



There was some indication that more birds passed along more coastal routes than last spring. Evidence for the coastwise movement may best be seen in the accounts of Calliope Hummingbirds, and in the rather more frequent reports of Nashville and Black-throated Gray Warblers from coastal stations this spring. Bob Miller, reporting from Stockton in the Central Valley, considered this spring's migration to be poorer than last. He stated that "most species seemed to filter by in small numbers *throughout the spring*" (*italics ours*).

This last phrase, throughout the spring, seems to have been descriptive of the spring migration everywhere in the Region. This spring the regular censuses of the Jewel Lake area, Tilden Park, Contra Costa Co., were continued by Paul De Benedictis and Edwin Willis. Daily counts of birds, mostly around a house, near Yreka, Siskiyou Co., by Margaret Chandlee, gave your editors a unique chance to compare the spring migration at two locations 300 miles apart in northern California.

To facilitate comparison of migration in the two census areas it is useful to separate California migrant species into three groups, roughly characterized by their periods of migration:

Early Assemblage—A group of species widely wintering in California, whose peak of migration seems to pass central California during late March and early April: Rufous and Allen's Hummingbirds, Ruby-crowned Kinglet, Orange-crowned, Myrtle and Audubon's Warblers, Oregon Junco, and White-crowned and Golden-crowned Sparrows.

Middle Assemblage—A group of species whose first arrivals are usually in late March or early April, and whose peak of migration seems to be in mid-April: Calliope Hummingbird, Western Flycatcher, Warbling and Solitary Vireos, Nashville, Wilson's and MacGillivray's Warblers, Bullock's Oriole, Brown-headed Cowbird, and Black-headed Grosbeak.

Late Assemblage—A group of species whose arrival is usually in the last half of April and whose

MIDDLE PACIFIC COAST REGION.—The spring migration in the Region furnished perhaps as much data on the movement of small landbirds as has been obtained during the last several springs, yet it also left one with a sense of puzzlement, which, too, re-mained after the observation of migration in previous springs.

peak of migration occurs in very late April and early May: Western Wood Pewee, Olive-sided Flycatcher, Swainson's Thrush, Townsend's, Hermit, and Yellow Warblers, and Lazuli Bunting.

In Tilden Park the spring migration seemed to begin in early February with the movement of sparrows and kinglets and the arrival of Allen's Hummingbirds, these birds moving through February and into March. Arrivals were evident on March 5, 17, 23, and 29, each (except the first) tending to coincide with the passage of a low pressure area across the San Francisco Bay area, accompanied by southwest winds and rain.

Movements during April and May, with the assemblage involved, are described in the following chart:

Date	Assemblage observed at:	
	Berkeley	Yreka
April 1-3	early, arrival Western Flycatcher	none
April 5-7	early, arrival middle	early
April 9-10	early, middle	early
April 13-15	middle, early	early, arrival Rufous-sided Towhee
April 17-21	middle, arrival some late	early, arrival Calliope Hummingbird
April 23	middle, departure early	early
April 26-May 2	late, middle	early, middle
May 3-4	little movement	late, middle
May 5-7	late	middle, late
May 9-11	late	middle, Audubon's Warbler
May 13-15	late	middle, late
May 17-19	late	late, middle
May 23-25	late	none

The movements of April 6, 13 and 26 occurred under conditions similar to those of March, but other April movements and all those of May seemed not to show any correlation with the weather; in May, conditions (especially wind direction) were almost uniformly unfavorable. Perhaps in early spring the innate migration drive is weaker and must be combined with favorable conditions to produce migration, while later, when the conditions which seem to be associated with the early movements occur less often in this Region, a stronger innate drive results in a steady movement unaffected by mildly unfavorable conditions.

The synchrony of movements in Tilden Park and in Yreka, about 300 miles farther north, also is worthy of note. It was not always perfect, as movements in Yreka tended to lag by about a day, but some preceded those in Tilden Park. Further, as can be seen in the above chart, different birds were involved at the two localities, although by the end of April Yreka was seeing first arrivals of some species

(e.g., Bullock's Oriole) which were reaching a peak at Tilden. The difference, about ten days in length, probably represents the difference in seasonal development of habitat at these two locations. The fact that the movements did tend to be synchronous suggests that whatever conditions do tend to trigger migration act over much of this Region.

