



Interoffice Memorandum

TO: Neil Anderson

FROM: Franz Ingelfinger

RE: Southfork Flathead (HD 150 and HD 140) Elk Survey Memo

DATE: May 24, 2023

On 25 and 26 April 2023, Rob Cherot (pilot), and I counted and classified elk from an A-Star helicopter in the South Fork of the Flathead River. We conducted elk surveys in Hunting Districts 140 and 150 from Danaher Meadows to Dry Parks (Table 1, Map 1). We left Kalispell Airport each morning by 7:00 AM and began counting elk by 7:40 AM. This area had not been surveyed since 2019 due to Covid pandemic flight restrictions (2019-2020) and helicopter availability (2021-2022). This winter we flew the South Fork drainage once a month from January through April to increase our understanding of elk utilization and occupation of winter range and to aid our timing of aerial surveys this spring. Flight conditions on April 25 and 26 were optimal. South-facing slopes and the valley bottom were largely free of snow, but snow at elevation and northern aspects still confined elk to the wintering area. Flights occurred prior to green-up of the valley bottom.

Elk were observed in small to medium sized herds, with groups averaging just over eight elk, with a maximum herd size of 27 elk. Many bulls were still antlered, as were spikes. Within the survey area, encompassing both HD 140 and 150, we counted a total of 273 elk with 15 calves : 100 Cows, and 14 bulls : 100 cows. Calf:Cow and Bull:Cow ratios are close to the 15-year average. The total count of 273 elk is among the lowest observed in the South Fork in almost half a century (Table 2, Figure 1). Given that this was a well-timed and comprehensive survey, counts corroborate concerns raised by hunters and outfitters that elk numbers are near record lows withing the South Fork drainage.

In addition to elk, we observed numerous mule deer, white-tail deer, and two grizzly bears displaying courtship behavior.

Table 1. Elk count and classification in the South Fork of the Flathead River Drainage, including hunting districts 140 and 150 (25-26 April 2023).

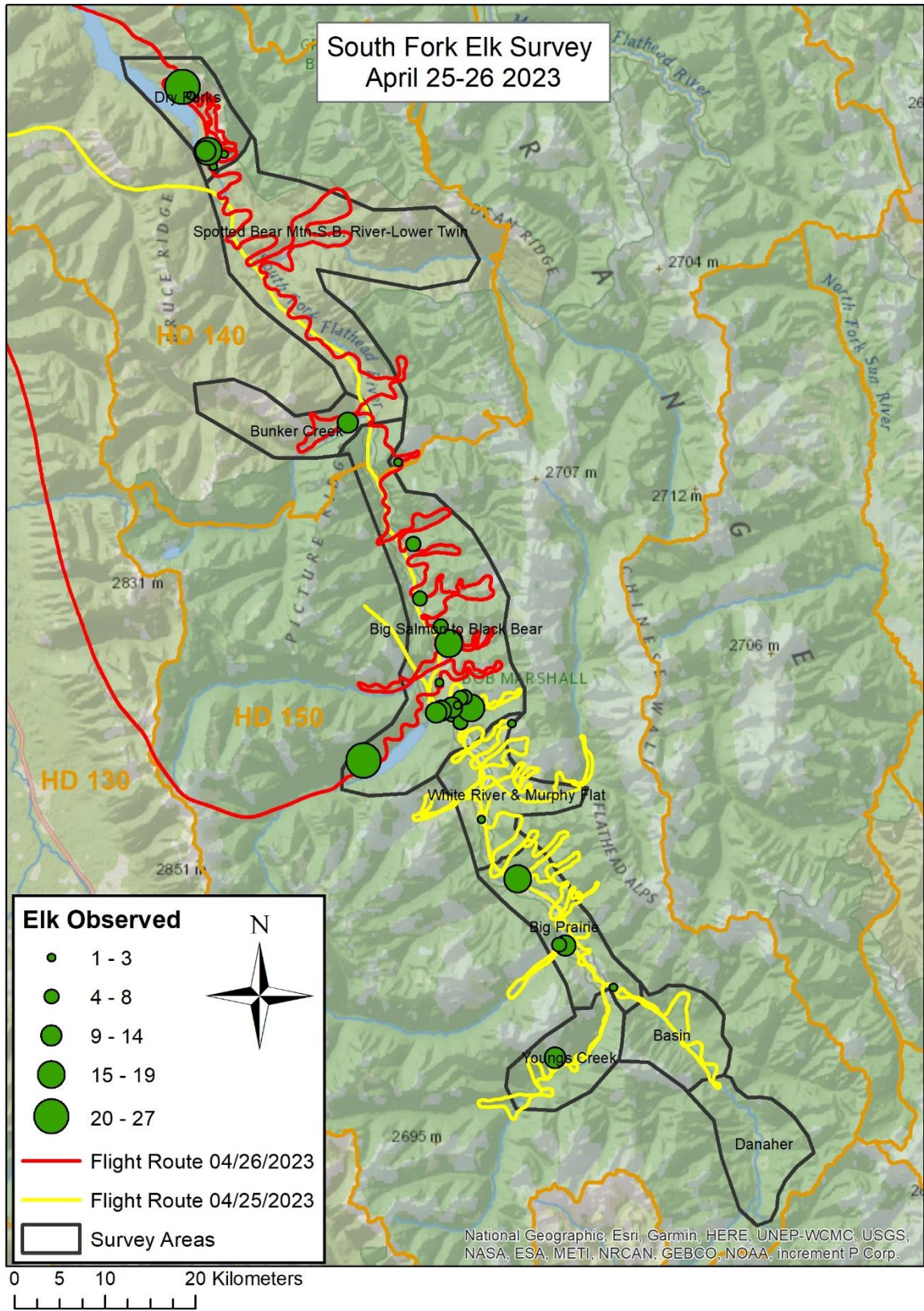
HD	Area	Cows	Calves	Bulls			Uncl	Total	Calves per 100 cows	Bulls per 100 Cows
				Ylg	Adult	Tot				
150	Danaher Meadows*							0	N/A	N/A
	Youngs Cr	6	3	3	1	4		13	N/A	N/A
	Basin							0	N/A	N/A
	Big Prairie - FlatIron	26	6	3	0	3		35	N/A	N/A
	Burnt Cr & White River Flats	1			2	2		3	N/A	N/A
	Black Bear - Big Salmon	124	16	1	14	15		155	N/A	N/A
	HD 150 Total	157	25	7	17	24	0	206	16	15
140	Bunker Cr	7	1	1		1		9	N/A	N/A
	Spotted Bear Mtn - L. Twin Cr							0	N/A	N/A
	Dry Parks	47	6	4	1	5		58	N/A	N/A
	HD 140 Total	54	7	5	1	6	0	67	13	11
150/140	Grand Total*	211	32	12	18	30	0	273	15	14

