Gunnison Sage-grouse Watchable Wildlife Program

Final Report
Gunnison Sage-grouse Watchable Wildlife Program
Waunita Lek
1 April – 10 May 2014

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Gunnison Sage-grouse Watchable Wildlife Program
Waunita Lek Viewing
2014 Summary

Western State Colorado University (Western) and Sisk-a-dee worked with Colorado Parks and Wildlife (CPW) to deliver the Gunnison Sage-grouse Watchable Wildlife Program in spring 2014. The program included four major goals. First, we provided opportunities for individuals and groups to view the Gunnison Sage-grouse, including the coordination of commercial grouse viewing groups. Secondly, we promoted education and awareness regarding the conservation of the Gunnison Sage-grouse through two free tours and evening slide programs open to the public. Third, the Waunita Watchable Wildlife Site was monitored to encourage visitors to adhere to the viewing protocol. Fourth, data were collected concerning human visitation to the Watchable Wildlife Site, as well as grouse abundance and behavior, to determine the impacts of viewing on grouse. The count data were used by CPW for their annual Gunnison Sage-grouse population monitoring effort. Daniel Piquette served as the 2014 coordinator from Western for the monitoring effort, and also prepared the final report.

Seventeen volunteers monitored the Waunita Watchable Wildlife Site from 1 April to 10 May (40 days). Volunteers spent 61 volunteer days and 173.75 hours monitoring Gunnison sage-grouse. Volunteers were present at the lek 40 days out of the 40-day period, and were also present at two orientation dates (27 and 29 March). Including the two training phases, volunteer effort exceeded 227 hours in 79 volunteer days. The first training phase was held on 27 March 2014. Volunteers learned basic lek ecology associated with Gunnison sage-grouse and were introduced to the watchable wildlife program with emphasis on their role as lek monitors and visitor guides. They also learned how to properly fill out data forms and what to expect from the grouse and visitors. The second training phase was held on 29 March 2014. Volunteers visited the Waunita Watchable Wildlife Site early in the morning as a practice run for their individual efforts and were able to develop a search image for the grouse and learn how to count them (timing, strategy). In addition to the volunteer hours associated with lek activities, Dan Piquette invested approximately 220 hours coordinating commercial group visits, coordinating and training volunteers, preparing and giving presentations, analyzing data, and preparing the report for the Watchable Wildlife Program. Pat Magee expended approximately 40 hours on supervision, communicating with the public (Sisk-a-dee inquiries), hosting two educational programs and guiding groups to the lek, and reviewing the report. A total of 487 volunteer hours were contributed to the Gunnison sage-grouse monitoring effort in 2014 at the Waunita lek.

True visitors (visitors not affiliated with Sisk-a-dee, CPW or Western) were present 28 of 40 days the site was monitored (70% of the days within the viewing season {22.5% less than the previous year}). True visitors were present at the lek 11 days less than in the 2013, which saw 37 days of visitor presence. Including the volunteers, there were approximately 357 visitors to the lek in 2014 which is 46 more than in 2013. Of the 357 total visitors, 60 were volunteers and 297 were true visitors. During the 2014 viewing season, approximately 158 true visitors viewed from the trailer, whereas 139 visitors viewed from the parking lot. The watchable wildlife viewing trailer was used by 18 groups. Of these, 11 were commercial or non-profit groups. On average, over 7 true visitors were present at the site per day. A total of 133 vehicles were present at the watchable wildlife site throughout the 2014 viewing season (a few volunteers failed to turn in accurate data sheets with vehicle counts and information so this number is approximate). Volunteer vehicles accounted for 58 of the total vehicles. The highest vehicle count on one day was 11 vehicles on 12 April. The highest number of true visitor vehicles was 9 vehicles on 12 April. An average of 3.3 total vehicles was present per day at the Watchable Wildlife Site, with an average of 1.9 true visitor vehicles present per day. Visitors came from twenty three states in the United

States and five countries outside the United States, including Canada, the Netherlands, Scotland, England, and Sweden.

Sixteen different organizations or groups visited the Waunita lek on 18 days during the 40-day viewing season; two visited more than once and two groups were present on the same day. Eight groups were commercial, nine were private, and one was an Audubon Chapter from Connecticut. Further, Sisk-a-dee organized two free tours for the general public. Two commercial groups made two trips each during the 2014 viewing season. One private group cancelled their reservation two days prior as they were informed the grouse had moved off the lek. Two groups shared the trailer on 7 and 11 April. The groups on 11 April shared the trailer as a result of a miscommunication during scheduling earlier in the year.

Counts for 2014 were highly variable. Patterns of Gunnison sage-grouse distribution and behavior in 2014 changed in comparison to past years. These changes made counting birds more complicated and became frustrating for visitors trying to observe Gunnison sage-grouse. In the beginning of the season the lek was covered in snow and many of the birds were far north of the lek in the cattle pasture and on the hill east of the lek. Most remained in that area all season. Later in the season as a result of flooding (snow melt) many birds were only seen on the high ridge east of the lek (grouse were not observed using the flooded meadow). Therefore, even though birds may have been seen on the hill behind the lek (to the east) many counters did not record those birds on the lek count sheet, nor were flush times recorded as visitors and volunteers left prior to flushing – grouse were over a mile away at times. The high count for males was 19 on 5 April 2014. Females peaked at 14 on 11 April 2014. The high count for both sexes was 44 individuals on 8 April 2014. Gunnison sage-grouse flushed from the Waunita lek an average of 33 minutes after sunrise, compared to the average 21.6 minutes before sunrise in 2013. Flush times were as highly variable as the counts, and much of this variability was associated with distribution. Many of the birds that displayed on the ridge remained long after sunrise. Of the approximate 20 days the grouse occupied the tradition lek site, they flushed before sunrise 30% of the time. Conversely, Gunnison sage-grouse flushed after sunrise on 14 of 20 days (70%). Flush time was recorded when the last grouse had flushed from the lek. Overall there were fewer birds on the lek but they remained longer. Again, grouse on the hill behind and north in the cattle pasture stayed much later -- 8:13 am on 2 April 2014 (sunrise 6:51 am).

Approximately 65% of flushes were not attributable to any disturbance; whereas 17% of flushes were attributed to predators; 4% of the flushes were caused by other reasons such as horses and white-tailed jackrabbits; 13% were related to human disturbances. These data documented disturbances that caused any number of grouse to flush, rather than a full lek flush. It is not unusual for the entire flush of the lek to be attributable to one or more of these factors. During the 2014 viewing season, 129 of 133 vehicles (97 %) followed the protocol listed on the Sisk-a-dee website. The remaining 4 vehicles (3%) did not follow the protocol. None of the tour groups committed a protocol violation. Of the 50 private vehicles, 4 (7%) committed protocol violations. Protocol violations included opening car doors, talking or coughing, using the bathroom and/or exiting car prior to flush, and arriving late. The variable areas in which the grouse displayed and atypical snow and melt patterns combined to make viewing duration limited this season.

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Program Effort

Seventeen volunteers, representing Colorado Parks and Wildlife, Sisk-a-dee, and Western State Colorado University (Western), monitored the Waunita Watchable Wildlife Site during the 2014 Season. Sixteen were Western students and one was a Western faculty member.

2014 Volunteer List

	Name	Phone	Email
1	Kyle Gordon	(805)588-4018	kyle.gordon@western.edu
2	Sarah Keith	(719)649-8318	sarah.keith@western.edu
3	Anna Johnson	(303)868-1084	Anna.johnson@western.edu
4	Amy Harmon	(720)371-2739	amy.harmon@western.edu
5	Cassie Krzeczowski	(719)244-3937	cassandra.krzeczowski@western.edu
6	Karen Howe	(801)608-6075	karen.howe@western.edu
7	Heather Miller	(260)645-0286	heather.miller@western.edu
8	Krystal Brown	(970)739-4327	krystal.brown@western.edu
9	Kyle Krawczak	(303)325-6795	kyle.krawczak@gmail.com
10	Maricel Medina	(505)859-5758	maricel.medina@western.edu
11	Mike Coleman	(626)320-9376	michael.coleman@western.edu
12	Mike Hanson Lum	(626)320-9376	michael.hansenlum@western.edu
13	Mick Knudsen	(720)934-1424	michael.knudsen@western.edu
14	Robert Shuman	(818)731-2399	Thegreatspirit.turtle@gmail.com
15	Camy Tan	(720)237-6427	Camy.tan709@gmail.com
16	Daniel Piquette	(970)209-6489	Daniel.piquette@western.edu
17	Pat Magee!	970-943-7121	pmagee@western.edu

Volunteers monitored grouse numbers and human visitation during a 40-day period in the 2014 grouse-viewing season.

- Training Days: 3/27/2014 and 3/29/2014
- First day of monitoring: 4/1/2014
- Last day of monitoring: 5/10/2014

Volunteers monitored the lek for 40 days during the 40-day period (100% -- perfect attendance!).

A total of 79 volunteer days and 227 volunteer hours were recorded at the Waunita Watchable Wildlife Site in 2014 (61volunteer days and 173 hours without the training day). The first training phase was held the evening of March 27. Training was conducted by Patrick Magee and Dan Piquette of Western and Nick Gallowich, District Wildlife Manager (CPW). Volunteers learned some of the basics of Gunnison sage-grouse reproductive behavior and learned about the history and componenets of the Gunnison Sage-grouse Watchable Wildlife Program. Further, they learned how to properly fill out data forms and learned what to expect from the grouse and visitors. The initial evening training session was followed by a morning visitation to the lek on March 29. Volunteers learned how to identify male and female grouse, where to look for birds and how to count them. In addition, Western volunteer Daniel Piquette contributed another approximately 220 hours in coordinating with volunteers and groups, communicating with commercial groups and volunteers, data analysis, and writing the report. Patrick Magee contributed an additional 40 hours in communication with public and commercial groups, presentations, web design, coordination, and reporting. Therefore, approximately 487 total volunteer hours were contributed to the Waunita Watchable Wildlife Program in 2014.

Sisk-a-dee provided two educational programs on 4-5 and 11-12 April for the general public. The program consisted of an evening slide program on the ecology and conservation of the Gunnison Sage-grouse, followed by a morning lek viewing in the observation trailer. The first program had only 4 participants, whereas the second program had 14 visitors. The events were free and advertised on the Sisk-a-dee webpage; some participants made financial donations to the conservation of the Gunnison Sage-grouse.

