THREE NEW SUBSPECIES OF BIRDS FROM WESTERN NORTH AMERICA

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IN connection with a proposed report on the distribution and abundance of the birds of Idaho, collections made in the northwestern United States were examined critically to determine the geographic variation in those species breeding in that part of the country. Three were found to represent distinct and undescribed races, with characters that readily separated them from other breeding populations. These are as follows:

Actitis macularia rava new subspecies.

Characters. Breeding adults similar to Actitis macularia macularia but upperparts dark gray rather than grayish brown and with but a faint trace of the metallic gloss characteristic of the nominate race; underparts less heavily spotted and the spotting less intensely black; winter adults and young of the year equally distinct, the upperparts being brownish gray in contrast to the dark brown of macularia; no appreciable size difference.

Measurements. Adult male (6 breeding specimens from Idaho): wing, 96-106 (103.1) mm.; tail, 42-52 (47.2); exposed culmen, 21.5-23.5 (22.4). Adult female (4 breeding specimens from Idaho): wing, 97.5-103.5 (101.5); tail, 49-53.5 (51.5); exposed culmen, 22.5-26.5 (25).

Type. Adult male, No. 465960, United States National Museum (Fish and Wildlife Service collection), Lewiston, Nez Perce County, Idaho, 21 June 1958; Thomas D. Burleigh, original number 17651.

Distribution. Breeds wherever suitable habitat occurs from northwestern Alaska, Yukon and western Mackenzie south through British Columbia, Washington, Oregon, and Idaho. Winters in the West Indies (Puerto Rico) and Central America (Honduras) southward to Venezuela and Peru. In migration eastward in the United States to Louisiana and South Carolina.

Remarks. Extensive mountain ranges in the western United States have been shown to be effective barriers in the distribution of birdlife in this part of the country, a situation that apparently exists in the distribution of the northwestern race of *Actitis macularia*. Although occurring in southern Oregon, the Siskiyou Mountains of northern California would appear to limit the occurrence of *rava* farther south, the breeding birds of California being typical of *macularia.*¹ In the same way the Continental Divide marks the eastern limits of *rava* in

¹ I am indebted to Dr. Alden H. Miller and the Museum of Vertebrate Zoology for the loan of breeding specimens of *Actitis macularia* from California.

the northwestern United States, breeding specimens from Montana and Wyoming that were examined representing the nominate race. Α female taken at Glasgow, Montana, on 7 June 1919, was found to be rava but was probably a transient from farther west, for 12 other specimens taken during June in western Montana east of the Continental Divide were referable to macularia. The western subspecies apparently crosses the Continental Divide in Canada, and northeastern Alberta and eastern Mackenzie would appear to represent an area of intergradation between the two races of Actitis macularia. Specimens taken at Fort McMurray, Alberta (a female, 7 May 1920), and at Great Slave Lake, Mackenzie (a female, 12 June and a male, 15 June 1908), are intermediate in their characters but closer to macularia. The upperparts are noticeably gray but browner than in rava, and have the metallic gloss lacking in the western race. A male in immature plumage taken at Big Salmon River, British Columbia, on 17 August 1914, is clearly macularia and is probably an early-fall transient from farther north.

