnal contact calls with a similar wide range

in bandwidth of frequency modulation. The four diurnal examples shown in

Figure 3 demonstrate that the Green-tailed Towhee can give a long monosyl-
labic contact call that varies greatly in modulation bandwidth.

Once the rough limits of the unknown call-type began to take shape, each

new call discovered contributed to my understanding of its potential variation.

In the 195 calls recorded, some characteristic variations show up regularly,
suggesting a diversity of calls among individuals and/or the possibility of

variations associated with different populations. The extent of this call-type’s

variation in an individual bird is unknown. Sorting out the meaning of this call-

Figure 5. Percentage of checklists submitted to https://ebird.org from Santa Cruz and

Pima counties, Arizona, 2010–2020, that report the Spotted Towhee (dashed line) and

Green-tailed Towhee (solid line). Each value represents the average percentage of

checklists reporting the species during the period indicated, which are weeks except note

that the last period in each month has more than seven days. During the four weeks in

September, the number of checklists submitted ranged from 4244 to 5303 per period. The
data for the Green-tailed Towhee reflect the absence of the species in the region until late

August when the first migrants arrive, the peak of fall migration in mid-September, and

the smaller numbers remaining to winter. In contrast, the data for the Spotted Towhee re-

flect the late-summer presence of local breeders, no September migration peak, and only

a small influx beginning in October of birds staying through the remainder of the year.
NOCTURNAL FLIGHT CALL OF THE GREEN-TAILED TOWHEE

type's variation will take extensive study of both the nocturnal flight call and its diurnal counterpart from multiple regions within the Green-tailed Towhee's range. In such an investigation, it is important to recognize that some variations of the nocturnal flight call may not be given during the day. In his extensive study of the Gray-cheeked Thrush complex, Marshall (2001) found variations in nocturnal flight calls presumed to represent both Catharus bicknelli and C. minimus aliciae that were not represented by diurnal calls he had recorded. Yet he concluded that his sample size was not adequate to determine whether “a migrating group of these thrushes is reserving or improvising particular calls for nocturnal migration, different than those on the ground.” In my experience, I have seen variations in nocturnal flight calls in many passerine species for which there is no similar variation documented during the day, but, as Marshall found, it is challenging to accumulate enough information to prove it. Inherent differences between the nocturnal and diurnal versions of the Green-tailed Towhee's presumed flight call may be a reason why there is not a more precise match between the diurnal examples in Figure 3 and the nocturnal flight calls presented in Figure 2. Another reason is likely the paucity of diurnal examples of this call-type available in the ML and XC public archives.

While the evidence strongly suggests that the highly variable nocturnal flight call I have described is from the Green-tailed Towhee, there are still a few alternative possibilities to be resolved. As of this writing, the nocturnal flight calls of the Cassin's, Botteri's, and Black-throated Sparrows are yet to be described. There is no evidence in the XC and ML archives, Birds of the World accounts (https://birdsoftheworld.org/), or Pieplow (2019), however, that any of these three species gives a long, high-pitched contact call. Furthermore, while all three may be migrating through Santa Cruz County in September, the rates at which they are reported from the county to eBird do not stand out as a strong match as that of the Green-tailed Towhee does. So, it seems unlikely that one of these species could be the source of the unknown call.

Another challenging possibility regards two species thought to be non-migratory, the Rufous-crowned Sparrow (Aimophila ruficeps) and Canyon Towhee (Melozone fusca). Both have considerable populations around and to the north of Nogales, and both have long contact calls that are similar to, and potentially overlap with, those of the Green-tailed Towhee. It seems highly unlikely that one or the other could be responsible for all the unknown nocturnal flight calls, but perhaps one or both make undescribed nocturnal movements in which they emit flight calls—if so, there is a possibility some of the 195 unknown calls may be theirs.

Identification to species of nocturnal flight calls and documentation of regional patterns of nocturnal flight calling can take many years of study; publications tend to be progress reports (e.g., Evans et al. 2017, Evans and Conway 2021). The case for the unknown call being from the Green-tailed Towhee rests on (1) general resemblance of the unknown call to the Green-tailed Towhee's diurnal flight call; (2) good correspondence of the unknown call's seasonal pattern with the Green-tailed Towhee's schedule of migration; (3) lack of correspondence of the seasonal pattern of the unknown call with the timing of migration of the Spotted Towhee, a species with a potentially similar nocturnal flight call, and (4) extensive previous study of nocturnal flight calls that excludes most other species as possibilities.
ACKNOWLEDGMENTS

Nathan Pieplow, Ted Floyd, Robert Gill, and Philip Unitt each contributed to the accuracy, organization, and clarity of this article. Matt Wistrand, Michael O’Brien, Tom Johnson, and Richard E. Webster provided recordings on which I relied for building the case for the identification of the unknown call-type. Alan and Anna Schmierer hosted the acoustic monitoring station in Nogales, and William E. Evans III provided early guidance.

LITERATURE CITED


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DIET OF NESTLING WILLOW FLYCATCHERS IN MEADOWS OF THE SIERRA NEVADA

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ABSTRACT: I used video observations to quantify the diet of nestling Willow Flycatchers (Empidonax traillii) at six nests in two meadows (Middle Perazzo and Lacey) on the eastern slope of the Sierra Nevada, California. Prey fed to the nestlings consisted primarily of Diptera (24%), Odonata (22%), Ephemeroptera (16%), Lepidoptera (12%), and Raphidioptera (12%). Other less abundant taxa in the diet included Orthoptera, Coleoptera, and Hymenoptera. Aquatic insects such as Ephemeroptera and Odonata were fed more commonly at the five nests at Middle Perazzo Meadow, whereas terrestrial insects such as pollinating Diptera, Hymenoptera, Orthoptera, and Raphidioptera predominated at the single nest observed at Lacey Meadow. At Middle Perazzo Meadow nestlings in nests situated closer to the meadow's edge were fed more Raphidioptera, whereas those in nests farther from the edge were fed more Ephemeroptera and Odonata. Raphidioptera were fed more frequently in the morning and evening, whereas Diptera, Hymenoptera, Lepidoptera, Hemiptera, and Orthoptera were generally more frequently offered in the middle part of the day. Ephemeroptera were most often provided in the afternoon and evening while feedings with Odonata fluctuated little through the day.

Studies of the Willow Flycatcher’s diet in the western United States have focused largely on the Southwestern Willow Flycatcher (Empidonax traillii extimus), addressing temporal and spatial variation in its diet as well (Drost et al. 2003, Wiesenborn and Heydon 2007, Durst et al. 2008). The foods and food/habitat relationships of other subspecies such as E. t. brewsteri, which breeds in the Sierra Nevada and Pacific Northwest, have received little attention. Green et al. (2003) suggested that the Willow Flycatcher’s diet is similar across its breeding range, but my study in Sierra meadows suggests otherwise (Dietrich 2020). Preliminary results imply that the Willow Flycatcher’s diet may vary by location, habitat, and time of day (Dietrich 2020), but more evidence is needed to support these findings. Here I report observations of food items fed to nestling Willow Flycatcher at six nests in two meadows of the Sierra Nevada.

STUDY AREA

Located on the east slope of the Sierra Nevada in Sierra County, California, the Little Truckee River watershed is home to one of the largest and most persistent populations of the Willow Flycatcher in the Sierra Nevada (Serena 1982, Harris et al. 1987, Sanders and Flett 1989, Green et al. 2003). In the summer of 2021, I monitored six Willow Flycatcher nests in this watershed, five at Middle Perazzo Meadow and one at Lacey Meadow (Figure 1). Lying at an elevation of 1981 m in a broad valley, Middle Perazzo Meadow features large ponds formed by natural river processes and pond-and plug-restoration in 2013 (Loffland et al. 2022). Its vegetation is dominated by shrubby willows (Salix spp.) and sedges (Carex spp.). At 2134 m elevation Lacey Meadow also occupies a large river valley but lacks the abundance of wetland vegetation...
found in Middle Perazzo Meadow and is covered mostly with grasses and forbs; willows grow only near the main river channel. Both meadows are closely surrounded by forest of Lodgepole Pine (*Pinus contorta*); Middle Perazzo Meadow is also partially bordered by sagebrush (*Artemisia tridentata*).

