Reptiles and Amphibians in Deep Canyons: The Big Jacks and Little Jacks Creek Drainages of Owyhee County, Idaho

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INTRODUCTION

Many of the reptiles and amphibians that live in southern Idaho can be found in the canyons of Owyhee county. However, of the few studies on reptiles and amphibians that have been conducted in Owyhee county (Diller 1981, Munger et al. 1993, 1994, Beck 1994) none have been conducted in the deep canyon areas, such as Big Jacks and Little Jacks Creeks. These canyons, which can reach a depth of 400 meters, contain habitat suitable for many native reptiles and amphibians. However, it is presently unknown whether canyons represent a hot spot of herpetological diversity, and therefore are worthy of protection, or whether they are relatively depauperate, or are somewhere in between. This study will examine the diversity and abundance of reptiles and amphibians in deep canyons of Owyhee County, and should therefore provide a model for other similar areas in Southern Idaho. For the purposes of this report, all areas within the Big Jacks and Little Jacks Creeks drainages will be referred to as the "study area". The term "herp" is used in this report to collectively refer to reptiles and amphibians.

Of the species potentially found in the study area the Spotted Frog is listed by the U.S. Fish and Wildlife Service (USFWS) as a candidate species, the Idaho Department of Fish and Game (IDFG) as a species of special concern A (priority species), and by the Bureau of Land Management (BLM) as a sensitive species. The Northern Leopard Frog and the Mojave Black-collared Lizard are listed by the BLM as sensitive, and by IDFG as a species of special concern A. The Western Toad is listed as an IDFG species of special concern C (undetermined status) and by the BLM as sensitive. The Western Ground Snake, and the Longnose Snake are listed by IDFG as species of special concern B (peripheral species).

This study was designed primarily as a survey to determine presence or absence of reptiles and amphibians of the deep canyons of the Big Jacks and Little Jacks creek drainages, and to provide baseline data for future studies. In addition, we collected data to determine movement patterns of snakes in the vicinity of Parker Trail on Big Jacks Creek.

METHODS AND MATERIALS

Two methods of determining presence of herps were utilized; drift fences in conjunction with funnel traps, and visual encounter searches. These two methods were employed in four regimes: upland, rim, midslope/draws, and canyon bottom. The upland regime was not actively surveyed. Reptiles found in this regime were, therefore, incidental to the study, and included road sightings (both dead and alive) and reptiles that were seen while traveling within the study site. Rim sightings included animals encountered within 100 m of the rim, including those captured in drift fence arrays. Mid-slope sightings were characterized by draws, talus benches, and other suitable habitat that was below the cliff that defined the rim regime, but did not include talus that actually emerged onto the canyon bottom. Some areas of extremely steep canyon walls did not have a mid-slope regime. The canyon bottom was defined to include all sand bars, and talus or dirt that actually emerged onto the floor of the canyon.

Drift Fence installation and construction: Twenty seven drift fence arrays were placed in and near Big Jack's Creek Canyon, as shown in Fig. 1. Drift fences were constructed of two sections of material, either construction grade silt fence or strips of sheet metal flashing. Forty-three sections were constructed of steel flashing, each section used a piece 21" wide by 25' long. The edge of each section was buried a minimum of six inches underground. On plateaus and windy slopes the bottom four inches was bent over before burying to keep the fence from blowing out of the ground. Steel fencing was installed in a trench that was no deeper than six inches and only wide enough to fit the steel in with the bottom four inches bent at a right angle to the fence (Fig. 2). Eight sections were constructed of silt fence, each section was twenty-five feet long by three feet wide with a two by two wooden post at each end and two spaced evenly between the end posts. The posts were driven into the ground at angles so they only contacted the fence at the top. Three foot long strip lathe was used to brace cloth that sagged due to uneven ground. Twenty-seven arrays were erected, 25 of which were comprised of 2 sections and the remainder of one twenty-five foot section of steel fence each. Of the twenty-seven arrays, eight were comprised of one section of steel fence and one section of silt fence, with the objective of determining whether or not there was a difference in effectiveness of each type of fence.

Funnel Traps: Funnel traps were constructed of aluminum window screen. A piece of screen was cut 24" on one side and 20" on the other. This piece was rolled into a cylinder 24" long and stapled together with household staples. One end of the cylinder was flattened, folded over, and clipped with clothespins. To make the funnel, a half circle was cut from the same material as the body and rolled into a funnel with a diameter of 22cm at the widest point. The point end of the funnel was cut off to make a hole that was about 3cm across. This funnel was inserted into the open end of the cylinder and stapled in place with the small hole inside the trap (Fig. 3). On each section of drift fence were placed four funnel traps, two on either side of each end of the fence. Each funnel trap was placed tightly against and parallel to the fence with the opening facing the center of the section of drift fence as in fig. 3. A dirt ramp was constructed into the opening of the funnel trap to keep reptiles from passing underneath the trap and to help guide them into the trap. To give reptiles a place of refuge from the sun, a piece of cardboard

Figure 1. Location of drift fence arrays within Big Jack's Creek, Owyhee Co., Idaho. Each array consisted of two lengths of drift fence in the orientations shown. Traps at either end of the fences are denoted in the appendix by the following code: If the fences perpendicular, the traps at the N end of the N-S segment were labeled A and B with A on the west side; traps on the S end were labeled C and D with C on the west side. Traps on the W end of the E-W fence were labeled E and F, with E to the N, and the E end labeled G and H with G to the W. If arrays were in a N-S line, the traps were labeled (from the N end) A, C, E, and G on the W side and B, D, F, and H on the E side. If in a E-W line, traps were labeled (from the W end) A, C, E, and G on the N side and B, D, F, and H on the S side.

Figure 2a. Configuration of silt fence installation.

Figure 2b. Steel drift fence installation configuration.

Figure 3. Position of traps on the drift fence end.

was placed inside each trap and a shade of wood, cardboard, or branches was placed over the top.

Site Selection: Arrays were placed, when possible, at the junction of habitat types within each regime because of the greater likelihood of finding reptiles there that were moving between habitat types to forage. Arrays were placed in the regime defined for rim, mid-slope, and bottom of the canyon. Placement of the drift fence arrays was decided on site and on a per-array basis. Positioning of the arrays was based on practical placement with regards ease of installation, and presence of appropriate habitat.

Monitoring: The arrays were checked on a three day rotating basis to avoid casualties. Each trap was removed and thoroughly examined for the presence of animals. If a snake was caught in the trap, it was removed and sex, length, and species were recorded. Each snake within a 5 km radius of Parker Trail was marked with a unique number so it could be identified if recaptured. The marks were made on the ventral scales in the rear third of the snakes body. Scales were clipped to flank the number of unclipped scales for each digit of the marked number. For example, three clipped scales with three unclipped scales between the first two clipped scales and four between the second and third clipped scales would constitute number thirty-four. Lizards that were caught in traps were not marked, but all other data was recorded as for snakes. Animals other than reptiles or amphibians (e.g., birds and mammals) were released and no data was taken other than noting their presence in the trap.

Visual Searches: Visual searches consisted of selecting a section of canyon within the Big Jacks and Little Jacks Creeks drainages that was reasonably accessible, and hiking that section looking for reptiles. While performing visual searches, rocks and other surface debris were turned. All reptiles that were captured were sexed and sized, but not marked unless they were within 5 km of the drift fence arrays. Survey areas outside the trapping area were only surveyed once. All habitat that was disturbed when performing a visual search was replaced as close to its original condition as possible. When we encountered a skin from a reptile, it was identified to species, and recorded as a capture but note was made that it was a skin. We also noted the cloud cover, temperature in Celsius, time, location, and any distinguishing features of the reptiles encountered.

Visual searches of Big Jacks creek consisted of areas south of the Cottonwood/Big Jacks creek confluence three miles and north of the Cottonwood/Big Jacks creek confluence to the Wickahoney Creek confluence. We also conducted visual encounter searches for 1/4 mi north and south of where Big Jacks creek crosses Battle creek road. We surveyed Cottonwood creek from Cottonwood springs to the Big Jacks creek confluence. We surveyed a one mile section of Big Jacks creek, five miles south of the Big Jacks/Little Jacks creek confluence.

The confluence of Big Jacks/Little Jacks creek was surveyed extensively as well as tributaries in the vicinity and surrounding hills. This area was visited on three occasions because of the frequency that we passed through on our way to other sections of the creeks. The bench above the confluence was searched as well as Rattlesnake creek which drains the bench into Little Jacks creek.

Little Jacks creek was surveyed in fewer places because of limited access points. We surveyed a one mile section of the creek near OX reservoir and approximately two miles south of

the confluence with Big Jacks creek. We also surveyed approximately one mile of Little Jacks creek on either side of the Rattlesnake creek confluence, and a one mile section beginning approximately two miles south of the Rattlesnake creek confluence.

In addition to the main creeks we conducted visual encounter surveys in other areas that contained apparently good habitat for herps. Most of these areas fell along roads that travelled parallel to the main creeks. The areas that we visited on these occasions were: Hole in Rock, Big Horse Basin Gap, Rattlesnake Gulch, Wickahoney, Whites Reservoir, Mud Flat Road and Shoofly Cutoff Road.

RESULTS

A total of 623 reptiles were encountered during the course of the study. Two hundred eighty-five reptiles were caught in the rim regime, 53 were caught mid-slope, and 116 were caught on the canyon bottom. The remaining 169 reptiles were incidental to the study.

Snakes:

Six species of snakes were found in the canyons of the study area: Gopher Snakes, Western Whipsnakes, Western Rattlesnakes, Night Snakes, Western Terrestrial Gartersnakes, and Western Racers. An additional two species that were found incidental to the study: Western Ground Snakes, and Longnose Snakes. Snakes were found in approximately the same numbers on the rim as in the canyon bottoms. Only a small percent of the snakes found were found mid-slope (Fig. 4). Snakes amounted to about one third of all reptiles caught on the rim, as did snakes caught mid-slope. Snakes accounted for about 80% of all reptiles caught on the canyon bottom. Eighty-nine snakes were marked within 5km of Parker Trail. A total recapture count of each species appears in Fig. 5.

