

2023 SP report Prepared by Bob Baez

One week in mid-October made this a memorable and record setting season.

August

Like the rest of the summer August was hot and dry. The count was 5% below average and Mississippi Kites were slightly below average and accounted for most of the migrants as expected. The spreadsheet below is the daily count for the month.

August	Obs	BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	RL	SW	AK	ML	PG	CC	MK	SK	WK	TOTAL	
2023	Hrs																					
8/15	9							4	159	2	3				1		30	18			217	
8/16	8							1	4								9	1			15	
8/17	8			1					9												10	
8/18	8								1									3			4	
8/19	8							2	2	1	2										7	
8/20	8							1					1		2				1		5	
8/21	7												1								1	
8/22	6								1	2								2	2		7	
8/23	8							4	3	3					1			5	9		25	
8/24	7							2	4		1							520	7		534	
8/25	8												1	1				2	1		5	
8/26	8			1				4	4		3							13	8		33	
8/27	8							1	7		7								1		16	
8/28	8			1				1	20	1	6				3			560	6		598	
8/29	8			1		1	7	2	76		5							253	3		348	
8/30	8					2			16									105			123	
8/31	7																	7	2		9	
Total	131	0	0	4	0	3	0	27	2	306	4	0	35	1	0	7	0	1509	59	0	1957	

The spreadsheet below compares this August to the 26 year average from 1997 to 2022. So August 2023 was 95% of the average or 5% below.

Month	Obs	BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	SW	FH	WT	HH	AK	ML	PG	CC	MK	SK	WK	UA	TOTAL
August																								
26 year average	157	0.1	0.2	4	0.2	2	3	20	6	369	6	41	0.1	2	0.2	3	0.3	1	1	1535	66	2	0.9	2070
Aug-23	131	0	0	4	0	3	0	27	2	306	4	35	0	0	0	1	0	7	0	1509	59	0	0	1957
2023 as a % of AVG	83	0	0	105	0	134	0	138	35	83	70	85	0	0	0	29	0	492	0	98	90	0	0	95

September

September 17th was the one big day for the month with 17,525 raptors (15948 Broad-winged and 1465 Mississippi Kites). The rest of the month was subpar for total birds especially Broad-winged considering this is usually the peak time for Broad-winged. This subpar trend continued thru October 11. In this time period the count at Corpus Christi seemed to be as busy as usual.

The accipters had some big numbers late in the month: 9/27, 28 and 29 had Sharp-shinned counts of 161, 331 and 209 and on the 27th and 28th Cooper's Hawks were 111 and 146.

On Sept 9 Galveston Bay Foundation ran a Marsh Mania Day with about a 100-person army and planted over 14,000 spartina grasses east of the tower. Bravo

The spreadsheet below is the daily count for the month.

Date	Obs	BV	TV	OS	BE	NH	SS	CH	AG	RS	BW	RT	RL	SW	FH	WT	HH	ZT	GE	AK	ML	PG	CC	MK	SK	WK	UA	TOTAL
2023	Hrs																											
9/1	7			1				3												1				33	16			54
9/2	8							1			12			1						1				6	8			29
9/3	8													1						1				1	3			6
9/4	8																											0
9/5	7.5																							1	1			2
9/6	8				1	1					2			1						1								6
9/7	8.13							1			7	3																11
9/8	8									1	20	1													5	2		29
9/9	8.83			2	2	1	6	2	91	3	7									1		1	122	1				239
9/10	9			1	1		11	2	798	7	4									5		1	392	2	1			1225
9/11	8			1	1		3		201	1	6													185	4			402
9/12	7	42	6	1	1		1				49	2		1								2		107				212
9/13	9										107										2			572	1			682
9/14	1																								2			2
9/15	7.13			1							64	2		4						1				990				1062
9/16	8			3				5			2876	1		2								3	1	99				2990
9/17	8.5				10	24	40		2	15948	7	10										1	1465	5				17525
9/18	8.13	9		1	3	47	14				1850			2								24	5	257	2	6		2220
9/19	8			1	4	60	36				18											24	3	99		2		247
9/20	8.25				4	31	7		1	224												6	3	232	5			513
9/21	8				3	6	12				60											3		90	1			175
9/22	7.75				3	13	4				16											2	3	66	2			109
9/23	8				10	23	13				28											1	4	38	2			119
9/24	8	16		1		5	3				99	1										1	1	2	91			220
9/25	8.75	22				10	7				10	1										5			22	1		78
9/26	8.75	40		2	6	19	9		2	3139	5	11		1								9	1	7	77			3328
9/27	8				2	15	161	111	4	3440	5	4										23	1	4	31	1		3802
9/28	8.8				5	331	146		1	352	4											22	5	1	68			935
9/29	8.5				10	209	13				21											8	1		101			363
9/30	8.5			2	3	85	23				6	2		2								11	5		13			152
		BV	TV	OS	BE	NH	SS	CH	AG	RS	BW	RT	RL	SW	FH	WT	HH	ZT	GE	AK	ML	PG	CC	MK	SK	WK	UA	
Total	237	129	6	17	2	82	1026	469	0	15	29438	45	0	56	0	1	0	0	0	165	27	27	1	5163	58	2	8	36737