* Danaher Meadows not surveyed due to valley fog. Previous flights this winter only documented moose in this area.

Table 2. Total elk count from HD 140 and HD 150 (South Fork Elk) 1970-2023. When comparing trend across years, recognize that aircraft (fixed vs. rotary-wing) has been inconsistent, and some years surveys only covered a portion of the district. In addition, flights counted later in spring, after elk disperse from wintering grounds, result in lower counts. The 2023 survey conducted in April was comprehensive and well timed.

year	HD150	HD140	SF Total	Calves:100 Cows	Bulls:100 Cows
1970	312	218	530	27.3	21.0
1971	169	270	439	24.7	30.4
1972	391	221	612	16.9	23.1
1973	534	211	745	26.1	27.2
1974	305	252	557	31.4	19.5
1975	226	160	386	24.7	22.1
1976	143	122	265	14.9	21.0
1977	374	242	616	23.7	26.9
1978	345	334	679	31.0	25.1
1979	486	348	834	25.2	24.8
1980	417	173	590	22.8	20.1
1981	895	308	1203	26.3	31.3
1982	358	470	828	22.1	23.8
1983	749	502	1251	23.9	20.5
1984	1085	373	1458	28.3	30.5
1985	879	331	1210	19.4	15.3
1986	769	421	1190	38.8	13.3
1987	702	188	890	18.7	7.2
1988	1052	318	1370	41.1	15.9

Year	HD150	HD140	SF Total	Calves:100 Cows	Bulls:100 Cows
1989	949	412	1361	31.5	15.8
1990	708	419	1127	27.1	15.1
1991	650	435	1085	12.6	9.7
1992	608	429	1037	27.4	22.3
1993	525	358	883	24.9	13.1
1994	510	287	797	30.9	8.4
1995	555	245	800	31.9	16.3
1996	298		298	18.5	9.2
1997	269	179	448	18.3	11.3
1998	250		250	11.1	4.1
1999	188	224	412	26.8	15.2
2000	352	253	605	28.7	15.2
2001	226		226	22.7	45.5
2002	44	223	267	27.3	16.7
2003	510	153	663	28.0	46.8
2004	466	344	810	30.0	32.9
2005					
2006					
2007					
2008	280	120	400	13.7	13.3
2009	355	301	656	4.3	18.1
2010	283	373	656	20.2	12.7
2011	326	225	551	9.0	14.8
2012	472	210	682	29.3	18.7
2013	435	207	642	16.9	13.8
2014	482	201	683	15.5	16.9
2015	208	54	262	5.9	11.3
2016	347	65	412	18.5	12.5
2017	266	40	306	9.5	11.5
2018	222		222	7.8	6.0
2019	198	102	300	13.8	7.5
2020					
2021					
2022					
2023	206	67	273	15.2	13.7



Map 1: Flight Route of South Fork Drainage Surveys— April 25 - 26, 2023.