Specimens of Actitis macularia rava examined. Total number, 80, from the following localities: Idaho-Boundary County, Bonner's Ferry, 22 June 1957, 9; Bonner County, Sandpoint, 19 August 1958, 2 im.; Shoshone County, Clarkia, 5 July 1948, 8; Clearwater County, Headquarters, 17 May 1953, 9; Latah County, Potlatch, 14 May 1950, 9; 30 July 1950, 8 im.; 18 August 1951, 9 im.; 24 August 1951, & im.; 8 September 1953, & im.; 14 May 1954, & ; 25 July 1954, 8; 12 May 1955, 9; 1 July 1955, 8; 4 July 1956, ð; 15 July 1956, ð im.; 5 May 1957, 9; 7 October 1957, 9 im.; Polouse River, 11 June 1947, 9; Moscow, 15 May 1949, 8; 5 May 1951. 9; 10 September 1952, 9 im.; 17 July 1954, 8; Nez Perce County, Lewiston, 2 August 1949, & im.; 8 August 1949, & im.; 13 August 1949, & im.; 19 August 1949, & im.; 1 September 1951, ở im.; 8 July 1953, ♀; 28 September 1953, ♂ im.; 4 November 1953, & im.; 24 July 1954, & im.; 4 August 1955, &; 21 June 1958, 8; Adams County, New Meadows, 23 July 1958, 8; Washington County, Weiser, 13 June 1913, &; Owyhee County, Silver City, 4 June 1910, 9; Power County, American Falls, 1 June 1911, 8; Oneida County, Juniper, 29 May 1916, 9. Washington-Okanogan County, Pasayten River, 25 August 1920, im.; Clallam County, Elwha River, 18 July 1921, & ; Spokane County, Spokane, 21 July 1955, & ; Asotin County, Clarkston, 22 July 1956, 9. Oregon-Ft. Klamath, 10 September 1882, & im.; Bend, 30 July 1914, &; Pendleton, 16 July 1955, S. Montana-Glasgow, 7 June 1919, Q. Alaska-Gustavus Point, 10 June 1899, & ; Admirality Island, 26 September 1903. ð im.; Aniak, 11 August 1912, 9; Bettles, Koyukuk River, 4 July

1950, 9; Summit, 6 June 1952, 9. Yukon-Old Crow Village, 8 June 1957, &; 13 June 1957, & Q. Mackenzie-Hay River, Great Slave Lake, 30 May 1908, &; Aklavik (near mouth of Mackenzie River), 13 June 1958, &. British Columbia-Head of Moose River, 15 July 1911, Q. Mexico-Sonora, Hermosillo, 30 April 1892, &; Baja California, Gardner's Laguna, Salton River, 20 April 1894, & and 23 April 1894, 9; Concepcion Bay, 8 April 1911, sex (?); Pichilinque Island, 19 April 1911, 9. Guatemala-Puerto Barrios, 7 April 1905, 9; Peten:Remate, 15 April 1923, 2 9 9 (1 in almost completed breeding plumage, the other in full winter plumage). Honduras-Chamelicon, 3 January 1891, 9. Panama-Rio Indio, 8 February 1911, 9; Lion Hill (Canal Zone), 1 May 1911, 9; Miraflores, 13 May 1911, &; Porto Bello, 23 May 1911, &; San Jose Island, Archipielago de las Perlas, 6 April 1944, 9 ; Jaque, 25 March 1946, 8 ; Mandinga, 31 January 1957, 8. Venezuela-Cubata, 21 April 1903, S. Peru-Calca, 25 April 1917, S. Puerto Rico-Rio Piedras, 22 December 1911, & im.; Culebra Island, 9 April 1912, 9. British West Indies-St. Vincent, Vermont, 12 March 1937, 9; Mayreau, 16 April 1937, 9; Montserrat, spring of 1938, sex (?). Louisiana-New Orleans, 21 May 1935, 9. Texas-Pecos River, 4 August 1902, & im.; Cameron County, 8 May 1931, &. South Carolina-Porcher's Bluff, Christchurch Parish, 24 April 1911, 9; 3 May 1911, 8.

Sitta canadensis clariterga new subspecies.

Characters. Similar to *Sitta canadensis canadensis* but upperparts lighter and more bluish and lacking to a large extent the grayish wash characteristic of the nominate race. There are no appreciable size differences.

Measurements. Adult male (9 breeding birds): wing, 67–70 mm. (average 67.8); tail, 36–39.5 (36.6); exposed culmen, 11.5–13 (11.1). Adult female (4 breeding birds): wing, 65–68.5 (67.1); tail, 36–37 (36.6); exposed culmen, 11–11.5 (11.1).

Type. Adult male, No. 419620, United States National Museum (Fish and Wildlife Service collection), Headquarters, Clearwater County, Idaho, 15 June 1951; Thomas D. Burleigh, original number 13910.

