

# Florida Field Naturalist

PUBLISHED BY THE FLORIDA ORNITHOLOGICAL SOCIETY

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VOL. 44, No. 3

SEPTEMBER 2016

PAGES 83-146

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Florida Field Naturalist 44(3):83-105, 2016.

## STATUS AND DISTRIBUTION IN FLORIDA OF TROPICAL KINGBIRD (*Tyrannus melancholicus*) AND COUCH'S KINGBIRD (*Tyrannus couchii*)

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**Authors' note, 11 July 2016:** the female Tropical Kingbird at St. Armands Key, Sarasota has returned (for at least her fourth year) and is brooding nestlings as of this date.

**Abstract.**—In 1983, the American Ornithologists' Union recognized Couch's Kingbird (*Tyrannus couchii*) as a species distinct from Tropical Kingbird (*T. melancholicus*) based on their sympatric breeding distributions. The two species are virtually identical and generally cannot be distinguished in the field unless vocalizations are heard. From 1979 through mid-2016, 56 records of Tropical/Couch's kingbirds were obtained in Florida, including 14 records that can be specifically identified as Tropical Kingbirds based on specimen measurements, recorded vocalizations, or published sonograms. In contrast, no verifiable evidence exists to support the presence of Couch's Kingbird, although we consider the descriptions of two vocalizing individuals to be credible. Records of Tropical/Couch's kingbirds in Florida have increased dramatically by decade, with the increase most pronounced at three well-birded sites. Successful breeding in Sarasota County in four successive years (2013-2016), presumably between the same female Tropical Kingbird and one or more male Gray Kingbirds (*T. dominicensis*), furnishes the first known breeding records of Tropical Kingbird east of the Mississippi River, as well as the first known hybridization events in Gray Kingbird anywhere. While the available evidence

suggests that most or all records of Tropical/Couch's kingbirds in Florida refer to Tropical Kingbird, the occurrence of Couch's Kingbird should not be summarily dismissed.

In 1983, the American Ornithologists' Union (AOU 1983) recognized Couch's Kingbird (*Tyrannus couchii*) as a species distinct from Tropical Kingbird (*T. melancholicus*; Figs. 1-2) based on their sympatric breeding distributions. The two species are best distinguished by differences in vocalizations and measurements (Traylor 1979). Couch's Kingbird is endemic to lowlands of extreme southern Texas, eastern Mexico, Guatemala, and Belize (Brush 1999). Tropical Kingbird is widespread in the Neotropics from southeastern Arizona and southern Texas to southern South America, and on Trinidad and Tobago (Stouffer and Chesser 1998). Both species have occurred in the United States outside their breeding ranges, with records of Couch's Kingbird in California, Arizona, New Mexico, Louisiana, and New York, and with records of Tropical Kingbird along the Pacific coast north to British Columbia and along the Atlantic coast north to Maine (Mlodinow 1998, Stouffer and Chesser 1998, S. G. Mlodinow in litt.). The first record of this species-pair in Florida was of a silent individual photographed at Hypoluxo Island, Palm Beach County, 12-15 May 1979 (Ayers et al. 1980). The occurrence of Tropical Kingbird, including four breeding records (e.g., Wilson et al. 2015, this paper), is supported by considerable verifiable evidence, whereas the occurrence of Couch's Kingbird in the state remains unproven. Here we summarize the status and distribution of Tropical Kingbird and Couch's Kingbird in Florida based largely on verifiable records.

#### METHODS

We define a record as an observation supported by archived, extant verifiable evidence such as a photograph, published sonogram, audio or video recording, or specimen. Sightings that lack such evidence are referred to as reports. In this paper, we concentrate nearly exclusively on records of kingbirds (Table 1). We compiled kingbird observations from BP's personal archive (BPA catalog numbers), files of the Florida Ornithological Society Records Committee (FOSRC catalog numbers), seasonal bird reports published by the FOS Field Observations Committee (through the Fall 2014 report), and three online sources: eBird (Sullivan et al. 2009), the Miami Bird Board <[tropicalaudubon.org/tasboard/tasbb.html](http://tropicalaudubon.org/tasboard/tasbb.html)>, and the BRDBRAIN listserver <[listserv.admin.usf.edu/listserv/wa.exe?A0=BRDBRAIN](mailto:listserv.admin.usf.edu/listserv/wa.exe?A0=BRDBRAIN)>. Even though kingbirds with very large bills are probably safely assignable to Tropical Kingbird (P. Pyle in litt.), and adults of both species can occasionally be distinguished in the field from close examination of their primary formulae (Traylor 1979, Pyle 1997), we limit identification to the species level only when a specimen or a recording/sonogram of species-specific vocalizations exists. We use Greenlaw et al. (2014) for regional boundaries and for defining seasonality by months. Our cut-off date for including records was 31 May 2016.