**METHODS**

**Video Sampling**

I used a high-resolution, tripod-mounted video camera (Lumix G85) and telephoto lens (Leica, 100–400 mm) to video-record nests at a distance of 3 to 5 m from the nest with a clear view of nestlings. Each nest was recorded during five periods of the day, early morning (06:00–09:00 PDT), late morning (9:00–12:00), early afternoon (12:00–15:00), late afternoon (15:00–18:00), and evening (18:00–21:00). This was done in order to get a more representative sample of the diet throughout the day and to be able to compare the diet by subsets of the day. Typically, a minimum of 3 to 4 hours of recorded video was needed for each period. Since sufficient video could not be recorded in a single day, I recorded the nests for 2 to 4 successive days. Thus I recorded

![Figure 1](attachment:study-area-middle-perazzo-and-lacey-meadows-sierra-county-california.png)
**Diet of Nestling Willow Flycatchers in the Sierra Nevada**

**Table 1** Effort Video-Recording and Provisioning of Willow Flycatcher Nestlings in Middle Perazzo and Lacey Meadows, Sierra Nevada

<table>
<thead>
<tr>
<th></th>
<th>Lacey</th>
<th>MP1</th>
<th>MP2</th>
<th>MP4</th>
<th>MP7</th>
<th>MP9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated age of young (days)</td>
<td>8–12</td>
<td>4–8</td>
<td>8–12</td>
<td>4–8</td>
<td>4–8</td>
<td>8–12</td>
</tr>
<tr>
<td>Distance to meadow edge (m)</td>
<td>34</td>
<td>73</td>
<td>80</td>
<td>135</td>
<td>106</td>
<td>79</td>
</tr>
<tr>
<td>Time of day</td>
<td>6:00–9:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minutes</td>
<td>205</td>
<td>291</td>
<td>292</td>
<td>212</td>
<td>184</td>
<td>279</td>
</tr>
<tr>
<td>Feedings</td>
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<td>97</td>
<td>125</td>
<td>53</td>
<td>20</td>
<td>91</td>
</tr>
<tr>
<td>9:00–12:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minutes</td>
<td>166</td>
<td>310</td>
<td>213</td>
<td>177</td>
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<tr>
<td>Feedings</td>
<td>84</td>
<td>98</td>
<td>62</td>
<td>35</td>
<td>42</td>
<td>91</td>
</tr>
<tr>
<td>12:00–15:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minutes</td>
<td>290</td>
<td>217</td>
<td>380</td>
<td>146</td>
<td>176</td>
<td>322</td>
</tr>
<tr>
<td>Feedings</td>
<td>71</td>
<td>126</td>
<td>168</td>
<td>51</td>
<td>83</td>
<td>106</td>
</tr>
<tr>
<td>15:00–18:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minutes</td>
<td>304</td>
<td>346</td>
<td>333</td>
<td>145</td>
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<td>246</td>
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<tr>
<td>Feedings</td>
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<td>84</td>
<td>111</td>
<td>54</td>
<td>32</td>
<td>86</td>
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<tr>
<td>18:00–21:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Minutes</td>
<td>230</td>
<td>223</td>
<td>97</td>
<td>194</td>
<td>117</td>
<td>97</td>
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<tr>
<td>Feedings</td>
<td>94</td>
<td>77</td>
<td>62</td>
<td>38</td>
<td>69</td>
<td>43</td>
</tr>
</tbody>
</table>

*See Figure 1 for numbers designating nests in Middle Perazzo Meadow.

at least 200 feedings at each of the six nests. Table 1 presents the dates and time each nest was under surveillance and the numbers of feedings by 3-hour period of the day.

**Diet Analysis**

To identify food items fed to nestlings, I examined the video with the video-editing software Wondershare Filmora9. I was conservative in my approach to identifying food items, not counting items of uncertain identity, which equaled 20% of all samples. Smaller food items were more difficult to identify than larger items. Other factors contributing to difficulty in identifying food items were the quick pace of feeding, obstructed views, and blurriness of the video. When possible, I identified each food item to order unless it could be adequately identified to a lower taxonomic level. Then I calculated the overall relative abundance and percent abundance for each category of prey for each nest and meadow. For Middle Perazzo Meadow, I combined the data from all five nests to obtain the overall relative abundance and percent abundance for the meadow. Finally, I quantified the relative abundance and percent abundance for each taxon during each of the five time periods for each nest site and meadow. Because of the low number of nests observed, I did not analyze the results statistically but present them descriptively.
RESULTS

Diet Composition

In total, I identified 2277 individual food items representing 12 orders of arthropods delivered to nestlings in Lacey and Middle Perazzo meadows. The top taxa were the Diptera, Odonata, Ephemeroptera, Lepidoptera, and Raphidioptera (Table 2). The Diptera comprised species ranging in length from 9–14 mm (flesh flies, family Sarcophagidae, and hover flies, family Syrphidae) to 25–50 mm (horseflies, family Tabanidae, and craneflies, family Tipulidae). The Odonata consisted largely of damselflies (Figure 2) but also included a smaller number of dragonflies. The Ephemeroptera were represented largely by smaller mayfly species (likely genus Ephemerella) that emerged in the evening and occasionally during the middle part of the day. The Lepidoptera consisted of green moth caterpillars but also included a small number of medium and large adult butterflies and moths, while the Hymenoptera consisted mostly of small wasps (family Vespidae) ranging in length from 13 to 38 mm but also included a small number of bumblebees (genus Bombus). The Coleoptera were largely adult and larval ladybug beetles (family

![Figure 2. Willow Flycatcher feeding (A) butterfly (Lepidoptera) and (B) damselfly (Odonata) to nestlings.](Image)

*Photo by Scott Dietrich*

**Table 2** Numbers and Percentages of Arthropods Fed to Nestlings at Six Nests in Middle Perazzo and Lacey Meadows, Sierra Nevada

<table>
<thead>
<tr>
<th>Order</th>
<th>Lacey n</th>
<th>MP1 n</th>
<th>MP2 n</th>
<th>MP4 n</th>
<th>MP7 n</th>
<th>MP9 n</th>
<th>Total n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diptera</td>
<td>167</td>
<td>74</td>
<td>163</td>
<td>41</td>
<td>26</td>
<td>74</td>
<td>545</td>
<td>24</td>
</tr>
<tr>
<td>Odonata</td>
<td>2</td>
<td>96</td>
<td>180</td>
<td>71</td>
<td>49</td>
<td>108</td>
<td>506</td>
<td>22</td>
</tr>
<tr>
<td>Ephemeroptera</td>
<td>3</td>
<td>12</td>
<td>57</td>
<td>72</td>
<td>100</td>
<td>123</td>
<td>367</td>
<td>16</td>
</tr>
<tr>
<td>Lepidoptera</td>
<td>25</td>
<td>142</td>
<td>50</td>
<td>20</td>
<td>19</td>
<td>23</td>
<td>279</td>
<td>12</td>
</tr>
<tr>
<td>Raphidioptera</td>
<td>118</td>
<td>120</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>30</td>
<td>277</td>
<td>12</td>
</tr>
<tr>
<td>Orthoptera</td>
<td>25</td>
<td>9</td>
<td>33</td>
<td>5</td>
<td>12</td>
<td>17</td>
<td>101</td>
<td>4</td>
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<tr>
<td>Hymenoptera</td>
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<td>10</td>
<td>11</td>
<td>2</td>
<td>6</td>
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<td>3</td>
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<tr>
<td>Coleoptera</td>
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<td>12</td>
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<td>0</td>
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<td>8</td>
<td>57</td>
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</tr>
<tr>
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<td>7</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>22</td>
<td>34</td>
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</tr>
<tr>
<td>Trichozaera</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>1</td>
<td>19</td>
<td>1</td>
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<tr>
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<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
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</table>

*aSee Figure 1 for numbers designating nests in Middle Perazzo Meadow.*
Coccinellidae) but also included larger species. The Hemiptera consisted of leaf hoppers (family Cicadellidae), while the Trichoptera and Plecoptera consisted of species large for those orders, the October caddis, *Dicosmoecus atripes*, and western stonefly, *Calineuria californica*. The Araneae were not identified to species but included a variety of large and small spiders. The Raphidioptera were represented by snakeflies found in the Lodgepole Pine forest that surrounded both meadows.

Meadow and Territory Comparison

At Middle Perazzo Meadow the Odonata, Ephemeroptera, Raphidioptera, and Diptera constituted roughly 75% of the nestlings’ diet, whereas at Lacey Meadow the Diptera and Raphidioptera alone combined to make up the same percentage (Figure 3). The Ephemeroptera, Odonata, and Lepidoptera predominated at Middle Perazzo, whereas the Raphidioptera, Diptera, and Hymenoptera predominated at Lacey. Percentages of the Coleoptera and Orthoptera were similarly low in both meadows. At one nest in Middle Perazzo Meadow, MP1, the percentages of Raphidioptera and Lepidoptera were much higher but the percentage of Ephemeroptera was much lower than at the other nests in that meadow (Figure 4). Also, at nest MP2 the percentage of Diptera was notably higher, and at nest MP7 the percentage of Ephemeroptera was notably higher than at the other nests in Middle Perazzo Meadow.

Daily Diet Comparison

The rate at which the nestlings were fed some categories of food items varied greatly during the day, while the rate for others varied little. At Lacey Meadow the Raphidioptera constituted 30–35% of the prey provided in the morning and late morning and 62% in the evening but no more than 8% in the afternoon and late afternoon. At Middle Perazzo Meadow the percentage of Raphidioptera varied only slightly through the day but was greatest in the morning (Figure 5). At both meadows the percentage of Diptera dropped considerably in the evening. By contrast, the Ephemeroptera were a minor constituent in the morning and late morning but made up a large percentage of the diet in the afternoon (27%) and evening (49%). For the Lepidoptera the percentage peaked in the late morning or early afternoon whereas for the Odonata it was fairly uniform through the day.

DISCUSSION

Meadow Diets

At both Lacey and Middle Perazzo meadows the arthropods fed to nestling Willow Flycatchers ranged from small terrestrial ladybugs to large aquatic dragonflies. Although the sample from the drier Lacey Meadow was small, it does help us understand the diversity possible in the Willow Flycatcher’s diet in the Sierra Nevada. Results from all six nests pooled, 62% of the diet consisted of insects with aquatic life stages, but at the wetter Middle Perazzo Meadow, aquatic insects accounted for 80% of the diet. Although Lacey Meadow was mostly dry, the nestlings in the nest monitored there were nevertheless fed many Diptera that have early aquatic life stages (Erman 1984).
It is possible that these insects originated from small ponds that had dried up by early summer when I made my observations at Lacey Meadow. Diptera, abundant in both meadows, were a major constituent of the nestlings’ diet at both meadows. Although odonates and mayflies were seldom provided at Lacey, they were a large part of the diet at Middle Perazzo, and I often saw them near ponds and river channels in the meadow, especially during peri-
odic emergences and during ideal flying conditions. On multiple occasions I noted the nestlings being fed three or four mayflies or damselflies in a single delivery, as I have seen during mass emergences of caddisflies and stoneflies in other meadows of the Sierra Nevada (Dietrich 2020).

