

W. H. Nicholson collected a set of three fresh eggs on 13 May 1947 near Highway 60, Osceola County. This locality is distinct from the Kenansville area.

C. Carter collected one egg set with four slightly incubated eggs on 24 May 1953 in the Kissimmee Prairie on the east-northeast side of Lake Kissimmee, Osceola County. This nest was placed under a small tuft of Pineland Threeawn (*Aristida stricta*) amid Saw Palmettos (*Serenoa repens*).

Discussion.—Information on clutch size and date of clutch initiation presented herein generally agree with the literature (Smith 1968 and others), which suggests that the Florida Grasshopper Sparrow may begin egg-laying in late March and possibly extends its breeding season into July or even afterwards. However, the lack of adequate surveys both early or late in the breeding season prevent an accurate assessment of the duration of the breeding season.

This note has also provided additional information on the distribution and abundance of the Florida Grasshopper Sparrow. To complete the information I have, in addition to C. E. Doe's breeding record near Bassinger, Okeechobee County, cited in Howell (1932), Doe also collected a set of 4 fresh eggs at the same site on 19 April 1928. Habitat information on oology slips supports the interpretation presented in Delany et al. (1985).

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LITERATURE CITED

- DELANY, M. F., H. M. STEVENSON, AND R. MCCrackEN. 1985. Distribution, abundance, and habitat of the Florida Grasshopper Sparrow. *J. Wildl. Manage.* 49: 626-631.
- HOWELL, A. H. 1932. Florida bird life. New York: Coward-McCann.
- KALE, H. W., II, Ed. 1978. Rare and endangered biota of Florida. Vol. 2—Birds. Gainesville, Florida: Univ. Presses of Florida.
- MCNAIR, D. B. 1984. Clutch-size and nest placement in the Brown-headed Nuthatch. *Wilson Bull.* 96: 296-301.
- MCNAIR, D. B. 1985. A comparison of oology and nest record card data in evaluating the reproductive biology of Lark Sparrows, *Chondestes grammacus*. *Southwest. Nat.* 30: 213-224.
- NICHOLSON, W. H. 1936. Notes on the habits of the Florida Grasshopper Sparrow. *Auk* 53: 318-319.
- SMITH, R. L. 1968. Grasshopper Sparrow. Pp. 725-745 in *Life histories of North American cardinals, grosbeaks, buntings, towhees, finches, sparrows, and allies* (O.L. Austin, Jr. Ed.). U.S. Nat. Mus. Bull. 237.

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Flushing lores of a male Least Bittern.—A change and intensification of lore coloration with the onset of the breeding season is common among ardeids (Palmer 1962, Hancock and Elliot 1978, Hancock and Kushlan 1984) and is thought to emphasize certain movements of the displaying bird (Meyerriecks 1960). Lore color of females fades as eggs are laid but color may persist in males until hatching (Meyerriecks 1960, Hancock and Kushlan 1984). Color is usually brighter in males (Meyerriecks 1960). Flushing of the lores, a rapid, short term color intensification, has been noted in some species when alarmed at the nest or

during nest relief (Cramp and Simmons 1978, Hancock and Kushlan 1984). This note describes four instances of flushing by a male Least Bittern (*Ixobrychus exilis*) during the incubation and hatching periods.

The nest was located in a 100 m X 150 m freshwater pond in Tampa, Florida. Narrow-leaved cattail (*Typha angustifolia*) was the dominant emergent and yellow pond lily (*Nuphar luteum*) covered much of the open water. The nest with three eggs was discovered on 23 May, 1982 and one egg was laid on each of the next two days. One egg disappeared on the thirteenth day of incubation and the remaining four eggs hatched after an eighteen day incubation period (calculated by the Heinroth method, see Nice 1954).

Red lores were observed on the male fourteen days and one day before the first eggs hatched, and on the two hatching days. Each instance was provoked by my approach to the nest. Fourteen days before hatching the male, upon leaving the nest, flew to a clump of cattails 4.5 m from the nest and assumed an Upright posture. His lores turned noticeably red and after one minute he walked to a position 3.5 m from the nest. When I touched the nest the color of his lores intensified. The day before hatching the redness was elicited in the same manner, but the male was only 1 m from the nest and was in a Forward display (See Hancock and Kushlan 1984). On the first hatching day the male assumed a Forward, with wings spread, 1 m from the nest when red was observed. The second hatching day the male flew to a position 2.5 m from the nest upon my approach and assumed a Forward. The female then flew 2 m from the nest and 1 m from the male. She repeatedly directed extremely vigorous Forwards, with wings spread, at the male whose lores became bright red. After several minutes the male's lores faded, he stood erect and began to preen.