The spreadsheet below compares this September to the 25-year average (the 2008 season was not averaged in because of Hurricane Ike ending the season early)

Sept	Obs	BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	SW	FH	WT	HH	ZT	AK	ML	PG	CC	MK	SK	WK	UA	TOTAL
	Hrs																								
2022	239	0	0	21	3	75	645	532	28	10022	69	72	0	2	0	0	121	25	41	1	3777	60	2	7	15503
2021	216	0	95	18	4	80	395	188	1	33579	13	32	0	1	0	0	44	18	14	1	3560	58	1	0	38103
2020	207	0	0	17	3	43	888	241	6	44744	18	48	0	1	2	0	51	22	8	0	3710	70	1	0	49873
2019	219	0	0	14	4	12	166	134	9	2695	11	47	0	2	0	0	53	27	14	0	1888	39	0	0	5115
2018	186	6	0	18	4	47	249	115	12	38595	10	48	0	2	1	0	16	33	35	0	4782	37	1	1	44012
2017	242	23	0	29	1	44	539	310	21	20103	50	18	0	4	2	0	74	40	30	0	2636	22	1	10	23957
2016	227	25	25	29	1	81	1323	597	21	22339	30	19	0	1	0	0	108	27	66	0	2520	55	4	2	27273
2015	220	0	0	40	0	34	424	276	19	4797	9	23	0	0	0	0	84	23	23	0	3194	26	1	1	8975
2014	222	0	0	10	2	19	212	135	2	1518	0	14	0	1	0	1	22	5	12	1	1763	16	4	1	3740
2013	234	0	1	33	4	17	278	233	2	5925	0	72	0	9	0	0	270	7	25	0	5367	17	1	0	12261
2012	230	55	27	14	2	130	1741	696	3	21637	16	28	0	0	0	0	386	18	55	0	2370	26	4	0	27208
2011	241	0	32	21	0	85	1454	568	27	44832	21	57	0	0	0	0	559	14	27	2	3964	35	0	51	51761
2010	244	29	6	30	1	77	853	476	4	11165	8	17	0	0	0	0	214	18	41	12	1800	28	6	0	14786
2009	252	0	0	30	3	26	964	517	3	75683	3	36	0	1	1	0	92	8	24	3	3436	16	6	2	80859
2007	229	24	0	27	0	61	1389	168	0	9439	4	17	1	1	0	0	209	19	26	2	3455	21	4	23	14897
2006	240	2	0	41	0	161	531	118	6	39375	7	28	0	2	1	0	415	29	56	3	3173	25	0	3	43979
2005	195	13	0	46	1	93	1023	411	12	13423	5	12	0	6	1	0	138	23	43	7	2698	8	4	23	18069
2004	262	149	41	39	0	49	386	565	49	14183	36	37	0	2	0	0	245	24	44	4	2241	22	1	8	18134
2003	228	0	0	28	1	44	415	227	13	6996	5	30	0	4	0	0	169	42	33	3	2470	21	5	2	10512
2002	254	0	0	24	0	27	718	246	6	49035	13	11	0	1	0	0	344	24	51	0	872	17	3	10	51410
2001	247	107	3	36	0	102	1816	500	19	84196	27	44	1	1	1	0	417	43	37	3	2786	52	6	4	90202
2000	275	0	12	37	1	101	431	401	27	27651	10	15	0	2	0	0	380	15	37	1	1932	8	4	0	31070
1999	242	20	4	26	1	115	1955	373	14	27467	15	11	0	1	0	0	560	25	54	1	1312	14	5	45	32080
1998	238	11	10	31	0	106	2124	495	22	9514	11	4	0	0	0	0	608	15	40	0	1491	11	15	131	14673
1997	276	31	99	21	0	77	2345	294	17	23361	3	11	0	0	0	0	215	48	16	0	1813	21	1	34	28915
25 year																									
Avg	235	20	14	27	1	68	931	353	14	25691	16	30	0	2	0	0	232	24	34	2	2760	29	3	14	30295
2023	237	129	6	17	2	82	1026	469	15	29438	45	56	0	1	0	0	165	27	27	1	5163	58	2	8	36737
2023 as	101	652	42	63	139	120	110	133	109	115	286	186	0	57	0	0	71	114	79	57	187	200	63	56	121
% of AVG																									
		BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	SW	FH	WT	HH	ZT	AK	ML	PG	CC	MK	SK	WK	UA	TOTAL

The September count was 21% above average.

