

A NEW JAY OF THE GENUS *CYANOCORAX* FROM
SINALOA, MEXICO.

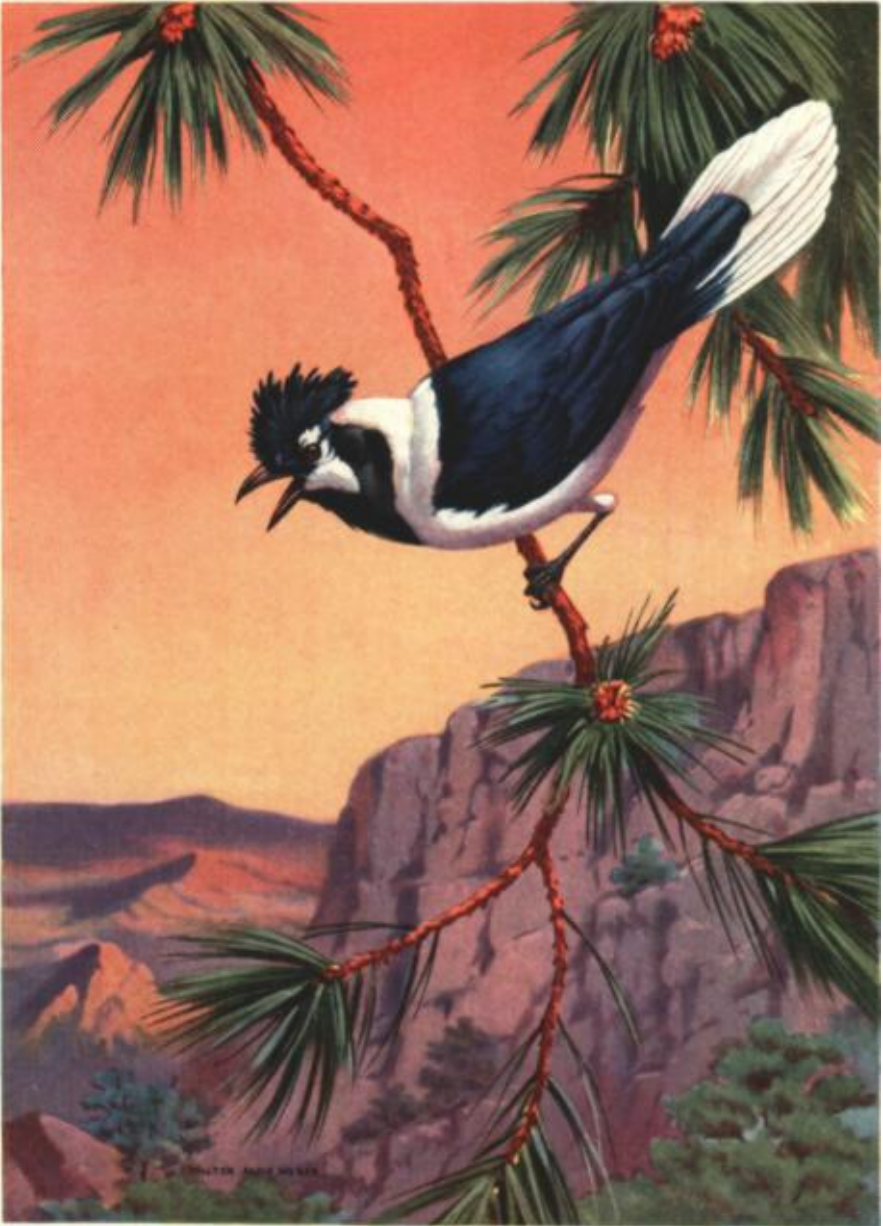
BY ROBERT T. MOORE.

Plate XIII.

FROM a camp among pines at an altitude of 5200 ft., near the top of one of the highest mountains in southern Sinaloa, Mr. Chester C. Lamb, one of the most reliable and indefatigable of collectors, secured a Jay which is remarkably different from any of its congeners yet known to science. It has its closest affinities with the South American genus *Cyanocorax*, only one of whose members ranges as far north as Panama and eastern Costa Rica. This genus seems to be a pigeon-hole for a heterogeneous assemblage of Jays, with slender or stubby bills, powerful or weak feet, with crests, semi-crests or practically none. The extension of the range of the genus 2000 miles to the north is as surprising, as that so conspicuous a bird has not been discovered previously by expeditions, which have crossed Sinaloa a short distance north and south of its mountain habitat. That its range is restricted is manifest. Assiduous collecting for the past three years by Messrs. Lamb and Wright in different areas of the mountains of southern Sonora and northern and southern Sinaloa, and previous collecting by J. H. Batty to the south and also to the east in Durango have not revealed a single specimen. Batty spent an entire year within 75 miles of its habitat and for a month combed identical altitudes on La Balla and Juan Lisiarraga Mountain not 35 miles away! Clearly a remnant from a more flourishing past, it is not uncommon in its limited range, where Mr. Lamb secured eight specimens.

