cata) by birds in the vicinity of Tucson, Arizona. I wish to supplement their notes by some records made in the southern Californian deserts.

Several of our birds of prey use the twigs and branches of the creosote bush; among them are the Red-tailed Hawk (*Buteo jamaicensis*) and the Golden Eagle (*Aquila chrysaëtos*). The Red-tailed Hawks depend very largely on the woody stems for the main nest structure. I have in mind one very large nest built among the top branches of a 28-foot tree yucca on the Mohave Desert and at least ten nests built on shelving rocks of steep canyon walls or cliffs, both on the Colorado and the Mohave deserts. Most are made of old weathered stems, but one I saw had stems which were still leafy. Other woody-stemmed plants apparently offer suitable nest material, but creosote bush is preferred. Stems of *Larrea* are also often used in nest building by the Raven (*Corvus corax*).

At Palm Springs in April, 1916, I found the nest of a pair of House Finches (*Carpodacus mexicanus*) and also the nest of a Black-throated Sparrow (*Amphispiza bilineata*) in *Larrea*. In each instance the shrub was a large, well-branched plant in heavy leaf and flower. The nests were about four feet from the ground.

In the autumn of 1915 a hunter brought me two Gambel Quail (*Lophortyx gambelii*) he had shot at the mouth of Tahquitz Canyon near Palm Springs. I cleaned them and was surprised to find *Larrea* seeds in the crops. Later when I fried and tried to eat the meat, I found it very unpalatable because of the strong flavor of creosote bush.

On several occasions I have found the nest of the Costa Hummingbird (*Calypte costae*) placed far out among the terminal branches of the creosote bush. Since the eggs are laid and incubated at a time of year when heavy westerly winds prevail for days and weeks at a time in the desert area, one marvels that the birds would choose such swaying sites for nesting. A nest I found on a windy spring day in 1943 near Dead Man's Point on the Mohave Desert was built out near the end of a 5½-foot stem, and I estimated that the erratic but almost continual sway of the nest was over an arc of almost three feet; yet the female sat there in perfect composure.

On October 3, 1946, near Lucerne Post Office, I was surprised to find a Mountain Chickadee (*Parus gambeli*) searching the twigs of *Larrea* for food. A companion and I kept it under observation for fully half an hour. The day was very warm and the sky was overcast with heavy nimbus clouds; rolls of heavy thunder, indicative of storm and high winds, came from the San Bernardino Mountains to the south. Hence I concluded that the bird may have been driven to the desert flats by the storm in the mountains. I have seen chickadees on the desert floor in winter during times of heavy snow storms in the surrounding mountains but never before have I come upon this montane bird on the desert in warm weather.

The Black-tailed Gnatcatcher (*Polioptila melanura*) is a frequent hunter of insects in *Larrea*. We often see this species in pairs working both up and down the stems. I am not aware of all the insect species found and eaten by them but I do know they sometimes take tiny moth larvae and the small nymphs of the creosote locust (*Bootettix argentatus*). Both the Lawrence Goldfinch (*Spinus lawrencei*) and the Green-backed Goldfinch (*Spinus psaltria*) are at times seen moving about or perching on creosote twigs. The Leconte Thrasher (*Toxostoma lecontei*) frequently may be seen running from beneath one creosote bush to another, often pausing a moment in their shade or using them as a temporary refuge when disturbed by an intruder.

In late autumn of 1946, I came upon a Vesper Sparrow (*Pooecetes gramineus*) near Harvard on the Mohave Desert where *Larrea* occurs in pure stands. It was just before sunrise. I followed the bird for more than a mile. As I walked slowly forward it ran along the ground about fifty feet ahead of me moving across the open from one creosote bush to another and often hiding on the opposite side until I was almost upon it. Sometimes it would jump or flit up into the bush, then later be seen perching or moving adroitly among the rather thick-set lower branches and leaving only upon close approach.

In autumn and all during winter and early spring when the White-crowned Sparrows (*Zonotrichia leucophrys*) are about, one very often sees these birds in small groups scratching in the vegetal debris gathered about the bases of creosote bushes. They are probably getting not only seeds which have been blown in and which have lodged about the bases of the bushes but also seeds of annuals which always grow in the shelter of this shrub. It is well known that certain plants are occupants of such sites forming societies of rather constant membership and with very definite relationship to the creosote bush; the birds because of their food choices thus become linked up with the creosote bush in an ecological sense.—EDMUND C. JAEGER, *Department of Zoology, Riverside College, Riverside, California, January 24, 1947.*

Critical Notes on Some Western Song Sparrows.—*Melospiza melodia bendirei.* Topotypical specimens of *Melospiza melodia saltonis* from Mecca, Riverside County, California, and from Bard, Imperial County, California, were compared with specimens from the vicinity of Tucson, Arizona, and from Picacho Reservoir and Sacaton, Pinal County, Arizona. The two latter localities are close

to the type locality of *Melospiza melodia bendirei* at Tempe Butte, Maricopa County, Arizona. These specimens all showed clearly the color characters ascribed to the new race, *M. m. bendirei,* by Phillips (Auk, 60, 1943:242). In his original description Phillips neglected to mention any differences in dimensions—characters which would have strengthened the case for this race. The following measurements, in my estimation, should be added to the description of the subspecific characters of *Melospiza melodia bendirei*:

