

## ILLINOIS REPORT OF PLUMBEOUS VIREO

**English Name:** "Plumbeous" Solitary Vireo

**Latin Name:** Vireo solitarius plumbeus

**State:** Illinois    **County:** Cook    **Location:** Chicago, Jackson Park, Wooded Island

**Date:** 30 April 1990

**Reporting Observer:** Thomas S. Schulenberg, Field Museum of Natural History,  
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**Other observers:** "None." I showed the bird to several of the regular Wooded Island early morning birders, at least one of whom noted the birds' gray plumage. To my knowledge, however, no other observers took notes on the bird, and I do not have the names of any of the few people who saw it. I told Harriet Rylaarsdam about the bird when I saw her on Wooded Island later in the morning, but I don't know if she saw it or not; I had lost the bird by then. The bird was searched for a few hours later, without success, by a competent observer (Sherman Suter), and, again without success, the next morning by Suter, Doug Stotz, and myself.

**Optical Equipment:** Zeiss 10 x 40 binoculars.

**Distance to bird:** to within c. 10 m.

**Length of observation:** Bird studied off and on for about 20 minutes, seen again occasionally for up to c 1 hour after first noticed.

**Time of day:** c. 0730-0830.

**Light conditions:** Overcast; the light was not strong, which did not help in trying to determine muted colors, but the light was even.

**Behavior:** Foraging in typical vireo fashion, moving sedately through the foliage and gleaning insects from the leaves, often while clinging to leaf clusters. Foraged from c. 3 m to c. 10 m above the ground. Gradually moving south down the island as it fed. Did not call or sing.

**First impressions:** I noticed the bird when it was at about 30 m away, and immediately recognized it as a Solitary Vireo, my first of the spring, by its chunky, bull-headed shape, and prominent white spectacles. I also recognized, almost as immediately, that the bird was quite gray, and the thought that it might be a "Plumbeous" Vireo instantly came to mind. I quickly crossed over to the bird, and began studying it more closely.

**Description:** An obvious vireo, i.e, larger than a warbler with a heavier, dark, hooked beak. The crown, nape, sides of the face and throat were clean, pure gray. A bold white ring circled the eye and extended over the lores to the base of the bill. The back and scapulars were also

gray, but, when studied closely in good light, had a slight brownish tinge. Rump (visible on occasion when the bird fluttered while in short flight or making a foraging maneuver) with a light greenish tinge. Wings "dark," with two prominent white wing-bars; presence or absence of white edgings of tertials or remiges not noted. Throat white, contrasting sharply with the gray sides of the throat. Rest of underparts also "white," but slightly duller; there was a noticeable difference in brightness between the center of the throat and the breast. A gray wash on the sides of the breast, at the bend of the wing. A dull wash, color not satisfactorily determined, on the flanks. A faint, dull yellow wash across the vent. Tail "dark," the rectrices noticeably edged with white on both inner and outer webs (seen both from below and, in flight, from above, against the dark background of foliage).

**Separation from similar species:** There is no doubt in my mind that this bird was some kind of a Solitary Vireo. Just for the record, to eliminate the other "gray" vireos:

Bell's Vireo (southwestern races rather gray): Smaller, lacks bold spectacles and wing-bars.

Gray Vireo: Lacks bold spectacles and wingbars. Given this species' distribution -- overlapping with, but generally farther south than, Plumbeous Vireo -- and a perhaps somewhat smaller population, I would have considered this species to be extremely unlikely anyway. There is, however, a specimen record of a fall immature from Wisconsin. I have examined the specimen (University of Wisconsin Zoological Museum 17216), and it is correctly identified. But, for the reasons given above, the bird I saw was clearly not a Gray Vireo.

Everything about this bird, in terms of size, shape and markings, was typical of a Solitary Vireo, but the striking feature of this Solitary Vireo was that it was predominately gray. The Solitary Vireos of the U. S. and Canada come in three "kinds," which may represent two or three species rather than one (Phillips 1991; N. K. Johnson, pers. comm.):

"Blue-headed" Vireo: Includes the nominate subspecies, which is widespread as a migrant in eastern North America, and which breeds from New England and the Maritime Provinces west to British Columbia and Alberta; and alticola, the subspecies that breed in the Appalachians.

"Plumbeous" Vireo: Breeds in the central and southern Rocky Mountains and in the Great Basin, wintering from southern Arizona south into Mexico (plumbeus; populations in central Mexico, at least some of which are probably resident, are sometimes recognized as separate subspecies [pinicolus, repetens]). The only record I know of for eastern North America is a specimen of an immature female collected in southwestern Louisiana (Purrington 1985; Schulenberg 1988). This form is largely gray above, with only faint green and yellow tones in the plumage.

"Cassin's" Vireo: Breeds from British Columbia south to the Pacific states and in parts of the Rockies (cassinii), north of the range of "Plumbeous," and in Baja California (lucanus); winters in Mexico. There are extralimital records of this vireo from southwestern Louisiana (Purrington 1988; J. V. Remsen, pers. comm.) and in New York and New Jersey

(Phillips 1991). "Cassin's" Vireos are somewhat similar to "Blue-headed" Vireos, but are duller in color, and with less contrast between the color of the crown and back. Note that the photograph labelled "Rocky Mountain race" (which the text equates with plumbeus) in a popular field guide (Farrand 1983) is actually a "Cassin's" Vireo (pers. obs.; Stallcup 1985).

