

## ADDITIONAL DATA ON VICTIMS OF PARASITIC COWBIRDS

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SINCE the last compilation of hosts of cowbirds (Auk, 1943: 350-356), a number of additions have come to my attention, some in publications and some by way of personal correspondence. No attempt has been made to re-identify any of the old records in light of the changes in racial forms recognized in the various supplements to the last A. O. U. Check-List; that may well wait until the 5th edition of the Check-List is published. As might be expected, the present additions to the list of birds known to be parasitized by cowbirds make no very important alterations in the general, overall picture, but they are of interest in themselves as bearing on the interrelations between the economy of the parasite and of each particular host species. In the following annotated lists are discussed not only those birds new to the roster of victims but also a few others on which important new data have been gathered.

### *Molothrus bonariensis* (Gmelin). SHINY COWBIRD.

To the 163 species and subspecies of birds listed as victims of the various races of the shiny cowbird, we may now add 14 more, bringing the total up to 177. These hosts involve four races of the cowbird, as follows:

1. *Molothrus bonariensis bonariensis* (Gmelin). ARGENTINE SHINY COWBIRD.  
*Metriopelia melanoptera melanoptera* Molina. Black-winged Dove.  
*Hymenops perspicillata andina* Ridgway. Chilean Spectacled Tyrant.  
*Xolmis pyrope pyrope* (Kittlitz). Fire-eyed Peepoza.  
*Passer domesticus domesticus* Linnaeus. English Sparrow.  
*Phrygilus patagonicus* Lowe. Patagonian Gray-headed Finch.  
*Paroaria gularis gularis* (Linnaeus). Black-throated Cardinal.

The known hosts of this race of the parasite now total 121 forms.

2. *Molothrus bonariensis minimus* Dalmas. SMALL SHINY COWBIRD.  
*Vireo virescens vividior* Hellmayr and Seilern. Caribbean Vireo.

We now have records of 27 forms of birds as victims of this cowbird.

3. *Molothrus bonariensis venezuelensis* Stone. VENEZUELAN SHINY COWBIRD.  
*Troglodytes musculus clarus* Berlepsch and Hartert. Pale-billed House Wren.  
*Turdus leucomelas albiventer* Spix. Spix's Thrush.  
*Tachyphonus rufus* (Boddaert). Greater White-shouldered Tanager.  
*Zonotrichia capensis venezuelae* Chapman. Venezuelan Chingolo.

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Previously, only three birds had been listed as victims of the Venezuelan shiny cowbird; with these records the list is increased to seven.

4. *Molothrus bonariensis cabanisi* Cassin. CABINIS' SHINY COWBIRD.

*Dendroplex picus dugandi* Wetmore and Phelps. Dugand's Plain-throated Wood-hewer.

*Campylorhynchus minor albicilius* (Bonaparte). White-throated Cactus Wren.

*Thryothorus leucotis leucotis* Lafresnaye. White-eared Wren.

*Icterus nigrogularis nigrogularis* (Hahn). Yellow Oriole.

*Saltator coerulescens plumbeus* Bonaparte. Plumbeous Saltator.

The known victims of this Colombian race of the cowbird now total eight forms. Fuller data on these new hosts and on a few of those previously so recorded are as follows:

*Metriopelia melanoptera melanoptera* Molina. Black-winged Dove.—One record. Goodall, Johnson, and Philippi (1946: 130) have one record of a cowbird egg being taken from a nest of this dove in Chile. The species can hardly be a host frequently used and probably would be unable to rear a young cowbird.

*Dendroplex picus dugandi* Wetmore and Phelps. Dugand's Plain-throated Wood-hewer.—Dr. Armando Dugand informed me (*in litt.*) that he once found an egg of *Molothrus b. cabanisi* in a nest with two eggs of this wood-hewer at Hacienda "El Paraiso," Dept. Atlantico, Colombia. The record is decidedly unusual for the parasite, as the nest was in a hole in a tree, probably an old woodpecker's nest. The nest entrance was about four meters above the ground, and the nest cavity was lined with kapok-like silky down from pods of *Bombax Ceiba* L., a common tree in the area. This record was first published (Dugand, 1940: 29) under the then current name for the wood-hewer, *Dendroplex picirostris picirostris*.

