

TABLE 3
 DESCRIPTIONS OF PARROT NESTING TREES AND NEST CAVITIES LOCATED IN THE VALLEÉ DE MAI

	Nest site		
	A	B	C
Type of tree	Coco de Mer	Coco de Mer	<i>Albizzia</i>
Height of tree (m)	4	5.9	2.5
Cavity depth (m)	3.6	1.5	1.8
Inside diameter of cavity (cm)	26	24.5	2.3

a broken egg and one newly hatched young. The nest was 80 m northwest of nest B and 115 m northeast from nest C (Table 3). On 11 January 1984, the young in the nest was found freshly dead and partially eaten. We suspect that a rat (*Rattus rattus*) was the predator.

The parrot eggs we examined were white and oval in shape. Prior to our study only one egg had been described (Forshaw 1973). That egg measured 38.6×30.5 mm. Our eggs measured: \bar{x} length = 35.8 mm, range = 31–40 mm; \bar{x} width = 26.4 mm, range = 25–34 mm; N = 5. Clutch size varied between 2 and 3 eggs per nest. Out of the total of 9 eggs we observed, 3 eggs were destroyed before hatching, and one egg was infertile. The nesting season began in November when the first eggs were laid and lasted until February when the last chick fledged.

The single chick in nest C was weighed on three consecutive days at 10:30. It weighed 82 g when 15 days old, 67 g when 16 days old, and 70 g when 17 days old.

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Additions to records of North American avifauna in Yucatán, Mexico.—The symposium entitled "Migrant Birds in the Neotropics: Ecology, Behavior, Distribution and Conservation" (Keast and Morton, eds., Smithsonian Inst. Press, Washington, D.C., 1980) contained numerous statements concerning our lack of knowledge about bird migration in Central America and Mexico. Since 1979, we have made an effort to learn more about the distribution of migratory birds and their times of arrival by use of mist nets. We have not been able to approach this project in a systematic way because much of the work has been done by personnel whose time was donated by the government of Mexico at locations that were expedient. The data contained herein were gathered at eight locations (Fig. 1) from 16 September 1981 through 1 December 1983 at various times of the year and with various numbers of nets.

The study area lies north of $20^{\circ}15'N$ and, except for El Cuyo ($21^{\circ}30'N$, $87^{\circ}10'W$), between

TABLE 1
MIGRATORY BIRDS TRAPPED IN YUCATÁN DURING FALL AND SPRING 1981 AND FALL AND WINTER 1982 AND 1983

Species	Dates	Locations ^a	No. caught
Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	16, 19, 27 Sept.; 7, 9, 13, 19 Oct.	1, 3	6
Black-billed Cuckoo (<i>C. erythrophthalmus</i>)	5 Oct. ^b	1	1
Ruby-throated Hummingbird (<i>Archilochus colubris</i>)	?	1	?
Acadian Flycatcher (<i>Empidonax virescens</i>)	10 Jan.; 11 Mar.; 6 Oct. ^b	1, 8	2
Least Flycatcher (<i>E. minimus</i>)	26 Sept.; 6, 8 Oct.	1	2
Yellow-bellied Flycatcher (<i>E. flaviventris</i>)	2, 5 Oct. ^b	1	2
Eastern Wood-Pewee (<i>Contopus virens</i>)	30 Sept.	1	5
Great Crested Flycatcher (<i>Myiarchus crinitus</i>)	16 Sept.; 12 Oct.	1	2
Gray Catbird (<i>Dumetella carolinensis</i>)	9, 13 Mar.; 4 Oct.; ^c 11, 17 Nov.	1, 7, 8	8
Swainson's Thrush (<i>Catharus ustulatus</i>)	25 Sept. ^b	1	1
Red-eyed Vireo (<i>Vireo olivaceus</i>)	27 Sept.; 10 Oct.	1	2
White-eyed Vireo (<i>V. griseus</i>)	12, 22 Jan.; 10, 11 Mar.; 9 Aug.; ^b 4, 6, 12, 14, 19 Oct.; 1, 6, 10, 14, 17 Nov.	All	24
Prothonotary Warbler (<i>Protonotaria citrea</i>)	19 Sept. ^c	1	1
Blue-winged Warbler (<i>Vermivora pinus</i>)	16 Sept.; ^b 6 Oct. ^b	1	3
Lawrence's Warbler (<i>V. pinus</i> × <i>chrysoptera</i>)	5 Oct. ^b	1	1
Tennessee Warbler (<i>V. peregrina</i>)	9, 27 Aug.; 4, 6, 7, 9, 12, 13, 16, 21 Oct.; 2 Nov.	1, 2, 3	45
Northern Parula (<i>Parula americana</i>)	10, 18 Jan.; 10 Aug.; ^c 11 Oct.	1, 3, 5	7
Yellow Warbler (<i>Dendroica petechia</i>)	10, 11 Jan.; 9, 27 Aug.; ^c 16 Oct.	1, 2, 3, 4, 5	11
Magnolia Warbler (<i>D. magnolia</i>)	5 Feb.; 9 Mar.; 13 Oct.; 10; ^c 12, 20 Sept.; 4, 5, 6, 8, 13, 15 Oct.	1, 3, 8	30
Yellow-rumped Warbler (<i>D. coronata</i>)	10, 18, 19, 20, 22, 24, 28 Jan.; 1, 10, 17, 19, 22 Feb. 22, 24 Mar.; 12, 19 Apr.	3	217