Visitation

Rate of visitation

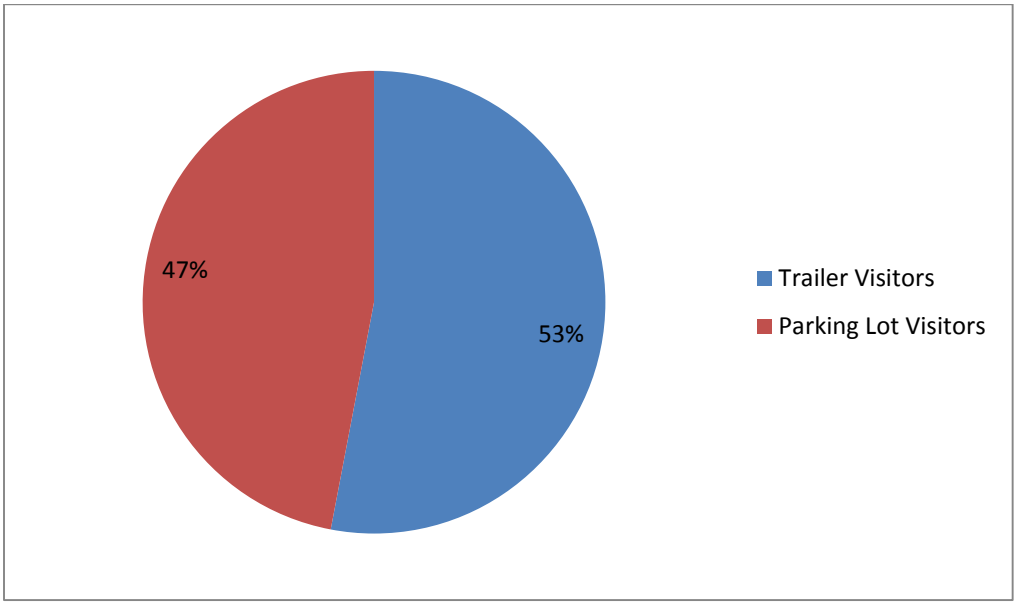
Visitors used the Waunita site on 28 of 40 days, 70% of the days from 1 April to 10 May.

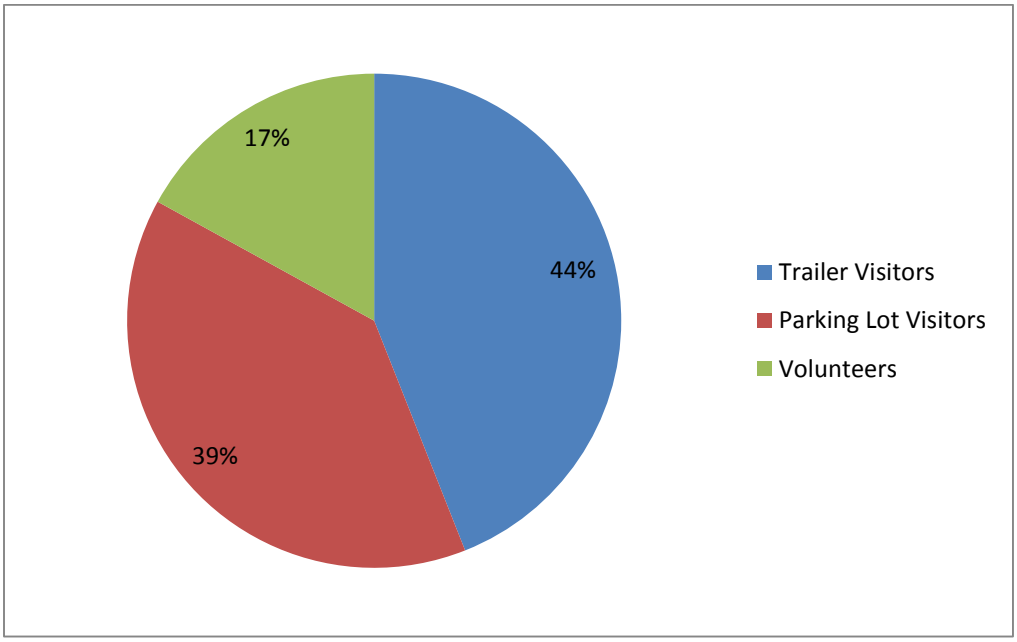
Total number of visitors and vehicles

Visitors	
Total Visitors	357
Total true visitors (total minus volunteers)	297 (83.1%)
Total number of true visitors viewing from trailer	158 (53.2% of true visitors)
Total number of true visitors viewing from parking lot	139 (46.8% of true visitors)
Total number of volunteers on site	60 (16.8%)
Average visitors per day	357/40 = 8.9
Average true visitors per day (minus volunteers)	297/40 = 7.4

2013 Visitor Data

Pie Charts reflect types of users. Top chart represents true visitors only. Bottom chart represents all types of visitors to lek, including Sisk-a-dee volunteers.





Vehicles

Total number of vehicles	133
Total number of private vehicles in parking lot	50
Total number of tour vehicles (in trailer)	23
Total number of volunteer vehicles	60
Total number of vehicles belonging to true visitors	73
High vehicle count	11 vehicles on 12 April
High true visitor vehicle count	9 visitor vehicles on 12 April
Average number of vehicles per day	3.3
Average number of true visitor vehicles per day	1.9
Average number of volunteer vehicles per day	1.5

Visitor Geography

Total number of states in U.S.A. represented: 23

Total number of countries outside of U.S.A. represented: 5

U.S. States		**Countries and Provinces**
Alaska	New York	Canada (Ontario)
Arizona	Ohio	Denmark
California	Oregon	England
Colorado	Tennessee	Netherlands
Florida	Texas	Sweden
Georgia	Virginia	
Illinois	Washington	
Indiana	West Virginia	
Iowa		
Kansas		
Maryland		
Massachusetts		
Michigan		
New Jersey		
New Mexico		

2014 Waunita Watchable Wildlife Site Gunnison Sage-grouse Visitors						
Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
3/29 (Sat)… **Volunteer Training Day** 16 Volunteers	3/31	4/1 2 CO 1 Volunteer	4/2 2 CA 1 Volunteer	4/3 1 NY 2 Volunteers	4/4 3 WA 3 KS 2 TX 2 United Kingdom 2 Volunteers	4/5 3 CA Sisk-a-dee Group 2 Volunteers
4/6 1 KA 16 Netherlands NJ, NY 2 Volunteers	4/7 1 CO 1 Volunteer	4/8 16 England, Canada, NY VA 3 CA 2 Volunteers	4/9 1 OH 1 ID 2 UK 2 Volunteers	4/10 1 CO 16 WV GA IA CO VA 2 Volunteers	4/11 2 NM 1 MI 12 NY TN OH 4 NY 2 Volunteers	4/12 5 CO 1 WA Sisk-a-dee Group 2 Volunteers
4/13 4 CO 2 OR 2 Volunteers	4/14 1 NJ 2 WV 1 CA 1 MA 2 Volunteers	4/15 2 NY 1 Denmark 12 AZ 2 Volunteers	4/16 2 WA 2 Volunteers	4/17 2 IL 2 Volunteers	4/18 3 MA 2 TX 16 OH AK CO 2 Volunteers	4/19 6 CO 2 Volunteers
4/20 3 CO 2 Canada 2 Volunteers	4/21 8 NJ NY IN 2 CO 2 Volunteers	4/22 1 Volunteer	4/23 2 CO 8 CO MI KS 2 Volunteers	4/24 1 Netherlands 1 CO 1 TN 2 Volunteers	4/25 4 GA 2 NM 1 TN 5 CO 1 Volunteer	4/26 12 NY CA CO IN 2 Volunteers
4/27 2 IA 2 WA 1FL 4 CO 1 Volunteer	4/28 1 Volunteer	4/29 2 WA 1 Volunteer	4/30 1 Volunteer	5/1 1 Volunteer	5/2 1 Volunteer	5/3 1 Volunteer
5/4 2 Volunteers	5/5 1 Volunteer	5/6 1 Volunteer	5/7 2 England 1 Volunteer	5/8 2 CA 1 MD 1 CO 1 IA 1 Volunteer	5/9 1 Volunteer	5/10 1 Volunteer

Group Visits

Nineteen organized groups reserved the Waunita Watchable Wildlife Site trailer during the 40-day viewing season.

The trailer was occupied on 19 out of the 40 days

Total group user days was 21 (including a day that one group viewed from their van)

Total number of groups: 19 (including non-profits (2), commercial groups (8), and non-commercial, private groups (9))

2 non-profit educational, environmental, or bird clubs

8 commercial birding groups

9 non-commercial private groups (but one group cancelled at end of season)

Commercial groups used the trailer 9 times and the parking lot 1 time

2 of 8 commercial groups used the site multiple times

Non-profit groups used the trailer 3 times

Private, non-commercial groups used the trailer 8 times

Type of Group	Group Name	Number of Uses
Non-profit	Sisk-a-dee	2
	CT Audubon	1
Commercial	Quetzel Bird Tours	1
	Victor Emmanuel Nature Tours	2
	Field Guides Incorporated	2
	High Lonesome Bird Tours	1
	Wildside Tours Incorporated	1
	Partnership For International Birding	1
	Mike Hendrickson Guiding	1
	Rudolf Koes	1
Private	Edward Pullen	1
	Pat Pourchot	1
	Joanna Hubbard	1
	Dan Wilkerson	1
	Samual Heliangelus	1
	Dick Filby	1
	Nick Whitehouse	1
	David Hursch	1
Total User Days		21 (note that some days had two groups in trailer, one day had a group in the trailer and a group viewing from parking lot)

Protocol Violations

Vehicles (numbers and percentage) following proposed grouse viewing etiquette

Vehicles following protocol:	129 out of 133 (97%)
Vehicles not following protocol:	4 out of 133 (3%)

Of the 75 vehicles belonging to true visitors, 4 (5.3%) violated viewing protocol

Of the 23 tour vehicles, 0 (0%) violated viewing protocol

Of the 50 private vehicles, 4 (8%) violated viewing protocol

Of the 60 volunteer vehicles, 0 (0%) violated viewing protocol

Sisk-a-dee hosted two presentations and lek viewing opportunities during the 2014 season. Shown here, visitors point to Gunnison Sage-grouse mating on lek (Photo by Jeff Gordon).