*Hymenops perspicillata andina* Ridgway. Chilean Spectacled Tyrant.—The nominate race of this flycatcher was known as a rarely imposed-upon victim of the cowbird in Argentina; the Chilean form is now similarly recorded. Goodall, Johnson, and Philippi (1946: 130) listed one egg of *Molothrus b. bonariensis* taken from a nest of this tyrant.

*Xolmis pyrope pyrope* (Kittlitz). Fire-eyed Peipoza.—A nest containing two eggs of the cowbird, was found at Dunas de Llico, Chile, September 18, 1928, and recorded by Rafael Barros Valenzuela (1946: 103). Goodall, Johnson, and Philippi (*loc. cit.*) also implied that this bird, locally called "diucón," is victimized in Chile, but gave only one specific record.

*Campylorhynchus minor albicilius* (Bonaparte). White-browed Cac-

tus Wren.—One instance of this wren as a host of the cowbird in Colombia has been observed by Dr. Armando Dugand, to whom I am indebted for this information.

*Troglodytes musculus clarus* Berlepsch and Hartert. Pale-bellied House Wren.—R. Avelado Hostos (1947: 50) wrote that, according to Eduardo Röhl, this wren is victimized by the Venezuelan race of the shiny cowbird. It had previously been known to be parasitized by the small shiny cowbird, *M. b. minimus*, in Trinidad.

*Thryothorus leucotis leucotis* Lafresnaye. White-eared Wren.—One record. At La Raya, Colombia, on January 22, 1948, Mr. M. A. Carriker, Jr. found a nest of this wren with two eggs of the wren and one of the local race of the cowbird (*cabanisii*). He collected the set, but unfortunately most of the eggs were lost in transit in the field.

*Mimus thenca* (Molina). Chilean Mockingbird.—To the little that was previously on record concerning this mockingbird as a molothrine victim, we may add one more instance, observed at Llico, Chile, October 29, 1931, by Rafael Barros Valenzuela (*op. cit.*, p. 105). The cowbird is, of course, the nominate subspecies.

*Turdus leucomelas albiventer* Spix. Spix's Thrush.—R. Avelado Hostos (1947: 50) found a parasitized nest of this bird at Caracas, Venezuela. The cowbird there is *M. b. venezuelensis*. This nest was on the window sill of the Phelps Museum. Mr. Phelps wrote me that the same nest was used again the next year (1948) and was again parasitized, containing, at the time of his letter (April 28), two eggs of the thrush and one of the cowbird.

*Vireo virescens vividior* Hellmayr and Seilern. Caribbean Vireo.—Recorded as a victim of the shiny cowbird (subspecies *minimus*) in Trinidad by Belcher and Smooker (1937: 527). This form was inadvertently left out of my 1938 and 1943 papers.

*Passer domesticus domesticus* Linnaeus. English Sparrow.—This introduced bird has been recorded as a victim of the shiny cowbird in Chile on one occasion by Goodall, Johnson, and Philippi (*loc. cit.*).

*Icterus nigrogularis nigrogularis* (Hahn). Yellow Oriole.—Dr. Dugand found an egg of *Molothrus bonariensis cabanisii* in a nest of this oriole in the Magdalena-Caribe area, Colombia (1940: 29).

*Tachyphonus rufus* (Boddaert). Greater White-shouldered Tanager.—Previously known as a victim of the small shiny cowbird (*minimus*), this tanager is now listed as a host of the Venezuelan race as well. R. Avelado Hostos (*loc. cit.*) found it to be parasitized at Caracas, Venezuela.

*Saltator coerulescens plumbeus* Bonaparte. Plumbeous Saltator.—I

was informed by Dr. Dugand that he has found this finch to be victimized by the cowbird, *M. b. cabanisi*, in Colombia.

*Phrygilus patagonicus* Lowe. Patagonian Gray-headed Finch.—In Chile, this finch has been found to be victimized by the cowbird (nominate race) by Rafael Barros Valenzuela (*op. cit.*, p. 105–112) who found several parasitized nests.

*Paroaria gularis gularis* (Linnaeus). Black-throated Cardinal.—At Conceição do Araguaia, Brazil, E. G. Holt collected three parasitized sets of eggs of this bird, November 11, 15, and 17, 1926. These sets, each of which contained one egg of the cowbird in addition to one, two, and three, respectively, of the host, are now in the collections of the United States National Museum.

*Zonotrichia capensis venezuelae* Chapman. Venezuelan Chingolo.—Mr. W. H. Phelps informed me (*in litt.*) that at Caracas, Venezuela, on August 30, 1947, he found a nest of this sparrow containing an egg of the Venezuelan race of the cowbird, *M. b. venezuelensis*.