Lizards:

Seven species of lizards were found in the canyons surveyed; Side-blotched lizards, Western Fence lizards, Desert Horned lizards, Short Horned lizards, Longnose Leopard lizards, Western Whiptails, and Western Skinks. One additional species was found incidental to the study, the Mojave Black-collared lizard. Lizards comprised about 70% of the reptiles found on the rim, and two-thirds of those reptiles found mid-slope. Lizards accounted for only about 20% of the reptiles found on the canyon bottom; lizards were found almost strictly on the rim (Fig. 6).

Amphibians:

There was only one species of amphibian found in the study area, Pacific Tree Frog, which was identified by Jim Munger, by call. All others were incidental to the study. This frog accounted for one percent of all herps found on the canyon bottom.

Figure 4.

Figure 5.

Figure 6

Visual Encounter Searches:

In addition to the data obtained from trapping, we found some notable herps during our visual encounter searches. On July 3, we stopped at Big Horse Basin Gap to survey primarily for *Crotaphytus bicinctores*. We found only one *C. bicinctores*, but in the wash that emerges from the gap, we found an unusually high number of *Sonora semiannulata* skins and living specimens. We also found one *Hypsiglena torquata*. All herps except the *C. bicinctores* were found by turning rocks. We returned to this site on Sept. 9, and found two *C. bicinctores* juveniles and no fresh *S. semiannulata* skins nor live specimens. We found *C. bicinctores* on hot sunny days in rocky areas north of the main bench. We found a *C. bicinctores* population at Big Jacks Creek where the pipeline and the creek meet. We found them consistently for about .5 mi to the east of Big Jacks creek and for about 1.5 mi to the west. We found a population on the Oreana-Triangle road just before climbing the bench.

DISCUSSION

Based on their geographic ranges (Nussbaum et al. 1985 and Stebbins 1986) the following reptiles and amphibians potentially occur in the study area; those marked with an asterisk were found during the course of this study.

Snakes:

- *Western Rattlesnake (*Crotalus viridis*)
- *Great Basin Gopher Snake (*Pituophis catenifer*)
- *Western Yellow-bellied Racer (*Coluber constrictor*)
- *Western Striped Whipsnake (*Masticophis taeniatus*)
- *Western Ground Snake (*Sonora semiannulata*)
- *Night Snake (*Hypsiglena torquata*)
- *Western Longnose Snake (*Rhinocheilus lecontei*)
- *Western Terrestrial Garter Snake (*Thamnophis elegans*)
- Common Garter Snake (*Thamnophis sirtalis*)
- Rubber Boa (*Charina bottae*)

Lizards:

- *Longnose Leopard Lizard (*Gambelia wislizenii*)
- *Western Whiptail (*Cnemidophorus tigris*)
- *Desert Horned Lizard (*Phrynosoma platyrhinos*)
- *Short Horned Lizard (*Phrynosoma douglassi*)
- *Side-blotched Lizard (*Uta stansburiana*)
- *Western Fence Lizard (*Sceloporus occidentalis*)
- *Sagebrush Lizard (*Sceloporus graciosus*)
- *Mojave Black-collared Lizard (*Crotaphytus bicinctores*)
- *Western Skink (*Eumeces skiltonianus*)

Amphibians:

- *Pacific Treefrog (*Pseudacris regilla*)
- Spotted Frog (*Rana pretiosa*)
- Northern Leopard Frog (*Rana pipiens*)
- Western Toad (*Bufo boreas*)
- Woodhouse's Toad (*Bufo woodhousei*)
- Great Basin Spadefoot Toad (*Spea intermontanus*)

Reptiles and amphibians potentially found in the study area represent 69% of the total species of reptiles and amphibians in Idaho. Additionally, Long-toed Salamanders (*Ambystoma macrodactylum*) could possibly be found in the study area because the salamander's range borders the study area, and habitat within the study area is similar to the preferred habitat of the salamander. As marked by an asterisk above, we found 17 of 19 potential reptile species during the course of the study.

We found reptiles in all three of the regimes that we surveyed: canyon bottom, mid-slope, and rim. The rim and canyon bottom regimes contained the most reptiles; relatively few were seen in the mid-slope regime, especially during the hottest part of the summer (Fig. 7).

Big Jacks Creek was surveyed using mainly standard drift fence arrays. The drift fence arrays were of two types, steel flashing and silt fence. Silt fence was set up to determine its effectiveness. Insufficient data was obtained to determine to what extent silt fence is effective. Lizards were seen climbing on the silt fence itself. Snakes have been observed using the upright posts to climb over the fence if the posts are placed too close to the fence (M. Gerber pers. obs.). We angled the uprights to eliminate the latter problem. Movement by reptiles in the trapping area was negligible, with very few being recaptured more than 50m from the original site of capture. We did capture an unusually high number of rattlesnakes in one array on the rim in the spring, but by mid summer we could only find one. This could be the result of a den in the vicinity of the array.

Visual searches did not appear to be effective during this study. We found a limited number of species of reptiles using this method. The areas that were surveyed were very rocky, and although rocks were turned, there were many deep talus runs that enabled snakes to retreat far below the surface, thus limiting the habitat that was practical to survey using this method. Except for one Western Groundsnake population, all reptiles that were seen were active foraging, diurnal species such as Gopher snakes, Racers, Whipsnakes, and Western Terrestrial Garter snakes. We occasionally encountered Western Rattlesnakes, which are usually crepuscular but were found frequently during mid morning hours. Representatives of all nine species of lizards found in this study were found during visual searches. Most of the lizards were found on the canyon rim while lizards on the canyon bottom were second in abundance. Mojave Black-collared lizards and Longnose Leopard lizard were recorded as incidentals.

Figure 7

SUMMARY

Sixteen species of reptiles and amphibians were found in this study, of which 13 were associated with the deep canyons. Canyon rims and canyon bottoms were utilized by reptiles the most. Western Terrestrial Garter Snakes were found strictly on the bottoms, and Western Rattlesnakes were found primarily on the rim. Gopher Snakes, Racers, and Striped Whipsnakes were found to be relatively abundant in all three regimes surveyed. There appeared to be little or no vertical movement of reptiles between regimes. These deep canyons are important areas in the desert for reptiles because they provide apparently suitable cover and forage for most of Idaho's reptiles. Most of the waterways in these deep canyons are perennial and provide apparently good habitat for reptile and amphibian species.