Gunnison Sage-grouse Lek Counts and Disturbances

Grouse Counts

2014 High Grouse Counts

High count males:	**19 Males, 4/5/2014**
High count females:	**14 Females, 4/11/2014**
High count males and females:	**44 Total Grouse, 4/8/2014**

2013 High Grouse Counts

High count males:	31 Males, 4/2/2013
High count females:	20 Females, 4/7/2013
High count males and females:	37 Total Grouse, 4/2/2013

2012 High Grouse Counts

High count males:	22 Males, 4/6/2012
High count females:	12 Females, 4/1/2012
High count males and females:	25 Total Grouse, 4/1/2012

2011 High Grouse Counts

High count males:	27 Males, 4/2/2011
High count females:	30 Females, 4/5/2011
High count males and females:	51 Total Grouse, 4/5/2011

2010 High Grouse Counts

High count males:	32 Males, 5/3/2010
High count females:	42 Females, 4/10/2010
High count males and females:	74 Total Grouse, 4/10/2010

2009 High Grouse Counts

High count males:	29 Males, 4/19/2009
High count females:	25 Females, 4/8/2009
High count males and females:	53 Total Grouse, 4/6/2009

2008 High Grouse Counts

High count males:	37 Males, 4/5/2008
High count females:	33 Females, 4/18/2008
High count males and females:	63 Total Grouse, 4/16/2008

2007 High Grouse Counts

High count males:	34 Males, 5/8/2007
High count females:	12 Females, 4/14/2007 and 3/30/2007
High count males and females:	40 Total Grouse, 5/8/2007

2006 High Grouse Count

High count males:	38 Males, 5/2/2006
High count females:	26 Females, 4/9/2006
High count males and females	52 Total Grouse, 4/5/2006

2005 High Grouse Count

High count males:	30 Males, 4/30/2005
High count females:	27 Females, 4/7/2005

High count males and females: 37 Total Grouse, 4/7/2005

Grouse Flushes and Disturbances

Average Total Lek Flush Time

Average flush time	33 minutes after sunrise
Earliest flush time	05/04/2014 at 0549
Longest duration of time grouse flushed before sunrise	04/1/2014, 21 minutes before sunrise
Latest flush time	04/02/2014 at 0813 (From actual lek)
Longest duration of time grouse flushed after sunrise	04/12/2014, 1:24minutes after sunrise
Frequency of days grouse flushed before sunrise	6/20 (30%)
Frequency of days grouse flushed after sunrise	14/20 (70%)
Frequency of days grouse flushed at sunrise	1/20 (5%) ^*

^* grouse reported to have flushed one minute before sunrise on 04/19/2014

Cause of Single, Multiple, or Entire Lek Flush

Unknown/no disturbance	8	40%
Weather	0	0%
Coyotes	2	10%
Golden Eagle (Other Birds of Prey)	3	15%
Other (horses, jackrabbits, elk)	4	20%
Human related disturbances (County Road, Late arrival)	3	15%

All potential disturbances to the grouse*

Coyotes howling or on lek	9	26%
Bird of Prey	5	14%
Human (outside vehicle, lights on lek, drive by)	15	43%
Weather (snow)	2	5%
Other (Horse whinny, unknown animal, goose)	4	11%
Total potential disturbances	**35**	

All human related potential disturbances*

Car doors slamming (includes getting out of car)	2	13%
Car idling	0	0%
Left site early	0	0%
Arrive at site late	0	0%
Talking in car, beeping, coughing, or moving	1	7%
Use bathroom	0	0%
Car horn in parking lot	1	7%
Vehicle drove by on County Road 887	9	60%
Other (Lights on lek, highway noises)	2	13%
Total human related disturbances	**15**	

*Potential disturbances did not necessarily lead to a response by sage-grouse

Waunita Watchable Wildlife Site Summary Statistics: 2004 – 2012

Statistic	2004	2005	2006	2007	2008	2009	2010	2011	2012
High Count Males	17	30	38	34	37	29	32	27	22
High Count Females	19	27	26	12	33	25	42	30	12
High Count Males and Females	30	37	52	40	63	53	74	51	25
Days Grouse Present at lek	30/30	39/40	37/37	40/41	38/40	40/40	40/40	41/41	34/40
Days Flushed Before Sunrise (out of total monitored days)	X/30; 0%	5/40; 12.5%	2/38; 5.3%	9/40; 22.5%	3/40; 7.5%	10/40; 25%	15/40; 37.5%	21/40; 52.5%	38/40; 95%
Days Flushed by Humans (out of total monitored days)*	**1/30; 3.3%**	**1/40; 2.5%**	**2/38; 5.3%**	**2/37; 5.4%**	**2/37; 5.4%**	**2/40; 5.0%**	**1/40: 2.5%**	**2/40: 5.0%**	**3/40: 7.5%**
Human Totals (including volunteers)	286	374	355	354	351	435	445	536	327
Visitor Totals (not including volunteers)		**318**	**290**	**301**	**282**	**333**	**374**	**470**	**274**
Vehicle Totals (including groups and monitors)	110	156	134	140	133	184	174	199	141
Vehicle Totals (not including volunteers); % of total vehicles that belonged to monitors		**102; 34.6%**	**85; 36.6%**	**97; 30.7%**	**80; 39.8%**	**109; 40.7%**	**115; 33.9%**	**140; 29.6%**	**98; 30.5%**
Days at Least One Visitor at Site (out of total monitored days)	**29/30; 97%**	**33/37; 89%**	**38/41; 93%**	**37/40 92.5%**	**31/39; 79.5%**	**34/39; 87.2%**	**37/39; 92.5%**	**34/40; 85.0%**	**34/40; 85%**
Percent of Cars that Violated Protocol	**29%**	**19%**	**12%**	**8.9%**	**8.3%**	**20.7%**	**13.2%**	**5.7%**	**17.6%**
Number of U.S. States represented	23	31	24	25	30	28	26	27	24
Number of Countries represented	2	4	3	5	5	5	6 including 5 Canadian provinces	9 including 3 Canadian provinces	4

Statistic	2013	2014							
High Count Males	31	19							
High Count Females	20	14							
High Count Males and Females	37	44							
Days Grouse Present at lek	39/40	**20/40****							
Days Flushed Before Sunrise (out of total monitored days)	35/40 87.5%	**6/20** **30%**							
Days Flushed by Humans (out of total monitored days)	**2/40** **5%**	**3/20** **15%**							
Human Totals (including volunteers)	311	357							
Visitor Totals (not including volunteers)	**233**	**297**							
Vehicle Totals (including groups and monitors)	173	133							
Vehicle Totals (not including volunteers); % of total vehicles that belonged to monitors	**118;** **31.7%**	**75;** **43.6%**							
Days at Least One Visitor at Site (out of total monitored days)	**35/40**	**28/40**							
Percent of Total Cars that Violated Protocol	**10.2%**	**3%**							
Number of U.S. States represented	27	23							
Number of Countries represented	9	5							

*Shaded cells represent highest values recorded since 2004
** This value represents the percent of days the grouse used the traditional lek site, they were present most days in new locations

Summary of Lek Disturbances (Waunita Watchable Wildlife Site, 2014)

Date	Disturbances	Flush to Sunrise	Weather
4/1	0626 - truck on county rd. – no disturbance 0631 – coyote howled, flushed	Flushed at 0631, 21 minutes before sunrise	27ºF 100% Cloud Cover Wind Speed: Calm
4/2	0611 – dog barking, none 0645 – RTH, none 0700, 0704, 0706, 0711, 0718, 0721, 0740, 0804 – truck/car , none	Flushed at 0813, 1:22 after sunrise;	22ºF 90% Cloud Cover Wind Speed: None
4/3	Snow falling. No birds		27ºF 100% Cloud Cover Wind Speed: Gusty
4/4	No Birds on lek		18ºF 0% Cloud Cover Wind Speed: None
4/5	0500 – car alarm, no birds yet 0612 - Coyote howling, none 0624 – Coyotes on lek, none	Flushed at 0655, 9 minutes after sunrise;	19ºF 50% Cloud Cover Wind Speed: Calm
4/6	0533 – truck – no birds yet 0605 – truck, none 0633 – 2 coyotes on lek, none 0634 – golden on ridge, none	Flushed at 0642, 2 minute before sunrise	21ºF 40% Cloud Cover Wind Speed: None
4/7	No disturbances	Initial flush at 0614 to the north, landed at barn. Final flush 0633 10 minutes before sunrise;	20ºF 50% Cloud Cover Wind Speed: Calm
4/8	0559 – Coyotes howling, none. 0653 – RTH on fence 0704 – car, none 0713 – car, all flush	Flushed at 0713 34 minutes after sunrise	25ºF 0% Cloud Cover Wind Speed: None
4/9	0625 thru 0725 – RTH on fence and coyote running around on lek, no disturbance. 0735 – Coyote howled, all flush	Flushed at 0735, 55 minutes after sunrise	24ºF 5% Cloud Cover Wind Speed: Calm
4/10	0639 – road noise, none 0651 – RTH, 1 flush 0707 – car, all flush	Flushed at 070, 29 minutes after sunrise	28ºF 0% cloud cover Wind Speed: Calm
4/11	0619 – Coyote howled, none 0707 – car, 4 flush 0733 – horn, none	Flushed at 0751 1:14 after sunrise	28ºF 0% Cloud Cover Wind Speed: Calm
4/12	0636 – RLH, none 0707 – Coyote and p falcon, few flush	Initial flush at 0717 Birds still on hill at 0800 1:24minutes after sunrise	33ºF 10% Cloud Cover Wind Speed: Calm
4/13	0551 – 16 elk on lek 0652 – golden, none 0715 – slight snow, none	Flush at 0725 51 minutes after sunrise	32ºF 70% Cloud Cover Wind Speed: None

4/14	0634 – RLH, none 0649 – RLH, 1 flushed 0708 – car, 5 flush 0714 – car, last one flushed	Flushed at 0714 43 minutes after sunrise	23ºF 70% Cloud Cover Wind Speed: Gusty
4/15	0526 – car, none 0532 – coyote, none 0600 – car, 1 flushed 0647 – car, none 0649 – Golden, all flushed	Flushed at 0649 19 minutes after sunrise	19ºF 0% Cloud Cover Wind Speed: None Full Moon
4/16	0520 – ducks a quacking 0607 – 2 elk on lek, none 0611 – barking dogs, none	Flushed at 0620, 8 minutes before sunrise	19ºF 98% Cloud Cover Wind Speed: None
4/17	0620 – 2 gulden's in tree, none 0630 – coyotes howled, hunkered 0710 – car, all flush	Flushed at 0710 43 minutes after sunrise	25ºF 0% Cloud Cover Wind Speed: Calm
4/18	0640 – 2 ravens, none	Flushed at 0650, 24 minutes after sunrise	27ºF 0% Cloud Cover Wind Speed: Calm
4/19	No Disturbances	Flushed at 0610 14 minutes before sunrise	35ºF 100% cloud cover Wind Speed: Calm
4/20	Flooded lek Birds only on hill behind lek	No Flush time	36ºF 0% Cloud Cover Wind Speed: Calm
4/21	Flooded lek Only 2 briefly on lek (0657 – 0709)	Flushed at 0709, 49 minutes after sunrise	34ºF 10% Cloud Cover Wind Speed: Calm
4/22	Flooded lek Birds only on hill behind lek	No flush time	36ºF 95% Cloud Cover Wind Speed: None
4/23	Flooded lek Birds only on hill behind lek	No flush time	40ºF 20% Cloud Cover Wind Speed: Calm
4/24	Flooded lek Birds only on hill behind lek	Flushed off ridge at 0730 1:22 after sunrise	30ºF 0% Cloud Cover Wind Speed: Calm
4/25	Flooded lek Birds only on hill behind lek	No Flush time	28ºF 0% Cloud Cover Wind Speed: None
4/26	Flooded lek Birds only on hill behind lek	No Flush time	28ºF 5% Cloud Cover Wind Speed: Calm
4/27	Snow Flooded lek Birds only on hill behind lek	No Flush time	28ºF 100% cloud cover Wind Speed: Gusty
4/28	Flooded lek Birds only on hill behind lek >150 elk on hill behind lek	No Flush time.	28ºF 10% Cloud Cover Wind Speed: Calm
4/29	Flooded lek Birds only on hill behind lek	No Flush time	20ºF 30% Cloud Cover