Well above average were Black Vultures, Red-tailed, Swainson's, Mississippi and Swallow-tailed Kites.

Above average were: Bald Eagles, Northern Harriers, Sharp-shinned, Cooper's, Red-shouldered, Broad-winged and Merlin.

Turkey Vultures, Osprey, kestrels and Peregrines were below average.

October Fest

October 6 was a day of celebration for the 27th season of the count. A fun day with a big crowd and familiar faces but short on birds considering a good north wind. It had been slow since Sept 18th and I figured the Broad-winged push was not happening this year. The following Thursday, the 12th, Broad-winged Hawks picked up and then a three-day span with a raptor count of 104,384. From October 12 -20 the count was 129,046. There have been three seasons with counts over 100,000. In the 2001 season the big flights of Broad-winged happened in September. The 2014 and this season's big Broad-winged flights happened mid-October. During the busy 3 days roughly 100 dark morph Broad-winged Hawks passed by indicating more of a western mix of this species.

A partial solar eclipse occurred on October 14th, 21461 raptors, and it seemed that all birds got down as the eclipse neared peak and got back up as it waned. A local lady came by the tower to tell us she had 3000 hawks in her yard. Marci brought eclipse glasses and we all took hawk counting breaks to enjoy the show.

The spreadsheet below is the daily October count.

Date	Obs	BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	RL	SW	FH	WT	HH	GE	AK	ML	PG	CC	MK	SK	WK	UA	TOTAL
Oct	Hrs																									
10/1	7.75					3	62	20		17								17	2	1		27				149
10/2	8					10	94	26		8								24	2			25		1		190
10/3	3.25					1	2	2																		5
10/4	6.75						28	1										3		1		4		2		39
10/5	2.83										1															1
10/6	9.5				1	4	85	78		371	2		6					74	2	3		95				721
10/7	8.75		9		3	9	145	37		178	2							81	5	1		5				475
10/8	9	11	19		1	16	36	46	3	76	7		8					19	4	4		6		1	7	264
10/9	9.13		38			10	31	26	1	114			1					46	3			1			1	272
10/10	8		14			12	26	11		5								4				1				73
10/11	0																									0
10/12	8		86		1	23	31	31		2433	4		10					26	1	1		20				2667
10/13	7.13		18			20	18	14		5270	5		5					9		1		1		1		5362
10/14	8.5	4	195		1	19	169	54	2	20854	6		67		5			73	3	4		5				21461
10/15	9.5	5	289		2	11	616	86	1	44729	20		31		2			44	3	1		7				45847
10/16	7.5	10	370		1	17	146	165		36309	19		16		3			12	3	2		2			1	37076
10/17	8	34	255		2	1	8	7	30	4138	23		2					2							1	4503
10/18	9.38	15	259		2	24	12	17		4143	2		5					17		1						4497
10/19	8.5	23	462		1	19	7	8		6015	8		14		1			2								6560
10/20	7.38					11	35	5		1000	1		1					18	1	1						1073
10/21	6		415			7	50	8		128	4		2					15								629
10/22	8	11	71		1	9	10	2										10								114
10/23	7.67		55			37	14	1		51	1		1					6				3				169
10/24	8				3	18	15			1	1							4				1				43
10/25	7.17					13	7	1										11	1							33
10/26	7.75				1	3	1											3		1						9
10/27	8.13		68		1	23	10			11	1							14		1						129
10/28	7.25	49	222			42	97	68		56	2							25	3	2						566
10/29	7					22	17	10			2		3					5								59
10/30	6.92				1	5												52	3							61
10/31	6.5	9	597		3	24	26	10	3	745	5		9	1				21	2	4						1459
Total	227	171	3442	21	5	420	1797	757	10	126652	116	0	181	1	11	0	0	637	38	29	0	203	0	5	10	134506
		BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	RL	SW	FH	WT	HH	GE	AK	ML	PG	CC	MK	SK	WK	UA	

Sharp-shinned counts on 10/14,15,16 were 169, 616, 146. The Cooper's Hawk count on 10/16 was 165.

