

MOUNT LORETTE, BEAVER MINES and STEEPLES RAPTOR COUNTS

FALL 2018



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PETER SHERRINGTON

Introduction This is the 27th consecutive year that RMERF has conducted at least one fall count in the Front Ranges of the Alberta Rocky Mountains. In 1992 an extensive reconnaissance count of 33 days was made at Mount Lorette that produced 2661 migrant raptors of which 2044 were Golden Eagles and demonstrated that the Alberta Front Ranges were a significant flyway for the species. Between 1993 and 2005 full-season counts of 75-101 days were conducted there with the exceptions of 1997 when a full count was conducted at Plateau Mountain about 90 km to the SSE and 2002 when circumstances limited observations at Mount Lorette to only 14 days.

From 2006 to 2009 the principal observation site moved to the Piitaistakis-South Livingstone ridge, which is the southern culmination of the Alberta Front Ranges, near the Crowsnest Pass during which time daily comparative counts of between 40 and 45 days were conducted at Mount Lorette coinciding with the main movement of Golden Eagles. In 2010 Mount Lorette again became the principal observation site with counts conducted over a standard period of September 20 to November 15.

Rosemary Power is organizing the Mount Lorette count and welcomes visitors to the site. If you are interested in volunteering as a “Sky-sweeper” (no previous experience needed: just good eyes and binoculars) or as an Observer or Assistant please contact Rosemary at 403-707-6117 (rosemarypower1010@gmail.com). Details of how to find the site and other useful information can be found on our website, www.eaglewatch.ca

Peter Sherrington will also be conducting a count on Vicki Ridge located 4.5 km WNW of the Hamlet of Beaver Mines in SW Alberta, and Vance Mattson will again be watching at his Steeples site which is located on the east side of the Kootenay Valley (Rocky Mountain Trench) 25 km NE of Cranbrook, British Columbia. Information on all the RMERF sites and reports of previous years' spring and fall counts may be found on our website www.eaglewatch.ca.

Thursday, September 20 **Mount Lorette** [Day 1] 0735-1720 (Rick Robb and Cliff Hansen). The starting temperature was -1C, the high was 5C at 1300 and it was 4C at the end of observation. It was calm to 1000 and then NE winds 2-5 that occasionally gusted to 15 km/h prevailed for the rest of the day; ridge winds probably reflected this pattern. Cloud cover was 50% stratocumulus and cirrus to 1000 but was subsequently 90-100% stratocumulus and cumulus for the rest of the day that produced light rain and drizzle after 1500 and steady rain and fog after 1700. Conditions were not favourable for raptor migration and the only migrant seen was an indeterminate *Buteo* over the Fisher Range. Two adult Bald Eagles and 2 American Kestrels, that frequented the Hay Meadow, were considered to be non-migrants. Other birds seen included 1 Belted Kingfisher, 1 Mountain Chickadee, 6 Boreal Chickadees, 6 Yellow-rumped Warblers and 6 White-winged Crossbills, but the highlight of the day was 2 or 3 Grey Wolves heard howling from the adjacent forest at 1130. There were 8 visitors at the site today.

9.75 hours UB 1 TOTAL 1

Thursday, September 20 **Vicki Ridge** [Day 1] 0800-1845 (Peter Sherrington) Observation from the ridge top to 1520 and from the Waterton 61 wellsite on the western flank of the ridge after 1545. The temperature at 0800 was 3C the high was 9.5C at 1100 and 1200, fell to 5C at 1500, rose again to 8C at 1700 and was 6C at the end of observation. Wind was mainly W all day, light to 0930, then 8-16 gusting 25 km/h to 1130. Between 1130 and 1230 it was moderate NNW-NW that brought thunder-showers and was the essentially calm to 1540 while moderate rain and hail fell during a series of thunderstorms. Winds were then again W 10-20 gusting 25 km/h for the rest of the day. Initial cloud cover was 70% altostratus, cirrostratus and cumulus that gave pleasant hazy sunshine to start the count, but between 0900 and 1540 it was 90-100% mainly stratocumulus cover and subsequently 70-80% cumulus that produced periods of sunshine for the last 3 hours although some light drizzle persisted. A total of 44 migrants of 12 species were counted between 0827 and 1843 that comprised 2 Bald Eagles (1a, 1j), 3 Northern Harriers (1 adult male, 1 juvenile male and 1u), 10 Sharp-shinned Hawks (4a, 4j, 2u), 8 Cooper's Hawks (2a, 5j, 1u), 1 juvenile Northern Goshawk, 2 adult Broad-winged Hawks (1 light, 1 dark), 2 light morph Swainson's Hawks (1a, 1u), 3 adult *calurus* Red-tailed Hawks (2 light, 1 dark), 1 juvenile light morph Ferruginous Hawk, 9 Golden Eagles (5a, 3sa, 1j), 1 male *columbarius* Merlin and 2 adult Peregrine Falcons (1 male, 1 female). Fifteen of the birds moved between 1000 and 1100 just ahead of the onset of the first thunder-shower. Songbirds were abundant and conspicuous all day and migrants included 4 Mountain Bluebirds, 2 Townsend's Solitaires, 453 American Robins, 18 Cedar Waxwings, 3 Yellow-rumped Warblers, 1 White-crowned Sparrow, 42 Dark-eyed [Oregon] Juncos, 20 Red Crossbills, 513 Pine Siskins and 2 American Goldfinches. Two Black Bears (1

large adult male and a smaller probable subadult animal) were on the ridge and single Western White and Clouded Sulphur butterflies were seen. Because of the presence of the bears I shall probably watch from the wellsite tomorrow.

10.75 hours BAEA 2, NOHA 3, SSHA 10, COHA 8, NOGO 1, BWHA 2, SWHA 2, RTHA 3, FEHA 1, GOEA 9, MERL 1, PEFA 2 TOTAL 44

Thursday, September 20 Steeples [Day 1] 1415-1615 (Vance Mattson). It was a rainy and overcast day with a temperature of 9C to 1330 when the rain ceased. Winds were moderate S to 1715 after which it was calm and cloud cover was 100% stratus, altostratus and cumulus to 1715 after which it reduced to 70% although the ridges continued to be draped with cloud. Despite the conditions there was a good movement of 42 raptors of 8 species between 1428 and 1745, 31 of which were seen before 1530. The count was 3 Bald Eagles (1a, 2j), 1 adult female Northern Harrier, 9u Sharp-shinned Hawks, 1u Cooper's Hawk, 2 light morph Broad-winged Hawks (1a, 1j), 23 *calurus* Red-tailed Hawks (22 light morphs: 13a, 3j, 6u, and 1 adult dark morph, 2 Golden Eagles (1sa, 1j) and 1 adult female American Kestrel. Movement was mainly gliding with some flapping flight into the wind, and there was very little soaring. The day's last bird, a subadult Golden Eagle at 1745, had a full crop.

4 hours BAEA 3, NOHA 1, SSHA 9, COHA 1, BWHA 2, RTHA 23, GOEA 2, AMKE 1 TOTAL 42

Friday, September 21 Mount Lorette [Day 2] 0800-1430 (Caroline Lambert, assisted by Patrick Farley). The temperature at 0800 was 1C and reached a high of 5C at 1400; winds were calm to light to 1200 and then N gusting to 15 km/h for the rest of the observation period; ridge winds were probably similar. Cloud cover was 100% stratus with some fog throughout, with a few brief breaks that gave faint but unfulfilled hopes of improvement. The northern end of the Fisher Range was visible between 1100 and 1300, however, but no migrant raptors were seen. Drizzle fell to 0900 and light rain at 1400. Two non-migratory male American Kestrels interacted above the Hay Meadow and an adult Sharp-shinned Hawk hunted near the meadow. Other birds were more numerous and comprised a flock of 60 Canada Geese flying south just below the cloud base, 1 female Common Merganser, 1 Belted Kingfisher, 5 Canada Jays, only 3 Common Ravens, 5 Mountain Bluebirds, 1 Common Yellowthroat, 1 Wilson's Warbler, 20 American Pipits, 2 Savannah Sparrows, 5 White-crowned Sparrows, 4 Dark-eyed [Oregon] Juncos, 20 White-winged Crossbills and 40 Pine Siskins. Five visitors made it to the site today.

6.5 hours (16.25) TOTAL 0 (1)

Friday, September 21 Vicki Ridge [Day 2] 1000-1815 (Peter Sherrington, assisted by Denise Coccione-Amatto, Raymond Toal and Shirley Enzol). Because of the bears on the ridge

yesterday I watched from the wellsite, and Denise et al. spent 1215 to 1400 on the western ridge of Kylo Ridge before returning to assist me. The temperature at 1000 was 9C, the high at 1500 and 1600 was 13C which fell to 12C at the end of observation. Winds were WSW-W 20-40 gusting up to 60 km/h in the mid-afternoon before moderating to WNW 20 km/h at 1800. Cloud cover was 80-100% altostratus, cumulus, cirrostratus and cirrus for most of the day that decreased to 60-70% between 1500 and 1600 and gave period of sunshine. Observing conditions were excellent throughout despite periods of drizzle or very light rain in the morning. A season-high total of 79 raptors of 10 species moved between 1028 and 1731 comprising the season's first Osprey, 1 juvenile Bald Eagle, 3 male Northern Harriers (1a, 1sa, 1j), 41 Sharp-shinned Hawks (8a, 3j, 30u), 5 Cooper's Hawks (1a, 1j, 3u), 5 Northern Goshawks (2a, 1j, 2u), 12 adult Red-tailed Hawks (10 light and 1 dark *calurus*, and 1 dark *harlani*), 8 Golden Eagles (5a, 3j), 2 *columbarius* Merlins (1 male, 1 female) and 1u Peregrine Falcon. The total includes 7u Sharp-shinned Hawks, 2u Cooper's Hawks and 1 adult Golden Eagle counted between 1215 and 1400 on Kylo Ridge. Other birds included 124 Mountain Bluebirds, 168 American Robins, 50 Cedar Waxwings, 3 Yellow-rumped Warblers, 19 Red Crossbills, 1 White-winged Crossbill and 14 Pine Siskins. No bears were seen today.

8.25 hours (19.0) OSPR 1 (1), BAEA 1 (3), NOHA 3 (6), SSHA 41 (51), COHA 5 (13), NOGO 5 (6), RTHA 12 (15), GOEA 8 (17), MERL 2 (3), PEFA 1 (3) TOTAL 79 (123)

Friday, September 21 Steeples [Day 2] 1430-1800 (Vance Mattson). The weather was similar to that of yesterday with rain falling until the early afternoon and 100% stratus, cumulus and altostratus cloud cover throughout. The temperature was 12C and winds were moderate S that became calm after 1600. The main migration ridge was clear from 1400 onwards. A total of 14 migrant raptors of 5 species were counted between 1434 and 1654 comprising the first Turkey Vulture of the count, 6 Sharp-shinned Hawks (3a, 1j, 2u), 1 juvenile Cooper's Hawk, 5 *calurus* Red-tailed Hawks (4 light morphs: 3a, 1j, and 1 dark adult), and 1 adult Golden Eagle. Light rain began again at 1800 and ended observation for the day.

3.5 hours (7.5) TUVU 1 (1), SSHA 6 (15), COHA 1 (2), RTHA 5 (28), GOEA 1 (3) TOTAL 14 (56)

Saturday, September 22 Mount Lorette [Day 3] 0800-1300 (Blake Weis, assisted by Ruth Morrow). The temperature at 0800 was -1C, the high at 1000 was 0C and it was again -1C at 1300 when steady sleet and rain ended the day's count. Ground winds were N-NW 5-10 gusting 15 km/h all day, and ridge winds were moderate NW. Cloud cover was 100% stratocumulus to 1200 with slight breaks after 1100, 90% cumulus, altostratus and stratocumulus from 1200-1230 after which it was again 100% stratocumulus. The eastern ridges were 100% obscured to 1200 and after 1230, and 90% obscured from 1200 to 1230, while the west was 100% obscured to 1100, 50% from 1100 to 1200, 90% from 1200-1230 and subsequently again 100%. No migrant raptors were seen, but 1 adult Bald Eagle, 1 adult light morph *calurus* Red-tailed Hawk and a male *columbarius* Merlin that was seen hunting above the Hay Meadow, were considered to be non-migrants. Other birds,

however were fairly common and varied and comprised (including birds seen at Mount Lorette Ponds) 40 Canada Geese migrating to the south, 5 unidentified ducks, 1 Wilson's Snipe, 2 Belted Kingfishers, 1 Northern Flicker, 1 Pileated Woodpecker, 3 Common Ravens, 1 Black-capped Chickadee, 1 Boreal Chickadee, 1 Red-breasted Nuthatch, 1 Brown Creeper, 1 Golden-crowned Kinglet, 11 Ruby-crowned Kinglets, 1 Swainson's Thrush, 5 Varied Thrushes, 4 American Robins, 10 American Pipits, 3 White-winged Crossbills, 200 Pine Siskins, 11 Dark-eyed Juncos, 16 White-crowned Sparrows, 15 Savannah Sparrows, 1 Orange-crowned Warbler, 1 female Common Yellowthroat, 8 Yellow-rumped Warblers and 3 Wilson's Warblers. Unsurprisingly there were no visitors today.

5 hours (21.25) TOTAL 0 (1)

Saturday, September 22 Vicki Ridge NO OBSERVATION. There were E to ESE 10-18 km/h upslope winds all day, the temperature was 2-4C, and low cloud and fog completely obscured the ridge.

Saturday, September 22 Steeples [Day 3] 1200-1700 (Vance Mattson). The temperature was 16C, winds were moderate to strong S-SW and cloud cover was 100% stratus, altostratus and cumulus. Light to heavy rain fell between 1330 and 1400 followed by intermittent rain showers and steady rain began at 1700 to bring the day to a close. Only 3 migrants were seen: 1u Sharp-shinned Hawk at 1324, 1 adult dark morph *calurus* Red-tailed Hawk at 1247 and the season's first Peregrine Falcon, a juvenile bird, at 1252. Non-migrants were 1 Turkey Vulture, 2 adult Bald Eagles and 1 adult female Northern Harrier.

5 hours (12.5) SSHA 1 (16), RTHA 1 (29), PEFA 1 (1) TOTAL 3 (59)

Sunday, September 23 Mount Lorette [Day 4] 0840-1945 (Caroline Lambert, assisted by Lori Anderson). Valley fog persisted until 0900 when the temperature was 1C, the high was 10C at 1500 and it was 6C at the end of observation. Ground winds were 0-5 gusting 10 km/h all day with the exception of 1300-1400 when it gusted up to 25 km/h during rain showers; the ridges were calm to 1000, then W moderate to 1400, strong to 1700 and then moderate for the rest of the day. Cloud cover was 50-70% cumulus with minor stratus and cirrus except at the end of the day when it was 100% cumulus and altostratus; locating conditions were very good throughout. The east was clear all day and the west was 20% obscured to 1300, 60% to 1800 after which it was clear. The conditions produced the first raptor movement of the season with 118 birds of 5 species moving between 1045 and 1930. The flight comprised 2 Ospreys, 4 Bald Eagles (3a, 1sa), 6 Sharp-shinned Hawks (3a, 3u), , 2 light morph *calurus* Red-tailed Hawks (1a, 1j), 2 unidentified dark morph *Buteos*, 100 Golden Eagles (65a, 14sa, 5j, 16u) and 2 unidentified eagles. All birds moved from Mount Lorette to the Fisher Range and there was little soaring flight. Movement was initially slow and by 1500 only 17 birds had been counted, but the pace then quickened and the next 3 hours

produced 82 migrants of which 74 were Golden Eagles. Other birds seen were 1 Ruffed Grouse, 1 Belted Kingfisher, 1 Hairy Woodpecker, 4 Canada Jays, 8 Common Ravens, 2 Black-capped Chickadees, 5 Mountain Chickadees, 2 Red-breasted Nuthatches, 4 Golden-crowned Kinglets, 2 Ruby-crowned Kinglets, 4 Mountain Bluebirds, 20 American Robins, 25 White-winged Crossbills, 15 Pine Siskins, 6 White-crowned Sparrows, 1 Song Sparrow and 1 Dark-eyed Junco. One Mourning Cloak butterfly was also seen, and a season-high 21 visitors were at the site today.

11.08 (32.33) OSPR 2 (2), BAEA 4 (4), SSHA 6 (6), RTHA 2 (2), UB 2 (3), GOEA 100 (100), UE 2 (2), TOTAL 118 (119)

Sunday, September 23 Vicki Ridge [Day 3] 0800-1830 (Peter Sherrington, assisted by Trevor Lewis and Raymond Toal, observation from Waterton 61 wellsite). The temperature at 0800 was 6C, the high was 13 from 1300 to 1600 and it was 8C at 1830. Winds were W-WSW all day, 10-20 km/h in the morning that increased to 30-45 gusting to 55 km/h in the afternoon. Cloud cover was cumulus, altocumulus and cirrus all day, 80-90% to 0900, 40-70% to 1400, 30% 1500-1600 and after 1800 and 80% at 1700. There were a few light showers around noon and steady rain fell from 1645-1655 but otherwise it was mainly sunny and observing conditions were generally excellent and produced a season-high count of 105 raptors of 13 species. The count was 3 subadult Bald Eagles, 38 Sharp-shinned Hawks (14a, 2j, 22u), 5 Cooper's Hawks (3a, 1j, 1u), 1 juvenile Northern Goshawk, 2 adult light morph Broad-winged Hawks, 12 Red-tailed Hawks (11 adult *calurus*: 10 light, 1 dark, and 1 dark bird of undetermined race or age), 1 light adult Ferruginous Hawk, the first Rough-legged Hawk of the season, a dark morph bird that was the last bird of the day at 1808, a season-high 37 Golden Eagles (20a, 7sa, 7j, 3u), 1 unidentified eagle, 1 female American Kestrel, 1 male *columbarius* Merlin, 1 adult female Peregrine Falcon and 1 Prairie Falcon. The first migrant was not seen until 0958, but subsequent movement was steady for most of the day and peaked at 19 birds between 1200 and 1300. Other birds recorded included 9 Northern Flickers (8 Red-shafted and 1 Yellow-shafted), 2 Pileated Woodpeckers, 1 Townsend's Solitaire, 35 Mountain Bluebirds, 274 American Robins, 12 Red Crossbills and 56 Pine Siskins. Butterflies were 1 Western White and 1 Mourning Cloak.

10.5 hours (29.5) BAEA 3 (6), SSHA 38 (89), COHA 5 (18), NOGO 1 (7), BWAH 2 (4), RTHA 12 (27), FEHA 1 (2), RLHA 1 (1), GOEA 37 (54), UE 1 (1), AMKE 1 (1), MERL 1 (4), PEFA 1 (4), PRFA 1 (1) TOTAL 105 (228)

Sunday, September 23 Steeples [Day 4] 1200-1800 (Vance Mattson). The temperature was 15C, winds were W-NW light to moderate and cloud cover was 70-100% cumulus that provided sunny periods. Despite the good conditions only 11 migrants of 4 species were counted between 1238 and 1729 that comprised 3 Bald Eagles (1a, 2j), 3 Sharp-shinned Hawks (1a, 2u), 3 light morph *calurus* Red-tailed Hawks (2a, 1j) and 2 Golden Eagles (1a, 1j). Non-migratory birds were 1 Turkey Vulture, 4 Bald Eagles (1a, 3j), 1 Sharp-shinned Hawk and 3 Golden Eagles (2a, 1j), the latter involving interactions that produced barrel-rolls.

6 hours (18.5) BAEA 3 (6), SSHA 3 (19), RTHA 3 (32), GOEA 2 (5) TOTAL 11 (70)

Monday, September 24 **Mount Lorette** [Day 5] 0650-1950 (George Halmazna, assisted by Joel Duncan). The starting temperature was 0C, the high at 1600 was 10C and it was 5C at the end of observation. It was calm to 0900 and light SW for the rest of the day and ridge winds were probably light to moderate SW. Cloud cover was 100% altostratus to 0900 and 80-100% stratus and cumulus for the rest of the day with the exception of around noon when it briefly reduced to 40% cumulus. The count was a slightly disappointing 44 birds of 4 species that moved between 0833 and 1859 with a maximum hourly passage of 11 between 1200 and 1300. The total comprised 2 Northern Harriers (1 adult male, 1u), 4 Sharp-shinned Hawks (2a, 2u), 1 adult Cooper's Hawk and 37 Golden Eagles (22a, 3sa, 3j, 9u). All the eagles consistently used the eastern route moving from Mount Lorette to the Fisher Range. Early season results from Lorette and Vicki Ridge indicate low numbers of migrating juvenile Golden Eagles following record numbers last year. This suggests a poor breeding season following a crash in northern snowshoe hare numbers and the beginning of another population cycle. A total of 23 species of non-raptor birds were counted including 7 Ruby-crowned Kinglets, 29 American Robins, 5 Varied Thrushes, 5 Cedar Waxwings, 3 Savannah Sparrows, 1 Lincoln's Sparrow, 1 Song Sparrow, 2 White-crowned Sparrows, 7 White-winged Crossbills, 12 Pine Siskins and 5 Yellow-rumped Warblers. Butterflies on the wing were 7 Mourning Cloaks and 2 Zephyr Commas, and there were 25 visitors to the site today.

13 hours (45.33) NOHA 2 (2), SSHA 4 (10), COHA 1 (1), GOEA 37 (137) TOTAL 44 (163)

Monday, September 24 **Vicki Ridge** [Day 4] 0815-1845 (Peter Sherrington, observing from the ridgetop 1100-1720 and from the wellsite for the rest of the time). The temperature at 0830 was 4C, the high was 12C at 1600 and it was 7C at 1845. Conditions were calm to 1045 and again after 1800, but were W for most of the day generally 10-15 gusting 25 km/h but reaching 30-40 km/h between 1500 and 1600 before becoming light. Cloud cover was initially 100% low stratus that partially obscured the ridges which cleared after 0940 to 10-20% cumulus and cirrus to 1130; After 1130 dark cumulus and altostratus cloud quickly developed and was 70-90% for the rest of the day that produced alternate periods of gloomy light and brilliant sunshine through breaks in the cloud. Raptor movement was as sporadic as the sunshine with groups of migrating birds interspersed with periods of empty skies. A total of 64 raptors of 11 species were counted between 0910 and 1814 that comprised 3 Ospreys (one of which glided high to the south at 1426 carrying a fish in its talons), 1 juvenile male Northern Harrier, 18 Sharp-shinned Hawks (9a, 1j, 8u), 6 Cooper's Hawks (3a, 3u), 2 Northern Goshawks (1a male, 1sa female), 1 juvenile light morph Broad-winged Hawk, 2 Red-tailed Hawks (1 light *calurus* adult, 1 dark *harlani* juvenile), 25 Golden Eagles (18a, 3sa, 3j, 1u), 1 female American Kestrel, 4 male *columbarius* Merlins and 1 juvenile male Peregrine Falcon. The only hours that had double-digit counts were 1200-1300 (13) and 1600-1700 (12). Other birds present included 1 Ruby-crowned Kinglet, 34 Mountain Bluebirds, 166 American Robins, 2 Red Crossbills and 48 Pine Siskins. Butterflies were 11 Western Whites and 1 Mourning Cloak.

10.5 hours (40) OSPR 3 (4), NOHA 1 (7), SSHA 18 (107), COHA 6 (24), NOGO 2 (9), BWHA 1 (5), RTHA 2 (29), GOEA 25 (79), AMKE 1 (2), MERL 4 (8), PEFA 1 (5) TOTAL 64 (292)

Monday, September 24 Steeples [Day 5] 1600-1800 (Vance Mattson). Teaching commitments limited the count to 2 hours which saw the passage of 2 light *calurus* Red-tailed Hawks (1a, 1j) and 1 juvenile Golden Eagle, which was disappointing considering the weather conditions: a temperature of 18C, winds light W-NW and cloud cover of 40-20% cumulus. Non-migrants were more abundant and comprised 4 Bald Eagles (2a, 2j), 2 sightings of adult Sharp-shinned Hawks, and 2 of adult Golden Eagles that soared high above the ridge for extended periods.

2 hours (20.5) RTHA 2 (34), GOEA 1 (6) TOTAL 3 (73)

Tuesday, September 25 Mount Lorette [Day 6] 0730-1945 (Joel Duncan, assisted by Rachel McKay). Clear skies allowed the temperature to fall to -2C at 0730, but it reached a high of 12C at 1500 and 1600 and was still 10C at the end of observation. Ground winds were calm or very light to 1200 after which they were W 5-10 km/h gusting to 24 km/h around 1500 and gusted to 17 km/h after 1600 before becoming calm again at the end of the day. Ridge winds were moderate west after 1300. It was cloudless with traces of cumulus to 1200 after which cumulus and cirrus cloud gradually developed to 80% by 1500 and then 90% thin altostratus persisted until the end of the count. Observing conditions were good throughout the afternoon. There was a moderate raptor movement of 41 birds of 6 species between 1119 and 1802 that comprised 1 subadult Bald Eagle, 1u Cooper's Hawk, 1 juvenile Northern Goshawk, 1 unidentified small *Accipiter*, 4 *calurus* Red-tailed Hawks (1 light adult and 1a, 2u dark morphs), 29 Golden Eagles (14a, 2sa, 7j, 1 undifferentiated immature and 6u), 3 unidentified eagles and 1 unidentified small falcon. The highest hourly counts of 10 birds were 1500-1600 and 1600-1700. All the eagles moved on the eastern route from Mount Lorette to the Fisher Range, the red-tails were to the west and most of the other birds were seen above the valley. Other birds seen included 2 Golden-crowned Kinglets, 7 Ruby-crowned Kinglets, 1 Townsend's Solitaire, 3 American Pipits, 5 Lapland Longspurs, 21 White-winged Crossbills, 4 Pine Siskins, 3 Song Sparrows and 9 Yellow-rumped Warblers; butterflies were 6 Mourning Cloaks and 2 Zephyr Commas. There were 19 visitors to the site today.

12.25 hours (57.6) BAEA 1 (5), COHA 1 (2), NOGO 1 (1), UA 1 (1), RTHA 4 (6), GOEA 29 (166), UE 3 (5), UF 1 (1) TOTAL 41 (204)

Tuesday, September 25 Vicki Ridge [Day 5] 0800-1900 (Peter Sherrington, assisted by Doug and Teresa Dolmen, observation from Waterton 61 wellsite). The temperature was 5C at 0800, reached a season-high 14.5C at 1400 and 1500 and was still 11C at 1900. Winds were W-WSW all day,

light to 1100 then 20-30 gusting to 45 km/h for the rest of the day. It was cloudless to 1135 when cumulus cloud began to develop which was 10-30% to 1600, after which it was 60-90% cirrostratus, cirrus and cumulus for the rest of the day. Observing conditions after 1135 were generally excellent and contributed to a season-high count of 178 migrant raptors of 11 species between 0816 and 1850. The total comprised 1 Osprey, 6 Bald Eagles (4a, 1sa, 1j), 1 juvenile Northern Harrier, 74 Sharp-shinned Hawks (19a, 55u), 4 adult Cooper's Hawks, 1 juvenile male Northern Goshawk, 6 Broad-winged Hawks (2a light, 2a dark, 2j light), 15 Red-tailed Hawks (8a *calurus*, 5 light, 3 dark; 7 dark *harlani*, 4a, 1j, 2u), 63 Golden Eagles (28a, 9sa, 24j, 2u), 4 American Kestrels (1 male, 2 females, 1u), 1 Prairie Falcon, 1 large unidentified falcon and 1 unidentified raptor. Movement was sporadic until 1600 when the rate increased with 36 birds counted between 1600 and 1700, and 44 between 1700 and 1800 which included 31 Golden Eagles. Other birds recorded included 5 Mountain Bluebirds, 93 American Robins, 1 Yellow-rumped Warbler, 2 American Pipits and 54 Pine Siskins, and butterflies were 3 Western Whites, 3 Clouded Sulphurs and 4 Mourning Cloaks.

11 hours (51) OSPR 1 (5), BAEA 6 (12), NOHA 1 (8), SSHA 74 (181), COHA 4 (28), NOGO 1 (10), BWHA 6 (11), RTHA 15 (44), GOEA 63 (142), AMKE 4 (6), PRFA 1 (2) UF 1 (1), UU 1 (1) TOTAL 178 (470)

Tuesday, September 25 Steeples [Day 6] 1330-1800 (Vance Mattson). The temperature was 14C, conditions were calm and cloud cover was 40-60% thin altocumulus and altostratus. Despite the excellent observing conditions only 3 migrant Golden Eagles (1a, 2j) were seen between 1402 and 1703. Resident adult Golden Eagles were seen soaring on three occasions, and 1a Bald Eagle and 1 adult Red-tailed Hawk were considered non-migrants.