In summary, then, the spring migration in central and northern California seems to begin with movements during February. Early in the period, movements seemed to be discrete, peak dates being more widely separated, and the arrival of first migrants and peak numbers of individuals showed fairly good correlation with weather. From about April 13 to about May 19, movement of some extent was evident almost every day, with best observation of birds *on the ground* at Tilden Park during the periods April 17-21, April 26-May 2, and May 13-15. The first of these peaks came during a period of repeated rainstorms which extended south even to southern California, while the two later peaks, which seemed larger, came largely after this system of storms had passed. One last movement of fair size was evident May 23-25.

Albatrosses, Shearwaters—Black-footed Albatrosses were common by the end of March, 7 being seen on a trip to the Farallons on March 31, but shearwaters were not seen until April 8, off Monterey (*ALL*). Two observations of thousands of shearwaters close to shore (April 30, Pacific Grove, *GPL*; May 14, Santa Cruz, *DK & JH*) evoke the following comments: as in previous years, in April shearwaters (apparently all Sooty) were seen only in the Monterey area, in May mainly from Santa Cruz north; the April 30 birds were seen in conjunction with a strong northwest wind, as often in fall at the same place (see *AFN* 16(1): 70), but on this occasion they were flying *west*, while in the fall they fly east, with the wind, into Monterey Bay along its southern shore. It remains to be seen why only some northwest winds produce these concentrations close to shore.

Waterfowl—Virtually all migratory waterfowl had left the San Joaquin Valley by the first week in April (*DNW*) and hence were not held later by the April rains, but Whistling Swans at the Yolo Bypass as late as April 16 (*MJW*) may have been due to late flooding. Gordon L. Bolander reported ducks held late by flooding at Laguna de Santa Rosa, 8 miles west of Santa Rosa, Sonoma Co., notably Green-winged Teal (to May 6), Blue-winged and Cinnamon Teal (May 16), Shoveler (May 15), Greater Scaup (May 16). In the light of unusual inland records from southern California, 9 Black Brant at Chico, April 20 (*SM & EH*, *fide TR*) are noteworthy. Paired Wood Ducks were reported from Springville, Tulare Co., throughout April (*MEM*), Salinas, April 18, and Hunter Liggett Military Reservation, southeastern Monterey County, May 17 (*RLB*), as well as from Trinity and Siskiyou Counties, where they are common. A few Buffleheads either remained unusually late or were noticed unusually well (mouth of Carmel River, 4 till May 12, *GPL*; Bay Farm Island, Alameda, 1 male, May 19, *ER*). Lamont notes that migrant adult male Buffleheads were as numerous as last year,

but those in other plumages were there in only about 50 per cent of last year's numbers.

Vultures, Kites, Hawks—California Condors made their first appearance of the spring in the Springville area on April 21, and by April 24 at least 1 juvenile and 2 adults had been seen (*MEM*). Turkey Vultures and Golden Eagles are believed to be on the increase in this area, but Mrs. Mires fears that White-tailed Kites have decreased because of spraying in the orange groves. A Prairie Falcon, rarely reported from this Region, was seen chasing a Golden Eagle in Little Last Chance Canyon, 7 miles north of Chilcoat, Plumas Co., May 29 (*EH*).

Gallinules, Shorebirds—Three Common Gallinules were seen 7 miles north of Willows, Glenn Co., the northern limit of their breeding range, on May 12 (*VKC*). Another was outside its normal range at the Carmel River mouth, April 9 (*AWA*, *PDeB*, *ROP*). First migrant Semipalmated Plovers were reported from Ferndale, Humboldt Co., April 28 (*BDP*), more than two weeks after being common at Bodega Bay (April 12, *MJW*). An Am. Golden Plover, rarely reported in spring, was seen at Ferndale, April 28 (*BDP*). Solitary Sandpipers were at Laguna de Santa Rosa, April 29 and May 9 (*GLB*). The Rock Sandpipers that winter on the jetties of Humboldt Bay mouth stayed until April 20 (2; 4 on April 6), by which time they showed considerable black on the underparts (*BDP*). A *Stilt Sandpiper*, very rare in this region, especially in spring, was reported just west of Sebastopol, April 12 (*MJW*, *et al.*); in this connection it may be remarked that it is much more convincing, in a report to a regional editor, to describe minutely a rare bird seen, rather than merely saying "all field marks"; the field marks not emphasized in the books are often the most convincing. Black-necked Stilts, very rare in western Sonoma County, were seen at Laguna de Santa Rosa, May 4 (*GLB*) and shortly afterward at Bodega Bay (Mr. and Mrs. George Titus, *vide GLB*). Three Red Phalaropes appeared inland at Laguna de Santa Rosa, May 16 (*GLB*).