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Appendix: Capture information for summer of 1985. "W/Geo" refers to the trap array (see figure).														
Regimes: bottom = bottom of canyon, 2 = a mesocosm, 3 = top of canyon, 4 = incidental leeway from canyon														
UTM's and Elevations were taken from USGS 7.5' topographic maps.														
Date	Time	Genus	Species	regime	Mark #	Micro	Temp C	Sun/Cloud	Wind	ER	Legal	UTM N	UTM E	Elevation
Amphibians														
05/19/85	900	Pseudacris	regilla	i	no	10		clear	breazy		T11S R2E SEC 4			
05/19/95	1440	Pseudacris	regilla	b	no	26		clear	breazy		T11S R4E SEC 24			
06/19/85	1567	Pseudacris	regilla	i	no	20		p/c	breazy		T11S R3E SEC9 SE SW SE	4714310	562310	4160
06/19/85	1567	Pseudacris	regilla	i	no	20		p/c	breazy		T11S R3E SEC9 SE SW SE			
05/19/85	1003	Pseudacris	regilla	i	no	17		clear	breazy		T10S R2E SEC 20	4708425	564580	5620
Lizards														
07/03/95	1744	Chnemidophorus	lignis	r	no	21	P/C	windy	7	T10S R4E SEC 4 NW NE NE	4715470	563180	4800	
07/03/95	1437	Chnemidophorus	lignis	r	no	22	P/C	windy	7	T7S R4E SEC 22 NE SE SE	4738890	566620	2680	
07/03/95	1731	Chnemidophorus	lignis	r	no	2 F 21	P/C	windy	7	T10S R4E SEC 4 NW NE NE	4715480	563350	4600	
07/03/95	1202	Chnemidophorus	lignis	i	no	21	M/C	breazy	8.5	T8S R3E SEC 14 SE NW SW	4730460	576300	3655	
07/03/95	1145	Chnemidophorus	lignis	r	no	13 E 21	M/C	breazy	8	T10S R4E SEC 12 SE NW SW	4730460	576300	3655	
07/03/95	1030	Chnemidophorus	lignis	i	no	23	P/C	breazy	8	T7S R4E SEC 22 NE SE SE	4738420	568160	2820	
07/05/95	2027	Chnemidophorus	lignis	r	no	3.5 A 27	P/C	breazy	8.5	T10S R4E SEC 4 NW NE NE	4715730	563320	4590	
07/05/95	925	Chnemidophorus	lignis	r	no	23	P/C	breazy	60	T7S R4E SEC 18 SW NW NW	4714240	560060	2680	
07/05/95	1056	Chnemidophorus	lignis	r	no	27	M/C	breazy	8	T10S R4E SEC 4 NW NE NE	4715730	563320	4580	
07/05/95	1052	Chnemidophorus	lignis	r	no	2 C 27	M/C	breazy	7	T10S R4E SEC 4 NW NE NE	4715730	563320	4600	
07/12/95	1318	Chnemidophorus	lignis	r	no	3 D 15	cloudy	windy	7	T10S R4E SEC 4 NW NE NE	4715730	563320	4600	
07/12/95	1315	Chnemidophorus	lignis	r	no	2 E 15	cloudy	windy	7	T10S R4E SEC 4 NW NE NE	4715730	563320	4600	
07/23/95	1050	Chnemidophorus	lignis	r	no	21	clear	breazy	9	T2S R2W SEC 27 NE NE SE	4785100	536310	2780	
07/23/95	852	Chnemidophorus	lignis	r	no	4 B 20	cloudy	windy	8	T10S R4E SEC 4 NW NE NE	4715770	563180	4600	
07/23/95	833	Chnemidophorus	lignis	r	no	1 E 21	cloudy	windy	8	T10S R4E SEC 4 NW NE NE	4715770	563120	4590	
06/29/95	811	Chnemidophorus	lignis	r	no	2 D 14	clear	windy	8.5	T10S R4E SEC 4 NW NE NE	4715780	563080	4400	
05/25/95	1304	Chnemidophorus	lignis	r	no	22	p/c	breazy	7	T10S R4E SEC 4 NW SW NE	4715680	563080	4500	
05/25/95	1337	Chnemidophorus	lignis	m	no	23	p/c	breazy	10	T10S R4E SEC 4 NW SW NE	4715680	562870	4400	
05/27/95	1159	Chnemidophorus	lignis	r	no	20	clear	breazy	12	T10S R4E SEC 4 NW SW NE	4715710	563000	4400	
05/29/95	1718	Chnemidophorus	lignis	r	no	22	clear	breazy	8	T10S R4E SEC 4 NW SW NE	4715710	563000	4400	
05/30/95	1157	Chnemidophorus	lignis	r	no	27	clear	breazy	8	T10S R4E SEC 4 NE NW NE	4715680	562800	4400	
06/12/95	1300	Chnemidophorus	lignis	i	no	30	clear	none	8	T6S R4E SEC 5 SW SE SE	4733220	561910	2780	
06/12/95	1305	Chnemidophorus	lignis	i	no	30	clear	none	9	T6S R4E SEC 5 SW SE SE	4733220	561910	2780	
06/12/95	1155	Chnemidophorus	lignis	i	no	30	clear	none	9	T6S R4E SEC 5 SW SE SE	4733220	561910	2780	
06/12/95	1267	Chnemidophorus	lignis	i	no	25	clear	breazy	9	T11S R4E SEC 18 NW NE NE	4714240	560060	2680	
06/12/95	1242	Chnemidophorus	lignis	r	no	2 C 32	clear	breazy	11	T10S R4E SEC 4 NW NE NE	4733220	561910	2780	
06/26/95	928	Chnemidophorus	lignis	r	no	22	clear	none	7	T7S R4E SEC 7 SE NE SE	4738190	568140	2710	
06/26/95	1222	Chnemidophorus	lignis	r	no	1 E 32	clear	breazy	9.5	T10S R4E SEC 4 SE NE NE	4715740	563490	4610	
06/26/95	1242	Chnemidophorus	lignis	r	no	4 E 32	clear	breazy	10	T10S R4E SEC 4 NW NE NE	4715770	563180	4600	
06/26/95	1222	Chnemidophorus	lignis	r	no	4 E 32	clear	breazy	9.5	T10S R4E SEC 4 SE NE NE	4715740	563490	4600	
06/26/95	1221	Chnemidophorus	lignis	r	no	1 D 32	clear	breazy	10	T10S R4E SEC 4 SE NE NE	4715740	563180	4610	
06/26/95	1312	Chnemidophorus	lignis	r	no	4.5 G 29	clear	breazy	4.5	T10S R4E SEC 4 NE NW NE	4715740	563120	4590	
06/28/95	1157	Chnemidophorus	lignis	r	no	5 D 22	clear	breazy	4.5	T10S R4E SEC 4 NE NW NE	4715770	563070	4600	
06/29/95	938	Chnemidophorus	lignis	r	no	17	clear	breazy	9	T6S R4E SEC 8 NW NW NW	4732020	567020	3020	
05/29/95	1221	Chnemidophorus	lignis	r	no	25	clear	breazy	7	T7S R4E SEC 28 SW SW SE	4733680	561810	2780	
06/29/95	1221	Chnemidophorus	lignis	r	no	25	clear	breazy	9	T7S R4E SEC 32 NE NW NW	4733680	561810	2780	