			Wind Speed: None
4/30	Flooded lek No birds seen		30ºF 5% Cloud Cover Wind Speed: None
5/1	0627 – Coyote on lek, none 1 Male on lek All others on ridge behind	Single flushed 0709 1 hour after sunrise	25ºF 25% Cloud Cover Wind Speed: Calm
5/2	Flooded lek No birds seen		27ºF 0% Cloud Cover Wind Speed: None
5/3	Flooded lek No birds seen		34ºF 5% Cloud Cover Wind Speed: Calm
5/4	0458 – Coyotes howling Birds back on lek, fairly non-active	Flushed at 0549 25 minutes before sunrise	34ºF 10% Cloud Cover Wind Speed: Calm
5/5	No disturbances.	First bird flushed at 0552, 13 minutes before sunrise	34ºF 12% Cloud Cover Wind Speed: Calm
5/6	No Birds Observed		32ºF 15% Cloud Cover Wind Speed: calm
5/7	No Birds Observed		35ºF 20% Cloud Cover Wind Speed: Calm
5/8	No Disturbances	Flushed at 0625, 24 minutes after sunrise	32ºF 40% Cloud Cover Wind Speed: Calm
5/9	No Birds Observed		30ºF 40% Cloud Cover Wind Speed: Calm
5/10	No Birds Observed		32ºF 0% Cloud Cover Wind Speed: Calm

Waunita Watchable Wildlife Site Daily Lek Statistics (2014)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
March 29 0656 (Saturday) Volunteer Training Day Male High Count: 14 Female High Count: 6 Flush: 0641 Reason:Unknown People:16 Vehicles:5		**April 1 0654** Male High Count: 5 Female High Count: 4 Flush: 0631 Reason: coyote People: 3 Vehicles:2	**April 2, 0653** Male High Count: 3 Female High Count: 4 Flush: 0813 Reason: People:4 Vehicles:3 Car Door Slammed	**April 3 0652** Male High Count: 0 Female High Count: 0 Flush: People:2 Vehicles:1 Snow	**April 4 0649** Male High Count: 0 Female High Count: 0 Flush: Reason: People:11 Vehicles:6	**April 5, 0647** Male High Count: 19 Female High Count: 1 Flush: 0655 Reason: Unknown People:34 Vehicles:6
April 6 0646 Male High Count: 9 Female High Count:2 Flush: 0642 Reason: Unknown People:28 Vehicles:4	**April 7 0644** Male High Count: 6 Female High Count: 0 Flush: 0633 Reason: Unknown People:9 Vehicles:4	**April 8 0643** Male High Count: 15 Female High Count:8 Flush: 0713 Reason: Car People:22 Vehicles:5	**April 9 0641** Male High Count: 5 Female High Count:5 Flush: 0725 Reason: RLH People:9 Vehicles:5	**April 10 0640** Male High Count: 7 Female High Count:3 Flush: 0707 Reason: Coyote People:19 Vehicles:4	**April 11 0638** Male High Count: 17 Female High Count:14 Flush: 0751 Reason: Unknown People:14 Vehicles:8 Person exited car, horn	**April 12 0637** Male High Count:18 Female High Count:7 Flush: 0800 Reason: Unknown People:11 Vehicles:11
April 13 0635 Male High Count:5 Female High Count:2 Flush: 0725 Reason: Elk? People:7 Vehicles:4	**April 14 0634** Male High Count:7 Female High Count:13 Flush: 0714 Reason: Car People:8 Vehicles:5	**April 15 0632** Male High Count:7 Female High Count:6 Flush: 0649 Reason: Golden Eagle People:23 Vehicles:7	**April 16 0631** Male High Count:5 Female High Count:2 Flush: 0620 Reason: Unknown People:4 Vehicles:2	**April 17 0629** Male High Count:6 Female High Count:2 Flush: 0710 Reason: Car People:3 Vehicles:2	**April 18 0628** Male High Count:3 Female High Count:2 Flush:0650 Reason: Unknown People:13 Vehicles:6	**April 19 0627** Male High Count:2 Female High Count:0 Flush:0610 Reason: Unknown People:7 Vehicles:2
April 20 0625 Male High Count:0 Female High Count:0 Flush: Reason: People:1 Vehicles:1 Flooded	**April 21 0624** Male High Count:0 Female High Count:0 Flush: Reason: People:13 Vehicles:7 Flooded	**April 22 0623** Male High Count:0 Female High Count:0 Flush: Reason: People:1 Vehicles:1 Flooded	**April 23 0621** Male High Count:0 Female High Count:0 Flush: Reason: People:13 Vehicles:3 Flooded	**April 24 0620** Male High Count:0 Female High Count:0 Flush:- Reason: - People:13 Vehicles:4 Flooded	**April 25 0619** Male High Count:0 Female High Count:0 Flush: Reason: People:14 Vehicles:4 Flooded	**April 26 0617** Male High Count:0 Female High Count:0 Flush: Reason: People:18 Vehicles:3 Flooded
April 27 0616 Male High Count: 0 Female High Count: 0 Flush: Reason: People:9 Vehicles:5 Flooded	**April 28 0615** Male High Count: 0 Female High Count: 0 Flush: Reason: People:1 Vehicles:1 Flooded	**April 29 0614** Male High Count: 0 Female High Count: 0 Flush:- Reason: - People:3 Vehicles:2 Flooded	**April 30 0613** Male High Count: 0 Female High Count: 0 Flush: Reason: People:1 Vehicles:1 Flooded	**May1 0611** Male High Count:1 Female High Count :0 Flush:0709 Reason:- Unknown People:1 Vehicles:1	**May2 0610** Male High Count: 0 Female High Count: 0 Flush: Reason:- People:1 Vehicles:1	**May3 0609** Male High Count :0 Female High Count: 0 Flush: Reason: Unknown People:1 Vehicles:1

May 5 **0608** Male High Count: 6 Female High Count: 1 Flush: 0549 Reason: Unknown People:2 Vehicles:1	**May 5** **0606** Male High Count: 3 Female High Count: 1 Flush: 0552 Reason: Unknown People:1 Vehicles:1	**May 6** **0605** Male High Count: 0 Female High Count: 0 Flush: Reason: People:1 Vehicles: 1	**May 7** **0604** Male High Count: 0 Female High Count: 0 Flush: Reason: People:3 Vehicles:2	**May 8** **0603** Male High Count: 2 Female High Count: 0 Flush: 0625 Reason: Unknown People:5 Vehicles:4	**May 9** **0602** Male High Count: 0 Female High Count: 0 Flush: Reason: People:7 Vehicles:3	**May 10** **0601** Male High Count: 0 Female High Count: 0 Flush: Reason: People:1 Vehicles:1

