

## Outline

### White-crowned Sparrow

**THE WHITE-CROWNED SPARROW (*ZONOTRICHIA LEUCOPHYRS*) PLAYERS.** The years, type locations (the basis on which the taxon was described), and the individuals who described them are given after the names.

**Taiga group** (*Zonotrichia leucophrys leucophrys* and *Zonotrichia leucophrys gambelii*) – Breeds from the Seward Peninsula, western Alaska east to Labrador.

*Zonotrichia leucophrys leucophrys* Forster 1772, mouth of Severn River, western Hudson Bay, northwestern Ontario, Canada. The nominate subspecies (why the 2<sup>nd</sup> two names are the same, the one in which the species was first described. Breeds Hudson Bay and east to Labrador and Newfoundland. Winters eastern North America south to northeast Mexico.

*Zonotrichia leucophrys gambelii* Nuttall 1840, near Fort Wallah Wallah, now Wala Wala, Washington. Breeds from west of Hudson Bay to western Alaska. Winters much of western North America and northern Mexico.

**Pacific coastal group** (*Zonotrichia leucophrys nuttalli* and *Zonotrichia leucophrys pugetensis*)

*Zonotrichia leucophrys nuttalli* Ridgway 1899. Santa Cruz County, California. Resident along coast from Cape Mendocino County, southern Humboldt County south to northern Santa Barbara County.

*Zonotrichia leucophrys pugetensis* Grinnell 1928. Parksville, Vancouver Island, British Columbia, Canada. Breeds from coastal southeast Alaska (Ketchikan) south to north of Cape Mendocino, Humboldt County, California. Winters mostly Pacific Northwest coastal lowlands south to northern Los Angeles County (about Malibu).

**Alpine edge group in western mountains** (*Zonotrichia leucophrys oriantha*)

*Zonotrichia leucophrys oriantha* Oberholser 1932. Barley Camp at 6400', Warner Mountains, 14 miles southwest of Adel, Oregon. Breeds at high elevations in western North American mountains. Winters mainly northern and central Mexico, a few along U.S. border from southeast Arizona to West Texas. Migrates through Southwestern deserts in very late April and May (much later than *gambelii*) and September, averaging a little earlier than *gambelii*.

**IDENTIFICATION (FOCUS ON ADULTS, BIRDS IN FIRST BASIC - "SUPPLEMENTAL" PLUMAGE WITH BROWN, NOT BLACK, OR BLACKISH, HEAD STRIPES, MIRROR THE CHARACTERS OF THE ADULTS).**

### Head Pattern

**Taiga breeding birds** (*Zonotrichia leucophrys leucophrys* and *Zonotrichia leucophrys gambelii*). Head stripes black and white (*leucophrys*), or black and white with a slight light pale gray tinge (*gambelii*). "Lores" (really supraloral) black in *leucophrys* to pale grayish in *gambelii*.

**Pacific coastal group** (*Zonotrichia leucophrys nuttalli* and *Zonotrichia leucophrys pugetensis*). Head pattern not as strong as in “Taiga” group, the white stripes are more grayish and not as contrasting., the dark stripes not as black. Often shows moustachial (“whisker”) stripe. The lores (supraloral area) are grayish.

**Alpine edge group** (*Zonotrichia leucophrys oriantha*) Head stripes very contrasting, black and snowy, or pure white). The “lores” (supraloral) area is black, much like *leucophrys*, but slightly more extensively black. Look at the photos and compare of adult *leucophrys* (figures 9 and 10) and *oriantha* (figures 11-13) from Dunn et al. (1995). At the lower edge of the black, note how it slants down as it extends back to the eye on *oriantha* but extends more straight back on *leucophrys*.

## Upperparts

**Taiga and alpine edge groups** (*Zonotrichia leucophrys leucophrys*, *Zonotrichia leucophrys gambelii*, and *Zonotrichia leucophrys oriantha*). Complex but basically with dark and brownish purple with pale gray edges. Whitish leading edge to wing.

**Pacific coastal group** (*Zonotrichia leucophrys nuttalli* and *Zonotrichia leucophrys pugetensis*). Feathers are blackish-brown centered with buffy edges. Bend of wing is yellowish.