The spreadsheet below compares this October to the 25-year average (the 2008 season was not averaged in because of Hurricane Ike ending the season early)

Month	Obs	BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	SW	FH	WT	HH	GE	AK	ML	PG	PR	CC	MK	SK	WK	HK	UA	BH	TOTAL
Oct	Hrs																											
2022	241	141	2705	11	18	423	1174	552	14	2691	92	144	1	2	2	1	447	30	26	0	0	81	0	1	0	3	0	8560
2021	241	70	4235	12	23	379	1883	833	6	20428	188	265	0	6	0	0	469	91	74	0	2	424	1	7	0	3	1	29400
2020	242	60	2216	19	26	233	1019	600	13	9467	37	73	0	5	0	0	761	39	31	0	0	331	1	3	0	2	0	14937
2019	237	12	1080	20	17	205	1582	683	15	10406	67	97	0	6	0	0	321	46	36	0	0	142	0	0	0	0	0	14738
2018	233	126	836	28	18	255	1921	367	7	16455	44	107	0	2	1	0	276	29	60	0	0	1501	0	2	0	2	0	22039
2017	251	147	2112	23	20	335	1911	673	27	23194	135	504	0	9	6	2	502	27	49	0	0	247	0	10	0	12	0	29945
2016	261	47	683	13	3	204	1693	720	15	20153	44	67	0	2	0	0	329	27	52	0	0	191	1	6	0	7	1	24258
2015	212	42	549	17	6	267	1221	746	7	13722	39	147	0	4	0	0	378	28	42	0	0	70	2	8	0	7	0	17303
2014	240	217	1971	4	9	109	493	227	4	102138	15	89	0	3	0	2	162	5	21	0	1	71	0	0	0	3	0	105549
2013	226	127	1074	55	7	203	1678	1048	12	22148	27	260	1	10	0	1	944	25	105	0	0	405	2	4	0	0	0	28136
2012	267	235	3760	35	22	487	5392	1156	12	17269	66	195	1	5	3	2	2032	34	54	0	0	318	2	8	0	0	0	31088
2011	242	150	2705	19	5	339	905	497	30	3436	53	201	1	3	1	0	589	14	19	0	6	75	0	0	1	13	0	9069
2010	258	145	1410	20	8	179	561	290	11	5211	47	155	0	2	0	1	416	22	30	0	0	39	0	3	0	6	0	8560
2009	238	83	595	7	3	84	1174	242	4	9237	16	121	0	2	1	0	276	9	29	0	1	498	1	4	0	1	0	12391
2007	268	60	1370	27	10	392	2882	664	2	9221	75	280	1	4	0	2	1984	51	58	1	3	127	0	14	0	2	0	17241
2006	207	20	500	44	5	173	683	151	11	9944	37	134	0	4	3	1	514	21	32	0	0	52	0	4	0	9	0	12343
2005	244	41	872	22	4	153	1339	675	12	6364	45	247	0	11	2	0	831	13	46	0	3	36	0	9	0	80	0	10837
2004	270	180	1529	47	0	118	1249	330	11	10271	22	743	1	4	0	0	924	51	83	0	11	65	0	9	0	3	0	15655
2003	271	74	1695	35	0	122	959	446	28	14128	40	148	2	12	0	0	577	34	48	0	2	68	0	12	1	2	0	18434
2002	244	31	429	21	1	73	2343	815	4	14913	7	106	1	3	0	0	1542	29	43	0	1	36	0	3	0	2	0	20406
2001	259	181	2063	20	2	261	1897	647	12	19039	170	250	1	8	0	0	667	26	37	0	10	74	0	10	0	4	0	25383
2000	279	0	404	13	0	123	916	483	16	1742	13	95	0	7	0	1	794	24	37	0	2	46	0	9	0	11	0	4739
1999	254	207	912	22	1	335	1871	728	11	6441	109	96	0	0	0	1	1306	18	27	0	1	52	1	9	0	54	0	12280
1998	237	59	395	31	0	129	1082	617	1	5723	6	34	0	1	0	0	702	9	49	0	2	70	0	4	0	38	0	9021
1997	282	42	590	28	0	166	2173	412	18	5125	7	46	0	0	0	0	947	37	46	0	4	161	0	5	0	6	0	9847
25 year																												
Avg	248	100	1468	24	8	230	1600	584	12	15155	56	184	0	5	1	1	748	30	45	0	2	207	0	6	0	11	0	20486
Actual																												
2023	227	171	3442	21	5	420	1797	757	10	126652	116	181	1	11	0	0	637	38	29	0	0	203	0	5	0	10	0	134506
2023 as	92	171	235	89	60	183	112	130	83	836	207	98	250	239	0	0	85	129	64	0	0	98	0	87	0	93	0	657
% of AVG																												
		BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	SW	FH	WT	HH	GE	AK	ML	PG	PR	CC	MK	SK	WK	HK	UA	BH	

Well above average: Black and Turkey Vultures, Northern Harrier, Broad-winged Hawks (at 836%) and Red-tailed Hawks.