My deep appreciation is extended to Dr. Alexander Wetmore of the Smithsonian Institution for his generosity in checking and confirming the conclusion of the author, that the best treatment is to find a niche for this bird in the genus *Cyanocorax*. I also offer my thanks to the Field Museum of Natural History and to the American Museum of Natural History for the generous loan of specimens of various species of the genus.

In naming this Jay it gives me particular pleasure to pay tribute to the memory of Donald R. Dickey, who, prior to his death, was Associate in Vertebrate Zoology at the California Institute of Technology. His unflagging interest in the birds and mammals of northwestern Mexico and his generous financial support of the work of the California Institute in that area, render this attribution particularly appropriate. For some time the author has been waiting for the discovery of a species worthy of his memory and now welcomes this opportunity to express a tribute to a splendid intellect, a vivacious companion and a treasured friend.



CYANOCORAX DICKEYI MOORE

Cyanocorax dickeyi sp. nov.

TUFTED JAY

Type.—Male adult; No. 12342, collection of Robert T. Moore; Rancho Batel, 5 miles N. E. of Santa Lucia, Sinaloa, Mexico (altitude 5200 ft.); Nov. 7, 1934; collected by Chester C. Lamb; original field number 20463.

Specific Characters.—Differing notably from all species of *Cyanocorax* in having entire forehead and fore part of crown adorned with a straight, stiff and erect crest, which tends to segregate at the apex into numerous tufts of stiff, narrow and unusually elongated feathers (30 mm. or more), each tuft being truncated at its vertex having the appearance of being clipped by a pair of shears; each feather of crest very narrow with almost parallel sides and with barbs generally bare and lacking barbules; wing decidedly longer than tail (10 mm.); primaries, with exception of first (outside primary), unusually broad, almost as wide at tip as in medium section, straight instead of incurved, and gabled at the end in a very obtuse angle; possessing a superficial color resemblance to *Cyanocorax mystacalis* (Geoffroy Saint-Hilaire) of southwestern Ecuador, but differing, not only in all the characters mentioned above, but also in much larger size; shorter, thicker bill; malar white patch twice as large; color of upper parts much darker Azurite Blue;¹ outer rectrices blue on outer web for more than basal half, black on inner web for more than one-third, instead of being pure white; white tips of median rectrices twice as long and immaculate white, and white of nape much less extensive. Females seem to be identical with males but slightly smaller.

Geographical distribution.—Seven of the eight known specimens were secured in the mountains of southeastern Sinaloa, east of Mazatlan, at an altitude of about 5200 ft. One single individual was obtained at 3900 ft. at the lower border of the pines. From this altitude to the top of the range, according to Mr. Lamb, the growth consists of mixed oaks and pines. It would seem, therefore, that the species does not descend below the pines and is confined to the crests of the Sierra Madre of southeastern Sinaloa.

Description of Type.—Adult male, no. 12342, collection of Robert T. Moore, apparently just completing a late fall moult. Crest, lores, erect semilunar area above superciliary spot, post-ocular region, throat-mask connecting post-ocular region and sides of neck with upper and lower throat glossy velvety black, with the throat somewhat duller, the semilunar area more glossy and velvety, some of the crest feathers Eton Blue along the shafts² and a small spot of Cornflower Blue just above lores; posterior feathers of crest white at the base; posterior portion of crown, occiput, nape, hind-neck and extreme upper back, posterior sides of neck, large semilunar superciliary patch, large triangular patch extending from base of mandible to a point on neck well beyond eye; entire underparts, except throat, including under tail-coverts, thighs, legs, axillars and under wing-coverts immaculate snowy white, the superciliary and malar patches being faintly tinged on the margins with very light blue; the white area of the nape connecting with the white underparts by a narrow band of white extending around the semi-circular black shield of the throat; rest of upper parts including all exposed portions of wings and basal two-thirds of exposed portion of rectrices, between Indulin Blue and Hay's Blue, the back being duller inclining towards Indulin Blue, and the wings varying between glossy Cya-

¹ Capitalized names of colors in paper taken from Ridgway, *Color Standards and Color Nomenclature*, 1912.

² This blue marking of the crest feathers is very conspicuous in other specimens, particularly in female No. 12341, and male No. 12601 in the Moore Collection.

nine to Hay's Blue when viewed from different angles; two-thirds of the basal portion of feathers of lower back and rump white, the blue tips being very short on the lower rump and permitting the white to show through in places; inner webs of primaries and outer secondaries glossy black above, entire primaries and secondaries glossy grayish black below; outer webs of primaries which, except for a small portion of the tips, are completely covered by the secondaries, lighter colored, Deep Cadet Blue; basal two-thirds of median pair of rectrices on both webs glossy Hay's Blue to Indulin Blue when viewed from varying angles, the blue area being a trifle longer on the inner webs; basal one-half of outer web of outer rectrix Hay's Blue, inner web glossy black, the blue on the outer web being nearly an inch longer than the black on the inner web; basal portion of outer webs of all the other rectrices Hay's Blue, inner webs black, the blue area in each case being more extensive than the black, the combined dark areas extending farther posteriorly on each feather counting from the outer to the median feathers, so that when the feathers are partially spread, a large semi-circular blue-black area is exposed for the lower two-thirds of the tail; outer one-half of exterior rectrices and outer one-third of median rectrices immaculate snow white; under side of basal dark areas of rectrices glossy black on both outer and inner web.