#### RESULTS

We compiled 56 records of Tropical/Couch's kingbirds in Florida between May 1979 and May 2016 (Table 1). Based on specimen measurements or on vocalizations captured in audio or video recordings or published as sonograms, 14 of these records can be assigned to Tropical Kingbirds. Another 15 individuals photographed were identified as Tropical Kingbirds based on vocalizations that were heard but that were not audio recorded. Two other individuals photographed were

**Table 1. Records of Tropical/Couch's kingbirds in Florida ( $n = 56$ ), arranged alphabetically by county and location. Fourteen records (25%) refer to Tropical Kingbirds based on specimen measurements, recorded vocalizations, or published sonogram. Other records are listed here as "Tropical Kingbird" ( $n = 15$ ; 27%) or "Couch's Kingbird" ( $n = 2$ ; 3%) if vocalizations were described but were not recorded, or as Tropical/Couch's kingbird for silent individuals ( $n = 25$ ; 45%). Previously unpublished records were obtained from posts to the Miami Bird Board or eBird. Only a sample of archived evidence (BPA files) is provided for some records. FOSRC catalog numbers are provided for all records that were accepted by the committee; FOSRC ceased reviewing records of Tropical Kingbirds in August 2013 (Greenlaw 2015). Other abbreviations used are CBC = Christmas Bird Count, NERR = National Estuarine Research Reserve, NSRA = North Shore Restoration Area, NWR = National Wildlife Refuge, PSGHA = Public Small Game Hunting Area, WEA = Wildlife and Environmental Area, and WMA = Wildlife Management Area.**

No.	Species	Date	County	Location	Evidence	Comments	Reference(s)
1	"Tropical Kingbird"	11 Oct 1999	Broward	Hugh Taylor Birch State Park	BPA 872L, W. George; <u>FOSRC</u> 2000-402	Calls heard; accepted by FOSRC.	Pranty 2000, Bowman 2004
2	Tropical/Couch's kingbird	29 Oct 2012	Broward	Water Conservation Area 3, S151	BPA 4645a-c, K. Donnelly; <u>FOSRC</u> 2012-919	Silent; accepted by FOSRC.	Pranty 2013b, Greenlaw 2015
3	Tropical Kingbird	1 Feb-3 Mar 1996	Broward/Palm Beach	county line west of US-27	BPA 6114a-b, 21 Feb 1996, A. Smith; <u>UCF</u> 2082, 3 Mar 1996, B. H. Anderson	Specimen; first Florida record; misidentified in the field as Couch's Kingbird; no FOSRC review.	Anderson 1996, Pranty 1996, West 1996, Greenlaw et al. 2014
4	Tropical/Couch's kingbird	4 Jun 2013	Collier	Naples	BPA 7672a-b, M. Higgins; <u>FOSRC</u> 2013-965	Silent; accepted by FOSRC.	Ahern 2014a, Greenlaw 2015
5	"Tropical Kingbird"	7 Jan-10 Feb 2005	Franklin	Apalachicola	BPA 8743, [date?], R. Cassidy; <u>FOSRC</u> 2006-591	Video reportedly includes calls, but no calls are audible in the BPA segments; accepted by FOSRC.	Greenlaw and Kratter 2007

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No.	Species	Date	County	Location	Evidence	Comments	Reference(s)
6	Tropical/Couch's kingbird	27 Dec 2005-8 Jan 2006	Franklin	Apalachicola	<u>BFA 3215a-b</u> , 8 Jan 2006, fide S. McCool	Silent; no FOSRC review.	Pranty 2006b
7	Tropical Kingbird	9-10 Oct 2012	Franklin	Bald Point State Park	<u>BFA 5012a-b</u> , 9 Oct, J. Murphy; <u>FOSRC 2012-915</u>	Video includes calls; accepted by FOSRC.	Pranty 2013b; Greenlaw 2015
8	Tropical/Couch's kingbird	8 May 1999	Franklin	Dr. Julian G. Bruce St. George Island State Park	<u>BFA 4260a-c</u> , J. Cavanagh	Silent; no FOSRC review.	Pranty 1999b
9	Tropical Kingbird	15 Feb-6 Mar 2010	Hendry	Stormwater Treatment Area 5	<u>BFA 222Z</u> , 6 Mar (listed as 15 Feb; Pranty 2010b.); B. & E. Marr; <u>FOSRC 2010-811</u>	Video includes calls; accepted by FOSRC.	Pranty 2010b, c; Kratter 2012a
10	"Tropical Kingbird"	29 Dec 2012-13 Apr 2013	Hendry	Stormwater Treatment Area 5	<u>BFA 8698</u> , 16 Feb 2013, D. Pavlik	Calls heard; no FOSRC review.	Pranty 2013c
11	"Tropical Kingbird"	29 Dec 2013-1 Feb 2014	Hendry	Stormwater Treatment Area 5	<u>BFA 5756a-c</u> , 29 Dec 2013, fide M. England	Calls heard; no FOSRC review.	Ahern 2014c
12	"Tropical Kingbird"	22 Nov 2014-28 Mar 2015	Hendry	Stormwater Treatment Area 5	<u>BFA 8800a-b</u> , 22 Nov 2014, B. Pickholz	Two birds; calls heard; no FOSRC review.	eBird, this paper