4.5 hours (25) GOEA 3 (9) TOTAL 3 (76)

Wednesday, September 26 Mount Lorette [Day 7] 0745-1915 (Caroline Lambert, assisted by Joel Duncan). The temperature was 1C at 0745, the high was 12C at 1600 and it was 9C at 1915. Ground winds were light W-SW all day with the exceptions of 1400 when they gusted to 15 km/h and 1600 when a gust of 20 km/h was recorded; ridge winds were probably W-SW moderate to strong all day. Cloud cover was 100% altostratus to noon after which lower cumulus cloud developed but the ridges remained clear. The gloomy conditions made finding migrants fairly easy, but determining their details was problematical. The count was 76 migrant raptors of 5 species that moved between 0855 and 0900 and comprised 1 Osprey, 1 adult Bald Eagle, 70 Golden Eagles (39a, 9sa, 11j, 11u), 1 unidentified eagle, 1u *richardsonii* Merlin and 2 Prairie Falcons, the two falcon species being firsts for the season. All Golden Eagle movement was on the eastern route from Mount Lorette to the Fisher Range. Only 4 Golden Eagles were recorded before 1200 but movement was steady throughout the afternoon and peaked at 21 between 1600 and 1700. There were many high-flying flocks of small songbirds that could not be identified against the grey clouds, but identified species included 4 Golden-crowned Kinglets, 5 Ruby-crowned Kinglets, 60 American Robins, 20 White-winged Crossbills, 20 Pine Siskins, 1 Oregon Junco, 2 White-crowned

Sparrows, 1 White-throated Sparrow, 1 Savannah Sparrow and 1 Yellow-rumped Warbler. The 29 visitors to the site included a grade 12 class of 22 from Western Canada High School in Calgary.

11.5 hours (69.1) OSPR 1 (3), BAEA 1 (6), GOEA 70 (236), UE 1 (6), MERL 1 (1), PRFA 2 (2)
TOTAL 76 (280)

Wednesday, September 26 Vicki Ridge [Day 6] 0830-1830 (Peter Sherrington, observing from the Waterton 61 wellsite). The starting temperature was 9C, the high was 15C at 1400 and again at 1600 and it was 13C at the end of observation. Wind was W all day 15-20 km/h to 0930 then 30-40 gusting to 55 km/h for the rest of the day. Cloud cover was 100% altostratus and cirrostratus all day which was thin enough to provide hazy sunshine during the early afternoon; after 1700 dark cumulus clouds also developed that probably presaged the rain that is forecast for tomorrow. It was another good day for raptor movement with 162 birds of 11 species moving between 0948 and 1805 with the highlights being the first significant movement of Rough-legged Hawks that were probably moving ahead of the forecast deteriorating weather, and the fact that the 7 Red-tailed Hawks seen included 3 subspecies: *borealis* ("Eastern Red-tail"), *calurus* ("Western Red-tail") and *harlani* ("Harlan's Hawk"). The count was 5 Bald Eagles (2a, 3j), 3 Northern Harriers (2a: 1 male and 1 female; 1 juvenile male), 83 Sharp-shinned Hawks (9a, 74u), 5 Cooper's Hawks (3a, 2u), 3 adult Northern Goshawks (2 males, 1u), 2 light morph Broad-winged Hawks (1a, 1u), 7 Red-tailed Hawks (1 light adult *borealis*, 3a (1 light, 2 dark) *calurus*, 2 dark *harlani* (1a, 1j) and 1 dark bird of unknown race or age), 9 Rough-legged Hawks (8 light, 1 dark) that were seen between 1521 and 1720, 1 unidentified light *Buteo*, 39 Golden Eagles (16a, 13sa, 10j), 2 female American Kestrels and 3 *columbarius* Merlins (2 males, 1 female). Movement was steady between 1000 and 1700 with maximum hourly counts of 36 in each of the two hours after noon, but it slowed to a trickle after 1700 when only 7 more migrants were recorded. Other birds present included 1 Blue Jay, 1 Townsend's Solitaire, 18 Mountain Bluebirds, 103 American Robins, 1 American Pipit, 4 Red Crossbills, 53 Pine Siskins and 4 Yellow-rumped Warblers.

10 hours (61) BAEA 5 (17), NOHA 3 (11), SSHA 83 (264), COHA 5 (33), NOGO 3 (13), BWAH 2 (13), RTHA 7 (51), RLHA 9 (10), UB 1 (1), GOEA 39 (181), AMKE 2 (8), MERL 3 (11)
TOTAL 162 (632)

Wednesday, September 26 Steeples [Day 7] 1630-1730 (Vance Mattson). Because of teaching commitments observation today was restricted to 1 hour and no migrant or resident raptors were seen. The temperature was 17C, it was calm and cloud cover was 100% altostratus.

1 hour (26) TOTAL 0 (76)

Thursday, September 27 Mount Lorette 0800-1515 (Rick Robb and Cliff Hansen). NO OBSERVATION. Rain, snow, fog and low cloud that obscured the mountains all day

Thursday, September 27 **Vicki Ridge** NO OBSERVATION. Steady rain and low cloud/fog all day that completely obscured the ridge. The temperature was 2-4C and winds were light E-NE.

Wednesday, September 27 **Steeple** [Day 8] 1430-1800 The temperature was 17C at 1430 but dropped to 10C by 1800. Winds were moderate NW but a shift to N resulted in the rapid drop in temperature. Cloud cover was 100% altostratus and cumulus and rain fell for most of the observation period. Only 6 migrant birds of 3 species were seen between 1447 and 1643: 2 Northern Harriers (1a female, 1u), 2u Sharp-shinned Hawks and 2 Golden Eagles (1a, 1j). Two Bald Eagles (1a, 1j) were considered to be non-migrants.

3.5 hours (29.5) NOHA 2 (3), SSHA 2 (21), GOEA 2 (11) TOTAL 6 (82)

Friday, September 28 **Mount Lorette** [Day 8] 0640-1915 (Bill Wilson, assisted by Heinz Unger). The initial temperature was 0C, the high was 4C from 1300 to 1800 and it was 3C at 1915. Ground winds were W-WSW 0-5 km/h to 1000 and then NNE-N 5-15 km/h for the rest of the day. Ridge winds were probably N light to moderate but they were difficult to assess because of the dense cloud cover that was 100% stratus to 1000 and 100-90% altostratus and cumulus for the rest of the day. There was a light dusting of snow on the ground at the start of observation but there was no further precipitation. The eastern ridges were 100% obscured to 0800, 10-30% obscured to 1400 and 60-80% obscured for the rest of the day. The west was 90-100% obscured all day except for 0800-0900 when it briefly cleared to 40-60%. Despite these inauspicious conditions there was a fairly strong raptor movement of 42 birds of 7 species that were recorded between 1004 and 1650 and comprised 2 adult Bald Eagles, 4 Northern Harriers (2 juveniles and 2 undifferentiated adult females or juveniles), 10 Sharp-shinned Hawks (1a, 1j, 8u), 2u Cooper's Hawks, 2 Northern Goshawks (1 a, 1u) 3 Rough-legged Hawks (2 light, 1 dark), 18 Golden Eagles (7a, 2sa, 6j, 3u) and 1 unidentified eagle. The Bald Eagles flew south on the western route, but the rest of the movement was on the eastern route or above the centre of the valley. The busiest hour was 10 migrants between 1600 and 1700. Other migrating species moving high to the south were 60 Canada Geese, 5 unidentified swans, 2 Common Loons and 17 unidentified white-headed gulls. Twenty-two visitors were at the site today.

10.58 hours (79.7) BAEA 2 (8), NOHA 4 (6), SSHA 10 (20), COHA 2 (4), NOGO 2 (3), RLHA 3 (3), GOEA 18 (254), UE 1 (7) TOTAL 42 (322)

Friday, September 28 **Vicki Ridge** [Day 7] 1400-1700 (Peter Sherrington, observing from the Seven Gates Road and the ridgetop from 1530 to 1700). Rain and low cloud shrouded the ridge to 1400 when the rain stopped and the cloud began to lift. At 1530 the ridge cleared where the temperature was 3C, the wind was E 10 km/h and cloud cover was 100% stratus. At 1700 the cloud

again descended. The only raptors seen were an unaged Cooper's Hawk that flew low to the south to the east of the ridge at 1416 and an adult female *columbarius* Merlin that flew low from the ridge to the WSW at 1612. Other birds in the area included 40 Mountain Bluebirds, 300 American Robins, 20 Bohemian Waxwings (the first of the season), 2 Red Crossbills and 15 Pine Siskins.

3 hours (64) COHA 1 (34), MERL 1 (12) TOTAL 2 (634)

Friday, September 28 Steeples [Day 9] 1330-1800 (Vance Mattson). The temperature was 10C, winds were NW moderate that became calm after 1600 and cloud cover was 70% cumulus that fell to 50% cumulus and altostratus at 1600 and became 100% at 1800. A total of 12 migrants of 4 species were seen that comprised a season-high 7 Bald Eagles (5a, 2j), 1a dark morph Broad-winged Hawk, 1a rufous morph *calurus* Red-tailed Hawk and 3 Golden Eagles (2a, 1j). Two Bald Eagles and 3 Golden Eagles moved between 1645 and 1715 including single adults of both species that soared together for a protracted period.

4.5 hours (34) BAEA 7 (13), BWHA 1 (3), RTHA 1 (35), GOEA 3 (14) TOTAL 12 (94)

Saturday, September 29 Mount Lorette [Day 9] 0800-1020 Hay Meadow; 1200-1800 Lusk Creek) (Blake Weis). The temperature at Hay Meadow was -1C and was 2C at Lusk Creek in the afternoon. Winds were N-NE all day, 0-5 km/h to 1000, 5-10 gusting 16 km/h from 1200-1600 and then 0-5 km/h again for the rest of the day. Cloud cover was 100% all day: stratocumulus at Hay Meadow and altostratus, altocumulus and cumulus at Lusk Creek. Moderate snow fell to 0900 which then became heavy, and light snow or flurries occurred at Lusk Creek. No migrants were seen in the morning but 13 raptors of 6 species were counted moving steadily along the highest foothills ridge at Lusk Creek between 1230 and 1620. The count was 2u Sharp-shinned Hawks, 2u Northern Goshawks, 1 adult light morph Broad-winged Hawk, 3u Red-tailed Hawks (1 light, 2 of undetermined race, morph or age), 4 Golden Eagles (1a, 1sa, 2u) and 1 Prairie Falcon. Non-migrants were 2 Sharp-shinned Hawks that were seen hunting north of the site and 1 adult light morph *calurus* Red-tailed Hawk that perched close to the site. Non-raptor migrants were 25 white-headed gulls and 200 American Robins at Lusk Creek, and 44 Canada Geese at Hay Meadow. Other birds seen around the Hay Meadow included 1 Ruffed Grouse, 6 Golden-crowned Kinglets, 3 Ruby-crowned Kinglets, 1 Varied Thrush, 11 American Pipits, 1 White-winged Crossbill, 25 Pine Siskins, 3 American Tree Sparrows (the first of the season), 5 Dark-eyed Juncos, 3 White-crowned Sparrows, 1 White-throated Sparrow and 2 Yellow-rumped Warblers.

8.33 hours (88) SSHA 2 (22), NOGO 2 (5), BWHA 1 (1), RTHA 3 (9), GOEA 4 (258), PRFA 1 (3) TOTAL 13 (335)

Saturday, September 29 Vicki Ridge NO OBSERVATION. The temperature was 0-2C, winds were E-NE light to moderate and cloud cover was 100% low stratus producing snow and rain for most of the day and obscuring the ridge.

Saturday, September 29 Steeples [Day 10] 1200-1700 (Vance Mattson). The temperature was 10C, cloud cover was 70-100% altocumulus and dark cumulus and a strong S wind developed by 1430. Only 7 migrants of 4 species were counted between 1239 and 1622 that comprised 3 Bald Eagles (2a, 1j) that moved together at 1317, 1a female Northern Harrier, 2u Sharp-shinned Hawks and 1 adult light morph *calurus* Red-tailed Hawk. No non-migrants were seen.

5 hours (39) BAEA 3 (16), NOHA 1 (4), SSHA 2 (23), RTHA 1 (36) TOTAL 7 (101)

Sunday, September 30 Mount Lorette [Day 10] 0650-1935 (Bill Wilson, assisted by Lori Anderson). The starting temperature was -2C, the high was 1C at 1500-1700 and it was 0C at the end of observation. Ground winds were NNW-NNE all day, 2-5 km/h to 1000 and 2-15 gusting 20 km/h thereafter, while ridge winds were SW, light to 0800 then moderate to strong for the rest of the day. Cloud cover was 100% stratus to 1200 and 100% altostratus and stratus throughout the afternoon. The eastern ridges were 60-80% obscured to 0900 that gradually reduced to 0% at 1300 and was subsequently clear; the west was 90% obscured to 1200, reduced to 10% at 1600 and 1700, but then increased to 60% at the end of the day. There was a light dusting of snow on the ground on arrival, but there was no precipitation during the day. There was a moderate raptor movement with 46 birds of 6 species seen between 1007 and 1705 of which 41 migrated before 1600. The count was 4 Bald Eagles (1a, 3j), 11 Sharp-shinned Hawks (1a, 2j, 8u), 9 Northern Goshawks (1a, 8u), 1 unidentified *Accipiter*, 2 light morph *calurus* Red-tailed Hawks (1a, 1u), 4 Rough-legged Hawks (3 light, 1u) and 15 Golden Eagles (6a, 6j, 3u). All but one of the Golden Eagles migrated on the eastern route, and the rest moved on a broad front encompassing the whole valley. Other birds of note were 405 Canada Geese flying south in 10 flocks, 15 migrating Common Loons, 1 Wilson's Snipe, 21 American Pipits, 3 Lapland Longspurs, 30 Grey-crowned Rosy-Finches and 3 Yellow-rumped Warblers. There were 10 visitors today.

12.75 hours (100.7) BAEA 4 (12), SSHA 11 (33), NOGO 9 (14), UA 1 (2), RTHA 2 (11), RLHA 4 (7), GOEA 15 (273) TOTAL 45 (380)

September summary (variance from 1993-2017 valid counts (20) in parenthesis) DAYS 10 (-7%), HOURS 100.7 (-15.7%), TUVU 0, OSPR 3 (+42.9%), BAEA 12 (-35.7%), NOHA 6 (+25%), SSHA 33 (-41.6), COHA 4 (-64.4%), NOGO 14 (+80.6%), BWHA 1 (-54.5%), SWHA 0, RTHA 11 (-38.7%), FEHA 0, RLHA 7 (+278.4%), GOEA 273 (-24.9%), AMKE 0, MERL 1 (-64.9%), GYRF 0, PEFA 0, PRFA 3 (+445.5%), UA 2 (-37.5%), UB 3 (+185.7%), UE 7 (+1300%), UF 1 (+400%), UU 0 TOTAL 381 (-23.9%)

Sunday, September 30 Vicki Ridge. NO OBSERVATION. The temperature was -4C to -3C, winds were light E-ENE, and cloud cover was 100% low stratus that completely covered the ridge all day. There was 9 cm of fresh snow on the ground early in the morning and another 2 cm fell during the day. A general survey on the plains west of the ridge in the afternoon counted 27 raptors of 9 species that were either hunting or perched in the miserable weather. The count was 2 Bald Eagles, 3 Northern Harriers, 4 Sharp-shinned Hawks, 10 Red-tailed Hawks, 1 Rough-legged Hawk, 1 Golden Eagle, 3 American Kestrels 2 Merlins and the first Gyrfalcon of the winter, an adult male grey morph bird.

September summary (last year's count in parenthesis) DAYS 7 (11), HOURS 64 (90.8), TUVU 0 (0), OSPR 5 (7), BAEA 17 (11), NOHA 11 (9), SSHA 264 (368), COHA 34 (48), NOGO 13 (33), BWHA 13 (14), SWHA 2 (1), RTHA 51 (70), FEHA 2 (4), RLHA 10 (1), GOEA 181 (112), AMKE 8 (16), MERL 12 (11), GYRF 0 (1), PEFA 5 (7), PRFA 2 (0), UA 0 (1), UB 1 (2), UE 1 (0), UF 1 (0), UU 1 (0) TOTAL 634 (716)

Sunday, September 30 Steeples. NO OBSERVATION. The mountains were hidden by low stratus cloud all day.

September summary DAYS 10, HOURS 39, TUVU 1, OSPR 0, BAEA 16, NOHA 4, SSHA 23, COHA 2, NOGO 0, BWHA 3, SWHA 0, RTHA 36, FEHA 0, RLHA 0, GOEA 14, AMKE 1, MERL 0, GYRF 0, PEFA 1, PRFA 0, UA 0, UB 0, UE 0, UF 0, UU 0 TOTAL 101

Monday, October 01 Mount Lorette [Day 11] 0700-1130 (George Halmazna, assisted by Dan Parliament). The temperature was -4C to -3C, wind was NW to 0800, then N 5-10 km/h and cloud cover was 100% low stratus that obscured all ridges. Visibility was good in the valley, however, until the snow, that started falling at 0900, became heavy after 1100 and brought the day to a close without any raptors having been seen. Other birds in the area were 1 American Three-toed Woodpecker, 5 Common Ravens, 1 Mountain Chickadee, 1 Ruby-crowned Kinglet, 3 Red-breasted Nuthatches, 1 Varied Thrush, 12 American Robins, 27 White-crowned Sparrows, 8 Grey-crowned Rosy-Finches and 29 Pine Siskins. A Grey Wolf howled from the E at 0818 and again from the NE at 0859.

4.5 hours (105.2) TOTAL 0 (381)

Monday, October 01 Vicki Ridge [Day 8] 0845-1600 (Peter Sherrington, assisted by Hilary Atkinson, observing from the Waterton 61 wellsite). The temperature at 0845 was 4C, reached a high of 9C at 1300 was still 7C at 1500 but rapidly fell to 1C at the end of observation. Winds were W 20-30 gusting 40 km/h to 1330 after which they reduced to 10-20 km/h and at 1520 the wind switched to E 30 km/h bringing fog that by 1600 had completely obscured the ridges. Cloud cover was 70% cumulus to 1000 and then 100% stratocumulus for the rest of the day. Migration conditions were favourable for much of the day and a total of 92 migrants of 10 species were counted between 0859 and 1534 comprising 2 Bald Eagles (1a, 1j), 25 Sharp-shinned Hawks (2a,

2j, 21u), 3 Cooper's Hawks (2a, 1u), 4 Northern Goshawks (3a males, 1u), 1u light morph Broad-winged Hawk, 3 adult light morph *calurus* Red-tailed Hawks, 1 adult dark morph Ferruginous Hawk, 3 Rough-legged Hawks (1 light, 2 dark), 48 Golden Eagles (23a, 10sa, 15j) and 2u American Kestrels. Fifty migrants, including 33 Golden Eagles, were counted before 1100, but movement then slowed and only 11 birds were seen after 1400 and only 5 Golden Eagles were seen after 1300. Songbirds were conspicuous all day and included 43 Mountain Bluebirds, 2 Townsend's Solitaires, 411 American Robins, 25 Red Crossbills, 150 Grey-crowned Rosy-Finches and 158 Pine Siskins. Migrating *Accipiters* often paused for a while to avail themselves of the easy pickings.

7.25 hours (71.25) BAEA 2 (19), SSHA 25 (289), COHA 3 (37), NOGO 4 (17), BWHA 1 (14), RTHA 3 (54), FEHA 1 (3), RLHA 3 (13), GOEA 48 (229), AMKE 2 (10) TOTAL 92 (726)

Monday, October 01 Steeples. NO OBSERVATION. The mountains were again hidden by stratus cloud all day, and although not as low as yesterday the chances of finding migrating raptors were unpromising.

Tuesday, October 02 Mount Lorette [NO OBSERVATION]. Heavy snow all day: all mountains obscured.

Tuesday, October 02 Vicki Ridge [NO OBSERVATION]. Heavy snow all day; ridge completely obscured.

Tuesday, October 02 Steeples [NO OBSERVATION]. Heavy rain all day: all mountains obscured.

Wednesday, October 03 Mount Lorette [Day 12] 1045-1915 (Caroline Lambert, assisted by Heinz Unger). Because of the poor state of the roads the observers did not arrive at the site until 1045, where they found 40 cm of fresh snow. The temperature was -7C but reached a high at 1500-1800 of 1C and was 0C at the end of observation. Ground winds were 0-5 km/h all day with the exception of 1500 when they were briefly S-SW gusting to 15 km/h, and ridge winds were S-SW light to moderate all day. Initial cloud cover was 10% cumulus that gradually increased throughout the day and reached 90% cumulus and cirrostratus at 1700. The Fisher Range was clear all day but Mount Lorette and Mount McGillivray were periodically shrouded in cloud for 20% of the day; the west was 80% obscured at the start and gradually cleared to 20% by the end of observation. The only migrant raptors seen were 8 Golden Eagles (4a, 2j, 2u) that moved between 1348 and 1825 with 4 moving between 1700 and 1800. One juvenile was seen to the west and the rest

migrated high above the Fisher Range. Because of the thick snow cover most of the other birds species were seen along the river, the most unusual being a late-migrating Sora. Other birds were 1 Wilson's Snipe, 1 Barred Owl heard at the end of the day, 1 Pileated Woodpecker, 1 Northern Shrike, 5 Common Ravens, 1 Black-capped Chickadee, 3 Hermit Thrushes, 8 Varied Thrushes, 4 American Robins, 2 White-winged Crossbills, 2 Pine Siskins, 1 Song Sparrow, 2 Lincoln's Sparrows, 1 Savannah Sparrow, 1 Palm Warbler and 1 Yellow-rumped Warbler. Two visitors made it to the site today.

8.5 hours (113.7) GOEA 8 (281) TOTAL 8 (389)

Wednesday, October 03 Vicki Ridge [Day 9] 0815-1745 (Peter Sherrington, assisted by Hilary Atkinson). The heavy snow stopped overnight and I measured 54 cm of fresh snow at my house in Beaver Mines. Access to the usual observation sites at the southern end of Vicki Ridge was impossible so we watched from Township Road 6-5, the road to Lynx Creek and Carbondale, about 3 km west of Highway 507 where we could observe birds flying from the north to the southern end of Vicki Ridge. The location is about 4 km due north of the regular viewing sites on the ridge. Fortunately one vehicle had been along the road ahead of us, and much digging was required to get our car safely parked at the edge of the road. The starting temperature was -13C but under the influence of light W winds it rose to -6C by 0900. At noon the west winds ceased and light E winds prevailed for the rest of the day, although the W winds continued at ridge level. The temperature high was -1 C at 1600 and it was -2C at the end of observation. It was cloudless until 1200 when cumulus cloud began to form which gradually increased throughout the afternoon to 80-90% cumulus and cirrostratus by the end of the day that provided excellent viewing conditions. A total of 86 migrant raptors of 8 species were seen between 1005 and 1734 comprising 1 Osprey, 3 Bald Eagles (1sa, 2j), 39 Sharp-shinned Hawks (7a, 32u), 7 Cooper's Hawk (1a, 6u), 1u Northern Goshawk, 21 Red-tailed Hawks (*calurus* 15: 10 light (8a, 2j), 4a dark; *harlani* 4a dark, and 2u dark morph birds of unknown race or age), 2 Rough-legged Hawks (1 light, 1 dark), 2 unidentified *Buteos* (1 light, 1 dark) and 10 Golden Eagles (3a, 2sa, 5j).

9.5 hours (80.75) OSPR 1 (6), BAEA 3 (22), SSHA 39 (328), COHA 7 (44), NOGO 1 (11), RTHA 21 (75), RLHA 2 (15), UB 2 (3), GOEA 10 (239) TOTAL 86 (812)

Wednesday, October 03 Steeples [Day 11] 1545-1745 (Vance Mattson). There was fresh snow on the ground, the temperature was 6C, conditions were calm and cloud cover was 100% stratus and low cumulus that partially obscured the ridges and stretched across the valley to the west. Only one migrant was seen, a female American Kestrel that flapped south at 1639.

2 hours (41) AMKE 1 (2) TOTAL 1 (102)

Thursday, October 04 Mount Lorette [Day 13] 0745-1930 (Rick Robb and Cliff Hansen). The initial temperature was -5C, the high at 1600 and 1700 was 3C and it was 0C at the end of observation. Ground winds were light (<5 km/h) and variable all day, and ridge winds appeared to be light W. Cloud cover was 60% altocumulus and cirrus that became cumulus and cirrus at 1400 and reduced to 20% after 1500. The ridges were clear all day. There was a fairly strong raptor movement of 125 migrants of 5 species between 1125 and 1923 that included the highest Golden Eagle count of the season. The count was 2 Bald Eagles (1a, 1j), 7 Sharp-shinned Hawks (5a, 2u), the first Swainson's Hawk of the season, a light morph adult, 1 adult rufous morph *calurus* Red-tailed Hawk, and 124 Golden Eagles (16a, 2sa, 71j, 35u). Golden Eagle movement was increasingly strong from mid-afternoon with hourly counts of 21 (15-1600), 18 (16-1700), 25 (17-1800), 32 (18-1900) and 12 (19-1923). Only a few Golden Eagles were located over Mount Lorette and they appeared originate from Heart Mountain farther to the north, from where they crossed Wasootch Creek and flapped low to the SE in front of the Fisher Range, although there was some soaring flight between 1400 and 1700. [NOTE: the low adult and subadult counts and the high count of juvenile birds are anomalous compared to the Vicki Ridge count of October 5 and the Lorette count of October 6]. Other birds seen were 1 Hairy Woodpecker, 4 Common Ravens, 2 Golden-crowned Kinglets, 3 Ruby-crowned Kinglets, 1 Swainson's Thrush, 1 Varied Thrush, 2 American Robins, 2 American Pipits, 1 Song Sparrow and 6 White-winged Crossbills. Many of the birds were seen feeding at the river's edge on newly emerged stoneflies. Looking distinctly out of place in the snowy landscape was a single Mourning Cloak butterfly on the wing. There were 5 visitors to the site today.

11.75 (125.5) BAEA 2 (14), SSHA 7 (39), SWHA 1 (1), RTHA 1 (12), GOEA 124 (405) TOTAL 135 (524)

Thursday, October 04 Vicki Ridge [Day 10] 0930-1745 (Peter Sherrington, assisted by Hilary Atkinson observing from the Lynx Creek road). The starting temperature was -5C, the high was 1C at 1600 and it was -2C at 1745. Winds were light all day, WSW to 1030 and subsequently E 4-10 km/h. Cloud cover was 100% stratus that became 100% altostratus, cirrostratus, altocumulus and cumulus after 1500 that produced hazy sunshine all day. There was another fairly strong and varied raptor migration with 107 birds of 12 species moving between 1044 and 1733. The flight comprised 2 Ospreys, 4 Bald Eagles (2sa, 2j), 1 adult male Northern Harrier, 61 Sharp-shinned Hawks (1a, 60u), 10u Cooper's Hawks, 3 Northern Goshawks (1a, 2u), 3 small unidentified *Accipiters*, 3 Red-tailed Hawks (2 *calurus*: 1u light, 1 dark adult, and 1 adult dark *harlani*), 1 light morph Rough-legged Hawk, 1 unidentified dark *Buteo*, 12 Golden Eagles (9a, 3j), 1u American Kestrel, 2 *columbarius* Merlins (1 female, 1u), 1u Peregrine Falcon, 1 large unidentified falcon and 1 small unidentified raptor. Fifty of the birds moved between 1300 and 1500.

8.25 hours (89) OSPR 2 (8), BAEA 4 (26), NOHA 1 (12), SSHA 61 (389), COHA 10 (54), NOGO 3 (21), UA 3, RTHA 3 (78), RLHA 1 (16), UB 1 (4), GOEA 12 (251), AMKE 1 (11), MERL 2 (14), PEFA 1 (6), UF 1 (2), UU 1 (2) TOTAL 107 (919)

Thursday, October 04 Steeples [Day 12] 1300-1900 (Vance Mattson). The entire valley was enshrouded in low cloud which began to clear at 1300 but the mountains remained enveloped so

Vance conducted the count from the balcony of his house in Wasa. The temperature was 6C, winds were calm or light W and cloud cover was 100-70% altocumulus, cumulus and altostratus; the mountains remained 90-100% obscured throughout. A season high total of 66 raptors of 10 species migrated between 1332 and 1812 comprising 2 Ospreys, 11 Bald Eagles (5a, 5j), 2 Northern Harriers (1 adult female, 1 juvenile), 11 Sharp-shinned Hawks (3a, 1j, 7u), 2 Cooper's Hawks (1a, 1j), a season-high 28 Red-tailed Hawks (24 *calurus*: 20a (19 light, 1 dark), 1 light juvenile, 1 rufous juvenile and 2 unaged; 1j dark morph *harlani* and 3 birds of unknown race, morph or age), 1 light morph Rough-legged Hawk, 6 Golden Eagles (3a, 3j) 1 unidentified eagle, 1 female American Kestrel and 1u *columbarius* Merlin. About 90% of the birds moved over or just east of Wasa Lake and the highest hourly counts were 17 from 1600 to 1700 and again from 1700-1800. There was also a strong movement of 147 American Crows including flocks of 28 and 40 birds, and 5 California Gulls also moved to the south.