To complicate this relatively simple picture, there are additional populations in Belize (notius) and in the highlands from Chiapas, Mexico south to Honduras (montanus). The affinities of these populations are less clear; they are generally dull, like plumbeus, but are somewhat more brightly colored than that race, and are smaller.

I have lived and birded in both western and eastern North America, and I have experience with vireos of all three groups found in this region (especially "Blue-headed" and "Cassin's"), although I have never made any particular study of them in the field.

The gray back and the reduced size of or lack of a yellow wash on the flanks of the Wooded Island Solitary Vireo point to the "Plumbeous" form. The molts of Solitary Vireos are not well known, but apparently these birds do not undergo a complete pre-Alternate (pre-nuptial) molt (Pyle et al. 1987); hence, it is no surprise that most spring specimens of "Plumbeous" Vireo in the Field Museum of Natural History show some degree of wear in the plumage, and a number of these (those that were collected after they had begun incubation?) are extremely worn and quite dull. Some (although not all) of the less-worn specimens show a faint greenish wash or tone on the lower back, consistent with my observations of the Wooded Island bird. No specimen of spring "Plumbeous" Vireo shows a yellow wash across the vent, nor is this feature mentioned in the classical, detailed plumage descriptions of this form by Ridgway (1904). On one female specimen (relatively unworn plumage, collected on 11 May), however, the feathers of the lower flanks, which are strongly yellow, sweep over the vent region. This arrangement of course may be just an artifact of the manner in which the specimen was prepared, but it does not strike me as unreasonable to think that in life such feathers may not be arranged in a similar fashion.

The only reservation that I have about the identification of the bird I saw is that I am not entirely sure I can eliminate the possibility of an axanthic "Blue-headed" Vireo (i.e., an eastern Solitary that is lacking yellow pigments).

A female vireo collected in upstate New York on 24 September 1893 and originally reported as a "Plumbeous" (Miller 1894) has been reidentified as just such an abnormal "Blue-headed" (Bull 1985; Phillips 1986:xxv). I have also examined the specimen (British Museum [Natural History] 1906.12.7.1580). The bird is quite dull, and in plumage does seem like a good match for a "Plumbeous" Vireo. The measurements of the specimen, however, are quite small. I measure the bill length (culmen from base) of this specimen as 13.68 mm. In contrast, 9 female "Plumbeous" Vireos in the collections of the Field Museum of Natural History have bill lengths that average 16.21 mm (range 15.72-16.87), while this measurement for a series 20 female nominate "Blue-headed" averages 14.45 (range 13.43-15.26). The New York specimen is smaller than all "Plumbeous" that I measured, and at the small end of the range for "Blue-headed." Presumably, it is either an unusually small "Plumbeous" or an unusually colored "Blue-headed." The latter possibility seems more likely than is the possibility of a bird that is

both far out of its normal geographic range and also outside the known range of morphometrics for its kind.

Further support of this notion comes from an examination of the outer rectrices. In Solitary Vireos, there is usually at least some white along the outer web and at the tip of the outermost pair of rectrices (although in "Cassin's" Vireo, this edging is very reduced or lacking). Typically, in "Plumbeous" Vireos almost the entire outer web is white, whereas in the nominate "Blue-headed" Vireo the white rarely covers the entire outer web, or does so only on the basal half of the feather, and the white tips are also often narrower. This is not a diagnostic character: some specimens do show overlap. The tail pattern of the New York specimen is typical for a "Blue-headed" Vireo, supporting the notion that it is an axanthic "Blue-headed" Vireo.

The question then becomes, how could such a bird be differentiated in the field from a vagrant "Plumbeous?" Perhaps the songs of "Plumbeous" and "Blue-headed" Vireos are recognizably different (Barlow 1990); in the present case, it is a moot point, as the bird on Wooded Island did not sing. The difference in bill size is apparent in the hand, but would be difficult to discern in a live bird. Note that even the small series of specimens that I measured shows little difference between the smallest "Plumbeous" and largest "Blue-headed," suggesting that some overlap is likely. To further compound matters, the alticola subspecies of "Blue-headed" differs from the nominate subspecies in part by its larger size. The bill length of a series of 9 female alticola averages 15.09 (range 14.14-16.16), overlapping with both plumbeus and solitarius. To my knowledge there is no record of this subspecies in Illinois (Bohlen 1989), but it presumably is a potential vagrant to the state as well; an axanthic alticola could be particularly difficult to separate from a "Plumbeous."

The only arguments I can think of to support the identification of the Wooded Island bird as "Plumbeous" are the hints of green on the rump and of yellow on the vent. The New York specimen that I have discussed at length has a brownish-gray rump that does not contrast at all with the back, whereas the bird I saw apparently was not totally lacking in pigment. Just to play devil's advocate to my own record, however, it could be that the pigment not only has an "on/off" switch, but may also be controlled by a "dilution" factor; to me this seems less likely a possibility than does a vagrant "Plumbeous" Vireo, but I can not rule it out.

One further note: According to Bailey and Niedrach (1965), "the majority" of the population of "Plumbeous" Vireos do not arrive in the Denver area "until early May." Denver is slightly south of Chicago (it is at about the latitude of Decatur). Hence, a "Plumbeous" Vireo would be a little early in reaching the latitude of Chicago by the end of April, but probably not unusually so.

And despite my own belief that it is likely that the bird I saw was a vagrant "Plumbeous" Vireo, I must end with a final cautionary note: "It would be risky to accept extralimital sight reports (or photos) of this plain gray race; they might be variants, like the New York specimen long accepted as plumbeus" (Phillips 1991:193).

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