*Diuca diuca diuca* Molina. Diuca Finch.—While this finch was previously known as a molothrine victim in Chile, it was not possible to realize how important a role it plays in the economy of the cowbird there, or, *vice versa*, how important the parasite is in the life of the diuca. However, Goodall, Johnson, and Philippi (*loc. cit.*) stated that of 100 nests found with eggs of the cowbird in them, no fewer than 72 were of the diuca finch. It is safe to say, therefore, that this bird is the chief mainstay of the cowbird in Chile, and it would seem that the cowbird must be among the main checks on the increase of the diuca finch.

*Molothrus ater* (Boddaert). NORTH AMERICAN COWBIRD.

Of the North American cowbird the known hosts numbered 267 species and subspecies of birds in 1943. In the five years since then nine more forms have been found to be affected by the parasite, bringing the present total to 276 kinds of victims. All three races of the cowbird are involved in these additions, and the hosts new to each of them are listed below. Those that are new to the species as a whole are marked with an asterisk.

1. *Molothrus ater ater* (Boddaert). EASTERN COWBIRD.

*Hylocichla fuscescens salicicola* Ridgway. Willow Thrush.

\**Ammospiza maritima maritima* (Wilson). Seaside Sparrow.

The known hosts of the eastern cowbird now total 153 species and subspecies.

2. *Molothrus ater artemisiae* Grinnell. NEVADA COWBIRD.

\**Anthus spragueii* (Audubon). Sprague's Pipit.

*Vireo solitarius plumbeus* Coues. Plumbeous Vireo.

*Vermivora ruficapilla ruficapilla* (Wilson). Nashville Warbler.

\**Agelaius phoeniceus utahensis* Bishop. Utah Red-winged Blackbird.

\**Junco aikeni* Ridgway. White-winged Junco.

\**Junco hyemalis cismontanus* Dwight. Cassiar Junco.

\**Melospiza melodia merrilli* (Brewster). Merrill's Song Sparrow.

\**Melospiza melodia inexpectata* Riley. Riley's Song Sparrow.

These eight raise the total of known hosts of this race of the cowbird to 109 forms.

### 3. *Molothrus ater obscurus* (Gmelin). DWARF COWBIRD.

\**Vireo vicinior* Coues. Gray Vireo.

\**Dendroica occidentalis* (Townsend). Hermit Warbler.

With these two additions, the victims of the dwarf cowbird come to 100 species and subspecies.

Aside from the data on these additional hosts, a sizeable quantity of information regarding previously recorded, but little known, victims has been brought together. All these bits of information are appended in the following annotated list.

*Coccyzus americanus americanus* (Linnaeus). Yellow-billed Cuckoo.—Previously known as a cowbird victim only by its being so listed by Bendire on the basis of Louck's record in Illinois, the yellow-billed cuckoo has been found to be parasitized at Buckeye Lake, Ohio, by Trautman (1940: 273, 293) who recorded a nest containing five eggs of the cuckoo and one of the cowbird.

*Sayornis saya saya* (Bonaparte). Say's Phoebe.—To the two previous records we may add a third, a parasitized nest found in Decatur County, Kansas, June 6, 1941, by H. L. Heaton. The cowbird is of the nominate subspecies.

*Iridoprocne bicolor* (Vieillot). Tree Swallow.—Robbins (1947: 135) reported a nest with seven eggs of the swallow and one of the cowbird, in Oconto County, Wisconsin, June 13, 1947, found by Carl Richter. It is strange indeed, that all of the few records of this bird as a molothrine host should be from Wisconsin. Years ago I suggested (*The Cowbirds*, 1929: 234) the possibility that the tree swallows in some places in Wisconsin might use shallower holes in which to nest than in most other areas, but no pertinent data on this point have come to my attention.

*Baeolophus atricristatus sennetti* Ridgway. Sennett's Titmouse.—A. J. Kirn wrote me that he collected a set of this species with two eggs and one dwarf cowbird's egg at Somerset, Texas. This is the second instance, known to me, of this titmouse being parasitized. In his notes Kirn stated that there evidently was a disturbance at this

nest, for one of the titmouse eggs was punctured and the nest somewhat disarranged; the titmouse deserted it.