6 hours (47) OSPR 2 (2), BAEA 11 (27), NOHA 2 (6), SSHA 11 (34), COHA 2 (4), RTHA 28 (64), RLHA 1 (1), GOEA 6 (20), UE 1 (1), AMKE 1 (3), MERL 1 (1) TOTAL 66 (168)

Friday, October 05 Mount Lorette [Day 14] 0800-1900 (Caroline Lambert, assisted by Rosemary Power). The temperature at 0800 was -11C but reached a high of 3C at 1600 and 1700 and was -1C at the end of observation. Ground winds were SW 0-5 km/h all day, and ridge winds were moderate, SW to 1700 then W. Cloud cover was 60% cirrus and cirrostratus to 1000 then 60-100% altostratus with minor cumulus for the rest of the day; the ridges were completely clear. There was a strong raptor movement dominated by Golden Eagles with a season high 349 birds of 6 species moving between 0904 and 1846. The count was 3 Bald Eagles (2sa, 1j), 1u Sharp-shinned Hawk, 1u Northern Goshawk, 1u light morph Red-tailed Hawk, 1 unidentified *Buteo*, a season high 337 Golden Eagles (207a, 29sa, 51j, 50u), 3 unidentified eagles, 1 female *columbarius* Merlin and 1 unidentified raptor. All the eagles moved mainly close the Fisher Range ridge, but as relatively few birds were seen leaving Mount Lorette it is probable that most of the birds, as yesterday, originated from Heart Mountain. Golden Eagle movement was strong all day and peaked at 62 birds between 1400 and 1500 and 6 other hours produced over 30 migrants, Other birds included 1 Sora, presumably the bird reported a couple of days ago, 6 Golden-crowned Kinglets, 10 American Robins, 1 American Pipit, the first Pine Grosbeak of the season, 50 Grey-crowned Rosy-Finches, 6 White-winged Crossbills, 2 Pine Siskins, 1 Song Sparrow, 1 Lincoln's Sparrow, 1 Orange-crowned Warbler and 1 Yellow-rumped Warbler. Seventeen visitors to the site enjoyed the spectacular eagle movement.

11 hours (136.5) BAEA 3 (17), SSHA 1 (40), NOGO 1 (15), RTHA 1 (13), UB 1 (4), GOEA 337 (732), UE 3 (10), MERL 1 (2), UU 1 (1) TOTAL 349 (873)

Friday, October 05 Vicki Ridge [Day 11] 0900-1800 (Peter Sherrington, assisted by Hilary Atkinson, Denise Cocciolone-Amatto, Pat Lucas and Trevor Lewis, observing from the Waterton 61 wellsite). The temperature at 0900 was -1C, the high was 6C at 1500 and it was 4.5C at 1800. Winds were WNW 20-25 km/h to 1000 and were then W 20-35 gusting 55 km/h that dropped to

15-20 km/h after 1630. It was initially cloudless but cirrus and altocumulus cloud rapidly developed after 1000 and was 100% mainly altostratus and altocumulus cloud after 1200 which produced gloomy conditions for much of the afternoon. A season high 205 raptors of 8 species were seen between 0908 and 1744 that comprised 2a Bald Eagles, 49 Sharp-shinned Hawks (9a, 40u), 3 Cooper's Hawks (1a, 2u), 3a Northern Goshawks, 14 a Red-tailed Hawks (12 *calurus*: 10 light, 2 dark and 2 dark *harlani*), 7 Rough-legged Hawks (6 light, 1 dark), a season-high 126 Golden Eagles (78a, 14sa, 34j) and 1 adult male Peregrine Falcon. Peak movement was 53 raptors between 1400 and 1500 and the maximum Golden Eagle passage was 36 between 1300 and 1400. Only 3 birds moved after 1700. Other birds seen included 5 Clark's Nutcrackers, 11 Mountain Bluebirds, 10 American Robins, 40 Bohemian Waxwings, 25 Grey-crowned Rosy-Finches, 5 Red Crossbills and 27 Pine Siskins.

9 hours (98) BAEA 2 (28), SSHA 49 (438), COHA 3 (24), NOGO 3 (24), RTHA 14 (92), RLHA 7 (23), GOEA 126 (377), PEFA 1 (7) TOTAL 205 (1124)

Friday, October 05 Steeples [Day 13] 1330-1800 (Vance Mattson). Weather conditions were similar to those of yesterday with the mountains completely obscured, a temperature of 7C, calm and 100% stratus, altostratus and dark cumulus. Observation was again from the balcony of Vance's house in Wasa from where he counted 15 migrants of 4 species between 1342 and 1548. The count was 8 Bald Eagles (6a, 1sa, 1j), 1a light morph *calurus* Red-tailed Hawk, 1 dark morph Rough-legged Hawk, 4a Golden Eagles and 1 unidentified eagle. Movement was similar to yesterday but with less soaring flight.

4.5 hours (51.5) BAEA 8 (35), RTHA 1 (65), GOEA 4 (24), RLHA 1 (2), UE 1 (2) TOTAL 15 (183)

Saturday, October 06 Mount Lorette [Day 15] 0800-1900 (Blake Weis, assisted by Ruth Morrow and Patrick Farley). The temperature was -8C at 0800, the high was 6C from 1600 to 1800 and it was -1C at 1900. Ground winds were light all day, variable 0-3 km/h to 1000, SSW 0-5 gusting 10 km/h to 1300, SSW and occasionally E to 1800 and SSW 0-5 km/h for the last hour; ridge winds were probably light to moderate SSW. It was essentially cloudless all day with only traces of cirrus and altocumulus cloud. There was another strong raptor movement again dominated by Golden Eagles with 209 birds of 7 species migrating between 1055 and 1907. The flight comprised a season-high 13 Bald Eagles (6a, 2sa, 5j), 5u Sharp-shinned Hawks, 1a Northern Goshawk, 2 small unidentified *Accipiters*, 1a light morph *calurus* Red-tailed Hawk, 1 dark morph Rough-legged Hawk, 182 Golden Eagles (91a, 6sa, 69j 16u), 1 unidentified eagle, the season's first Gyrfalcon, a probable female grey morph that briefly harassed a juvenile Golden Eagle as it flew south, and 2 small unidentified raptors. With the exception of one Sharp-shinned Hawk, all birds were seen on the eastern route with most migrants flapping low in front of the face of the Fisher Range. Peak movement was 53 raptors between 1300 and 1400 that included 46 Golden Eagles. Non-migrants were a Sharp-shinned Hawk that hunted American Pipits along the river in the morning and a Merlin that perched near the site at 1815. Other birds near the site were 1 American Dipper, 1

Varied Thrush, 1 American Robin, 1 Ruby-crowned Kinglet, 4 Golden-crowned Kinglets, 25 American Pipits, 5 White-winged Crossbills, 1 Lincoln's Sparrow, 1 Song Sparrow, 1 White-crowned Sparrow of the race *gambelii* which was found dead, having probably perished in the recent snow storm, 7 Dark-eyed Juncos, 2 Yellow Warblers and a late migrating Common Yellowthroat. A Mountain Goat spent some time high on the ridge at the northern end of the Fisher Range, and there were 24 visitors at the site today.

11.58 hours (148.1) BAEA 13 (30), SSHA 5 (45), NOGO 1 (16), UA 2 (4), RTHA 1 (14), RLHA 1 (8), GOEA 182 (914), UE 1 (11), GYRF 1 (1), UU 2 (3) TOTAL 209 (1082)

Saturday, October 06 Vicki Ridge [Day 12] 0900-1730 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). The temperature at 0900 was -2C the high at 1200 was 7C and it was 5C at 1730. Winds were light all day (< 8 km/h), variable to 1200 then E for the rest of the day, but there was probably a light westerly flow above Kyllio Ridge to the west of Vicki Ridge. Cloud cover was 0-10% cirrostratus to 1200 after which scattered cumulus developed that reached 20% at 1400 and 1500 after which it was again cloudless with trace cumulus and cirrus cloud. The only raptor seen in the morning was a female *columbarius* Merlin at 1013 which briefly perched on a snag on the flank of Vicki Ridge before flying low to the south. This proved to be the only bird seen on Vicki Ridge all day with the remaining 233 migrant raptors soaring high and gliding high to the south between 1223 and 1706 on a broad front between the centre of the valley and the western edge of Kyllio Ridge. The final count of a season-high 234 birds of 9 species was 6 Bald Eagles (2a, 2sa, 2j), 11u Sharp-shinned Hawks, 2 Cooper's Hawks (1a, 1u), 2 Northern Goshawks (1a, 1u), 1u dark morph Broad-winged Hawk, 19 Red-tailed Hawks (16 *calurus*: 7a, 5u light morphs, 3a, 1u dark morphs; 1a dark *harlani*, and 2 undifferentiated dark morphs), 7 Rough-legged Hawks (5 light, 1 dark, 1u), 8 unidentified *Buteos* (7 dark, 1u), a season-high 175 Golden Eagles (78a, 14sa, 46j, 37u), 1 female *columbarius* Merlin and 2 small unidentified raptors. There was much high soaring flight with the largest kettles of Golden Eagles being 14 at 1409 and 16 at 1519. The busiest hour was 1500-1600 with 70 migrants including 63 Golden Eagles and 1400-1500 saw 60 birds move of which 46 were Golden Eagles. Other birds were scarce and included 1 male Pileated Woodpecker, 2 Blue Jays, 3 Clark's Nutcrackers, 3 American Robins, 5 Red Crossbills and 16 Pine Siskins.

8.5 hours (106.5) BAEA 6 (34), SSHA 11 (449), COHA 2 (59), NOGO 2 (26), BWHA 1 (15), RTHA 19 (111), RLHA 7 (30), UB 8 (12), GOEA 175 (552), MERL 1 (15), UU 2 (4) TOTAL 234 (1358)

Saturday, October 06 Steeples [Day 14] 1200-1900 (Vance Mattson). The temperature was 9C at 1200, reached a high of 10C before dropping to 7C at 1900, winds were light to moderate N-NW and cloud cover was 20-40% cumulus which provided both sunshine and excellent observing conditions. The mountains finally cleared and there was a strong raptor movement of 104 birds of 6 species between 1229 and 1840 that comprised 14 Bald Eagles (9a, 3sa, 2j), 2 Northern Harriers (1a female, 1u), 9 Sharp-shinned Hawks (4a, 5u), 1a Northern Goshawk which was the first for

the season, 3 *calurus* Red-tailed Hawks (2a light, 1u dark) and a season-high 75 Golden Eagles (55a, 20j). Both the total and the Golden Eagle count were site records for fall counts. The highest hourly counts were 29 (including 23 Golden Eagles) between 1400 and 1500, 24 (18 Golden Eagles 1500-1600 and 19 (18 Golden Eagles) 1700-1800. Most migrants moved close to the ridges and the flight was initially very fast but became slower as the day progressed. Resident Golden Eagles were seen on 3 occasions and 14 non-migratory Bald Eagles were seen including many that moved along the ridges towards the north.

7 hours (58.5) BAEA 14 (49), NOHA 2 (8), SSHA 9 (43), NOGO 1 (1), RTHA 3 (68), GOEA 75 (99) TOTAL 104 (287)

Sunday, October 07 Mount Lorette [Day 16] 0710-1920 (Bill Wilson, assisted by Lori Anderson and Patrick Farley). The temperature at 0800 was -7C, the high was 7C at 1600 and 1700 and it was 1C at 1920. Ground winds were SW all day 5-8 km/h which probably also reflected the ridge winds. There was a trace of altostratus at the start which expanded to 40% at 0900 and was 0-20% for the rest of the day with a trace of cumulus developing at the end of observation. There was a fairly strong raptor migration with 105 birds of 7 species moving between 1046 and 1829 comprising 8 Bald Eagles (1a, 1sa, 6j), 5u Sharp-shinned Hawks, 2 adult Northern Goshawks, 1 small unidentified *Accipiter*, 1 light morph Rough-legged Hawk, 86 Golden Eagles (41a, 5sa, 29j, 11u), 1u Merlin and 1 adult Peregrine Falcon which was the first for the season. Most of the birds used the eastern route but about 20 of the Golden Eagles were seen to the west. There was much soaring and flapping and gliding flight in the light winds. The highest hourly counts were 23 from 1200 to 1300 and again from 1300 to 1400 and there was a late peak of 14 birds (1 Bald Eagle and 13 Golden Eagles) between 1800 and 1829. Other birds included the Sora that was first reported on October 3, 1 Pileated Woodpecker, 2 Clark's Nutcrackers, 1 American Dipper and 3 American Pipits. Twenty-six visitors enjoyed both the weather and the birds.

12.16 hours (160, 2) BAEA 8 (38), SSHA 5 (50), NOGO 2 (18), UA 1 (5), RLHA 1 (9), GOEA 86 (1000), MERL 1 (3), PEFA 1 (1) TOTAL 105 (1187)

Sunday, October 07 Vicki Ridge [Day 13] 0900-1815 (Peter Sherrington to 1415; Doug and Teresa Dolmen after 1415, observing from the Waterton 61 wellsite). The temperature at 0900 was 0C the high was 9C at 1300 and 1400 and it was 6C at 1815. Winds were NW 3-10 gusting 15 km/h to 1200, and W in the afternoon to 10 km/h. Cloud cover was 0-10% in the morning with trace amounts of altocumulus and cirrus, 30-80% cirrus, cumulus and altocumulus to 1700 and it became almost cloudless again at the end of observation. There was another fairly strong and varied raptor movement of 150 birds of 11 species between 1036 and 1810 that comprised 7 Bald Eagles (5a, 2sa), 15 Sharp-shinned Hawks (3a, 1j, 11u), 5 Cooper's Hawks (1a, 4u), 1 adult Northern Goshawk, 1 unidentified small *Accipiter*, 3 light morph Broad-winged Hawks (1a, 2u), 11 Red-tailed Hawks (*calurus* 9 : 4a, 1j light, 4a dark, and 2 dark *harlani*: 1a, 1j), 3 Ferruginous Hawks (1j light morph and 2a dark morphs), 2 light morph Rough-legged Hawks, 7 unidentified *Buteos* (1 light, 4 dark, 2u), 94 Golden Eagles (38a, 13sa, 30j, 13u) and 1u *columbarius* Merlin.

The busiest hours were 47 including 31 Golden Eagles (1100-1200) and 33 including 19 Golden Eagles (1200-1300) Other birds seen were 1 Pileated Woodpecker, 1 Blue Jay, 5 Clark's Nutcrackers, 1 Black-billed Magpie, 30 Common Ravens, 2 Mountain Bluebirds, 2 American Robins, 2 Red Crossbills, 15 Pine Grosbeaks (the first for the season), 6 Pine Siskins and 1 Yellow-rumped Warbler.

9.25 hours (115.8) BAEA 7 (41), SSHA 15 (464), COHA 5 (64), NOGO 1 (27), UA 1 (4), BWAH 3 (18), RTHA 11 (122), FEHA 3 (6), RLHA 2 (32), UB 7 (19), GOEA 94 (646), MERL 1 (16) TOTAL 150 (1508)

Sunday, October 07 Steeples [Day 15] 1145-1845 (Vance Mattson, assisted by Joe Rothermund, Dianne Cooper and Virginia Rasch). The temperature was 10C, winds were calm to light variable, and cloud cover was 10% cumulus. A total of 22 migrants of 4 species were counted between 1258 and 1801 comprising 4 Bald Eagles (3a, 1j), 11 Sharp-shinned Hawks (6a, 5u), 4 Red-tailed Hawks (2j light morph *calurus* Red-tailed Hawks and 2 (1a, 1j) dark morph *harlani* (1a, 1j)), and 3 Golden Eagles (2a, 1sa). Many migrants appeared from behind the main ridge and were difficult to spot in the blue sky and the presence of 3 other observers was a great help. Resident Golden Eagles were seen on 2 occasions, and 13 non-migrant Bald Eagles (8a, 4j, 1u), 11 of which moved to the north along the ridge including a group of 6 at 1641.

7 hours (65.5) BAEA 4 (53), SSHA 11 (54), RTHA 4 (72), GOEA 3 (102) TOTAL 22 (309)

Monday, October 08 Mount Lorette [NO OBSERVATION]. (George Halmazna, assisted by Dan Parliament 0745-1200). The temperature was -2C to -1C, wind was WNW 5-10 km/h and low stratus cloud obscured all the ridges and produced steady snow. Birds seen around the Hay Meadow and at Lorette Ponds included the now apparently "resident" Sora, 1 Varied Thrush, 1 American Dipper, 1 Song Sparrow, 1 Savannah Sparrow, 4 Rusty Blackbirds (3 males, 1 female) and 1 Palm Warbler.

Monday, October 08 Vicki Ridge [NO OBSERVATION]. Ridges obscured all day by low cloud to 1100 and dense fog with light rain thereafter.

Monday, October 08 Steeples [Day 16] 1245-1745 (Vance Mattson, assisted by Pam Power and Knut Finstad). The temperature was 8C, conditions were calm and cloud cover was 90-100% altostratus and cumulus. Eight migrants of 4 species were seen comprising 5 Sharp-shinned Hawks (2a, 3u), 1 adult dark morph *calurus* Red-tailed Hawk, 1 dark morph Rough-legged Hawk and 1 juvenile Golden Eagle. 1 resident Golden Eagle was seen, and 2 non-migrant juvenile Bald Eagles flew to the north along the ridge.

5 hours (70.5) SSHA 5 (59), RTHA 1 (73), RLHA 1 (3), GOEA 1 (103) TOTAL 8 (317)

Tuesday, October 09 Mount Lorette [NO OBSERVATION]. (Cliff Hansen and Rick Robb 0830-1650). The temperature was -4C to -1C, wind was N 5-10 gusting 15 km/h and cloud cover was 100% low stratus that produced light snow and obscured all mountains. The few birds identified were 1 Hairy Woodpecker, 2 Black-billed Magpies, 2 Ruby-crowned Kinglets and 1 Varied Thrush.

Tuesday, October 09 Vicki Ridge [NO OBSERVATION]. The temperature was -4C, winds were E-ENE 15-20 km/h and cloud cover was 100% low stratus that completely obscured the ridge. Light snow fell all day.

Tuesday, October 09 Steeples [Day 17] 1315-1745 (Vance Mattson). The precipitation that was forecast did not arrive although it was a cloudy day with 60-80% cumulus and altostratus, a temperature of 9C and NW and, later in the day, E winds. A total of 11 migrants of 4 species were seen up to 1702 which comprised 3 juvenile Bald Eagles, 3u Sharp-shinned Hawks, 2 Northern Goshawks (1j, 1u) and 3 Golden Eagles (1a, 1j, 1u). Four non-migrant Bald Eagles (3a, 1j) were seen but, unlike the last couple of days, they were not heading north. The last migrant was a juvenile Golden Eagle that soared low at length, then rose very high and joined 6 soaring ravens which immediately set about the eagle that quickly glided to the south after making a brief token rejoinder.

4.5 hours (75) BAEA 3 (56), SSHA 3 (62), NOGO 2 (3), GOEA 3 (106) TOTAL 11 (328)

Wednesday, October 10 Mount Lorette [Day 17] 0710-1920 (Caroline Lambert, assisted by Joel Duncan). The temperature was initially -7C, the high was 1C from 1400 to 1900 and it was 0C on departure. Ground winds were variable and light to 1400, NE 5-10 gusting 20 km/h to 1600 then N 0-5 gusting 15 km/h for the rest of the day.; ridge winds were light S to 1100, light west to 1400 after which they were moderate. Cloud cover was initially 50% altocumulus and altostratus that reduced to 20% cumulus and cirrocumulus at 1200-1500, and was then 100% stratus for the rest of the day. There were light snow flurries after 1600. The only migrant raptors were 8 Golden Eagles (4a, 1sa, 1j, 2u) that moved between 1250 and 1430, 6 of which occurred between 1400 and 1430. All birds moved on the eastern route with much soaring and flapping flight. A single adult resident Golden Eagle flew to the east from Hummingbird Plume Hill to beyond the Fisher Range ridge. The Sora was still present and other birds included 1 Belted Kingfisher, 1 Brown Creeper, 2 American Dippers, 10 Golden-crowned Kinglets, 3 American Pipits, 20 White-winged Crossbills, 6 Pine Siskins, 4 Lapland Longspurs, 8 *cismontanus* Dark-eyed Juncos, 2 White-

throated Sparrows 1 male Rusty Blackbird and 1 Yellow-rumped Warbler. There were 16 visitors to the site including 1 school party.

10.25 (170.5) GOEA 8 (1008) TOTAL 8 (1195)

Wednesday, October 10 Vicki Ridge [Day 14] 1045-1715 (Peter Sherrington, observation from Waterton 61 wellsite). The snow finally stopped around 1000 and there was 6cm of fresh snow at the site. The temperature was -4C at 1100, rose to a high of -2 C at 1500 and was -3C at the end of observation. Winds were light SE-E all day and cloud cover was 100% stratus that was only occasionally and briefly broken giving gloomy conditions all day. East of the ridge after 1715, however, the skies were clear and it was sunny! There was only a light, sporadic migration of 18 raptors of 5 species between 1110 and 1626 that comprised 8 Sharp-shinned Hawks (4a, 4u), 1a Northern Goshawk, 7 Red-tailed Hawks (4a *calurus*: 3 light, 1 dark; 3 dark *harlani*: 2a, 1j), 1u *columbarius* Merlin and 1 Prairie Falcon. Ten birds moved before 1300 with 6 between 1100 and 1200, but 6 Sharp-shinned Hawks were the only migrants moving after 1330. Other birds included 1 Dusky Grouse, 1 Northern Pygmy-Owl that called briefly, 1 adult Northern Shrike, 5 Clark's Nutcrackers, 8 American Robins and 8 Red Crossbills

6.5 hours (122.3) SSHA 8 (472), NOGO 1 (28), RTHA 7 (129), MERL 1 (17), PRFA 1 (3) TOTAL 18 (1526)

Wednesday, October 10 Steeples [Day 18] 1530-1800 (Vance Mattson). It was a beautiful day with a temperature of 11C and sunny calm conditions with a cloud cover of 30% altostratus and cumulus that increased to 60% altocumulus. Only 2 migrants were seen, however: 1u Sharp-shinned Hawk and 1j Northern Goshawk that flew south together at 1722. The only other raptors were the resident Golden Eagles that interacted above the ridge including a playful stoop that produced a barrel-roll from the other bird followed by a brief display flight by one of the birds. The two then soared together over the flank of Bill Nye Mountain.

2.5 hours (77.5) SSHA 1 (63), NOGO 1 (4) TOTAL 2 (330)

Thursday, October 11 Mount Lorette [Day 18] 0710-1920 (Joel Duncan to 1730 and Caroline Lambert after 1730, assisted by Brian McBride). The temperature at 0800 was -8C, the high was 6C at 1500 and it was 3C at 1920. Ground winds were variable and light to 1400, then SW-W 5-15 gusting 20 km/h to 1730 after which it was calm; ridge winds were SW all day, light to 1900, moderate to 1400 and then strong for the rest of the day. It was cloudless to 1000 when 10% cirrus developed to 1400 after which it was 50-90% altostratus and cirrus for the rest of the day. Despite the favourable winds and viewing conditions there was a disappointing count of only 26 birds of 2 species between 0820 and 1735 that comprised 5 light morph Rough-legged Hawks, 20 Golden Eagles (11a, 5sa, 2j, 2u) and 1 unidentified eagle. All the birds glided on the eastern route between

Mount Lorette and the Fisher Range and there was little soaring or flapping flight. The highest hourly counts were only 5 birds between 1300 and 1400 and again between 1600 and 1700. Other birds, however, were varied and included the long-staying juvenile Sora that today was seen on a gravel bar in the river, 10 Golden-crowned Kinglets, 1 Varied Thrush, 1 American Dipper, 1 Lapland Longspur, 5 White-winged Crossbills, 2 Purple Finches (2 females, 1 male), 1 Song Sparrow, 2 Swamp Sparrows and 2 Yellow-rumped Warblers. Sixteen visitors were at the site today.

11.5 hours (182) RLHA 5 (14), GOEA 20 (1028), UE 1 (12) TOTAL 26 (1221)

Thursday, October 11 Vicki Ridge [Day 15] 0845-1845 (Peter Sherrington, assisted by Denise Cocciolone-Amatto, Raymond Toal and Gord Petersen observing from Waterton 61 wellsite, and Kyllo Ridge from the Waterton 68 wellsite, 1550-1630). Clear skies allowed the temperature to fall to -9C at 0845, but by 1000 it had risen to 0C, reached a high of 7C at 1400 and was still 5C at 1845. It was calm to 1030 when light W winds started that gradually increased in velocity throughout the afternoon reaching 20-30 gusting 50 km/h after 1600. It was cloudless to 1430 when lenticular clouds began to develop which became 60-80% lenticular and cirrus after 1600. A total of 138 migrant raptors of 10 species were counted between 1040 and 1832 that comprised 6 Bald Eagles (3a, 1j), 1 juvenile female Northern Harrier, 10 Sharp-shinned Hawks (7a, 12u), 1u Cooper's Hawk, 2 light morph Broad-winged Hawks (1a, 1j), 11 Red-tailed Hawks (9 *calurus*: 6 light (5a, 1u) and 3a dark); and 2 (1a, 1j) dark *harlani*, 1a light morph Ferruginous Hawk, 8 light morph Rough-legged Hawks, 2 unidentified *Buteos* (1 dark, 1u), 84 Golden Eagles (37a, 12sa, 24j, 11u), 2 unidentified eagles and 1u *columbarius* Merlin. The totals include 9 birds (1 Bald Eagle, 2 Sharp-shinned Hawks and 6 Golden Eagles) moving above the western edge of Kyllo Ridge that were seen by Denise Cocciolone-Amatto, Raymond Toal between 1550 and 1630). Birds moved fairly steadily and generally high above both Vicki and Kyllo Ridges and peak movement was 27 including 16 Golden Eagles between 1500 and 1600, and 31 including 17 Golden Eagles between 1600 and 1700. Other birds were relatively scarce but a juvenile Swainson's Thrush feeding with a Grey-cheeked Thrush on chokecherry berries at 0910 was remarkable; other birds included 1 Steller's Jay, 9 Clark's Nutcrackers, 2 Red-breasted Nuthatches and 13 Red Crossbills.

10 hours (132.3) BAEA 6 (47), NOHA 1 (13), SSHA 19 (491), COHA 1 (65), BWHA 2 (20), RTHA 11 (140), FEHA 1 (7), RLHA 8 (40), UB 2 (21), GOEA 84 (730), UE 2 (3), MERL 1 (18) TOTAL 138 (1664)

Thursday, October 11 Steeples [Day 19] 1300-1800 (Vance Mattson). It was another pleasant day with a temperature of 10C, calm conditions, and cloudless to 1300 after which 70% altocumulus cloud developed that reduced to 20% by 1730. A total of 12 migrants of 3 species moved between 1324 and 1621 comprising 10 Bald Eagles (5a, 5j), 1 juvenile Northern Harrier and 1u Sharp-shinned Hawk. Seven of the Bald Eagles were seen between 1324 and 1336, but no birds were seen between 1409 and 1621 when the last 3 birds, 1 Bald Eagle, 1 Northern Harrier and 1 Sharp-

shinned Hawk, were seen. The only resident bird was an adult Golden Eagle that soared above the ridge at 1300.