Gulls and Terns—Five hundred Bonaparte's Gulls were concentrated on Roberts Lake, Seaside, Monterey Co., on May 2, an unusually large concentration for the area (*GPL*). Fifty Caspian Terns were at Bodega Bay, April 11 (*PDeB*) and they arrived and were "common" at Humboldt Bay, April 20 (*BDP*); whether they are migrants, summer residents, or breeders in these areas has yet to be established. A Black Tern, very rare in western Sonoma County, was at Laguna de Santa Rosa on April 29 (*GLB*).

Pigeons through Woodpeckers—Attacks of Band-tailed Pigeons on plum orchards in the Porterville and Strathmore areas, Tulare County, were ascribed to wet weather in the mountains (*MEM*). Four Flammulated Owls were heard along Henness Ridge, Yosemite National Park, in late May, as has come to be expected (numerous observers). Vaux's Swifts were first seen at Fields Landing, Humboldt Co., on April 16; they were common at Ferndale by April 20 (*BDP*), and common to abundant at Happy Camp, Siskiyou Co., May 5-10 (*RLB*). Black Swifts were reported north of Yreka, May 17-18 (*MC*)—

perhaps migrants, perhaps foraging from the known colony at MacArthur Burney Falls State Park—and from east of Whitney Portal, Inyo Co., May 27 (*FE*). A concentration of some 200 migrating Rufous Hummingbirds was reported from MacKerricher Beach State Park, Mendocino Co., April 11 (*EH*). The passage of Calliope Hummingbirds on the coast was apparently much better this year than last. In the Tilden Park census area only one male was observed in 1962, while this spring at least 25 different males were present from April 21 to May 12, with a maximum of 10 on April 26. A Pileated Woodpecker at Laguna de Santa Rosa, April 21, is called a "vagrant" (*GLB*), but reports from Inverness, Marin Co. (*GM*, *AWT*) continue.

Kingbirds, Chickadees, Wrens—An *Eastern Kingbird*, well described, was on State Highway 20 south of Wilbur Springs, Colusa Co., May 17 (*MJW*). The Tropical Kingbird that wintered in Alameda was last seen on April 28 (*ER*). A Cassin's Kingbird was discovered by Richard T. Holmes 2 miles southeast of Livermore, Alameda Co., on May 16. This is at the extreme north edge of its range, where it apparently has not been observed in at least ten years. A Chestnut-backed Chickadee was found 9 miles east of Wilseyville, Calaveras Co., on May 18 (*BM*), adding a sixth locality for this species in the Sierra of central California. To date, all sightings have been below 4000 ft. Winter Wrens were reported from the floor of Yosemite Valley, May 3 (*FRE*) and along the Tuolumne River at about 3200 ft., May 26 (*ROP*); this species seldom is reported from the Sierra in summer.

Thrushes, Waxwings—Robins and Hermit Thrushes both showed only a modest spring migration, appropriate to their reduced numbers of the winter, yet they appeared to be present in normal numbers on their breeding grounds. The migration of Hermit Thrushes was quite protracted, extending from about late February to the beginning of May, with much movement evident in the latter half of April. Cedar Waxwings, in contrast to their winter scarcity, appeared in numbers during the spring. In Tilden Park the first small numbers appeared about April 10, and about 30 remained through April; at least 150 were present at Jewel Lake from about May 9 to at least May 25, when it was probably the commonest species there. A group of 80 to 150 was present south of Livermore during late April, feeding on Teyon berries (*AWA*, *G.G.A.S.*). At Soquel, Santa Cruz Co., a flock in excess of 50 was present, May 21 to 24; 25 were still present near Sacramento on May 29 (*FE*) and small flocks were seen in Chico, May 31 (*TR*) and Yreka, May 27 (*MC*). In northwest coastal California, where this species is known to nest, it was reported as "very common" after March 2 (*BDP*). Either the flight of Cedar Waxwings was very late or birds slipped south in the fall without detection by observers in this Region.

Vireos—A Bell's Vireo on Merced Nat'l Wildlife Refuge, April 15 (*RP*), is one of the few reported in our Region in the last ten years. Although apparently formerly a common nester in the riparian habitat of the Central Valley, it is now almost un-

known in northern California, though still common in parts of southern California.