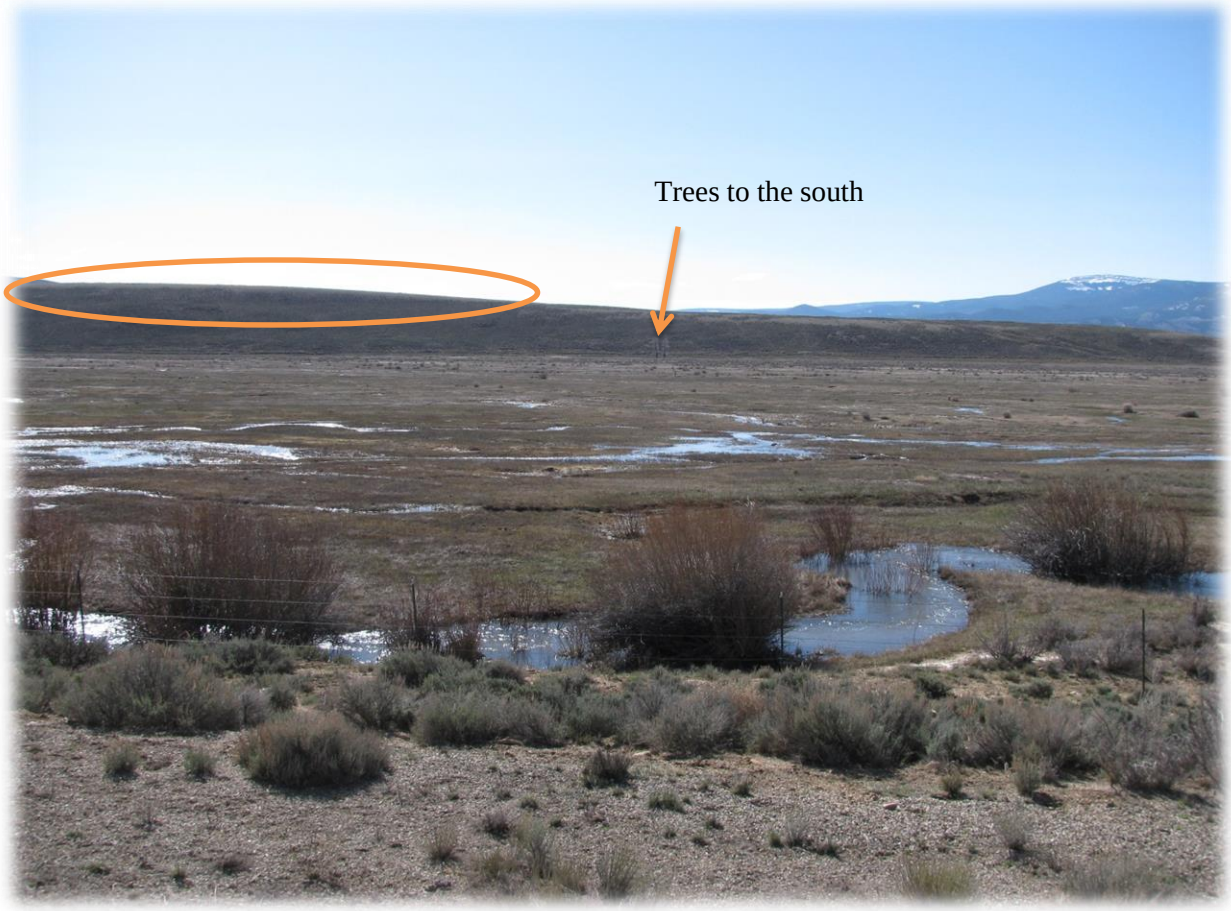
Discussion and Recommendations for 2014

General Discussion

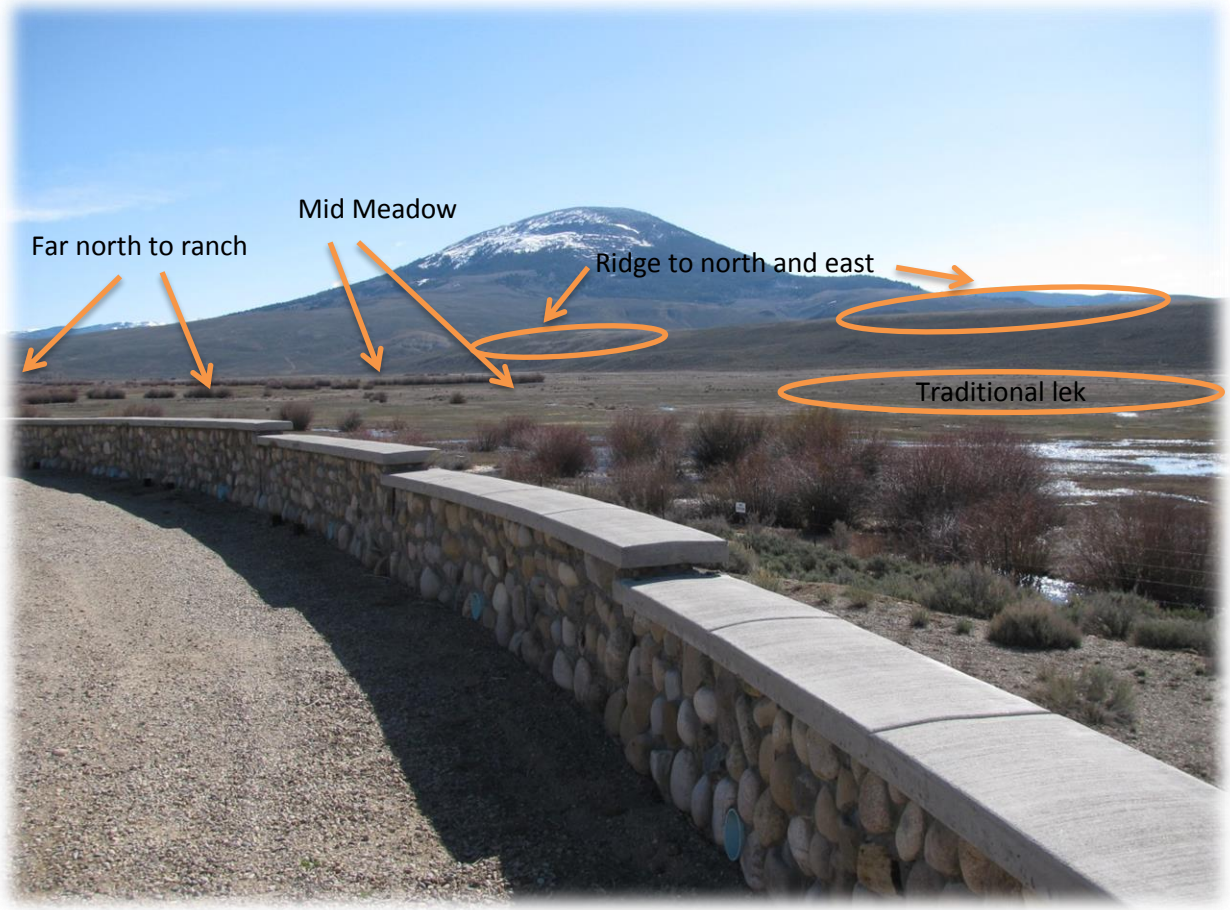
The 2014 Gunnison Sage-grouse Watchable Wildlife Program had several surprises. First and foremost the counts were highly affected by climate variability. During the beginning of the lekking season the grouse seemed to avoid the snow covered lek and relocated to the ranching area to the north. At times the grouse where seen displaying within 50 meters of the barn in an area which had been plowed out for the cattle. Still other times grouse were witnessed displaying with the cattle and horses. Later in the season the grouse displayed on the hill and ridge due east of the lek. They were observed on the hill behind the two cottonwood trees that mark the southern boundary of the lek all the way to the north where the ridge joins Tomichi Dome (refer to pictures below for locations where they were seen displaying more frequently). Although they were seen on many locations on the hill, they were concentrated in the areas circled in orange.

North

East/SE



Traditionally, visitors have had a difficult time locating the grouse on the lek in the meadow due to low light and distance from the parking lot to the lek. Further, in recent years, the grouse have been leaving the lek earlier every year. Therefore, to help visitors locate the center of the lek, we attached a white sign on the "H" brace (see photo). This white beacon gave visitors a useful target to locate in the pre-dawn darkness. Early in the season, with the lek covered in snow, the wooden H-brace stood out against the white back drop, and later in the season after the snow melted, the white diamond was effective as a locator. Also, the informational signs in the parking lot were removed to allow visitors a clear view of the lek without obstructions. We received two positive comments in regards to the removal of the informational signage.



Without an extreme wide angle lens it would be nearly impossible to show all the lekking locations utilized in 2014 in one photo. Early in the season, when the lek was covered in snow, it was common to see the grouse far north of the traditional lek in areas around the willows and as far north as the ranch (not pictured). In the mid-season they were mostly seen in the traditional lek. However, later in the season when the lek was flooded the grouse were typically seen dispersed on the ridge to the north and east concentrated in the circled regions.

Visitors were present on 28 of the 40 days of the viewing season which was significantly lower than last year (37/40). However, in 2014 we had more total visitors (297 compared to 233). The viewing trailer was available for additional visits – no groups used the trailer for 20 days. Sisk-a-dee continued delivering educational programs and used the trailer on two of the days. One group scheduled on May 4th decided to cancel their visit as I informed them the grouse had moved from the lek to the hill behind making grouse viewing difficult. On one day, due to a scheduling conflict which was the result of miscommunication between the coordinator and the groups, the trailer was shared and the fee was divided between the two professional guides. Of the 297 true visitors, 158 used the viewing trailer (44% as compared to 80% last year). However, 139 (39%) visitors used the parking lot whereas only 45 (19%) used the facilities last year. It is uncertain if these visitors just chose not to use the trailer as reservations where down or if they would just rather view from their own automobiles.

Viewing from the trailer offers several advantages, one being that the volunteer can help ensure that all visitors see the birds if they are there, making the trip much more valuable. In 2014, we had visitors from at least 23 states and 5 countries outside the U.S. The economic value of the Waunita Watchable Wildlife Site has not been quantified, but we continue to collect visitor use surveys and certainly the Gunnison

economy benefits at a slow time of the year due to the interest in Gunnison Sage-grouse from visiotrs from many locations around the world.

This year the number of birds observed was lower than last season. As mentioned earlier this was, in part, due to the change in distribution of grouse and use of novel areas in 2014. Many birds were seen on the ranching area to the north and on the ridge to the east of the traditional lek in the hay meadow directly east of the viewing area. Counting grouse was complicated due to their scattered distribution in three main activity centers (traditional lek, meadow north of traditional lek, ridge east and north of traditional lek). The grouse on the ridge were very far from the parking lot and viewing site and made counting and viewing challenging, and human activity in the parking area likely did not influence the behavior of the grouse on the ridge or in the meadow north of the traditional lek. Unfortunately, due to the confusion of how to make official counts when grouse used the area in a complex and novel way, not all observers counted the lek uniformly. Some volunteers did not count the grouse on the far ridge, while others did. On 9 April 2014, forty-four grouse, unknown sex, were witnessed flying from the ranching area from the north to the ridge located behind the lek. During that time, there were 16 males and 8 females on the lek. Gunnison sage-grouse used the Waunita area in 2014, but the pattern of use and distribution was unique. They did not demonstrate the consistent pattern of use on the traditional lek that they have shown for many years. This new behavior may be attributed to the atypical precipitation and flooding that occurred this year. However, other factors may explain the shift in distribution as well. The lek has been a target for predators during the last several years, with coyotes and golden eagles most prominent. Several volunteers and visitors have witnessed golden eagles and coyotes depredating Gunnison sage-grouse at the Waunita lek in recent years. In addition, the Waunita lek has served as the Watchable Wildlife Site for 15 years and has had consistent human presence during the lekking season throughout that time frame. While protocols have been effective in minimizing human disturbance to the grouse on the lek, it is unclear whether human activity had an influence on the behaviors observed by Gunnison sage-grouse at Waunita in 2014. Likely, a combination of weather, predators, and humans may have created a threshold response and the grouse shifted primary lek location. It is not known, of course, whether the new lekking locations will continue to be used in the future. If so, a permanent movement of the lek is a rarely observed phenomenon and has several ramifications. The site becomes much less attractive as a watchable wildlife location due to the distance the birds are located from the viewing area. CPW spent significant funds to develop the site where it is and its loss would impact numerous commercial birding groups as well as hundreds of visitors who annually travel to Gunnison to see the grouse. On a more positive note, if the Waunita site is no longer an attractive option, a new site could be designed that improves on several of the short-comings associated with the Waunita site. An optimal viewing design would include a scenario where the site had controlled access to the public, a relatively large lek at 200 m from a viewing trailer (closer than Waunita, but still far enough away to protect the grouse), and all visitors would be required to view from the blind. If the shift in use at Waunita is permanent, what to do with the existing site and how to manage the public around this new reality will be important issues to resolve.

The high count for males this year was 19 on 5 April, down from the high count of 31 males last year. The female high count this year was 14 on 10 April, down from 20 last year. The total high count in 2014 was 44 on 9 April. A key goal of the Gunnison Sage-grouse Watchable Wildlife Program is to manage human activities and minimize harm to the birds at the lek. Continued efforts to monitor human visitors and sage-grouse and to provide educational programs for the public are advised. The protocols and site design features continue to help manage the visitors at this lek, and should continue to be vigorously maintained. In 2014, grouse were flushed by humans on 3 of the 20 days (15%) they were present, a 10% increase over last year. Of the 133 vehicles present at the site in 2014, only 4 (3%) of them violated protocol which is down from 10.2% in 2013. Vehicle protocol violations this year included doors slamming, exiting prior to birds flushing, and a horn going off. It is important to note that only three of

the fifteen anthropogenic events lead to flushing birds. Traffic noise, on three occasions, was the factor responsible for flushing grouse off the lek. Traffic noise on the county road continues to be a significant threat to Gunnison sage-grouse at the Waunita lek. Recently, the Gunnison Sage-grouse Strategic Committee decided not to act on a proposal for a time of day and seasonal speed limit reduction on the county road to lower noise production. The proposal should be reconsidered.

The grouse stayed on the lek much later than then last year. They left the lek 6 of the 20 days before sunrise (30%) which is dramatically lower than the 87.5% last year. This also reverses a trend that begin at least in 2009 in which grouse behavior shifted to earlier and earlier flush times each year at the Waunita lek. In addition to grouse leaving later on the traditional lek, the grouse displaying on the ridge stayed much later. Unfortunately we did not record those times consistently. As in past years, several of the early departures were due to the presence of and predation by golden eagles, rough-legged hawks, and coyotes. Aside from natural animal interactions, there were few other apparent causes of flushes. The constant presence of humans could very well be the hidden variable we have not picked up on. Our presence may simply be changing the behavior of the birds using the Waunita lek. Aside from decreasing lekking time, early departure means that visitors do not have a satisfactory experience viewing the birds. One interesting observation we had earlier in the season was the behavior of grouse witnessed around the ranch. On two occasions we could see the birds displaying within 50 meters of the barn. At approximately 0700 the rancher left the barn pulling his feed with his tractor and did not disturb lekking behavior. The change in grouse behavior in the area was frustrating for visitors and some followed the grouse after they flushed from the traditional lek further north along the county road to get a better view. This practice was discouraged but we did not have any authority to inhibit this activity.

