Brockway Mountain Hawk Watch report for the 2022 season. Prepared by Bob Baez.

Tim Baerwald stepped in an did March with some days carried by Joe Youngman. Deb Mues and Joe covered some days in April and May. Gary Palmer, Brendan Leddy, David Flaspoler and Joe covered some days in May when I needed to be back in Pennsylvania to be with my mom. Karen, Hannah and Deb kept the wheels greased all season and were very supportive. It was as always a team effort.

## March

Tim Baerwald conducted the count in March and I asked him if he could send a brief account. This is his reply.

"I would describe this March as wintery. With several feet of snow added during the count and a couple days with high temps that never broke 14\*F. I've attached a photo from March that describes the month well."



This picture is a thousand words.

The previous 12-year average for March is 290 raptors. This March 85 birds, 29% of the average.

# April

The first Red-tailed Hawks of the season showed up on April 3 with Joe seeing 11. A Turkey Vulture came on April 9. The firsts Cooper's Hawks, Rough-legged Hawk, Merlin and Peregrine arrived on April 10. 2 adult Northern Harriers floated by together on April 11. The 11<sup>th</sup> had very strong winds with gusts to 8 on the Beaufort scale. This not so bright observer was pushing on the shack door with the weather instrument in 1 hand. The door separated from the shack. Fortunately, the door went back on easily the next morning.

The first big flight of the season occurred on April 24 with nice diversity and 913 raptors. A perfect SE healthy wind, sunshine and warmth made excellent conditions for migrating raptors. Broad-winged and Swainson's Hawks made their first appearance of the season. Northern Harrier, Red-tailed and Rough-legged numbers were impressive. It was also the first big flight of Sharp-shinned Hawks with 290 birds, the high count for the season. The species below in bold are all high counts for the season set that day.

ΤV	OS	ΒE	NH	SS	СН	NG	RS	BW	SW	RT	RL	GE	AK	ML	PG	TOTAL
199	8	62	39	290	2	2		50	1	85	141	3	23	4	4	913

A few single day records were set on this day. The Northern Harrier count of 39 broke the April 15, 2016 high of 36 (April 14, 2016 had 34, very good back-to-back days for harriers). The Rough-legged Hawk count of 141 broke the record of 120 set last season on April 9.

The previous 12- year average for April is 2,188 raptors with this season having 1,552, 71% of the average. 11 days were no counts because of snow, rain or fog.

## May

The first day of May was a rain out and the next 2 days were slow with wrong way winds. The 4<sup>th</sup> day had very light ENE wind, warmth and good thermals kicking the count into gear. From May 4 to 13 9,024 raptors were counted. This was just shy of 2/3rds of the season count (65.8%) and 81% of the May count. The wind was predominately SE, mild to strong.

Date	BV	TV	OS	BE	NH	SS	СН	NG	RS	BW	SW	RT	RL	GE	AK	ML	PG	UF	TOTAL
5/4		29	1	22	1	32	1			776		32	15	4		1			914
5/5		56	1	28	5	55		3		887		42	8	7					1092
5/6		34		6	6	106	1			275	1	26	28	1	6	2	4		496
5/7		47	2	73	6	215	2	1	3	992		72	63	2	11	1	2		1492
5/8			2	13	7	97	5	3		469		14	16	1	3	1	3		634
5/9		6	2	5	1	7			1	35		1	2		2	2	6	1	71
5/10		12		19	2	45				453		18	11	4			1		565
5/11		33	1	6		10				1193		24	5		2				1274
5/12		11		3	1	27				380		8	2			1	1		434
5/13		15	2	5	4	122				1830		45	13	2	9	1	4		2052
Total		243	11	180	33	716	9	7	4	7290	1	282	163	21	33	9	21	1	9024

Highlights in this 10 day run

May 5: 7 Golden Eagles, a season max., May 5 and 8 each had 3 Northern Goshawks, a season max.

May 7: 3 Red-shouldered Hawks, first of the season and max.

May 8: 5 Cooper's Hawks, season max.

May 9: 6 Peregrine Falcons, season max.

May 13: 1830 Broad-winged Hawks, season max. (awesome day)

Deb Mues and Gary Palmer each had fun doing big count days in this period.

The last 2 days of May and the first 2 days of June added a mini peak to the count.

Date	BV	ΤV	OS	BE	NH	SS	СН	NG	RS	BW	SW	RT	RL	GE	AK	ML	PG	TOTAL
5/30		17	1	10		8				396		2			1			435
5/31		7	2	73		4				775	1	10			3			875
6/1										11		1						12
6/2		15		21		1				389		13						439
Total		39	3	104	0	13	0	0	0	1571	1	26	0	0	4	0	0	1761

These 2 peaks and the April 24 count totaled 11,698 raptors and accounted for 85% of the total count.

The 12 previous year's average for May is 8,376 raptors. This season's May count is 11,126, 133% of the average.

There were 9 no count days in May. 2 because of weather and 7 because of the death of my mom. Karen, Hannah and Deb scrambled to get counters and tried to place them on good weather days.

### June

The first 6 days of June had several S wind days and moving raptors. June 10 and 12 brought light N winds and thermals and raptors with 176 Broad-winged Hawks on the 12th. The SE wind on June 13, 14 were gusting to 7 and 8 on the Beaufort scale and perhaps too much for a productive count. 1 Northern Shrike on June 12.