Distribution. Breeds in the Canadian Zone from southeastern Alaska, British Columbia, and southern Alberta, south to southern California and southern Arizona. Winters largely within its breeding range, although unrecorded during the winter months in Alaska, and occurring irregularly then at the higher altitudes. Wanders extensively during occasional winters, but its movements then are erratic and unpredictable. *Remarks. Sitta canadensis* was originally described by Linnaeus (Syst. Nat., ed. 12, Vol. 1, 1766, p. 177), with the type locality, if such it could be called, as "Canada." There is little question but that his description was based on *Sitta canadensis* of Brisson, whom he cites, and who, as in similar instances, used a specimen from the Museum of M. de Reaumur, taken in the general vicinity of the city of Quebec. This limits the type locality of the nominate race to Quebec, and since there seem to be no available names for the western population, the above name *clariterga* is applicable for this distinct subspecies.

It is in fresh plumage that the characters of this race are most evident. Breeding birds taken during the summer months are invariably rather worn and appear darker than fall or winter specimens. However, there is no difficulty in separating them from individuals in equally worn plumage from the eastern part of the country. A male taken by A. H. Howell (field number 2275) on Mt. Mitchell, North Carolina, on 3 June 1930, is distinct from all other eastern breeding specimens, as it has the characters that distinguish *clariterga*. It is not improbable that this is a straggler from the western range of this species that came east during one of the sporadic invasions that characterize the seasonal movements of the Red-breasted Nuthatch, and failed to return to its normal breeding grounds.

Specimens of Sitta canadensis clariterga examined are as follows. Total number, 46, from the following localities: British Columbia-Queen Charlotte Islands, 18 June 1900, 9; 22 June 1900, 9. Alberta -Banff, 31 August 1894, & ; Moose Branch of Smoky River, 5 August 1911, S. Washington-Tacoma, 22 August 1897, 2 S, 2; Yakima Indian Reservation, 27 July 1917, & ; Yakima, 31 August 1957, sex (?); Mt. St. Helens, 11 June 1941, &; Mt. Adams, 15 August 1943, δ; 17 August 1943, δ; 20 August 1943, δ. Idaho.—Coeur d'Alene, 8 January 1957, 9; Moscow, 25 miles northeast, 11 June 1947, 8; Moscow, 20 miles northeast, 17 June 1947, 9; Moscow, 12 December 1956, &; 16 December 1956, &; 28 November 1957, &; Lake Waha, Nez Perce County, 20 April 1950, &; Potlatch, 4 April 1954, &; Headquarters, Clearwater County, 15 June 1951, & ; 18 March 1956, 8; 25 December 1956, 8; Shoup, 5 June 1949, 8; Lardo, 27 July 1913, S. Montana-Zortman, 29 July 1910, S; Benton, 5 August 1910, &; 6 August 1910, &; Crazy Mountains, 19 June 1917, &; Hilger, 3 August 1919, \circ ; 4 August 1919, 2 \circ . Oregon-Ft. Klamath, 27 August 1882, &; Bourne, 4 August 1915, &; Disaster Peak, 11 June 1915, 9; Steen Mountains, 22 August 1916, 8; Paradise, 3 July 1949, S. Wyoming-Teton Mountains, 27 August 1910, 8; Kendall, 31 July 1911, 8. Colorado-Ft. Garland, 3 June 1873, \$\varphi\$; Snake River, 25 August 1906, \$\varphi\$. California—Mt. Shasta, 20 July 1898, \$\varphi\$; Lassen Peak, 24 August 1898, \$\varphi\$; Lyonsville, 29 May 1906, \$\varphi\$. Nevada—Ruby Mountains, 21 June 1898, \$\varphi\$. New Mexico—Mt. Capitan, 13 June 1899, \$\varphi\$.

Vireo olivaceus caniviridis new subspecies.