The large percentage of terrestrial food items at Lacey Meadow was surprising because the prey I had previously observed in Sierra meadows almost always consisted largely of aquatic insects (Dietrich 2020). Also, Willow Flycatchers prefer nesting near water (Serena 1982, Sanders and Flett 1989, Bombay et al. 2003). At the drier meadow the diet appeared to be dominated by pollinating Diptera, snakeflies, Hymenoptera (wasps, bumblebees), and Lepidoptera (adult moths and butterflies), plus grasshoppers. Vegetation around the nest monitored in Lacey Meadow comprised shrubby willows and large openings covered with wet meadow grasses and flowers. Wet-meadow flowers such as Ranger’s Buttons (Sphenosciadium capitellatum) appeared to be especially important, as I noted many different pollinating insects on the flower heads, and flycatchers selectively gleaning food items from them. The nearby conifer forest also appears to be important as the source of snakeflies on which I often saw flycatchers foraging in the morning and evening near the nest in Lacey Meadow. At Middle Perazzo Meadow Willow Flycatchers also foraged on terrestrial arthropods outside of the meadow in the conifer forest and sagebrush habitat, but apparently less often than in Lacey Meadow and in the morning only. Other terrestrial prey such as ladybug beetles (adults and larvae), leaf hoppers, and lepidopteran caterpillars appear to be associated with wetland vegetation (Carex, Juncus, Salix) in Middle Perazzo Meadow; I often observed the flycatchers gleaning them from such plants.

Differences in the type of herbaceous vegetation, availability of water, and the distance to the meadow’s edge appear to be responsible for differences in the diet between Lacey and Middle Perazzo meadows. The wetter conditions

Figure 5. Percentage of each order of arthropods fed to nestling Willow Flycatchers in at five nests in Middle Perazzo Meadow by 3-hour periods of the day.
in Middle Perazzo Meadow likely led to the higher percentage of damselflies, dragonflies, and mayflies there, whereas the drier environment in Lacey Meadow was likely responsible for the greater proportion of terrestrial prey in the diet there. The nearness of the nest monitored in Lacey Meadow to the meadow’s edge probably made it easier for Willow Flycatchers to forage for snakeflies than at Middle Perazzo Meadow, where the surrounding forest was generally farther from the nests.

The observed variation at Middle Perazzo Meadow appears to be due mostly to the nest's location within the meadow. Both nests MP1 and MP2 were situated closer to the meadow's edge with its large numbers of snakeflies, grasshoppers, and Diptera. Conversely, at nests MP4 and MP7, located farther from the meadow’s edge, the percentages of damselflies, dragonflies, and mayflies were higher but those of terrestrial prey were lower. The composition of the diet within a meadow may vary with the nest’s distance to water and various terrestrial habitats. With a larger sample of nests these hypotheses could be evaluated with statistical modeling.

Diurnal Diet Variation

The variation in nestling Willow Flycatchers’ diets through the day reflects not only the fluctuation through the day in prey available to the birds but also changes in the adults’ foraging behavior. The high proportion of mayflies provided in the afternoon and evening presumably coincides with their increased availability during mass emergence. During these emergences flycatchers could be observed selectively targeting mayflies from the same foraging perches at high rates, suggesting an abundance of these food items was available during this time of the day. The increase in provisioning with snakeflies in the morning and evening coincided with an increase in foraging outside of the meadow. In Lacey Meadow I observed Willow Flycatchers foraging selectively on pollinating insects that had concentrated near flowers in the afternoon when conditions for pollinating may have been better. An observed increase in leaf hopper activity in the late morning appeared to coincide with the increase in the number of leaf hoppers fed to nestlings at that time. I have witnessed similar diurnal patterns in nestlings’ diets and adult flycatchers’ foraging in other Sierra meadows. The apparent consistency in provisioning with Odonata and Diptera through the day may reflect uniform availability. Given that the availability of various prey may fluctuate through the day, future studies should sample evenly through the day to ensure that samples are representative.

Diet Comparison

The diet of *E. t. brewsteri* I observed appears to differ from that of *E. t. extimus* in the Southwest but may be similar to that of *E. t adastus* in the Great Basin. The percentages of Coleoptera and Hymenoptera I observed were lower than those found in the Southwest by DeLay et al. (2002), Drost et al. (2003), Wiesenborn and Heydon (2007), and Durst et al. (2008). Diptera appear to be important in all areas where the Willow Flycatcher’s diet has been studied. Lepidopteran caterpillars appear to be more important in Sierra meadows than in the Southwest, but I found them being fed in
similar numbers in northern Utah (unpubl. data). Emergent insects such as the Ephemeroptera, Trichoptera, and Plecoptera have not been found in the diet of *E. t. extimus*, but my preliminary observations suggest that they may be more important to *E. t. adastus*. In the Sierra Nevada I observed Willow Flycatchers feeding on large numbers of Odonata, but in the Southwest they have been reported as only moderately important at a few sites. I found Orthoptera abundant in the diets of *E. t. adastus* in northern Utah, but they have been little reported in the diet of *E. t. extimus*. Snakeflies have not been reported in the Willow Flycatcher's diet outside of the Sierra Nevada (Beal 1912, Bent 1942, DeLay et al. 2002, Drost et al. 2003, Wiesenborn and Heydon 2007, Durst et al. 2008). Other food items such as spiders reported as important in the diet of *E. t. extimus* I seldom found being eaten in the Sierra Nevada. However, because of the small number of meadows sampled in my study these inferences are preliminary.

Management and Restoration Implications

Proper management of meadows that Willow Flycatchers occupy can benefit production of the birds' prey. Simply eliminating grazing within and near meadows during the breeding season allows an increase in the abundance of the grass, forbs, and wetland vegetation to which many Hymenoptera, Diptera, Lepidoptera, and grasshoppers are attracted. Thinning or removal of trees near meadows may disfavor terrestrial food insects such as snakeflies that are reliant on the conifer forest surrounding the meadows. Thinning of conifer forests that closely surround meadows the flycatchers may occupy should be done with caution. Many of these meadows are situated near reservoirs that often allow for control of flooding within the meadows. If a reservoir's level can be maintained to create more aquatic habitat, production of aquatic food insects should increase. Managers of these reservoirs should seek to keep meadows flooded at least through the early part of the summer, and longer if possible, to optimize the meadows' production of aquatic food.

Meadow restoration in the Sierra Nevada is often focused on restoring the Willow Flycatcher's nesting habitat but can unintentionally degrade foraging habitat. Restoration of a meadow should enhance habitat features such as ponds, streams, and vegetation that are directly or indirectly responsible for the meadow's production of food. Determining whether a meadow has the habitat necessary to support production of sufficient food should be the first step in developing a restoration plan, especially if the plan's goal includes establishing conditions suitable for the Willow Flycatcher. For example, some meadows may be food-limited because their streams are degraded and can no longer support reproduction of mayflies, caddisflies, and stoneflies, or ponds have dried up and no longer support production of damselflies, dragonflies, and some Diptera. Restoration of these habitat features should be done without damaging features of nesting habitat such as shrubby willows. Additionally, meadow-restoration projects should seek to restore the physical processes of flooding and sediment transport that are responsible for creating and maintaining the ponds and wetland vegetation that are so important to producing the Willow Flycatcher's food in the Sierra Nevada.
ACKNOWLEDGMENTS

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LITERATURE CITED


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NOTES

INCIDENCE AND EXTENT OF ECCENTRIC PREFORMATIVE MOLT IN THE CALIFORNIA AND CANYON TOWHEES

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Temperate-zone passerines undergo a preformative molt during their first cycle, typically within a few weeks or months after fledging (Howell et al. 2003). For most species, this molt is partial, encompassing all body and head feathers plus a variable number of wing coverts but no remiges or rectrices (Pyle 1997a). In some species, however, the preformative molt also includes a variable number of flight feathers. One common pattern of such incomplete molt is an eccentric replacement in which the outermost primaries and the innermost secondaries are replaced (Pyle 1997a, 1998). These patterns are useful among researchers who capture and band wild birds as they distinguish individuals in their first plumage cycle from those in their definitive cycle, in which all remiges are replaced (Pyle 1997a).

Previous publications on the preformative molt of the California Towhee (Melozone crissalis) describe it as including all the head and body feathers, most to all the lesser, median, and greater coverts, and sometimes 1–3 tertials and 2–12 rectrices (Pyle 1997a, Benedict et al. 2011). The preformative molt of the Canyon Towhee (M. fusca) follows the same pattern but the occasional replacement of flight feathers is less extensive, extending to only 1–2 tertials and 1–4 rectrices (Pyle 1997a). We found no published evidence that first-cycle towhees of either species replace outer primaries during this molt. Furthermore, we reviewed the literature on the molt patterns of the other six species in the genus Melozone and found no specific documentation of eccentric replacement of remiges in the preformative molt. The possibility is implied, however, by Pyle's (1997a) mention in his account of Abert's Towhee (M. aberti) that "reports that the [preformative] molt can include [rectrices] and [primaries] require verification," and Tweit and Finch's (1994) reference to unpublished data that 11% of hatch-year birds captured at a banding station in Arizona had replaced primaries. Nevertheless, molt has been little studied in this genus, so the lack of published evidence should not be interpreted as a lack of eccentric molt. Towhees of the genus Pipilo have been documented replacing outer primaries in an eccentric pattern during the preformative molt (Johnson et al. 2013, Fettig and Hathcock 2015), and this pattern is documented in several other North American sparrow species (Pyle 1997a).

