

material difference in the quantity of markings, that the egg that is first laid has the most, while the last is most free from spots.

With regard to their second laying when disturbed, it is necessarily hard to get accurate data, and I am not at all certain that they always do lay again. I do know, however, that they are extremely erratic, both as to time and place, when they do lay again. If you have learned to know a pair, you can tell pretty well about where their first nest will be; but their second nest hardly ever, for they are very apt to go off to some unexpected place in some swamp or elsewhere, where you have never known of their breeding before.¹

NOTES ON THE GENUS *HELEODYTES*, WITH A DESCRIPTION OF A NEW SUBSPECIES.

BY A. W. ANTHONY.

IN HIS catalogue of the 'Birds of Lower California' Mr. Bryant makes mention of the unusually heavy markings on the lower parts of all of the *Heleodytes affinis* taken by him on the overland trip from Magdalena Bay to San Quintin. It was these notes on the species that suggested the investigation that led to the present paper.

During my first season in Lower California (1887) collections were made from Ensenada — sixty miles south of San Diego — to San Anderes, about Lat. $28^{\circ} 30'$, covering a distance of about two hundred miles in latitude. A fair series of Cactus Wrens were taken, but these, unfortunately, were stolen, together with my entire season's collection. Later a series was secured from about San Quintin and San Telmo — fifty miles north — but the gap of about one hundred and fifty miles that intervenes between Mr. Bryant's northernmost specimens and mine from San Quintin remains unrepresented. However, a sufficient series of Peninsula and Southern California skins has been brought together to change, somewhat, the status of both the Cape species as well as

¹ The 1894 nests, found since this paper was written, have been added on the accompanying map.

the birds from the northern part of the Peninsula and adjacent region of San Diego County, California. Unfortunately no specimens are obtainable from the mouth of the Colorado River and Gulf coast of Lower California, though Mr. F. Stephens has kindly loaned me, among others, a specimen from the Colorado Desert and two from Sonora.

Beginning with a specimen from La Paz (No. 15,003, Coll. Wm. Brewster, April 4, 1887), which Mr. Brewster assures me is perfectly typical *H. affinis*, I find the entire lower parts well spotted with black, evenly distributed and of equal size on the breast and lower parts. Those on the lower tail-coverts are larger and on the chin slightly smaller; across the breast the spots are not quite so well defined and are a very little more abundant, suggesting somewhat the nebulous spotting of this region in typical *H. brunneicapillus*. On the flanks and belly there is the faintest possible suggestion of the rufous found in *brunneicapillus*. All but the central tail feathers are fully barred on the inner webs with quadrate white spots, reaching nearly or quite to the shaft.

Another specimen from La Paz, collected by L. Belding, bears upon the label, in Mr. Belding's handwriting, "Typical (B)." This shows rather heavier marks upon the throat and upper breast but is otherwise the counterpart of the first described. A third skin (No. 216, California Acad. of Science) is labeled "La Paz, Lower California," but is without other data. This specimen represents fairly well the Wren met with much farther north, but differs from either of the others in a more heavily spotted throat and breast and smaller spots on the sides and belly. The latter feature is, however, not at all prominent in any of the Peninsula skins I have examined and is perhaps more pronounced in the present specimen than in any I have seen from Lower California.

Coming northward along the Peninsula a very heavily spotted race is met with, which reaches its highest development, as far as can be ascertained by the series now at hand, at San Telmo, about fifty miles north of San Quintin.

This subspecies I propose to name *Heleodytes brunneicapillus bryanti*, in honor of Mr. W. E. Bryant, whose name is too well known in connection with the ornithology of Lower California to make comment on my part necessary.

***Heleodytes brunneicapillus bryanti*, subsp. nov.**

Type, No. 3879, Coll. A. W. A., San Telmo, Lower California, April 30, 1893.

Subsp. char.—Differing from *affinis* in very much heavier spotting of lower parts, the black predominating, in extreme specimens, on the throat and upper breast, and in its perfectly barred tail and slight wash of rufous on belly and flanks; from *brunneicapillus* by heavier spotting, especially on sides and belly, in having intermediate rectrices more or less perfectly barred, and in much less rusty wash on lower parts.

