

Bivalent Singing by a Blue-winged Warbler (*Vermivora pinus*): Bivalent singing by a Blue-winged or Golden-winged Warbler (*V. chrysoptera*) or their hybrids occurs when an individual alternately sings the primary or type 1 song (Ficken and Ficken, *Behaviour*, 28:149–181; 1967) of each species. Such singing has been reported for a Blue-winged (Short, *Proc. 13th Intern. Ornithol. Cong.*, 1:147–160; 1963), a Golden-winged (Russell, *Auk*, 93:178–179, 1976), and two "Lawrence's" Warblers (Gill and Murray, *Auk*, 89:625–643; 1972). Apparently bivalent singing is a rare event, since the sparsity of reports contrasts with the extensive literature on these species. A resident male Blue-winged Warbler with a blue-wing mate gave bivalent song in Oswego County, New York, during the 1992 breeding season. This male appeared to arrive on territory between 19 and 22 May. On 6 and 22 June we suspected that one individual was singing both songs. On 24 June three of us were able to keep this one bird in constant view as it alternately gave the type 1 song of each species. The plumage of this bird, as observed from 10 m with 10x binoculars, had the body coloration, and separate white wing bars of a typical, pure Blue-winged Warbler. The eye line appeared to be slightly thicker than normal for a Blue-winged, but was not nearly as broad as the eye patch of a Golden-winged Warbler. Although this bird generally resembled a pure Blue-winged Warbler, the thick eye line suggests the possibility of hybrid ancestry. We wonder if the capacity for bivalent song occurs in truly pure Golden-winged and Blue-winged warblers, or whether this capacity results from hybridization by some remote ancestor.

Paul E. Allen, Lori Bushway, John L. Confer, Wendy Cruso and Julie Fisher. Address correspondence to JLC, Biology Department, Ithaca College, Ithaca, New York 14850–7278.