Unlike last year where horses and donkeys were present on the lek for the last few weeks of the season, they were kept completely off the lekking area. However there were multiple occasions where large herds of elk were seen on the traditional lek, to the north in the pasture areas, and on the ridge behind the lek; greater than 150 were seen on 28 April.

Site Issues: Parking Lot and Trailer

There seemed to be little confusion on how to park vehicles in the parking lot for viewing this year. To maintain the parking lot flow, volunteers provided an example of how to park by arriving first at the site and parking at the extreme north end of the wall, parking parallel to the wall. There were however two occasions where visitors arrived prior to the volunteer and parked facing south. In doing so this year it made for very difficult viewing as most of the grouse where to the north.

The average number of vehicles at the site in 2014 was 3.3. The site easily can accommodate this number of vehicles. However, higher numbers of vehicles were present on several days, with a maximum of eleven vehicles at the site. Having a clear plan communicated well to the volunteers and described on the web page and through other sources of information about the Watchable Wildlife Site is recommended. A sign explaining how to enter the parking area and how to park would be useful to visitors.

This year, as it often is, the main problem with the trailer was entering inside. Many of our visitors are seniors who need assistance reaching the high trailer step. A step was placed at the base of the trailer under the door. The step itself worked well but there were two main concerns: one, when covered in snow it was very slick, and two, the step was very unstable and one visitor did fall, unharmed, while entering the trailer. Adding some stabilizing boards to the bottom and tack-strip to the top would eliminate these two issues.

Unfortunately, due to time constraints and internet access at home, the daily updates on the Gunnison

Sage-grouse via blog did not happen this year. Because of this we were not able to pass on information which helps visitors to get an idea of the activities on the lek before their visit, creating an idea of what to expect. The blog had been viewed as of last year 1,818 times since its creation in May 2011, from nine different countries including the U.S., Vietnam, Bulgaria, Greece, Honduras, Poland, Indonesia, Kyrgyzstan, and Russia.

Data Forms

Again in 2014, volunteers have not been recording movement and use of the lek data on the back side of the CPW grouse survey form and this needs to be clearly explained to volunteers next season—although several volunteers were very good at doing so this season. Further, all volunteers need to be encouraged to descriptively note various events occurring at the lek each morning including the presence of predators, the presence of disturbances, and how the birds respond to both. We still recommend modifying the data sheet to include a table of potential disturbances and this would help the volunteers to know what to observe and write about. More detailed information about how disturbance events affect grouse is needed.

The visitor use data sheets are well organized and volunteers need to be sure to fill out all the information requested each day. It should be noted that pencils are the best for data recording, as pens often do not work well in cool temperatures. Also, additional data sheets may be picked up from the extras folder, or copies may be made when data sheet numbers become low.

Volunteers

The volunteers performed their assigned jobs and followed the schedules well. This was the fourth consecutive year that every volunteer made it to the lek on each assigned day—we had perfect attendance and monitored all 40 days of the season! Volunteers did a good job communicating with the public and reminding them of the protocols. Volunteers should be encouraged to communicate even more with the visitors about parking, protocols, and especially in what direction visitors will be most likely to see the grouse. As this was a very difficult year in viewing the birds as they were scattered over vast areas, the volunteers must be praised for their communication with other volunteers and their dedication to passing on that information to the visitors as they arrived.

Volunteers may not have provided accurate counts due to lack of experience, confidence, and lack of knowledge based on the birds location in relationship to the lek, We would highly advise updating counting protocols as the birds seem to be varying from their historical trends of staying on the lekking area adjacent to the viewing trailer. New volunteers were encouraged to do one additional day of training with an experienced volunteer which seemed to work out very well. The first week was lacking in documentation quality but after that volunteers did much better. The coordinator should also emphasize that learning to count the grouse proficiently requires time and experience. The more time they spend at the lek the better their data will be. Volunteers should also be reminded, repeatedly if necessary, that data sheets should be filled out in their entirety. Volunteers should also understand that any critiques from the coordinator are only made to better the volunteer's ability and ease the process of data interpretation. As suggested last year, volunteers were asked which type of communication is best for them. It was found that unanimously people preferred text messaging. It must be stressed to the volunteers that they must respond to all texts and emails. We had a couple problems in this area this year.

Visitor communications

Sisk-a-dee continued to communicate with the public regarding the Watchable Wildlife Site. Many visitors who contact Sisk-a-dee are interested in viewing grouse outside of the April 1- May 10 viewing season. Many other calls and e-mails are related to specific questions about the viewing experience. The public is able to reach Sisk-a-dee by phone (970-641-3959), by visiting the Sisk-a-dee webpage

(Siskadee.org), or by Dr. Patrick Magee's office phone (970-943-7121) or e-mail address (pmagee@western.edu). Interested parties were also able to contact Daniel Piquette through e-mail and phone.

Visitor Comments

Few visitors commented on their experiences at the Waunita site this year. Many where appreciative of the volunteer's dedication to pointing out the grouse location on the east ridge. Because we were not able to do daily blog entries, we can be almost certain we missed valuable comments as the visitors were not able to follow the grouse activity.

Reservations and Fees

Reservation fees will remain at $100 for the 2015 viewing season. The cancellation fee of $50 after March 15 will also remain. The reservation policy is that groups can only reserve the trailer on 1 January for the following year to limit scheduling miscommunications during the summer months. For example, a group may reserve the trailer on 1 January 2015 for the 2016 viewing season. All groups must make a reservation under Sisk-a-dee's special use permit with CPW and all groups are required to be in the trailer, not in the parking lot. We only allow a group to view from their vans in the parking lot if an irresolvable booking error has been made. In 2014, the trailer was booked on 18of 40 days, including two commercial groups using the site twice. Interest in commercial viewing of Gunnison sage-grouse continues to be a popular activity for for-profit birding companies and the interest among private, individual birding groups seems be steady, as we had 9 private parties book the trailer.

Sisk-a-dee Website

Although feedback regarding the website has been generally positive in recent years, many visitors, especially parking lot visitors, felt that the website was not clear on the process of reserving the trailer, where to park, when to arrive, and what direction to look for the grouse. An improvement on the website might include specific sections pertaining to either parking lot or trailer viewing, so as to minimize any confusion.

Volunteer Appreciation

In cooperation, CPW and Sisk-a-dee hosted a volunteer appreciation dinner again this season. The volunteers were invited to a pizza dinner at Mario's Restaurant in Gunnison on 2 May 2014. The volunteers also received a Sisk-a-dee t-shirt.

Volunteer Responsibilities

Monitoring Visitor Use at Waunita:

1. Pick up a spotting scope the day before you count (make sure you do this before the office closes around 4 pm).
2. Make sure you have all data sheets before you go to the site.
3. Drive by Gunnison Bank and Trust to read the air temperature on thermometer.
4. Make sure that you are at the site at least one hour before sunrise (the sunrise times change every day so be sure to check ahead of time). The site is 19 miles east of town, and it's a good idea to allow for 40 minutes of driving (drive slowly and carefully because there are often animals on the road and sometimes the roads are icy or snowy).
5. Once at the site, set up your spotting scope with a window mount or tripod.
6. Talk to any visitors at the site: explain to them the protocol of the site; ask them where they are from; make sure they are quiet and remain in their vehicles with the engine off and the lights off; make sure no one leaves until all grouse have flushed from the lek. Hand them copies of the protocol. *Tell them that you will let them know when they can leave.*
7. Make sure you **fill out everything** on the grouse and the human data sheets (including date, observer name, weather, disturbances, numbers, etc.).
8. If someone arrives late at the site, you should leave your vehicle to explain to him or her that they must be at the site at least one hour before sunrise if they plan on returning to the site another day. Please immediately give them a protocol sheet; they may not know any of the protocol. BE PROACTIVE!
9. If anyone exits their vehicle, slams a car door, doesn't turn off their car or lights, uses the restroom, or violates the protocol in any other way, explain to them that they must be quiet until all the sage-grouse flush. Once they cause a disturbance, you may leave your car to enforce the protocol. Do not hesitate to exit your car if you need to explain protocol.
10. Watch the grouse once it is light enough to identify them. Start looking for the grouse when it seems too dark to see them. With binoculars you can see the grouse fairly well in dim light. Count the number of males and females every 5-10 minutes and record their numbers on the data sheet. Look for predators or anything that might disturb them.
11. Once you have obtained your first accurate count, walk through the parking lot routinely (every half hour or so) to point out location of the grouse, encourage adherence to the protocol, and to answer any questions.
12. Once all the grouse have flushed or left the lek, record the time they flushed and the direction they flushed. Continue to scan for any sage-grouse remaining on the lek for an additional 5-10 minutes, and check with anyone in the trailer to be sure all birds have flushed before allowing people to leave the site, as people in the trailer may have a different angle/vantage point. If the birds flushed and flew to the sagebrush covered ridge behind the lek (to the east of the lek) but are no longer on the lek, you may leave.
13. Give visitors the economic impact surveys (1 per car), and encourage them to take a few minutes to fill them out at the site (as opposed to filling them out later and sending them to Sisk-a-dee—people usually forget about the surveys once they leave).
14. **Drop off the scope and data sheets immediately** the morning you return from the site (weekend volunteers must turn in data sheets on Monday morning).

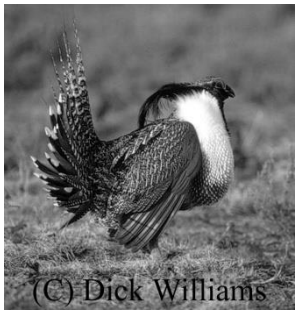
When meeting a commercial group:

1. Pick up a scope, keys to the viewing trailer, and data sheets the day before going to the lek. Bring a flashlight or headlamp.
2. Drive by the Gunnison Bank and Trust to read the air temperature on thermometer.
3. Meet the group at their hotel at the specified time (usually 45 minutes to an hour before arrival time – one hour and fifteen minutes before sunrise, to allow plenty of time for the group to set up).
4. At the hotel, explain the protocol to the group. They should have read it already, but just reiterate it to them since it's so early in the morning. Also tell them that there is an outhouse at the site but it is only available for use after all birds have departed the lek. Be sure they know not to slam car/van doors or talk loudly at the site. Make sure the group members are prepared to go directly from the van to the trailer – they shouldn't be organizing their belongings once the y arrive at the site.
5. At the hotel, tell the group to wait in their van(s)/car(s) once they arrive at the site while you go open the trailer.
6. Have the group drive their own vehicles and follow you to the site. Drive slowly (no more than 55 mph and carefully). Park behind the trailer (to the west of the trailer).
7. Once at the site, open the trailer. Unlock and open the door and unlock the windows (but leave the windows closed).
8. Go back and get the group. It is usually a good idea to bring a headlamp or a flashlight to shine on the steps of the trailer and on the benches. This makes it easier for the group to set up.
9. Tell the group to keep all objects on the floor, not on the benches, so that nothing falls on the floor. Also tell them to be quiet when moving around the trailer to look through scopes.
10. Once everyone is set up, turn off all lights in the trailer and push the windows open.
11. When the windows are open, make sure everyone remains quiet and still until the birds have flushed (especially once the sun is shining in the trailer).
12. When the birds have flushed, check for another 5-10 minutes for any remaining birds. If none are present, check with the volunteer in the parking lot to be sure all sage-grouse have flushed. Then tell the group they are free to go and might be interested in reading the interpretive signs. Then **lock up** the trailer.
13. Before the group leaves, make sure you collect the user fee from the group leader.

