but I did take down, after the builders had left, some of the nests from the cabin for examination and photography, and noted no parasites of any sort.

Most animal parasites will not live for any length of time on any host other than the natural one, though some have several hosts, and a few seem quite indifferent in such matters. What the case is with the swallow bed-bug I do not know. I would suggest to my readers that in such cases as may come to their notice they secure specimens of the bugs and submit them to an expert for identification. Certainly the matter will bear further investigation. Incidentally I may remark that it is worth while to collect any parasites one may find on any animal and turn them over to some one interested in these things. I have made it a point lately to always have a few vials containing weak alcohol with me when collecting, and putting into them the parasites which often immediately show on a dead animal, with a label to show from what species they were taken.

I must express my appreciation of Mr. Dawson's courtesy in writing me about the matter instead of correcting me in the Condon, which he would have been justified in doing under the circumstances as known to him. As it happens, in a way we were both right and both wrong, so we should both be satisfied.

NOTES ON SOME FRESNO COUNTY BIRDS

By JOHN G. TYLER

Recurvirostra americana. Avocet.

N PURSUING ornithological studies the bird student is often led to wonder what strange economy of Nature causes certain species to choose an environment that, from a human standpoint, would seem unsuited to a creature of gentle disposition and attractive plumage.

Several miles southwest of Caruthers, Fresno County, California, are a number of shallow ponds of greater or less extent, according to the amount of winter rainfall, and all but two of them possessed of a freakish tendency to become entirely dry at times, only to fill up again without warning. Surrounded by salt-grass knolls, their borders entirely devoid of vegetation of any kind, these ponds are not the most picturesque places in the valley. especially in view of the fact that the water is alkaline and in summer often becomes stagnant. A more foul-smelling, unattractive place could hardly be found, yet these ponds are resorted to each spring by a company of Avocets that remains throughout the summer. It is evidently a matter of choice rather than necessity with these handsome waders, too, for there are numerous overflowed pastures and permanent ponds in other parts of the valley, each of which claims its nesting colony of Stilts every spring; but while a few of the latter may ofttimes be found with their larger cousins, yet I have never found the Avocets elsewhere than in the immediate vicinity of the most sterile sinks.

When the water in these ponds is subjected to the rays of the summer sun, a slimy, jelly-like substance appears around the edges and attracts myriads of flies, which often form an unbroken black band four feet or more in width and completely encircling the ponds. Is it not possible that these flies are one of the staple articles of food with the big waders? Possibly this is the solution of their attachment to these uninviting ponds. A similar assemblage of flies has been previously noted by Walter K. Fisher (Condor, IV, 1902, p. 9) as occurring at Mono Lake.

Lophortyx californica vallicola. Valley Quail.

The quail began nesting early this year (1912) but for some reason not a single brood of young was seen until the fifteenth day of July, when a mother quail was observed making frantic efforts to lead an inquisitive ornithologist away from her tiny chicks, out of the nest but a few hours. From that date all through the following month, broods of various sizes were noted daily, and as late as the first week in September many of the young birds seen were not over half grown. There is no reason to doubt that these were all the result of second sets of eggs, but I am at a loss to account for the entire absence of young quail during May and June.

That many sets of eggs were deposited during April and May was evidenced by the finding of several nests. On April 20 a nest was seen in a vineyard, built in a clump of pepper grass two feet from the base of a vine. There were eight-teen eggs in which incubation was probably at least begun. It was a most unfortunate choice of location, and it is extremely unlikely that the nest survived the cross plowing of the vineyard, which probably took place soon afterward.

Another nest, accidentally discovered on May 12, and also holding eighteen eggs, was several inches under water. The nest was built in a tussock of wire grass just at the edge of a canal, and a sudden rise of water had completely inundated it. The eggs when found had been soaking for some time, as they were entirely unmarked on the upper side, only that portion of the shell that rested on the nest bottom showing traces of the coloring pigment. As it is rather a difficult task to remove the coloring from a heavily incubated quail's egg I have assumed that this set was fresh, or nearly so, at the time it was abandoned. Again, on May 16, a nest with ten fresh eggs was exposed when a young man hoeing weeds in a vineyard uprooted a thick cluster of green foxtail grass.

While the foregoing records might seem to offer a solution to the question of why the first broods of quail failed to appear, yet it is not reasonable to conclude that a similar disaster overtook all of the early nests, as the percentage of losses from unfortunate selection of nesting sites was probably no greater than in former years. Fortunately our quail are wonderfully prolific, and the number of birds found in the vineyards when the shooting season opened was not noticeably less than in past seasons.

Asio wilsonianus. Long-eared Owl.

Probably on account of the absence of timber in the vicinity of Fresno, this species is seldom seen. The San Joaquin River bottom affords concealment and hunting grounds for a few individuals; but in twelve years residence in this county I had never found a nest of the Long-eared Owl until April 30 of this year. On that date I was making my way along an old slough which, on account of the slight rainfall of the previous winter, was carrying no water. In former years I had encountered there many patches of rank-growing nettles, which afforded ideal nesting sites for numerous colonies of Tri-colored Blackbirds. Several clumps of willow bushes, with a few larger trees, were scattered along the banks, and on this particular occasion I had hopes of finding a pair of Swainson Hawks nesting in one of the larger willows.