## Underparts

**Taiga and alpine edge groups** (*Zonotrichia leucophrys leucophrys*, *Zonotrichia leucophrys gambelii*, and *Zonotrichia leucophrys oriantha*). Underparts pale gray. In *oriantha*, the underparts average paler, the palest subspecies .

**Pacific coastal group** (*Zonotrichia leucophrys nuttalli* and *Zonotrichia leucophrys pugetensis*). Underparts more buffy, especially on sides and flanks. Usually some indication of a moustachial or “whisker” stripe.

## Bill color

**Taiga group** (*Zonotrichia leucophrys leucophrys* and *Zonotrichia leucophrys gambelii*). Pinkish red in *leucophrys*, averaging more orange (the color of “candy corn” for us older trick or treaters).

**Alpine edge group** (*Zonotrichia leucophrys oriantha*). Bill color similar to *leucophrys* but often darker, more of a blackish-red. Bill often seems slightly larger, more swollen appearing.

**Pacific coastal group** (*Zonotrichia leucophrys nuttalli* and *Zonotrichia leucophrys pugetensis*). Bill dull yellow, often with a darker tip.

## Vocalizations

**Taiga group** (*Zonotrichia leucophrys leucophrys* and *Zonotrichia leucophrys gambelii*). Songs are mournful and sad – zee zoe zee di di doh with variations. The key is that there are no buzzy trills. There are slight differences between *gambelii* and *leucophrys*.

**Pacific coastal group and alpine edge group** (*Zonotrichia leucophrys nuttalli*, *Zonotrichia leucophrys pugetensis*, and *Zonotrichia leucophrys oriantha*). Songs are sweeter and more lively, though varied, with buzzy trills towards the end. That buzzy ending is the best separating feature. If the song you know is *gambelii*, when you first hear an *oriantha* singing in the Sierra Nevada range, it is almost unrecognizable as a White-crowned Sparrow! Contact notes are similar in all subspecies, except that in *oriantha*, it is sharper, more down-slurred, almost a Blue Grosbeak-like *chink*.

### **Priorities for further research**

- 1.** Further studies of the passes in the Cascades of Washington in areas where *gambelii* and *pugetensis* come together and appear to act as separate species (Hunn and Beaudette 2014). Swarth (1926) and Banks (1964) stated that no intergrade specimens between these two subspecies have been found. Swarth (1926) split the coastal and taiga groups as separate species and also split *leucophrys* from *gambelii*, but this is before *oriantha* was described by Oberholser (1932) and Swarth the breeders in the montane west were considered part of *leucophrys*. Swarth's conclusions were based on contact zones in the Canadian Rockies, thus *gambelii* and what is now considered *oriantha*.
- 2.** Studies of breeding White-crowned Sparrows in the Canadian Rockies south to Glacier National Park area where *gambelii* and *oriantha* come together, and investigate the degree of intergradation. Birds from the more northerly Jasper National Park are mainly *gambelii* while breeding birds from farther south at Banff National Park (and Glacier National Park) are mainly *oriantha*. The degree of intergradation is not well known. The area between the two Canadian national parks listed above has not been carefully investigated on this issue.
- 3.** Song variation in *oriantha* between Sierra Nevada breeding populations and those breeding in the Rockies.

### **Important references**

- Banks, R.C. 1964. Geographic Variation in the White-crowned Sparrow *Zonotrichia leucophrys*. University of California Publications in Zoology 70:1-123.
- Baptista, L.F., and J.R. King. 1980. Geographic variation in song and song dialects of montane White-crowned Sparrows. Condor 82:267-284.
- Dunn, J. L., K. L. Garrett, and J. K. Alderfer. 1995. White-crowned Sparrow Subspecies: Identification and Distribution. Birding 182-200.
- Hunn, E.S., and D. Beaudette. 2014. Apparent sympatry of two subspecies of the White-crowned Sparrow, *Zonotrichia leucophrys*. Western Birds 45:132-140.

- Swarth, H.S. 1926. Reports on a collection of birds and mammals from the Atlin region, northern British Columbia. Univ. Calif. Publ. Zool. 30:51-162.
- Wright, R. 2019. Sparrows of North America. Houghton Mifflin Harcourt.