

From: [Turner, Ed](#)
To: [Betty Grizzle](#)
Subject: Den's Snow
Date: Wednesday, February 1, 2017 3:30:27 PM
Attachments: [Dens Google Snow Check.xlsx](#)

Hi Betty, This is what I could get for the imagery that was available at each den site from Google Earth.

Again, Some of the dens seem to be duplicate records in the ID F&G data and then in USFS data.

Hope this helps a bit, tried to note the terrain of the den area.

See Snow_Cover and DUP fields

Ed

--

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Observers

WOLVERINE

SCOTT LULA

WOLVERINE

BETH WATERBURY

WOLVERINE

BETH WATERBURY

WOLVERINE

BETH WATERBURY

WOLVERINE IN A TRIBUTARY OF WEST TARGHEE CRE KIMBERLY HEINEMEYER

WOLVERINE IN A TRIBUTARY OF WEST TARGHEE CRE KIMBERLY HEINEMEYER

WOLVERINE GLACIER PARK DENS FROM THE 2000'S JEFF COPELAND

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WOLVERINE IDAHO SAWTOOTH DENS FROM THE 19 JEFF COPELAND

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WOLVERINE IDAHO SAWTOOTH DENS FROM THE 19 JEFF COPELAND
 WOLVERINE NONE LISTED NORMAN, BEN (UNKNOWN)
 WOLVERINE NONE LISTED (MIGRATED), JIM MINEAU (UNKNOWN)
 WOLVERINE NONE LISTED LULA, SCOTT (UNKNOWN), LEWIS, BOB (UNKNOWN)
 WOLVERINE NONE LISTED WATERBURY, BETH (EXPERIENCED)
 WOLVERINE 1 KM NW OF MOUNT BALDY LOCATION NORMAN, BEN
 WOLVERINE 4.3 KM SE OF THE TOWN OF BEAR DAN WOODS, D.
 WOLVERINE 0.7 KM N OF BAREE LAKE LOCATION U MINEAU, JIM
 WOLVERINE 0.3 KM SW OF RUMBLE CREEK LAKE LO JOHNSON, KURT
 WOLVERINE SACAGAWEA PEAK, SADDLE NW OF PEABESS, JIM
 WOLVERINE LOCATION UNCERTAINTY 1/4 MILE (QU STREAM, L/WDFW; MILLER, P/WDFW
 WOLVERINE LOCATION UNCERTAINTY 1/4 MILE (QU FITKIN, S/WDFW
 WOLVERINE TIPSOO PEAK APPROX. 0.7MI NW OF TI FARRELL, TERRY, RAY DAVIS AND BILL WOODS.
 WOLVERINE VICINITY OF MOUNT BARCROFT, IN THE NONE LISTED
 WOLVERINE JUST NW OF TOEJAM LAKE, STANISLAU NONE LISTED
 WOLVERINE N OF MT SILLIMAN (ALSO MAPPED AT T NONE LISTED
 WOLVERINE SOUTH SIDE OF VANDEVER MOUNTAIN NONE LISTED

[illegible]

RESEARCHER	FIELD WORK	JEFF COPELAND	1
UNKNOWN	VISUAL	NONE LISTED	1
UNKNOWN	VISUAL	NONE LISTED	1
UNKNOWN	TRACK	NONE LISTED	1
EXPERIENCED	IN HAND	NONE LISTED	1
NONE LISTED	VISUAL	NONE LISTED	1
NONE LISTED	VISUAL	NONE LISTED	1
NONE LISTED	VISUAL	NONE LISTED	1
NONE LISTED	VISUAL	NONE LISTED	1
NONE LISTED	VISUAL	NONE LISTED	1
NONE LISTED	VERIFIED METHOD	WDFW SURVEY	1
NONE LISTED	VERIFIED METHOD	WDFW SURVEY	1
NONE LISTED	VISUAL	NONE LISTED	1
NONE LISTED	VISUAL	NONE LISTED	1
NONE LISTED	VISUAL	NONE LISTED	1
NONE LISTED	VISUAL	NONE LISTED	1
NONE LISTED	VISUAL	NONE LISTED	1