	Wing	Tail	Exposed Culmen
M. m. bendirei			
6 ♂ ♂	(65.3-68.4) 67.7	(68.0-73.0) 70.8	(12.0-13.2) 12.5
3 ♀ ♀	(61.8-64.0) 62.7	(64.0-68.5) 66.5	(12.0-12.2) 12.0
M. m. saltonis			
4 ♂ ♂	(63.9-66.0) 64.9	(66.0-68.3) 66.6	(11.5-12.5) 12.0
4 ♀ ♀	(61.3-63.9) 62.9	(62.9-66.2) 64.2	(11.2-12.0) 11.5

In all instances the specimens were April and May birds in which there was as yet very little evidence of feather wear. On the basis of these data, *M. m. bendirei* is further separable from *M. m. saltonis* by its longer tail and slightly longer wing, differences which are more pronounced in the adult male. The specimens examined indicate that there is no justification for any changes in the limits of the breeding range of *M. m. bendirei,* but they do emphasize more fully the restricted and limited breeding areas for song sparrows in central and southeastern Arizona.

Melospiza melodia fallax. Since more adequate comparative material is at hand and the *montana-fallax* complex has at last been clarified, I find it desirable to report further on the song sparrows of the Uinta Basin, Utah (see Twomey, Annals Carnegie Mus., 28, 1942:341-490). The breeding birds of the Wasatch Mountains, Uinta Mountains, and as far east as Moffatt County, Colorado, belong to *Melospiza melodia montana.* Unfortunately only one breeding specimen was taken at Hill Creek, forty miles south of Ouray on the Tavaputs Plateau, Utah. Except for the slightly more pronounced streaking of the back feathers, this bird is identical with specimens of *Melospiza melodia fallax* which were taken three miles south of St. George, Utah. This breeding bird extends the range of *fallax* to the southern edge of the Uinta Basin. In a series of eight song sparrows collected in the vicinity of St. George, Utah, between October 12 and 18, 1937, six were *Melospiza melodia montana* and two were *Melospiza melodia fallax.*

From September 4 to 6, 1940, a considerable concentration of song sparrows was encountered along the Verde River, four miles southeast of Cottonwood, Arizona, which is just east of the type locality of *fallax.* The three specimens collected were *Melospiza melodia fallax.* Further field work in this area of Arizona will undoubtedly prove that there are still many excellent breeding localities for song sparrows throughout this part of the State and that the type specimen of *M. m. fallax,* collected January 22, 1858, could have been a resident bird rather than a migrant.—ARTHUR C. TWOMEY, *Carnegie Museum, Pittsburgh, Pennsylvania, December 19, 1946.*

Additional Notes on Cranes in the Cascade Mountains of Oregon.—It was with considerable interest that I read Thatcher's report of cranes about Diamond Lake, Douglas County, Oregon (Condor, 49, 1947:42), for on May 25, 1941, my sister and I found a pair of Sandhill Cranes (*Grus canadensis*) nesting on Mud Lake, at about 4800 feet elevation, a few miles south of the Three Sisters Mountains in western Deschutes County, Oregon. The nest contained two eggs, which were not disturbed. It was placed some 100 yards from the shoreline in an area of shallow, treacherous bog. We were able to approach the nest and obtain a set of Kodachrome photographs of the nest and also of the parent birds. It was not possible to return to the nest later and determine the result of the nesting.

Eastern Lane and Douglas counties and western Deschutes and northwestern Klamath counties are dotted with innumerable permanent shallow ponds and lakes. Several miles to the south of Mud Lake is a Crane Prairie, now a reservoir, so named because of the early day abundance of cranes in the vicinity. There may be extensive nesting of cranes throughout this area, but due to its general inaccessability, the true extent of breeding will be difficult to ascertain.—GORDON W. GULLION, *Eugene, Oregon, February 21, 1947.*

British Columbian Records of the Clay-colored Sparrow.—On May 29, 1946, in the course of a ten-day visit to Okanagan Landing in south-central British Columbia, I observed three males of the Clay-colored Sparrow (*Spizella pallida*). These were found in an old clearing about three miles south of the Okanagan Landing post office, along Cameron's Point Road. The ground vegetation of the clearing was a relatively dense cover of grasses, herbs, and low shrubs; young deciduous trees and tall shrubs were scattered every few feet throughout the clearing. The latter were used as singing posts by the male sparrows, which were well spaced and were singing regularly. Observations in mid-morning and again in the late morning, totalling about an hour, indicated that they had selected and perhaps established territories. During most of this time, all three males sang simultaneously. After a