Here we present evidence for incomplete preformative molt of remiges following an eccentric pattern among five California Towhees banded in the San Francisco Bay region, California, and two Canyon Towhees banded near Los Alamos, New Mexico. Our data come from four landbird-banding stations: (1) the Coyote Creek Field Station in Milpitas, California (operated 1987–2021), (2) an unnamed temporary station ~5 km upstream of there (operated 2002–03 and 2007–08), the Los Trancos Creek Banding Station in Portola Valley, California (operated 2019–2021), and a station operated by the Los Alamos National Laboratory in Los Alamos County, New Mexico (operated 2010–2021).
Banding at and near the Coyote Creek Field Station was conducted by staff and volunteers of the San Francisco Bay Bird Observatory. The Coyote Creek Field Station operates in a standardized way on Wednesdays, Saturdays, and Sundays every week of the year, conditions permitting. Non-overlapping arrays of 14, 14, and 19 mist nets are operated on each of these days, respectively. During the years the station 5 km to the southeast was active, 18 nets were operated approximately once per week. A project of researchers at Stanford University, the Los Trancos Creek station was operated approximately once per week and comprised 7 nets. Banding at Los Alamos was conducted by researchers at the Los Alamos National Laboratory. That station was operated once per week during fall migration from mid-August through mid-October and had 14 mist nets.

At each station, mist nets were opened approximately 30 minutes prior to local sunrise and closed 5 hours after opening. Nets were checked at a minimum of once every 30 minutes and trained personnel extracted all birds. Each new bird was given an appropriately sized USGS metal leg band and standard data were recorded. Recaptures were processed similarly. See Barton and Sandercock (2017) for a more detailed description of the stations’ operation. We number primaries from innermost (P1) to outermost (P9) and secondaries from outermost (S1) to innermost (S9; the tertials being S7–S9) as is standard in studies of molt.

On 18 October 2018, we captured a first-cycle Canyon Towhee with an eccentric pattern of flight-feather replacement at Los Alamos (Figure 1). We noted that P9

Figure 1. Right wing of a first-cycle Canyon Towhee (Melozone fusca) captured near Los Alamos, New Mexico, on 18 October 2018 showing evidence of an incomplete preformative molt following an eccentric pattern. P9 and S6–S9 have darker bases and shafts and are less worn than the other flight feathers. Importantly, the primary coverts appear uniform and retained from the earlier generation of juvenile feathers. An asterisk (*) indicates feathers that represent the formative plumage.

Photo by Charles D. Hathcock
and S6–S9 had darker bases, darker shafts, and less wear than the other flight feathers, suggesting they were replaced in a more recent molt. The primary coverts were uniformly dull brown, matching the apparently older flight feathers, which ruled out the possibility of a suspended pre-basic molt (P. Pyle pers. comm.). On 23 October 2021, we encountered a first-cycle California Towhee with a similar eccentric pattern of flight-feather replacement at Los Trancos Creek (Figure 2). Again, we noted that P8–P9 and S7–S9 had darker bases, darker shafts, and less wear than the other flight feathers and that the primary coverts were dull brown, matching the flight feathers retained from the earlier plumage. Furthermore, when this individual was originally banded on 8 August 2021, its skull was incompletely ossified, additional support for its being a first-year bird that had undergone an incomplete preformative molt following an eccentric pattern rather than an adult that had suspended its pre-basic molt (P. Pyle pers. comm.).

These unusual captures prompted us to review all records of California and Canyon Towhees banded under our organizations’ federal banding permits (22109 and 23440), and we found five other instances (six total) of incomplete preformative molts following an eccentric pattern in these species. Across our three banding sites in California, records for 5/369 (1.4%) individual first-cycle California Towhees had documentation of eccentric molt (Table 1). The detection of eccentric molt patterns varied dramatically between our three study sites, representing 2/358 (0.6%) of the towhees captured at the Coyote Creek Field Station, 1/6 (16.7%) of those captured 5 km upstream of the Coyote Creek Field Station, and 2/5 (40%) of those captured at Los Trancos Creek. At our station in New Mexico, we documented eccentric molt in 2/21 (9.5%) first-cycle Canyon Towhees captured (Table 1).

Among the five California Towhees with eccentric replacement, all had replaced P9, 4/5 had also replaced P8, 2/5 had also replaced P7, and 1/5 had also replaced

Figure 2. Right and left wings of a first-cycle California Towhee (Melozone crissalis) captured at the Los Trancos Creek Banding Station, California, on 23 October 2021 showing evidence of an incomplete preformative molt following an eccentric pattern. P8–P9 and S7–S9 have darker bases and shafts and are less worn than the other flight feathers. Importantly, the primary coverts appear uniform and retained from the juvenile plumage. An asterisk (*) indicates feathers that represent the formative plumage.

Photo by D. Julian Tattoni
Data on the secondaries had been recorded for only four of these birds. Of these, two had replaced all three tertials (S7–S9) and one (25%) had replaced an additional inner secondary (S6) (Table 1). Of the two Canyon Towhees with eccentric replacement, both had replaced P9, while one had also replaced P8. With respect to the secondaries, one bird had replaced S5, both had replaced S6, and one had replaced all three tertials (S7–S9). The primary coverts of both Canyon Towhees were retained from the earlier plumage. In each case the molt was noted as symmetric, suggesting the outer primaries had been replaced during the preformative molt, not adventitiously.

The differences in detection of eccentric preformative molt among California Towhees at our California study sites were interesting considering all three sites are within 16 km of one another and in the same habitat. But sample sizes differed widely with greater and more consistent banding effort at the Coyote Creek Field Station than at the other sites, where the greater percentage of first-cycle California Towhees with eccentric molt patterns may be an artifact of the difference in sampling. Our satellite stations, however, are often operated by our most experienced banders, who may be more likely to notice and record atypical molt patterns. If this were the case, eccentric molt among first-cycle California Towhees may be under-detected at the Coyote Creek Field Station.

Many researchers and bird banders have proposed that incomplete preformative molt of remiges is adaptive for species living in dry, scrubby, and sun-exposed habitats where the juvenile feathers may be more exposed and so wear down rapidly (Pyle 1998, Pyle et al. 2004, Guallar et al. 2021), though little empirical evidence has been published. Guallar et al. (2021) have provided the strongest evidence for this hypothesis, demonstrating that within the Cardinalidae, the evolution of incomplete preformative molt following an eccentric pattern is correlated with transitions toward more open habitats.

Do our observations represent the appearance of adaptive traits within these populations, or are they merely aberrant molt patterns? Across their ranges, both the California and Canyon Towhees are ubiquitous in habitats that have many of the characteristics considered to be ecological drivers of the evolution of eccentric molt.

### Table 1

<table>
<thead>
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<td>F F J J J J J J U U U U U U U</td>
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<tr>
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<td>5 Oct 2003</td>
<td>F F F F J J J J J U U U</td>
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<td></td>
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<tr>
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<td>F J J J J J J J J J G G J</td>
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<td></td>
<td>23 Oct 2021</td>
<td>F F J J J J J J J J J</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 Oct 2018</td>
<td>F J J J J J J J J J G G G</td>
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</tr>
</tbody>
</table>

*J, juvenile; F, formative; G, growing (formative); U, unknown.*
as they occupy open, sunny habitats with scrubby vegetation in dry climates (Johnson and Haight 1996, Benedict et al. 2011). The lack of evidence from specimens collected in the 19th and 20th centuries (Pyle 1997b) suggests eccentric molts did not provide substantial adaptive value for these species. However, the contemporary documentation at our study sites may indicate that these molt patterns are increasing in frequency and that under changing climatic and environmental conditions they may be beneficial. Interestingly, there is some initial evidence among western Palearctic species that the extent of preformative molt is increasing with rising global temperatures (Kiat et al. 2019). If eccentric molt is becoming adaptive at our study sites, we should expect to document more individuals with these patterns in the coming years.

Overall, our observations highlight a core question in the study of the avian molt: how do contemporary environments interact with evolutionary histories to produce the molt patterns we observe in extant birds? It is difficult to ascertain how much of a bird’s current environment has shaped its molt pattern, especially considering how conserved patterns of molt appear to be across extant passerines (with all species following one of two main strategies, the “complex basic” or “complex alternate”; see Howell et al. 2003).

Our observations, together with those of other researchers documenting molt patterns considered atypical for a species (e.g., Hudson et al. 2006, Fettig and Hathcock 2015), suggest that within some populations there may be considerable individual variation in molt patterns. While the adaptive value of specific patterns remains poorly understood, when variation exists we may expect to see continuing evolution of molt patterns in response to environmental change.

