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NOTES

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STATUS, DISTRIBUTION, AND TAXONOMY OF THE SPINDALIS COMPLEX ("STRIPE-HEADED TANAGER") IN FLORIDA

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The spindalis group of tanagers, until recently considered a single species, the "Stripe-headed Tanager" (*Spindalis zena*), arguably is the most frequently-claimed West Indian vagrant to Florida. We have located 50 published and previously unpublished but verifiable reports from the state since 1957, involving 61 individuals (Table 1). This paper discusses only these observations, most of which are unverifiable (*sensu* Robertson and Woolfenden 1992). There are possibly a dozen or more additional, unpublished reports from Florida, e.g., see Bonney (1961) and Robertson and Woolfenden (1992). Twelve reports from the state can be verified on the basis of specimen, videotape, or photographic records archived at Tall Timbers Research Station at Tallahassee.

Spindalis tanagers reside throughout the Bahamas and Greater Antilles, on Grand Cayman, and on Isla Cozumel off the Yucatan Peninsula of Mexico (Garrido et al. 1997, AOU 1998). Following Garrido et al. (1997), the American Ornithologists' Union (AOU 2000) recently has restored part of the historical taxonomy and nomenclature of this group (Ridgway 1902, Bond 1936) by splitting *S. zena* (*sensu* AOU 1998) into four species. As we discuss below, all verifiable records in Florida pertain to the Western *Spindalis* (*Spindalis zena*, Fig. 1). On geographical grounds we doubt that any of the other three spindalises recognized by AOU (2000) has occurred in Florida (*cf.* Robertson and Kushlan 1984). DNA studies in progress may recommend further splitting of the Western *Spindalis* (N. Klein *in litt.*). Results of these studies conceivably could restore the entire taxonomic treatment of Ridgway (1902), who considered *S. zena* (*sensu* AOU 2000) itself to consist of four species. We discuss the possible implication of such action, should it ever occur, on Florida reports.

Spindalises have been observed in Florida in every month of the year except July (Table 1), with most reports occurring in April, May, and December (Fig. 2). It seems premature to speculate whether these peaks of occurrence represent distinct "pulses" of visitation by spindalises, or are the result of peaks in observer activity. We note, for example, that five of the 14 spindalises found during December were discovered on Christmas Bird Counts. Sex of the 61 individuals was: 65% males, 26% females, and 8% not specified (Table 1). The preponderance of reports of males possibly simply reflects the distinctiveness of their plumage. Five reports in the state represent multiple individuals, the most being seven birds at Hypoluxo Island in spring 1973 (Table 1). Contrary to Terres (1980), we know of no reports of spindalises nesting or breeding in the state. All published reports in Florida through 1998 were in counties along the southeast coast or in the Keys. In April 1999, a Western *Spindalis* was photographed in Manatee County (Fig. 1), the first published record for the Gulf coast (Pranty 1999c), and the first report

Table 1. Published or previously unpublished but verifiable spindalis reports in Florida, arranged chronologically. Sex: F = female, M = male, and U = unspecified.

No.	Year(s)	Date(s)	County	Location	#/sex	Referencet(s)	Archived evidence
1	1957	28 Dec	Miami-Dade	Cutler	1M	Bonney 1961	
2	1961	12-28 May	Monroe	Marathon	1M	Abramson and Stevenson 1961, Bonney 1961	
3	1962	? May	Miami-Dade	Key Biscayne	1M	Paulson and Stevenson 1962	
4	1962	22-23 Dec	Monroe	Tavernier	1M	Sprunt 1963, Stevenson 1963a	
5	1963	early Jan-19 Mar	Monroe	Tavernier	1F	Stevenson 1963a	
6	1963	30 Mar-6 Apr	Monroe	Plantation Key	1M	Stevenson 1963a	
7	1963	11 May	Palm Beach	Palm Beach	1M	Langridge 1963, Stevenson 1963b	
8	1963	17 Jun	Monroe	Upper Key Largo	1M	Stevenson 1963c	Specimen: TTRS 2815
9	1963-1964	21 Dec-28 Jan	Palm Beach	West Palm Beach	1M	Langridge 1964, Stevenson 1964, sex <i>vide</i> H. Langridge pers. comm.	
10	1965-1966	22 Nov-27 Mar	Miami-Dade	Greynolds Park	1U ¹	Stevenson 1966, Cunningham 1966	

¹Four published observations over a four-month period, perhaps not necessarily all of the same individual.

²Observed during count week of the West Palm Beach Christmas Bird Count held on 20 December 1972 and not published elsewhere; 1 individual presumed.