Above average or close to: Sharp-shinned and Cooper’s Hawks, Swainson’s Hawks and Merlins.

Below average: Osprey, Bald Eagles, Red-shouldered Hawks, American Kestrels and Peregrine Falcons.

November

November is always a good month on the tower. Geese and cranes in the air and cormorants, mergansers and an occasional loon close to the water and this season a Surf Scoter by the breakwater. A good flight of Northern Harriers carried thru the month with the season high count of 48 on the 14th. Red-tailed Hawks also had a strong month.

Date	Obs	BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	RL	SW	FH	WT	HH	ZT	GE	AK	ML	PG	CC	MK	SK	WK	UA	TOTAL
	Hrs																										
11/1	7	12	819		6	19	30	55	2	787	23		18						5								1776
11/2	8		177		1	9	4	3		143	2		10								1				1		351
11/3	8					11	3	12		39	3		1						1								70
11/4	8	8	250			8	7	6		65	3								1								348
11/5	7		13			9	4	6		21	3		1						3								60
11/6	8					2	1												2								5
11/7	8					7	1				1								1								10
11/8	8					3													1								4
11/9	8		142			7	1	1																			151
11/10	0																										0
11/11	8					2																					2
11/12	5					1																					1
11/13	0																										0
11/14	6	5	121		3	48		6		2	28		1						1		1						216
11/15	8	5	122			27	10	10		60	36		6		1				6								283
11/16	8					4																					4
11/17	8	14	250		2	12	1	7		5	9								2								302
11/18	8	9	224	3		18	5	16		22	29		1		1						1	1					330
11/19	8					2	2	2			1																7
11/20	8					5	1																				6
11/21	8			3		8	2	3		2	1		1						3								23
11/22	8	7	89			8	4	7		42	8		1												1		167
11/23	1																										0
11/24	7		126		2	9		4		27	23		3														194
11/25	7		27	2	2	8	4	5		11	16								2		1						78
11/26	7					2	1			2	2		1														8
11/27	8		125		2	5	2	2		11	18																165
11/28	8	12	16			1	2	2		5	2																40
11/29	7		32			3				1	2																38
11/30	0																										0
Total	195	72	2533	8	18	238	85	147	2	1245	210	0	44	0	2	0	0	0	28	2	2	1	0	0	2	0	4639

The spreadsheet below compares this November to the 25-year average (the 2008 season was not averaged in because of Hurricane Ike ending the season early). Since 2019 the count has ended on November 30. The previous counts ended on November 15.