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13	"Tropical Kingbird"	14 Nov 2015-16 Apr 2016	Henry	Stormwater Treatment Area 5	<u>BPA 8800a-b</u> , 22 Nov 2014, B. Pickholz	Two (possibly three) birds; calls heard; no FOSRC review.	eBird, this paper
14	"Tropical Kingbird"	4-10 Jun 2011	Hillsborough	Cockroach Bay	<u>BPA 1321a-d</u> , 5 Jun 2011, B. Pranty; <u>FOSRC 2011-856</u>	Calls heard; accepted by FOSRC.	Pranty 2012a, Kratter 2012b
15	Tropical Kingbird	18 Oct 1999	Miami-Dade	Coral Gables	<u>BPA 8760</u> , M. Wheeler; <u>FOSRC 2000-416</u>	Video includes calls; accepted by FOSRC.	Pranty 2000, Bowman 2000
16	Tropical/Couch's kingbird	8 May 2007	Miami-Dade	Everglades NP, Mahogany Hammock	<u>BPA 8704</u> , E. Leite; <u>FOSRC 2007-640</u>	Silent; accepted by FOSRC.	Kratter 2008:100
17	"Tropical Kingbird"	4-13 Apr 2013	Miami-Dade	Everglades and Francis S. Taylor WMA	<u>BPA 8711a-e</u> , 7 Apr 2013, J. Bouton; <u>FOSRC 2013-964</u>	Calls heard; accepted by FOSRC.	Greenlaw 2015
18	Tropical/Couch's kingbird	14-15 Oct 2011	Miami-Dade	Frog Pond WMA, Aerojet Road	<u>BPA 2352</u> , D. Irving	Silent; no FOSRC review.	Pranty 2012b
19	Tropical Kingbird	7 Nov 2012-2 Apr 2013	Miami-Dade	Frog Pond WMA, Aerojet Road	<u>BPA 8723</u> , 7 Nov 2012, L. Manfredi; <u>FOSRC 2013-963</u>	Video includes calls; accepted by FOSRC.	Pranty 2013a, b, c; Greenlaw 2015

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No.	Species	Date	County	Location	Evidence	Comments	Reference(s)
20	Tropical Kingbird	13 Nov 2014-8 Mar 2015	Miami-Dade	Frog Pond/L-31 N Transition Lands property	<u>BPA 8715</u> , 15 Nov 2014, M. Vasi	Video includes calls; no FOSRC review.	Ahern 2015b, this paper
21	Tropical Kingbird	2-19 Mar 2016	Miami-Dade	Frog Pond/L-31 N Transition Lands property	<u>BPA 8887</u> , 2 Mar 2016, S, Runyon.	Calls heard; no FOSRC review.	eBird, this paper
22	Tropical Kingbird	2 Nov 2008-10 Apr 2009	Miami-Dade	Homestead, "Dump Marsh"	<u>BPA 3384</u> , 2 Nov 2008, L. Manfredi; <u>FOSRC 2008-704</u>	Bird 1; audio includes calls; accepted by FOSRC.	Pranty 2009b, c, d; Kratter 2010b
23	"Tropical Kingbird"	8-15 Nov 2008	Miami-Dade	Homestead, "Dump Marsh"	<u>BPA 8720</u> (both birds together), 9 Nov 2008, J. Patterson; <u>FOSRC 2008-705</u>	Bird 2; calls heard; accepted by FOSRC.	Pranty 2009b, Kratter 2010b
24	"Tropical Kingbird"	18 Jul 2009	Miami-Dade	Homestead, SW 112th Avenue and SW 316th Street	<u>BPA 3064a-b</u> , T. Mitchell; <u>FOSRC 2009-763</u>	Calls heard; accepted by FOSRC.	Pranty 2010a, Kratter 2010b
25	Tropical/Couch's kingbird	11 Mar 2011	Miami-Dade	Homestead, west end of SW 232nd Street	<u>BPA 6933a-b</u> , B. Roberts	Silent; no FOSRC review.	This paper

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No.	Species	Date	County	Location	Evidence	Comments	Reference(s)
26	"Tropical Kingbird"	18 Nov 2012-14 Mar 2013	Miami-Dade	Rocky Glades PSGHA	BPA 8702, 18 Nov 2012, C. Sanchez; FOSRC 2013-966	Calls heard; accepted by FOSRC as Tropical/Couch's Kingbird; Greenlaw (2015) did not mention calls and listed the date solely as 22 Nov 2012.	Pranty 2013b, c, d; Greenlaw 2015
27	Tropical/Couch's kingbird	22 Dec 2013	Miami-Dade	US-41, 2.0 km west of Krome Avenue	BPA 7603a-e, D. Bernstein	silent; no FOSRC review.	This paper
28	Tropical/Couch's kingbird	22 Nov 2014	Miami-Dade	US-41, 2.1 km west of Krome Avenue	BPA 8726, L. Manfredi	silent; no FOSRC review.	This paper
29	"Tropical Kingbird"	13 Oct 2010	Miami-Dade	Virginia Key	BPA 1368, R. Diaz; FOSRC 2010-821	Calls heard; accepted by FOSRC.	Pranty 2011a, Kratter 2012b
30	Tropical/Couch's kingbird	12 Nov 2003-28 Apr 2004	Orange	Lake Apopka NSRA	BPA 1369a-b, 17 Nov 2003, J. Peterson	Silent; no FOSRC review.	Pranty 2004a, b, c
31	Tropical/Couch's kingbird	19-20 Nov 2015	Orange	Lake Apopka NSRA	BPA 8889, 20 Nov 2015, J. Stefancic	Silent; no FOSRC review	eBird