³Published in certain literature as an immature male, although not obviously so based on Ridgway (1902). Plumage succession in this group is poorly understood and is beyond the scope of this paper.

⁴As reported, another individual (sex not specified) may have been present at Miami in February 1977.

⁵Description appears to be that of a first-fall male *Phaethicus grosbeak* (see text).

⁶Single males observed three days and "5-6 mi" apart (Ogden 1992) presumably were different individuals.

Table 1. (Continued) Published or previously unpublished but verifiable *spindalis* reports in Florida, arranged chronologically. Sex: F = female, M = male, and U = unspecified.

No.	Year(s)	Date(s)	County	Location	#/sex	Reference(s)	Archived evidence
11	1967	28 Mar-3 Apr	Palm Beach	Hypoluxo Island	1M	Robertson 1967, Stevenson 1967a	
12	1967	12-16 Apr	Monroe	Key West	1M	Stevenson 1967a	
13	1967	3 Jun	Miami-Dade	Key Biscayne	1U	Stevenson 1967b	
14	1967	2 Dec	Miami-Dade	Key Biscayne	1U	Stevenson 1968	
15	1971-1972	21 Dec-26 Mar	Monroe	Grassy Key	1M	Crane 1972, Stevenson 1972	Photograph: TTRS P726 (G. Hall), 8 Mar 1972
16	1971	29 Dec	Monroe	Islamorada	1U	Sprunt 1972	
17	1972	? Dec	Palm Beach	West Palm Beach area	1U ²	Langridge 1973	
18	1973	20 Jan-? Feb	Monroe	Islamorada	1M	Woolfenden 1973, R. Pittell <i>in litt.</i>	
19	1973	19 Mar-28 May	Palm Beach	Hypoluxo Island	3F, 4M	Kale 1973, Woolfenden 1973, sex <i>vide</i> H. Langridge pers. comm.	
20	1975-1976	11 Dec-6 Jan	Broward	Fort Lauderdale	1F ³	Bolte 1976, Stevenson 1976, Sykes 1976	Photographs: TTRS P293-294 (R. Plockel-man), 14 Dec 1975
21	1976	3 May	Palm Beach	Hypoluxo Island	1F	Kale 1976	

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⁴As reported, another individual (sex not specified) may have been present at Miami in February 1977.

⁵Description appears to be that of a first-fall male *Pheucticus grosbeak* (see text).

⁶Single males observed three days and "5-6 mi" apart (Ogden 1992) presumably were different individuals.

Table 1. (Continued) Published or previously unpublished but verifiable spindalis reports in Florida, arranged chronologically. Sex: F = female, M = male, and U = unspecified.

No.	Year(s)	Date(s)	County	Location	#/sex	Reference(s)	Archived evidence
22	1976-1977	? Dec-29 Apr	Miami-Dade	Matheson Hammock	1M ⁴	Kale 1977, Stevenson 1977	
23	1979	15 Dec	Palm Beach	West Palm Beach	1M	Langridge 1980, Sykes 1980	
24	1979	28 Dec	Monroe	Islamorada	1M	Paul 1980, Sykes 1980	
25	1983	22-23 Feb	Palm Beach	Hypoluxo Island	1M	Hoffman 1983	
26	1983	29 Apr	Miami-Dade	Key Biscayne	1M	Kale 1983, Powell 1986	Description: FOSRC 83-043 (B. Neville)
27	1983	17 May	Palm Beach	Delray Beach	1F, 1M	Kale 1983	
28	1983	17 Oct	Miami-Dade	Key Biscayne	1M ⁵	Atherton and Atherton 1984, Powell 1986	Description: FOSRC 83-058 (B. Neville)
29	1985	14 Oct	Miami-Dade	Key Biscayne	1M	Atherton and Atherton 1986	
30	1988	28 Apr	Miami-Dade	Key Biscayne	1F	Langridge 1988, sex <i>vide</i> D. Lysinger <i>in litt.</i>	Description: FOSRC 88-149 (M. Lysinger)
31	1988	5 Sep	Miami-Dade	Key Biscayne	1F	Atherton and Atherton 1989	
32	1990	14-25 Dec	Monroe	Everglades National Park, Snake Bight Trail	1F	Cox 1991a, Ogden 1991, Gustafson 1992	Photographs: <i>Birding</i> 24:317, TTRS P709, and FOSRC 91-221 (all by M. Gustafson), 14 Dec 1990

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Table 1. (Continued) Published or previously unpublished but verifiable *spindalis* reports in Florida, arranged chronologically. Sex: F = female, M = male, and U = unspecified.