TABLE 1
CONTINUED

Species	Dates	Locations ^a	No. caught
Black-throated Green Warbler (<i>D. virens</i>)	9 Oct. ^c	1	1
Yellow-throated Warbler (<i>D. dominica</i>)	10 Aug. ^c	5	1
Chestnut-sided Warbler (<i>D. pensylvanica</i>)	25 Sept.; ^c 5, 6, 9, 10, 12 Oct.	1	11
Palm Warbler (<i>D. palmarum</i>)	26 Aug. ^b	4	9
American Redstart (<i>Setophaga ruticilla</i>)	4 Feb.; 19 Sept. ^b	1, 4	3
Black-and-White Warbler (<i>Mniotilta varia</i>)	10 Mar.; 4, 5 Oct.; 17 Nov.	1, 7, 8	6
Ovenbird (<i>Seiurus aurocapillus</i>)	10 Jan.; 9 Aug., ^b 19, 20, 25, 26, 29 Sept.; 5, 6, 7 Oct.; 17 Nov.	1, 2, 7	18
Northern Waterthrush (<i>S. noveboracensis</i>)	10, 20 Jan.; 12 Mar.; 1, ^b 2, 18 Sept.; 22 Oct.	1, 3, 4, 8	7
Kentucky Warbler (<i>Oporornis formosus</i>)	10 Jan.; 10 Aug.; 2 Sept.; 16 Oct.	3, 4	3
Hooded Warbler (<i>Wilsonia citrina</i>)	5 Feb.; 27 Aug.; 5 Oct.; 16, 18 Nov.	1, 4, 7	12
Common Yellowthroat (<i>Geothlypis trichas</i>)	10 Jan.; 2, 17 Feb.; 10, 13 Mar.; 10, 26 Aug.; 6, 13, 16 Oct.; 20 Nov.	1, 2, 3, 4, 6, 8	30
Summer Tanager (<i>Piranga rubra</i>)	2 Oct. ^b	1	1
Orchard Oriole (<i>Icterus spurius</i>)	18, 19, 20, 22 Jan.; 12 Mar.; 12, 15 Apr.	3, 8	13
Painted Bunting (<i>Passerina ciris</i>)	10, 18, 20 Jan.; 4 Feb.; 10, 12 Mar.; 5 Apr.; 19 Sept. 12, 22 Oct.; 3 Nov.	1, 3, 4, 8	17
Indigo Bunting (<i>P. cyanea</i>)	19, 20, 21, 24, 25, 28 Jan.; 1, 2, 10, 11, 17 Feb.; 18, 19, 21, 22, 24, 29, 30 Mar.; 4, 6, 12, 18, 19, 20, 22, 23, 31 Oct.; 1, 2, 3, 11, 20 Nov.; 1 Dec.	1, 3, 8	381
Blue Grosbeak (<i>Guiraca caerulea</i>)	24, 30 Mar.; 6, 7, 12, 13, 15, 16 Apr.; 15 Oct.	2, 3	11
Rose-breasted Grosbeak (<i>Phœucticus ludovicianus</i>)	12 Mar.; 9 Aug.; ^c 30 Sept.; 4, 11 Oct.	1, 2, 8	6

^a See Fig. 1.^b No fall record in Paynter (1955).^c Earlier fall record than Paynter (1955).