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No.	Species	Date	County	Location	Evidence	Comments	Reference(s)
32	Tropical/Couch's kingbird	30 Dec 2007	Osceola	Kissimmee Valley CBC circle	BPA 5277, L. Rosen	Silent; no FOSRC review.	Pranty 2008
33	"Couch's Kingbird"	17-21 Dec 1985	Palm Beach	Arthur R. Marshall Loxahatchee NWR	FOSRC 1986-092, ? Dec 1986, H. Langridge.	Calls heard, accepted by FOSRC.	Dowling 1989
34	Tropical/Couch's kingbird	9-14 Mar 2013	Palm Beach	Belle Glade Marina	BPA 6997a-b, 9 Mar 2013, B. Hope	Silent; no FOSRC review.	eBird, this paper
35	Tropical/Couch's kingbird	10-31 Jan 2016	Palm Beach	Belle Glade Marina	BPA 8891a-b, 16 Jan 2016, M. Berney.	Silent; no FOSRC review.	eBird, this paper
36	Tropical/Couch's kingbird	12 May 1979	Palm Beach	Hypoluxo Island	BPA 8750, B. H. Atherton	Silent; first Florida record; no FOSRC review.	Ayers et al. 1980
37	Tropical/Couch's kingbird	21 Sep 2014	Palm Beach	Lake Worth, Bryant Park	BPA 8650a-b, C. Callaghan	Silent; no FOSRC review.	This paper
38	Tropical/Couch's kingbird	15 Jan 2013	Palm Beach	Stormwater Treatment Area 1E	BPA 8709a-b, G. Kent	Silent; no FOSRC review.	This paper
39	Tropical Kingbird	9-12 May 1998	Pinellas	Fort De Soto Park	BPA 4265a-c, 12 May 1998, K. Tracey	Sonogram of calls published; no FOSRC review.	Pranty 1998, Snyder and Hopkins 2000



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No.	Species	Date	County	Location	Evidence	Comments	Reference(s)
40	Tropical/Couch's kingbird	18 Aug 2005	Pinellas	Fort De Soto Park	BPA 3216a-c, L. Atherton	Silent; no FOSRC review.	Pranty 2006a
41	"Tropical Kingbird"	28 Sep 2007	Pinellas	Fort De Soto Park	BPA 8707a-b, L. Atherton; FOSRC 2008-658	Calls heard; accepted by FOSRC; Kratter (2010a) listed date as 29 Sep 2007.	Kratter 2010a
42	Tropical/Couch's kingbird	16 Jul 2008	Pinellas	Fort De Soto Park	BPA 8708a-b, L. Atherton; FOSRC 2008-693	Silent; accepted by FOSRC.	Pranty 2009a, Kratter 2010a
43	Tropical/Couch's kingbird	17 Apr 2011	Pinellas	Fort De Soto Park	BPA 2679a-c, J. Daly; FOSRC 2011-849	Silent; accepted by FOSRC; Kratter (2012b:91) listed date as 16 Apr 2011.	Pranty 2011b, Kratter 2012b
44	Tropical/Couch's kingbird	17 Aug 2014	Pinellas	Fort De Soto Park	BPA 8661, N. & T. Ploger	Silent; no FOSRC review.	eBird, this paper
45	Tropical/Couch's kingbird	25 May 2016	Pinellas	Fort De Soto Park	BPA 8909a-b, J. Clayton	Silent; no FOSRC review.	eBird, this paper
46	Tropical/Couch's kingbird	27 Jun 2012	St. Johns	Guana Tolomato Matanzas NERR	BPA 3376a-d, D. Reed; FOSRC 2012-899	Silent; accepted by FOSRC.	Pranty 2013a, Greenlaw 2014

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47	"Tropical Kingbird"	16 May 2000	Santa Rosa	Gulf Breeze	<u>BPA 8777</u> , R. A. Duncan; <u>FOSRC 2000-425</u>	Calls heard; accepted by FOSRC.	Bowman 2004
48	Tropical Kingbird	3 May-28 Sep 2013	Sarasota	St. Armands Key	<u>BPA 7106</u> , 30 May 2013, V. Ponzio; <u>BPA 7682a-c</u> , 17 Jun 2013, C. Herzog; <u>FOSRC 2013-955</u>	Female; first breeding record; four nestlings fledged; audio includes call notes; accepted by FOSRC.	Ahern 2014a, b, 2015a; Pranty 2013d, Greenlaw 2015
49	Tropical Kingbird	23 Jun-14 Sep 2013	Sarasota	St. Armands Key	<u>BPA 8790</u> , 29 Jun 2013, C. Herzog; <u>FOSRC 2013-968</u>	Male; video includes dawn-song; accepted by FOSRC.	Ahern 2014a, b, Greenlaw 2015
50	Tropical Kingbird	24 Apr-30 Aug 2014	Sarasota	St. Armands Key	Fig. 1; <u>BPA 8718c</u> , 4 Jul 2014, C. Herzog; <u>FOSRC 2014-998</u>	Second breeding record; three nestlings fledged; video includes calls; accepted by FOSRC.	Ahern 2014d, 2015a, S. Wilson in litt.
51	Tropical Kingbird	20 Apr-14 Sep 2015	Sarasota	St. Armands Key	Fig. 2; <u>BPA 8971a</u> , 15 Jul 2015, C. Herzog	Third breeding record; two nestlings fledged; no FOSRC review.	S. Wilson in litt., this paper