FWS_SOURCE	FWS_LINK	DATE	DEN_TYPE	STRUCTURE
IFWIS_JULY2016_WOLVERINE	38	20060115	NONE LISTED	NONE LISTED
IFWIS_JULY2016_WOLVERINE	42	20080518	NONE LISTED	NONE LISTED
IFWIS_JULY2016_WOLVERINE	43	20080518	NONE LISTED	NONE LISTED
IFWIS_JULY2016_WOLVERINE	44	20080518	NONE LISTED	NONE LISTED
IFWIS_JULY2016_WOLVERINE	633	-9	NONE LISTED	NONE LISTED
IFWIS_JULY2016_WOLVERINE	634	-9	NONE LISTED	NONE LISTED
GLACIER_DENS_84	1	20030400	NATAL	LOG COMPLEX
GLACIER_DENS_84	2	20030500	MATERNAL	LOG COMPLEX
GLACIER_DENS_84	3	20040400	NATAL	LOG COMPLEX
GLACIER_DENS_84	4	20040400	MATERNAL	DOWN LOG
GLACIER_DENS_84	5	20040500	MATERNAL	LOG/BOULDEF
GLACIER_DENS_84	6	20050300	NATAL	SPIDER TREE
GLACIER_DENS_84	7	20050400	MATERNAL	SPIDER TREE
GLACIER_DENS_84	8	20050500	MATERNAL	SPIDER TREE
GLACIER_DENS_84	9	20060400	UNCONFIRME	LOG COMPLEX
GLACIER_DENS_84	10	20060300	UNCONFIRME	UNK
GLACIER_DENS_84	11	20060400	UNCONFIRME	UNK
GLACIER_DENS_84	12	20060500	NATAL	LOG COMPLEX
GLACIER_DENS_84	13	20060500	MATERNAL	LOG COMPLEX
GLACIER_DENS_84	14	20070500	NATAL	BOULDER/LOG
IDAHO_DENS_WGS84	1	19900000	NONE LISTED	NONE LISTED
IDAHO_DENS_WGS84	2	19900000	NONE LISTED	NONE LISTED
IDAHO_DENS_WGS84	3	19900000	NONE LISTED	NONE LISTED
IDAHO_DENS_WGS84	4	19900000	NONE LISTED	NONE LISTED
IDAHO_DENS_WGS84	5	19900000	NONE LISTED	NONE LISTED
IDAHO_DENS_WGS84	6	19900000	NONE LISTED	NONE LISTED
IDAHO_DENS_WGS84	7	19900000	NONE LISTED	NONE LISTED

IDAHO_DENS_WGS84	8	19900000	NONE LISTED	NONE LISTED
USFS_NRIS_FW_OBS	197	19810901	NONE LISTED	NONE LISTED
USFS_NRIS_FW_OBS	227	19980330	NONE LISTED	NONE LISTED
USFS_NRIS_FW_OBS	417	20060115	NONE LISTED	NONE LISTED
USFS_NRIS_FW_OBS	422	20080518	NONE LISTED	NONE LISTED
MT_NHP_SO_20160706	1163	19810901	NONE LISTED	NONE LISTED
MT_NHP_SO_20160706	1218	19930628	NONE LISTED	NONE LISTED
MT_NHP_SO_20160706	1287	19980330	NONE LISTED	NONE LISTED
MT_NHP_SO_20160706	1355	20020615	NONE LISTED	NONE LISTED
MT_NHP_SO_20160706	1596	19910715	NONE LISTED	NONE LISTED
WA_DFW_PHS_201605	8	19920611	NONE LISTED	NONE LISTED
WA_DFW_PHS_201605	105	20020302	NONE LISTED	NONE LISTED
ORBIC_INDEPENDENT_20161107	169	19970308	NONE LISTED	NONE LISTED
CNDDDB_WOLVERINE_CENTROIDS	62	19770000	NONE LISTED	NONE LISTED
CNDDDB_WOLVERINE_CENTROIDS	162	19960713	NONE LISTED	NONE LISTED
CNDDDB_WOLVERINE_CENTROIDS	51	19090910	NONE LISTED	NONE LISTED
CNDDDB_WOLVERINE_CENTROIDS	147	19180918	NONE LISTED	NONE LISTED