2014 Group Contacts

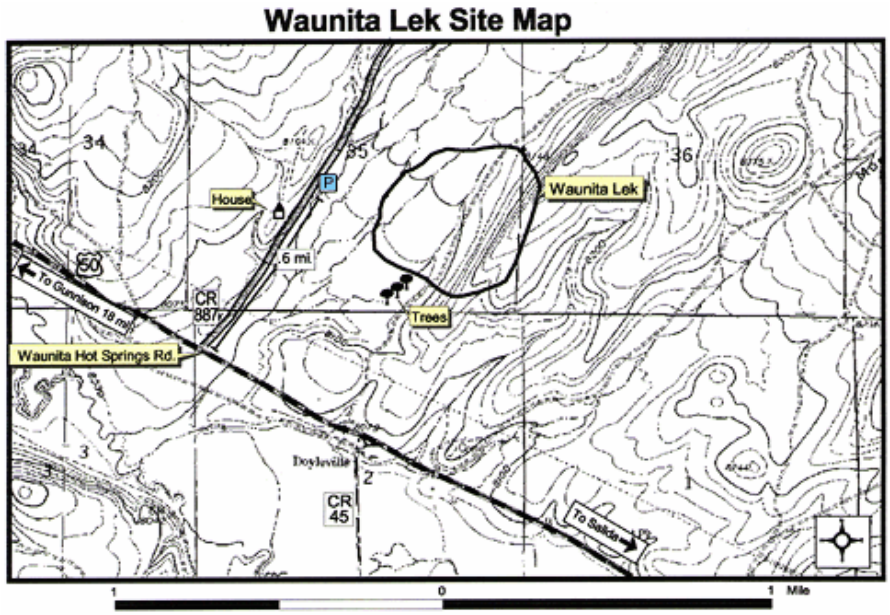
Company Name	Contact Name	E-Mail	Phone
Commercial Groups			
Eagle Eye Tours	Rudolf Koes	rkoes@mts.net	204-997-7667
Mike Hendrickson Guiding	Mike Hendrickson	mlhendrickson@yahoo.com	218-348-5124
Field Guides Inc.	Sharon Mackie Dan Lane Megan Crewe	smackie@fieldguides.com	406-848-7942 225-229-7368 609-408-3680
High Lonesome Bird Tours	Forrest Davis Wezil Walraven	hilone@hilonesometours.com	443-838-6589
Partnership for International Birding	David Trently Norm Lewis	david@pibird.net	570-483-4275 303-910-1629
Quetzal Foundation/Quetzal Tours	Nick Komar	quetzal65@comcast.net	
Victor Emmanuel Nature Tours (VENT)	Brian Gibbons	Brian_gibbons@juno.com	214-808-5599 (cell) 805-461-0666 (office)
Wildside Birding Tours	Adrian Binns	binns@wildsidetoursinc.com	267-968-9500 888-875-9453
Non-profit Educational, Environmental or Birding Groups			
Audubon Connecticut	Phil Rusch Andrew Griswold	philiprusch@charter.net agriswold@ctaudubon.org	860-617-9005 860-575-4317
Sisk-a-dee	Patrick Magee!	pmagee@western.edu	970-641-3959
Private non-commercial groups			
Private	Edward Pullen	edwardpullen@gmail.com	253-905-5662
Private	Pat Pourchot	pat@pourchot.com	907-250-7798
Private	Joanna Hubbard	jmh_tk@yahoo.com	907-242-6951
Private	Dan Wilkerson	wilkersondan@hotmail.com	979-777-4499
Private	Samual Heliangelus	heliangelus@telia.com	46-76-767 39 76
Private	David Hursh	781-296-1603	dhursh@hotmail.com
Private	Dick Filby	dickfilby@hotmail.com	970-704-9178
Private	Nick Whitehouse		
Private	Rob Alvo	Robalvo1@gmail.com	613-407-8253

2014
Waunita Watchable Wildlife Site: Gunnison Sage-grouse Lek Viewing Information and Protocol



Directions to the Waunita Lek:
Gunnison Sage-grouse predictably use the Waunita Lek, located 19 miles east of Gunnison just north of Hwy 50. Turn north on County Road 887 (Waunita Hot Springs Road) and go 0.6 miles to a small pull-off on the right where you can view the birds. A viewing trailer, just north of the parking lot, is available by reservation only or Sisk-a-dee tours, free to the public. The lek is located to the east of the road in the open meadow (see map). This observation point offers a good view of the birds through binoculars and spotting scopes and is far enough away from the lek to minimize disturbance to the birds. The lek is located on private property, but the pull-off is a Colorado Parks and Wildlife managed Watchable Wildlife site. **The site is open April 1st through May 15th.**

Where to see the birds:
The Waunita Lek extends from the pull-off to the top of the eastern ridge and from the willows on the left (north) to two cottonwood trees to the south. There is a fence brace about halfway to the ridge and almost directly west from the pull-off. The birds are most commonly seen just north of the fence brace, displaying on either side of the fence.



When to see Gunnison Sage-grouse displays:
The best time to view the elaborate and bizarre breeding dance of the Gunnison Sage-grouse is from 1 April to early-May. Gunnison Sage-grouse wake up early and arrive on the leks (breeding grounds) before dawn. Therefore, to minimize impacts on birds, **VISITORS MUST ARRIVE AT LEAST ONE HOUR BEFORE OFFICIAL SUNRISE** and remain at the lek until breeding displays have ended. Visitors should leave Gunnison at least 1 hour 45 minutes before sunrise. Displays may continue for a couple hours after sunrise. For sunrise information please refer to the sunrise table on the backside of this page.

Gunnison Sage-grouse Lek Viewing Protocol

The Gunnison Sage-grouse is a seriously imperiled species and highly vulnerable to human disturbance. The US Fish and Wildlife Service will make a decision in September 2014 about listing the bird as an endangered species. Sisk-a-dee, Colorado Parks and Wildlife, and Western State Colorado University are actively managing the Waunita Watchable Wildlife site to minimize the impacts of viewing the birds. Please help us make this viewing experience quality for you and other birders by following the protocol below. Thank you for your efforts and enjoy the rare and beautiful dance of the Gunnison Sage-grouse! If you do not wish to view the sage-grouse from your car, you may reserve the viewing trailer (www.siskadee.org for more information) for a fee, or you may attend one of the free tours led by Sisk-a-dee.

- **Arrive at the Waunita Watchable Wildlife site at least 1 hour before sunrise**. You should leave Gunnison at least 1 hour 45 minutes before sunrise. See the table to the right for this year's sunrise times.
- If you are the first vehicle, pull up into the semi-circular drive behind the rock wall as far north as you can. Subsequent vehicles parallel park behind the first car. Please pull up as close as possible to the vehicle in front.
- When you arrive at the Waunita Watchable Wildlife Site a volunteer will greet you. They can help answer questions and will be monitoring your activities through the morning. Please do not leave your vehicle.
- Turn off vehicle engine when you arrive and do not start up engine until you leave. You must remain in your car until all birds have flushed from the lek.
- Please remain in your vehicle and set up a spotting scope. Remain as quiet as possible: NO radios, cell phones, horn honking, car door slamming or other automobile noises.
- An outhouse is available at the site. **After** the grouse have flushed you are welcome to leave your vehicle, use the outhouse, and read the interpretive literature.
- Remain very quiet; if you do talk keep your voices to a whisper.
- **Do not leave the site and remain in your vehicle until the birds have ended their displays and have departed from the lek. A volunteer will indicate when it is appropriate to leave.**

2014 Gunnison Sunrise

Day	April	May
1	0653	0611
2	0652	0610
3	0650	0609
4	0649	0608
5	0647	0606
6	0646	0605
7	0644	0604
8	0643	0603
9	0641	0602
10	0640	0601
11	0638	
12	0637	
13	0635	
14	0634	
15	0632	
16	0631	
17	0629	
18	0628	
19	0627	
20	0625	
21	0624	
22	0623	
23	0621	
24	0620	
25	0619	
26	0617	
27	0616	
28	0615	
29	0614	
30	0613	

Site Management:

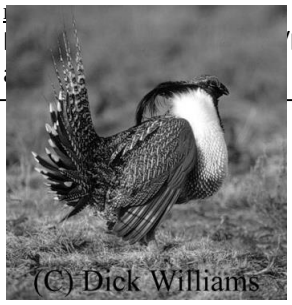
Colorado Parks and Wildlife owns and manages the pull off. Protocols are enforced by them. ***Any person deviating from these protocols is suspect to a wildlife violation and fine.*** Sisk-a-dee provides educational programs and viewings for the public and holds the permit to coordinate the commercial use of the Waunita Watchable Wildlife Site from the Colorado Parks and Wildlife. Contact Sisk-a-dee for more information (siskadee.org). Western State Colorado University (WSCU) provides volunteers to monitor the bird population and human disturbances at the site.

- Contact Colorado Parks and Wildlife at 970-641-7060, or Sisk-a-dee at 970-641-3959 for more information.

Habitat Stamp: Visitors of Colorado State Wildlife Areas may purchase a Colorado Wildlife Habitat Stamp from the Colorado Parks and Wildlife. Proceeds go to protecting wildlife habitat. Stamps may be purchased online at: http://wildlife.state.co.us/LandWater/HabitatStamp/Pages/HabitatSta

/LandWater/HabitatStamp/Pages/H

If you are interested in information on local accommodations please contact the Gunnison Country Chamber of Commerce: 500 East Tomichi, Gunnison, CO *970-641-1501*. The Waterwheel Inn offers discount rates for birders and grouse viewers (970-641-1650). Waunita Hot Springs Ranch, 8 miles northeast of the lek, also offers lodging (970-641-1266, http://www.waunita.com).



2014
Waunita Watchable Wildlife Site:
Gunnison Sage-grouse Lek
Commercial and Group Viewing Information and Protocol

The Gunnison Sage-grouse is a seriously imperiled species and highly vulnerable to human disturbance. The US Fish and Wildlife will a make a decision in September 2014 regarding the listing of the bird as an endangered species. Sisk-a-dee, Colorado Parks and Wildlife and Western State Colorado University actively manage the Waunita Watchable Wildlife site to minimize the impacts of viewing on the birds. Please help us make this viewing experience quality or you and other birders by following the protocol below. Thank you for your efforts and enjoy the rare and beautiful dance of the Gunnison Sage-grouse!