07/01/85	1845	Chnemidophorus	lignis	r	no	2 C 25	P/C	breazy	8	T10S R4E SEC 4 NW NE NE	4715760	563320	4600	
07/01/85	1628	Chnemidophorus	lignis	r	no	1 G 26	P/C	breazy	8	T10S R4E SEC 4 SE NE NE	4715740	563490	4610	
07/15/85	1330	Chnemidophorus	lignis	r	no	33	clear	breazy	8	T10S R4E SEC 4 NW NE NE	4715790	563320	4600	
07/15/85	1305	Chnemidophorus	lignis	r	no	4.5 F 31	clear	calm	9.5	T10S R4E SEC 4 NE NW NE	4715740	563120	4590	
07/18/85	1140	Chnemidophorus	lignis	r	no	4.5 E 31	clear	breazy	8	T10S R4E SEC 4 NE NW NE	4715740	563120	4590	
07/18/85	1150	Chnemidophorus	lignis	r	no	2 C 31	clear	breazy	9.5	T10S R4E SEC 4 NW NE NE	4715760	563320	4600	
06/12/95	1443	Crotaphytus	bicoloratus	i	no	30	clear	breazy	9	T8S R4E SEC 5 NW SE NW	4734250	561330	2660	
06/12/95	1520	Crotaphytus	bicoloratus	i	no	30	clear	breazy	10	T8S R4E SEC 5 NW NW NW	4734250	561330	2660	
06/12/95	1520	Crotaphytus	bicoloratus	i	no	30	clear	breazy	11	T8S R4E SEC 5 NW NW NW	4734250	561330	2660	
06/12/95	1520	Crotaphytus	bicoloratus	i	no	30	clear	breazy	9	T8S R4E SEC 5 NW NW NW	4734250	561330	2660	
06/12/95	1257	Crotaphytus	bicoloratus	i	no	30	clear	none	10	T8S R4E SEC 5 SW SE SE	4733220	561910	2780	
06/12/95	1257	Crotaphytus	bicoloratus	i	no	30	clear	none	10	T8S R4E SEC 5 SW SE SE	4733220	561910	2780	
06/12/95	1300	Crotaphytus	bicoloratus	i	no	30	clear	none	11	T8S R4E SEC 5 SW SE SE	4733220	561910	2780	
06/12/95	1511	Crotaphytus	bicoloratus	i	no	30	clear	breazy	9	T8S R4E SEC 5 SE SE NW	4734250	561330	2660	
06/12/95	1511	Crotaphytus	bicoloratus	i	no	30	clear	breazy	9	T8S R4E SEC 5 SE SE NW	4734250	561330	2660	
06/12/95	1511	Crotaphytus	bicoloratus	i	no	30	clear	breazy	10	T8S R4E SEC 5 SE SE NW	4734250	561330	2660	
06/12/95	1511	Crotaphytus	bicoloratus	i	no	30	clear	breazy	10	T8S R4E SEC 5 NW NW NW	4734250	561330	2660	
06/12/95	1520	Crotaphytus	bicoloratus	i	no	30	clear	breazy	9	T8S R4E SEC 5 NW SE NW	4734250	561330	2660	
06/12/95	1448	Crotaphytus	bicoloratus	i	no	30	clear	breazy	9	T8S R4E SEC 5 NW SE NW	4734250	561330	2660	
06/29/95	1210	Crotaphytus	bicoloratus	i	no	25	clear	breazy	12	T8S R4E SEC 5 SW SW NW	4733340	561920	2780	
06/29/95	1213	Crotaphytus	bicoloratus	i	no	25	clear	breazy	10	T8S R4E SEC 5 SW SW NW	4733350	561840	2780	
06/29/95	1147	Crotaphytus	bicoloratus	i	no	24	clear	breazy	12	T8S R4E SEC 8 NW NW NE	4733220	561910	2780	
06/29/95	1147	Crotaphytus	bicoloratus	i	no	24	clear	breazy	12	T8S R4E SEC 8 NW NW NE	4733220	561910	2780	
06/29/95	1215	Crotaphytus	bicoloratus	i	no	25	clear	breazy	11	T7S R4E SEC 31 SE NE NE	4733690	561910	2780	
07/03/95	1149	Crotaphytus	bicoloratus	i	no	21	M/C	breazy	10	T8S R3E SEC 14 SE NW SW	4730490	576300	3655	
07/22/95	1435	Crotaphytus	bicoloratus	i	no	27	P/C	breazy	12	T5S R1W SEC 1 NE NE NE	4730950	576300	3655	
06/09/95	1330	Crotaphytus	bicoloratus	i	no	23	clear	breazy	12	T8S R3E SEC 14 SE NW SW	4730460	576300	3655	
09/09/95	1330	Crotaphytus	bicoloratus	i	no	23	clear	breazy	11	T8S R3E SEC 14 SE NW SW	4730460	576300	3655	
05/20/95	1930	Eumeces	skiltonianus	r	no	4 E 20	clear	breazy	8	T10S R4E SEC 4 NW NE NE	4715740	563320	4600	
05/30/95	816	Eumeces	skiltonianus	r	no	4 E 20	clear	calm	9	T10S R4E SEC 4 NW NE NE	4715740	563120	4590	
06/01/95	2041	Eumeces	skiltonianus	b	no	13 A 19	cloudy	breazy	6	T9S R4E SEC 33 SE SE SW	4716000	562710	4160	
05/11/95	1053	Eumeces	skiltonianus	b	no	13 D 23	clear	none	8	T9S R4E SEC 33 SE SE SW	4716000	562710	4160	
05/28/95	1620	Eumeces	skiltonianus	m	no	9 G 32	clear	breazy	7	T10S R4E SEC 4 SW NW NE	4715620	562870	4420	
07/01/95	1930	Eumeces	skiltonianus	r	no	4.5 D 25	P/C	breazy	4	T10S R4E SEC 4 NE NW NE	4715740	563120	4590	
07/15/95	1305	Eumeces	skiltonianus	r	no	4.5 E 30	clear	breazy	5	T10S R4E SEC 4 NE NW NE	4715740	563120	4590	
05/06/95	1717	Gambusia	whitlani	i	no	15	cloudy	breazy	9	T7S R4E SEC 31 SW NW NW	4714840	570260	3170	
05/06/95	1707	Gambusia	whitlani	i	no	15	m/c	breazy	15	T7S R4E SEC 30 SW SW SW	4714740	571740	3078	
06/29/95	1232	Gambusia	whitlani	i	no	30	clear	breazy	8	T8S R4E SEC 2 SE NE NE	4733300	568620	3120	
06/29/95	964	Gambusia	whitlani	i	no	30	clear	windy	9	T8S R4E SEC 2 SE NE NE	4733300	568620	3120	
07/03/95	1033	Gambusia	whitlani	i	no	24	P/C	breazy	8	T7S R4E SEC 22 NE SE SE	4733220	561910	2820	
07/18/95	1207	Gambusia	whitlani	i	no	32	clear	breazy	10	T10S R4E SEC 9 SW SW SW	4711150	569950	4780	
07/18/95	920	Gambusia	whitlani	m	no	8 B 25	p/c	breazy	8.5	T10S R4E SEC 3 SW NW NW	4715620	562870	4400	
07/22/95	1400	Gambusia	whitlani	i	no	27	P/C	breazy	11	T5S R1E SEC 31 SW NW NW				
07/24/95	1917	Phrynosoma	douglasii	r	no	25	clear	breazy	7	T3N R4W S1S SE SW NE	4711500	568680	4780	
05/18/95	1443	Phrynosoma	douglasii	r	no	17	cloudy	breazy	4	T10S R4E SEC 4 NE NW NE	4715700	563320	4620	