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LITERATURE CITED


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AN INTRODUCTION TO PREY OF THE MEXICAN SPOTTED OWL IN WALNUT CANYON NATIONAL MONUMENT, ARIZONA

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The Mexican Spotted Owl (Strix occidentalis lucida), one of the three subspecies of the Spotted Owl recognized within the United States, is designated as threatened under the Endangered Species Act. Arizona’s Walnut Canyon National Monument has been designated as critical habitat for it. This continuing study focuses on composition of the species’ diet through the identification of prey items found in its regurgitated pellets. Similar research has taken place in surrounding areas (Ganey 1992, Block et al. 2005; J. Ganey pers. comm., 2020), but this is the first such study within the national monument. In my pilot study, in 2018, my collaborators and I gathered 48 pellets (comprising 1600+ individual bones), then in 2020 an additional 70 pellets (comprising 3100+ individual bones). In total they included the bones of rodents, small passerine birds, shrews, bats, and a single owl. Pellets gathered in 2020 were dissected and analyzed in early 2021. At that time five Spotted Owl territories were known in the canyon.

Walnut Canyon National Monument (Figure 1) is located ~13 km from Flagstaff. It encompasses 1433 hectares, including 16.8 km of Walnut Creek, a tributary of the Little Colorado River. The canyon is composed primarily of Kaibab limestone and Coconino sandstone and reaches depths of 122 m along its 32-km-long serpentine course. Its ecological communities are characterized by forest of ponderosa pine (Pinus ponderosa) and Douglas fir (Pseudotsuga menziesii) on the canyon rims and...
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slopes, which gives way to riparian woodland at the canyon bottom; elevations range from 2091 m along the south rim to 1896 m at the bottom (Drost 2009).

We opportunistically collected pellets from core roost areas in the canyon throughout the breeding seasons of 2018 and 2020 as National Park Service personnel monitored the birds’ nesting. Collected pellets were individually wrapped in aluminum foil for protection during transport, then bagged and labeled with individuals’ roost-site identifiers (site name, coordinates, collection date). Pellets were stored in climate-controlled facilities before being sterilized (to avoid potential transmission of any zoonotic disease) in a 350°F oven for 30–40 min prior to dissection. I dissected all pellets with the aid of a high-resolution digital dissecting scope. I isolated the contents of individual pellets from other pellets and sorted them roughly before focusing on those skeletal elements (almost exclusively cranial bones) readily identified to genus or species. Nearly all individual pellets contained skeletal elements belonging to multiple animals of various sizes, the majority consisting of postcranial elements of small mammals, but I identified remains to genus or species only when skulls and/or mandibles were present. Each pellet usually contained several dozen individual bones, but generally only one or two cranial elements, and there was no definitive way to pair skulls/mandibles with the much larger number of postcranial elements.

All specimen identifications were accomplished by direct comparison with specimens in the Natural Sciences Department at the Museum of Northern Arizona and with comparative materials I had curated. My identifications were also aided by reference to Hoffmeister (1986), Drost (2009), Holmes et al. (2010), and several vertebrate osteology manuals (Gilbert 1990, Cohen and Serjeantson 1996, Gilbert et al. 1996, Elbroch 2006). Upon completion of the project, all specimens will be permanently curated in the natural science collections at the Museum of Northern Arizona, Flagstaff.

Analysis of the 48 owl pellets collected in 2018 resulted in identifications of Peromyscus sp. (deer mouse), Perognathus sp. (pocket mouse), Neotoma albigula (western white-throated woodrat), Neotoma mexicana (Mexican woodrat), Thomomys bottae (Botta’s pocket gopher), Microtus mogollonensis (Mogollon vole), Sorex merriami (Merriam’s shrew), Lasionycteris noctivagans (silver-haired bat), and Glaucidium gnoma (Northern Pygmy-Owl).

The 70 pellets collected in 2020 yielded Peromyscus sp. (deer mouse), Neotoma albigula, Neotoma mexicana, Thomomys bottae, Microtus mogollonensis, unidentified small passerines (order Passeriformes), an unidentified bat (order Chiroptera), and an unidentified frog or toad (order Anura). In addition to the array of vertebrate remains, more than 100 limb, thorax, and abdomen elements from scarab beetles (family Scarabaeidae) were recovered from the pellets from two of the roosts. No arthropod remains were identified from the 2018 specimens.

These results align with those of other Spotted Owl studies from the region (Ganey 1992, Block et al. 2005, Willey 2013) and beyond (Cutler and Hays 1991, Young et al. 1997, Smith et al. 1999, Munton et al. 2002, Bond et al. 2013), with small mammals constituting nearly 96% of prey (specifically woodrats, mice, and voles), followed by arthropods and birds (primarily small passerines), each constituting 1–3% of the prey (Table 1). The assemblage included some noteworthy species for the area. First records for Walnut Canyon National Monument comprised six skeletal elements of Sorex merriami and a single specimen of Perognathus sp. (pocket mouse), and skeletal elements of Neotoma albigula (white-throated woodrat) from both years provided the first certain evidence of that species’ occurrence in the monument. Sorex merriami, the only species of shrew known from the region, was identified by its diminutive size, unique cranial form, and eye-catching reddish-maroon dentition. Perognathus was identified by its pronounced bullae. Neotoma albigula was distinguished from the other local woodrat species by its specific dental forms and unique nasal suture patterns. Drost (2009) had listed Sorex merriami and
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*Perognathus flavus* as expected for Walnut Canyon National Monument but did not detect them in trapping from 2002 to 2004 or in a review of museum collections from the area. He reported capture of one possible example of *Neotoma albigula* but could not confirm the identification. Walnut Canyon National Monument is in the general range of all of these species (Hoffmeister 1986). Multiple specimens of *Lasionycteris noctivagans* (silver-haired bat) were also recorded from the pellet assemblages, providing interesting baseline data for the monument, although bats are well known from a number of studies of the Spotted Owl's diet elsewhere in the American West and in Mexico (see Ganey 1992, Young et al. 1997, Smith et al. 1999, Block at al. 2005, Willey 2013).

Finally, the remains of a Northern Pygmy-Owl were represented by the premaxilla, maxilla, nasal, and palatine (Figure 2), as well as multiple postcranial elements, including the humerus, scapula, and coracoid—representing the first reported occurrence of any owl in a Mexican Spotted Owl pellet. Forsman et al. (2004) reported the occurrence of that species, as well as other owl species, in pellets of the Northern Spotted Owl (*S. o. caurina*) in Oregon.

Following two years of study and the analysis of 4700+ bones from 115 pellets, it is evident that at Walnut Canyon National Monument Mexican Spotted Owls consumed a variety of prey but that small mammals dominated their diet, followed by the occasional arthropod, bird, bat, or frog or toad. Continued collecting and analysis of pellets in the coming years will provide resource managers with baseline

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**Table 1** Numbers and Percentages of Items of Prey Identified in Spotted Owl Pellets from Walnut Canyon National Monument, Arizona

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2020</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rodent</td>
<td>1545 (95%)</td>
<td>2953 (94%)</td>
<td>4498 (94%)</td>
</tr>
<tr>
<td>Bat</td>
<td>31 (2%)</td>
<td>45 (1.4%)</td>
<td>76 (1.6%)</td>
</tr>
<tr>
<td>Shrew</td>
<td>6 (0.4%)</td>
<td>0</td>
<td>6 (0.1%)</td>
</tr>
<tr>
<td>Scarab beetle</td>
<td>0</td>
<td>114 (3.6%)</td>
<td>114 (2.4%)</td>
</tr>
<tr>
<td>Bird</td>
<td>49 (3%)</td>
<td>34 (1.1%)</td>
<td>83 (1.7%)</td>
</tr>
<tr>
<td>Frog/toad</td>
<td>0</td>
<td>4 (0.1%)</td>
<td>4 (0.1%)</td>
</tr>
<tr>
<td>Total</td>
<td>1631</td>
<td>3150</td>
<td>4781</td>
</tr>
</tbody>
</table>

---

*Figure 2.* Premaxilla, maxilla, nasal, and palatine of a Northern Pygmy-Owl recovered from a Mexican Spotted Owl pellet. Scale is in centimeters.
NOTES

data critical to the development of more effective forest-management plans and fire-management projects that support the prey of this protected bird.

I thank the Western National Parks Association for providing grant funding for this study, and their unwavering support of science in our national parklands. I also acknowledge Mark Szydlo and Brent Hetzler for collecting the bulk of the pellets used in this study and for enthusiastically sharing their local ornithological knowledge. I thank Janet Gillette for making available the fantastic natural science collections over which she formerly presided at the Museum of Northern Arizona. Without these carefully curated comparative materials this study would not be possible. I thank Rodney B. Siegel, Mark Szydlo, and David W. Willey for their careful reviews of this note.

LITERATURE CITED


Accepted 4 March 2022

Associate editor: Daniel D. Gibson
NOTES

FIRST RECORD OF THE YELLOW-BELLIED FLYCATCHER FOR THE EL PASO REGION OF TEXAS

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The Yellow-bellied Flycatcher (*Empidonax flaviventris*) breeds across the boreal forest from eastern interior Alaska to Newfoundland and migrates through the eastern United States, including eastern Texas, to winter in Central America (Oberholser 1974, Gross and Lowther 2011). It is rare west of central Texas (Oberholser 1974), with records from Big Bend National Park, Brewster County (Oberholser 1974; two specimens, 3 September 1968 and 1 September 1969), the Davis Mountains (Peterson and Zimmer 1998; 1 September 1994), and Balmorhea State Park, Reeves County (Lockwood 2015; fall record with no date). The species is rare in adjacent New Mexico, with 28 individuals reported to the New Mexico Bird Records Committee, all from the far eastern counties of Eddy, De Baca, and Roosevelt in fall migration (29 August–6 October, Sandy O. Williams III, pers. comm.). Farther west in Arizona, California, and Nevada the species is a vagrant, with all records from late August to mid-October (Phillips et al. 1964, Hamilton et al. 2007, Sullivan et al. 2009, https://ebird.org/), except for an exceptional mid-winter and an early June record from Arizona (Rosenberg and Witzeman 1999, Rosenberg et al. 2017). The Yellow-bellied Flycatcher is unrecorded from the El Paso region comprising El Paso County, western Hudspeth County, and southern Doña Ana County (New Mexico) (Paton et al. 2012). Although not a comprehensive source, the eBird citizen-science database contains no records for the Trans-Pecos region of Texas; its westernmost Texas record is from Midland County (Sullivan et al. 2009, https://ebird.org/).