TOTAL_DETE

FWS_YEAR FWS_

-9 2006 2000

-9 2008 2000

-9 2008 2000

-9 2008 2000

-9 -9 -9

-9 -9 -9

-9 2003 2000

-9 2003 2000

-9 2004 2000

-9 2004 2000

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-9 2006 2000

-9 2006 2000

-9 2007 2000

-9 1990 1990

-9 1990 1990

-9 1990 1990

-9 1990 1990

-9 1990 1990

-9 1990 1990

-9 1990 1990

-9	1990	1990
1	1981	1980
1	1998	1990
1	2006	2000
3	2008	2000
1	1981	1980
1	1993	1990
1	1998	1990
1	2002	2000
1	1991	1990
-9	1992	1990
-9	2002	2000
-9	1997	1990
-9	1977	1970
-9	1996	1990
-9	1909	1900
-9	1918	1910

Comments_A

WOLVERINE TRACKS AND POSSIBLE DEN SITE ENCOUNTERED BY OBSERVERS, SCOTT LULA AND BOB LEWIS, JUST

MATERNAL DEN SITE. SUBALPINE CONIFER WITH MIX OF WHITEBARK PINE, WHITE FIR AND ENGELMANN SPRUCE '

MATERNAL DEN SITE. KIT WAS APPROXIMATELY 7 LBS AND ESTIMATED AT 11-12 WEEKS OLD. IMPLANTED WITH F

MATERNAL DEN SITE. KIT WAS APPROXIMATELY 7 LBS. AND ESTIMATED TO BE 11-12 WEEKS OLD. IMPLANTED WI
THE OBSERVERS REPORTED THAT THIS LOCATION IS LIKELY A REPRODUCTIVE DEN, AS EVIDENCED BY THE EXTENS
AT LEAST 3 DENS IN THE AREA, WITH ONE DEN HAVING A HIGH PROBABILITY OF HOUSING KITS, WHILE OTHER SIT

GLACIER PARK DENS FROM THE 2000'S

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HISTORIC WOLVERINE DEN AT BALDY BASIN HIGH QUALITY SIGHTING: QUALIFIED OBSERVER, PHYSICAL EVIDENCE, WOLVERINE TRACKS OBSERVED ALONG BAREE LAKE TRAIL (#489) JUST INSIDE WILDERNESS BOUNDARY; FOLLOW WOLVERINE TRACKS AND POSSIBLE DEN SITE ENCOUNTERED BY OBSERVERS JUST INTO IDAHO SIDE OF CONTINENTAL WOLVERINE MATERNAL DEN; CAPTURE AND RADIO-TRANSMITTER IMPLANTING PROJECT; FEMALE AND 2 KITS LC ACTIVITY: OTHER GROUP TYPE: SINGLE REPRODUCTIVE STATUS: UNKNOWN OBSERVATION COMMENTS: HISTORIC WOLVERINE DEN GROUP TYPE: SINGLE REPRODUCTIVE STATUS: UNKNOWN OBSERVATION COMMENTS: VIEW SCALE AT DATA ENTRY ACTIVITY: OTHER GROUP TYPE: SINGLE REPRODUCTIVE STATUS: UNKNOWN OBSERVATION COMMENTS: WOLVERINE DEN ACTIVITY: MOVING GROUP TYPE: SINGLE REPRODUCTIVE STATUS: UNKNOWN OBSERVATION COMMENTS: VIEW WOLVERINE SPOTTED RUNNING FROM A DEN SITE. DEN LOCATED UNDER KRUMMHOLZ SPRUCE ON ALPINE TUNDRA WOLVERINE DEN LOCATED NEAR AMERICAN LAKE ON EAST FACING SLOPE SOUTH OF CLIFF LINE. DEN LOCATED IN WOLVERINE NATAL DEN OBSERVED DURING AERIAL WOLVERINE DEN SURVEY. WOLVERINE TRACKS LOCATED AND VISUAL SIGHTING OF WOLVERINE TRACKS, CONFIRMED BY JEFF COPELAND, IDFG. POTENTIAL DEN SITE. DOCUMENT TWO OBSERVED TOGETHER, APPROXIMATELY 1.1 KM NORTH OF BARCROFT; ONE ANIMAL WAS SLIGHTLY SMALLER ON 13 JULY 1996, ONE MATURE ADULT WAS OBSERVED AT THE BASE OF A SILVER PINE, NEAR A LARGE DUGOUT, OBSERVATION 10 SEP 1909. MVZ SPECIMEN (#30049) COLLECTED 8 AUG 1919 BY E.W. MCDONALD., IN 1937 GRINNELL SIGN OBSERVED., IN 1937 GRINNELL AND OTHERS