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No.	Species	Date	County	Location	Evidence	Comments	Reference(s)
52	Tropical Kingbird	24 Apr 2016 ff	Sarasota	St. Armands Key	BPA 8973, 8 May 2016, C. Herzog	Fourth breeding record; no FOSRC review.	S. Wilson in litt., this paper
53	Tropical/Couch's kingbird	14 Jun 2009	Taylor	Big Bend WMA, Hickory Mound	BPA 8703, S. Parker; <u>FOSRC 2009-760</u>	Silent; accepted by FOSRC.	Pranty 2010a, Kratter 2010b
54	"Couch's Kingbird"	26-27 Sep 1986	Wakulla	St. Marks NWR	BPA 8660, J. Cavanagh; <u>FOSRC 1986-106</u>	Calls heard; accepted by FOSRC.	Drennan 1987, Dowling 1989
55	"Tropical Kingbird"	11 Nov 2001-19 Apr 2002	Wakulla	St. Marks NWR	BPA 5431, 18 Nov 2001, E. Hawkins; <u>FOSRC 2002-484</u>	Calls heard; accepted by FOSRC.	Pranty 2002b, c, d; Bowman 2004
56	Tropical/Couch's kingbird	7 Dec 2002	Wakulla	St. Marks NWR	<u>BPA 1814a-b</u> , T. Curtis	Silent; "again win-tered," no FOSRC review.	Pranty 2003:68

identified as Couch's Kingbirds based on vocalizations that were heard but not recorded. The remaining 25 records refer to silent individuals that we do not assign to species (Table 1). Of these 56 records, 53 refer to single individuals and three refer to duos, in Hendry, Miami-Dade, and Sarasota counties (Table 1).

Records of Tropical/Couch's kingbirds in Florida have occurred by years as follows: 1979 (1), 1985 (1), 1986 (1), 1996 (1), 1998 (1), 1999 (3), 2000 (1), 2001 (1), 2002 (1), 2003 (1), 2005 (3), 2007 (3), 2008 (3), 2009 (2), 2010 (2), 2011 (4), 2012 (6), 2013 (8), 2014 (7), 2015 (3), and the first half of 2016 (3). Records have increased dramatically by decade (Figure 4), with one record during the 1970s, two during the 1980s, five during the 1990s, 15 during the 2000s, and 33 during 2010-mid-2016. Six records appear to represent kingbirds that wintered at the same location over two or more years (Table 1, records #5-6, 10-13, 18-19, 20-21, 27,-28, and 55-56). Four records (Table 1, #48, 50-52) refer to presumably the same female Tropical Kingbird that bred in Sarasota County during 2013-2016.

Geographically, Tropical/Couch's kingbirds have been reported statewide, but there is as yet no record from the Florida Keys (Table 1, Fig. 3). Kingbird records are strictly coastal in the Panhandle and the northern third of the peninsula; inland records are frequent only in the southern peninsular third. Except for one record in St. Johns County, there is no Florida record from along the Atlantic coast north of Palm Beach County (Fig. 3).

**Tropical Kingbird records.**—To date, 14 kingbirds in Florida can be identified specifically as Tropical Kingbirds based on specimen evidence, archived audio/video files, or published sonograms (Table 1). An additional 15 kingbirds photographed in the state have been identified as Tropical Kingbirds based on vocalizations heard. Although the first record of Tropical/Couch's kingbird in Florida was obtained in May 1979 at Hypoluxo Island, Palm Beach County (Ayers et al. 1980), it was not until nearly 17 years later that Tropical Kingbird was verified in the state. On 3 March 1996, Bruce Anderson salvaged a specimen along the Broward/Palm Beach county line (UCF 2082), providing the first Florida record (*contra* Greenlaw et al. 2014). Although this individual had been "identified" in the field as a Couch's Kingbird based on vocalizations reportedly heard (Pranty 1996, West 1996), mensural data proved it to be a Tropical Kingbird (Anderson 1996). Subsequently, 13 additional Tropical Kingbirds have been verified in Florida, all based on recorded vocalizations (e.g., Snyder and Hopkins 2000), and with four instances of confirmed breeding (below).

**Breeding records.**—Four Tropical Kingbird records in Florida represent instances of successful breeding, in each case apparently

representing a hybridization event between the same female Tropical Kingbird and one or more male Gray Kingbirds (*Tyrannus dominicensis*). These “extraordinary” (Greenlaw et al. 2014) events represent the first through fourth breeding records of Tropical Kingbird east of the Mississippi River (Stouffer and Chesser 1998, Greenlaw et al. 2014), along with the first known hybridization events anywhere involving Gray Kingbird (Smith and Jackson 2002). Wilson et al. (2015) document the first breeding record in Florida (the date for their Figure 2 should be 4 July 2013, C. Herzog, in litt.), while we summarize all four records.