The previous 12- year average for June is 2,148 raptors. This June 948, 44% of the average.

Season coverage next page

#### Season

The Excel spreadsheet below compares this year's actual numbers to the previous 12- year averages for the season and for each species. The 2010-22 row is Brockway's average for 13 seasons so it includes this year's numbers. The last row compares this year's numbers as a % to the previous 12-year average, i.e., Turkey Vultures are at 74% of the average and Broad-winged Hawks are at 123% of the average. I can do percentages but not statistics so any meaningful analysis would require someone with a working knowledge of stats, and would include regional numbers and years of data.

Season	BV	ΤV	OS	BE	NH	SS	СН	NG	RS	BW	SW	RT	RL	GE	AK	ML	PG	TOTAL
S 2022	0	699	31	676	95		14	16		9817	3	613	332	42	79	24	36	13711
S 2021	0	738	10	677	75	775	1	30	20	3405	0	885	342	32	37	25	9	7213
S 2020	0	549	13	451	49	339	2	15	7	2905	1	537	62	46	19	12	10	5039
S 2019	0	1240	17	1205	93	1401	13	16	6	5412	1	1017	226	49	77	25	18	10820
S 2018	0	894	56	946	112	1700	20	19	18	9655	6	777	354	36	73	17	36	14724
S 2017	0	796	24	567	105	842	0	14	7	6421	3	1121	107	31	69	13	17	10144
S 2016	0	866	21	663	122	1020	4	13	11	6558	1	1371	161	39	67	22	25	11022
S 2015	1	797	33	772	95	1312	3	16	15	4636	2	937	211	24	83	19	33	9187
S 2014	0	1769	74	1658	65	864	14	20	13	12322	6	1461	117	68	87	40	53	18634
S 2013	1	2163	175	1441	134	2987	21	40	21	15653	5	2182	385	81	259	52	70	25765
S 2012	0	285	62	1155	175	1923	14	23	17	14574	6	1254	238	30	67	13	26	19907
S 2011	1	477	21	545	80	2425	7	23	5	9346	4	745	98	23	114	28	34	14000
S 2010	0	760	47	826	145	1584	22	29	9	4934	7	698	127	33	97	44	22	9567
AVG																		
2010-22	0	926	45	891	103	1415	10	21	12	8126	3	1046	212	41	87	26	30	13056
AVG																		
2010-21	0	945	46	909	104	1431	10	22	12	7985	4	1082	202	41	87	26	29	13002
Actual																		
2022	0	699	31	676	95	1220	14	16	4	9817	3	613	332	42	79	24	36	13711
% 2022																		
to 2010-	0%	74%	67%	74%	91%	85%	139%	74%	32%	123%	86%	57%	164%	102%	90%	93%	122%	105%
21 AVG																		

Cooper's Hawk and Rough-legged Hawk were well above average. Broad-winged Hawk and Peregrine Falcon were over 20 % above average and Golden Eagle just above.

Northern Harrier, American Kestrel and Merlin were within 10% below average. Sharp-shinned Hawk and Swainson's Hawk were within 15% of average.

Turkey Vulture, Bald Eagle and Northern Goshawk were all 74% of average and Osprey at 67%.

Red-tailed Hawk came in at 57% of average and Red-shouldered at 32%.

Season regional comparisons: BWHW (Brockway), WF (Whitefish Point), Mac Br (Mackinac Bridge), Duluth West Skyline.

How to read: Season, I compared Brockway's previous 12 season average to this year's actuals and arrived at 105%, so 5% above the average. Then I did roughly the same for Whitefish and they are 107% or 7% above the seasonal average, etc. for Mackinac and Duluth. Then the same process for each month. So, Brockway was at 29% of the average March for Brockway, or 71% below the average. Ditto for each month at each site. I used my own judgement getting the season averages for each site. Some years it was obvious there was little or no coverage so I tossed those years. Beware, I can do percentages but not stats so do not but too much into these numbers especially over one season.

	BWHW	WF	Mac Br	Duluth
				WS
Season	105%	107%	97.50%	89%
March	29%	28%	86%	119%
April	71%	75%	83%	55%
May	133%	128%	114%	117%
June	44%		44%	

All 4 sites are close to average for the season. Brockway and Whitefish Point are way low in March. All 4 sites had subpar Aprils. All sites are plusses in May. The 2 open sites in May were quite low.

#### Red-tailed Hawk

Here are some regional comparisons of the Red-tailed. Same reasoning as the above regional comparisons but compared the Last 5-year average with All seasons average, 2022 actual numbers as a % to the 5 year avg. and the All season average. What it means I do not know. If someone has the knowledge and time it would be neat to look at all the species regionally.

		Brockway	Whitefish	MacBridge	Duluth WS	
All season	is Avg	1082	1727	10335	3797	
Last 5 yr A	vg	765	1011	15658	2853	
2022		613	954	7997	2145	
% 5yr AVG	i to All Avg	70.0%	58.5%	151.0%	75.0%	
%2022 to 5	5yr Avg	80%	94%	51%	75%	
%2022 to A	All yr Avg	57%	55%	77%	56.50%	

The End