While perusing the University of Texas at El Paso (UTEP) Biodiversity Collections, I noted a specimen of an *Empidonax* flycatcher that appeared to me to be misidentified (Figure 1). The specimen had been identified as a Cordilleran/Pacific-slope Flycatcher (*Empidonax occidentalis/difficilis*, i.e., Western Flycatcher), but multiple aspects of the plumage seemed more consistent with a Yellow-bellied Flycatcher, including the lemon-yellow tones to the venter and the dark wings with contrasting white tertial edges. Further examination of the specimen showed a short bill, olive-green dorsum, and broad wing bars on the greater and median coverts with a buff-yellow wash. The eye ring was largely missing, especially posterior to the eye, but appeared uniformly thin anterior to the eye. The flight feathers were uniformly fresh, lacking any signs of wear or molt. A detailed examination of the wing feathers showed that the inner two tertials were slightly fresher than the remaining remiges, suggesting a molt limit.

The following information comes from the data on the specimen tag and the field notes of Scott M. Cutler, which are housed at the UTEP Biodiversity Collections. The specimen was collected by Becky Bailey on 17 September 2011, at 5525 N. Stanton Drive in El Paso, El Paso County, Texas. It was delivered to a wildlife rehabilitator, and then donated to the UTEP Biodiversity Collections. No other notes are given on the circumstances of the collection. The specimen was prepared by Scott M. Cutler on 25 September 2011 and given catalog number UTEP 2829. It was sexed as a female (although the sex is noted as being uncertain) and aged as a “juvenile.” I interpret the comment on the tag “skull part single” as meaning that the skull was incompletely ossified, which combined with a molt limit in the tertials indicates an immature bird in formative plumage during its first fall. The Yellow-bellied Flycatcher undergoes most of its preformative molt in its breeding range before suspending it for fall migration and completing it in the winter range (Pyle 1997, Gross and Lowther 2011). A partial skeleton was also preserved.
NOTES

Although plumage pattern and coloration are important for identification of *Empidonax* flycatchers, morphometrics provide a quantifiable method for identification in support of plumage-based identification (Pyle 1997). Pyle (1997) and Baumann et al. (2014) gave ranges of values for each species of *Empidonax* against which measurements can be compared, particularly the relative lengths of the outer primary feathers, wing chord, and tail length. Although some of these measurements were obtained by the preparator (see specimen tag in Figure 1), for consistency I remeasured all relevant variables. I measured all eleven quantitative traits listed by Pyle (1997) and Baumann et al. (2014) with digital calipers to the nearest 0.1 mm or with a ruler (wing and tail) to the nearest millimeter. The measurements, along with the values listed by Pyle (1997) and Baumann et al. (2014), are listed in Table 1.

Most of the measurements of the El Paso *Empidonax* fall in the zone of overlap between the Western and Yellow-bellied flycatchers. However, the short tail and thus the wing-minus-tail measure fall well outside the range of the Western Flycatcher. The length of wing minus tail is at the maximum value Pyle (1997) specified for the

Figure 1. Photos of the El Paso specimen of the Yellow-bellied Flycatcher (UTEP 2829), in lateral (left), dorsal (center), and ventral (right) views. Scale bar is centimeters.

*Photos by Alonso Corral*
Yellow-bellied, and while the tail measurement is 2 mm shorter than Pyle’s minimum value for the Yellow-bellied, it is far outside the range of the longer-tailed Western Flycatcher. The length of the pale fringe on the secondaries of the Yellow-bellied and Western flycatchers differs (Baumann et al. 2014), and the measurement of the El Paso *Empidonax* falls within the range of the Yellow-bellied and well outside the range of the Western. No other *Empidonax* species shows the bright lemon-yellow venter of the Yellow-bellied Flycatcher, although both the Acadian (*E. virescens*) and Least (*E. minimus*) flycatchers can approach its brightness. Both of those species are ruled out by the morphometrics: the wing, tail, bill length from nares, and all five primary-feather measurements eliminate the Acadian, while the tail, wing – tail, and bill width eliminate the Least. Thus, this specimen represents the first record of Yellow-bellied Flycatcher for the El Paso region.

Many thanks to Mingna Zhuang for facilitating this research at the UTEP Biodiversity Collections. I was supported by the National Science Foundation through a Postdoctoral Research Fellowship in Biology under award DBI-2109841. Thanks to Paul R. Martin and Daniel D. Gibson for their reviews of this note.

**LITERATURE CITED**


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**Table 1** Measurements of the El Paso *Empidonax* in Comparison to Values for the Western and Yellow-bellied Flycatchers

<table>
<thead>
<tr>
<th>Measurement</th>
<th>El Paso specimen</th>
<th>Yellow-bellied</th>
<th>Western</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing</td>
<td>63</td>
<td>60–72</td>
<td>56–72</td>
</tr>
<tr>
<td>Tail</td>
<td>44*</td>
<td>46–55</td>
<td>50–63</td>
</tr>
<tr>
<td>Wing – tail</td>
<td>19*</td>
<td>12–19</td>
<td>6–15</td>
</tr>
<tr>
<td>Bill from nares</td>
<td>8.3</td>
<td>7.0–9.4</td>
<td>7.7–9.2</td>
</tr>
<tr>
<td>Bill width</td>
<td>5.5</td>
<td>4.8–5.6</td>
<td>5.0–5.8</td>
</tr>
<tr>
<td>Longest P – longest S</td>
<td>12.0</td>
<td>10.3–17.5</td>
<td>8.6–17.1</td>
</tr>
<tr>
<td>Longest P – P6</td>
<td>3.3</td>
<td>2.2–6.7</td>
<td>0.2–4.4</td>
</tr>
<tr>
<td>P6 – P10</td>
<td>5.5</td>
<td>1.9–6.3</td>
<td>4.7–9.8</td>
</tr>
<tr>
<td>P9 – P5</td>
<td>6.5</td>
<td>5.8–11.5</td>
<td>2.8–9.8</td>
</tr>
<tr>
<td>P6 emarginated?</td>
<td>slightly</td>
<td>variable</td>
<td>yes</td>
</tr>
<tr>
<td>Length S1 fringe</td>
<td>17.8*</td>
<td>15.2–19.7</td>
<td>18.6–26.5</td>
</tr>
</tbody>
</table>

*a*Comparison values from Pyle (1997) except the length of the pale fringe on S1 is from Baumann et al. (2014). Values from Pyle (1997) are based on the 95% confidence interval from 40 specimens per species. P, primary feather; S, secondary feather. All measurements in millimeters. An asterisk indicates measurements outside the range of the Western Flycatcher.
NOTES


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Associate editor: Daniel D. Gibson
BOOK REVIEWS


On 1 March 2022, the Cornell Lab of Ornithology published seven field guides covering different regions of North America. Targeting “new and developing birders,” the “All About Birds” series represents a cross-platforming of photos and information culled from the lab’s outstanding web pages. Promotional materials claim that these “definitive” guides “provide the most up-to-date resources and expert coverage on bird species throughout North America.” So, does All About Birds, California live up to the hype?

Sadly, no. Which is disappointing, because we all owe a debt of gratitude to the innovative and farsighted folks in Ithaca for doing so much to modernize birding with their impressive and varied online offerings. Cornell’s allaboutbirds.org represents the most comprehensive, useful, and popular web site devoted to bird identification in North America. Without charge, or even the need to register, you can take out your phone and pull up one of 616 species accounts that feature several high-quality images, video and audio files, a range map, and loads of relevant information on the bird’s appearance, regional differences, similar species, habitat, food, nesting, behavior, conservation, and even some “cool facts.” For species encountered less frequently, readers are redirected to Cornell’s other birding sites, ebird.org and the truly comprehensive birdsoftheworld.org, as The Birds of North America has now been repackaged (subscription only). Perhaps if more of us had converted our figurative debt into actual donations, Cornell would have spared us, and themselves, this poorly conceived series of guides.

Unlike a phone, All About Birds, California does not fit in a pocket. In fact, the book is larded with 70 introductory pages (marketed as “bonus content”) addressing a crazy-quilt of bird-related topics, such as the construction and placement of bird feeders and the qualities of a good birdhouse. The same anodyne material already resides harmlessly at allaboutbirds.org, taking up no space and killing no trees, so why would anyone want to lug it around in a backpack?