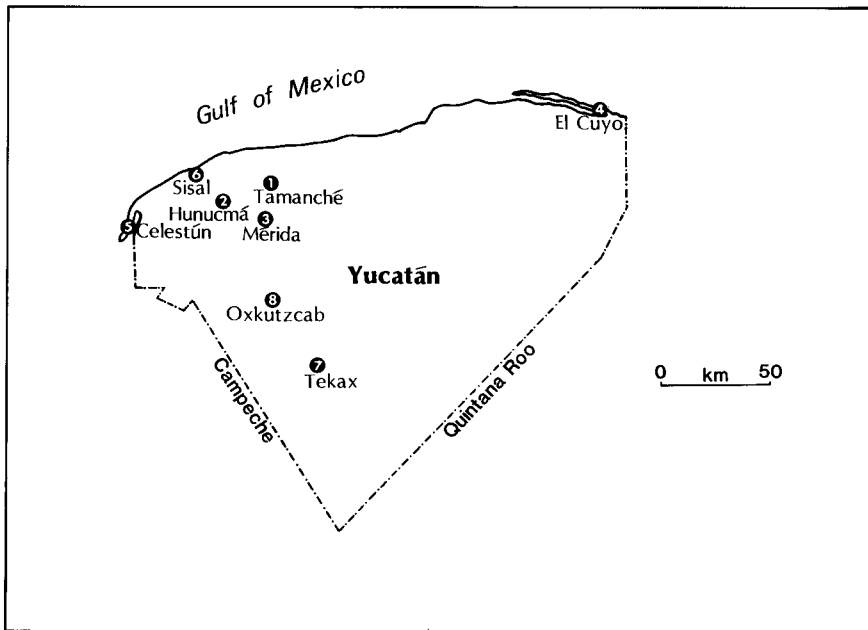


FIG. 1. Netting sites in the State of Yucatán.

89° and 90°W. At Tamanché, an area of open scrub forest, 15 nets (2.3 m × 13.8 m) were opened from 08:00 to 16:00 from 9 September through 12 October 1981 whenever weather permitted. (There were some shortened work days in September due to rain.) In El Vivero (a tree nursery in Mérida consisting of small citrus trees [<2 m]), 15 nets were used from 18 January 1983 through 3 February 1983. The nets were opened from 08:00 to 16:00 whenever weather permitted. This schedule was repeated from 17 February 1983 through 15 April 1983. The other 6 sites were worked opportunistically. The sites at Oxkutzcab were mature orange groves, at El Cuyo the site was a savanna area, and at Celestún nets were set in low second growth next to mangroves. All other sites were open dry scrub forest (<10 m).

When our data are compared with the data of Paynter (Bull. Peabody Mus. Nat. Hist. 9, 1955), it is obvious that many species arrive earlier than had previously been suspected (Table 1). We consider the most unusual records to be the 9 August date for the Rose-breasted Grosbeak (*Pheucticus ludovicianus*) and Ovenbird (*Seiurus aurocapillus*). Data from 25 years of tower casualties near Tallahassee, Florida, indicate late September as the earliest record of the Rose-breasted Grosbeak and there is only one early August date for the Ovenbird (Crawford, Bull. Tall Timbers Res. Sta. 22, 1981). Lawrence's Warbler (*Vermivora pinus* × *chrysoptera*) is also notable because we can find no previous record of its occurrence in Yucatán.