*Hylocichla fuscescens salicicola* Ridgway. Willow Thrush.—Previously known as an uncommon victim of the Nevada cowbird, this thrush is now added to the list of hosts of the eastern cowbird as well. Robbins (1947: 136) reported a nest in Oconto County, Wisconsin, which was deserted by its owners after the intrusion of a cowbird's egg.

*Anthus spragueii* (Audubon). Sprague's Pipit.—One record, Todd (1947: 417) found this pipit to be parasitized by the Nevada cowbird in southern Saskatchewan, a nest containing three eggs of the pipit and two of the parasite found at Last Mountain Lake, May 29, 1932, by Albert C. Lloyd.

*Vireo vicinior* Coues. Gray Vireo.—Hanna (1944: 244) found a nest of this vireo with two eggs of its own and one of the dwarf cowbird, on June 4, 1944, at Cajon Pass, northwest of San Bernardino, California. This is the first instance, known to me, of this species being affected by the cowbird.

*Vireo solitarius plumbeus* Coues. Plumbeous Vireo.—Known as a victim of the dwarf cowbird, this bird may now be added to the hosts of the Nevada cowbird as well. Miller (1948: 92) saw some of these vireos raising young cowbirds in the open pine woods of Powder River County, southeastern Montana, in June, 1947.

*Vireo virescens flavoviridis* Cassin. Yellow-green Vireo.—This bird was known as a victim of the dwarf cowbird on the basis of its being so mentioned by Salvin and Godman (1886: 451), but it was only recently that I found the basis for this statement. Lawrence (1874: 280), quoting Grayson, wrote that near Mazatlan, Sinaloa, this bird is "the preferred host" of the dwarf cowbird.

*Vermivora chrysoptera* (Linnaeus). Golden-winged Warbler.—Because of the still small number of cases on record for this warbler as a cowbird host, it may be mentioned that Robbins (*op. cit.*) reported two parasitized nests in Oconto County, Wisconsin, found in 1947 by Carl Richter.

*Vermivora ruficapilla ruficapilla* (Wilson). Nashville Warbler.—Cartwright (1931: 185) found a nest with two eggs of the warbler and three of the cowbird, in Manitoba. The cowbird in question is of the race *artemisiae*, for which form this is a new host record. The warbler was previously known as an uncommon dupe of the eastern cowbird.

*Parula americana americana* (Linnaeus). Parula Warbler.—In 'The Cowbirds' (1929: 240-241) I listed the typical form of the parula warbler as a cowbird victim, solely on the basis of its being so mentioned in Oberholser's unpublished manuscript on the birds of Texas.

Recently, I have had the opportunity of looking over the notes on Maryland birds of the late F. C. Kirkwood and found that on May 21, 1915, near Ocean City, Maryland, he collected a nest of this bird with four eggs of its own and one of the cowbird. This substantiates my earlier action in including this warbler in the list of hosts of the eastern cowbird. It is also known to serve as a dupe for the dwarf cowbird.

*Dendroica occidentalis* (Townsend). Hermit Warbler.—This warbler is added to the known victims of the dwarf cowbird on the basis of a young fledgling of a parasite seen being attended and fed by a pair of hermit warblers at Camp Augusta, three miles from Nevada City, California, June 21, 1942, by Ariel Reynolds (1942: 28).

*Oporornis philadelphia* (Wilson). Mourning Warbler.—To the few data previously assembled may be added a few more cases. Robbins (*op. cit.*) reported two parasitized nests in Oconto County, Wisconsin, found in 1947 by Carl Richter. Devitt (1944: 83) reported a nest with two eggs of the owner and one of the cowbird at Minesing, Ontario, June 9, 1929 (also recorded by Baillie and Harrington in 1937).

*Agelaius phoeniceus utahensis* Bishop. Utah Red-winged Blackbird.—One record. Bee and Hutchings (1942: 82) recorded a nest of this race of the red-wing with an egg of the Nevada cowbird at Lake, Utah, June 30.

*Euphagus carolinus* (Müller). Rusty Blackbird.—To the few cases previously recorded, we may add two more, unfortunately without detailed data. In his price list of November, 1947, the dealer, C. H. Gowland of Wirral, England, listed two parasitized sets of this blackbird. Further correspondence has failed to obtain either the specimens or further data about them.

*Piranga rubra rubra* (Linnaeus). Summer Tanager.—To the small number of records previously assembled, we may add five more, all from near Dorchester, Maryland, each with three eggs of the tanager and one of the cowbird, June 7 to 26 (1892–1920), and all from the late F. C. Kirkwood's manuscript notes on Maryland birds.