The folly of including so much filler comes into stark relief upon realization that All About Birds, California covers only 218 species, less than one-third of the species actually known from California and found at allaboutbirds.org. Compounding the problem is the guide’s rigid and inefficient one-species-per-page format. By treating an average of three species per two-page spread and limiting the front matter, the stellar Birds of Western North America, a Photographic Guide (Paul Sterry and Brian A. Small, 2009) shoehorns more than 500 species into a book of similar size. All About Birds, California omits an unconscionable array of species found commonly across wide swaths of the state. Missing are the Ross’s and Cackling geese, Tundra Swan, the teals, goldeneyes, mergansers, and scoters, Ring-necked Duck, Greater Scaup, Horned and Clark’s grebes, Common Poorwill, Vaux’s Swift, the Rallus rails, American Avocet, Snowy and Semipalmated plovers, Whimbrel, Black Turnstone, Red Knot, Surfbird, Dunlin, Least Sandpiper, the dowitchers, phalaropes, and yellowlegs, Wilson’s Snipe, Wandering Tattler, the skuas and jaegers, Bonaparte’s Gull, Caspian Tern, Pacific Loon, all tubenoses, Pelagic Cormorant, Barn Owl, Merlin, Prairie Falcon, the Psittacidae, Olive-sided Flycatcher, Cassin’s Kingbird, the Empidonax flycatchers, Northern Rough-winged Swallow, Bell’s, Hutton’s, Plumebeus, and Cassin’s vireos, California Gnatcatcher, Marsh Wren, the thrashers, Swainson’s Thrush, the pipits and wagtails, Black-chinned, Sagebrush, and Bell’s sparrows, and Nashville, MacGillivray’s, Black-throated Gray, and Hermit warblers. Any species excluded from the guide is treated as nonexistent, so don’t look for, say, a comparative photo of Clark’s Grebe tucked into the Western Grebe account or a Least Sandpiper
lurking among the Western Sandpipers. It’s as if Williams Sonoma published a series of cookbooks, omitted half the ingredients, and failed to mention the missing items.

Axing so many species created a logistical complication for assembling the illustrated index to bird families that folds out of the guide’s front cover. In addition to the various families missing entirely from the book, and hence the index, the decision to exclude all species of thrasher led the editors to represent the Mimidae awkwardly and misleadingly as consisting of mockingbirds alone!

With dozens of common and widespread species missing in action, readers may be befuddled to find accounts for numerous species that are rare, uncommon, or localized in California. These include the Chukar, Common Nighthawk, Pigeon Guillemot, Black-legged Kittiwake, Short-billed Gull (under the superseded moniker of “Mew Gull”), Glaucous Gull, Rough-legged Hawk, Barred Owl, Canada Jay, Woodhouse’s Scrub-Jay, Juniper Titmouse, Purple Martin, Abert’s Towhee, and Summer Tanager. One might hypothesize that the odd inclusion of these species reflects a simple lack of understanding of California’s avifauna. Given the decision to purposefully exclude dozens of common and widespread species, however, it’s much more likely that these species accounts were developed for inclusion in one or more of the other regional guides, and that Cornell decided opportunistically to re-use them in the California guide to pad the numbers or save money, never mind the editorial dissonance they engender.

Each species account in *All About Birds, California* includes four photos, each confined to its own identical rectangular frame. The images are of high quality, but their reproduction in this book is as dreary and uninspired as the page layout. By contrast, the Sterry/Small photographic guide’s boundary-pushing layout showcases vibrant bird images of variable number and size engagingly invading the spaces of their neighbors on the page, with similar species helpfully juxtaposed. To select just one example, their book illustrates 11 species of *Calidris* with 40 photos on five two-page spreads. *All About Birds, California*, by contrast, covers only the Sanderling and Western Sandpiper, and inexplicably places these congeners on different two-page spreads. Other similar species that a better-conceived layout would have situated on facing pages include the Lesser and Common nighthawks, Royal and Elegant terns, Golden and Bald eagles, Downy and Hairy woodpeckers, California and Woodhouse’s scrub-jays, and Tree and Violet-green swallows.

Each species account provides a tiny range map of North America, with no special attention paid to California. I did not check all of these for accuracy but noticed that the map for the Cactus Wren omits the state’s coastal populations.

Textual information about each species, delivered in a chatty style familiar to anyone who has visited a children’s science museum, is provided under four headings: Size and Shape, Color Pattern, Behavior, and Habitat. Each account closes with a brief paragraph of whimsical factoids generally unrelated to bird identification. Since any effort to help the reader distinguish one species from another would have only highlighted the book’s profound lapses in coverage, this may be the first field guide I’ve ever read that simply ignores identification challenges altogether. Where one expects to find carefully curated guidance on the specific cues birders rely upon to identify similar-looking birds in the field, *All About Birds, California* delivers banal descriptions of birds and their behaviors, addressing each species in a vacuum. Anna’s Hummingbirds “readily come to hummingbird feeders and flowering plants” whereas Black-chinned Hummingbirds “are habitat specialists, found in lowland deserts and mountainous forests, and in naturalized habitats and very urbanized areas, so long as there are tall trees and flowering shrubs and vines.” When observing Rufous Hummingbirds, “Look for their fast, darting flight and pinpoint maneuverability,” whereas Allen’s Hummingbirds “zip from flower to flower hovering above them to drink the nectar, ticking as they go.” Costa’s Hummingbirds “drink nectar from desert plants and snap up small flying insects in midair,” whereas
Calliope Hummingbirds “take nectar from flowering plants and eat flying insects in midair.” A new or developing observer of birds hoping for useful insights into the craft of birding can only absorb so many of these repetitive clichés and nonsensical self-contradictions before the eyes glaze over in surrender.

The release of this retrograde line of regional guides announces that the bill has come due for all the free, technology-based innovations that Cornell has bestowed upon the birding public. As a tool for identifying birds, All About Birds, California is as complete, useful, and serious as an interpretive sign at a nature preserve, or a cookbook missing half its pages. Nevertheless, this superficially attractive offering—or perhaps one of its six sister volumes—seems destined to be the infuriating gift that a nonbirding relative will eventually bestow upon each of us. This book was the cry for help that prompted me to finally start sending Cornell a monthly donation to cover the costs of the online services I use. You might consider doing the same, and letting your family know that, in lieu of purchasing this inferior product, you would prefer that they support Cornell’s many good works through a donation to ebird.org or a year’s subscription to birdsoftheworld.org.

Robert A. Hamilton


The hummingbird family includes many of the most beautiful species in North America—but also some of the most difficult to identify. George C. West’s North American Hummingbirds: An Identification Guide has successfully captured the beauty of this family and provided helpful field marks for aging, sexing, and identifying hummingbirds.

The book begins with an introduction to identifying hummingbirds in the field, highlighting how to distinguish species by size, shape, and overall color, as well as by wing-feather pattern and tail shape. Next, the book presents species accounts for the 25 species of hummingbirds that have been documented at least once by a specimen, photograph, or sight record within the United States or Canada. Accounts of the 18 regularly occurring species are grouped by the species’ size—large, medium, or small—within these groups, the species are sorted taxonomically. After introducing the species, each account describes the adult male, adult female, juvenile male, and juvenile female in detail. The species accounts are accompanied by West’s numerous original illustrations of dorsal and ventral views, photographs of the various ages and sexes at various angles, and close-up photographs of spread tails. Each account concludes with comparisons with similar species and information about distribution, migration, courtship and nesting, nutrition, and molt. The seven species of accidental vagrants are covered at the end of the book in less depth than the regularly occurring species.

The book is highly comprehensive, well documented, and beautifully illustrated, and would be ideal for anyone interested taking a deep dive into hummingbird identification. The book’s sections on the aging and sexing of each species are well equipped with detailed supporting descriptions. The images of the spread tail of each age/sex category of each species are very useful for aging, sexing, and identifying birds in the hand as well as from photographs. The choice of photography is effective; most photographic guides choose crisp, close-up photos of birds, but this guide also features photographs of hummingbirds that are distant, not particularly sharp, or show multiple birds—an apt inclusion since hummingbirds frequently move, often
at high speeds, and they can be difficult to scrutinize up close at leisure. The section “Courtship and Nesting” is very informative and filled with interesting tidbits about hummingbirds’ life cycle. Likewise, the section “Nutrition and Molt” contains detailed information on diet, feeding behavior, and the timing and sequence of molt.

Field biologists such as bird banders would benefit from this book because of the detailed information on the morphology of each hummingbird species. In an appendix, the book provides data on the length, wing chord, culmen length, and weight of both sexes of each species. In some cases, more information, such as the width of rectrix 5 in the Rufous and Allen’s Hummingbirds, is provided. This, combined with the many photographs of morphological features, spread-tail photographs, and illustrations of all ages and sexes, will be very helpful to banders aging, sexing, and identifying hummingbirds in the hand.

Birders and surveyors would also benefit from this book, especially in distinguishing the often difficult to identify females. With its detailed descriptions, multiple illustrations, and photographs of females of various ages, this book provides the information needed for their identification in nearly all cases. For example, the section dedicated to distinguishing the female Black-chinned and Ruby-throated clearly details the differences in primary feather shape and is accompanied by clear photographs of the spread wing. The book also addresses the identification challenge of the females of Rivoli’s Hummingbird and the Blue-throated Mountain-Gem.

However, there are a number of reasons this book’s appeal to field observers may be more limited. First, there are no range maps, crucial for any birder hoping to learn status and distribution and especially important for traveling birders. Second, details on vagrancy of hummingbirds are inconsistent. For example, nothing is mentioned about the vagrancy of the Broad-billed Hummingbird, despite its being a regular vagrant throughout the western United States (and a less regular vagrant in the eastern United States). The book does mention the vagrancy of Rivoli’s Hummingbird, however, despite its being much rarer as a vagrant than the Broad-billed Hummingbird. Third, the “similar species” section could also go more in depth at times. For example, when comparing Costa’s and Anna’s Hummingbirds, the book merely mentions, “Costa’s is smaller than Anna’s, with a shorter bill and tail.” But size can be difficult to judge on lone birds, and a juvenile Anna’s could have a bill shorter than an adult’s. The book could have instead mentioned the white line connecting the eye and sides on a Costa’s, as well as the far less heavily marked throat. As another example, the book mentions the Costa’s and Bumblebee Hummingbirds as species similar to the Calliope, but it does not mention that it is in fact the Rufous and Allen’s that resemble the Calliope more closely. Finally, the accounts of most species lack a “voice” section, which would be helpful for the field observer given that most hummingbirds regularly call and sing, and in some cases, voice is as good or better a field mark than any visual characteristic (e.g., the calls of female Costa’s and female Anna’s Hummingbirds).