South Fork Elk Counts -- Spring Green-Up 1970-2023

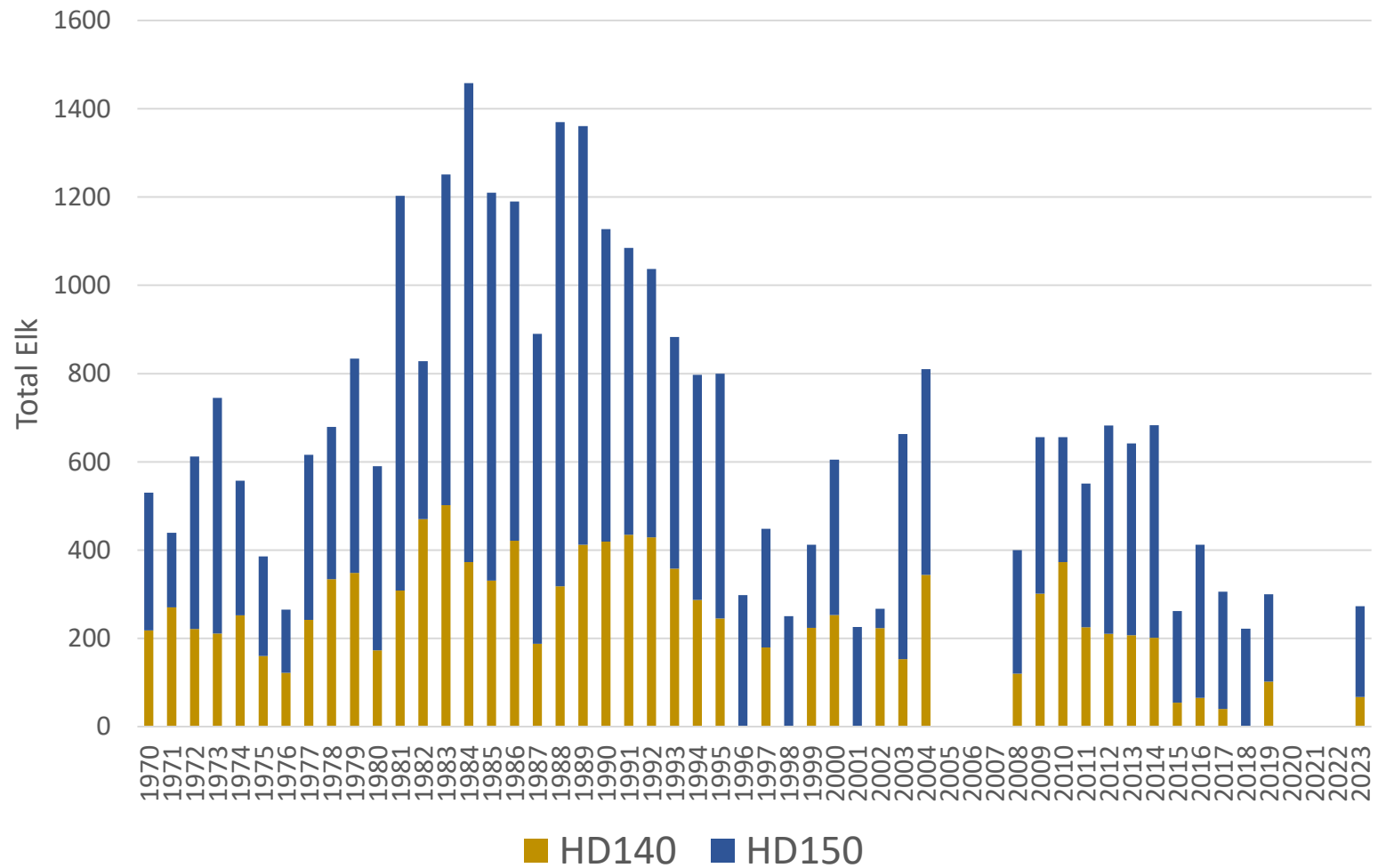


Figure 1: South Fork elk counts: 1970 – 2023.