No.	Year(s)	Date(s)	County	Location	#/sex	Reference(s)	Archived evidence
33	1991	1-6 Apr	Miami-Dade	Key Biscayne	1M	Cox 1991b, Langridge 1991	Photograph: TTRS P734 (C. Miles), 2 Apr 1991
34	1991	30 Nov	Palm Beach	Delray Beach	1F	West and Wamer 1993	
35	1991	7 Dec	Palm Beach	Delray Beach	1M ⁶	Ogden 1992	
36	1991	10 Dec	Palm Beach	Delray Beach	1M ⁶	Cox 1992a, Ogden 1992	
37	1992	3 Jan-3 Mar	Miami-Dade	Goulds	1M	Cox 1992a, b; Langridge 1992, Ogden 1992	Photograph: <i>American Birds</i> 46:256 and TTRS P735 (both by L. Manfredi), Feb 1992; Description: FOSRC 92-254 (M. Austin)
38	1994	16-20 Apr	Palm Beach	Spanish River Park	1F, 1M	Langridge 1994, Pranty 1994	
39	1994	1 May	Broward	John U. Lloyd SRA	1M	This paper	Photograph: TTRS P738 (M. Meyers)
40	1995	5 May	Broward	Hugh Taylor Birch SRA	1F	Pranty 1997a	Description: FOSA 111 (S. Mlodinow)
41	1995	26 Aug-3 Sep	Palm Beach	John D. MacArthur SRA	1F	Pranty 1996a, Wamer and Pranty 1996	

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Table 1. (Continued) Published or previously unpublished but verifiable *spindalis* reports in Florida, arranged chronologically. Sex: F = female, M = male, and U = unspecified.

No.	Year(s)	Date(s)	County	Location	#/sex	Reference(s)	Archived evidence
42	1995	4 Dec	Palm Beach	Lake Worth	1M	Pranty 1996b, West 1996	
43	1997	11-13 Apr	Miami-Dade	Kendall	1F	Pranty 1997b, c	Photograph: TTRS P737 (A. Binns), 12 Apr 1997
44	1997	11 May	Miami-Dade	Elliott Key	1M	Pranty 1997b, c	Photograph: TTRS P736 (I. McLaren), 1 May 1998
45	1998	30 Apr-4 May	Monroe	Key West	1M	Pranty 1998a, b	Photograph: TTRS P739 (L. Manfredi)
46	1999	1 Feb	Miami-Dade	Everglades National Park, Gumbo Limbo Trail	1M	Pranty 1999a, West and Anderson 1999	Photographs: <i>North American Birds</i> 53:273, Fig. 1, and TTRS P740 (all by B. Pranty), 26 Apr 1999
47	1999	20 Apr-10 May	Manatee	Coquina Baywalk Park	1M	Pranty 1999b, c, this paper	
48	1999	8-9 May	Miami-Dade	Greynolds Park	1F, 2M	Pranty 1999b, c	Videotape (of 1 male): TTRS P710 (S. Siegel), 9 May 1999
49	1999	16 May	Monroe	Grassy Key	2M	Pranty 1999b, c	
50	1999	29-30 Sep	Miami-Dade	A. D. Barnes Park	1M	Pranty 2000a, b	

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Figure 1. Male Western Spindalis (*Spindalis zena zena*) at Coquina Baywalk Park, Manatee County, on 26 April 1999. Photographed by Bill Pranty. A photograph of this same individual was published in Pranty (1999, *North American Birds*, 53:273).

for central Florida. Even considering this report, all spindalises found in the state have occurred in Florida's "Tropical Zone" (Howell 1932:69-72), a biome with a largely West Indian flora growing mostly near the immediate coast south roughly of the 28th parallel.

The early status of spindalises in Florida seems to be obscured by the former practice of censoring reports of some West Indian species because it was believed that individuals found in the state were of captive origin. Robertson and Paulson (1961) lamented that Florida observations of some of these species, including spindalises, were "... permanently denied an assured place in the record despite several undoubted identifications of free birds." This statement may have opened the gates for Bonney (1961), who published the first Florida account of a spindalis, at Marathon in May 1961. Louis A. Stimson, then editor of the Field Notes and Observations column in the *Florida Naturalist*, added a 1957 report to Bonney's (1961) note and alluded to "a couple of other occurrences." However, Abramson and Stevenson (1961) dismissed Bonney's (1961) report: "Though [the spindalis] revealed no signs of previous captivity, it is impossible to determine its origin with certainty, and it would be best to consider it a probable escape[e]."