Warblers—Movements of warblers in several localities other than Yreka and Tilden Park on the same dates as in these areas were noted by several observers, indicating that movements were quite widespread. Weekend dates are marked with an asterisk (*). On April 20 a group of at least 50 Audubon's Warblers, with one each of Nashville, Orange-crowned, and Myrtle Warblers, was seen along the Sacramento River west of Chico (EH, SM). From April 27 to 29 movement was evident in several localities: Hermit, Townsend's, Black-throated Gray, and Nashville Warblers were moving through Tilden Park, while Audubon's Warblers were appearing in Yreka; a single Nashville Warbler was seen in San Rafael, Marin Co., *April 27 (W'MP); 3 Hermit Warblers appeared near Ferndale, Humboldt Co., *April 28 (BDP), while on the same date at two locations near Livermore, Alameda Co., migrant Orange-crowned, Nashville, MacGillivray's, and Wilson's Warblers were observed and banded (RS, JK, AW'a). These same species had been banded there the previous day but none of the April 27 birds were recaptured, nor were any banded birds seen. On April 29 Nashville, Black-throated Gray, and Wilson's Warblers were reported from three localities in Monterey County (VLY, GPL), the number of Nashvilles and Black-throated Grays being unusual for this coastal locality. On May 3, 50+ Townsend's Warblers were found near Yreka, where only 1 was present May 1; 10-15 seen the next day were the only others reported. On May 9 Rich Stallcup banded 31 warblers of 4 species (23 Wilson's) in 1½ hours at Corral Hollow, near Livermore, and on *May 11 he banded 22 (16 Wilson's) of three species; also on May 11 about 50 Wilson's Warblers (as well as about 50 Black-headed Grosbeaks) were recorded along a 3-mile stretch of creek about 6 miles west of Chico (EH); and a G.G.A.S. field trip, looking for sparrows in the chamise chaparral east of Mt. Hamilton, found instead, in about half an hour at one station, about 40 migrant warblers, mostly Orange-crowned and Wilson's and including at least 6 Townsend's. The following day many fewer birds were present at the Livermore and Mt. Hamilton locations; at Corral Hollow only 6 warblers, plus the only two recaptures, were banded. Townsend's Warblers were numerous on Mt. Diablo on May 17-18 (DaCostas, *vide* AW'a). Finally, the movement of May 23-25 was detected in four counties: on May 23 about 50 warblers, including all the California species except MacGillivray's and Yellow-breasted Chat, were seen in a small group of cypress trees near Point Reyes (RS), and "several" Hermit Warblers were seen in Franz Valley, Sonoma Co., *May 25 (GLB, *et al.*), when migrant warblers were also numerous on the floor of Yosemite Valley (G.G.A.S.).

One further comment might be made for corroboration by observers in coastal California: Townsend's Warblers seem to have two periods of migration, a small scale movement during March, then nothing till about the middle of April, after which the species builds to a peak in May. This pattern

was evident in Tilden Park both this year and last, and has been noted by others in previous springs. It has been suggested that the early group, which is composed of silent birds, represents the population that winters in coastal California, while the later group represents the birds that winter in Mexico (and sing as they pass through). Departure dates at Inverness, Marin Co., where this species winters, seem to fall at about the end of the early period (April 6 this year, GM); and in the Central Valley, where they do not winter, they are seen only during the late period (*vide* Guy McCaskie).

Blackbirds, Tanagers, Fringillids—Adding another to the numerous coastal spring sightings of the Yellow-headed Blackbird was a male at Ferndale, April 20 (BDP). The Western Tanager migration on the coast was more in evidence this year than last, the peak at Tilden Park being about May 18; migrants were recorded near Chico as late as May 31 (TR). A male *Summer Tanager* was seen in Golden Gate Park, San Francisco, March 23-24 (AW'a, RS). The Rose-breasted Grosbeak that wintered in Santa Rosa was last seen on April 13 (AW'a). Lawrence's Goldfinches were present in better numbers than last year east of Mt. Hamilton (G.G.A.S.) and near Springville (MEM). A Green-tailed Towhee, unusual on the coast, was found at Pebble Beach, Monterey Co., May 26-30 (RLB, GPL). A male Black-chinned Sparrow was seen at Elkhorn Ferry, Yolo Co., on the Sacramento River, April 20 (RS, JK); not only is this far from the chaparral-covered foothills normally occupied by this species, it is also about 25 miles north of the northernmost breeding locality in the state. A total of 6 White-throated Sparrows, at four localities, between April 20 and 27 (AW'a, PDeB, RS, JK, MVB) seem to indicate the period of migration in central California; this is also about when birds typically leave feeders.

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