5 hours (82.5) BAEA 10 (66), NOHA 1 (9), SSHA 1 (64) TOTAL 12 (342)

Friday, October 12 Mount Lorette [Day 19] 0820-1900 (Caroline Lambert, assisted by Joel Duncan). The starting temperature was -6C but rose to a high at 1600 of 9C and fell to 3C at the end of observation. Ground winds were W-SW 5-10 gusting 20-40 km/h which diminished to 0-5 gusting 15 km/h by late afternoon, and finally strong NE winds at 1900 when a cold front arrived bringing snow and that ended observation for the day. Ridge winds were W, very strong to 1500 and then strong until the arrival of the front. The east was clear but the west was 20-80% obscured all day. A total of 85 migrants of 5 species moved between 0911 and 1750 comprising 5a Bald Eagles, 1u Cooper's Hawk, 2 Northern Goshawks (1a, 1u), 1 light morph Rough-legged Hawk, 71 Golden Eagles (39a, 5sa, 4j, 23u), 4 unidentified eagles and 1 unidentified raptor. All birds were seen mainly very high above the Fisher Range, but none were seen at Mount Lorette. Movement was steady throughout the day with 37 of the birds recorded between 1500 and 1750. Other birds were 1 Hairy Woodpecker, 10 Common Ravens, 4 Black-capped Chickadees, 2 Boreal Chickadees, 1 Red-breasted Nuthatch, 1 American Dipper, 2 Golden-crowned Kinglets, 2 Red Crossbills, 4 White-winged Crossbills and 2 Pine Siskins. Two Grey Wolves, one of which was black, crossed the river north of the site at 0830, and a male Moose also made an appearance at the site. The 32 visitors included a home-schooling group of 19 students and parents.

10.67 hours (192.7) BAEA 5 (43), COHA 1 (5), NOGO 2 (20), RLHA 1 (15), GOEA 71 (1099), UE 4 (16), UU 1 (4) TOTAL 85 (1306)

Friday, October 12 Vicki Ridge [Day 16] 0815-1820 (Peter Sherrington, assisted by Trevor Lewis and Gord Petersen observing from Waterton 61 wellsite). The temperature at 0815 was 5C, the high at 1400 was 10C and it was 7C at the end of observation as light rain began to fall. Winds were strong W all day 50-60 gusting 90km/h which switched to N 15-25 km/h just before 1800 that brought light rain in advance of a rapidly advancing cold front. Cloud cover was cumulus all day, 0-30% to 1100 and 10-70% in the afternoon that gave excellent observing conditions. There was a fairly strong and persistent raptor movement of 140 birds of 9 species that were seen between 0851 and 1815 which comprised a season-high 14 Bald Eagles (4a, 2sa, 5j, 3u), 15 Sharp-shinned Hawks (4a, 11u), 1u Cooper's Hawk, 1 adult female Northern Goshawk, 1 undifferentiated *Accipiter*, 1 adult light morph Broad-winged Hawk, 7 Red-tailed Hawks (5a *calurus*: 3 light, 2 dark, and 2j *harlani*: 1 light, 1 dark), 8 Rough-legged Hawks (6 light, 1 dark, 1u), 1 unidentified *Buteo*, 90 Golden Eagles (61a, 7sa, 9j, 13u) and 1 adult male Peregrine Falcon. Birds moved generally high above both ridges and the busiest hour was 1700-1800 when 30 birds moved ahead of the approaching front. The unusual light morph "Harlan's Hawk" hunted the western flank of Vicki Ridge for a couple of hours before finally moving to the south. Also unusual was a Thirteen-lined Ground Squirrel that ran about on the snow in the early afternoon before returning to its hole.

10.08 hours (142.3) BAEA 14 (61), SSHA 15 (506). COHA 1 (66), NOGO 1 (29), UA 1 (5), BWAH 1 (21), RTHA 7 (147), RLHA 8 (48), GOEA 90 (820), PEFA 1 (8) TOTAL 140 (1804)

Friday, October 12 Steeples [Day 20] 1200-1730 (Vance Mattson). The temperature was 13C, winds were moderate S, then W and finally N at the end of the day and cloud cover was 40-60% mainly cumulus. Despite these apparently favourable conditions, however, no migrants were seen, although there were two sightings of resident Golden Eagles and 3 non-migrant Bald Eagles were observed.

5.5 hours (87.5) TOTAL 0 (342)

Saturday, October 13 Mount Lorette [Day 20] 0845-1800 (Blake Weis). The temperature was -1C at the start and rose to 0C after 1000, winds were N all day, cloud cover was 90-100% stratus which mainly obscured the ridges and light, moderate or heavy snow fell all day. Blake remained in the Hay Meadow until 1445 then moved to Barrier Lake and finally to Lusk Creek where the highest foothills ridge was clear but still no migrant raptors were seen. Other birds seen, however included 1 Brown Creeper, 5 Golden-crowned Kinglets, 1 Ruby-crowned Kinglet, 1 American Robin, 1 Mountain Bluebird, 30 White-winged Crossbills, 3 Pine Siskins, 2 Lapland Longspurs, 5 American Tree Sparrows, 6 Dark-eyed Juncos and 1 Yellow-rumped Warbler. Ten visitors made it to the Hay Meadow site, and although they saw no migrant raptors most were able to observe a pair of Moose near the parking area.

8.75 hours (201.4) TOTAL 0 (1306)

Saturday, October 13 Vicki Ridge [Day 17] 1245-1500 and 1615-1800 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). Steady snow fell to 1130 and the ridges were obscured until noon when they rapidly began to clear. There was 16 cm of fresh snow at the site, the ridges were clear, the temperature was 0C and it was calm when observation began at 1245. Seventeen raptors were counted between 1301 and 1427 after which heavy snow again began to fall which persisted to 1615 when the site was re-occupied with a further 4 cm of fresh snow on the ground, and the temperature remained at -2C with 100% stratocumulus cloud cover and light NE to SE winds for the rest of the day. The ridges remained clear, however, and a further 15 migrants were counted, the last being at 1737. The final count of 32 raptors of 4 species was 9 Sharp-shinned Hawks (2a, 7u), 1u Cooper's Hawk, 5 Rough-legged Hawks (8a, 3sa, 6j) and 17 Golden Eagles (8a, 3sa, 6j). Fourteen birds were seen between 1300 and 1400 and 13 between 1700 and 1800.

4 hours (146.3) SSHA 9 (515), COHA 1 (67), RLHA 5 (53), GOEA 17 (837) TOTAL 32 (1836)

Saturday, October 13 Steeples [Day 21] 1200-1800 (Vance Mattson). The temperature was 8C, it was initially calm with 60% cumulus cloud cover which produced a slow soaring raptor movement; by 1500, however winds were strong N and cloud cover was 100% altostratus and cumulus which reduced to 50% by 1630 which again gave partially sunny conditions. There was a varied raptor movement of 26 birds of 9 species which included the first ever record of a Gyrfalcon for the site: an adult light grey morph bird at 1353 which soared above and in front of the ridge before being chased south by 2 aggressive ravens,. Other migrants were 14 Bald Eagles (9a, 1sa, 4j), 2 Northern Harriers (1 adult female, 1j), 3 Sharp-shinned Hawks (1a, 2u), 1j Northern Goshawk, 1 juvenile light morph *calurus* Red-tailed Hawk, 3 Golden Eagles (2a, 1u) and 1u *columbarius* Merlin. Thirteen migrants moved between 1300 and 1400 after which the pace slowed and the last bird was a juvenile Bald Eagle at 1707. Non-migrants were 3 adult Bald Eagles and the resident pair of Golden Eagles that included display flights by both birds with that of the larger bird (female) being particularly vigorous.

6 hours (93.5) BAEA 14 (80), NOHA 2 (11), SSHA 3 (67), NOGO 1 (5), RTHA 1 (74), GOEA 3 (109), MERL 1 (2), GYRF 1 (1) TOTAL 26 (368)

Sunday, October 14 Mount Lorette [Day 21] 0650-1945 (Bill Wilson, assisted by Lori Anderson and Patrick Farley). The temperature at the start was -8C, it reached a high of 6C at 1700 and was 0C at the end of observation. Ground winds were SW 0-5 gusting 8 km/h all day, and ridge winds were moderate SW. Cloud cover was altostratus all day, 90-100% to 1500 that diminished to 10% at 1700 and 1800 before increasing to 60% at the end of the day. The ridges were clear all day. Ideal migration conditions produced a strong raptor movement that saw the second-highest Golden Eagle count of the season with 230 birds of 6 species moving between 0948 and 1915. The count was 1 adult Bald Eagle, 1u Sharp-shinned Hawk, 3 Northern Goshawks (1a, 1u), 2 adult *calurus* Red-tailed Hawks (1light, 1 dark), 3 Rough-legged Hawks (1 light, 2u), 1 unidentified *Buteo* and 230 Golden Eagles (147a, 11sa, 27j, 45u). All the birds glided at ridge level or lower along the Fisher Range and appeared to have originated from the Heart Mountain area rather than from Mount Lorette. By 1400 only 13 Golden Eagles had been seen but the rate steadily increased and 185 birds moved after 1600 with hourly counts of 61 (1600-1700), 52 (1700-1800) and 64 (1800-1900), and 8 birds between 1900 and 1915 when it was almost too dark to see. Other birds included a pair of Great Horned Owls that duetted as the observers were preparing to leave at 1919, 12 migrating Clark's Nutcrackers, 12 White-winged Crossbills, 3 Dark-eyed Juncos, and 1 Song Sparrow and 1 Palm Warbler that were seen at Lorette Ponds. A pair of Moose was in the Hay Meadow and about 3 wolves howled to the SE of the site at 1300. There was plenty to entertain the 42 visitors to the site today.

12.92 hours (214.3) BAEA 1 (44), SSHA 1 (51), NOGO 2 (22), RTHA 2 (16), RLHA 3 (18), UB 1 (5), GOEA 230 (1329) TOTAL 240 (1546)

Sunday, October 14 Vicki Ridge [Day 18] 0900-1830 (Peter Sherrington, assisted by Hilary Atkinson and Raymond Toal, observing from the Waterton 61 wellsite). The forecast called for a

relatively warm sunny day, but it turned out to be a mainly cold gloomy one. The temperature was -2C at 0900 and reached a high of 4C at 1300 which persisted to the end of observation but it felt much cooler with W winds that were 20-35 gusting to 50 km/h all day. There were a few sunny breaks in the 40-80% altostratus and cirrus cloud cover in the morning, but the afternoon saw mainly 100% altostratus and uniform grey stratus that thinned at 1800 to 70% altocumulus and altostratus and provided some welcome patches of blue sky at the end of the day. A total of 67 raptors of 7 species migrated between 0929 and 1822 that comprised 6 adult Bald Eagles, 4u Sharp-shinned Hawks, 1 adult probable female Northern Goshawk, 1 adult dark morph *calurus* Red-tailed Hawk, 6 light morph Rough-legged Hawks, 48 Golden Eagles (32a, 4sa, 11j, 1u) and the first Gyrfalcon of the season, a probable male grey morph bird. Most of the birds moved high above Vicki Ridge and the maximum hourly count was 13 (all Golden Eagles) between 1700 and 1800.

9.5 hours (155.8) BAEA 6 (67), SSHA 4 (519), NOGO 1 (30), RTHA 1 (148), RLHA 6 (59), GOEA 48 (885), GYRF 1 (1) TOTAL 67 (1903)

Sunday, October 14 Steeples [Day 22] 1200-1730 (Vance Mattson). It was a beautiful sunny day with a temperature of 3C rising to a high of 7C, calm conditions and an initial cloud cover of 60% altostratus that dwindled to 0% by 1500. Just 10 migrants of 4 species were seen, with 8 of the birds moving before 1432, and the last migrant, an unidentified small raptor, was seen at 1556. The count was 2 adult Bald Eagles, 1 adult female or juvenile Northern Harrier, 3 Sharp-shinned Hawks (1a, 2u), 3 Golden Eagles (2a, 1u) and 1 small raptor that was probably either a Sharp-shinned Hawk or a Merlin. Non-migrant or resident birds were 1 adult Bald Eagle, 2 adult Northern Goshawks that soared together, 1 juvenile light morph *calurus* Red-tailed Hawk and 1 adult Golden Eagle.

5.5 hours (99) BAEA 2 (82), NOHA 1 (12), SSHA 3 (70), GOEA 3 (112), UU 1 (1) total 10 (378)

Monday, October 15 Mount Lorette [Day 22] 0650-1945 (George Halmazna, assisted by Dan Parliament and Caroline Lambert). The starting temperature was -3C, the high was 10.5C at 1600 and it was still 9C at the end of observation. Ground winds were light SW all day apart from 1300-1600 when there were gusts up to 15 km/h, and ridge winds were SW light to moderate all day. Cloud cover was 30-90% cirrus and cumulus to 0900 and then averaged 60% cirrus for the rest of the day that provided excellent observing conditions. There was another strong raptor movement of 278 birds of 4 species between 0815 and 1902 that included the second-highest Golden Eagle count of the season. The count comprised 7 Bald Eagles (6a, 1j), 1 unidentified *Accipiter*, 5 Red-tailed Hawks (1j light morph *calurus* and 4 dark morph *harlani*: 1a, 2j, 1u) and 265 Golden Eagles (147a, 30sa, 77j, 11u). All eagles moved mainly at ridge level along the Fisher Range having again probably originated from Heart Mountain as none were seen at Mount Lorette. Movement was steady with 46 Golden Eagles moving up to 1300 when the rate increased with subsequent maximum hourly counts of 54 (1400-1500) and 48 (1700-1800). Other birds included first seasonal records of Bohemian Waxwings (25) and Harris's Sparrow (an adult male), and a late record of 2

Yellow Warblers; other species included 2 Ruby-crowned Kinglets, 1 American Robin, 3 White-winged Crossbills, 7 American Tree Sparrows and 3 Dark-eyed Juncos. The warm day also produced 2 Mourning Cloak butterflies on the wing. There were 26 visitors to the site including a party of 18 students and staff from Clearwater Academy in Calgary.

12.5 hours (226.8) BAEA 7 (51), UA 1 (6), RTHA 5 (24), GOEA 265 (1594) TOTAL 278 (1824)

Monday, October 15 Vicki Ridge [Day 19] 0830-1845 (Peter Sherrington, assisted by Hilary Atkinson, Gord Petersen, Raymond Toal, Denise Cocciolone-Amatto and Pat Lucas, observing from the Waterton 61 wellsite). The temperature at 0830 was 3C, the high at 1600 was 11C and it was still 8C when the count closed at 1845. Winds were moderate to strong W-WSW 30-40 km/h regularly gusting to 50 km/h after 1330, and cloud cover was 70-100% thin cirrostratus and cirrus with minor altocumulus and cumulus throughout the day which gave hazy sunshine and excellent observing conditions. A site-record 675 migrant raptors of 7 species were recorded between 0910 and 1842 that included a record count of 611 Golden Eagles. The count was a season-high 17 Bald Eagles, 19 Sharp-shinned Hawks (2a, 17u), 2 adult Cooper's Hawks, 1u Northern Goshawk, 1a dark morph *calurus* Red-tailed Hawk, 1 unidentified *Buteo* and 611 Golden Eagles (475a, 15sa, 73j, 48u). All birds moved high mainly above Vicki Ridge although there was an increasing use of Kylllo Ridge to the west in the late afternoon which resulted in a high number of unaged birds that were silhouetted against the lowering sun. Forty-six birds were seen before noon then 81 (79 Golden Eagles) moved between 1200 and 1300 and then peaked during the following hour when a remarkable 166 raptors moved of which 157 were Golden Eagles. The next 3 hours produced 122, 110 and 70 raptors respectively and then things calmed down with only 43 and 37 birds moving during the last 2 hours of observation. It was a busy day but thanks to the excellent assistants I just managed to keep on top of things.

10.25 hours (166.1) BAEA 17 (84), SSHA 19 (538), COHA 2 (69), NOGO 1 (31), RTHA 1 (149), RLHA 23 (82), UB 1 (23), GOEA 611 (1496) TOTAL 675 (2578)

Monday, October 15 Steeples [Day 23] 1530-1800 (Vance Mattson). It was another beautiful day with a temperature of 12C, calm conditions and 10-40% thin altostratus cloud cover, but only 5 migrant raptors were seen: 1 adult Bald Eagle, 1u Sharp-shinned Hawk, 1 adult intermediate morph *harlani* Red-tailed Hawk and 2 Golden Eagles (1a, 1j).

2.5 hours (101.5) BAEA 1 (83), SSHA 1 (71), RTHA 1 (75), GOEA 2 (114) TOTAL 5 (383)

Tuesday, October 16 Mount Lorette [Day 23] 0730-1930 (Dan Parliament, assisted by Rosemary Power and Cindy Parliament). The temperature was -5C at 0730 but rose to a high of 13C at 1600 and fell to 0C at 1930. Ground winds were SW light (0-10 km/h) all day, and ridge winds were probably SW light to possibly moderate. There was 10% altostratus cloud to 1000 after which it

was cloudless. Today saw another fairly strong raptor movement with 144 migrants of 5 species moving between 1040 and 1904 comprising 12 Bald Eagles (7a, 2sa, 3j), 1u Sharp-shinned Hawk, 2u light morph *calurus* Red-tailed Hawks, 4 light morph Rough-legged Hawks and 125 Golden Eagles (93a, 1sa, 22j, 9u). All the eagles moved along the Fisher Range with much soaring flight in the calm conditions but most birds failed to rise higher than the ridge. Only 2 birds were initially located over Mount Lorette so again they were probably originating in the vicinity of Heart Mountain farther to the north. Only 2 Golden Eagles were seen in the morning but movement was steady throughout the afternoon and peaked at 36 birds between 1600 and 1700. Other birds seen included 28 Canada Geese that flew high to the south in 2 flocks, 1 Ruffed Grouse, 1 Belted Kingfisher, 1 American Dipper, 1 Golden-crowned Kinglet and 25 Bohemian Waxwings. About 3 wolves howled to the east of the site at 0844. Only 5 visitors made it to the site today.

12 hours (238.8) BAEA 12 (63), SSHA 1 (52), RTHA 2 (23), RLHA 4 (22), GOEA 125 (1719)
TOTAL 144 (168)

Tuesday, October 16 Vicki Ridge [Day 20] 0845-1830 (Peter Sherrington, assisted by Hilary Atkinson, Doug and Teresa Dolman, Gord Petersen, Raymond Toal and Trevor Lewis, observing from the Waterton 61 wellsite). We finally had a pleasant day with a starting temperature of 6C that reached a high at 1400 of 16C and was still 11C at 1830. Winds were moderate W-WSW all day 25 km/h that gusted to 35 km/h until 1300 and it was completely cloudless. There was another strong raptor movement with 319 birds of 10 species migrating between 1057 and 1827 that comprised 14 Bald Eagles (9a, 5sa), 15 Sharp-shinned Hawks (4a, 11u), 1 adult Cooper's Hawk, 3 adult Northern Goshawks, 1 juvenile light morph Broad-winged Hawk, 3 Red-tailed Hawks (1u light *calurus*, 2a dark *harlani*), a season-high 59 Rough-legged Hawks (49 light, 8 dark, 2u), 2 unidentified *Buteos* (1 light, 1 dark), 218 Golden Eagles (139a, 14 sa, 45j, 20u), 1 probable female *columbarius* Merlin and 2u grey morph Gyrfalcons. Fifty-eight of the Rough-legged Hawks were seen after 1621 and 13 moved after 1800. Movement was steady throughout the afternoon and peaked at 73 birds (69 Golden Eagles) from 1300-1400 and 64 birds (55 Golden Eagles) during the next hour. The warm weather also produced 5 butterflies: 1 probable Hoary Comma and 4 Mourning Cloaks.

9.75 hours (175.8) BAEA 14 (98), SSHA 15 (553), COHA 1 (70), NOGO 3 (34), BWHA 1 (22), RTHA 3 (152), RLHA 59 (141), UB 2 (25), GOEA 218 (1714), MERL 1 (19), GYRF 2 (3) TOTAL 319 (2897)

Tuesday, October 16 Steeples [Day 24] 1245-1845 (Vance Mattson). The beautiful weather continued with a temperature of 12C, calm conditions and cloudless skies that produced extended soaring flight. A total of 17 migrants of 3 species moved up to 1756 with 15 of the birds migrating after 1500 and 7 after 1700, The count was 1u Sharp-shinned Hawk, 1 adult Northern Goshawk and 15 Golden Eagles (8a, 1sa, 5j, 1u) which was the highest Golden Eagle passage at the site since the 75 counted on October 6. Non-migrants were 2 juvenile Bald Eagles that flew to the north, and 1 adult Golden Eagle.

6 hours (107.5) SSHA 1 (72), NOGO 1 (6), GOEA 15 (129) TOTAL 17 (400)

Wednesday, October 17 **Mount Lorette** [Day 24] 0815-1915 (Caroline Lambert, assisted by Katherine Petersen). The temperature was -4C at 0815, the high was 14C at 1600 and 1700 and it was 4C at the close of observation. Ground winds were light SW all day except for mid-afternoon when they gusted 25-35 km/h before becoming light again after 1600; ridge winds were probably W initially light but becoming moderate and possibly strong during the afternoon. There was another fairly strong mainly eagle migration that saw 117 birds of 3 species move between 1134 and 1836. The count comprised 6 Bald Eagles (5a, 1sa), 1u Sharp-shinned Hawk and 106 Golden Eagles (78a, 6sa, 10j, 12u). All but 2 Golden Eagles used the eastern route originating from Mount Lorette and glided high above the ridge only during the middle of the afternoon when the winds increased; otherwise there was much soaring flight, often high above the ridge during the early and late light wind periods, with these birds probably originating from the Heart Mountain area. Only 2 Golden Eagles were seen before 1300 but movement was steady thereafter and peaked at 31 birds between 1500 and 1600. Resident birds were 1 adult Bald Eagle, 1 Sharp-shinned Hawk that hunted along the river and 1 adult Golden Eagle that cruised high above the centre of the valley searching for food. With the exception of 3 American Robins all of the other 10 species of bird seen were residents. Nine visitors came to the site today.

11 hours (249.8) BAEA 6 (69), SSHA 1 (53), GOEA 106 (1825) TOTAL 117 (2085)

Wednesday, October 17 **Vicki Ridge** [Day 21] 0830-1835 (Peter Sherrington, assisted by Hilary Atkinson, Gord Petersen, Raymond Toal and Trevor Lewis, observing from the Waterton 61 wellsite, and Denise Cocciolone-Amatto observing from the ridgetop). It was a warm day with a starting temperature of 7C, a high at 1400 of 17C and it was 13C at the end of observation. The wind was WNW 20 km/h to 0930 after which it was mainly W 30-40 gusting to 55 km/h for the rest of the day. It was cloudless to 101600 when traces of cirrus formed that developed to 10% altostratus after 1700. There was again a strong and very varied raptor movement with 225 birds of 12 species seen between 0845 and 1829. The count was 12 Bald Eagles (7a, 2sa), 1 adult female Northern Harrier, 12 Sharp-shinned Hawks (6a, 6u), 2 adult Cooper's Hawks, a season-high 6 Northern Goshawks(4a, 2j), 2 adult light morph Broad-winged Hawks, 2 adult Red-tailed Hawks (1 light *calurus*, 1 dark *harlani*), 1 adult dark morph Ferruginous Hawk, 45 Rough-legged Hawks (39 light, 2 dark, 4u), 141 Golden Eagles (89a, 4sa, 33j, 15u), 1 male American Kestrel and 1u *columbarius* Merlin that was seen by Denise from the ridgetop. Movement was steady after 1000 and peaked at 61 birds between 1400 and 1500 that included 50 Golden Eagles. Only 7 Golden Eagles were seen after 1600 but 35 of the 45 Rough-legged Hawks migrated in this period including 21 after 1800. Two Mourning Cloak butterflies were also seen on the wing.

10.08 hours (185.9) BAEA 12 (110), NOHA 1 (14), SSHA 12 (565), COHA 2 (72), NOGO 6 (40), BWHA 2 (24), RTHA 2 (154), FEHA 1 (8), RLHA 45 (186), GOEA 141 (1855), AMKE 1 (12) MERL 1 (20) TOTAL 225 (3123)

Wednesday, October 17 Steeples [Day 25] 1530-1800 (Vance Mattson). The weather was again calm, cloudless and 12C but today only 4 migrants were seen: 2 Bald Eagles (1a, 1j) and 2 adult Golden Eagles. At 1600, however, the resident pair of Golden Eagles displayed aggressively around what was considered to be a migrant Golden Eagle and made high-speed passes at the bird. The male then pursued the intruder for the full distance of the ridge to the south flank of Mount Bill Nye before displaying again. It is probable, however, that the intruder was in fact a non-migrant bird that had moved into the home range of the resident pair and had been chased out. At the Mount Lorette and South Livingstone-Piitaistakis sites where thousands of migratory eagles pass over occupied Golden Eagle nest sites the resident birds do not appear to regard the migrants as intruders and often perch for extended periods under a stream of migrant birds.

2.5 hours (110) BAEA 2 (85), GOEA 2 (131) TOTAL 4 (404)

Thursday, October 18 Mount Lorette [Day 25] 0750-1920 (Rick Robb and Cliff Hansen). The temperature at 0750 was 0C, the high at 1700 was 12C and it was 6C at the end of observation. Ground winds were generally less than 5 km/h and only reached 5-10 km/h between 1400 and 1500, and ridge winds were light SW-WSW for most of the day. Cloud cover was 70-100% stratocumulus to 1300, 90-60% altocumulus and cumulus to 70% that gave sunny breaks after 1400, and finally 90% altocumulus and cumulus at the end of the day; all ridges were clear. There was another fairly strong raptor movement with 90 birds of 5 species seen between 0934 and 1852 comprising 2 adult Bald Eagles, 2u Sharp-shinned Hawks, 1u Cooper's Hawk, 3 Rough-legged Hawks (1 light, 2u) and 82 Golden Eagles (40a, 7sa, 12j, 23u). Golden Eagle movement peaked between 1500 and 1600 when 21 birds were seen, and migration was entirely on the eastern route with much flapping flight in the calm conditions and soaring after 1400 when the sunny breaks created thermals. Golden Eagles were not seen over Mount Lorette until 1649 after which most birds were initially located there. Resident birds were an adult Bald Eagle that flew low above the river and a Northern Goshawk that twice was heard calling near the site. The highlight of the non-raptor sightings was a flock of 10 Evening Grosbeaks that perched near the site, a species that is surprisingly uncommon in the valley, and 1 Mourning Cloak butterfly was also seen. A total of 78 visitors at the site all enjoyed sights of migrating Golden Eagles today.

11.5 hours (261.3) BAEA 2 (71), SSHA 2 (55), COHA 1 (6), RLHA 3 (25) GOEA 82 (1907)
TOTAL 90 (2175)

Thursday, October 18 Vicki Ridge [Day 22] 0830-1835 (Peter Sherrington, assisted by Hilary Atkinson, Doug and Teresa Dolman and Raymond Toal, observing from the Waterton 61 wellsite). The temperature at 0830 was 10C, the high was 16C at 1400 and 1500 and winds were W-WSW all day 25-35 gusting to 55 km/h to 1600 and then 40 km/h for the rest of the day. Cloud cover was 10-30% altostratus and cirrus to 1330 then 70-80% altostratus, altocumulus and cirrus that reached 100% at 1800. Numbers of migrating Golden Eagles continued to steadily decline from the high

count on October 15, but there was still a fairly strong movement of 176 birds of 8 species between 0858 and 1804 that comprised 10 Bald Eagles (5a, 1sa, 2j, 2u), 10 Sharp-shinned Hawks (4a, 6u), 4 adult Northern Goshawks, 3 adult Red-tailed Hawks (1 light *calurus* and 2 dark *harlani*), 23 Rough-legged Hawks (20 light, 1 dark, 2u), 124 Golden Eagles (83a, 14sa, 24j, 3u), 1 male grey morph Gyrfalcon and 1 adult male Peregrine Falcon. Movement was steady to 1700 and peaked at 51 birds (48 Golden Eagles) between 1200 and 1300) but only 9 birds were seen after 1700. Other bird species were again scarce but included a flock of 30 Pine Siskins that flew low near the site.

9.75 hours (195.7) BAEA 10 (120), SSHA 10 (575), NOGO 4 (44), RTHA 3 (157), RLHA 23 (209), GOEA 124 (1979), GYRF 1 (4), PEFA 1 (9) TOTAL 176 (3299)

Thursday, October 18 Steeples [Day 26] 1300-1800 (Vance Mattson). The temperature was 6C to 9C, it was again calm and cloud cover was initially 90% altostratus that thinned to 60% then 30% altocumulus as the afternoon progressed. No migrant raptors were seen, but the pair of resident Golden Eagles soared above the ridge and above the site.