Characters. Similar to *Vireo olivaceus olivaceus* but the olive green of the upperparts paler and with a gray wash, lacking in the nominate race; pileum lighter, olive gray in contrast to the mouse gray of *olivaceus;* the lateral narrow line of black faint and inconspicuous; underparts clearer white, with little or no yellowish olive on the sides and flanks. No appreciable size difference.

Measurements. Eight breeding males from Idaho: wing, average 81.9 mm. (extremes 81–83); tail, 56.5 (53–58); exposed culmen, 11.7 (11–12.5). Four breeding females from Idaho: wing, average 78.8 mm. (78–80); tail, 56.8 (54–58.5); exposed culmen, 11.6 (11–12).

Type. Adult male, No. 420939, United States National Museum (Fish and Wildlife Service collection), Moscow, Latah County, Idaho, 30 June 1952; Thomas D. Burleigh, original number 14763.

Distribution. Breeds rather locally throughout Washington, Idaho, and northern Oregon. Both during the breeding season and in migrations this vireo is found in the larger deciduous growth along the streams, so there are wide areas within its breeding range where it does not occur at any time of the year. Altitude is another limiting factor, for despite apparently optimum conditions at higher elevations, it has never been noted above 2,500 feet. Winter range undetermined. Accidental in Alaska (Middleton Island, 26 June 1956).

Remarks. Despite a limited range, the Red-eved Vireos of the arid country of the northwestern United States are so uniform in their characters, and so distinct in appearance, that they justify recognition as a distinct race. Both in distribution and characters there is a marked parallelism with the Veerys (Hylocichla fuscescens subpallidus) of this region, the gravish coloration and the habitat requirements of both these species being much the same. An immature female taken 21 September 1951, at Clarkston, Washington, on the opposite side of the Snake River from Lewiston. Idaho, and an immature male taken at Moscow, 16 September 1957, both in fresh fall plumage, differ from breeding specimens in that they lack the gray wash of the upperparts. However, the paler olive green of the back and the olive-gray pileum readily identify them as *caniviridis*. A breeding male taken at Puyallup, Pierce County, Washington, west of the Cascades, is intermediate in its characters toward *olivaceus*, which form apparently extends across the continent to the coast of British Columbia north of the range of caniviridis. The olive green of the upperparts is perceptibly paler than in olivaceus, but there is only a faint trace of the gray wash characteristic of caniviridis.

Specimens of Vireo olivaceus caniviridis examined. Total number, 38, from the following localities: Idaho-Bonner County, Hope, 13 June 1903, 9; Sandpoint, 21 June 1957, 8; Kootenai County, Coeur d'Alene, 4 July 1949, 2 & & ; Benewah County, St. Maries, 22 June 1948, &; Latah County, Princeton, 30 May 1949, &; Potlatch, 21 May 1948, &; 4 September 1948, 9; 19 July 1950, 9 im.; 12 September 1951, 9; Moscow, 11 August 1948, 9; 27 August 1949, 8; 7 September 1949, 2 9 9; 11 July 1951, 8; 30 June 1952, 8; 16 September 1957, & im.; Nez Perce County, Lewiston, 24 July 1950, 8; 6 June 1951, 8; 21 August 1956, 9; Lapwai, 12 July 1950, 8; Culdesac, 30 June 1949, 8; Clearwater County, Elk River, 25 June 1951, &; Orofino, 12 June 1951, &; Washington County, Cambridge, 4 June 1951, &; 7 June 1952, &; Boise County, Horseshoe Bend, 21 June 1950, & ; Idaho County, Graves Creek, 1/4 mile from the Salmon River, 17 June 1951, &; Whitebird, Lemhi County, 24 June 1958, &; Shoup, 5 June 1949, &. Washington-Spokane, 18 June 1948, &; 3 August 1948, &; Uniontown, 18 June 1950, 9; Clarkston, 21 September 1951, 9 im.; Columbia River, 10 July 1897, 8; Wenatchee, 29 July 1955, 8; Puyallup, 28 May 1954, 8. Oregon --Homestead, 31 May 1916, & ; Portland, 7 August 1957, 9.

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