With a bird crank's curiosity I was peering into all the more dense portions of the screen of foliage, when I noticed a suspicious-looking bunch of feathers sitting upright on a dead branch not far away. A second glance showed that I had found a Long-eared Owl. I was convinced that its nest was near

by, and so it proved, for scarce sixty feet distant, in a small isolated tree, I came upon a bundle of sticks placed at the junction of a large branch, in a somewhat exposed position, and only ten feet from the ground. As the tree was on low ground I could almost see into the nest by standing on the bank of the slough. When I looked into it and saw six eggs, I felt that one more species was to be added to my collection of local sets; but a more careful examination showed that two of the eggs were on the point of hatching, one already having a small hole chipped in one side; so sliding from the tree I made a hasty departure leaving the owls to return to their soon-to-be family.

Yes! I have read instructions as to satisfactory methods of preparing for the cabinet eggs in which incubation is complete, but the collecting spirit has never become sufficiently developed to tempt me to pilfer a nest in that condition. Next season, perhaps, I may happen along that way a couple of weeks earlier, and should a good set of eggs be my reward I shall prize them more highly when I remember my previous acquaintance with the Long-eared Owls.

Spectyto cunicularia hypogaea. Burrowing Owl.

Wishing to acquire a little more information as to the nidification of these queer little owls, I opened four nesting burrows on April 30, 1912; the first of these held six fresh eggs, with one of the birds on the nest. She proved a savage captive, lying on her back with bill snapping viciously and claws extended while she squealed and scolded in the most approved owl fashion. Not wishing to injure or unnecessarily frighten her I soon released her. After a short undulating flight she perched on the mound of a burrow not far away, where she remained for some time. One of the other nests held large young birds, nearly feathered, while the other two burrows each claimed families of half-grown young. The number of each brood was not ascertained as I did not care to enlarge the burrows to such an extent as to allow the entrance of any large animal.

Around the mounds at the entrances to these excavations were miscellaneous collections of scraps, showing the kind of food that had been brought to the young owlets. A dried up section of some small snake, the legs of a frog, tufts of fur and bones of mice, were identified, together with large numbers of wings and shells of beetles. These, and other large insects, it seemed, had formed the greater part of the food of newly hatched birds, the diet of meat gradually becoming more common as the young grew stronger. From the standpoint of the agriculturist a pair of these interesting little owls must prove a valuable asset to any farm.

Lanius ludovicianus gambeli. California Shrike.

Last spring, while passing a willow tree growing near a canal at the road-side, I noticed a shrike perched on the topmost twig. As this is usually an indication of a nest, I stopped to investigate, and soon located the framework of a nest that had probably been commenced only a day or two before my visit. Three weeks later (March 23, 1912) I found myself in the same locality, and decided to look up my shrikes; but before reaching the place I saw another nest in the drooping branches of a tree not over one hundred yards from the site of the first one mentioned. Seeing the tail of the sitting bird over the edge of the nest, I supposed my shrikes had moved for some reason; so, after the owner had flitted from her nest and skimmed along to a convenient weed stalk, I examined the contents and was rewarded with eight nearly fresh eggs. As this was

the second set of that number that I had ever found, they were added to my collection. Going on to where the first nest had been located I expected to see the tree deserted, but was surprised to find that while the nest had never been completed another had been built on a different branch, but a few feet away and a little higher up. The bird was on in this case also, and I climbed up about fifteen feet to find seven eggs in the deeply cupped nest. Less than a quarter of a mile away in a thick bush, four feet from the ground, was another nest of this species with four fresh eggs. Surely this must have been a very attractive place for grasshoppers, small lizards, beetles and horned toads, for I had never before known three pairs of shrikes to nest in such a small area.

Planesticus migratorius propinquus. Western Robin.

Having read from time to time of several sets of five eggs of the robin having been found, I thought it might be of interest to record a set of that number which I came across four years ago. On May 22, 1908, while driving along a mountain road near Ockenden, Fresno County, California, I noticed a nearly completed robin's nest situated nine feet from the ground, in a niche in an old burnt stub standing not four feet from the edge of the narrow road. The nest was composed largely of gray-green tree moss, and the mud cup was lined with fine, dry grass stems. Coming down the mountain seven days later, I had forgotten the nest on the stub until I happened to see the tail of a sitting bird on the nest. She had already begun to incubate a set of five eggs that were altogether normal in size, shape, and coloration.

During the week that was spent in the mountains I examined about thirty nests of this species, containing either eggs or young, and sets of three were more common than four; so that five eggs in one nest was quite exceptional, for that year at least.

BIRD NOTES FROM THE COAST OF NORTHERN LOWER CALIFORNIA

By GEORGE WILLETT

PRIL 4, 1912, the writer left San Diego on the launch "Flier," George H. Child, captain, for a short cruise along the coast of Northern Lower California and to some of the adjacent islands. Among those composing the party were W. J. McCloskey of the Los Angeles County Museum of History, Science and Art, C. B. Linton of the Cooper Club, and H. C. Lowe, conchologist. We reached Ensenada April 5, and, after procuring the necessary papers from the authorities there, started down the coast. Our trip lasted twenty-two days, ending at San Diego, April 26. We were very unfortunate as to weather, only one or two days of the entire time being pleasant. The inclemency of the elements, of course, retarded us to a great extent in our ornithological pursuits. We managed, however, to secure quite a number of specimens and notes.

More or less collecting was done at each of the following points on the dates given. Todos Santos Island, sixty-five miles south of San Diego, five hours on April 25; Hole in the Wall, ten miles southeast of Todos Santos, afternoon of April 5; Santo Tomas Anchorage, eighty miles south of San Diego, April 6; Colnett Bay, one hundred and thirty miles south of San Diego, April 7 and 8; San Quentin Bay, one hundred and seventy-five miles south of San