5 hours (115) TOTAL 0 (404)

Friday, October 19 Mount Lorette [Day 26] 0815-1905 (Caroline Lambert, assisted by Rosemary Power and Gord Petersen). The temperature at 0815 was -3C, the high at 1600 was 13C and it was 4C at the end of observation. Ground winds were light and variable all day with the exception of around 1700 when there were SW gusts to 15 km/h, while ridge winds were SW-WSW light to moderate all day. Cloud cover was variable 20-70% cirrus that completely cleared at the end of the day which gave good observing conditions throughout. There was a fairly strong raptor movement of 124 birds of 5 species between 0909 and 1836 that comprised a season-high 16 Bald Eagles (6a, 10 sa), 2u Sharp-shinned Hawks, 2 Northern Goshawks (1j, 1u), 100 Golden Eagles (68a, 8sa, 12j, 12u), 3 unidentified eagles and 1 large unidentified falcon. Most birds moved on the eastern route and only 4 (1 Bald and 3 Golden Eagles) were seen over the western route. There was much soaring flight and most birds originated from Mount Lorette although several appeared to come from farther north. Eighteen Golden Eagles moved before 1400, and 82 after 1400 with 33 seen between 1600 and 1700 and 6 after 1800. A single adult Bald Eagle was considered to be resident. Other birds included 1 Pileated Woodpecker, 1 American Dipper, 2 Golden-crowned Kinglets, 10 White-winged Crossbills, 2 Pine Siskins and 5 Dark-eyed Juncos. Butterflies seen were 1 Milbert's Tortoiseshell and 1 small *Polygonia* sp. There were 8 visitors to the site that included 2 post-graduate statistics students from the University of Victoria in British Columbia that are working on the analysis of the first 25 years of RMERF data.

10.83 hours (272.2) BAEA 16 (87), SSHA 2 (57), NOGO 2 (24), GOEA 100 (2007), UE 3 (19), UF 1 (2) TOTAL 124 (2299)

Friday, October 19 Vicki Ridge [Day 23] 0830-1835 (Peter Sherrington, assisted by Hilary Atkinson, observing from the Waterton 61 wellsite). The temperature at 0900 was 1C but quickly rose to 9C at 1000, reached a high of 16C at 1500 and was still 14C at 1800. Winds were W 0-10 km/h to 1100 and then W-WSW 10-15 gusting to 20 km/h for the rest of the day. Cloud cover was 10-20% cirrostratus and altocumulus to 1000 and subsequently varied between 30% and 80% altostratus, altocumulus and cirrus for the rest of the day as bands of high altitude clouds moved slowly to the south. Viewing conditions were excellent over Vicki Ridge all day, but several birds moving to the south over Kylo Ridge to the west were silhouetted against the sun. The lighter winds provided a moderate and sporadic raptor movement between 1054 and 1736 that involved much soaring flight and comprised 11 Bald Eagles (6a 1sa, 1j, 3u). 13 Sharp-shinned Hawks (5a, 8u), 1 adult Northern Goshawk, 13 Rough-legged Hawks (10 light, 2 dark, 1u) and 36 Golden Eagles (26a, 4sa, 3j, 3u). Most of the birds moved above Vicki Ridge and the maximum hourly counts were 20 between 1300 and 1400 (16 Golden Eagles) and again between 1600 and 1700 (7 Golden Eagles). The cumulative Golden Eagle total of 2015 is a new high count for the site, the previous high of 2001 having been established on November 15 last year. Other birds were scarce but included 7 Clark's Nutcrackers, 10 Bohemian Waxwings, 12 Grey-crowned Rosy-Finches, 5 Red Crossbills and 5 Pine Siskins.

9 hours (204.7) BAEA 11 (131), SSHA 13 (588), NOGO 1 (45), RLHA 13 (222), GOEA 36 (2015), TOTAL 74 (3373)

Friday, October 19 Steeples [Day 27] 1215-1815 (Vance Mattson). The temperature was 12C, it was calm, and 30% cirrus cloud cover gave way to cloudless skies after 1400. Nine migrant Golden Eagles (4a, 2sa, 3j) were seen that moved in two small bursts: 5 birds between 1510 and 1533 and 4 birds between 1710 and 1742. Flight was slow and leisurely and involved soaring with some flapping flight.

6 hours (121) GOEA 9 (140) TOTAL 9 (413)

Saturday, October 20 Mount Lorette [Day 27] 0755-1900 (Blake Weis, assisted by Patrick Farley and Gord Petersen). It was another pleasant day with a starting temperature of -1C, a high from 1400 to 1800 of 14C and 10C at the end of the day. Ground winds were variable 0-5 gusting to 15 km/h to 1100 and S-SW gusting to 23 km/h for the rest of the day, while ridge winds were moderate SW-WSW all day. It was cloudless to 1500 when 10% cirrus developed that increased to 30% for the last hour of observation. A total of 84 migrant raptors of 4 species moved between 1035 and 1815 consisting of 8 Bald Eagles (4a, 1sa, 3j), 1u dark Red-tailed Hawk of unknown race, 72 Golden Eagles (47a, 4sa, 8j, 13u), 1 unidentified eagle, 1u grey morph Gyrfalcon and 1 small species of falcon. All birds moved on the eastern route generally being located high above Mount Lorette but losing altitude while gliding to the end of the Fisher Range and then usually soaring against the face of the mountains to regain ridge height before gliding high to the SE. Golden Eagle movement was fairly steady throughout with a maximum hourly count of 18 between 1700 and 1800, and 7 birds were seen between 1800 and 1815. Non-migrant birds were 1 or 2 adult Bald

Eagles, a hunting Northern Goshawk and an adult resident Golden Eagle that was seen to the west on the southern flank of Mount Allan. Other birds seen included a Ruffed Grouse, 1 female American Three-toed Woodpecker near the parking area, 2 Brown Creepers, 1 Golden-crowned Kinglet, 6 White-winged Crossbills, 8 Pine Siskins and 1 Lapland Longspur. All the 35 visitors to the site today were able to observe migrating Golden Eagles.

11.08 hours (283.2) BAEA 8 (95), RTHA 1 (24), GOEA 72 (2079), UE 1 (20), GYRF 1 (2), UF 1 (3) TOTAL 84 (2383)

Saturday, October 20 Vicki Ridge [Day 24] 0845-1815 (Peter Sherrington, assisted by Hilary Atkinson, Dan and Charlene Lee and Trevor Lewis, observing from the Waterton 61 wellsite). The temperature at 0830 was 10C, the high was a season-high 18C from 1500 to 1700 and it was still 14C at 1815. Winds were strong WSW 40-50 gusting 60 km/h to 1700 after which they diminished to W 10-15 km/h for the rest of the day. It was completely cloudless all day which produced challenging observing conditions. There was a fairly strong but highly sporadic raptor movement of 129 birds of 6 species between 0852 and 1812 that comprised 12 Bald Eagles (6a, 2sa, 3j, 1u), 8 Sharp-shinned Hawks (2a, 6u), 2 adult Northern Goshawks, 3 light morph *calurus* Red-tailed Hawks (2a, 1j), 12 Rough-legged Hawks (10 light, 2u) and 92 Golden Eagles (69a, 2sa, 18j, 3u). Most birds were first seen above Vicki Ridge but after kiting and soaring high the majority glided to the west to Kylo Ridge where most then glided to the south but others continued towards the west. The highest hourly counts were 23 (all Golden Eagles) between 1200 and 1300, and 26 (including 16 Golden Eagles) between 1700 and 1800. Other birds included 1 female Dusky Grouse near the site, a tight flock of about 100 Grey-crowned Rosy Finches that flow low close to the site and which contained one conspicuous pale leucistic bird, and 12 Pine Siskins. The warm weather also produced 1 Mourning Cloak and 2 Zephyr Comma butterflies.

9.5 hours (214.2) BAEA 12 (143), SSHA 8 (596), NOGO 2 (47), RTHA 3 (160), RLHA 12 (234), GOEA 92 (2107) TOTAL 129 (3502)

Saturday, October 20 Steeples [Day 28] 1230-1830 (Vance Mattson). The weather was the same as the past several days: a temperature high of 12C, calm conditions and cloudless. The dearth of raptor migrants continued with 6 hours of observation producing just 2 birds: a juvenile Northern Harrier at 1724 and an adult Golden Eagle at 1502. Non-migrants were 2 Northern Goshawks (1a and 1j) seen on two different occasions, and a resident Golden Eagle soared above and in front of the ridge from 1806 to 1828.

6 hours (127) NOHA 1 (13), GOEA 1 (141) TOTAL 2 (415)

Sunday, October 21 Mount Lorette [Day 28] 0755-1900 (Bill Wilson, assisted by Lori Anderson, James Bannon, Theresa Cawron and Gord Petersen). The temperature was -3C at 0800, rose to a high of 12C at 1600 and was 7C at 1900. Ground winds were SW 2-12 km/h to 1400 after which

they were NE 2-12 gusting up to 20 km/h; ridge winds appeared to be moderate SW all day. Cloud cover was 40-90% cirrostratus and cirrus to 1200 after which it completely cleared to 1700 when 100% thin cirrostratus again formed. Conditions were good for migration and produced 133 migrant raptors of 7 species that moved between 0830 and 1805. The count was a season-high 38 Bald Eagles (21a, 14sa, 2j and 1 undifferentiated immature bird), 5 Sharp-shinned Hawks (1j, 4u), 5 Northern Goshawks (3a, 2j), 3 Red-tailed Hawks (2 (1a, 1j) dark *calurus* and 1a dark *harlani*), 4 light morph Rough-legged Hawks, 75 Golden Eagles (46a, 4sa, 17j, 8u), 2 undifferentiated eagles and 1 large unidentified falcon. With the exception of a few Bald Eagles and the falcon all birds flew high from Mount Lorette to the Fisher Range and at one time 6 Golden Eagles soared together over Lorette. Early movement was slow and only 5 raptors were seen before 1200 but the rate steadily increased throughout the afternoon and peaked at 39 birds (14 Bald and 24 Golden Eagles) between 1400 and 1500. One adult resident Golden Eagle was seen to the west and 1 adult non-migrant Bald Eagle perched on a spruce by the river. The non-raptor bird highlight was a flock of 10 *Humorous* finches perched on aspens close to the site which included 3 male Cassin's Finches and 1 female Purple Finch. Other birds recorded included 3 Ruffed Grouse, 1 Clark's Nutcracker, 2 White-winged Crossbills, 9 American Tree Sparrows and 1 *cismontanus* Dark-eyed Junco. A single Mourning Cloak was the only butterfly seen. A total of 24 visitors were at the site today.

11.67 hours (294.9) BAEA 38 (133), SSHA 5 (62), NOGO 5 (29), RTHA 3 (27), RLHA 4 (29), GOEA 75 (2154), UE 2 (22), UF 1 (4) TOTAL 133 (2516)

Sunday, October 21 Vicki Ridge [Day 25] 0845-1745 (Peter Sherrington, observing from the Waterton 61 wellsite). The temperature at 0845 was 6C the high at 1300 was 16C which fell abruptly to 11.5C at 1400 as the winds shifted from west to east, and it was 9C at the end of observation at 1745. Winds were W-WNW 10-20 km/h to 1400 when they switched to E-SE 15-20 km/h and became light after 1700. Cloud cover was cirrostratus all day: 30-40% to 1000, 80% at 1100 and 100% throughout the afternoon that gave excellent observing conditions. Unfortunately there was only a mediocre raptor movement between 1106 and 1510 involving 63 birds of 6 species. The count was 7 Bald Eagles (6a, 1sa), 9 Sharp-shinned Hawks (2a, 7u), 5 adult Northern Goshawks, 2 Red-tailed Hawks (1j light *calurus* and 1a dark *harlani*), 20 Rough-legged Hawks (17 light 1 dark, 2u) and 20 Golden Eagles (13a, 4sa, 3j). The highest hourly count was 24 including 8 Golden Eagles, between 1300 and 1400. This hourly count includes 3 adult Bald Eagles and 2 Golden Eagles seen moving to the east of Vicki Ridge by Connie Simmons. No migrants were seen after 1510 as the winds became light. It is possible that westerly winds persisted longer towards the west and eagles might have been moving south above the Carbondale Ridge. Other birds seen included 1 Steller's Jay, 9 Clark's Nutcrackers, 240 Grey-crowned Rosy-Finches that migrated to the south in 6 flocks, 14 Red Crossbills and 20 Pine Siskins, 10 of which also flew to the south. A single Mourning Cloak was the only butterfly seen.

9 hours (223.2) BAEA 7 (150), SSHA 9 (605), NOGO 5 (52), RTHA 2 (162), RLHA 20 (254), GOEA 20 (2127) TOTAL 63 (3565)

Sunday, October 21 Steeples [NO OBSERVATION] (Vance Mattson). Because of disappointing results at the Steeples site Vance decided to check out the Purcell Mountains to the west of the Rocky Mountain Trench, which did not lead to anything conclusive but was interesting nonetheless. Here is his report. "At 1250, 35 km west on St. Mary's Lake Road, I spotted an adult Bald Eagle soaring amongst 4 ravens on the north saddle of Mount Bonner; it soared for 10 minutes, before soaring south over Mount Bonner. 4 Mountain Goats were also seen grazing on the ridge of the saddle. I then drove closer and at 1310 an adult Golden Eagle was seen soaring at the same place. This eagle was then joined by perhaps a new adult Bald Eagle, and both soared extensively, showing no migratory behaviour. More ravens joined in, before the eagles could no longer be seen from my vantage point. Then, at 1339, 2 Golden Eagles were seen soaring (an adult - perhaps the same bird, and a young sub-adult with a missing secondary feather). Again, no migratory behaviour was observed, and the eagles again could no longer be seen. Then, an adult of each eagle species were seen (though I am assuming the Golden was again the same bird). Lastly, an unaged Sharp-shinned Hawk was seen, soaring in the same area. This all occurred between 1250 and 1405. The 17 ravens that erupted over the ridge at a certain juncture gave the impression that the eagles and ravens were busy on a gut-pile. As I was searching for a better vantage point an unidentified eagle was seen gliding south over Mount Bonner. I drove north up the St. Mary's Road hoping to find a vantage point of the prominent ridge of St. Mary's Alpine Provincial Park, which however did not manifest. It turned out the original vantage point is the most promising of those visited today".

Monday, October 22 Mount Lorette [Day 29] 0730-1900 (George Halmazna, assisted by Dan Parliament). The temperature was -8C at 0730 but reached a high of 13C at 1600 and was 3C on departure. Ground winds were very light (<5 km/h) SW and occasionally SE all day, and ridge winds were light SW all day. It was cloudless to 1600 after which there was 10% cirrus for the rest of the day. The pleasant weather produced a raptor migration of 46 birds of 5 species that moved between 1156 and 1723 and comprised 1 adult Bald Eagle, 1 adult female Northern Harrier, 1 juvenile Cooper's Hawk, 1 adult Northern Goshawk and 42 Golden Eagles (32a, 7j, 3u). All the birds used the eastern route and were mainly initially located over the north ridge of Mount Lorette from where they crossed the valley and moved with flapping flight either behind or across the face of the northern end of the Fisher Range. Maximum movement was 1600-1700 when 16 Golden Eagles were counted. There was a good variety of other birds in the area including 5 Ruffed Grouse, one of which was heard drumming, a female Red-breasted Merganser that was probably a new species for the site, 1 female Common Merganser, 1 Varied Thrush, 24 Bohemian Waxwings, 8 Pine Grosbeaks, 3 male Cassin's Finches, 1 White-winged Crossbill, 5 Evening Grosbeaks and 9 Pine Siskins. Thirty-one visitors enjoyed both the birds and the weather.

11.5 hours (306.4) BAEA 1 (134), NOHA 1 (7), COHA 1 (7), NOGO 1 (30) GOEA 42 (2196)
TOTAL 46 (2562)

Monday, October 22 Vicki Ridge [Day 26] 0845-1745 (Peter Sherrington, assisted by Hilary Atkinson observing from the ridgetop). It was a beautiful day and a real pleasure to be back on top of the ridge again. The temperature was -3C at 0845 and rose to a high of 16C at 1500 and 1600 and was still 14C at the end of observation. Winds were W-WSW all day 10-15 gusting to 22 km/h apart from the first and last hours when it was calm. It was cloudless to 1130 and again at 1800 but for the rest of the day there was 10-30% cirrostratus cover that provided reasonably good observing conditions. The day produced a fairly strong and varied raptor movement that involved 85 birds of 7 species that were seen between 0931 and 1729, although only 2 of these birds were seen before 1210. The count was 16 Bald Eagles (9a, 6sa, 1j), 4 Sharp-shinned Hawks (2a, 1j, 1u), a season-high 13 Northern Goshawks (10a, 2j, 1u), 1 adult dark morph *harlani* Red-tailed Hawk, 11 Rough-legged Hawks (9 light, 2 dark), 39 Golden Eagles (21a, 5sa, 13j) and 1 adult male Prairie Falcon. The highest hourly count was 24 between 1600 and 1700, and 1300-1400 and 1400-1500 produced 19 and 20 birds respectively. Most of the late afternoon movement involved slow high soaring flight which gave us time to fully enjoy watching the birds under perfect viewing light. Other birds seen on and from the ridge were 17 Canada Geese migrating in 2 flocks, 1 Pileated Woodpecker, 1 juvenile Northern Shrike, 4 Canada Jays, 5 Clark's Nutcrackers, 1 Black-billed Magpie, 116 Common Ravens including 80 after 1730 that soared in flocks of up to 30 birds before flying to the west, 15 Mountain Chickadees, 5 Red-breasted Nuthatches, 5 American Robins, a single flock of 30 Grey-crowned Rosy-Finches that flew south at 1530, 3 female red Crossbills, 2 female Cassin's Finches, 10 Evening Grosbeaks and 8 Pine Siskins. One Mourning Cloak butterfly flew in the late afternoon sunshine. It was a very enjoyable idyllic day.

9.5 hours (232.7) BAEA 16 (166), SSHA 4 (609), NOGO 13 (65), RTHA 1 (163), RLHA 11 (265), GOEA 39 (2166), PRFA 1 (4) TOTAL 85 (3650)

Monday, October 22 Steeples [Day 29] 1530-1800 (Vance Mattson). The warm stable weather system persisted with a temperature of 13C, calm conditions and a cloudless sky that failed to produce any migrant raptors. The resident Golden Eagle pair was seen, especially the female that was conspicuous perching on the ridge on three occasions and was mobbed by ravens each time she took flight.

2.5 hours (129.5) TOTAL 0 (415)

Tuesday, October 23 Mount Lorette [Day 30] 0815-1900 (Rick Robb and Cliff Hansen). The starting temperature was -5C, the high was 15C at 1600 and it was 8C at 1900. Ground winds were light W all day, ridge winds were light SW and it was cloudless all day. The first migrant, a Bald Eagle, was not seen until 1330 and the first Golden Eagle did not appear until 1358 but the pace then quickened and when the last 2 Golden Eagles went south at 1828 a total of 74 migrants of 3 species had been recorded. The count was 5 adult Bald Eagles, 1 adult Sharp-shinned Hawk and 67 Golden Eagles (57a, 3sa, 4j, 3u). Most birds were initially located at the northern end of the Fisher Range and most movement involved flapping flight and brief attempts at soaring in the light-air conditions. Only late in the day did the birds manage to glide high above the ridge.

Maximum hourly movement was 21, including 19 Golden Eagles, between 1700 and 1800, and 10 Golden Eagles were recorded between 0800 and 1828. Other birds seen were 15 unidentified swans flying high to the north above Mount Lorette which were probably heading for Lac des Arcs in the Bow Valley, 2 Ruffed Grouse, 1 Downy Woodpecker, 2 Canada Jays, 1 Black-billed Magpie, 8 Common Ravens, 2 Pine Grosbeaks and 10 Dark-eyed Juncos of the race *cismontanus*. Six visitors were at the site today.

10.75 hours (317.2) BAEA 5 (139), SSHA 1 (63), GOEA 67 (2263), UE 1 (23) TOTAL 74 (2634)

Tuesday, October 23 Vicki Ridge [Day 26] 0900-1800 (Doug and Teresa Dolman, assisted by Raymond Toal and Gord Petersen observing from the Waterton 61 wellsite). It was the warmest day of the season with a starting temperature of 8C, a high of 22C at 1400 and 1500 and it was still 14C at 1800. Winds were light SW to 1100 and subsequently mainly W-WSW 15-20 gusting 25 km/h. It was cloudless until 1100 when traces of cirrus developed that expanded to 10-30% until 1800 when it increased to 60%. A total of 65 migrant raptors of 6 species were recorded between 1104 and 1742 that comprised 14 Bald Eagles (5a, 8sa, 1j), 6 Sharp-shinned Hawks (1a, 5u), 2 Northern Goshawks (1a, 1j), 2 unidentified *Accipiters*, 1 adult rufous morph *calurus* Red-tailed Hawk, 13 Rough-legged Hawks (12 light, 1 dark) and 27 Golden Eagles (15a, 5sa, 3j, 3u). Most birds migrated above Vicki Ridge and the busiest hours were 15, including 5 Bald Eagles and 6 Golden Eagles between 1500 and 1600, and 14, including 10 Rough-legged Hawks and 2 Golden Eagles between 1700 and 1742. Other birds seen were 1 Hairy Woodpecker, 1 juvenile Northern Shrike, 3 Canada Jays, 2 Clark's Nutcrackers, 1 Black-billed Magpie, 10 Common Ravens, 1 Black-capped Chickadee, 5 American Robins and 3 Red Crossbills, and a single Mourning Cloak butterfly was also recorded.

9 hours (241.7) BAEA 14 (180), SSHA 6 (615), NOGO 2 (67), UA 2 (7), RTHA 1 (164), RLHA 13 (278), GOEA 27 (2193) TOTAL 65 (3715)

Tuesday, October 23 Steeples [Day 30] 1300-1800 (Vance Mattson). A temperature of 11C, calm conditions and a cloudless sky again produced a slow migration day with only 3 birds recorded: an adult female Northern Harrier at 1556 and single juvenile Golden Eagles at 1423 and 1632. The resident adult female Golden Eagle was again conspicuous soaring, and perching on the ridge for up to 70 minutes.

5 hours (134.5) NOHA 1 (14), GOEA 2 (143) TOTAL 3 (418)

Wednesday, October 24 Mount Lorette [Day 31] 0830-1850 (Caroline Lambert, assisted by Joel Duncan). The temperature reached a high of 10C at 1400 and 1500 from a morning low of -1C and it was 7C at the end of observation. Ground winds were SW all day, 0-5 km/h in the morning but gusted 20-30 km/h in the afternoon, while ridge winds were strong SW all day. Cloud cover was 100-80% altostratus, cumulus and altocumulus to 1700 after which it gradually thinned to 20% at

the end of the day. The west was 40% obscured between 1400 and 1600 and there were light rain showers around 1600. The cloud cover made aging of high-flying eagles difficult as most were merely silhouettes. A total of 45 migrant raptors of 3 species moved between 0905 and 1759 comprising 2u Bald Eagles, 1 unidentified *Accipiter*, 41 Golden Eagles (23a, 1sa, 17u) and 1 unidentified eagle. All birds moved on the eastern route mostly high above the Fisher Range and 34 were seen after 1300 with a maximum hourly count of 11 (10 Golden Eagles) between 1400 and 1500. No resident birds were seen but 2 separate migrant Golden Eagles performed brief display flights before continuing to glide high to the SE. An adult Northern Shrike was seen apparently attempting to predate an American Dipper which repeatedly dived beneath the surface of the river to avoid capture, before the shrike itself was chased away by a flock of 4 Canada Jays. A flock of 24 Cassin's Finches perched in a leafless aspen tree near the site and were photographed by Caroline. Ten visitors were at the site today.

10.33 (327.5) BAEA 2 (141), UA 1 (7), GOEA 41 (2304), UE 1 (24), TOTAL 45 (2681)

Wednesday, October 24 Vicki Ridge [Day 28] 0845-1800 (Peter Sherrington, assisted by Hilary Atkinson and Gord Petersen observing from the Waterton 61 wellsite). The temperature at 0845 was 10C, the high at 1300 was 13C and it was 9.5C at the end of observation. Winds were W-WSW all day 30-50 gusting 60-70 km/h in the morning and 30-40 gusting 50-60 km/h in the afternoon. Cloud cover was 100-80% altostratus, altocumulus and cumulus that formed a Chinook arch to 1130 which quickly cleared to 10% cumulus at 1200 and was 10-20% cumulus to 1730 when it increased to 40% scattered cumulus. The exception was around 1500 when 80% dark cumulus moved rapidly from the west and produced a light rain shower for 10 minutes before just as quickly dissipating. Raptor movement was sporadic between 0912 and 1717 and a total of 71 birds of 5 species was seen comprising 4 Bald Eagles (2a, 1sa, 1j), 2 adult Northern Goshawks, 2 adult light morph *calurus* Red-tailed Hawks, 7 Rough-legged Hawks (5 light, 2u) and 56 Golden Eagles (39a, 3sa, 8j, 6u). The highest hourly count was 18 that included 13 Golden Eagles from 1600 to 1700, but only a single bird, an adult Golden Eagle, was seen after 1700. Other birds were scarce but included 1 Ruffed Grouse, 1 male Hairy Woodpecker, 3 Canada Jays, 2 Clark's Nutcrackers, 4 Grey-crowned Rosy-Finches and 10 Pine Siskins.

9.25 hours (250.9) BAEA 4 (184), NOGO 2 (69), RTHA 2 (166), RLHA 7 (285), GOEA 56 (2249), TOTAL 71 (3786)

Wednesday, October 24 Steeples [Day 31] 1530-1800 (Vance Mattson). Rain showers preceded Vance's arrival at the site where the temperature was 13C, winds were moderate to strong S and cloud cover was 40-60% cumulus. No migrants nor resident raptors were seen.

2.5 hours (137) TOTAL 0 (418)

Thursday, October 25 Mount Lorette [Day 32] 0815-1900 (Joel Duncan, assisted by Brian McBride). It was a warm day with a starting temperature of 6C, a high at 1600 of 11C and 8C at the end of observation. Ground winds were steady W-SW all day 5-15 gusting up to 27 km/h, and ridge winds were strong SW all day. Cloud cover was a 50-80% mixture of mostly cumulus and altostratus to 1400 then 70-80% cirrus and cirrostratus to 1900 when it reduced to 50%. The top of Mount Kidd was in cloud at 0900 and 1000 but otherwise the mountains were completely clear. A total of 40 Golden Eagles (21a, 6sa, 2j, 11u) moved between 0840 and 1650 with a high hourly count of 15 between 1200 and 1300. One bird glided high from the summit of Mount Lorette above the centre of the valley, but the rest were initially located at the northern end of the Fisher Range where many birds were visibly buffeted by the strong winds. The only other migrant raptor seen was an un-aged Sharp-shinned Hawk, and a resident Northern Goshawk was heard calling near the parking area early in the morning. The flock of 22 Cassin's Finches was seen again and the other non-raptor highlight was a pair of White-winged Scoters that flew to the south against the face of the Fisher Range. Almost 100 visitors made it to the site today including 60 pupils and staff from West Ridge School in Calgary.

10.75 hours (338.2) SSHA 1 (64), GOEA 40 (2344) TOTAL 41 (2722)

Thursday, October 25 Vicki Ridge [Day 29] 0845-1805 (Peter Sherrington, assisted by Hilary Atkinson and Gord Petersen observing from the Waterton 61 wellsite, and Gord Petersen observing from the Waterton 68 Wellsite, 1420-1730). The temperature at 0845 was 7C, the high at 1600 was 11C and it was 8.5C at the end of observation. Winds were strong WSW to W all day 30-50 gusting 60-80 km/h to 1500 and 30-40 gusting 50-60 km/h for the rest of the day. Cloud cover was 10-20% Cumulus to 1030 after which it quickly clouded over and was a complex mixture of 80-100% cirrus, cirrostratus, cirrocumulus, altostratus, altocumulus and dark cumulus for the rest of the day that provided excellent viewing conditions. Movement was initially very slow with only 5 birds seen before 1400, but then picked up and the final count was 111 migrant raptors of 6 species that occurred between 0932 and 1756. The total comprised 10 Bald Eagles (3a, 4sa, 2j, 1u), 2u Sharp-shinned Hawks, 3 Northern Goshawks (2a, 1u), 3 adult *calurus* Red-tailed Hawks (2 light, 1 dark), 18 Rough-legged Hawks (15 light, 2 dark, 1u), 74 Golden Eagles (47a, 11sa, 5j, 11u) and 1 unidentified eagle. The total includes 45 migrants seen by Gord Petersen at the western edge of Kyllor Ridge near the Waterton 68 wellsite that comprised 2 adult Bald Eagles, 2u Sharp-shinned Hawks, 1 adult light morph *calurus* Red-tailed Hawk, 5 light morph Rough-legged Hawks and 35 Golden Eagles (23a, 6sa, 3j, 3u). The busiest hours were 34 (1500-1600) and 32 (1600-1700) with both hours seeing the passage of 24 Golden Eagles. Other birds seen included 1 juvenile Northern Shrike, 35 Grey-crowned Rosy-Finches, 8 Red Crossbills and 3 Pine Siskins.