2014 Gunnison Sunrise

Day	April	May
1	0653	0611
2	0652	0610
3	0650	0609
4	0649	0608
5	0647	0606
6	0646	0605
7	0644	0604
8	0643	0603
9	0641	0602
10	0640	0601
11	0638	
12	0637	
13	0635	
14	0634	
15	0632	
16	0631	
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24	0620	
25	0619	
26	0617	
27	0616	
28	0615	
29	0614	
30	0613	

to reduce January contact for van door birds and their lek. displays lek for leave to on. grouse person fine. permit

Viewing Trailer

- The trailer is to be used by groups with reservations only. In order scheduling conflicts, you may only reserve the trailer beginning 1 for the following calendar year. To make a group reservation Sisk-a-dee at 970-641-3959. A $100 fee is required.
- All groups will be escorted to the viewing trailer at the Waunita Watchable Wildlife site at least 1 hour before sunrise. See the table sunrise times.
- Remain as quiet as possible: NO radios, cell phones, horn honking, slamming or other automobile noises.
- Do not drop anything inside of the trailer. This will disturb the they might flush.
- Remain very quiet; if you do talk keep your voices to a whisper.
- An outhouse is available at the site for use **after** the grouse depart
- Once inside the trailer do not leave until the birds have ended their and have departed from the lek. Your volunteer guide will scan the an additional five to ten minutes before allowing your group to be sure all sage-grouse have left the lek.
- Bring binoculars, spotting scopes, warm clothes and blankets to sit
- When the sun illuminates the trailer please remain very still. The potentially see movement in the trailer and become nervous.
- Protocols are enforced by Colorado Parks and Wildlife. Any deviating from these protocols is suspect to a wildlife violation and
- Commercial use of the Waunita Watchable Wildlife site requires a from Colorado Parks and Wildlife. All commercial users with reservations are covered under Sisk-a-dee's permit.

- Contact Colorado Division of Parks and Wildlife at 970-641-7885 or Sisk-a-dee at 970-641-3959 for more information.

Habitat Stamp: Visitors of Colorado State Wildlife Areas may purchase a Colorado Wildlife Habitat Stamp from the Colorado Parks and Wildlife. Proceeds go to protecting wildlife habitat. Stamps may be purchased online at:
http://wildlife.state.co.us/LandWater/HabitatStamp/Pages/HabitatStamp.aspx

If you are interested in information on lodging accommodations, please contact the Gunnison Country Chamber of Commerce: 500 East Tomichi, Gunnison, CO 970-641-1501. The Waterwheel Inn offers discount rates for birders and grouse viewers (970-641-1650).
Waunita Hot Springs Ranch, 8 miles northeast of the lek, also offers wildlife 970-641-1266 http://www.waunita.com

http://wildlife.state.co.us/LandWater/HabitatStamp/Pages/HabitatSta

Gunnison Sage-grouse
Waunita Watchable Wildlife Program Highlights

Land Conservation -- Public/Private Partnership
Pringle Family has conservation easement of property containing the lek, held by TNC
CPW owns parking and viewing area

Site Management – CPW
CPW is responsible for site logistics
CPW built the site – includes a parking drive way, a rock wall, viewing trailer site, educational signage
Owns and maintains viewing trailer and moves it on and off the site
Regulates site rules such as opening and closing dates (1 April to 15 May)
Issues a Special Use permit to Sisk-a-dee to coordinate the Watchable Wildlife Program

Educational Program and Public Viewing – Sisk-a-dee, CPW
Sisk-a-dee provides a free program open to public, consists of an evening slide show and morning viewing; program highlights grouse ecology and conservation
(siskadee.org)
nd commercial users in consultation with CPW
d photography (5-10 calls per week)
cope and tripod; Sisk-a-dee provides second scope and tripod

Reservations for the Waunita Watchable Wildlife Grouse

Viewing Trailer may be made beginning on 1 January the year

Commercial Lek Viewing – Sisk-a-dee, Western, CPW
Sisk-a-dee communicates with commercial groups and maintains/updates viewing protocols
Sisk-a-dee holds special use permit with CPW
Sisk-a-dee collects user fees
CPW provides viewing trailer
Western volunteers guide groups to viewing trailer

Human Use and Grouse Monitoring Effort – Western, CPW, Sisk-a-dee
CPW provides paid internship opportunity for Western student
CPW helps attract volunteers for the site through their volunteer program
Western coordinates volunteer effort
A WSCU student coordinates the volunteer effort as an intern with CPW
Student supervises and trains a team of volunteers (approximately 10)
Volunteers monitor the viewing area every morning from 1 April to 10 May

One volunteer serves as the monitor for the public viewing in parking lot, greets visitors
One volunteer accompanies the commercial viewers to viewing trailer
Both volunteers record number of grouse at site according to CPW lek counting protocol
Public viewing volunteer also collects data on the number of human visitors and their behaviors
WSCU intern organizes site visits for all commercial groups

Western and Sisk-a-dee manage the data and write a final report for CPW each season

Gunnison Sage-grouse Viewing
Scheduling Calendar
2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		April 1 Parking Lot: Eric K Trailer - None	April 2 Parking Lot: Heather Trailer - None	April 3 Parking Lot: Kyle G Trailer	April 4 Edward Pullen 253-905-5662 edwardpullen@gmail.com Group: 3 Hotel: Comfort Inn Confirmed Parking Lot: Karen Trailer: Dan Sisk-a-dee Evening Program 6:30 pm H136	April 5 Sisk-a-dee Viewing Parking Lot: Mike C. Trailer: Pat!
April 6 Pat Pourchot pat@pourchot.com 907-250-7798 Comfort Inn Group:8 Parking Lot: Cassie Trailer: Krystal Confirmed	April 7 CT Audubon Andy Griswald philiprusch@charter.net Group: 6 Hotel: Holiday + Single: Nick Whitehouse Parking Lot: Dan Trailer: Mike H Confirmed	April 8 Parking Lot: Sarah K Trailer: Amy H	April 9 Parking Lot: Heather Trailer: None	April 10 Field Guides Incorporated Megan Crew mburnett@fieldguides.com 609-408-3680 Group:16 Hotel: Holiday Inn Parking Lot: Eric K Trailer: Kyle G. Confirmed	April 11 Wildside Tours Inc. Adrian Binns 267-968-9500 binns@wildsidetoursinc.com Group:19 total Hotel:Holiday Inn Hotel: Tomichi VENT (Gibbons) Parking Lot: Dan Trailer: Karen Confirmed	April 12 Sisk-a-dee Viewing Sisk-a-dee Evening Program 6:30 pm H136 (4/11) Parking Lot: Mick Trailer: Pat!
April 13 Parking Lot: Cassie Trailer: Krystal	April 14 Single Viewer Joanna Hubbard Jmh_tk@yahoo.com Water Wheel 907-242-6951 Willing to share trailer other group. Parking Lot: Rachel Trailer: Dan Confirmed	April 15 High Lonesome Bird Tours Forrest Davis 443 838 6589 forrest@highlonesometours.com Group: 18 Hotel: Comfort Inn Parking Lot: Eric K Trailer: Dan Confirmed	April 16 Dan Wilkerson Group:2 Hotel: Water Wheel 979-777-4499 Parking Lot: Heather Trailer: Mike H Confirmed	April 17 Parking Lot: Kyle G Trailer: None	April 18 Field Guides Incorporated Eric Haynes mburnett@fieldguides.com 207-807-8791 Group:16 Hotel: Holiday Inn Parking Lot: Anna J Trailer: Karen Confirmed	April 19 Eagle Eye Tours Rudolf Koes rkoes@mts.net Group: 6 Hotel:Water Wheel – meet at lek 204-661-0763 Parking Lot: Mike C Trailer: Mick Confirmed

April 20 Parking Lot: Camy Trailer: None	April 21 Mike Hendrickson Mike Hendrickson Guiding michaelleehendrickson @gmail.com 218-348-5124 Group: 8 Hotel: Holiday Inn Parking Lot: Mike H Trailer: Dan Confirmed	April 22 Parking Lot: Amy H Trailer: None	April 23 Quetzal Tours Nick Komar 970-449-3645 Group: 8 Hotel: Water Wheel Quetzal65@comcast.net Parking Lot: Rachel Trailer: Heather Confirmed	April 24 Samual Heliangelus heliangelus@teila.com Roadway Inn +46-76-767 39 76 (Text) Group:5 Parking Lot: Eric K Trailer: Kyle G Confirmed	April 25 Partnership for International Birding David Trently david@pibird.com 570-483-4275 (cell) Group: 5 Hotel: Quality Inn Norm Lewis 303-910-1629 Parking Lot: Karen Trailer: Dan Confirmed	April 26 David Hursh dhursh@hotmail.com 781-296-1603 Group: 12 Hotel: ABC Parking Lot: Mick Trailer: Mike C Confirmed
April 27 Jeff Blinco Dick Filby 970-704-9178 Waterwheel Inn Group:8 Parking Lot: Cassie Trailer: Krystal Confirmed	April 28 Parking Lot: Dan Trailer: None	April 29 Parking Lot: Eric K Trailer: None	April 30 Parking Lot: Mike H Trailer: None	May 1 Parking Lot: Kyle G Trailer: None	May 2 Parking Lot: Karen Trailer: None	May 3 Parking Lot: Mick Trailer: None
May 4 Rob Alvo BABINA Robalvo1@gmail.com 613-407-8253 Group: 4 Water Wheel Parking Lot: Trailer CANCELED Confirmed	May 5 Parking Lot: Dan Trailer: None	May 6 Parking Lot: Amy H Trailer: None	May 7 Parking Lot: Heather Trailer: None	May 8 Parking Lot: Eric K Trailer: None	May 9 Parking Lot: Mike C Trailer: None	May 10 Parking Lot: Dan Trailer

Gunnison Sage-grouse Viewing
Scheduling Calendar
2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			April 1	April 2	April 3	April 4 Sisk-a-dee
April 5	April 6 Partnership for International Birding David Trently 570-483-4275 http://www.pibird.com	April 7 Ornithology	April 8 Greg Greene **WINGS Birding Tours** Greg@wingsbirds.com (520) 320-9868	April 9 Mike and Nigel birders@birdquest-tours.com Group: 15	April 10 Sisk-a-Dee	April 11 V.E.N.T. Michael O'Brien tsweet@comcast.net Brian Gibbons brian_gibbons@juno.com Group: 16 Hotel:

April 12	April 13 **High Lonesome Bird Tours** Forrest Davis 443 838 6589 forrest@highlonesometours.com Group: Hotel:	April 14 **High Lonesome Bird Tours** Forrest Davis 443 838 6589 forrest@highlonesometours.com Group: 16 Hotel:	April 15 CT Audubon Phillip Rusch philiprusch@charter.net	April 16 Dick Filby 970-704-9178	April 17 Jan Hansen 919-259-9423 otusasiotours@gmail.com Group: 8	April 18 Partnership for International Birding David Trently 570-483-4275 http://www.pibird.com
April 19 Eagle Eye Tours Rudolf Koes rkoes@mts.net	April 20	April 21	April 22	April 23 Partnership for International Birding David Trently 570-483-4275 http://www.pibird.com	April 24	April 25
April 26	April 27	April 28	April 29	April 30	May 1	May 2
May 3	May 4	May 5	May 6	May 7	May 8	May 9