When a spindalis appeared at Key Biscayne in May 1962, Paulson and Stevenson (1962) wrote, "The number of [reports] of this species in recent years is such that a search for a breeding population may be in order." Three spindalises in the Tavernier area between December 1962 and March 1963 were referred to by Stevenson (1963a) as "another possibly valid addendum to the state's avifauna." Stevenson (1963a) then confirmed earlier censorship by stating, "Some previous [observations] from the Keys have not been mentioned in my [earlier] reports because of the question of the bird's origin."

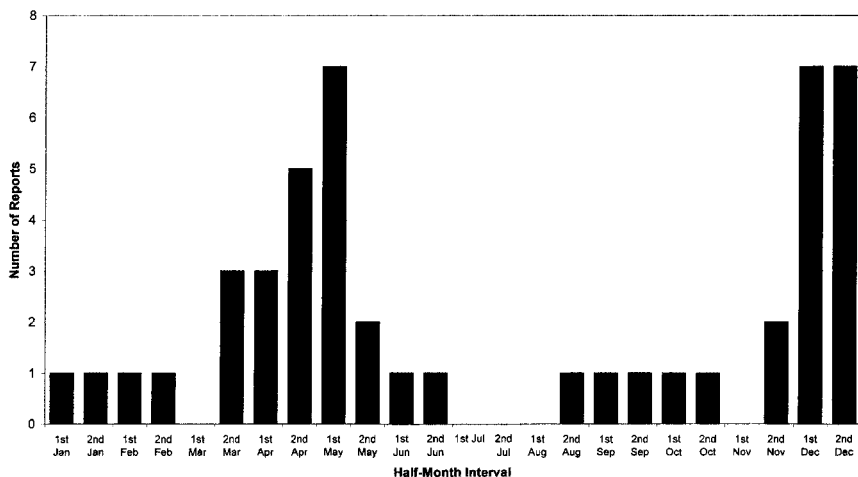


Figure 2. Seasonal occurrence of spindalises in Florida, by half-months. Observations were charted from the date of first observation. Reports without dates (i.e., those in May 1962, January 1963, and December 1976) are excluded.

Stevenson's skepticism appears to have ended, however, when he collected a male spindalis at Upper Key Largo on 17 June 1963 (Stevenson 1963c). Nevertheless, the notion that spindalises in Florida were either escaped cagebirds or their descendants lingered in some minds to at least the mid-1970s (e.g., Blake 1975).

Inferences about spindalis phenology in Florida from limited data such as those in Table 1 are risky. Eight (40%) of the 20 dated reports involving individuals discovered in winter were of birds that remained in the same location for 10 days or more (Table 2), which suggests that they indeed were wintering. In contrast, only four (14%) of the 28 dated reports of spindalises in all other seasons were of individuals that remained for the same duration (Table 2). Single-day observations represent 50% ($n = 24$) of all dated re-

Table 2. Reported duration of stay of spindalises in Florida, arranged by season. Excluded are one report without specific dates (May 1962) and the specimen collected on 17 June 1963. In the data columns, the first number refers to the number of reports while the second number (in parentheses) denotes the number of individuals. For ambiguous reports involving multiple individuals, we have presumed that all birds arrived on the earliest published date and all remained to the latest published date.

Duration	March-May	June-July	August- November	December- February	Totals
1 day	9 (11)	1 (1)	4 (4)	10 (10)	24 (26)
2-3 days	2 (4)	0	1 (1)	2 (2)	5 (7)
4-6 days	4 (5)	0	0	0	4 (5)
7-10 days	2 (2)	0	1 (1)	0	3 (3)
>10 days	3 (9)	0	1 (1)	8 (8)	12 (18)
Totals	20 (31)	1 (1)	7 (7)	20 (20)	48 (59)

ports (Table 2). Western Spindalises apparently wander to Florida fairly regularly under favorable conditions. Even small flocks occasionally are found, such as the seven individuals at Hypoluxo Island in 1973, or the trio at Greynolds Park in 1999 (Table 1). All these appearances seem to reflect vagrancy, for no pattern exists of reappearance in the same locations over successive years. The appearance of spindalises in Florida may be driven by the fruiting cycles of fructiferous vegetation in their home range (G. Wallace *in litt.*).

A summary of occurrence by decades is provided in Table 3. Between 1961 and 1999 inclusive, spindalises were reported in 25 (64%) of these 39 years. The longest periods without reports were 47 months (January 1968 to November 1971) and 37 months (January 1980 to January 1983). The numbers of reports, individuals, and years with reports are similar for the 1960s and 1970s, but notably lower in the 1980s (Table 3). During the 1990s, the numbers of reports and individuals were substantially higher than for those in any of the previous three decades (Table 3). Again, it seems premature to speculate whether the apparent decrease in spindalis occurrence during the 1980s, and the apparent increase during the 1990s, reflects factors other than changes in observer activity.