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09/15/95	954	Uta	stansbuniana	m	no	10 D	18	cloudy	breezy	5	T10S R4E SEC 4 NW SW NE	4715440	582900	4440	
09/21/95	1635	Uta	stansbuniana	r	no	4.5 C	20	clear	windy	4.5	T10S R4E SEC 4 NE NW NE	4715740	583120	4590	
09/21/95	2012	Uta	stansbuniana	r	no	19 G	15	p/c	breezy	4.5	T10S R4E SEC 4 SW SW NE	4715130	582990	4620	
09/24/95	1143	Uta	stansbuniana	r	no		30	clear	calm	4.5	T10S R4E SEC 4 SW NE NE	4715650	583350	4560	
09/24/95	1147	Uta	stansbuniana	r	no	1 E	30	clear	breezy	4	T10S R4E SEC 4 SE NE NE	4715740	583480	4610	
09/24/95	1214	Uta	stansbuniana	r	no		30	clear	breezy	4.5	T10S R4E SEC 4 NE NW NE	4715760	583070	4600	
09/24/95	1104	Uta	stansbuniana	r	no	12 C	29	clear	none	4.5	T10S R4E SEC 4 NW NW NE	4715740	583290	4440	
09/26/95	1838	Uta	stansbuniana	m	no	12 C	28	m/c	breezy	4.5	T10S R4E SEC 4 NW NW NE	4715770	582630	4340	
09/26/95	1920	Uta	stansbuniana	m	no		27	c/c	breezy	4	T10S R4E SEC 4 NW NW NE	4715680	583080	4480	
09/26/95	1235	Uta	stansbuniana	r	no	2 F	32	clear	breezy	4.5	T10S R4E SEC 4 NW NE NE	4715760	583350	4600	
09/26/95	1823	Uta	stansbuniana	m	no	10 E	28	m/c	none	4.5	T10S R4E SEC 4 NW SW NE	4715440	582930	4440	
09/26/95	1921	Uta	stansbuniana	r	no	1 A	32	clear	breezy	4	T10S R4E SEC 4 SE NE NE	4715740	583480	4610	
09/26/95	1735	Uta	stansbuniana	r	no	2 H	32	clear	breezy	5	T10S R4E SEC 4 NW NE NE	4715760	583350	4600	
09/26/95	1735	Uta	stansbuniana	r	no	2 E	32	clear	breezy	4	T10S R4E SEC 4 NW NE NE	4715760	583350	4600	
09/27/95	1900	Uta	stansbuniana	r	no	6 A	27	clear	breezy	4	T10S R4E SEC 4 NE NW NE	4715840	583050	4600	
09/28/95	1025	Uta	stansbuniana	r	no		22	clear	breezy	4.5	T10S R4E SEC 4 SW SW NE	4715180	582650	4620	
09/28/95	1854	Uta	stansbuniana	m	no	10 G	30	clear	breezy	4	T10S R4E SEC 4 NW NW NE	4715740	583290	4440	
09/28/95	1115	Uta	stansbuniana	r	no	3 C	22	clear	breezy	5	T10S R4E SEC 4 NW NE NE	4715790	583260	4600	
09/28/95	1058	Uta	stansbuniana	r	no	2 G	20	clear	breezy	4.5	T10S R4E SEC 4 NW NE NE	4715760	583350	4600	
09/28/95	1032	Uta	stansbuniana	r	no		20	clear	breezy	4.5	T10S R4E SEC 4 SW SW NE	4715210	582920	4620	
09/28/95	1033	Uta	stansbuniana	r	no		20	clear	breezy	4.5	T10S R4E SEC 4 SW SW NE	4715210	582920	4620	
09/28/95	1123	Uta	stansbuniana	r	no	4.5 G	29	clear	breezy	4.5	T10S R4E SEC 4 NE NW NE	4715740	583120	4590	
09/28/95	948	Uta	stansbuniana	b	no		24	clear	breezy	4.5	T8S R4E SEC 3 NW NW NE	4733220	581190	2780	
09/28/95	948	Uta	stansbuniana	i	no		17	clear	windy	4	T7S R4E SEC 36 SE SW NE	4733500	586700	3100	
09/28/95	1148	Uta	stansbuniana	i	no		24	clear	breezy	4.5	T8S R4E SEC 3 NW NW NE	4733220	581910	2780	
07/10/95	1837	Uta	stansbuniana	i	no		1 A	32	clear	breezy	4.5	T10S R4E SEC 4 NW NW NE	4715740	583120	4590
07/10/95	1829	Uta	stansbuniana	r	no	5.5 A	24	P/C	breezy	5	T10S R4E SEC 4 NE NW NE	4715950	583100	4620	
07/10/95	2001	Uta	stansbuniana	r	no		25	P/C	breezy	4.5	T10S R4E SEC 4 NW NE NE	4715620	583290	4600	
07/10/95	1800	Uta	stansbuniana	i	no	3.5 D	25	P/C	none	5	T10S R4E SEC 4 NW NE NE	4715730	583260	4580	
07/10/95	1800	Uta	stansbuniana	i	no	3.5 D	25	P/C	none	5	T10S R4E SEC 4 NW NE NE	4715730	583260	4580	
07/09/95	1515	Uta	stansbuniana	m	no	8 A	28	cloudy	windy	4.5	T10S R4E SEC 4 SW NW NE	4715790	583290	4600	
07/09/95	1845	Uta	stansbuniana	r	no		21	M/S	windy	4.5	T0S R4E SEC 33 SW SW SE	4715110	583240	4500	
07/09/95	2021	Uta	stansbuniana	r	no	3 D	28	P/C	breezy	4.5	T10S R4E SEC 4 NW NE NE	4715790	583260	4600	
07/09/95	2023	Uta	stansbuniana	r	no	3 H	28	P/C	breezy	4.5	T10S R4E SEC 4 NW NE NE	4715790	583260	4600	
07/09/95	1111	Uta	stansbuniana	r	no		27	M/C	breezy	5	T10S R4E SEC 4 NE NW NE	4715870	583070	4600	
07/09/95	1111	Uta	stansbuniana	r	no		27	M/C	breezy	4.5	T10S R4E SEC 4 NE NW NE	4715870	583070	4600	
07/09/95	1111	Uta	stansbuniana	r	no		27	M/C	breezy	4.5	T10S R4E SEC 4 NE NW NE	4715870	583070	4600	
07/12/95	1318	Uta	stansbuniana	r	no	3 D	15	cloudy	windy	4	T10S R4E SEC 4 NW NE NE	4715790	583260	4600	
07/15/95	1147	Uta	stansbuniana	r	no		25	clear	breezy	4.5	T8S R4E SEC 33 NW NE SW	4716340	583025	4600	
07/15/95	1157	Uta	stansbuniana	b	no		25	clear	none	4.5	T8S R4E SEC 33 NW NE SW	4716500	582560	4060	
07/15/95	1135	Uta	stansbuniana	b	no		25	clear	none	4.5	T8S R4E SEC 33 NW NE SW	4716500	582560	4060	
07/15/95	1157	Uta	stansbuniana	b	no		25	clear	none	4.5	T8S R4E SEC 33 NW NE SW	4716500	582560	4060	
07/15/95	1245	Uta	stansbuniana	r	no	5 G	31	clear	breezy	5	T10S R4E SEC 4 NE NW NE	4715710	583070	4600	
07/15/95	1200	Uta	stansbuniana	b	no		25	clear	none	4.5	T8S R4E SEC 33 NW NE SW	4716500	582560	4060	
07/15/95	1124	Uta	stansbuniana	b	no		29	clear	none	4.5	T8S R4E SEC 33 NW NE SW	4717780	583470	4480	
07/15/95	1520	Uta	stansbuniana	r	no	3 C	33	clear	breezy	4.5	T10S R4E SEC 4 NW NE NE	4715790	583260	4600	
07/15/95	928	Uta	stansbuniana	r	no	1	31	clear	breezy	4.5	T10S R4E SEC 4 SW NW NE	4715730	583100	4620	
07/15/95	1217	Uta	stansbuniana	r	no		28	clear	calm	4	T8S R4E SEC 33 NW NE SW	4715840	583090	4600	
07/18/95	1130	Uta	stansbuniana	r	no		28	clear	calm	4.5	T10S R4E SEC 4 NE NW NE	4715780	583080	4600	
07/18/95	1135	Uta	stansbuniana	r	no	4.5 C	31	clear	breezy	4.5	T10S R4E SEC 4 NE NW NE	4715740	583120	4590	
07/18/95	1107	Uta	stansbuniana	r	no		25	clear	breezy	4.7	T10S R4E SEC 4 NE NW NE	4716870	583270	4610	
07/18/95	1110	Uta	stansbuniana	r	no		31	clear	breezy	4.5	T10S R4E SEC 4 NE NW NE	4716680	583140	4460	
07/18/95	1036	Uta	stansbuniana	m	no	8 O	20	clear	breezy	4.5	T10S R4E SEC 4 SW NW NE	4715820	582970	4400	
07/29/95	644	Uta	stansbuniana	r	no	5.5 C	21	cloudy	windy	4	T10S R4E SEC 4 NE NW NE	4715850	583190	4600	
07/29/95	643	Uta	stansbuniana	r	no	5.5 B	21	cloudy	windy	5	T10S R4E SEC 4 NE NW NE	4715850	583190	4600	
07/29/95	914	Uta	stansbuniana	m	no	11 E	24	cloudy	none	2	T10S R4E SEC 4 SW NW NE	4715700	582970	4400	
07/02/95	830	Uta	stansbuniana	r	no		23	cloudy	none	3.5	T10S R4E SEC 4 NW NW NE	4715780	583380	4600	
09/05/95	1812	Uta	stansbuniana	r	no	4 E	27	clear	breezy	3	T10S R4E SEC 4 NW NE NE	4715770	583180	4600	
09/12/95	815	Uta	stansbuniana	r	no	4.5 E	18	clear	breezy	3	T10S R4E SEC 4 NE NW NE	4715740	583120	4590	
09/15/95	848	Uta	stansbuniana	r	no	4.5 B	21	P/C	breezy	25	T10S R4E SEC 4 NE NW NE	4715740	583120	4590	
09/19/95	809	Uta	stansbuniana	r	no	2 A	16	clear	breezy	2.5	T10S R4E SEC 4 NW NE NE	4715760	583350	4600	
09/23/95	1744	Uta	stansbuniana	r	no		22	M/C	windy	3	T10S R4E SEC 4 NW NW NE	4715760	583350	4600	
09/25/95	2000	Uta	stansbuniana	r	no	2 E	23	clear	breezy	4.5	T10S R4E SEC 4 NW NE NE	4715760	583350	4600	
07/03/95	1850	Uta	stansbuniana	r	no		22	P/C	windy	5	T8S R4E SEC 33 SW SW SE	4716340	583020	4600	
07/03/95	1848	Uta	stansbuniana	r	no		22	P/C	windy	4.5	T8S R4E SEC 33 SW SW SE	4716340	583020	4600	
07/03/95	1829	Uta	stansbuniana	r	no		22	P/C	windy	6	T10S R4E SEC 4 NE NW NE	4715950	583030	4600	
Snakes															
09/15/95	1442	Coluber	constrictor	i	no		25	clear	breezy	55	T8S R1E SEC 11	4735540	580540	4160	
09/10/95	1811	Coluber	constrictor	i	no		22	clear	breezy	45	T8S R4E SEC 22 SE SE NE				
09/12/95	1737	Coluber	constrictor	i	no		22	clear	breezy	90	T6S R1E SEC 20 NW NE NE	4374100	597420	4540	
09/12/95	1737	Coluber	constrictor	i	no		22	clear	breezy	60	T6S R1E SEC 20 NW NE NE	4374140	597480	4540	
09/20/95	1410	Coluber	constrictor	b	no		16	P/C	breezy	50	T14S R2W SEC 1 NW SE NW				
09/20/95	1847	Coluber	constrictor	b	no		14	M/C	breezy	75	T14S R2W SEC 1 NW SE NW				
09/20/95	1753	Coluber	constrictor	b	no		15	P/C	breezy	114	T4S R2W SEC 1 NW SE NW				
09/26/95	914	Coluber	constrictor	i	no		22	clear	none	60	T7S R5E SEC 19 SW NE NW	4735480	589780	2980	
07/03/95	1812	Coluber	constrictor	r	no	6 A	23	P/C	windy	35	T10S R4E SEC 4 NE NW NE	4715840	583050	4600	
07/08/95	1103	Coluber	constrictor	r	no	4.5 C	27	M/C	breezy	30	T10S R4E SEC 4 NW NW NE	4715790	583260	4600	
07/08/95	1528	Coluber	constrictor	r	no		33	P/C	breezy	3	T8S R1E SEC 11 NE NW NW	4734620	580540	4160	
07/08/95	1522	Coluber	constrictor	i	no		29	M/C	breezy	55	T8S R5W SEC 12 NW NE NW				
07/12/95	1138	Coluber	constrictor	b	no	23 E	21	clear	windy	60	T8S R4E SEC 33 SW NE SW	4717780	583380	4480	
07/23/95	1132	Coluber	constrictor	i	no		22	clear	breezy	70	T8S R1W SEC 1 NE NE NE				
09/12/95	952	Coluber	constrictor	i	no		23	clear	breezy	40	T10S R2E SEC 13 SE SW SW	4711150	588890	4780	
09/18/95	1544	Crotalus	viridis	i	no		25	clear	breezy	40	T6S R4E SEC 7	4735020	583060	2820	
09/18/95	1721	Crotalus	viridis	i	no		25	clear	breezy	50	T8S R4E SEC 7	4732620	589745	3900	
09/20/95	1000	Crotalus	viridis	i	no		15	clear	breezy	70	T10S R4E SEC 4 NE NW NE	4715680	583130	4520	
09/21/95	914	Crotalus	viridis	i	no		22	p/c	breezy	75	T10S R4E SEC 4 NW NE NE	4715790	583260	4600	
09/27/95	1808	Crotalus	viridis	r	no	5	2 F	m/c	breezy	80	T10S R4E SEC 4 NW NW NE	4715840	583130	4520	
09/27/95	1807	Crotalus	viridis</												