Month	Obs	BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	RL	SW	FH	WT	HH	ZT	GE	AK	ML	PG	CC	MK	SK	WK	UA	TOTAL
	Hrs																										
Nov-22	183	20	2104	13	23	173	147	135	1	188	202	0	31	0	2	0	0	1	20	8	5	0	1	0	2	2	3078
Nov-21	217	154	5734	11	52	187	262	252	10	1415	169	0	89	1	2	2	0	0	51	1	8	0	1	0	5	2	8408
Nov-20	214	74	856	8	17	110	59	66	4	116	80	0	24	0	0	0	0	0	27	8	3	0	0	0	0	3	1455
Nov-19	211	118	3946	3	17	206	230	134	4	651	197	0	19	1	3	0	0	2	24	7	6	0	1	0	3	0	5572
Nov-18	103	110	2549	4	7	104	129	87	5	2204	324	0	42	0	0	1	0	1	43	1	3	0	0	0	2	0	5616
Nov-17	119	57	1131	2	16	154	120	64	2	765	53	0	71	0	6	5	0	2	34	0	9	0	0	0	0	0	2491
Nov-16	118	65	1130	3	3	168	86	97	1	246	66	0	40	1	2	0	0	0	23	4	5	0	0	0	3	2	1945
Nov-15	116	75	565	4	2	100	109	128	1	194	54	0	328	0	0	0	0	1	24	7	7	0	0	0	3	1	1603
Nov-14	113	32	213	0	8	17	13	6	0	64	15	0	9	0	1	0	0	0	4	0	1	0	0	0	0	1	384
Nov-13	118	64	612	9	9	151	161	138	3	660	32	0	44	0	1	0	0	0	96	4	5	0	1	0	5	0	1995
Nov-12	122	115	474	9	13	196	135	201	9	101	107	0	338	1	15	0	0	3	29	1	3	0	0	0	4	0	1754
Nov-11	117	19	425	3	2	94	72	58	3	24	22	0	13	1	1	1	0	0	35	1	1	0	0	0	1	3	780
Nov-10	101	31	262	1	1	53	56	22	2	93	40	0	21	0	0	0	0	2	42	3	7	0	0	0	0	0	637
Nov-09	125	65	453	0	0	33	63	44	2	161	8	0	21	0	0	0	0	1	44	2	0	0	1	0	1	0	901
Nov-07	126	59	594	9	1	71	53	48	7	69	57	0	6	0	1	0	0	1	61	2	2	1	1	0	0	0	1047
Nov-06	78	52	534	7	2	53	89	35	2	122	44	0	36	0	1	0	0	0	31	3	1	0	0	0	1	2	1015
Nov-05	107	58	313	2	0	47	38	25	3	28	34	0	46	0	1	0	0	0	35	1	1	1	0	0	2	2	639
Nov-04	119	39	1521	1	1	77	285	243	4	1267	82	0	247	0	2	0	0	0	98	3	2	8	0	0	1	3	3886
Nov-03	136	22	468	8	1	35	133	56	3	348	16	0	30	0	5	0	0	0	65	3	3	1	1	0	1	0	1201
Nov-02	132	28	249	0	2	43	76	149	0	160	7	0	12	0	0	0	0	0	59	3	0	1	1	0	1	1	794
Nov-01	117	91	422	6	0	107	162	98	10	121	69	1	13	0	3	1	0	0	51	1	3	2	0	0	2	5	1168
Nov-00	124	4	640	2	6	134	134	162	14	57	50	0	112	0	2	0	0	0	131	4	4	6	0	0	1	2	1465
Nov-99	86	111	378	4	0	76	69	86	3	54	74	1	9	0	1	0	0	0	59	4	1	2	0	0	2	13	952
Nov-98	65	35	176	1	0	22	22	12	2	47	18	0	13	0	0	0	0	0	14	1	0	0	0	0	0	0	364
Nov-97	171	57	536	2	2	200	249	419	4	192	310	0	57	0	0	0	0	3	127	2	3	2	0	0	5	7	2196
25 year average	Hrs	BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	RL	SW	FH	WT	HH	ZT	GE	AK	ML	PG	CC	MK	SK	WK	UA	TOTAL
	129	62	1051	4	7	104	118	111	4	374	85	0	67	0	2	0	0	1	49	3	3	1	0	0	2	2	2054
Nov-23	195	72	2533	8	18	238	85	147	2	1245	210	0	44	0	2	0	0	0	28	2	2	1	0	0	2	0	4639
2023 as																											
% of avg	151	116	241	179	243	228	72	133	51	333	246	0	66	0	102	0	0	0	57	68	60		0		111	0	226

Turkey Vultures, harriers, Broad-winged and Red-tailed Hawks were all well above average.