Snow_Cover

No snow imagery, along dirt road in trees

No snow imagery May, snow June 2016, treed slope with double track aprox. 170' NW

No snow imagery May, snow June 2016, treed slope with double track aprox. 170' NW

No snow imagery May, snow June 2016, treed slope with double track aprox. 170' NW

No snow imagery May, snow June 8, 2013, in drainage flanked by steep ridge, rocks and sage

No snow imagery May, snow June 8, 2013, in drainage flanked by steep ridge, rocks and sage

No snow imagery, slight clearing in dense tree slope, east flank of large slope valley

No snow imagery, slight clearing in dense tree slope with some boulders, east flank of large slope valley

Snow patches in vicinity May 30, 2015, treed and rock slopes of Haystack Hump, Logan Pass

Snow patches in vicinity May 30, 2015, treed and rock slopes of Haystack Hump, Logan Pass

Snow patches in vicinity May 30, 2015, treed and rock slopes of Haystack Hump, Logan Pass

Snow May 30, 2015, treed slopes of Cataract Creek Meadow

Snow May 30, 2015, treed slopes of Cataract Creek Meadow

Snow May 30, 2015, treed slopes of Cataract Creek Meadow

No snow imagery, slope historically prone to slide but no clear Avy chute, in trees as of May 2015, prior years tree

No snow imagery, Avy apron with unconsolidated boulders 15' in size or larger

Snow May 30, 2015, Extreme steep hard rock face access seems unlikely

No snow imagery, dense tree drainage, in cirque of Falling Leaf Lake

No snow imagery, dense tree drainage, in cirque of Falling Leaf Lake

No snow imagery May, snow in vicinity Aug 2015, On steep rock terrace / cliff of Grinnell Glacier

No snow imagery in May, Snow Oct 25, 2013, steep ridge above Horseshoe Lk, sparse trees and builders

No snow imagery in May, Snow Oct 25, 2013, sloped meadow type drainage above lake and below trees and Avy |

No snow imagery in May, Snow Oct 25, 2013, den in sparse sloped tree drainage area between small lakes

No snow imagery on slope above small drainage with sparse tree cover and small rocks

No snow imagery in May, Snow Oct 25, 2013 flank of bowl with Avy past slides, den in boulders

No snow imagery in May, Snow Oct 25, 2013 flank of slope with small past slides, den small rocks

No snow imagery, sparse treed slope above small lake, with old slides further up peak

No snow imagery, treed flank of basin slope, with past slides adjacent
No snow cover imagery, slight clearing within heavy treed slope on Buckhorn Ridge, 420' N NF-5954 double track
No snow imagery, dense tree slope on Cabinet Mtn Crest, no slide area
No snow imagery, along dirt road in trees
No snow imagery May, snow June 2016, treed slope with double track approx. 170' NW
No snow cover imagery, slight clearing within heavy treed slope on Buckhorn Ridge, 420' N NF-5954 double track
No snow imagery, edge of dense tree low angle slope looks to be historically forested, 580' east of timber road
No snow imagery, dense tree slope on Cabinet Mtn Crest, no slide area
No snow imagery May, Snow in vicinity June 5, 2016, on steep cliff face terrace accessible from above west of Upper
Snow May 31, 2011, on apron of chute east flank of Hardscrabble Ridge
No snow cover imagery for May, snow cover on July 10, 2012, on slope
No snow cover imagery, very rocky slope at apron of Avy Chute
No snow cover imagery for May, snow cover on July 6, 2014, base of small Avy path
Snow in vicinity, loc approx so could be in snow patch May 17, 2013, Dryer White Mtns slope w/ what looks to be
No snow cover imagery, on typical eastern Sierra slope with what looks to be some unconsolidated rock
Snow cover May 30, 2013, Sierra slope with unconsolidated smaller and large slab rocks
Snow cover May 30, 2013, Sierra large steep bowl slope could slide, but no true Avy path

DUP

Possible duplicate same data or two datasets

Possible duplicate same data or two datasets

Possible duplicate same data or two datasets

Possible duplicate same data or two datasets

is off slope

path runout

Possible duplicate same data or two datasets

Possible duplicate same data or two datasets

Possible duplicate same data or two datasets

Possible duplicate same data or two datasets

Possible duplicate same data or two datasets

Possible duplicate same data or two datasets

near Rumble Creek Lake, Swan Ridge

small moonscape unconsolidated rock