06/14/95	1800	Crotalus	viridis	r	40	23	cloudy	windy	85	T10S R4E SEC 4 NE NW NE	4715840	563080	4600	
06/14/95	1738	Crotalus	viridis	r	39	23	cloudy	breezy	40	T8S R4E SEC 33 SW NE	4715810	563080	4600	
06/14/95	1729	Crotalus	viridis	r	39	6 C	21	cloudy	windy	61	T10S R4E SEC 4 NE NW NE	4715840	563080	4600
06/14/95	1910	Crotalus	viridis	r	43	22	cloudy	windy	50	T10S R4E SEC 4 NE NW NE	4715770	563080	4600	
06/14/95	1103	Crotalus	viridis	r	36	21	cloudy	breezy	60	T9S R4E SEC 3 SE SW NE	4717050	563080	4570	
06/14/95	1810	Crotalus	viridis	r	41	21	cloudy	windy	50	T10S R4E SEC 4 NE NW NE	4715790	563080	4600	
06/15/95	1111	Crotalus	viridis	i	no	23	cloudy	breezy	60	3/4 mile S. of Rattlesnake Gulch Hwy 51	4756840	600080	2580	
06/15/95	1145	Crotalus	viridis	r	no	22	clear	none	55	T10S R4E SEC 4 NE NW NE	4715770	563180	4600	
06/20/95	1711	Crotalus	viridis	r	no	18	m/c	breezy	75	T14S R2W SEC 1 NW SE NW	4715680	563080	4600	
06/21/95	1630	Crotalus	viridis	r	40	22	clear	clear	85	T10S R4E SEC 4 NE NW NE	4715860	563080	4600	
06/21/95	1210	Crotalus	viridis	i	no	26	clear	breezy	50	T8S R4E SEC 30 NW NE NE	4715680	563080	4600	
06/21/95	968	Crotalus	viridis	m	50	22	clear	none	45	T10S R4E SEC 4 NW NW NE	4715720	562970	4400	
06/21/95	840	Crotalus	viridis	r	52	17	clear	calm	45	T10S R4E SEC 2 NE NW NE	4715860	563080	4480	
06/21/95	1822	Crotalus	viridis	r	53	23	p/c	breezy	80	T10S R4E SEC 4 NE NW NE	4716000	563040	4600	
06/22/95	1265	Crotalus	viridis	r	55	23	clear	breezy	50	T10S R4E SEC 4 NE NW NE	4715890	563080	4480	
06/22/95	1630	Crotalus	viridis	r	53	23	clear	breezy	80	T9S R4E SEC 26 SW NW NE	4715890	563080	4480	
07/01/95	1950	Crotalus	viridis	r	40	26	P/C	breezy	85	T10S R4E SEC 4 NE NW NE	4715940	563080	4600	
07/02/95	934	Crotalus	viridis	r	53	21	M/S	windy	80	T10S R4E SEC 4 NE NW NE	4715985	563040	4600	
07/03/95	1345	Crotalus	viridis	i	no	22	P/C	windy	45	T8S R3E SEC 14 SE NW SW	4736470	597140	2700	
07/03/95	2211	Crotalus	viridis	r	40	20	Clear	breezy	85	T10S R4E SEC 4 NE NW NE	4715840	563080	4600	
07/03/95	2098	Crotalus	viridis	r	41	4.5 E	26	P/C	windy	50	T10S R4E SEC 4 NE NW NE	4715740	563120	4590
07/03/95	1112	Crotalus	viridis	r	40	5.8	27	M/C	breezy	85	T10S R4E SEC 4 NE NW NE	4715770	563070	4600
07/12/95	853	Crotalus	viridis	i	no	18	clear	windy	45	T6S R6E SEC 18 NE NW NE	4750620	569890	2830	
07/15/95	1205	Crotalus	viridis	r	39	28	clear	breezy	61	T9S R4E SEC 33 NW NE SW	4715840	563080	4600	
07/15/95	1320	Crotalus	viridis	r	66	3.8	33	clear	breezy	55	T10S R4E SEC 4 NW NE NE	4715780	563080	4600
07/18/95	1000	Crotalus	viridis	b	39	14.8	37	clear	breezy	60	T9S R4E SEC 4 SE SW SW	4730460	576330	4100
09/09/95	1700	Crotalus	viridis	r	no	17	clear	breezy	35	T9S R4E SEC 33 SW SW NE	4715700	563120	4580	
06/21/95	80	Hypsiplena	torquata	r	6	4 A	16	P/C	None	35	T10S R4E SEC 4 NW NE NE	4715770	563180	4600
06/21/95	1121	Hypsiplena	torquata	r	8	4 A	16	clear	breezy	30	T10S R4E SEC 4 NW NE NE	4715770	563180	4600
06/21/95	2046	Hypsiplena	torquata	b	no	13 C	26	clear	breezy	1	T9S R4E SEC 33 SE SE NE	4716030	562710	4180
06/21/95	1688	Hypsiplena	torquata	r	17	5.5	22	m/c	breezy	60	T10S R4E SEC 4 NW NE NE	4715810	563080	4600
07/03/95	1147	Hypsiplena	torquata	i	no	21	cloudy	breezy	1	T8S R3E SEC 14 SE NW SW	4730460	576330	3556	
07/03/95	1147	Hypsiplena	torquata	i	no	21	cloudy	breezy	1	T8S R3E SEC 14 SE NW SW	4730460	576330	3556	
06/15/95	830	Hypsiplena	torquata	m	45	11 E	16	cloudy	breezy	30	T10S R4E SEC 4 SW NW NE	4715700	562870	4380
06/27/95	1250	Hypsiplena	torquata	b	no	17 F	29	clear	breezy	30	T9S R4E SEC 33 SW SE SW	4716120	563220	4100
06/27/95	1842	Hypsiplena	torquata	i	no	21	clear	breezy	30	T9S R4E SEC 14 SE NW SW	4715740	563120	4590	
06/26/95	80	Hypsiplena	torquata	r	no	4.5 A	20	cloudy	none	25	T10S R4E SEC 4 NE NW NE	4715740	563120	4590
06/15/95	1958	Masticophis	tenuis	i	no	25	clear	breezy	45	T6S R3E SEC 15	4749630	575430	2890	
06/15/95	1030	Masticophis	tenuis	r	no	19	clear	breezy	120	T10S R4E SEC 4	4715710	562460	4640	
06/15/95	1923	Masticophis	tenuis	r	3	4 C	20	P/C	windy	105	T10S R4E SEC 4 NW NW NE	4715720	562970	4400
06/27/95	1208	Masticophis	tenuis	m	9	8 F	19	clear	breezy	90	T10S R4E SEC 4 SW NW NE	4715620	562970	4400
06/27/95	1242	Masticophis	tenuis	m	12	11 F	20	clear	breezy	45	T10S R4E SEC 4 SW NW NE	4715700	562870	4380
06/01/95	1712	Masticophis	tenuis	i	no	17	m/c	breezy	90	T9S R4E SEC 1 NW NW NW	4719540	586880	4340	
06/05/95	1647	Masticophis	tenuis	r	23	7 E	6	cloudy	breezy	105	T10S R4E SEC 4 NE NW NE	4715810	563040	4600
06/09/95	1588	Masticophis	tenuis	r	39	13 NE	14	clear	breezy	105	T9S R3E SEC 13 NE	4730460	576330	3556
06/10/95	2133	Masticophis	tenuis	r	28	18 G	14	clear	windy	90	T10S R4E SEC 4 SW NW NE	4715710	562920	4620
06/13/95	836	Masticophis	tenuis	r	3	6 B	23	clear	breezy	135	T10S R4E SEC 4 NE NW NE	4715840	563080	4600
06/14/95	1728	Masticophis	tenuis	r	3	6 C	21	cloudy	windy	135	T10S R4E SEC 4 NE NW NE	4715840	563080	4600
06/16/95	1004	Masticophis	tenuis	r	no	15	cloudy	breezy	80	T10S R4E SEC 4 NE NW NE	4715810	563040	4600	
06/21/95	1230	Masticophis	tenuis	i	no	31	clear	none	55	T6S R6E SEC 18 NE NW NE	4715810	563080	4600	
06/26/95	932	Masticophis	tenuis	i	no	22	clear	none	50	T7S R5E SEC 31 NW NW NW	4722010	560120	4040	
06/26/95	936	Masticophis	tenuis	i	no	22	clear	none	55	T7S R5E SEC 31 NW NW NW	4722010	560120	4040	
06/26/95	1242	Masticophis	tenuis	r	51	4 A	34	clear	breezy	75	T10S R4E SEC 4 NW NE NE	4715770	563180	4600
06/27/95	1652	Masticophis	tenuis	r	54	7 E	25	clear	breezy	70	T10S R4E SEC 4 NE NW NE	4715810	563040	4600
06/29/95	1726	Masticophis	tenuis	r	34	7 B	21	clear	breezy	70	T10S R4E SEC 4 NE NW NE	4715810	563040	4600
07/01/95	1639	Masticophis	tenuis	r	60	2 F	25	P/C	breezy	60	T10S R4E SEC 4 NW NE NE	4715780	563350	4600
07/01/95	1912	Masticophis	tenuis	r	63	4.5 E	25	P/C	none	90	T10S R4E SEC 4 NE NW NE	4715740	563120	4580
07/02/95	1303	Masticophis	tenuis	b	no	30	M/C	windy	90	T9S R4E SEC 33 SW NE SW	4717780	563380	4460	
07/03/95	1025	Masticophis	tenuis	b	no	23 H	26	P/C	breezy	85	T9S R4E SEC 33 SW NE SW	4730460	576330	3556
07/03/95	1147	Masticophis	tenuis	i	no	21	cloudy	breezy	80	T9S R4E SEC 14 SE NW SW	4730460	576330	3556	
07/03/95	1750	Masticophis	tenuis	r	67	4 C	20	P/C	windy	80	T10S R4E SEC 4 NW NE NE	4715770	563180	4600
07/03/95	1735	Masticophis	tenuis	r	60	2 H	21	P/C	windy	60	T10S R4E SEC 4 NW NE NE	4715780	563350	4600
07/03/95	1441	Masticophis	tenuis	i	no	22	P/C	windy	60	T7S R4E SEC 22 NE SE SE	4736970	597240	2700	
07/03/95	1048	Masticophis	tenuis	r	72	2 E	27	M/C	breezy	90	T10S R4E SEC 4 NW NE NE	4715780	563350	4600
07/03/95	1307	Masticophis	tenuis	r	26	19 D	23	clear	breezy	90	T10S R4E SEC 4 NW NE NE	4715810	563040	4600
07/03/95	1026	Masticophis	tenuis	r	no	20 D	27	P/C	breezy	45	T10S R4E SEC 4 NW NE NE	4715830	562520	4590
07/12/95	1158	Masticophis	tenuis	b	no	22 A	23	clear	windy	75	T9S R4E SEC 33 NW NE SW	4716500	562550	4090
07/15/95	830	Masticophis	tenuis	r	26	19 A	21	clear	breezy	90	T10S R4E SEC 4 SW NW NE	4715130	562990	4620
07/15/95	1320	Masticophis	tenuis	r	85	3 D	33	clear	breezy	50	T10S R4E SEC 4 NW NE NE	4715790	563260	4600
07/18/95	1120	Masticophis	tenuis	r	81	7 A	14	clear	breezy	69	T10S R4E SEC 4 NW NE NE	4715810	563040	4600
07/18/95	1146	Masticophis	tenuis	r	92	2 D	31	clear	breezy	70	T10S R4E SEC 4 NW NE NE	4715810	563350	4600
07/21/95	1712	Masticophis	tenuis	r	25	1 G	17	cloudy	breezy	100	T10S R4E SEC 4 SE NE NE	4715740	563460	4610
07/23/95	1051	Masticophis	tenuis	i	no	22	clear	breezy	75	T3S R1W SEC18 NE SW SW	4718360	540000	3280	
07/23/95	1041	Masticophis	tenuis	i	no	20	clear	breezy	80	T1S R2W SEC34 SE SW SW	4718360	540000	3280	
07/25/95	870	Masticophis	tenuis	i	no	1 A	21	clear	none	135	T10S R4E SEC 4 NW NE NE	4715740	563360	4610
06/25/95	1925	Masticophis	tenuis	r	101	2 C	27	clear	none	135	T10S R4E SEC 4 NW NE NE	4715780	563350	4600
06/12/95	815	Masticophis	tenuis	r	104	4.5 E	18	clear	breezy	30	T10S R4E SEC 4 NE NW NE	4715740	563120	4590
06/12/95	800	Masticophis	tenuis	r	63	7 B	22	P/C	windy	90	T10S R4E SEC 4 NW NW NE	4715610	563040	4600
06/15/95	845	Masticophis	tenuis	m	no	11 A	18	clear	breezy	30	T10S R4E SEC 4 SW NW NE	4715700	562870	4380
06/19/95	828	Masticophis	tenuis	r	55	22	clear	breezy	70	T10S R4E SEC 4 NE NW NE	4715735	563460	4610	
06/23/95	1915	Masticophis	tenuis	r	55	22	M/C	none	50	T10S R4E SEC 4 NW NE NE	4715750	563120	4590	
06/23/95	1755	Masticophis	tenuis	r	no	4 B	22	M/C	windy	60	T10S R4E SEC 4 NW NE NE	4715750	563180	4600
06/23/95	1842	Masticophis	tenuis	r	no	20	M/C	none	120	T10S R4E SEC 4 NW NW NE	4715750	563120	4590	
06/18/95	1603	Pituophis	caterifer	i	no	25	clear	breezy	120	T6S R3E SEC 10	4762750	574540	2580	
06/18/95	1622	Pituophis	caterifer	i	no	25	clear	breezy	120	T6S R3E SEC 10	4762750	574540	2580	
06/18/95	1607	Pituophis	caterifer	i	no	25	clear	breezy	120	T6S R3E SEC 10	4762750	574540	2580	
06/18/95	1909	Pituophis	caterifer	i	no	25	clear	breezy	120	T6S R3E SEC 10	4762750	574540	2580	
06/18/95	1924	Pituophis	caterifer	i	no	25	clear	breezy	120	T6S R3E SEC 10	4762750	574540	2580	
06/18/95	1936	Pituophis	caterifer	i	no	25	clear	breezy	80	T7E R7S SEC 21	4763600	563130	3780	
06/18/95	1900	Pituophis	caterifer	i	no	25	clear	breezy	120	T6S R3E SEC 10	4762750	574540	2580	
06/18/95	1906	Pituophis	caterifer	i	no	25	clear	breezy	120	T6S R3E SEC 10	4762750	574540	2580	
06/18/95	1645	Pituophis	caterifer	i	no	25	clear	breezy	60	T6S R3E SEC15	4750140	568880	2620	