9.33 (260.2) BAEA 10 (194), SSHA 2 (617), NOGO 3 (72), RTHA 3 (169), RLHA 18 (303), GOEA 74 (2323), UE 1 (4) TOTAL 111 (3897)

Thursday, October 25 Steeples [Day 32] 1230-1730 (Vance Mattson). The temperature was 12C but fell to 9C by 1700, winds were strong S and cloud cover was 90-100% altostratus and cumulus; light rain fell between 1620 and 1700. The only migrant seen was an adult Bald Eagle at 1424 which was just the 6th migrant Bald Eagle since October 13 and the first since October 17. A resident Golden Eagle was kiting above the ridge when Vance arrived at the site.

5 hours (142) BAEA 1 (86) TOTAL 1 (419)

Friday, October 26 Mount Lorette [Day 33] 0825-1750 (Caroline Lambert, assisted by Joel Duncan). The temperature at 0825 was 3C, the high was 10C at 1400 and 1500, and it was 5C at the end of observation. Ground winds were SW all day 5-10 gusting to 20-35 km/h, and ridge winds were strong SW all day. Cloud cover was initially 100% altostratus that became mainly cumulus and reduced to 30% at 1300 before gradually increasing again throughout the afternoon and was again 100% stratus at the end of the day. Light rain started to fall at 1600 and heavy rain at 1750 brought the count to an early close. The eastern ridges were clear until the end when they quickly clouded over, and the west was clear until 1100 after which it became increasingly occluded and also reached 100% at the end of the day. A total of 50 migrant raptors of 4 species moved between 1000 and 1652 comprising 3 Bald Eagles (2a, 1u), 1u small Accipiter, 1u Northern Goshawk, 1 light morph Rough-legged Hawk and 44 Golden Eagles (26a, 1sa, 2j, 15u). All the eagles glided high above the Fisher Range but none were seen at Mount Lorette, and the maximum hourly count was 17 (15 Golden Eagles) between 1400 and 1500. One or 2 resident Golden Eagles were seen and a non-migrant adult Bald Eagle perched on a spruce tree near the river. Other birds seen were 2 Ruffed Grouse, 1 Belted Kingfisher, 3 Canada Jays, 2 Black-billed Magpies, 6 Common Ravens, 3 Black-capped Chickadees, 1 Mountain Chickadee 1 Brown Creeper, 1 American Dipper, 10 Grey-crowned Rosy-Finches, 30 White-winged Crossbills and 20 Pine Siskins. Eleven visitors were at the site today.

9.42 hours (347.7) BAEA 3 (144), NOGO 1 (31), UA 1 (8), RLHA 1 (30), GOEA 44 (2388), UE 1 (25) TOTAL 51 (2773)

Friday, October 26 Vicki Ridge [Day 30] 0845-1800 (Peter Sherrington, assisted by Hilary Atkinson to 1530 and Gord Petersen after 1530, observing from the Waterton 61 wellsite). The temperature was 6C at the start, rose to a high of 10C at 1500 and was 8C at 1800. Winds were strong WSW and occasionally W all day that gusted 50-60 km/h to 1500 and then increased to 70-80 km/h for the rest of the day. Cloud cover was 100% uniform grey stratus to 1030 after which it was 80-100% dark cumulus to the west and cirrus, cirrostratus and cirrocumulus overhead and to the east with the rain clouds periodically moving east bringing light rain showers in the morning and again late in the day. The unsettled weather produced the lowest count at the site since October 13 with 54 birds of 5 species counted between 0933 and 1730. The count was 17 Bald Eagles (10a, 2sa, 3j, 1 undifferentiated immature, 1u) that equals the highest count of the season, 2u Sharp-shinned Hawks, 2 adult Northern Goshawks, 7 Rough-legged Hawks (2 light, 2 dark, 3u) and 26 Golden Eagles (21a, 2j, 3u) The highest hourly count was 15 between 1400 and 1500 but

movement became sporadic after 1500 as the wind velocity increased. Other birds were scarce but included 5 Clark's Nutcrackers, 42 Grey-crowned Rosy-Finches and 12 Pine Siskins.

9.25 hours (269.5) BAEA 17 (211), SSHA 2 (619), NOGO 2 (74), RLHA 7 (310), GOEA 26 (2349) TOTAL 54 (3951)

Friday, October 26 Steeples [NO OBSERVATION] (Vance Mattson). Rain fell until 1400 but the mountains remained shrouded by cloud. Vance periodically watched from his home in Wasa but saw no raptors.

Saturday, October 27 Mount Lorette [Day 34] 0845-1815 (Blake Weis, assisted by Rosemary Power). The temperature at 0845 was 3C the high was 7C (1400-1700) and it was 5C at 1815. Ground winds were SSW all day 3-10 gusting 20-30 km/h and ridge winds were strong SW-WSW all day. Cloud cover was initially 20% altocumulus that increased to 60% at 1200, decreased to 20% altocumulus and cirrus at 1500 after which it was 30% cirrus and altocumulus for the rest of the day. The first bird of the day was an adult Peregrine Falcon at 1131 that crossed the Kananaskis Valley from the summit of Mount Lorette to the northern end of the Fisher Range in about 30 seconds. Unfortunately, the rest of the day up to 1744 only produced another 18 migrants that comprised 2 adult Bald Eagles, 15 Golden Eagles (12a, 1j, 2u) and 1 unidentified eagle. Seven of the Golden Eagles moved between 1500 and 1600. Most of the birds were initially located at the northern end of the Fisher Range and most glided fairly high above the ridge. Other birds flying to the south were a flock of 25 Canada Geese, 1 Clark's Nutcracker, 20 Bohemian Waxwings, 40 White-winged Crossbills and 35 Pine Siskins. There were 15 visitors at the site today.

9.5 hours (357.2) BAEA 2 (145), GOEA 15 (2403), UE 1 (26) PEFA 1 (2) TOTAL 19 (2792)

Saturday, October 27 Vicki Ridge [Day 31] 0845-1800 (Peter Sherrington, observing from the Waterton 61 wellsite). The starting temperature was 4C the high at 1600 was 10C and it was 6C at 1800. Winds were W-WSW all day, 10-15 km/h to 0930 then 30-40 gusting 50-70 km/h for the rest of the day. It was cloudless to 1530 when traces of cirrus and cumulus began to develop that became 30% cirrus at 1700 and 100% thin cirrostratus and altocumulus at 1800. Today's count was 64 raptors of 5 species that moved between 0907 and 1748 which comprised 15 Bald Eagles (12a, 1sa, 2u), 3 adult Northern Goshawks, 2 adult Red-tailed Hawks (1 light *calurus* and 1 dark *harlani*) that soared together above Vicki Ridge at 1531 and brought the season's total raptor count to 4000, 14 Rough-legged Hawks (11 light, 1 dark, 2u) and 30 Golden Eagles (23a, 2sa, 4j, 1u). Thirty-six migrants, including 26 Golden Eagles, were counted before 1200 and a significant migration appeared to be in the offing, but the next 3 hours yielded only 7 birds before a slight recovery saw the movement of 21 more raptors between 1510 and 1748. Other birds seen included a large adult white-headed gull (probably a Herring Gull) that flew high to the west from the northern end of Kylllo Ridge at 1531, 6 Clark's Nutcrackers, 1 American Robin, 271 Grey-crowned Rosy-Finches that flew to the south in 6 flocks, 15 Red Crossbills and 10 Pine Siskins.

9.25 hours (278.7) BAEA 15 (226), NOGO 3 (77), RTHA 2 (171), RLHA 14 (324), GOEA 30 (2379) TOTAL 64 (4015)

Saturday, October 27 Steeples [Day 33] 1245-1745 (Vance Mattson). The ridges became clear by 1230, the temperature reached 12C under sunny skies, winds were moderate SW that became calm by 1600 and cloud cover was initially 30% cumulus that became 40% cirrus by 1600. Five migrants were seen between 1256 and 1657 comprising 4 Bald Eagles (2a, 2j) and 1 juvenile Golden Eagle. Two further Bald Eagles (1a, 1j) were considered to be non-migrants.

5 hours (147) BAEA 4 (90), GOEA 1 (144) TOTAL 5 (424)

Sunday, October 28 Mount Lorette [Day 35] 0725-1830 (Bill Wilson, assisted by Cliff Hansen). The temperature at 0725 was 2C, the high at 1600 was 9C and it was 6C at 1830. Ground winds were SW 2-10 gusting 25 km/h and ridge winds were SW all day, moderate to 1100 and then strong. Cloud cover was 100% stratus to 1100 then 40-90% cumulus for the rest of the day with the exception of 1600 when it briefly thinned to 10%. Moderate rain and sleet fell between 0930 and 1030 that completely obscured the Fisher Range that was otherwise 10-30% obscured to 1100. The west was 70-100% obscured to 1100 and was then variably 10-90% obscured for the rest of the day. The first migrant was not seen until 1242, but the final count was 52 raptors of 4 species with the last 2 Golden Eagles moving at the relatively early time of 1608. The count was 8 Bald Eagles (6a, 1sa, 1j), 1 juvenile Sharp-shinned Hawk, 2 Rough-legged Hawks (1 light, 1u) and 43 Golden Eagles (34a, 5j, 4u). All the birds used the eastern route with most eagles gliding high above the Fisher Range, and the maximum hourly count was 17, including 15 Golden Eagles, between 1500 and 1600. Other birds were 1 Mallard flying to the south high above the Fisher Range, 2 female Common Mergansers, 1 Northern Shrike, 4 Canada Jays, 5 Rusty Blackbirds, 85 White-winged Crossbills and 2 Pine Siskins. There were 23 visitors at the site today.

10.92 hours (368.1) BAEA 8 (153), SSHA 1 (65), RLHA 2 (32), GOEA 43 (2446) TOTAL 54 (2846)

Sunday, October 28 Vicki Ridge [Day 32] 0845-1805 (Peter Sherrington, observing from the Waterton 61 wellsite and Gord Petersen observing from the Waterton 68 wellsite, 1545-1745). The temperature at the start was 2C, the high was 9C at 1600 and it was 6C at the end. Winds were W-WSW all day, light to 1100 and strong thereafter gusting 60-70 km/h in the middle of the afternoon and were still 40-50 km/h for the last two hours. Cloud cover was 100% stratus and cumulus to 1300 that produced steady moderate and sometimes heavy rain to 1110, although the ridges remained clear. The cloud cover began to break at 1300 and was 90-80% altostratus, cumulus and cirrus to 1430 when it thinned to 20-40% cumulus, altostratus and cirrus until 1800 when it increased to 70%. Once the rain ceased a total of 52 migrant raptors of 6 species were seen between 1128 and 1745 comprising 16 Bald Eagles (11a, 4sa, 1j), 1u Sharp-shinned Hawk, 4 adult Northern Goshawks (3 male, 1 female), 13 Rough-legged Hawks (9 light, 3 dark, 1u), 17 Golden Eagles

(11a, 3sa, 2j, 1u) and 1u male Prairie Falcon. The total includes 16 migrants seen by Gord Petersen between 1545 and 1745 at the western edge of Kyllö Ridge near the Waterton 68 wellsite that comprised 7 Bald Eagles (6a, 1sa), 1u Sharp-shinned Hawk, 2 Rough-legged Hawks (1 light, 1 dark) and 6 Golden Eagles (3a, 2sa, 1j). Twenty-five of the birds moved between 1606 and 1745. Between 1021 and 1042 a non-migrant Rough-legged Hawk hunted by hovering and planing above Vicki Ridge in steady moderate rain but only made one (unsuccessful) vertical stoop. At 1042 a raven soared low beneath it and the hawk immediately flew to the east of the ridge and out of sight. Migrant finches were 430 Grey-crowned Rosy-finches in 4 flocks and 80 Pine Siskins in 2 flocks.

9.33 hours (288.1) BAEA 16 (242), SSHA 1 (620), NOGO 4 (81), RLHA 13 (337), GOEA 17 (2396), PRFA 1 (5) TOTAL 52 (4067)

Sunday, October 28 Steeples [Day 34] 1330-1730 (Vance Mattson). The mountain ridges were heavily obscured although the valley began to clear at 1300. Vance observed from the balcony of his house in Wasa where the temperature reached 11C, conditions were calm and cloud cover was 60% stratus and cumulus that brought rain showers between 1420 and 1500. The only migrant seen was a juvenile Bald Eagle at 1403.

4 hours (151) BAEA 1 (91) TOTAL 1 (425)

Monday, October 29 Mount Lorette [Day 36] 0740-1830 (George Halmazna, assisted by Dan Parliament). The starting temperature was 0C the high was 5.5C at 1600 and it was 3.5C at the end of observation. Ground winds were SW mainly light but gusted to 15 km/h between 1000 and 1200, and ridge winds were SW also light and occasionally moderate in the afternoon. Cloud cover was mainly cumulus all day, 30% to 1200 and 90-70% in the afternoon which provided good observing conditions, and the ridges were all clear. A total of 36 migrants of 3 species were seen between 0932 and 1742 of which 32 were Golden Eagles (21a, 1sa, 3j, 7u): the other birds were 1 juvenile Bald Eagle and 3 Northern Goshawks (2a, 1u). The maximum hourly count was 1600-1700 which saw the passage of 7 Golden Eagles. All movement was along the Fisher Range mainly at ridge level and only the last 5 eagles after 1700 glided high above the ridge. Other birds included 3 Ruffed Grouse, 50 Bohemian Waxwings in 2 flocks, 52 Grey-crowned Rosy-Finches, 11 White-winged Crossbills, 2 Evening Grosbeaks and 31 Pine Siskins. The highlight of the day, however, was a Bobcat that was seen and photographed early in the morning near the site. The animal is rare in the Kananaskis Valley. The 5 visitors today were particularly welcome as they brought baked goods for the observers!

11 hours (379.1) BAEA 1 (154), NOGO 3 (34), GOEA 32 (2478) TOTAL 36 (2882)

Monday, October 29 Vicki Ridge [Day 33] 0815-1815 (Peter Sherrington, observing from the Waterton 61 wellsite and Gord Petersen observing from the Waterton 68 wellsite, 1340-1745). The temperature at 0815 was 2C the high at 1600 was 6C and it was 4C at 1815. Winds were W-WSW

all day, 15-20 km/h to 1100 then 25-35 gusting to 45 km/h for the rest of the day. Cloud cover was 70-100% altostratus, altocumulus, cumulus and cirrus all day that provided a spectacular sunrise and sunset and excellent viewing conditions throughout. There was a fairly strong and persistent raptor movement throughout the day with 126 migrants of 8 species seen between 0825 and 1806. The count was the highest since October 20 and the diversity was highest since October 18. The count comprised a season-high 32 Bald Eagles (19a, 5sa, 6j, 2u), 1 adult male Northern Harrier, 4u Sharp-shinned Hawks, 1u Cooper's Hawk, 4 Northern Goshawks (3a, 1j), 1 adult light morph *calurus* Red-tailed Hawk, 42 Rough-legged Hawks (32 light, 7 dark, 3u) and 41 Golden Eagles (36a, 3j, 2u). The total includes 35 migrants seen by Gord Petersen between 1340 and 1745 at the western edge of Kylllo Ridge near the Waterton 68 wellsite that comprised 9 Bald Eagles (5a, 4sa), 1u Sharp-shinned Hawk, 1u Cooper's Hawk, 3 Northern Goshawks (2a, 1j), 16 Rough-legged Hawks (9 light, 5 dark, 2u) and 5 adult Golden Eagles. Twenty-two migrants were seen before 1200 and the hours 1400-1500, 1500-1600, 1600-1700 and 1700-1800 yielded 17, 20, 19 and 21 birds respectively. Non-raptor birds were dominated by finches that comprised 970 Grey-crowned Rosy-Finches in 14 flocks, 12 Red Crossbills and 137 Pine Siskins in 5 flocks.

10 hours (298.1) BAEA 32 (274), NOHA 1 (15), SSHA 4 (624), COHA 1 (73), NOGO 4 (85), RTHA 1 (172), RLHA 42 (379), GOEA 41 (2437) TOTAL 126 (4193)

Sunday, October 29 Steeples [Day 35] 1530-1730 (Vance Mattson). The temperature was 10C, winds were variable and light, and cloud cover was 80 cumulus and stratus. The ridges were partially shrouded by cloud throughout. No migrants were seen but 2 resident Golden Eagles (1a, and 1j) were seen hunting and soaring over the ridges.

2 hours (153) TOTAL 0 (425)

Tuesday, October 30 Mount Lorette [Day 37] 0830-1830 (Cliff Hansen, assisted by Brian McBride). The temperature reached a high of 6C at 1500 and 1600 from a morning low of -1C and it was 4C at 1830. Ground winds were SW all day, 0-10 gusting to 15 km/h in the afternoon and ridge winds appeared to be moderate NW. Cloud cover was 70-50% cumulus and altocumulus all day apart from 1240-1310 when a light snow squall obscured the sky and ridges which otherwise were clear all day. Observing conditions were good but the day only produced 13 migrant raptors between 1053 and 1640 which is the lowest count for a non-weather affected day since October 3. The count was 3 light morph Rough-legged Hawks, 9 adult Golden Eagles and 1 unidentified eagle. All the eagles glided high above the Fisher Range and 6 of the birds were seen between 1500 and 1600. A resident adult male Northern Goshawk was seen hunting near the site at 1532. Other birds seen were 2 Belted Kingfishers that flew to the south about 30 metres above the river around 1300 that may have been migrating, 1 adult Northern Shrike, 3 American Robins flying south and a small flock of 4 *cismontanus* Dark-eyed Juncos. There were 6 visitors to the site today.

10 hours (389.1) RLHA 3 (35), GOEA 9 (2487), UE 1 (27) TOTAL 13 (2895)

Tuesday, October 30 Vicki Ridge [Day 34] 0815-1800 (Peter Sherrington, observing from the Waterton 61 wellsite). The temperature at 0815 was 0.5C, the high at 1400 was 8C and it was 3C at 1800. Winds were W and were a remarkably constant 30-40 gusting 50 km/h all day. Cloud cover was 80-90% cirrostratus and altocumulus to 0900 which diminished to 0% at 1300, after which it was 10-20% cumulus and cirrus that was essentially confined to the west. There was a fairly reasonable, although rather sporadic, raptor migration with 70 birds of 7 species moving between 0821 and 1721. The count was 25 Bald Eagles (12a, 5sa, 6j, 1 undifferentiated immature and 1u), 2 adult Sharp-shinned Hawks, 1 adult Cooper's Hawk, 7 adult Northern Goshawks (6 males, 1 female), 1 adult dark morph *harlani* Red-tailed Hawk, 9 light morph Rough-legged Hawks and 25 Golden Eagles (21a, 1j, 3u). The highest hourly count was 14 between 1400 and 1500 that included 9 Bald and 4 Golden Eagles. The 3 Bald Eagles that were seen at 1429 moved the cumulative total species count above the previous fall site record of 4237 that was established on November 15 last year. Other bird sightings included 4 Trumpeter Swans (3a, 1j) that flew to the WNW over Kyll Ridge at 0943, 8 Clark's Nutcrackers, 56 Bohemian Waxwings flying south in 3 flocks, 200 Grey-crowned Rosy-Finches in 7 flocks, 7 Red Crossbills and 24 Pine Siskins.

9.75 hours (307.8) BAEA 25 (299), SSHA 2 (626), COHA 1 (743), NOGO 7 (92), RTHA 1 (173), RLHA 9 (388), GOEA 25 (2462) TOTAL 70 (4263)

Tuesday, October 30 Steeples [Day 36] 1315-1745 (Vance Mattson). The temperature was 10C, winds were light W and S, and cloud cover was 60% cumulus and altostratus. Despite the apparently favourable migration and observation conditions no migrants were seen and the only raptor sighting was of a single resident Golden Eagle.

4.5 hours (157.5) TOTAL 0 (425)

Wednesday, October 31 Mount Lorette [Day 38] 0830-1840 (Caroline Lambert, assisted by Joel Duncan). The temperature at 0830 was 3C, the high was 6C from 1400 to 1700 and it was 5C at the end of observation. Ground winds were SW 0-10 gusting 15-20 km/h in mid-afternoon, and ridge winds were strong all day, W to 1400 then NW. Cloud cover was 100% cumulus and altostratus to 1000 that gradually reduced to 70% cumulus at the end of the day. The eastern ridges were clear but the west was occluded to an average of 40% all day. All migrants today were eagles comprising 7 Bald Eagles (4a, 1j, 2u), 29 Golden Eagles (17a, 2j, 10u) and 2 unidentified eagles. The birds moved between 0955 and 1733 and all glided high and fast above the Fisher Range ridge. Movement was steady throughout and the maximum hourly count was 9 Golden Eagles between 1200 and 1300. Other birds seen included a flock of 60 Canada Geese, 3 Northern Pintails flying high to the south, 1 Northern Pygmy-Owl that called early in the morning, 1 Belted Kingfisher, 1 Pileated Woodpecker, 1 juvenile Northern Shrike, 15 European Starlings, 75 Grey-crowned Rosy-Finches, 7 White-winged Crossbills, 20 Pine Siskins and 1 Dark-eyed [Oregon] Junco. Thirty-four visitors were at the site today.

10.16 hours (399.2) BAEA 7 (161), GOEA 29 (2516), UE 2 (29) TOTAL 38 (2933)

October summary (variance from 1993-2017 valid counts (20) in parenthesis) DAYS 28 (-6.5%), HOURS 298.5 (-5.8%), TUVU 0, OSPR 0 (-100%), BAEA 150 (+5.4%), NOHA 1 (-81%), SSHA 33 (-55%), COHA 3 (-71.1%), NOGO 20 (-31%), BWHA 0 (-100%), SWHA 1 (+2000%), RTHA 16 (+13.9%), FEHA 0 (-100%), RLHA 28 (-32.1%), GOEA 2253 (-19.6%), AMKE 0 (-100%), MERL 2 (-55.3%), GYRF 2 (-23.5%), PEFA 2 (-41.7%), PRFA 0 (-100%), UA 6 (+93.9%), UB 2 (-24%), UE 26 (+795.1%), UF 3 (+125%), UU 4 (+78.2%) TOTAL 2552 (-18.9%)

Wednesday, October 31 Vicki Ridge [Day 35] 0815-1815 (Peter Sherrington, observing from the Waterton 61 wellsite and Gord Petersen observing from the Waterton 68 wellsite, 1340-1750). The temperature was 1C at 0815, the high was 5C at 1500 and 1600 and it was 3C at 1815. Winds were WSW 30-40 gusting 50 km/h reaching 60 km/h around 1600. Cloud cover was 100% cumulus and altostratus to 1530, 70% cumulus at 1600 that dwindled to 10% at the end of observation. Very light snow fell continuously until 1340 but the ridges remained clear and it did not appear to impede migration. Movement was slow and sporadic between 0946 and 1807 but produced a reasonable total of 59 migrants of 4 species. The count was 15 Bald Eagles (12a, 1sa, 1j, 1u), 1 adult male Northern Goshawk, 14 light morph Rough-legged Hawks, 28 Golden Eagles (18a, 4sa, 3j, 3u) and 1 unidentified eagle. The total includes 18 migrants seen by Gord Petersen between 1406 and 1739 at the western edge of Kyllor Ridge near the Waterton 68 wellsite that comprised 2 adult Bald Eagles, 4 light morph Rough-legged Hawks, 11 Golden Eagles (5a, 2sa, 3j, 1u) and 1 unidentified eagle. Maximum hourly passage was 13 between 1400 and 1500 that included 10 Golden Eagles and again between 1700 and 1800 that included 8 Rough-legged Hawks. Other birds seen included 1 adult Northern Shrike, 2 Clark's Nutcrackers, 305 Bohemian Waxwings in 5 flocks, 290 Grey-crowned Rosy-Finches in 5 flocks and 96 Pine Siskins.

10 hours (317.8), BAEA 15 (314), NOGO 1 (93), RLHA 14 (402), GOEA 28 (2490), UE 1 (5) TOTAL 59 (4322)

October summary (last year's count in parenthesis) DAYS 28 (29), HOURS 253.8 (241.98), TUVU 0 (0), OSPR 3 (4), BAEA 297 (186), NOHA 4 (10), SSHA 362 (382), COHA 40 (46), NOGO 80 (65), BWHA 11 (19), SWHA 0 (0), RTHA 122 (164), FEHA 6 (2), RLHA 392 (486), GOEA 2309 (1694), AMKE 4 (5), MERL 8 (9), GYRF 4 (2), PEFA 4 (10), PRFA 3 (4), UA 7 (5), UB 24 (16), UE 4 (14), UF 1 (2), UU 3 (0) TOTAL 3688 (3125)

Wednesday, October 31 Steeples [Day 37] 1515-1730 (Vance Mattson). The temperature was 8C, winds were moderate S, cloud cover was 90% stratus and cumulus and the ridges were partially obscured throughout the observation period. No migrant or resident raptors were seen.

2, 25 hours (159.8) TOTAL 0 (425)

October summary DAYS 27, HOURS 120.8, TUVU 0, OSPR 2, BAEA 75, NOHA 10, SSHA 49, COHA 2, NOGO 6, BWAH 0, SWHA 0, RTHA 39, FEHA 0, RLHA 3, GOEA 130, AMKE 2, MERL 2, GYRF 1, PEFA 0, PRFA 0, UA 0, UB 0, UE 2, UF 0, UU 1 TOTAL 324

Thursday, November 01 Mount Lorette [Day 39] 0830-1815 (Joel Duncan, assisted by Lori Anderson). The starting temperature was 0C the high was 4C from 1400-1700 and it was 3C at the end of observation. Ground winds were E-NE 2-5 km/h to 1500 after which they were 4-8 occasionally gusting to 14 km/h, while ridge winds were SW all day, strong to 1600 and then moderate. Cloud cover was initially 80% stratus and cumulus which reduced to 20-30% between 1000 and 1200 and gradually increased throughout the afternoon to 80% cumulus, altocumulus and altostratus by the end. The eastern ridges were initially 40% obscured but were clear after 1000, and the west was initially 100% obscured that dropped to 20% at 1000 and was then clear for the rest of the day. There was 0.5 cm of fresh snow on the ground at the start but there was no further precipitation. A total of 16 eagles were seen between 1145 and 1720 that comprised 2 adult Bald Eagles, 13 Golden Eagles (6a, 3sa, 4u) and 1 unidentified eagle. All birds moved on the eastern route with most birds initially located at the northern end of the Fisher Range and most birds employed flapping flight. Maximum hourly counts were 4 from 1500 to 1600 and again from 1600 to 1700. A non-migrant adult Bald Eagle perched by the river and a resident adult Northern Goshawk soared above the Hay Meadow. Other birds seen were 1 Northern Flicker, 20 Bohemian Waxwings, a single flock of 200 Grey-crowned Rosy-Finches, 5 White-winged Crossbills, a remarkable single flock of 23 Cassin's Finches, 30 Common Redpolls which were the first of the season and 2 Swamp Sparrows. There were 7 visitors today.

9.75 hours (409) BAEA 2 (163), GOEA 13 (2529), UE 1 (30) TOTAL 16 (2949)

Thursday, November 01 Vicki Ridge [Day 36] 0815-1745 (Peter Sherrington, assisted by Gord Petersen observing from the Waterton 61 wellsite. The temperature at 0830 was 0C and the high was 5C at 1700 and 1745. Winds were calm or light all day, SW-W to 1600 and then ESE for the rest of the day. Cloud cover was 100-70% generally thin cumulus, stratocumulus and altostratus that allowed hazy sunshine to 1330 when 100% dark stratocumulus moved from the west and gave gloomy conditions for the rest of the day. The calm conditions produced the lowest full-day count of the season with only 15 birds of 2 species seen between 1044 and 1730: 10 Rough-legged Hawks (8 light morphs, 2u) and 5 Golden Eagles (4a, 1sa). By 1600 only 7 birds had been counted but each of the final 2 hours produced 4 birds that were seen soaring to the south of the site after they had glided low from behind the east side of Vicki Ridge. Gord watched at the western edge of Kylllo Ridge near the Waterton 68 wellsite between 1355 and 1520 but only saw a single Rough-legged Hawk that had also been observed soaring over the eastern edge of Kylllo Ridge a couple of minutes earlier. A mixed flock of 12a Tundra and 2a Trumpeter Swans flew high to the west at 1737 and a flock of 50 Canada Geese flew high to the west at 1225. At 1325 a high-flying adult Northern Shrike selected a single Grey-crowned Rosy-Finch from a small flock and pursued it to the north and had almost caught up with it when both birds disappeared behind trees. Other birds

seen included 8 Clark's Nutcrackers, 120 Bohemian Waxwings, 245 Grey-crowned Rosy-Finches, 3 Red Crossbills and 193 Pine Siskins.