On 3 May 2013, a Tropical Kingbird (Figs. 1-2) sexed as a female based on behavior, was discovered at St. Armands Key (also known as Lido Key; Wilson et al. 2015), Sarasota County; it remained through 28 September 2013 (Pranty 2013d; Ahern 2014a, b; Wilson et al. 2015). The kingbird built two nests in a live oak (*Quercus virginianus*) planted in a commercial parking lot; the first nest was discovered on 5 May, and the second was discovered “[a]round mid-month May” (Wilson et al. 2015:4). Four nestlings from the second nest were banded and two were bled for DNA analysis by Shane Pruett and Greg Schrott of Archbold Biological Station, on 22 June. The nestlings fledged on 27-28 June, with one juvenile remaining in the area until 1 August 2013 (Wilson et al. 2015). Genetic analyses of the nestlings’ blood failed to determine the paternity of the brood due to insufficient reference material (Wilson et al. 2015). The male parent of the kingbird brood was thought to be a Gray Kingbird—at least one breeding pair was present nearby (Wilson et al. 2015). A second adult Tropical Kingbird, a male based on recorded dawn song, appeared on 23 June 2013 (Table 1) but was believed to be absent earlier. Although this male often accompanied the breeding female, it was never observed to feed the nestlings and was not considered to be the male parent of the brood (Wilson et al. 2015).

Juvenile Tropical and Couch’s kingbirds resemble adults except for generally paler plumage (Stouffer and Chesser 1998, Brush 1999). Juvenile Gray Kingbirds resembles adults except for cinnamon-edged wing and upper tail coverts (Smith and Jackson 2002). The Gray Kingbird-like plumage of the Sarasota County fledgling kingbirds—wholly whitish below except for diffuse pale gray breast bands and pale yellow undertail coverts (e.g., Figs. 1-2)—was atypical for either *T. melancholicus* or *T. couchii* and was strongly supportive of a Tropical Kingbird x Gray Kingbird pairing. Furthermore, vocalizations heard from the fledglings in mid-July 2013 were described as “a subtly two-part *pe-cheer*’ typical of Gray Kingbird” (Wilson et al. 2015:6).

The 2013 Sarasota County breeding event was repeated by presumably the same female in 2014 (Fig. 1; Wilson et al. 2015). The

female was first observed on 24 April and eventually built seven nests in three live oaks growing in the same parking lot that supported the 2013 nests. Three nestlings (of four eggs laid) fledged by 4 July 2014 (Fig. 1, Wilson et al. 2015). As no other Tropical Kingbird was observed at St. Armands Key during 2014, the male parent of the brood presumably was a Gray Kingbird; the fledglings again displayed wholly whitish underparts except for pale yellow undertail coverts (Fig. 1). The female was last seen on 30 August 2014 (S. Wilson in litt.).

In 2015, presumably the same female Tropical Kingbird returned to St. Armands Key and again bred. She was first seen on 20 April and built several nests in oaks growing in the same parking lot. A nest with three eggs was later depredated or deserted. A subsequent nest was successful, with two nestlings fledging by 15 July 2015 (Fig. 2). The female Tropical Kingbird remained to 14 September 2015 (S. Wilson in litt.).

Again, in 2016, presumably the same female Tropical Kingbird returned to St. Armands Key and built multiple nests. The first clutch of eggs was lost during Tropical Storm *Colin*, 6-7 June 2016, probably within days of hatching. A replacement clutch of four eggs hatched on 10 July 2016 (C. Herzog in litt., S. Wilson in litt.) and the nestlings are being brooded as this paper goes to press.

**Couch's Kingbird reports.**—At least five Couch's Kingbird reports (all of singles) exist from Florida (FOSRC 1984-285, Anderson 1996, Pranty 1996, West 1996, Pranty 2001) based on vocalizations heard. But diagnostic call-notes were described for only two of these reports, which we include here. The call-notes of a Couch's Kingbird at Arthur R. Marshall Loxahatchee National Wildlife Refuge, Palm Beach County, 17-21 December 1985 (FOSRC 1986-92, Ogden 1986, Dowling 1989), were described by Paul Sykes as, "3-syllable notes . . . *KIP-KIP-KIP* and . . . [a] longer shrilled *bree-r, bree-r* . . ." The calls of the second FOSRC-accepted Couch's Kingbird, at St. Marks National Wildlife Refuge, Wakulla County, on 26 September 1986 (FOSRC 1986-106), were described by Jim Cavanagh as ". . . single notes (*'pick'*) . . . repeated at rather short intervals but notes were not run together."