Season

Season	Obs	BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	RL	SW	FH	WT	HH	ZT	GE	AK	ML	PG	PR	CC	MK	SK	WK	HK	UA	BH	TOTAL
	Hrs																													
F 2022	781	161	4809	53	45	671	1967	1255	48	13038	367	0	335	1	8	2	0	2	591	63	73	0	1	3961	122	7	0	12	0	27593
F 2021	802	224	10064	45	79	647	2541	1303	21	55611	376	0	424	1	10	2	0	0	564	110	100	0	3	6612	155	13	0	5	1	78912
F 2020	766	134	3072	46	46	387	1968	930	25	54595	137	0	206	0	7	2	0	0	839	69	43	0	0	6595	142	4	0	5	0	69253
F 2019	802	159	5074	41	39	428	1989	969	29	13849	292	0	208	1	13	0	0	2	399	81	56	0	0	3016	111	5	0	0	0	26764
F 2018	763	242	3385	53	29	406	2302	604	33	57459	391	0	238	0	6	7	0	1	335	64	100	0	0	6478	119	6	0	3	0	72263
F 2017	791	227	3243	56	37	533	2570	1050	55	44104	239	0	620	0	19	13	0	4	611	67	89	0	1	2899	75	12	0	22	0	56546
F 2016	828	137	1838	50	7	454	3103	1425	42	43048	146	0	144	1	5	0	0	0	460	59	128	0	0	2796	141	17	0	11	1	54013
F 2015	781	117	1114	68	9	401	1758	1167	36	19058	113	0	567	0	4	0	0	1	489	58	74	0	0	4905	99	14	0	9	0	30065
F 2014	804	249	2184	23	19	145	726	390	7	103877	33	0	158	0	7	0	1	2	190	10	35	0	2	3294	37	7	0	6	0	111411
F 2013	747	191	1687	102	20	371	2118	1437	17	28936	59	0	527	1	26	0	0	1	1313	36	135	0	0	5890	38	10	0	0	0	42915
F 2012	794	405	4261	65	38	816	7271	2066	29	39452	194	0	633	2	28	3	0	5	2449	53	114	0	5	9297	162	16	0	0	0	67369
F 2011	829	169	3162	43	7	520	2435	1144	72	48498	114	0	302	2	11	2	0	0	1185	29	50	0	10	4232	69	1	1	67	0	62163
F 2010	750	205	1678	53	10	309	1470	809	17	16743	95	0	229	0	3	0	0	3	676	44	78	0	14	2475	54	11	0	6	0	24988
F 2009	756	148	1048	38	7	145	2212	816	11	85209	29	0	232	0	3	2	0	1	416	20	54	0	4	4069	58	11	0	5	0	94553
F 2007	767	143	1964	64	11	524	4325	890	9	18828	138	0	321	2	6	0	0	3	2255	72	86	1	8	3739	61	18	0	27	0	33520
F 2006	653	74	1034	93	7	389	1303	308	22	49575	89	0	210	0	8	4	0	1	961	53	90	0	5	3683	78	5	0	14	0	58010
F 2005	689	112	1185	76	5	296	2407	1150	31	20380	84	0	360	0	24	3	0	0	1009	37	92	0	13	7952	99	18	0	111	0	35568
F 2004	797	368	3091	87	1	244	1923	1161	88	26013	159	0	1036	1	14	0	0	0	1272	78	129	0	26	3770	149	12	0	14	0	39658
F 2003	778	96	2163	78	2	203	1508	738	49	21799	64	0	228	2	23	0	0	0	816	79	88	0	8	3809	98	18	1	4	0	31885
F 2002	775	59	678	48	3	144	3142	1233	23	65255	44	0	168	1	8	0	0	0	1949	56	94	0	7	7879	150	7	0	18	0	80984
F 2001	743	379	2488	62	2	472	3878	1281	54	103612	273	3	321	2	12	2	0	0	1140	70	77	0	16	3253	74	26	0	15	0	117517
F 2000	823	4	1059	60	7	372	1484	1088	61	29956	77	0	255	0	11	0	0	1	1311	43	79	0	9	4788	46	17	0	14	0	40766
F 1999	697	341	1295	54	2	537	3896	1207	34	34243	204	2	129	2	2	0	0	1	1938	47	85	0	4	2975	52	18	0	113	0	47337
F 1998	677	105	581	68	0	262	3231	1136	36	16137	35	0	56	0	1	0	0	0	1334	26	92	0	3	2362	34	25	0	170	0	25824
F 1997	860	130	1225	54	2	445	4780	1137	45	30417	331	0	137	0	0	0	0	3	1297	88	65	0	6	2124	40	11	0	49	0	42993
25 year																														
Average	770	183	2535	59	17	405	2652	1068	36	41588	163	0	322	1	10	2	0	1	1032	56	84	0	6	4514	95	12	0	28	0	54915
		BV	TV	OS	BE	NH	SS	CH	RS	BW	RT	RL	SW	FH	WT	HH	ZT	GE	AK	ML	PG	PR	CC	MK	SK	WK	HK	UA	BH	TOTAL
F 2023	788	372	5981	50	25	743	2908	1400	29	157641	375	0	316	1	14	0	0	0	831	67	65	0	2	6875	117	9	0	18	0	177839
2023 as a																														
% of Avg	102	203	236	84	144	184	110	131	81	379	230	0	98	132	135	0	0	0	81	119	77	0	34	152	123	73	0	64	0	324

The mid-October Broad-winged party brought the total raptor count to a whopping 324% of the 25-year average.

Well above the average: Black and Turkey Vultures, Northern Harriers, Broad-winged (379%) and Red-tailed Hawks and Mississippi Kites.

