

Nectar Feeding by Cape May, Tennessee, And Nashville Warblers in Minnesota

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Over 1,200 species of birds worldwide rely on nectar for part of their food (Meeuse 1961, Terres 1991). Several warblers that are primarily insectivorous on their summer range in North America rely on nectar for a portion of their diet on the winter range in Central America (Morton 1980, Morse 1989). For example, Tennessee Warblers (*Vermivora peregrina*) feed on fruit and nectar in Panama and are major pollinators of flowering tropical American vines (Morton 1980). However, little is known of the extent to which New World warblers feed on nectar and contribute to pollination during spring migrations (Sealy 1989). Wunderle (1978) observed migrating Palm Warblers (*Dendroica palmarum*), Yellow-rumped Warblers (*Dendroica coronata*), and Northern Parulas (*Parula americana*) feeding on nectar from flowers of a tiger claw tree in Miami, Florida, on 9 March 1975. Sealy (1989) observed Cape May Warblers (*Dendroica tigrina*) and Tennessee Warblers competing for nectar from the catkins of peach-leaved willow trees near Delta Marsh, Manitoba, during 18-24 May 1983.

On 17 May 1997, I observed and photographed a Cape May, a Tennessee and a Nashville Warbler (*Vermivora ruficapilla*) along with wild and domestic bees gathering nectar from flowers of wild plum trees in Goodhue County's Hok-Si-La Park near Lake City. The primary activity of these warblers during approximately two hours of observation (4:10-6:35 P.M.) was probing their bills deep into flower after flower as quickly as they could, moving from one cluster of flowers to the next. Occasionally, the birds flew to nearby trees but returned shortly.

The Nashville Warbler was present for only about a half hour. There was no chasing in defense of flowers as was observed at the nectar sources reported by Wunderle (1978) and Sealy (1989). At about 4:45 P.M., I broke open approximately two dozen flowers looking for aphids, other insects, or insect eggs but found none.

Other birds foraged in or under the very fragrant plum trees but did not investigate the flowers. These included a Black-and-white Warbler (*Mniotilta varia*), a Common Yellowthroat (*Geothlypis trichas*), a Magnolia Warbler (*Dendroica magnolia*), several Yellow-rumped Warblers, and a Solitary Vireo (*Vireo solitarius*).

Considering the scarcity of observations of nectar-feeding by warblers in North America, it remains unknown whether the observations reported here represent common behavior by Cape May, Tennessee, and Nashville Warblers or whether it represents uncommon utilization of a secondary food source due to low availability of insects. Temperatures during the preceding 42 days averaged 6°F below normal, and temperatures on four of the five days immediately preceding the observations were 12—16 degrees below normal with freezing and near freezing nighttime temperatures, which would suppress insect activity. MOU President Robert B. Janssen, author of *Birds in Minnesota*, and Anthony X. Hertzzi, editor of the Minneapolis birding hotline, estimated that the cold weather delayed the main warbler migration through Minnesota 10-14 days, or until about a week after the nectar-feeding was observed. Sealy (1989) noted that temperatures were below normal the year he ob-



**Cape May Warbler feeding on nectar, 17 May 1997, Hok-Si-La County Park, Goodhi County.
Photo by Lynn L. Rogers.**

served nectar feeding by Cape May and Tennessee Warblers in Manitoba; he did not observe nectar-feeding in five years with seasonable temperatures. If nectar-feeding is a common behavior in spring and summer, nectarivorous warblers may aid pollination in North America as they do on their winter range.

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