#### DISCUSSION

The distribution in Florida of Tropical/Couch's kingbird records (Fig. 3, Table 1) suggests that birds originate from two regions. Kingbirds found in the southern third of the peninsula represent wintering individuals in 46% (14 of 30) of the cases. These individuals, presumably all or nearly all Tropical Kingbirds, may have originated in the southwestern U.S. and then migrated eastward along the Gulf coast during fall to spend the winter in the southern peninsula (e.g., Stedman

and Lohrer 1976). Such a pattern is shown by several other western-breeding species—including other tyrannids—such as Swainson's Hawk (*Buteo swainsoni*), Rufous Hummingbird (*Selasphorus rufus*), Ash-throated Flycatcher (*Myiarchus cinerascens*), Vermilion Flycatcher (*Pyrocephalus rubinus*), Western Kingbird (*Tyrannus verticalis*), and Scissor-tailed Flycatcher (*T. forficatus*). The wintering distribution of Tropical/Couch's kingbirds north of Lake Okeechobee is curious, with records along the eastern Panhandle coast and inland in the central peninsula, but nowhere else along the Gulf coast (Fig. 3). Winter temperatures in the peninsular interior north of the Orlando area may be too low to support wintering kingbirds—no kingbird roost has ever been found during winter at Paynes Prairie Preserve State Park, Alachua County, for example, despite the abundance of presumably ideal habitat (AWK pers. obs.).

Some Tropical Kingbirds in Florida could represent austral migrants (Chesser 1995, Jahn et al. 2010). Austral migrants, which breed in temperate South America and migrate north to winter in more tropical zones, may reach North America by overshooting their wintering grounds and arriving during the boreal spring, or by undergoing “reverse migration” after the austral winter and arriving during the boreal fall (Monroe and Barron 1980, Mlodinow and Irons 2008). Notable austral migrants that have been recorded in North America include Crowned Slaty Flycatcher (*Griseotyrannus aurantioatrocristatus*) in Louisiana in June 2008 (Conover and Myers 2009); Variegated Flycatchers (*Empidonomus variegatus*) in Maine in November 1977, Tennessee in May 1984, Ontario in October–November 1993, Washington in September 2008, and Florida in June 2013 and October–November 2015 (Mlodinow and Irons 2008, Pranty et al. 2008, Greenlaw 2015, BP & VP pers. obs.); and likely a good proportion of the Fork-tailed Flycatchers (*Tyrannus savanna*) that have reached North America, mostly during the boreal fall (McCaskie and Patten 1994). Field identification of austral migrant Tropical Kingbirds (subspecies *T. m. melancholicus* and *T. m. despotes*) would not be possible, as subspecies differ only slightly in color of the upperparts, whiteness of the throat, and measurements (Fitzpatrick 2004).

In contrast to their status in southern Florida, a substantial majority (77%; 21 of 27) of the Tropical/Couch's kingbird records from the Panhandle south through the central peninsula do not represent wintering individuals (Fig. 3); dates of these individuals range from 17 April to 20 November (Table 1). Kingbirds observed during April–May and September–October could represent individuals returning to or heading from their breeding grounds, respectively. However, kingbirds found in Florida during June–August do not fit a typical migration pattern for western-breeding species that winter in the state. Instead,





these individuals may better represent post-breeding or post-natal dispersers from the Yucatan Peninsula, Mexico, where both species are common permanent residents (Howell and Webb 1995). Excluding the breeding female Tropical Kingbird in Sarasota County, eight Tropical/Couch's kingbirds have been recorded in Florida during June, July, or August. Seven (87%) of these records—from Collier, Miami-Dade, Pinellas (three), St. Johns, and Taylor counties—represented single-day observations, suggesting continued movement of the birds. The eighth record referred to a Tropical Kingbird that spent at least seven days in Hillsborough County (Table 1). The open, human-altered habitats of the Hillsborough, Pinellas, and Sarasota county kingbird records (BP and VP pers. obs.) are a better match for Tropical Kingbird rather than for Couch's Kingbird, which prefers to feed inside tree canopies (Mlodinow 1998).

There has been a clear increase in vagrancy to Florida by Tropical/Couch's kingbirds over the past several decades (Fig. 4). Three sites that have been birded consistently since the 1960s or 1970s support this contention. Referring to a kingbird at Gulf Breeze, Santa Rosa County, on 25 June 2001—the sixth report from that location and with all but the first occurring since 1992—Bob Duncan (in Pranty 2002a:16) asked, “What’s going on? This area has had almost daily coverage for over 30 years. [The kingbirds] could not possibly have been overlooked in the past.” Similarly, the seven kingbird records from Fort De Soto Park, Pinellas County—arguably the most popular birding site in Florida since the mid-1970s—have all occurred since 1998 (Table 1, Smith 2011). Finally, the six kingbird records from in or near the eastern portion of Everglades National Park, Miami-Dade County, have all occurred since 2007 (Table 1). Whether this increase in kingbird vagrancy to Florida is the result of population increases in

**Figure 1; opposite, top. Female Tropical Kingbird feeding fledglings at St. Armands Key, Sarasota County, Florida, 4 July 2014. Photograph by Claire Herzog. This female is presumed to represent the same individual that bred successfully at the same location in 2013 (see Wilson et al. 2015), 2015 (Figure 2), and 2016. During all four years, the male parent of the broods was presumed to be one or more Gray Kingbirds. Tropical Kingbird x Gray Kingbird hybridization seems to be confirmed by the plumage of the fledglings, which in each year was entirely whitish below, with diffuse pale gray breast bands and pale yellow undertail coverts.**