West’s North American Hummingbirds: An Identification Guide contains more detailed information on sexing and aging than other hummingbird-identification guides, such as Williamson’s Field Guide to Hummingbirds of North America and Howell’s Hummingbirds of North America: The Photographic Guide. In addition, West provides many more details on courtship, nesting, and nutrition, valuable for anyone hoping to learn about the life of hummingbirds. Between the early 2000’s (when Williamson’s and Howell’s books were published) and 2015 (when West’s book was published), birders’ understanding of vagrant hummingbirds in the United States has increased greatly, and West has done an excellent job of covering these accidentals and outlining records and vagrancy patterns. Therefore, having all three guides (Williamson’s and Howell’s for their range maps, differentiation of similar species, and information on voice, and West’s for information on aging, sexing, the life cycle, and vagrants) will provide the most value to hummingbird enthusiasts.
Overall, the book is highly informative and visually appealing. Its effective format, combining detailed text with many photographs and illustrations, provides valuable insights on hummingbird aging, sexing, and identification. It would be an indispensable guide for banders identifying hummingbirds in the hand, and it would be an excellent choice for field observers to supplement their general field guides.

Desmond E. Sieburth

IN MEMORIAM

TERENCE R. WAHL, 1930–2022

T
erence R. Wahl, 91, ornithologist, environmentalist, and patriarch to many, died at home on Thursday 17 February 2022.

Born in Bellingham on 18 March 1930 to Ralph Wahl and Jean Kennedy Wahl, Terry graduated from the University of Washington, earning a degree in business, and attended New York University in Manhattan. In 1951 he married Robin Geske and entered the long-lived family business, Wahl's department store in Bellingham.

In 1972 he changed occupations and became a full-time field ornithologist. For over thirty years following his departure from retail, he worked at what he called “the equivalent of three part-time jobs for half pay,” writing environmental impact statements concerning breeding bird habitats for both the state and federal governments. He was a pioneer in bird censusing on the west coast and started one of the earliest ecotourism businesses in the state—leading ocean-going tours out of Gray’s Harbor, educating his clients in the identification and ways of pelagic birds. He taught ornithology classes and led local birding trips for many years. In the mid-1970s he was a bird observer on a NOAA ship sailing to Peru and west to find the origin of La Niña, as well as on other trips across the North Pacific and Bering Sea, several aboard Japanese research vessels. His connections in the birding world brought many people to the Washington coast and to Bellingham, and he started many long friendships through this work.

From his birding experiences and his contacts with ornithologists and researchers, Terry developed a strong belief that birders could, and should, contribute to increasing knowledge of the status of the birdlife around them. His first love was seabirds, and so, as he witnessed the decline of a suite of seabird species in the Salish Sea ecoregion, his sense of urgency for careful documentation of trends in status and abundance was fueled. When he started Westport Seabirds as a service to birders wishing to view seabirds off Washington’s coast, he immediately understood the value of data that could be accumulated from regular trips offshore, and so he laid the foundation for a database on seabird abundance that has now spanned a
half century. He saw the potential of Western Field Ornithologists and the journal *Western Birds* as a valuable forum for birders to add to the scientific understanding of avian ecology and population demographics. He was the author or co-author of 11 papers in *Western Birds*, joined WFO’s board of directors in 1978, and served as WFO’s vice-president from 1979 to 1980 and as president from 1981 to 1984. He became an early member of the Pacific Seabird Group as well. In Washington, he was the first accomplished birder to cover the entire state, and as a result of his careful observations and record keeping, he became the first statewide expert on distribution and bird finding. He used that knowledge to co-author the “Guide to Bird Finding in Washington” with Dennis Paulson in 1977, with subsequent revisions. The bar graphs in that guide were the only documentation of seasonality and abundance of all the species in the state for several decades. In 1995 he published the “Birds of Whatcom County,” his home county, summarizing observations from unpublished journals of early ornithologists in the region and documenting dramatic changes in the avifauna of the area. In 2005, a half century after Jewett et al. published their book summarizing the status and distribution of Washington’s avifauna, Terry published “Birds of Washington: Status and Distribution” (Oregon State University Press) with co-editors Bill Tweit and Steve Mlodinow and contributions from over 40 individuals. This state book documented the evolution of field ornithology in Washington, linked distribution and abundance with habitat associations, and pioneered distribution-mapping techniques that combined information from land-cover maps, standardized bird surveys, and expert knowledge. Thus it provides an invaluable benchmark for measuring future changes in distribution and abundance. Throughout his life, Terry mentored numerous birders, built connections with ornithologists, and inspired all of us to be more deeply aware of our world.

Terry imbued in his children a great love of the natural world, through camping trips in all kinds of weather, days spent in the woods and salt marshes, memorable road trips throughout the West, and in seeking and finding bird species. He taught them basic carpentry, beekeeping, how to shoot a basketball, and how to make a pun that would leave others groaning in despair. His innermost concerns were care of the environment. He was one of the stewards of the world who didn’t mind being called a curmudgeon.

Preceded in death by his younger brothers, Richard Wahl (Donna Wahl) of Los Angeles, and Edward Wahl of Bellingham, Terry is survived by Robin, their six children, and their offspring: Jamie Wahl, of McNeal, Arizona, and his son, Scott Pavek of Burlington, Vermont; Tim Wahl, of Bellingham, his former wife, Eden Alexander, and their daughters, Tobie Wahl (Stephen Feinstein and Ezra) of Austin, Texas, and Phoebe Wahl (Peter Scherrer and Hazel) of Bellingham; Erin Wahl (Richard Weight) of Edmonds, Washington, her daughter Anissa Bower of Seattle and Anissa’s daughter Sabine Weston of Seattle; Erin’s son Joe Bower of Seattle; Maura Wahl of Tucson, Arizona, and her sons Anthony Nicoletta, of Mexico City, and James King, of Tucson; Brendan Wahl of Bellingham; and Megan Wahl (Martin Wahl) of Portland, and her daughter Esme Ace of Dunedin, New Zealand, and many friends.

He will be missed. In Terry’s memory, please consider a donation to the Whatcom Land Trust or WFO’s scholarship fund.

Robin Geske Wahl, Megan Wahl, and Bill Tweit
Wing Your Way to...

Western Field Ornithologists’
46th ANNUAL CONFERENCE
7–11 September 2022
RENO, NEVADA

Join us in Reno, Nevada, 7–11 September, for WFO’s 46th conference and a belated celebration of our 50th anniversary. The four-day program includes workshops, talks, and field trips to most of the local hotspots in west-central Nevada, Lake Tahoe, and the east-central Sierra Nevada of California.

- Twenty-three different field-trip destinations to choose from, with full-day trips on Thursday and Sunday and half-day trips on Friday and Saturday.
- Workshops on shorebird identification (Jon Dunn), sound recording and bird identification by sound (Nathan Pieplow), nature photography (Tom Blackman), bird illustration (Bryce Robinson), and Costa Rican bird ecology (Mario Cordoba).
- Saturday evening banquet and keynote address by Rodney Siegel on the changing bird populations of the national parks of the Sierra Nevada.
- Plenary address by Elisabeth Ammon on the status and conservation of Great Basin birds and the role of community science.
- Our ever-popular photo identification panel and bird-sound challenge.
- Registration for patron and life members starts 12 June at 6 pm. For other WFO members, registration begins 19 June at 6 pm. General registration starts 26 June at 6 pm. Watch https://westernfieldornithologists.org/wfo-2022-conference/ for details.
- Event held at the Whitney Peak Hotel, Reno’s only non-smoking, non-gaming conference venue.

See you in Reno!
The Dusky-capped Flycatcher is one of seven species new for Washington detailed in the Washington Bird Records Committee's report in this issue of Western Birds. Some 415 km north of the species' previous northernmost record at Newport, Oregon, this occurrence is nevertheless part of a well-established pattern of dispersal northwest from the breeding range in late fall and winter—a pattern the Dusky-capped shares with some other flycatchers such as the Tropical Kingbird, Thick-billed Kingbird, and Greater Pewee. Neah Bay, near the northwestern tip of the Olympic Peninsula, is the site of many of Washington's rare birds covered in this issue's report.

In this issue of Western Birds, Jonathan G. Hardes presents data, based on pellet analysis, on the diet of the Spotted Owl from Walnut Canyon National Monument near Flagstaff. The Spotted Owl's diet varies widely across its range, but results from Walnut Canyon agree broadly with studies from other areas identifying rodents as the staple of the diet, varied with relatively small proportions of bats, shrews, birds, amphibians, and scarab beetles. The value of owl-pellet analysis for faunal surveys is attested by the samples from Walnut Canyon confirming two species of mammals previously unknown from the monument, Merriam's shrew (Sorex merriami) and the white-throated woodrat (Neotoma albigula). In this photo, note the extent of the white spots on the birds' underparts—bolder and more profuse than on the subspecies of the Spotted Owl occurring in the Pacific states.
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