Above average or close to average: Bald Eagles, Sharp-shinned and Cooper’s Hawks, Swainson’s Hawks, Merlins and Swallow-tailed Kites (the Swallow-tailed average includes the 2008 season which had 202, still the season high count).

Below average: Osprey, Red-shouldered Hawk, American Kestrel, Peregrine Falcon. The kestrel count was the second highest since 2014.

The Northern Harrier count was the second highest ever and the Red-tailed count was the third highest for a season.

Other things

Below: The total raptor and Broad-winged counts for the 2014 and 2023 mid-October big flights

	SP 2014	SP 2023		2014	2023
	total	total		BW	BW
12-Oct		2667			2433
13-Oct		5362			5270
14-Oct	922	21461		713	20854
15-Oct	10618	45847		10481	44729
16-Oct	12355	37076		12058	36309
17-Oct	14864	4503		14316	4138
18-Oct	26213	4497		26093	4143
19-Oct	24123	6560		23963	6015
20-Oct	10558	1073		10391	1000
21-Oct	2122				
	101775	129046		98015	124891

Below: The ten highest Broad-winged monthly counts

Oct	2023	126652
Oct	2014	102138
Sept	2001	84196
Sept	2009	75683
Sept	2002	49035
Sept	2011	44832
Sept	2020	44744
Sept	2006	39375
Sept	2018	38595
Sept	2021	33579

There have been two daily counts over 50,000 total birds that I know of: Sept 25 in the 2001 season with 50,445 raptors and a 1995 count in late Sept of over 50,000 raptors (personal communication with Winnie Burkett).

4 days accounted for 121,909 raptors which is 68.55% of the season count.

17-Sep	17525
14-Oct	21461
15-Oct	45847
16-Oct	37076
	121909

The 3-day mid-October Broad-winged flight by-passed or were too high to be picked up at Corpus Christi. The last big flights at Corpus Christi ended on October 9. I don't see the numbers at the 2 Veracruz sites either. Their big counts ended on October 16 and 17 and the sites are roughly 921 miles from Houston, probably too far for the Smith Point Broad-winged flight to get there. 10 days after Oct. 14 the northern most site in Costa Rica, Ecovida-Astos Hawkwatch (roughly 2375 miles from Houston), a similar flight size started arriving. The numbers at each site are highlighted in red. The last big flight ended at this Costa Rica site on Oct. 26.

		Corpus 207 miles	Veracruz 921 miles	Veracruz 921 miles	Costa Rica 2375 miles
	SP	CC	Cardel	Chich	Heredia
Date	BW	BW	BW	BW	BW
10/1	17	8	10458	70414	11990
10/2	8		74715	43083	17889
10/3		34539	11317	12225	835
10/4		2076	1171	3456	11
10/5		1	1418	3339	58
10/6	371	24878	20705	25695	30906
10/7	178	86752	247	1079	33816
10/8	76	45270	2	15	24298
10/9	114	36285	169	1653	1200
10/10	5		170906	58368	64609
10/11		3913	45644	1472	19875
10/12	2433	1692	359	2095	1576
10/13	5270	6951	604	786	650
10/14	20854	4125		9	1285
10/15	44729	953	4150	2759	513
10/16	36309	1113	101739	21642	84
10/17	4138	3751	1822	18209	88
10/18	4143	3358	454	1287	180631
10/19	6015	548	3967	227	89362
10/20	1000	2758	5176	1776	11320
10/21	128	1252	1466	633	1292
10/22		64	484	320	3772
10/23	51	6	704	317	2806
10/24	1		189	84	26332
10/25			68	86	15256
10/26		1	15	4	63644
10/27	11	10	57	55	525
10/28	56	4	44	168	59
10/29		12	104	15	43
10/30		31	10	745	175
10/31	745	74	8	28	32
Total	126652	260425	458172	272044	604932

A new physical feature by the tower is a breakwater about 20 yards off the shoreline. This rocky feature will only get better as critters start growing on it. At various times the rocks or posts had up to 7 oystercatchers, Black-bellied Plovers, Killdeer, Semi-palmated Plovers, Greater Yellowlegs, Willets, Sanderling, both pelicans, a Red-breasted Merganser, a Red-tailed and a Broad-winged Hawk, Ring-billed and Laughing Gulls and a dolphin poking in the rocks. A spoonbill fed between the breakwater and the shoreline and a Surf Scoter was hanging close to the rocks.

Many thanks for the folks who gave me days off: John and Lynn Wright, Joe Kennedy, Winnie Burkett, Sue Heath, Tad Finnell

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For Marvin