9.25 hours (327.1) RLHA 10 (412), GOEA 5 (2495) TOTAL 15 (4337)

Thursday, November 01 Steeples [Day 38] 1200-1730 (Vance Mattson). The temperature was 6C, conditions were calm and cloud cover was 100% altostratus and dark grey cumulus that obscured the front face of Mount Bill Nye, but the main migration ridge remained clear. Just 2 migrants were noted: an adult Golden Eagle at 1332 and an adult Bald eagle at 1338, and no resident birds were seen.

5.5 hours (165.3) BAEA 1 (92), GOEA 1 (145) TOTAL 2 (427)

Friday, November 02 Mount Lorette [Day 40] 0900-1830 (Caroline Lambert, assisted by Joel Duncan). The temperature at 0900 was 5C, the high at 1400 was 10C and it was 4C at 1830. Ground winds were SW 0-5 km/h to 1200 then variable gusting to 20 km/h to 1400 after which they were N 0-10 gusting 20 for the rest of the day; ridge winds were strong all day, SW to 1000, NW to 1500 and NNW to the end. Cloud cover was 80-100% mainly cumulus and altostratus all day that produced 20-minute light rain showers around 1500 and 1600. The eastern ridges were occasionally lightly draped by cloud, but the west was on average 40% obscured all day. A total of 18 migrants of 3 species moved between 1022 and 1752 comprising 1u Bald Eagle, 1u Northern Goshawk and 16 Golden Eagles (5a, 2sa, 1j, 8u). All eagles glided high above the Fisher Range and probably originated from Mount Lorette. Ten birds, all Golden Eagles, were seen before 1200 but afternoon movement was slow and sporadic. An adult Bald Eagle perched on its usual tree by the river, and 2u Northern Goshawks flying high to the west were considered resident. Three unidentified swans flew high towards the north, 3 Common Loons flew high to the south and other birds seen included 1u Northern Shrike, 1 Brown Creeper, 1 Golden-crowned Kinglet, 2 Bohemian Waxwings, 15 White-winged Crossbills, 2 Pine Siskins, and 10 Dark-eyed Juncos that included 2 *cismontanus* ("Slate-coloured" morphs) and 2 *montanus* ("Oregon" morphs). Only 4 visitors were seen today.

9.5 hours (418.5) BAEA 1 (164), NOGO 1 (35), GOEA 16 (2545) TOTAL 18 (2967)

Friday, November 02 Vicki Ridge [Day 37] 1140-1800 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). It was a late start as we had to drive back from Calgary. At 1140 the temperature was 8C, the high was 8.5C at 1300 and 1400 and it fell to 5C at 1800. Winds were strong W 40-50 gusting to 80 km/h to 1600 when they moderated and at the end of the day they were light SSE. Cloud cover was 70% altostratus and cumulus that gave sunny periods to 1400 after which it was 100% stratocumulus that produced almost continuous very light rain that only became steady light rain at 1800. There was a fairly steady movement of 39 raptors

of 3 species between 1203 and 1746 that comprised 16 Bald Eagles (10a, 1sa, 3j, 1 undifferentiated immature and 1u), 6 Rough-legged Hawks (4 light, 2u) and 17 Golden Eagles (15a, 1sa, 1u). The highest hourly counts were 11 (1300-1400) and 10 (1500-1700). Other birds were relatively scarce in the high winds but included 1 Pileated Woodpecker, 1 Clark's Nutcracker, 37 Bohemian Waxwings, 100 Grey-crowned Rosy-Finches and 32 Pine Siskins.

6.33 hours (333.4) BAEA 16 (330), RLHA 6 (418), GOEA 17 (2512) TOTAL 39 (4376)

Friday, November 02 Steeples [Day 39] 1315-1800 (Vance Mattson). The morning was rainy and overcast but it began to clear at 1230 although the front face of Mount Bill Nye again remained obscured all day. On arrival the temperature was 12C, winds were moderate S and cloud cover was stratus and cumulus, but by 1600 conditions were calm and 40% cumulus and lenticular cloud cover gave mainly sunny conditions for the rest of the day. A total of 4 migrant Golden Eagles were seen: 2 adults migrating together at 1612 and adult and a juvenile that also migrated together at 1612. The juvenile's two outer left retrices had been somehow shorn off in a clean line that gave the tail a paddle-like appearance. A non-migrant adult Bald Eagle soared high above the ridges and moved to the north at 1559.

4.75 hours (170) GOEA 4 (149) TOTAL 4 (431)

Saturday, November 03 Mount Lorette [Day 41] 0835-1800 (Blake Weis, assisted by Cliff Hansen). The temperature was 0C at the start but rose to 7C between 1400 and 1700 and was 6C at 1800. Ground winds were SW all day, 0-5 gusting 10-18 km/h, and ridge winds were moderate SW all day. Cloud cover was 100% altocumulus, altostratus, cirrostratus, cirrus and cumulus for most of the day except between 1400 and 1700 when it was 80% of the same cloud mix without the cirrostratus. The ridges were clear all day. A total of 29 migrant raptors of 3 species were seen between 1015 and 1642 that comprised 1j Bald Eagle, 1u Sharp-shinned Hawk and 27 Golden Eagles (16a, 1sa, 10u). Eight of the Golden Eagles were seen between 1015 and 1100 and a further 7 between 1300 and 1400. Most eagles were seen gliding probably from Mount Lorette into the upper face of the northern end of the Fisher Range from where they rapidly kited high before gliding high to the SE above the Fisher Range ridge. Other birds noted were 1 Canada Goose heard calling, 20 Mallards flying south above the Fisher Range, 1 Hairy Woodpecker, 1 Black-billed Magpie, 4 Canada Jays, 8 Common Ravens, 4 Black-capped Chickadees, 4 Mountain Chickadees, 2 Boreal Chickadees, 2 Red-breasted Nuthatches, 2 Brown Creepers, 3 Golden-crowned Kinglets, 15 Bohemian Waxwings, 22 White-winged Crossbills, 55 Common Redpolls, 14 Pine Siskins and 9 Dark-eyed Juncos. Thirty-two visitors came to the site today.

9.58 hours (428.1) BAEA 1 (165), SSHA 1 (66), GOEA 29 (2572) TOTAL 29 (2996)

Saturday, November 03 Vicki Ridge [Day 38] 0845-1745 (Peter Sherrington, assisted by Hilary Atkinson after 1500, observing from the Waterton 61 wellsite). The temperature at 0900 was 3C, the high at 1200 was 7C and it was 4C at 1745. Winds were W-WSW all day 30-50 gusting 60 km/h, and cloud cover was 100-60% altostratus, altocumulus and lenticular in the morning and 100-80% altostratus and cumulus in the afternoon that produced occasional very light rain showers. A total of 42 migrants of 5 species moved between 1015 and 1730 comprising 11 Bald Eagles (2a, 2sa, 5j, 2u), 1u Sharp-shinned Hawk, 1 adult dark morph *harlani* Red-tailed Hawk, 7 Rough-legged Hawks (5 light, 2 dark) and 22 Golden Eagles (19a, 2sa, 1u). The highest hourly count was 13 (1300-1400). I was joined between 1100 and 1330 by 12 members of the Lethbridge College Chapter of the Wildlife Society who were able to see 22 of the day's migrants under excellent observing conditions. Other birds seen included 1 male Hairy Woodpecker, 1a Northern Shrike, 3 Clark's Nutcrackers, 55 Bohemian Waxwings, 275 Grey-crowned Rosy-Finches, 3 Cassin's Finches and 84 Pine Siskins.

9 hours (342.4) BAEA 11 (341), SSHA 1 (627), RTHA 1 (174), RLHA 7 (425), GOEA 22 (2534)
TOTAL 42 (4418)

Saturday, November 03 Steeples [Day 40] 1330-1800 (Vance Mattson, assisted by Virginia Rasch). Cloud cover on the ridges was clearing by 1330 when Vance arrived at the site at 1330 when the temperature was 5C with strong S winds. By 1600, however, the temperature was 9C, it was calm and cloud cover was 60% altostratus and altocumulus that gave intermittent sunny periods, but increased to 100% altostratus and dark cumulus at 1800. Seven migrants, 4 Bald Eagles (3a, 1j) and 3 adult Golden Eagles, were counted between 1358 and 1624 although 6 of these moved between 1542 and 1624. A resident Golden Eagle hunted along the ridges from 1335-1400.

4.5 hours (174.5) BAEA 4 (96), GOEA 3 (152) TOTAL 7 (438)

NOTE CHANGE FROM MOUNTAIN DAYLIGHT TIME (MDT) TO MOUNTAIN STANDARD TIME (MST)

Sunday, November 04 Mount Lorette [Day 42] 0655-1725 (Bill Wilson, assisted by Lori Anderson). Both the starting and finishing temperatures were 6C and the high was 9C at 1300. Ground winds were SW all day, 2-15 km/h that gusted up to 36 km/h at 1100, and ridge winds were strong WSW to 0900 and then moderate to strong W for the rest of the day. Cloud cover was initially 40% cumulus and stratus, was then 70-90% cumulus to 1330 and was 80-100% cumulus and stratus for the rest of the day. The eastern ridges were clear all day and the west was 0-20% obscured apart from 1400 when it was 70% obscured and generated light snow flurries. Although migration conditions appeared to be reasonable only 6 migrants were seen between 0912 and 1539 that comprised 1 juvenile Sharp-shinned Hawk and 5 Golden Eagles (4a, 1u). One or two adult

Bald Eagles and an adult Northern Goshawk were considered to be resident or non-migrant birds. Other birds seen were a flock of 44 Canada Geese that flew high to the south at 1706, 3 female Common Mergansers on the river, 4 Canada Jays, 38 Common Ravens, 2 American Robins that flew to the south, 1 American Dipper and 20 Bohemian Waxwings. Nineteen visitors were at the site today.

10.5 hours (438.6) SSHA 1 (67), GOEA 5 (2577) TOTAL 6 (3002)

Sunday, November 04 Vicki Ridge [Day 39] 0730-1645 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). The day started dramatically with rain and sleet driven by 80 km/h WNW winds which stopped at 0800 and there was no further significant precipitation. The temperature at 0800 was 3C, the high was 7C at 1100, 1300 and 1500 that coincided with sunny periods with moderate cumulus cloud cover that alternated with bands of dark thick stratocumulus cloud that periodically moved from the west. After 1500 there was only 10% cumulus cloud cover until the end of observation when the temperature was 3C and cloud thickened to 60% and produced spectacular sunset colours. After 0800 winds were strong W-WSW 40-50 gusting to 60-80 km/h all day. Raptor movement was sparse and very sporadic with 17 migrants of 6 species seen between 0812 and 1620 that comprised 3 Bald Eagles (2a, 1sa), 2 Northern Goshawks (1a, 1u), 1 light morph Rough-legged Hawk, 8 Golden Eagles (7a, 1j), 1 white morph adult Gyrfalcon and 2 male Prairie Falcons. The maximum hourly count was only 4 birds between 1400 and 1500. Other birds seen included 2 Clark's Nutcrackers, 130 Bohemian Waxwings, 200 Grey-crowned Rosy-Finches and 36 Pine Siskins.

9.25 hours (351.7) BAEA 3 (344), NOGO 2 (95), RLHA 1 (426), GOEA 8 (2542), GYRF 1 (5), PRFA 2 (7) TOTAL 17 (4435)

Sunday, November 04 Steeples [Day 41] 1130-1700 (Vance Mattson). The temperature was 8C and winds were initially moderate SW but became calm by 1500. Cloud cover was initially 100% altostratus, stratus and cumulus that produced light rain between 1330 and 1430, after which it gradually cleared and by 1600 it was 20% cumulus and sunny. The day produced 8 migrants of 3 species between 1158 and 1656 which is the highest count at the site since October 19. The flight comprised 5 Bald Eagles (2a, 3j), 1 adult Northern Goshawk and 2 adult Golden Eagles. Five of the birds were seen before 1217. A resident Golden Eagle soared above the ridge before gliding to the northwest into the valley at 1150.

5.5 hours (180) BAEA 5 (101), NOGO 1 (7), GOEA 2 (154) TOTAL 8 (446)

Monday, November 05 Mount Lorette [Day 43] 0720-1630 (George Halmazna, assisted by Dan Parliament). The temperature was -4C to 0900, the high was -3C from 1000 to 1300 and it was then -4C again for the rest of the day. Ground winds were N all day, light to 1300 then 10-25 km/h

to the end of observation, while ridge winds appeared to be light NW-NE. Cloud cover was 80-100% cumulus and stratus all day that produced snow between 1000 and 1230 and very light snow for the rest of the afternoon. The east ridges were 50% obscured to 1000 and were then not then seen again, and the west was 10% obscured to 1000 and then 90% obscured for the rest of the day. The only migrant raptor was 1u Sharp-shinned Hawk that flew low to the south above the river at 1044. Other birds were more abundant, however, and comprised 3080 Canada Geese that flew south in 35 flocks, 265 Mallards in 4 flocks, 67 Common Mergansers in 4 flocks, 7 large unidentified gulls also flying south, 1 American Three-toed Woodpecker, 1a Northern Shrike, 4 Canada Jays, 1 Black-billed Magpie, 7 Common Ravens, 5 Mountain Chickadees, 1 Boreal Chickadee, 2 American Dippers, 16 Bohemian Waxwings, 1 European Starling, 2 Grey-crowned Rosy-Finches, 9 White-winged Crossbills, 120 Common Redpolls in 3 flocks and 2 *cismontanus* Dark-eyed Juncos. Barrier Lake also yielded a flock of 31 Hooded Mergansers. There were no visitors today.

9.16 hours (447.7) SSHA 1 (68) TOTAL 1 (3003)

Monday, November 05 Vicki Ridge [Day 40] 1345-1700 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). Low fog obscured all ridges until 1330 when it began to lift. We arrived at the site at 1345 when the temperature was -4C, the wind was ESE 10 km/h and the southern end of Vicki Ridge was just visible through the fog. The lower part of the ridge was clear at 1445 and the ridge completely cleared at 1615 and Kylo Ridge followed 5 minutes later. Cloud cover was revealed to be 100% stratus and the temperature fell to -6C with light snow at 1700 with winds after 1500 E 10-15 km/h. No migrant raptors were seen, but other birds were a flock of 52 Canada Geese that flew high to the west at 1643, 200 Mallards that flew even higher to the west at 1646, 1 Clark's Nutcracker, 30 Common Ravens including a tight flock of 37 that flew to the west at 1606, 290 Bohemian Waxwings, a single flock of 150 Grey-crowned Rosy-Finches flying south and 2 Pine Siskins.

3.25 hours (354.9) TOTAL 0 (4435)

Monday, November 05 Steeples [Day 42] 1515-1645 (Vance Mattson). The temperature was 8C that dropped to 6C at 1645, winds were moderate E and cloud cover was 100% stratus, cumulus and altostratus. The ridges became shrouded from the east at 1630 as light rain began to fall. Three migrants were seen: 1u Golden Eagle at 1515 and 2 Bald Eagles (1a, 1j) at 1551. A resident Golden Eagle was also seen briefly.

1.5 hours (181.5) BAEA 2 (103), GOEA 1 (155) TOTAL 3 (449)

Tuesday, November 06 Mount Lorette [Day 44] 0805-1630 (Blake Weis). The temperature at the start was -9C, the high was -7C (1100-1400) and it was -6C at 1630. Ground winds were N-NE 0-

5 gusting 10-18 km/h all day, and ridge winds were moderate N. Cloud cover was 100% cumulus, stratocumulus, altocumulus and cirrus all day with the exception of 1200 and 1300 when it reduced to 90%. Light snow fell to 1100 when it ceased until 1600 when light to moderate snow started falling again. The eastern ridges were only 10% obscured to 1100 that gave the possibility of raptor movement, but they then became 90-100% obscured for the rest of the day. The west was 80-90% obscured to 0900 that subsequently became 100%. No migrant raptors were seen, but 2 non-migrant Bald Eagles (1a, 1 late sa) were noted. There was a strong southward migration of waterfowl that included 2 unidentified swans, 455 Canada Geese, 665 Mallards, 25 Common Goldeneye and 40 Common Mergansers. Birds seen near the Hay Meadow site included 1 Brown Creeper, 2 Golden-crowned Kinglets, 43 Common Redpolls, 16 White-winged Crossbills, 20 Pine Siskins, 1 Lapland Longspur and 10 Dark-eyed Juncos. There were no visitors today.

8.42 hours (456.1) TOTAL 0 (3003)

Tuesday, November 06 **Vicki Ridge** [Day 41] 1130-1430 (Peter Sherrington, assisted by Hilary Atkinson mainly observing from the Waterton 61 wellsite). The temperature was initially -9C but rose to -8C at 1300. Winds were light E-SE and cloud cover was 100% stratocumulus. There was 14 cm of fresh snow on the ground and light snow continued to fall all day. The ridges were obscured by low cloud to 1100 but then almost completely cleared until 1430 when they again became shrouded. No migrant raptors were seen, but a resident adult Golden Eagle flew to the north at 1244. Other birds seen included 1a Northern Shrike and a flock of 100 Bohemian Waxwings.

3 hours (357.9) TOTAL 0 (4435)

Tuesday, November 06 **Steeple** [Day 43] 1215-1700 (Vance Mattson). The weather was better west of the Rockies where the temperature was 5C, winds were light W to calm and cloud cover was initially 40% stratus and cumulus that was concentrated around the mountains, but by 1600 it had increased to 100% although the ridges remained clear. A total of 10 migrants of 3 species moved between 1405 and 1453 coinciding with the lifting of clouds that had hitherto covered the ridges. The count was 4 Bald Eagles (3a, 1sa), 1a Northern Goshawk and 5 adult Golden Eagles. A resident Golden eagle was also seen at 1535.

4.75 hours (186.3) BAEA 4 (107), NOGO 1 (8), GOEA 5 (160) TOTAL 10 (459)

Wednesday, November 07 **Mount Lorette** [Day 45] 0815-1725 (Caroline Lambert, assisted by Rachel Mackay and Blake Weis). The temperature at 0815 was -14C, the high was -4C (1400-1600) and it was -6C at 1725. It was calm to 1400 after which ground winds were N 0-5 km/h with a single gust of 15 km/h, and ridge winds were NW all day, light to 1500 then moderate. Cloud cover was 70% cirrus to 1200 that reduced to 10-20% cirrus with scattered cumulus to 1600 after

which it was cloudless. Apart from occasional cloud drape on the eastern ridges the mountains were clear all day. After 3 days of poor movement today saw 17 eagles, 9 Bald Eagles (7a, 1sa, 1u), 7 adult Golden Eagles and 1 unidentified eagle that migrated steadily between 1342 and 1646. With the exception of 1 Bald Eagle that was seen to the west over Olympic Summit all birds were seen on the Fisher Range where they mainly flapped slowly or soared without gaining any significant altitude. Other birds were a single flock of 57 Canada Geese, 1a Northern Shrike, 2 Canada Jays, 3 Common Ravens, 2 Mountain Chickadees, 2 White-winged Crossbills and 2 Pine Siskins. The tracks of 2 Grey Wolves were seen in the 0.5 cm of fresh snow that was on the ground in the morning, but no human visitors made it to the site.

9.16 hours (465.3) BAEA 9 (174), GOEA 7 (2584), UE 1 (31) TOTAL 17 (3020)

Wednesday, November 07 Vicki Ridge [Day 42] 0945-1645 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). There was another 9 cm of fresh snow on the ground and the ridges were partially obscured by an ice-crystal haze until 1000. The starting temperature was -11C, the high at 1500 was -4.5C and it was again -11C at 1645. Conditions were essentially calm all day with occasional brief breezes (<5 km/h) from S-WSW. Cloud cover was initially 10% cumulus with 70-80% cirrostratus, cirrus and cumulus at 1200 and 1300 that dwindled to 10% at 1500 and it was then cloudless for the rest of the day. It was a beautiful sunny day but the air was inert and the only raptors seen were 2 Golden Eagles: a juvenile that soared high over Kylo Ridge and flew south at 1227 and an adult that soared high, occasionally into the base of a cumulus cloud, and glided south at 1235. A mixed flock of 24 Trumpeter and 3 Tundra Swans flew high to the SW at 1120 and a smaller flock of 6 Trumpeter and 1 Tundra Swan flew high to the south at 1530, 156 Canada Geese in 3 flocks flew to the west and other birds seen were 1 male and 1 female Hairy Woodpeckers, a pair of Pileated Woodpeckers, 1 Clark's Nutcracker, 18 Common Ravens, 60 Bohemian Waxwings, 36 Grey-crowned Rosy Finches, 46 Red Crossbills and 5 Common Redpolls.

7 hours (364.9) GOEA 2 (2544) TOTAL 2 (4437)

Wednesday, November 07 Steeples [Day 44] 1500-1645 (Vance Mattson, assisted by Caryn Kilback observing from the South Lakit site). The temperature was 1C, conditions were calm and cloud cover was 60% stratus and cumulus that gave periods of sunshine but also shrouded the ridges. Six Bald Eagles (1a, 1sa, 4j) and 1 adult Golden Eagle migrated slowly between 1545 and 1554 with much low soaring below the clouds on the ridge.

1.75 hours (188) BAEA 6 (113), GOEA 1 (161) TOTAL 7 (466)

Thursday, November 08 Mount Lorette [Day 46] 0745-1725 (Cliff Hansen, assisted by Rick Robb). The temperature at 0745 was -14C, the high was -1C at 1500 and it was -4C at 1725.

Ground winds were S-SW all day, 0-5 km/h to 1300 then 5-10 occasionally gusting 15 km/h, while ridge winds were light to moderate SW. It was cloudless all day. A total of 14 Golden Eagles (9a, 1j, 4u) migrated along the Fisher Range between 1223 and 1708 but the first bird that glided above the ridge was not seen until 1615. Movement was slow but steady and the maximum hourly count was 4 birds between 1300 and 1400. Two non-migrant adult Bald Eagles perched by the river, and other birds seen were 3 Canada Geese, 3 Canada Jays, 1 Black-billed Magpie, 4 Common Ravens and 1 American Dipper. Thirty-nine young people and helpers from the Central Alberta Refugee program (CARE) in Red Deer visited the site today.

9.67 hours (475) GOEA 14 (2598) TOTAL 14 (3034)

Thursday, November 08 Vicki Ridge [Day 43] 0845-1700 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). The temperature at 0845 was -4C, the high at 1400 was 1C and it was -3C at 1700. Winds were steady W-WNW 20-30 gusting 40 km/h and it was cloudless all day. After 3 days with almost no movement today produced a fairly strong late-season count of 45 migrants of 4 species between 0858 and 1613. The count comprised 9 Bald Eagles (7a, 2sa), 3 light morph Rough-legged Hawks, 32 Golden Eagles (27a, 2sa, 3j) which is the highest count since October 29, and 1 Prairie Falcon. Movement was fairly steady throughout with maximum hourly counts of 10 (1100-1200) and 9 (1500-1600). A non-migrant adult Northern Goshawk was also seen. Other birds seen included about 60 Common Ravens with up to 30 birds seen soaring at one time above a gut-piles from a recently hunted Elk that also attracted the attention of several of the migrant eagles, 107 Bohemian Waxwings and 45 Common Redpolls.

8.25 hours (373.2) BAEA 9 (353), RLHA 3 (429), GOEA 32 (2576) PRFA 1 (8) TOTAL 45 (4482)

Thursday, November 08 Steeples [Day 45] 1230-1700 (Vance Mattson). The temperature was 1C conditions were calm and cloud cover was 60-30% stratus and cumulus that gave plenty of sunshine. The ridges remained obscured most of the afternoon and only cleared between 1608 and 1630 but, like yesterday, migrants soared low and at length in front of the shrouded ridges. Eleven migrant eagles were counted between 1348 and 1631 comprising 2 Bald Eagles (1a, 1j) and 9 Golden Eagles (8a, 1j). At 1458 an adult Golden Eagle and a juvenile Bald Eagle soared together in front of the ridge, with the Bald Eagle being the higher of the two. The juvenile bird could not resist diving on the Golden Eagle, and as its second attempt was underway the Golden pumped its wings to meet it half-way and backed it off while simultaneously scolding it. This succeeded in separating the two birds as they continued gliding south at a respectful distance from each other.

4.5 hours (192.5) BAEA 2 (115), GOEA 9 (170) TOTAL 11 (477).

Friday, November 09 Mount Lorette [Day 47] 0755-1720 (Caroline Lambert, assisted by Rachel Mackay). The starting temperature was -4C, the high was 3C (1300-1600) and it was 1C at the end

of observation. It was calm to 1000 when NW ground winds blew to 1330 after which they were SW gusting to 30 km/h for the rest of the day; ridge winds were strong NW all day. Cloud cover was 100% altostratus and cumulus to 1100 when it reduced to 70% and by 1300 it was 30% cumulus, cirrus and cirrostratus that became 80% cirrostratus and altostratus at 1700. The east was clear all day but the west was obscured 40% of the time on average. A total of 31 eagles, 6 Bald Eagles (3a, 2sa, 1j) and 25 Golden Eagles (13a, 4sa, 8u) migrated between 0835 and 1630 to produce the highest count so far this month. All the birds glided high above the Fisher Range and the maximum hourly count was 8 between 1500 and 1600. Two adult Bald Eagles and 1u Sharp-shinned Hawk were regarded as non-migrants. Other birds were 1 Belted Kingfisher, 1 Hairy Woodpecker, 1 Northern Shrike, 4 Canada Jays, 1 Black-billed Magpie, 8 Common Ravens, 4 Black-capped Chickadees, 2 Mountain Chickadees, 1 Brown Creeper, 2 American Dippers and 4 White-winged Crossbills. A herd of 21 Elk were in the meadow, and there was 1 visitor at the site today.

9.25 hours (484.2) BAEA 6 (180), GOEA 25 (2623) TOTAL 31 (3065)

Friday, November 09 Vicki Ridge [Day 44] 0800-1700 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). The temperature at 0800 was -3C the high was 0C at 1100, 1200 and 1400 and it was -2C at 1700. Winds were WSW-W 30-45 gusting 60-75 km/h all day and cloud cover was 100% altostratus and altocumulus to 1500 that occasionally briefly reduced to 80-90%, after which it quickly cleared from the north and was 30-40% altocumulus and cirrus for the last 2 hours. Light snow fell from 1245 to 1320 and from 1412 to 1440 but it did not appear to interrupt the flow of migrating raptors. There was another fairly strong late-season migration involving 53 birds of 4 species that comprised 23 Bald Eagles (15a, 3sa, 4j, 1u), 1 adult Northern Goshawk, 28 Golden Eagles (27a, 1u) and 1 male Prairie Falcon that moved between 0821 and 1635. Movement was again fairly steady throughout and the highest hourly count was 14 between 1400 and 1500. The resident pair and juvenile Golden Eagle were conspicuous throughout much of the day and were often vigorously mobbed by ravens whereas the migrant eagles were generally left alone. Other birds seen included 25 Bohemian Waxwings, 60 Grey-crowned Rosy-Finches, 20 Red Crossbills and 78 Common Redpolls.

9 hours (382.2) BAEA 23 (376), NOGO 1 (90), GOEA 28 (2604), PRFA 1 (9) TOTAL 53 (4535)

Friday, November 09 Steeples [NO OBSERVATION] (Vance Mattson). The entire valley was socked-in, combined with wet-snow flurries.

Saturday, November 10 Mount Lorette [Day 48] 0705-1710 (Bill Wilson, assisted by Ruth Morrow). The starting temperature was -5C, the high was 1C at 1500 and it was -2C at 1710. Ground winds were S 0-3 gusting 7 km/h to 1300 after which they were SW 3-10 gusting 16 km/h, and ridge winds were light to moderate, NNW to 1000 and then NW. Cloud cover was 90-100%

cumulus and altostratus to 0900 when it thinned to 60% cumulus to 1200 and was 10% to trace cumulus throughout the afternoon. The eastern ridges were 70% obscured to 0900 and were then clear for the rest of the day, and the west was 40% obscured to 0800 and then clear. A total of 39 eagles migrated between 1055 and 1624 that comprised 18 Bald Eagles (13a, 3sa, 2j), which is the second-highest count of the season, and 21 Golden Eagles (19a, 1sa, 1u). With the exception of 4 birds most migrants moved along the Fisher Range from Mount Lorette with much soaring flight. Movement was fairly steady throughout with a maximum hourly count of 11 (6 Bald and 5 Golden Eagles) between 1200 and 1300, that was followed by the only zero hour during the movement. Only 3 other bird species were seen: 2 Canada Jays, 8 Common Ravens and 40 Bohemian Waxwings in a single flock, but most of the 28 visitors to the site today were able to observe migrating eagles.