05/20/95	1158	Pituophis	caterifer	m	1	19	clear	none	90	T10S R4E SEC 3	4715870	592270	4400		
05/20/95	1262	Pituophis	caterifer	n	1	25	clear	breezy	40	T9S R6E SEC 19 NW SW SW	4715970	593380	4500		
05/25/95	1208	Pituophis	caterifer	r	7	2 F	19	p/c	breezy	120	T10S R4E SEC 4 NW NE NE	4715750	593350	4600	
05/25/95	1130	Pituophis	caterifer	n	10	19	p/c	breezy	40	T3S R8E SEC 4 NW NE NW	4753920	601920	2500		
05/25/95	1145	Pituophis	caterifer	n	10	19	p/c	breezy	100	T7S R5E SEC 3 S W NW NE	4715380	587790	4500		
05/27/95	1238	Pituophis	caterifer	m	11	11 E	20	clear	breezy	90	T10S R4E SEC 4 NW NW NE	4715750	592820	4300	
05/27/95	950	Pituophis	caterifer	n	10	15	clear	none	175	T5S R9E SEC 4 NW NE NW	4733920	601920	2500		
05/27/95	1221	Pituophis	caterifer	m	10	9 C	19	clear	breezy	65	T10S R4E SEC 4 SW NW NE	4715520	592670	4400	
05/31/95	2051	Pituophis	caterifer	b	24	13 F	19	cloudy	breezy	80	T9S R4E SEC 33 SE SE SW	4719300	592710	4100	
05/31/95	2051	Pituophis	caterifer	b	24	13 F	19	cloudy	breezy	80	T9S R4E SEC 33 SE SE SW	4719300	592710	4100	
05/31/95	2053	Pituophis	caterifer	b	10	13 H	19	cloudy	90	T9S R4E SEC 33 SE SE SW	4719300	592710	4100		
05/31/95	1806	Pituophis	caterifer	r	15	2 G	22	m/c	breezy	90	T10S R4E SEC 4 NW NE NE	4715760	593350	4600	
05/31/95	2010	Pituophis	caterifer	b	19	14 F	21	cloudy	90	T9S R4E SEC 33 SE SE SW	4716040	592680	4100		
05/31/95	2101	Pituophis	caterifer	b	10	17 F	19	cloudy	80	T9S R4E SEC 33 SW SE SW	4719120	592620	4100		
05/31/95	1874	Pituophis	caterifer	r	16	3 D	20	m/c	breezy	75	T10S R4E SEC 33 SE SE SW	4716110	592680	4100	
05/31/95	2023	Pituophis	caterifer	b	10	16 F	20	cloudy	75	T9S R4E SEC 33 SE SE SW	4716110	592680	4100		
05/31/95	2010	Pituophis	caterifer	b	18	21	cloudy	75	T9S R4E SEC 33 SE SE SW	4716040	592680	4100			
05/31/95	1620	Pituophis	caterifer	n	10	12	cloudy	windy	135	T7S R5E SEC 5 NW NE NE	4736880	593890	2602		
05/31/95	926	Pituophis	caterifer	n	10	12	m/c	windy	45	T9S R4E SEC 6 SE NE SE	4724720	593830	3668		
05/31/95	1743	Pituophis	caterifer	n	10	15	cloudy	cloudy	120	T10S R4E SEC 3 NW NE NW	4736880	593890	2602		
05/31/95	1743	Pituophis	caterifer	n	10	15	cloudy	cloudy	120	T10S R4E SEC 3 NW NE NW	4736880	593890	2602		
05/10/95	1820	Pituophis	caterifer	n	10	20	clear	breezy	45	T5S R3E SEC 28 SE NE SE	4759610	617420	2395		
05/10/95	2117	Pituophis	caterifer	r	27	2 F	15	clear	windy	100	T10S R4E SEC 4 NW NE NE	4715760	593350	4600	
05/10/95	1940	Pituophis	caterifer	n	10	17	clear	breezy	90	T7S R3E SEC 12 NE NE NE	4724130	599690	3800		
05/10/95	1910	Pituophis	caterifer	n	10	20	clear	breezy	75	T3S R5E SEC 14 NW NE NW	4744660	574510	2387		
05/10/95	1832	Pituophis	caterifer	n	10	20	clear	breezy	60	T3S R5E SEC 14 NE NE NE	4744660	574510	2387		
05/10/95	1943	Pituophis	caterifer	n	10	17	clear	breezy	75	T7S R3E SEC 12 NE NE SE	4723820	599745	3900		
05/10/95	1850	Pituophis	caterifer	n	10	20	clear	breezy	35	T3S R3E SEC 34 SE SE SE	4758360	574690	2420		
05/11/95	1037	Pituophis	caterifer	b	15	16 B	25	clear	none	90	T9S R4E SEC 33 SE SE SW	4716110	592680	4100	
05/11/95	1130	Pituophis	caterifer	m	31	25	25	clear	none	75	T10S R4E SEC 33 SE SE SW	4716110	59		
05/11/95	1805	Pituophis	caterifer	b	42	23	m/c	breezy	33	T10S R4E SEC 4 NW NE NW	4715680	593130	4200		
05/14/95	1038	Pituophis	caterifer	r	37	21	cloudy	breezy	80	T9S R4E SEC 33 NW SE SE	4716700	593680	4580		
05/15/95	853	Pituophis	caterifer	b	15	16 D	17	cloudy	90	T9S R4E SEC 33 NW SE SE	4716110	593680	4100		
05/15/95	817	Pituophis	caterifer	m	44	9 F	17	cloudy	none	90	T10S R4E SEC 4 SW NW NE	4715520	592670	4400	
05/16/95	1615	Pituophis	caterifer	n	10	12	cloudy	12	cloudy	75	T9S R4E SEC 3 NW NE NW	4736880	593890	2602	
05/15/95	1408	Pituophis	caterifer	n	10	20	clear	breezy	45	T7S R5E SEC 30 NE NW NW	4739180	617300	2700		
05/20/95	1936	Pituophis	caterifer	n	10	16	cloudy	breezy	120	T14S R2E SEC 8 NE SE NE	4711150	596890	4780		
05/24/95	2045	Pituophis	caterifer	n	10	27	clear	breezy	90	T9S R5E SEC 6 NE NE SE	4724720	596930	3680		
05/24/95	2030	Pituophis	caterifer	n	10	31	clear	breezy	90	T8S R5E SEC 27 SW SW SW	4716700	594290	2730		
05/24/95	838	Pituophis	caterifer	n	10	16	clear	none	48	T9S R4E SEC 3 NW NE NW	4716040	592680	4100		
05/24/95	1827	Pituophis	caterifer	b	56	14 C	22	clear	breezy	45	T9S R4E SEC 33 SE SE SW	4716040	592680	4100	
05/24/95	808	Pituophis	caterifer	n	10	17	clear	breezy	65	T10S R5E SEC 19 SE NW NW	4711150	598240	4780		
07/01/95	1648	Pituophis	caterifer	n	10	26	M/C	breezy	75	T9S R5E SEC 1 S W SW SW	4710860	590650	4780		
07/01/95	1848	Pituophis	caterifer	r	61	3 B	25	P/C	breezy	40	T10S R4E SEC 4 NW NE NE	4715790	593260	4500	
07/01/95	1803	Pituophis	caterifer	r	35	4 H	25	P/C	breezy	75	T10S R4E SEC 4 NW NE NE	4715790	593260	4500	
07/01/95	1837	Pituophis	caterifer	n	10	26	M/C	breezy	75	T10S R4E SEC 6 NE NE NE	4724720	596930	3680		
07/02/95	1022	Pituophis	caterifer	b	10	22 D	26	P/C	windy	70	T9S R4E SEC 33 NW NE NW	4716060	592590	4000	
07/02/95	1050	Pituophis	caterifer	b	64	25	M/C	breezy	65	T9S R4E SEC 33 SW NE SE	4717880	593360	4400		
07/02/95	1739	Pituophis	caterifer	b	66	2 C	21	P/C	windy	85	T10S R4E SEC 4 NW NE NE	4715760	593350	4600	
07/02/95	1824	Pituophis	caterifer	r	62	24	P/C	windy	75	T10S R4E SEC 4 NW NE NE	4715760	593350	4600		
07/05/95	2030	Pituophis	caterifer	r	66	27	P/C	breezy	75	T10S R4E SEC 4 NW NE NE	4715730	593260	4500		
07/06/95	907	Pituophis	caterifer	n	10	25	clear	none	55	T10S R4E SEC 16 SE NW SE	4711720	596880	4360		
07/08/95	1241	Pituophis	caterifer	m	10	11 E	32	clear	breezy	50	T10S R4E SEC 4 SW NW NE	4715700	592670	4400	
07/08/95	917	Pituophis	caterifer	n	10	23	P/C	breezy	45	T9S R5E SEC 18 NE NW NE	4752720	600390	2600		
07/09/95	144	Pituophis	caterifer	n	10	24	clear	none	40	T9S R4E SEC 3 NW NE NW	4715790	593260	4500		
07/09/95	910	Pituophis	caterifer	b	80	9 D	24	clear	none	40	T10S R4E SEC 4 NW NE NW	4715520	592670	4400	
07/15/95	1010	Pituophis	caterifer	b	83	17 B	25	clear	none	98	T9S R4E SEC 33 SW SE SW	4716120	592620	4100	
07/16/95	1035	Pituophis	caterifer	b	84	23 G	27	clear	none	76	T9S R4E SEC 33 SW SE SW	4717780	593360	4400	
07/18/95	700	Pituophis	caterifer	n	10	18	p/c	breezy	72	T10S R5E SEC 18 NW SW SE	4711150	596960	4780		
07/18/95	845	Pituophis	caterifer	n	10	17	p/c	breezy	80	T9S R5E SEC 31 NE NW NE	4716120	592620	4100		
07/18/95	745	Pituophis	caterifer	n	10	17	A	30	p/c	breezy	75	T9S R4E SEC 3 NW NE NW	4715790	593260	4500
07/18/95	821	Pituophis	caterifer	m	80	8 E	26	p/c	breezy	40	T10S R4E SEC 4 SW NW NE	4715620	592570	4400	
07/18/95	1951	Pituophis	caterifer	m	10	11 F	20	cloudy	breezy	30	T10S R4E SEC 4 SW NW NE	4715700	592670	4400	
07/23/95	1954	Pituophis	caterifer	n	10	22	P/C	breezy	100	T9S R6W SEC 18 SE NW NE	4736960	594260	3680		
07/23/95	2005	Pituophis	caterifer	n	10	22	P/C	breezy	90	T10S R5W SEC 18 NW NW NW	4736960	594260	3680		
07/23/95	830	Pituophis	caterifer	m	10	19 B	27	clear	none	40	T9S R4E SEC 3 NW NE NW	4715790	593260	4500	
07/23/95	810	Pituophis	caterifer	m	10	11 B	25	cloudy	none	70	T10S R4E SEC 4 SW NW NE	4715700	592670	4400	
08/26/95	714	Pituophis	caterifer	n	10	14	clear	none	60	T6S R8E SEC 18 NW NW NE	4719490	596160	2460		
08/26/95	1000	Pituophis	caterifer	n	10	21	clear	breezy	75	T10S R4E SEC 15 SE SE NW	4711200	598130	4870		
08/27/95	840	Pituophis	caterifer	r	103	4 A	24	cloudy	none	90	T10S R4E SEC 4 NW NE NE	4715770	593360	4400	
08/27/95	833	Pituophis	caterifer	m	10	16 B	27	cloudy	breezy	120	T10S R4E SEC 3 NW NE NW	4715770	593360	4400	
08/27/95	849	Pituophis	caterifer	b	11	11 D	17	clear	none	90	T10S R4E SEC 4 SW NW NE	4715700	592670	4400	
08/27/95	1003	Pituophis	caterifer	b	10	16 B	23	cloudy	breezy	70	T9S R4E SEC 33 SE SE SW	4715710	592690	4300	
08/29/95	1918	Pituophis	caterifer	m	19	11 D	18	M/C	none	90	T10S R4E SEC 4 SW NW NE	4715700	592670	4400	
08/29/95	1749	Pituophis	caterifer	n	10	3 G	22	M/C	windy	25	T10S R4E SEC 4 NW NW NE	4715790	593260	4500	
08/21/95	1817	Pituophis	caterifer	r	7	23	P/C	Breezy	75	T10S R4E SEC 3 NW NE NW	4715790	593260	4500		
08/21/95	1861	Rhinophis	caterifer	n	10	20	cloudy	45	windy	45	T6S R5E SEC 18 NW NW NE	4724720	593830	3668	
07/03/95	1311	Sonora	seminnuita	n	22	P/C	windy	30	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1300	Sonora	seminnuita	n	22	P/C	windy	15	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1252	Sonora	seminnuita	n	20	M/C	breezy	15	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1218	Sonora	seminnuita	n	23	M/C	breezy	25	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	20	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300	3656			
07/03/95	1147	Sonora	seminnuita	n	21	cloudy	breezy	75	T6S R3E SEC 14 SE NW SW	4730490	576300</				