From 12 to 31 October 1983, the Indigo Bunting (*Passerina cyanea*) was the most numerous species at El Vivero (Mérida) with 81 individuals netted compared to 31 individuals of all other migrant species combined. No birds were recaptured during October, nor were any Yellow-rumped Warblers (*Dendroica coronata*) netted then, although this species became numerous later in the fall. The fact that no Indigo Buntings were recaptured in October indicates that they are a transient species then.

Daily netting at Tamanché produced a more balanced distribution of species of migrants with 38 Tennessee Warblers (*Vermivora peregrina*) and 126 individuals of all other migratory species combined, not counting the Ruby-throated Hummingbird (*Archilochus colubris*), which we did not band.—DAVID T. ROGERS, JR., *Dept. Biology, Univ. Alabama, University, Alabama 35486*, JESÚS GARCÍA B. AND ANTONIO RÓGEL B., *Secretaría de Desarrollo Urbano y Ecología, Mérida, Yucatán, Mexico. Received 21 July 1984, accepted 30 July 1985.*

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Choice of nest boxes by cavity-nesting ducks.—In an earlier study (Lumsden et al., *Wilson Bull.* 92:497–505, 1980), we found that both Common Goldeneyes (*Bucephala clangula*) and Hooded Mergansers (*Lophodytes cucullatus*) preferred boxes with entrances of 13 × 10 cm over those with entrances of 10.5 × 8 cm or 7.5 × 6 cm. In that study, entrance holes were cut into inspection plates that were attached to the front of each box. Twice, Common Goldeneyes nested in boxes where the inspection plate had fallen off. Here, we report on goldeneye use (1) of boxes with entrances of 13 × 10 cm (the size chosen in the previous study) vs 21 × 13 cm (the size of entrances without an inspection plate), (2) of boxes with and without nesting material, and (3) of boxes at different heights above the ground.

Materials and methods.—The study was conducted at two lakes (Elk and Long) and 2 rivers (Mattagami and Muskego) in eastern Ontario. In 1980–1982 we set out 47–51 pairs of boxes with large (21 × 13 cm) and small (13 × 10 cm) entrance holes on each lake each year. All of the boxes contained wood chips as nest material, and all were mounted at 3 m. In 1984, we put 6 or 7 cm of wood shavings in one box of each pair, leaving the other with a bare wood floor. Fifty sets of boxes were available on each lake.

Between 1977 and 1984, on the Mattagami and Muskego rivers, we tested preferences for boxes placed on the same tree at 3, 4.5, and 6 m above the ground. An average of 20 sets of boxes was available each year, and all contained wood chips and had entrances 13 × 10 cm.

We considered that a box was used if a duck laid one or more eggs in it. The size, shape, and color of the eggs of goldeneyes vary (Dow and Fredga, *J. Anim. Ecol.* 53:679–692, 1984; Lumsden, unpubl. data) so that it is often possible to tell if two or more females use the same box. In such cases we scored the box as having been used twice. A successful female may return in succeeding years to the same box to nest. To increase the independence of our data, we scored boxes as having been used or not used, and the number of years a box was used was ignored. We inspected boxes once in late May–early June. Sometimes nests had been preyed on, and the box was found with a mass of down and no eggs. We scored such boxes as used.

Results and discussion.—The size of entrances did not significantly influence the choice of boxes used by Common Goldeneyes. We recorded 19 uses of boxes with small and 13 uses with large entrances ($\chi^2 = 1.125$, $df = 1$, $P > 0.05$). Ten Hooded Mergansers used boxes with small entrances, and 3 used boxes with large entrances (Binomial Test, $P < 0.05$). All four Wood Ducks (*Aix sponsa*) used boxes with small entrances. Although Common Mergansers (*Mergus merganser*) are able to squeeze through a small entrance hole, they seldom do so. One bird laid a single egg in a box with a small entrance, completing her clutch in the neighboring box with a large hole. Three other Common Mergansers completed their clutches in boxes with large entrances.

In the test involving nest material, all 18 ducks (10 Common Goldeneyes, 4 Hooded Mergansers, 2 Common Mergansers, and 2 Wood Ducks) using the boxes chose the ones with wood shavings. Common Goldeneye preference for the presence of nest material is clear (Binomial Test, $P < 0.05$).