The lores of Least Bitterns turn bright red during the breeding season (Weller 1961) and there is photographic evidence suggesting that flushing occurs during change-over at the nest (Hancock and Kushlan 1984). Flushing during change-over at the nest has also been observed in Little Bitterns (*I. minutus*) (Wackernagel 1950, Cramp and Simmons 1978) and Green-backed Herons (*Butorides striatus*) (Meyerriecks 1960). The lores of Snowy Egrets (*Egretta thula*) (Meyerriecks 1960) and Little Bitterns (Cramp and Simmons 1978) flush during hostile encounters during the breeding season.

My observations describe flushing by a male Least Bittern when alarmed at the nest and engaged in a hostile encounter with its mate. This is in agreement with earlier observations of flushing by ardeids. I did not see red lores on the female at any time supporting Meyerriecks (1960) contention that color is more persistent in males.

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LITERATURE CITED

- CRAMP, S. AND K. E. L. SIMMONS. 1978. The birds of the Western Palearctic, vol. 1. London: Oxford University Press.
- HANCOCK, J. AND H. ELLIOT. 1978. The herons of the world. New York: Harper and Row.
- HANCOCK, J. AND J. KUSHLAN. 1984. The herons handbook. New York: Harper and Row.
- MEYERIECKS, A. J. 1960. Comparative breeding behavior of four species of North American herons. Publ. Nuttall Ornithol. Club no. 2.
- NICE, M. M. 1954. Problems of incubation behavior in North American birds. Condor 56: 173-197.
- PALMER, R. S. 1962. Handbook of North American birds, Vol. 1. New Haven, Connecticut: Yale University Press.

WACHERNAGEL, H. 1950. Zur fortpflanzungsbiologie der Zwergrohrdommel, *Ixobrychus minutus*. Orn. Beobachter 47: 41-56.

WELLER, M. W. 1961. Breeding biology of the Least Bittern. Wilson Bull. 73: 11-35.

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REVIEW

Wood warblers' world.—Hal H. Harrison. 1984. New York, Simon and Schuster. 24 pages of color photographs; numerous black and white photographs. \$19.95.—What Florida Field Naturalist reader does not enjoy natural history vignettes of birds? This is the nature of Harrison's book. If the book had only been represented as exactly such, the reviewer's assignment would have been comfortable. Hal Harrison is to be congratulated for enjoyable readings about a fascinating taxon of birds.

Book jackets are, to be sure, advertising devices. They are designed to attract, designed to impress. This jacket beckons with comments about the book's contents. "Documented information from every source, published and unpublished." "The outstanding book on Wood Warblers." "The most comprehensive book on the subject ever published." Compelling comments, indeed! Expectations could hardly be more inflated. What reviewer isn't eager to critique the "outstanding"!

Author Harrison is a resident of south Florida (as is this reviewer). Only a very few species of warblers breed in south Florida. This situation alone suggests that more than cursory attention be accorded them. I read first the chapters devoted to "our" warblers.

In 1942 Roger T. Peterson and Earle Greene discovered Golden Warblers (now regarded a subspecies of the Yellow Warbler) breeding on the Florida Keys (see E. R. Greene, 1946, "Birds of the lower Florida Keys," Proc. Fla. Acad. Sci. 8:199-265). This was a noteworthy event! The depauperate breeding land bird avifauna of south Florida had been augmented naturally by a colonizing species from a neighboring land mass. In subsequent years the warbler spread northward along the Keys and eventually established itself on the mainland (see, e.g., O. T. Owre, 1976, "The avifauna of Biscayne Bay," Univ. Miami Sea Grant Spec. Rpt. 5:214-226). As a result of this colonization, Florida *now* has a breeding form of the Yellow Warbler. I found no mention of this in the species' account. But careful scrutiny of the breeding range map (p. 98) reveals that, although the Florida Keys are not figured (!), an area of ocean corresponding to the Keys' location is very lightly cross-hatched.

A race of the Prairie Warbler is present year-round "in the mangroves bordering coastal marshes of southern Florida" (p. 180). Prairie Warblers are very much part of the coastal mangrove avifauna. From the mainland all the way to Key West and beyond, their songs are an outstanding aural component of the landscape. The Florida Keys aren't figured on the breeding range map (p. 183) for this species either. And not even the area of the ocean where the keys should be is cross-hatched.

As for the mangroves that the Florida race inhabits, I dislike quibbling, but mangroves don't only "border coastal marshes" (p. 180). Mangroves may be the only fringing growth of the coast and they even form islets—with or without marshes. One more point. Isn't it