(1978) noted one case where a female Prairie Warbler (*Dendroica discolor*), after having its own nest destroyed by the investigator, apparently used a nest that had been abandoned by another female.

Reuse of nests abandoned by conspecifics may be more likely to occur in Cedar Waxwings than in other passerines because of two factors. First, the absence of territorial behavior may allow other pairs access to old nests, and secondly, the propensity of this species to desert its nest (Tyler 1950) may increase the probability of a pair finding a complete nest. The tactics described here for Cedar Waxwings could result in a significant reduction in the costs associated with nest construction. More work is needed to ascertain how these benefits might be offset by drawbacks such as a potential reduction in nest success. Researchers studying the breeding biology of other open-nesting passerines should consider the possibility that other species may use similar tactics, as further information could provide useful insights into the selective pressures operating on nest-building behavior.

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## LITERATURE CITED

BLANCHER, P. J. AND R. J ROBERTSON. 1985. Site consistency in kingbird breeding performance: implications for site fidelity. J. Anim. Ecol. 54:1017–1027.

COLLIAS, N. E. AND E. C. COLLIAS. 1984. Nest building and bird behavior. Princeton Univ. Press, Princeton, New Jersey.

NOLAN, V., JR. 1978. The ecology and behavior of the Prairie Warbler *Dendroica discolor*. Ornithol. Monogr. 26.

PUTNAM, L. S. 1949. The life history of the Cedar Waxwing. Wilson Bull. 61:141-182.

SKUTCH, A. F. 1976. Parent birds and their young. Univ. Texas Press, Austin, Texas.

TYLER, W. M. 1949. Turdus migratorius migratorius (Linnaeus), Eastern Robin. Pp. 14– 45 in Life histories of North American thrushes, kinglets, and their allies (A. C. Bent, ed.). U.S. Nat. Mus. Bull. 196.

—. 1950. *Bombycilla cedrorum* (Vieillot), Cedar Waxwing. Pp. 79–102 *in* Life histories of North American wagtails, shrikes, vireos and their allies (A. C. Bent, ed.). U.S. Nat. Mus. Bull. 197.

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Sightings of Golden-cheeked Warblers (Dendroica chrysoparia) in northeastern Mexico. – Relatively little is known about the Golden-cheeked Warbler (Dendroica chrysoparia) outside of its breeding range in the Edwards Plateau of Texas. Although it has been reported that the species winters in southern Mexico (Miller et al. 1957, Alvarez del Toro 1980, Braun et al. 1986) and Central America (Pulich 1976), observations of this species during migration are rare. Pulich (1976) summarized spring migration records outside the United States and noted only a single record other than in the northern regions of the Sierra Madre Oriental

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in Mexico. The observations reported here were made in northeastern Mexico at Rancho del Cielo, a biological station operated by Texas Southmost College. Rancho del Cielo is on the eastern slope of the Sierra de Guatemala about 40 km north of Cuidad Mante, Tamaulipas, in Mexico's northernmost cloud forest. The forest, at an elevation of about 1100 m, is a dense oak-sweet gum complex (Webster 1974).

On 18 March 1987, approximately one h after sunrise, we observed 5-7 male Goldencheeked Warblers foraging near the crown of a large oak (*Quercus sartorii*). Observations through a telescope clearly revealed the combination of black back, throat, and dark line through the eye that separates the Golden-cheeked from other yellow-faced warblers. The warblers were part of a loose assemblage of 35-50 birds including Solitary Vireos (*Vireo solitarius*), Black-throated Green Warblers (*Dendroica virens*), Wilson's Warblers (*Wilsonia pusilla*), and Blue-gray Gnatcatchers (*Polioptila caerulea*). The progress of the flock was followed through several trees, most or all of which were flowering. An additional sighting of an individual was made later the same morning.

## LITERATURE CITED

- ALVAREZ DEL TORO, M. 1980. Las Aves de Chiapas, 2nd ed. Univ. Autonoma de Chiapas, Tuxtla Guiterrez, Chiapas, Mexico.
- BRAUN, M. J., D. B. BRAUN, AND S. B. TERRILL. 1986. Winter records of the Goldencheeked Warbler (*Dendroica chrysoparia*) from Mexico. Am. Birds 40:564–566.
- MILLER, A. H., H. FRIEDMANN, L. GRISCOM, AND R. J. MOORE. 1957. Distributional checklist of the birds of Mexico. Part 2. Pacific Coast Avifauna 33.
- PULICH, W. M. 1976. The Golden-cheeked Warbler. Texas Parks and Wildlife Department. Austin, Texas.
- WEBSTER, F. S. 1974. Resident birds of the Gomez Farias Region, Tamaulipas, Mexico. Am. Birds 28:3-10.

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Effect of substrate and ambient temperature on burrowing African Penguins.—African Penguins (*Spheniscus demersus*), which breed more successfully in burrows than on the surface (Frost et al. 1976a), are subject to heat stress, which can cause them to desert their nests (Randall 1983, Williams and Cooper 1984). As burrow-nesting reduces the effects of ambient temperature extremes experienced by surface-nesting birds (Frost et al. 1976b), the incidence of surface-nesting would be expected to be higher in the austral summer than in winter when ambient temperatures are higher and insolation most intense. Also, as burrows in sandy soil are prone to collapse and flood during heavy rains (Frost et al. 1976b, pers. obs.), a higher incidence of surface-nesting would be expected in sandy areas. I tested these two hypotheses during visits to Dassen Island (33°25'S, 18°05'E), on the west coast of South Africa, where peak breeding occurs in the austral winter (June) and summer (November-December) (Cooper 1980).

From 1983 to 1985, two 200-m<sup>2</sup> burrow-nesting sites were checked for occupied nests.