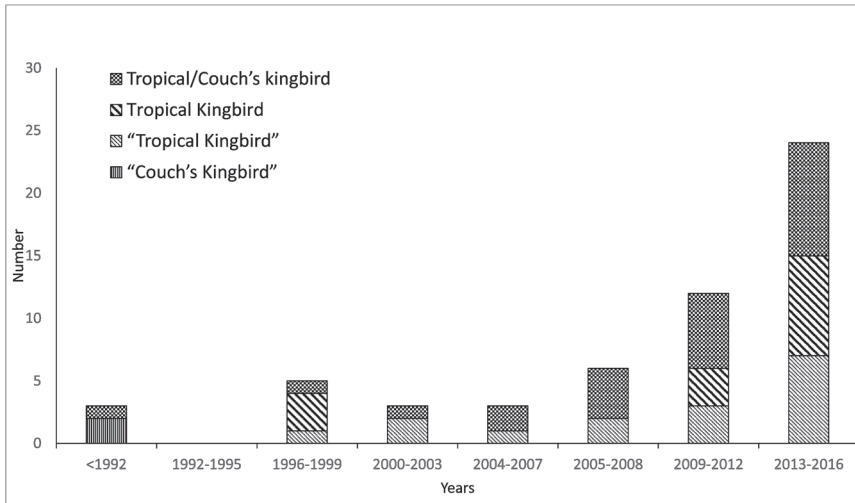
**Figure 2; opposite, bottom. Female Tropical Kingbird feeding fledglings at St. Armands Key, Sarasota County, Florida, 15 July 2015. Photograph by Claire Herzog. As in 2013 and 2014, the plumage of the fledglings suggests that the male parent was a Gray Kingbird. For photographs documenting the 2013 breeding record, see Wilson et al. (2014).**



**Figure 3. Distribution in Florida of Tropical/Couch's kingbird records, 1986-mid-2016 ( $n = 56$ ). Fourteen records pertain to Tropical Kingbirds, 15 others to presumed Tropical Kingbirds, two to purported Couch's Kingbirds, and 25 were not assigned to species. Winter records (December-February;  $n = 19$ ) are represented by stars, non-winter and non-breeding records (March-November;  $n = 33$ ) are represented by circles, and the four successful Tropical Kingbird breeding records in Sarasota County are represented by the open circle.**

the southwestern United States or Mexico, climatic changes associated with a warming planet, or other causes must for now remain conjectural.

The 56 archived records of Tropical/Couch's kingbirds in Florida (Table 1) represent a great increase from the 15 records of Tropical Kingbird cited by Greenlaw et al. (2014). The discrepancy between 15 records vs. 56 is explained as follows: 1) Greenlaw et al. (2014) is based largely on observations reviewed by FOSRC, which until recently reviewed only observations submitted directly to it. Also, FOSRC formed in 1981, and the committee has never reviewed records that



**Figure 4.** The number of Tropical/Couch’s kingbird records in Florida, graphed by four-year periods. See Table 1 for the definition of the categories.

pre-date it. In contrast, we reviewed all records available to us. 2) Greenlaw et al. (2014) ended their review of records in December 2011, whereas our review extended an additional 53 months.

The status of Couch’s Kingbird in Florida remains a conundrum given the lack of verifiable evidence. Five individuals have been reported in Florida (Dowling 1989; Pranty 1996, 2001; West 1996; Greenlaw et al. 2014, this paper) but archived descriptions are known for only two of these (see above). Given the relative proximity of Florida to Couch’s Kingbird breeding grounds in southern Texas and the Yucatan Peninsula, Mexico (Brush 1999), coupled with known vagrancy of the species to Louisiana (three specimen records, Brush 1999; plus other, more recent records, e.g., Dittmann and Cardiff 2014), it seems logical to conclude that Couch’s Kingbirds must stray to the state at least occasionally. Thus, observers should keep an open mind about the possibility of encountering Couch’s Kingbird in Florida, and be prepared to obtain audio/video recordings of their vocalizations.

Additional records of Tropical/Couch’s kingbirds in Florida beyond what we have archived (Table 1) likely exist. FOS Field Observations Committee reports state that kingbirds were photographed at Dry Tortugas National Park, Monroe County, on 5 May 1993 (Pranty 1993) and at St. Marks National Wildlife Refuge, Wakulla County, on 20 June 1998 (Pranty 1999a). In the former case, the photographs could no longer be located (J. Stevenson in litt.), and in the latter case, we were unable to locate the observer. Also, when one considers the

literally thousands of flickr accounts and Facebook pages that feature birds photographed in Florida, it seems inevitable that additional kingbird records must exist from the state. Ornithologists who study the status and distribution of birds today have to examine a much greater number of sources compared to even 20 years ago. As a result, it will be increasingly difficult to compile “complete” lists of rare birds documented from a particular region, especially one as large and as frequently birded as is Florida.

#### ACKNOWLEDGMENTS

We thank Bruce H. Anderson, Reed Bowman, Robin Diaz, Claire Herzog, Jim Stevenson, and Stu Wilson for sharing their observations and other information with us. Jon S. Greenlaw kindly provided material from FOSRC reports. Claire Herzog graciously allowed us to use two of her superb photographs that document the 2014 and 2015 Tropical Kingbird breeding records from Sarasota County. Stu Wilson provided much information about the breeding events. Paul W. Sykes provided a copy of his Couch’s Kingbird notes. Steve Mlodinow and Richard Veit improved drafts of the manuscript.

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