Specimens examined.—6 ♂, 2 ♀ of *Cyanocorax dickeyi*; also specimens of *C. affinis*, *C. affinis zeledoni*, *C. mystacalis*, *C. cyanopogon*, *C. cayanus*, *C. cyanomelas* and *C. violaceus*.

Average Measurements in millimeters of *Cyanocorax dickeyi*.

	Wing	Tail	Length Bill fr. Nostril	Depth Bill at Nostril	Tarsus	Middle Toe Minus Claw
Six adult males	180.4	171.3	23.47	12.9	45.3	29.7
Two adult females	177.1	164.2	23.2	12.2	45.9	28.4

Remarks.—Hellmayr in the recent 'Catalogue of Birds of the Americas,' Part VII, recognizes nine species and three additional races in the genus *Cyanocorax* Boie. Three species, *chrysops*, *heilprini* and *caeruleus* have not been examined by me, but the descriptions of these differ so greatly from *dickeyi*, that there can be no confusion with it. The peculiar crest of *chrysops*, with the tips of its feathers turned upward, removes it at once from consideration. The same distinction applies to *C. chrysops tucumanus* Cabanis. *C. chrysops diesingii* Pelzeln, as described by Hellmayr, possesses a straighter crest than *chrysops chrysops*, but has different markings and is a much smaller bird. *Cyanocorax heilprini* Gentry displays, according to Hellmayr, a "brown purple-tinged . . . breast, abdomen and under wing-coverts," instead of the white underparts of *dickeyi*. Similarly the blue under surface of *Cyanocorax caeruleus* (Vieillot) eliminates that species.

When Ridgway reduced the limits of the genus *Cyanocorax*, as conceived by R. Bowler Sharpe in the 'Catalogue of the Birds in the British Museum,' by four species and eliminated three others as synonyms, he was still confronted by an inharmonious group of eight species, which he designated under a very brief general description, in order to take them all in. Hell-

mayr, following Ridgway's treatment in general, included *Pica caerulea* Temminck, which Ridgway felt should be removed on account of its "conspicuously exposed nostrils and differently constructed crest." In addition, Hellmayr restored *C. tucumanus* Cabanis and *C. diesingii* Pelzeln as races of *chrysops*, and *C. heilprini* Gentry as a full species on the basis of newly discovered material. This last treatment still leaves *Cyanocorax* as a heterogeneous assemblage of Jays with many dissimilar external characters. For instance, *chrysops* has a crest with the tips turned upward, *heilprini*, according to Hellmayr, has a "much lengthened, stiff, . . . erect frontal crest" while *cyanomelas* has scarcely any crest at all. Most of the species have the nostrils hidden, but *caeruleus* has them "conspicuously exposed." Three species, *violaceus*, *caeruleus* and *cyanomelas*, have the wing obviously longer than the tail, whereas *cyanopogon* has the tail obviously longer than the wing and most of the others have wing and tail about the same length. The majority of the species have short heavy bills, but *mystacalis* has a long slender one. In addition, the two specimens I have seen of *cyanopogon* have much slenderer legs and feet than the other species.

Cyanocorax dickeyi does not seem to resemble closely any of these recognized species of *Cyanocorax*. It does fit Ridgway's brief description of the genus, and has in addition the heavy feet of most of the species, the extremely long wing of *violaceus*, the color pattern of *mystacalis*, and a bill intermediate between the slender one of the last and the short ones of most of the others. It differs from all species in the shape, construction and length of the crest, in the peculiar character of the individual feathers, and apparently in the shape of the primaries. Regarding the last, the outer and inner webs of the primaries are unusually wide and there is no suggestion of a point to the feather, as there is in all species of *Cyanocorax* which I have examined. Of these only *C. affinis zeledoni* approaches it, and then only in the width of the distal end of the feathers.

Regarding the "tufts" of the crest, these are not true tufts, for they do not segregate at the point of origin in the feather tracts, but separate only at the apex, into groups of about three feathers. These feathers seem to be much longer (10 mm.) than those of any species of *Cyanocorax*, not excepting those of *C. c. diesingii*, which Hellmayr states measure "fully 20 mm."

It is worthy of note that *dickeyi* is farthest away in characters from the geographically nearest species of the genus, namely, *Cyanocorax affinis zeledoni* of southeastern Costa Rica and Panama. In coloration it comes closest to *Cyanocorax mystacalis* of Ecuador, 1300 miles farther away, and in the important matter of crests to the more distant *chrysops diesingii* and *heilprini*, both of Brazil. One of the largest of all the species of the genus, it seems without question to be the handsomest in its brilliant contrast of white, black and glittering purple.

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