The proposed subspecies is readily distinguished from either *H. affinis* or *H. brunneicapillus* by its much more heavily spotted lower parts; in other respects it is practically intermediate. In *brunneicapillus* the heavy band of semicircular or ovate black spots that covers the breast and throat abruptly gives place on the lower breast, sides and belly to a much less conspicuous spotting, elliptical or linear in shape. *H. affinis* is not more conspicuously spotted on the breast and jugulum than elsewhere, and the spots are rounded or ovate on the sides and belly as well as the breast. *H. b. bryanti*, on the other hand, while more heavily spotted than either, exhibits a conspicuously darker jugulum and breast, as in *brunneicapillus*, with the rounded or ovate spots of *affinis* on the sides and belly.

As a rule *bryanti* exhibits a fully barred tail as in *affinis*; occasionally, however, one or more of the intermediate feathers has light spots indenting the inner web in place of reaching the shaft. In the Lower California series there is but little variation in the markings of the rectrices, but when southern California is reached there is a confusion of markings that makes classification seem at first almost hopeless. In the series before me can be found birds with tails typical of *brunneicapillus*, *i. e.*, with first feather barred only on the inner web. Others have all the feathers barred except the two central ones, as in *affinis*; and, of course, there are all the intermediate changes between the two extremes. A closer examination, however, shows two general types with, of course, some few that are as easily referred to one as the other. Birds with heavily spotted breasts, and sides with large ovate spots, exhibit the well barred tails, and little, if any, rufous on the flanks, while linear spots on the lower parts, which

in such cases are less conspicuously spotted below than on breast and jugulum, are as sure to have a heavier wash of rufous and only the first rectrix barred with, perhaps, one or two more or less perfect bars on the lower fourth of the second, or white spots indenting the webs of some of the others.

The tails of specimens from western San Diego County are not always the same on both sides, several being found that are noticeably different. No. 127, Calif. Acad. Science, San Diego, Cal., Mar. 15, 1884, which is referable to *bryanti*, has the right side fully barred to the sixth feather, the left equally well marked to the third inclusive, the fourth and fifth showing small white spots where the bars should be. East of the Cuyamaca Mts., I am unable to find any indication of either *bryanti* or *affinis*, but my specimens from that region are unfortunately very few. A specimen from Walters, Colorado Desert, Coll. F. Stephens, Jan. 1890, exhibits a heavily marked throat and breast with abruptly smaller, linear spots on the sides and belly—in all respects indistinguishable from Arizona and New Mexico skins.

In connection with the foregoing notes on the series from San Diego County, I would call attention to Prof. Baird's remarks in 'Review of American Birds' on Lafresnaye's description of *brunneicapillus*: "I find it quite impossible to reconcile Lafresnaye's description of *C. brunneicapillus*, much less his figures, with the North American bird. This is described as having five white spots on the outer web of the lateral tail feather, and three on the inner, the next with two on the outer and three on the inner (perhaps three on the outer and two inner), the third and fourth with marginal points instead of spots." The specimen is said to have come from California and I think that it would be very easy to match the above description with a bird from the immediate vicinity of San Diego, though in nearly all of those before me the number of bars, ranging from five to seven, are the same on both webs, but are occasionally one less on the inner. The marginal points on the third and fourth feathers is a common feature. Lafresnaye, however, describes the under parts of his bird as pale rufous from the upper part of the breast to the tail. In all specimens I have examined the rufous is confined to the flanks and abdomen alone and is not so

pronounced in western San Diego County skins as those from San Bernardino County (Cal.), Arizona, and New Mexico. As far as the description of the rectrices is concerned it would seem as if the type might very possibly have been one of the intermediate birds I have described, in which case the bird of the interior would be eligible to a new name. Owing, however, to very reasonable doubts as to its origin, it is probably better for the present, at least, to recognize the name as it has stood. It will be necessary, as has been proven by the series before me, to reduce the heretofore species *affinis* to the rank of a subspecies of *brunneicapillus*.

Since the preceding was written a further series of Peninsula specimens has been taken from San Quintin to San Fernando, thus making an almost complete chain from San Diego to Cape St. Lucas. The more southern skins, from San Fernando, are rather nearer *affinis* than *bryanti* but are typical of neither. Owing to lack of material I am unable to make a satisfactory disposition of the Cactus Wrens from north of the boundary. The series at hand points toward a race inhabiting the southwestern part of California, differing from the bird of Arizona, New Mexico and Texas. It would be unwise, however, to attempt to assign definite characters or habitat without much more material than is at present accessible.

Mr. Ridgway writes me that a series of skins from Guymas, Sonora, exhibit exactly the characters of my San Diego County skins as regards tail markings—a more or less complete barring on the inner webs—pointing toward an intergradation with the Lower Californian forms along the Gulf Coast and border of the United States.

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