Diet-induced Color Variation in the White-throated Sparrow

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In recent years, many banders have observed Cedar Waxwings *(Bombycilla cedrorum)* with orange terminal tail bands. Incidence of this phenomenon was reported by Parkes and Wood (1988) and theories for a diet-based cause were proposed by Hudon and Brush (1989) and Brush (1990). Mulvihill et al. (1992), in an analysis of waxwings banded at Powdermill Nature Reserve since the early 1960's, provided evidence that consumption of the berries of Morrow's Honeysuckle *(Lonicera morrowii)* or Tartarian Honeysuckle *(L. tatarica)* was responsible for orange variant waxwing plumage. They also observed this phenomenon in two other berry-eating species. Six out of 12 adult (AHY) and three out of 16 hatching-year (HY) Yellow-breasted Chats *(Icteria virens)* banded during a five-year period exhibited bright orange incoming or freshly molted breast feathers that contrasted with any yellow unmolted breast feathers. In addition, two adult Kentucky Warblers *(Oporornis formosus)* encountered at Powdermill exhibited orange-yellow coloration on the superciliary, chin, throat and breast.

Since White-throated Sparrows *(Zonotrichia albicollis)* also consume berries in the fall (Bent 1968), including rhodoxanthin-containing honeysuckle fruit (pers. obs.), it should be expected that this species might exhibit the same chemically induced feather pigment aberrations as waxwings. Parkes (pers. comm.) has seen two specimens of xanthochroistic White-throated Sparrows in the collection at the Carnegie Museum of Natural History. CM 154167, a male netted at Elkins, WV, in October 1981, has its entire underparts washed with pale yellow which is intensified on the throat, and its superciliary line is a dirty yellow. A second specimen, CM 111070, collected at the mouth of Partridge Creek, James Bay, Ontario, as a HY female in October 1931, exhibits an odd orange-buff color on its throat, middle of the belly, and undertail coverts.

Seemingly more similar to the waxwing phenomenon were eight White-throated Sparrows showing orange lores. These birds, banded in western New York State, were among over 2700 White-throated Sparrows banded during fall at three locations between 1985-1993. Details of the orange-lored White-throated Sparrow bandings appear in Table 1.

Table 1. Banding data on eight White-throated Sparrows with orange lores.

Band Number	Age/Sex	Date Banded	Banding Location	Bander
1431-41013	HY-U	10-08-90	Alfred, NY	Brooks
1431-40930	AHY-U	10-19-90	Alfred, NY	Brooks
1421-87226	HY-U	10-20-90	Clarkson, NY	Symonds
1431-41964	U-U	10-09-91	Braddock Bay, NY	Brooks
1431-41994	U-U	10-10-91	Braddock Bay, NY	Brooks
1431-41719	HY-U	10-25-91	Braddock Bay, NY	Skelly
1481-09563	HY-U	09-09-93	Braddock Bay, NY	Brooks
1481-64315	AHY-M	10-08-93	Braddock Bay, NY	Brooks

This phenomenon was not observed in any of the 950 White-throated Sparrows banded during spring at the three western New York locations.

DISCUSSION

The eight examples detailed in Table 1 suggest that the same diet-induced feather pigment changes observed in Cedar Waxwing rectrices may occur in the yellow lores of White-throated Sparrows in fall. Banders should be alert for the possibility of this color variant in White-throated Sparrows and in other berry-consuming species they handle. It might be helpful, too, if banders attempt to describe color variations by using the Munsel Soil Color Charts (1990) or Smithe's color guide (1975, 1981).

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