Spindalis taxonomy is in flux. AOU (2000) split the "Stripe-headed Tanager" of AOU (1998) and most literature since the 1940s into four species, following Garrido et al. (1997). These are the Western Spindalis (*S. zena*) of the Bahamas, Cuba, Grand Cayman, and Isla Cozumel; the Hispaniolan Spindalis (*S. dominicensis*) of Hispaniola and Gonave Island; the Jamaican Spindalis (*S. nigricephala*) of Jamaica; and the Puerto Rican Spindalis (*S. portoricensis*) of Puerto Rico. The Western Spindalis has five subspecies: *S. z. townsendi* of the Little Bahama Bank (Grand Bahama Island and Abaco); *S. z. zena* of the remainder of the Bahamas; *S. z. pretrei* of Cuba; *S. z. salvini* of Grand Cayman; and *S. z. benedicti* of Isla Cozumel, Mexico (Garrido et al. 1997). The other three species are monotypic.

The only spindalis with a black-backed male is *S. z. zena*. All other males, including other subspecies of the Western Spindalis, have greenish backs. The other spindalis species split by AOU (2000) have visible characters that clearly distinguish both males and females to species, as discussed by Garrido et al. (1997) and Raffaele et al. (1998). [Note that the English names used in those publications differ from the names chosen by AOU (2000)]. Green-backed males and all females of the Western Spindalis may not be identifiable in the field to subspecies based on currently known characters (illustrations of some *in* Garrido et al. 1997).

The single Florida specimen of the Western Spindalis (TTRS 2815) is a male *S. z. zena* (Stevenson 1963c), as are the two males of which photographs have been published (L. Manfredi *in* Ogden 1992, B. Pranty *in* Pranty 1999c and this paper). Four additional males, TTRS P736 by I. McLaren, TTRS P738 by M. Meyers, TTRS P734 by C. Miles, and TTRS P710 (videotape) by S. Siegel, also are *S. z. zena*. Two other male Western Spindalises photographed in Florida, TTRS P726 by G. Hall and TTRS P739 by L. Manfredi, cannot be identified to subspecies from the photographs, but the observers noted

Table 3. Yearly occurrence of spindalises in Florida, arranged by decades. The first published report, from 1957, is excluded.

Decade	# of Years	# of Reports	# of Individuals
1961-1969	7	13	13
1970-1979	7	10	16
1980-1989	3	7	8
1990-1999	8	19	23
Totals	25	49	60

black backs (S. Sprunt and P. Sykes *in* Stevenson [1972], L. Manfredi *in litt.*). The three females photographed in Florida, TTRS P709 *cf.* Gustafson (1992), TTRS P737 by A. Binns, and TTRS P293-294 by R. Plockelman, and two additional descriptions of females (FOSRC 88-149 and FOSA 111), are identified readily as examples of the Western Spindalis, but cannot be definitely assigned to subspecies based on present knowledge.

FOSRC 83-043 appears to describe a male spindalis, but the back color was not noted. Although the Florida Ornithological Society Records Committee (FOSRC) accepted FOSRC 83-058 as a male spindalis (Powell 1986), the report appears to describe a first-fall male *Pheucticus* grosbeak, based upon its "brownish" head, "conical" bill, "dark, almost blackish" back and wings, and pale "bittersweet orange" flanks; the original observer now agrees with this assessment (B. Neville *in litt.*). Two additional male Western Spindalises in Florida (Numbers 11 and 50 in Table 1) were reported to have black backs or were identified as *S. z. zena*, but anecdotal reports of green-backed males also exist. The description of a male in Palm Beach County in May 1963 was thought to refer to *S. z. townsendi* (G. E. Watson *in* Langridge 1963), but this opinion apparently was based only on geography, as *townsendi* is the closest green-backed form. The report of two green-backed males at Grassy Key, Monroe County, in May 1999 (R. and T. Rogers *in* Pranty 1999b) was not accompanied by a written description, but geography may favor *pretrei* from Cuba.

If the Western Spindalis (*sensu* AOU 2000) is split further as a result of DNA analysis, possibly only males of the currently recognized subspecies *S. z. zena* would be identifiable readily, as stated earlier. We urge birders to take detailed descriptions of all spindalises seen in Florida, and to make every effort to obtain clear photographs or videotapes of them. We also recommend that the FOSRC place the Western Spindalis on its review list to at least facilitate archiving data about future reports. Even then, identification of the various taxa currently treated as subspecies of the Western Spindalis may not be possible in the field.

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