*Junco aikenii* Ridgway. White-winged Junco.—Miller (1948: 92) found two parasitized nests in the open pine woods of Powder River County, four miles west of Fort Howes Ranger Station, near Otter, southeastern Montana, in late June, 1947. The cowbird involved is of the race *artemisiae*. One of the nests contained one egg of the junco, one of the cowbird, and one young of each; the other held two junco eggs and two young cowbirds.

*Junco hyemalis cismontanus* Dwight. Cassiar Junco.—This race of the junco is added to the list of victims of the Nevada cowbird on

the basis of a statement by Munro and Cowan (1947: 205) that they found it to be parasitized at Swan Lake, Peace River, British Columbia, June 2, 1938.

*Ammospiza maritima maritima*. Seaside Sparrow.—Bagg and Eliot (1937: 634, footnote) stated that this sparrow was recorded as a fosterer of the cowbird on Martha's Vineyard by Mrs. Seth Wakeman. In answer to an inquiry of mine, Mrs. Wakeman kindly gave me the following details. She and another observer, Roger Baldwin, watched a seaside sparrow closely followed by a well-grown young cowbird. "The poor creature was put to it to satisfy the demands of this infant so much larger than herself, and ran about looking for food while the 'baby' kept up a constant complaint. There were no signs of any young seaside sparrows anywhere, just this ill-assorted pair." The date was August 24, 1936, and the place was the edge of a sort of drainage canal running from Black Point Road to West Tisbury Pond.

The cowbird ordinarily does not penetrate brackish or salt water marshes, and so probably very rarely foists any of its eggs on the birds that nest in such places. The seaside sparrow would appear, then, to be an unusual, and rarely imposed upon, victim.

*Zonotrichia leucophrys leucophrys* (Foster). White-crowned Sparrow.—In the Bulletin of the Jourdain Society, no. 6: 50, Dec., 1947, it was stated that a set of eggs of Gambel's sparrow, *Zonotrichia leucophrys gambelii*, with four cowbird eggs was exhibited at a meeting of the Society by Mr. Lings. On writing to the exhibitor, not only was I promptly given the complete data, but even the eggs were sent to me for examination. The set was collected near Okotoks, southern Alberta, June 11, 1930, by Mr. Lings. The locality precludes the possibility of the host being *gambelii*, and makes it out to be typical *leucophrys*. As a matter of fact, there is another parasitized set of *leucophrys* eggs from the same place in the collections of the Royal Ontario Museum of Zoology, at Toronto. This record is the third I know of for the Nevada cowbird and white-crowned sparrow combination.

*Melospiza melodia morphna* Oberholser. Rusty Song Sparrow.—A second record of this song sparrow as a victim of the Nevada cowbird has come to my attention. Gullion (1947: 145) saw a rusty song sparrow feeding a young cowbird at Eugene, Oregon, in late May, 1946.

*Melospiza melodia merrilli* (Brewster). Merrill's Song Sparrow.—One record, Munro and Cowan (*op. cit.*, p. 205) found Merrill's song sparrow to be parasitized by the Nevada cowbird at Coldstream, Okanagan, British Columbia, on June 10, 1939.

*Melospiza melodia inexpectata* Riley. Riley's Song Sparrow.—



Another addition to the hosts of the Nevada cowbird is based on the report of Munro and Cowan (*op. cit.*, p. 205) who found this form of the song sparrow to be a victim of the parasite at Nulki Lake, British Columbia, June 23, 1945.

*Tangavius aeneus* (Wagler). RED-EYED COWBIRD.

Two additional hosts may be recorded for this cowbird, bringing the total number of its known victims to 36. These two are as follows:

*Tyrannus melancholicus occidentalis* Hartert and Goodson. West Mexican Kingbird.—One record, a nest with four eggs of the kingbird and one of the bronzed cowbird, collected at Mazatlan, Sonora, on June 14, 1882, by A. Forrer, is now in the Doe Collection at the University of Florida. The cowbird involved is of the subspecies *milleri*.

*Aimophila rufescens*.—Sumichrast (1869: 551) wrote that in Veracruz this sparrow is parasitized by the red-eyed cowbird. This record had somehow escaped me in earlier compilations. The cowbird is the race *aeneus* (formerly called *involucratus*).

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*United States National Museum, Washington, D. C., June 16, 1948.*