05/17/95	1423	Thamnophis elegans	b	no	25	clear	breezy	50	T10S R4E SEC 18	4712610	527880	4200	
05/30/95	1048	Thamnophis elegans	b	14	16 C	23	clear	breezy	40	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
06/01/95	2036	Thamnophis elegans	b	22	16 D	20	cloudy	breezy	60	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
06/01/95	2015	Thamnophis elegans	b	no	15 G	20	cloudy	none	75	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
06/01/95	2026	Thamnophis elegans	b	20	16 C	20	cloudy	breezy	45	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
06/01/95	2031	Thamnophis elegans	b	21	16 H	20	cloudy	breezy	45	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
06/08/95	1209	Thamnophis elegans	b	no	17	cloudy	breezy	40	T9S R4E SEC 33 SE SE SW	4716080	527110	4160	
06/08/95	1200	Thamnophis elegans	b	no	19	cloudy	breezy	20	T9S R4E SEC 33 SE SE SW	4716110	526880	4100	
06/11/95	1033	Thamnophis elegans	b	29	15 G	26	clear	none	45	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
06/11/95	1031	Thamnophis elegans	b	30	23	clear	none	45	T9S R4E SEC 33 SE SE SW	4716080	527110	4160	
06/13/95	1048	Thamnophis elegans	b	35	17 C	25	clear	breezy	45	T9S R4E SEC 33 SW SE SW	4716120	526820	4100
06/13/95	1046	Thamnophis elegans	b	no	17 C	25	clear	breezy	25	T9S R4E SEC 33 SW SE SW	4716120	526820	4100
06/13/95	1041	Thamnophis elegans	b	29	16 B	26	clear	breezy	45	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
06/13/95	1039	Thamnophis elegans	b	34	16 G	26	clear	breezy	45	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
06/13/95	1033	Thamnophis elegans	b	33	15 B	26	clear	breezy	45	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
06/15/95	920	Thamnophis elegans	b	46	13 F	17	cloudy	breezy	51	T9S R4E SEC 33 SE SE SW	4716080	527110	4160
06/15/95	920	Thamnophis elegans	b	47	13 B	17	cloudy	breezy	45	T9S R4E SEC 33 SE SE SW	4716080	527110	4160
06/15/95	1030	Thamnophis elegans	b	no	15 A	17	cloudy	breezy	24	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
06/15/95	1037	Thamnophis elegans	b	28	16 D	26	clear	breezy	45	T9S R4E SEC 33 SE SE SW	4716110	526875	4100
06/20/95	1024	Thamnophis elegans	i	no	16	m/c	breezy	25	T14S R3E SEC 16 SW SE SW				
06/20/95	1500	Thamnophis elegans	b	no	16	p/c	breezy	45	T14S R2W SEC 1 NW SE NW				
06/24/95	1047	Thamnophis elegans	b	49	15 F	28	clear	breezy	35	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
06/24/95	1030	Thamnophis elegans	b	22	14 D	28	clear	none	60	T9S R4E SEC 33 SE SE SW	4716040	526880	4100
06/24/95	1026	Thamnophis elegans	b	48	16 H	28	clear	none	38	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
06/28/95	1851	Thamnophis elegans	b	no	15 C	28	clear	breezy	25	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
06/28/95	1849	Thamnophis elegans	b	57	16 B	24	clear	breezy	55	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
07/02/95	1342	Thamnophis elegans	b	no	29	M/C	breezy	40	T9S R4E SEC 33 NW NE NW	4716540	526820	4100	
07/02/95	1438	Thamnophis elegans	b	no	16 E	30	cloudy	breezy	45	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
07/02/95	1437	Thamnophis elegans	b	no	16 B	30	clear	breezy	30	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
07/02/95	1446	Thamnophis elegans	b	69	15 D	29	cloudy	breezy	40	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
07/04/95	918	Thamnophis elegans	b	71	17 B	16	clear	breezy	40	T9S R4E SEC 33 SW SE SW	4716120	526820	4100
07/04/95	911	Thamnophis elegans	b	70	16 A	16	clear	breezy	50	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
07/04/95	904	Thamnophis elegans	b	69	14 H	15	clear	breezy	60	T9S R4E SEC 33 SE SE SW	4716040	526880	4100
07/05/95	1424	Thamnophis elegans	b	no	28	Clear	breezy	45	T11S R1E SEC 15 NE NE NW	4702400	525530	5700	
07/05/95	2130	Thamnophis elegans	b	no	16 C	23	Clear	breezy	35	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
07/05/95	1254	Thamnophis elegans	b	no	27	Clear	breezy	30	T11S R1E SEC 15 NE NE NW	4702520	525540	5700	
07/05/95	1241	Thamnophis elegans	b	no	26	Clear	breezy	30	T11S R1E SEC 15 NE NE NW	4702570	525560	5700	
07/05/95	1545	Thamnophis elegans	b	no	32	P/C	windy	30	T9S R1E SEC 30 SW NE NE	4721010	526010	6040	
07/05/95	1148	Thamnophis elegans	b	no	23 C	30	clear	breezy	30	T9S R4E SEC 33 NW NE NW	4717150	526380	4460
07/08/95	1200	Thamnophis elegans	b	73	22 D	31	clear	breezy	35	T9S R4E SEC 33 NW NE NW	4716500	526550	4060
07/08/95	1200	Thamnophis elegans	b	73	22 D	31	clear	breezy	50	T9S R4E SEC 33 NW NE NW	4716500	526550	4060
07/08/95	1201	Thamnophis elegans	b	74	24 A	32	clear	breezy	60	T9S R4E SEC 33 NW NE NW	4717690	526360	4460
07/08/95	1218	Thamnophis elegans	b	no	17 C	32	clear	breezy	30	T9S R4E SEC 33 SW SE SW	4716120	526880	4100
07/08/95	1205	Thamnophis elegans	b	no	23 H	32	clear	breezy	40	T9S R4E SEC 33 NW NE NW	4717180	526380	4460
07/12/95	1154	Thamnophis elegans	b	76	22 C	23	clear	breezy	50	T9S R4E SEC 33 NW NE NW	4716500	526550	4060
07/15/95	1000	Thamnophis elegans	b	82	16 A	22	clear	none	42	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
07/15/95	1005	Thamnophis elegans	b	no	13 D	21	clear	none	35	T9S R4E SEC 33 SE SE SW	4716090	527110	4160
07/15/95	945	Thamnophis elegans	b	81	15 A	26	clear	none	50	T9S R4E SEC 33 SE SE SW	4716040	526880	4100
07/18/95	1010	Thamnophis elegans	b	46	16 B	28	p/c	breezy	51	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
07/18/95	1030	Thamnophis elegans	b	no	23 F	31	p/c	breezy	38	T9S R4E SEC 33 SW NE SW	4717780	526380	4460
07/18/95	945	Thamnophis elegans	b	87	15 B	28	p/c	breezy	43	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
07/18/95	950	Thamnophis elegans	b	88	15 D	26	p/c	breezy	39	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
07/18/95	945	Thamnophis elegans	b	87	15 B	28	p/c	breezy	42	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
07/18/95	1030	Thamnophis elegans	b	no	23 H	33	p/c	breezy	30	T9S R4E SEC 33 SW NE SW	4717180	526380	4460
07/18/95	1040	Thamnophis elegans	b	no	22 C	27	clear	breezy	25	T9S R4E SEC 33 NW NE NW	4716500	526550	4060
07/21/95	1858	Thamnophis elegans	b	21	22 H	19	cloudy	none	45	T9S R4E SEC 33 NW NE NW	4716500	526550	4060
07/21/95	1924	Thamnophis elegans	b	65	16 A	20	cloudy	none	40	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
07/21/95	1921	Thamnophis elegans	b	46	16 C	19	cloudy	none	51	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
07/21/95	1849	Thamnophis elegans	b	76	23 G	17	cloudy	none	50	T9S R4E SEC 33 SW NE SW	4717180	526380	4460
07/25/95	955	Thamnophis elegans	b	no	27	clear	none	50	T9S R4E SEC 33 NW NE NW	4716450	526920	4100	
07/29/95	740	Thamnophis elegans	b	no	16 C	23	cloudy	breezy	25	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
07/29/95	748	Thamnophis elegans	b	no	15 B	23	cloudy	breezy	55	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
07/29/95	730	Thamnophis elegans	b	no	17 C	23	cloudy	breezy	40	T9S R4E SEC 33 SW SE SW	4716120	526820	4100
07/29/95	748	Thamnophis elegans	b	23	15 B	23	cloudy	breezy	45	T9S R4E SEC 33 SE SE SW	4716040	526875	4100
07/29/95	748	Thamnophis elegans	b	no	15 C	23	cloudy	breezy	30	T9S R4E SEC 33 NW NE NW	4716040	526875	4100
07/29/95	742	Thamnophis elegans	b	no	16 H	23	cloudy	breezy	45	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
09/05/95	1851	Thamnophis elegans	b	102	16 C	25	clear	none	30	T9S R4E SEC 33 SE SE SW	4716110	526880	4100
09/16/95	1003	Thamnophis elegans	b	no	16 C	23	cloudy	breezy	45	T9S R4E SEC 33 SE SE SW	4716110	526880	4100

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