10.08 hours (494.3) BAEA 18 (198), GOEA 21 (2644) TOTAL 39 (3104)

Saturday, November 10 Vicki Ridge [Day 45] 0745-1715 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). The temperature at 0745 was -6C the high at 1500 was 2C and it was -3C at 1715. Winds were light W-SW all day and cloud cover was 80-100% cumulus, altocumulus and stratocumulus to 1230 that produced light snow to 0925 and between 1020 and 1150. The cloud rapidly thinned in the afternoon and was 50-20% cumulus between 1230 and 1500 after which it was cloudless for the rest of the day. Only 1 Golden Eagle was seen before 1218 but then movement became steady with 21 of the day's 36 migrants occurring after 1500, and 5 moved after 1700. The birds were seen between 0821 and 1706 and comprised 13 Bald Eagles (10a, 1sa, 2j), 1 adult Northern Goshawk, 3 light morph Rough-legged Hawks and 19 Golden Eagles (18a, 1sa). One adult Golden Eagle that roosted overnight in a limber pine snag at the extreme southern end of Vicki Ridge remained perched there until 1308 when it then spent 10 minutes soaring above the ridge before reaching sufficient altitude to glide south. Resident raptors were the Golden Eagle family group (2a and 1j) and other birds seen were 1 male Hairy Woodpecker, 2 Pileated Woodpeckers, 1 Canada Jay, 5 Clark's Nutcrackers, 4 Black-billed Magpies, 23 Common Ravens, 50 Bohemian Waxwings, 92 Grey-crowned Rosy-Finches, 13 Red Crossbills and 40 Common Redpolls.

9.5 hours (391.7) BAEA 13 (389), NOGO 1 (97), RLHA 3 (432), GOEA 19 (2623) TOTAL 36 (4571)

Saturday, November 10 Steeples [Day 46] 1200-1630 (Vance Mattson). The temperature was 2C, conditions were calm and cloud cover was 100% altostratus and stratus that heavily shrouded the ridges all day. After an unproductive hour at the site Vance returned to Wasa to see if there was any movement above the valley, but another hour spent there produced nothing, so he returned to the Bill Nye site until 1630. No migrant or resident raptors were seen.

4.5 hours (197) TOTAL 0 (477)

Sunday, November 11 Mount Lorette [Day 49] 0855-1700 (Blake Weis, assisted by Lori Anderson). The temperature at the start was -7C, the high was -2C (1400-1600) and it was -3C at 1700. Ground winds were 0-5 km/h all day, mainly WSW to 1300 and then N, and ridge winds were moderate NW all day. Cloud cover was 100-80% stratocumulus to 1200 that produced heavy to light snow, quickly cleared between 1200 and 1300 to 40% cumulus, altocumulus and cirrus before returning to 100% stratocumulus and moderate snow between 1300 and 1400; the rest of the day was 30% cumulus, altocumulus and cirrus. Both the eastern and western ridges were 100% obscured to 1200. The east was 40% obscured to 1300, 100% to 1400 and 30-0% thereafter, while the west was 90% obscured to 1300, 100% to 1400 and 20-0% thereafter. Despite the weather there was a fairly strong late-season count of 33 birds of 4 species between 1148 and 1550 that comprised 10 Bald Eagles (6a, 3sa, 1j), 1u Rough-legged Hawk, 21 Golden Eagles (16a, 3sa, 2u) and 1u *columbarius* Merlin. All the eagles moved in the face of the Fisher Range or at ridge level and there was much flapping and soaring flight. The maximum hourly count was 13 (2 Bald and 11 Golden Eagles) between 1400 and 1500. A non-migrant adult Bald Eagle perched by the river for 2 hours and an adult resident Golden Eagle traversed the Fisher Range from north to south before crossing the valley to Mount Lorette. Other birds identified were 1 male Hairy Woodpecker, 1 female American Three-toed Woodpecker, 1 Pileated Woodpecker, 5 Canada Jays, 7 Common Ravens, 1 Black-capped and 1 Mountain Chickadee, 1 Golden-crowned Kinglet, 50 Common Redpolls, 3 White-winged Crossbills, 2 Pine Siskins and 1u Dark-eyed Junco. A total of 18 visitors made it to the site after the snow stopped falling.

8.08 hours (502.4) BAEA 10 (208), RLHA 1 (36), GOEA 21 (2665), MERL 1 (4) TOTAL 33 (3137)

Sunday, November 11 Vicki Ridge [Day 46] 0945-1645 (Peter Sherrington, assisted by Hilary Atkinson and Gord Petersen observing from the Waterton 61 wellsite). Snow started to fall at dawn and quickly obscured the ridges but at 0930 it became light so we went to the site and found both Vicki Ridge and Kyllö Ridge essentially clear. The ridges remained visible but partially obscured until 1100 when heavier snow returned and the ridges again disappeared. At 1300 the snow abruptly stopped and within minutes both ridges were clear and by 1310 cloud cover was 40% cumulus and there was hazy sunshine. The temperature at 0945 was -4C, the high was -3C at 1400 and 1500 and it was -6C at 1645 under a completely cloudless sky. Winds were variable light to calm all day. The first migrant was an adult female *columbarius* Merlin that flew low and rapidly to the south on the western flank of Vicki Ridge at 1326 but the main movement of 25 of the day's 27 migrants occurred between 1339 and 1524 and involved 19 Bald Eagles (10a, 2sa, 7j), 1 light morph Rough-legged Hawk and 5 adult Golden Eagles. Most of the birds soared high above the valley between the two ridges and drifted and glided slowly to the south and up to 7 birds were seen at one time. The only other migrant was an unidentified eagle that flew south at 1608 against the face of the setting sun. Four geese that flew high from NE to SW over Kyllö Ridge at 1611 were probably Greater White-fronted Geese, and other birds seen were 1 Canada Jay, 10 Common Ravens, 1 American Robin that flew high to the NW, 14 Bohemian Waxwings, 12 Grey-crowned Rosy-Finches and 4 Red Crossbills.

7 hours (398.7) BAEA 19 (408), RLHA 1 (433), GOEA 5 (2628), UE 1 (6), MERL 1 (21) TOTAL 27 (4598)

Sunday, November 11 Steeples [Day 47] 1200-1700 (Vance Mattson). The temperature was 1C, conditions were calm, cloud cover was 60-40% stratus and cumulus and once again the ridge was obscured although it was otherwise a sunny day. A total of 7 adult eagles, 1 Bald Eagle and 6 Golden Eagles, moved sporadically low to the south in front of the ridge and beneath the cloud between 1322 and 1548. Soaring birds at times disappeared into the base of the cloud before gliding south in front of the shrouded ridge.

5 hours (202) BAEA 1 (116), GOEA 6 (176) TOTAL 7 (484)

Monday, November 12 Mount Lorette [Day 50] 0720-1640 (George Halmazna, assisted by Dan Parliament). The starting temperature was -7C, the high was -2C (1400-1600) and it was -3C at 1640. Ground winds were W 1-3 km/h to 1400, then NW 5-15 km/h to 1600 and finally SE 5-15 km/h. Ridge winds were difficult to assess but were probably SW light to moderate. Cloud cover was initially 70% altostratus that reached 100% from 0900 to 1100 and rapidly cleared to 10% cirrus to 1400 after which the rest of the afternoon saw up to 60% altostratus and lenticular cloud. The ridges were clear all day. The count of 12 eagles was 2 Bald Eagles (1a, 1j) and 10 Golden Eagles (8a, 1sa, 1u) that glided along the Fisher Range ridge or flapped against the face of the ridge between 1158 and 1604. The maximum hourly count was 5 adult Golden Eagles between 1500 and 1600. The usual non-migrant adult Bald Eagle was still present and other birds seen were 1 Ruffed Grouse 1 Canada Jay, 1 Black-billed Magpie, 7 Common Ravens, 3 Black-capped Chickadees, 1 Mountain Chickadee and 6 White-winged Crossbills. Fifteen visitors came to the site today.

9.33 hours (511.7) BAEA 2 (210), GOEA 10 (2675) TOTAL 12 (3149)

Monday, November 12 Vicki Ridge [Day 47] 0745-1700 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). The temperature at 0745 was -3C, the high was 2C at 1400 and 1500 and it was 0C at 1700. Winds were W all day, 30-40 gusting 50-70 km/h that made observing somewhat uncomfortable. Cloud cover was altocumulus and cirrus all day generally between 30 and 80% but only 10% around 1400, that gave excellent observing conditions throughout. There was a strong and persistent late-season raptor movement involving 70 birds of 5 species that migrated mainly high above Vicki Ridge between 0755 and 1612. The count was 14 Bald Eagles (8a, 3sa, 2j, 1u), 4 adult Northern Goshawks, 2 adult Red-tailed Hawks (1 light *calurus* and 1 dark *harlani*), 1 light morph Rough-legged Hawk and 49 Golden Eagles (42a, 4sa, 3j). The combined-species total of 70 was the highest at the site since October 30, and the Golden Eagle total of 49 was the highest since October 25. The highest hourly count was 14 between 0800 and 0900 and 41 birds had been counted by noon. Resident raptors were the Golden Eagle family group

(2a and 1j) and other birds seen were 4 Clark's Nutcrackers, 2 Black-billed Magpies, 30 Common Ravens, 16 Grey-crowned Rosy-Finches, 20 Red Crossbills and 32 Common Redpolls.

9.25 hours (407.9) BAEA 14 (422), NOGO 4 (101), RTHA 2 (176), RLHA 1 (434), GOEA 49 (2677) TOTAL 70 (4668)

Monday, November 12 Steeples [Day 48] 1230-1700 (Vance Mattson). The temperature ranged from 1C to -1C, conditions were calm and cloud cover was 100% altostratus, stratus and altocumulus that obscured the ridges all day. The only migrant seen was 1u *columbarius* Merlin that flew south in powered flight at 1357, and no resident birds were seen.

4.5 hours (206.5) MERL 1 (3) TOTAL 1 (485)

Tuesday, November 13 Mount Lorette [Day 51] 0815-1630 (Blake Weis, assisted by Katherine Peterson). The temperature at 0815 was -2C and the high was 3C from 1400 to 1630. Ground winds were variable 0-10 km/h all day that gusted 15-20 km/h to 1600, and ridge winds were W-SW moderate to strong all day. Cloud cover was initially 100% cirrostratus, altostratus, altocumulus and cirrus that diminished to 40% cirrus and altocumulus at 1100 before increasing again to 100% cirrostratus, altostratus, cirrus and altocumulus from 1400 to 1630. All ridges were clear, but only 5 migrant eagles were seen: 2 Bald Eagles (1a, 1j) and 3 Golden Eagles (1sa, 2u), that moved between 0947 and 1509. The 2 Bald Eagles and 1 Golden Eagle moved to the west of the site, and the other 2 Golden Eagles used the Fisher Range to the east. An adult Bald Eagle and an adult Northern Goshawk were non-migrants. Other birds identified were 1 female Common Merganser on the river, 1u Northern Shrike, 4 Canada Jays, 1 Clark's Nutcracker, 12 Common Ravens, 1 Black-capped Chickadee, 3 Brown Creepers, 1 Golden-crowned Kinglet, 47 Common Redpolls, 1 White-winged Crossbill and 5 Pine Siskins. There were only 2 visitors today.

8.25 hours (520) BAEA 2 (212), GOEA 3 (2678) TOTAL 5 (3154)

Tuesday, November 13 Vicki Ridge [Day 48] 0800-1700 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite). The temperature at 0800 was 1C the high at 1300 and 1400 was 6C and it was 3C at 1700. Winds were W 30-40 gusting to 65 km/h in the morning and WSW 40-60 gusting to 90 km/h in the afternoon. Cloud cover was 100% altostratus and lenticular to 1130, 70-80% altostratus, altocumulus and cirrostratus to 1300 and then 100% altostratus and altocumulus for the rest of the day. A total of 19 migrant raptors of 4 species moved between 0816 and 1623 comprising 2 adult Bald Eagles, 1 adult female Northern Goshawk, 15 Golden Eagles (13a, 2u) and 1 male Prairie Falcon. Twelve birds were seen before 1200 but afternoon movement was light and sporadic as the wind velocity increased. The resident Golden Eagle family group (2a and 1j) were still present and other birds seen were 3 Clark's Nutcrackers,

2 Black-billed Magpies, 25 Common Ravens, 1 Red-breasted Nuthatch, 25 Red Crossbills and 55 Common Redpolls.

9 hours (416.9) BAEA 2 (424), NOGO 1 (102), GOEA 15 (2692), PRFA 1 (10) TOTAL 19 (4687)

Tuesday, November 13 Steeples [Day 49] 1315-1615 (Vance Mattson, observing from Diorite Creek). The mountains at the Bill Nye site were again heavily shrouded but it was clear to the north so Vance observed from a new site, "Diorite Creek", which is 27 km to the north along the same range and just north of Premier Lake. The temperature reached 4C, conditions were calm and cloud cover was 50% altostratus, cumulus and stratus that gave periods of sunshine. The only migrant seen was a juvenile Golden Eagle at 1408. Non-migrant birds were a juvenile Bald Eagle, and an adult Golden Eagle that soared and hunted over the flank of Diorite Mountain.

3 hours (209.5) GOEA 1 (177) TOTAL 1 (486)

Wednesday, November 14 Mount Lorette [Day 52] Hay Meadow 0815-1500, Lusk Creek 1615-1650 (Blake Weis, assisted by Heinz Unger). The temperature at 0815 was 2C, the high was 4C (1100-1300) and it was 1C when heavy snow ended observation at Hay Meadow, and when Blake resumed the count at Lusk Creek. Ground winds to 1100 were variable 0-10 gusting 15 km/h and then were W-SW 5-10 gusting 20 and occasionally 50 km/h. Ridge winds were moderate to strong W-NW to 1200 and then W-SW. Cloud cover was initially 50% altocumulus, altostratus, cumulus, cirrus and cirrostratus that increased to 100% from 1200 to 1300 when 100% stratocumulus developed that obscured all ridges and brought moderate snow that became heavy at 1500 when the Hay Meadow count ended for the day. A total of 11 migrant raptors of 3 species were counted between 0924 and 1212 comprising 3 Bald Eagles (2a and 1 undifferentiated immature), 1u Northern Goshawk and 7 Golden Eagles (4a, 3u). All the eagles moved at varying heights along the Fisher Range and maximum hourly counts were 4 between 1000 and 1100 and again between 1100 and 1200. Around 1600 the snow stopped and Blake went to the Lusk Creek site between 1615 and 1650 where the highest foothills ridge was clear and recorded a further 3 migrants: 1 adult Bald Eagle, 1u Northern Goshawk and 1u Golden Eagle. An adult resident Northern Goshawk soared near the Hay Meadow site at 1310, and other birds near the site were a pair of Mallards that flew low to the south above the river, 1u Northern Shrike, 4 Canada Jays, 1 Black-billed Magpie, 2 Clark's Nutcrackers that flew low to the south, 6 Common Ravens, 3 Black-capped, 3 Mountain and 1 Boreal Chickadee, 12 Bohemian Waxwings, 520 Common Redpolls, most of which were south-bound migrants, 112 White-winged Crossbills, 11 Pine Siskins and 3u Dark-eyed Juncos. Six visitors arrived at the site before the snow started to fall. Tomorrow will be the last day of the fall 2018 count.

7.33 hours (527.3) BAEA 4 (216), NOGO 2 (37), GOEA 8 (2686) TOTAL 14 (3168)

Wednesday, November 14 **Vicki Ridge** [Day 49] 0745-1645 (Peter Sherrington, assisted by Hilary Atkinson observing from the Waterton 61 wellsite, and Gord Petersen observing from the Waterton 68 wellsite, 1415-1600). The temperature at 0745 was 3C, the high was 5.5C at 1300 and it was 0C at 1645. Winds were strong W all day 40-50 gusting 60-70 km/h apart from 1400 and 1500 when they were WSW 60 gusting 80-90 km/h. Cloud cover was initially 20% altocumulus and cirrus to 0900 when it increased to 50% altostratus, altocumulus, cumulus and cirrus that reached 100% at 1100. Between 1200 and 1410 cloud cover was 60-80% cirrostratus, altostratus and altocumulus, but at 1410 stratus cloud quickly moved from the west that brought snow until 1630 when the sky quickly cleared to 30% cumulus. The ridges were partially obscured between 1410 and 1540 and then completely obscured to 1630. There was another fairly strong late-season raptor movement of 30 birds of 3 species between 0804 and 1525 that comprised 7 adult Bald Eagles, 1 light morph Rough-legged Hawk, 21 Golden Eagles (15a, 2sa, 1j, 3u) and 1 unidentified eagle. The total includes 4 Golden Eagles (2a, 2u) seen by Gord Petersen between 1429 and 1525 at the western edge of Kylo Ridge near the Waterton 68 wellsite. The maximum hourly count was 8 between 1000 and 1100 and the last 8 birds moved through steady light snow before heavy snow at 1530 brought all movement to an end. Other birds were scarce apart from about 70 Common Ravens which were continuously in the air until the snow arrived, attracted to the area by gut-piles from recently hunted deer. Tomorrow will be the last day of the fall 2018 count.

9 hours (425.9) BAEA 7 (431), RLHA 1 (435), GOEA 21 (2713), UE 1 (7) TOTAL 30 (4717)

Wednesday, November 14 **Steeple** [NO OBSERVATION] (Vance Mattson). It was consistently overcast with periodic rain all day. Tomorrow will be the last day of the fall 2018 count.

Thursday, November 15 **Mount Lorette** [Day 53] 0800-1900 (Cliff Hansen, assisted by Rick Robb). The temperature at 0800 was -1C, the high was 4C (1200-1400) and it was 3C at 1700. Ground winds were S 0-8 gusting to 25 km/h at 1600 and ridge winds were moderate SSW. Cloud cover was 100% stratus and cumulus at the start and then 70-90% stratus, cumulus and stratocumulus for the rest of the day. The east ridges were clear all day and the west was clear to 1200 when it was 10% obscured and gradually increased to 50% by 1700. The only migrant raptors seen were 2 Golden Eagles gliding above the Fisher Range ridge: an adult at 1038 and an unaged bird at 1528. The path to the site early in the morning revealed the tracks of 3 Grey Wolves, 1 Red Fox and 1 Coyote that led to the carcass of a freshly killed White-tailed Deer on a gravel bar in the river south of the Hay Meadow site. Perched in adjacent trees were 3 adult Bald Eagles and a juvenile Bald Eagle was perched on the gravel bar, while 2 more Bald Eagles (1a, 1sa) were perched in trees farther south along the river. Ten ravens and 2 magpies were also in attendance. By 1600 the carcass had been entirely consumed. Other birds seen were 1 Belted Kingfisher, 4 Canada Jays, 1 Pacific Wren, 15 Lapland Longspurs and 6 White-winged Crossbills. Seven visitors were at the site today. The spring 2019 count at Mount Lorette will start on March 1.

9 hours (536.3) GOEA 2 (2688) TOTAL 2 (3170)

Mount Lorette November Summary (November 1-15), with variances to 1993-2017 averages (excluding 1997, 2002, 2006, 2007 and 2008). 15 days (+5.9%), 137.1 hours (+6.4%), Turkey Vulture 0, Osprey 0, Bald Eagle 55 (-26.5%), Northern Harrier 0, Sharp-shinned Hawk 3 (+39%), Cooper's Hawk 0, Northern Goshawk 3 (-52.1%), UA 0, Broad-winged Hawk 0, Swainson's Hawk 0, Red-tailed Hawk 0, Ferruginous Hawk 0, Rough-legged Hawk 1 (-83.6%), UB 0, Golden Eagle 172 (-24.5%), UE 2 (+90%), American Kestrel 0, Merlin 1 (+137.5%), Gyrfalcon 0, Peregrine Falcon 0, Prairie Falcon 0, UF 0, UU 0 TOTAL 237 (-26.8%).

Mount Lorette Final Count Summary (November 1-15), with variances to 1993-2017 averages (excluding 1997, 2002, 2006, 2007 and 2008). 53 days (-2.7%), 536.3 hours (-4.5%), Turkey Vulture 0, Osprey 3 (+11.1%), Bald Eagle 217 (-8.3%), Northern Harrier 7 (-32.0%), Sharp-shinned Hawk 69 (-48.8%), Cooper's Hawk 7 (-68.8%), Northern Goshawk 37 (-15.2%), UA 8 (+19.4%), Broad-winged Hawk 1 (-83.3%), Swainson's Hawk 1 (+185.7%), Red-tailed Hawk 27 (-18.9%), Ferruginous Hawk 0 (-100%), Rough-legged Hawk 36 (-28.8%), UB 5 (+31.6%), Golden Eagle 2698 (-21.6%), UE 35 (+809.1%), American Kestrel 0 (-100%), Merlin 4 (-47.7%), Gyrfalcon 2 (-29.8%), Peregrine Falcon 2 (-66.7%), Prairie Falcon 3 (+36.4%), UF 4 (+158.1%), UU 4 (+1.3%) TOTAL 3170 (-21%).

Thursday, November 15 Vicki Ridge [Day 50] 0800-1700 (Peter Sherrington, assisted by Hilary Atkinson and Troy Malish observing from the Waterton 61 wellsite, and Gord Petersen observing from the Waterton 68 wellsite, 1235-1635). The temperature at 0800 was 1C, the high at 1200 was 5C and it was 3C at 1700. Winds were W-WSW all day 40-50 gusting 70 km/h and were sustained 60-70 km/h for the last 2 hours. Cloud cover was 70-100% altostratus, cumulus, altocumulus and cirrus all day that provided mainly gloomy conditions. There was a fairly strong raptor movement for the last day of the count with 38 birds of 4 species moving between 0823 and 1617 comprising 14 Bald Eagles (8a, 2sa, 4j), 1 adult Northern Goshawk, 1 light morph Rough-legged Hawk and 22 Golden Eagles (17a, 1sa, 2j, 2u). The total includes 18 raptors seen by Gord Petersen between 1244 and 1617 at the western edge of Kylllo Ridge near the Waterton 68 wellsite, that comprised 7 Bald Eagles (8a, 1sa), 1 adult Northern Goshawk, 1 light morph Rough-legged Hawk and 9 Golden Eagles (6a, 1j, 2u). During the same period that coincided with the strongest winds of the day only 5 migrants were seen from the Waterton 61 site. Movement was slow and sporadic throughout the day and the highest hourly count was 9 between 1500 and 1600. The resident Golden Eagle family group (2a and 1j) were seen throughout the day and other birds seen were 1 female Hairy Woodpecker, 95 Common Ravens, 4 Clark's Nutcrackers, 40 Grey-crowned Rosy-Finches, 18 Red Crossbills and 32 Common Redpolls.

9 hours (434.9) BAEA 14 (445), NOGO 1 (103), RLHA 1 (436) GOEA 22 (2735) TOTAL 38 (4755)

Vicki Ridge November Summary (November 1-15), with 2017 totals in parenthesis. 15 days, (12 days), 117.1 hours (86.1 hours) Turkey Vulture 0 (0), Osprey 0 (0), Bald Eagle 131 (153), Northern Harrier 0 (0), Sharp-shinned Hawk 1 (1), Cooper's Hawk 0 (0), Northern Goshawk 10

(11), UA 0 (0), Broad-winged Hawk 0 (0), Swainson's Hawk 0 (0), Red-tailed Hawk 3 (0), Ferruginous Hawk 0 (0), Rough-legged Hawk 34 (28), UB 0 (1), Golden Eagle 245 (195), UE 2 (4), American Kestrel 0 (0), Merlin 1 (0), Gyrfalcon 1 (2), Peregrine Falcon 0 (0), Prairie Falcon 5 (1), UF 0 (0), UU 0 (0) TOTAL 433 (396)

Vicki Ridge Final Count Summary (September 20-November 15), with 2017 totals in parenthesis. 50 days (52 days), 434.9 hours, (418.9 hours) Turkey Vulture 0 (0), Osprey 8 (11), Bald Eagle 445 (350), Northern Harrier 15 (19), Sharp-shinned Hawk 627 (751), Cooper's Hawk 74 (94), Northern Goshawk 103 (109), UA 7 (6), Broad-winged Hawk 24 (33), Swainson's Hawk 2 (1), Red-tailed Hawk 176 (234), Ferruginous Hawk 8 (6), Rough-legged Hawk 436 (515), UB 25 (19), Golden Eagle 2735 (2001), UE 7 (18), American Kestrel 12 (21), Merlin 21 (20), Gyrfalcon 5 (5), Peregrine Falcon 9 (17), Prairie Falcon 10 (5), UF 2 (2), UU 4 (0) TOTAL 4755 (4237)

Thursday, November 15 Steeples [Day 50] 1315-1615 (Vance Mattson). The temperature was 6C, winds were strong S-SW, cloud cover was 100% stratus, altostratus and cumulus and the ridges were clear. No migrants were seen but at 1315 an adult resident Golden Eagle soared in the high winds above the ridge.

3 hours (212.5) TOTAL 0 (486)

Steeples November Summary (November 1-15), with 2017 totals in parenthesis. 13 days (9 days), 52.75 hours (37 hours), Turkey Vulture 0 (0), Osprey 0 (1), Bald Eagle 25 (67), Northern Harrier 0 (3), Sharp-shinned Hawk 0 (0), Cooper's Hawk 0 (0), Northern Goshawk 2 (1), UA 0 (0), Broad-winged Hawk 0 (0), Swainson's Hawk 0 (0), Red-tailed Hawk 0 (1), Ferruginous Hawk 0 (0), Rough-legged Hawk 0 (5), UB 0 (0), Golden Eagle 33 (36), UE 0 (2), American Kestrel 0 (0), Merlin 1 (0), Gyrfalcon 0 (0), Peregrine Falcon 0 (0), Prairie Falcon 0 (0), UF 0 (0) TOTAL 61 (116)

Steeples Final Count Summary (September 20-November 15), with 2017 totals in parenthesis. 50 days (41 days), 212.5 hours (185 hours) Turkey Vulture 1 (1), Osprey 2 (7), Bald Eagle 116 (276), Northern Harrier 14 (16), Sharp-shinned Hawk 72 (78), Cooper's Hawk 4 (1), Northern Goshawk 8 (13), UA 0 (0), Broad-winged Hawk 3 (5), Swainson's Hawk 0 (0), Red-tailed Hawk 75 (51), Ferruginous Hawk 0 (0), Rough-legged Hawk 3 (15), UB 0 (1), Golden Eagle 177 (146), UE 2 (3), American Kestrel 3 (8), Merlin 3 (2), Gyrfalcon 1 (0), Peregrine Falcon 1 (2), Prairie Falcon 0 (0), UF 0 (0) UU 1 (0) TOTAL 486 (625).

SUMMARY COUNTS, FALL 2018

	MOUNT LORETTE September 20- November 15	VICKI RIDGE September 20- November 15	STEEPLES September 20- November 15
<i>DAYS</i>	53	50	50
<i>HOURS</i>	536.3	434.9	212.5
TURKEY VULTURE (TUVU)	0	0	1
OSPREY (OSPR)	3	8	2
BALD EAGLE (BAEA)	216	445	116
NORTHERN HARRIER (NOHA)	7	15	14
SHARP-SHINNED HAWK (SSHA)	68	627	72
COOPER'S HAWK (COHA)	7	74	4
NORTHERN GOSHAWK (NOGO)	37	103	8
<i>Accipiter sp.</i> (UA)	8	7	0
BROAD-WINGED HAWK (BWHA)	1	24	3
SWAINSON'S HAWK (SWHA)	1	2	0
RED-TAILED HAWK (RTHA)	27	176	75
FERRUGINOUS HAWK (FEHA)	0	8	0
ROUGH-LEGGED HAWK (RLHA)	36	436	3
<i>Buteo sp.</i> (UB)	5	25	0

GOLDEN EAGLE (GOEA)	2688	2735	177
Eagle sp. (UE)	31	7	2
AMERICAN KESTREL (AMKE)	0	12	3
MERLIN (MERL)	4	21	3
GYRFALCON (GYRF)	2	5	1
PEREGRINE FALCON (PEFA)	2	9	1
PRAIRIE FALCON (PRFA)	3	10	0
<i>Falco sp.</i> (UF)	4	2	0
Unidentified Raptor (UU)	4	4	1
TOTALS	3154	4755	486