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# Implications of Snare Bundles in the Great Basin and Southwest

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**S**MALL snares have been preserved in considerable numbers in the dry caves and rock shelters of the Great Basin and Southwest. That they often occur in bundles of several to over a hundred indicates that micro-fauna played a significant role as one of a series of seasonally abundant food items in prehistoric times. Snare bundles are often mentioned in the early literature of the Southwest. However, no formal synthesis of their distribution has been attempted, although some functional interpretations of the snares have been made (Spier 1955; Schellbach 1927; Elsasser and Prince 1961). This paper pulls together the scattered references to snare bundles in the regional literature, attempts some functional clarification, and confronts their implications regarding archaeologically-derived subsistence profiles, the seasonality of the prey targeted by the snares, and Great Basin culture history.

## DESCRIPTION OF SNARE TYPES

Snare bundles recovered from the sites represented in Fig. 1 fall into four morphological types: (1) scissors snares, (2) hinged-stick snares, (3) bird snares, and (4) noose snares. Although other snare and trap devices were used in the region under discussion (Wheat 1967:72; Steward 1933:254, 1941:222; Spier 1955:3), most have not been recovered archaeologically or do not occur in bundles.

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The "Promontory pegs" reported by Dalley (1970:170), Steward (1937), and Rudy (1953: Fig. 62) are thought to have been triggering devices for deadfall traps. Just how they functioned is not known for certain although interpretations are attempted by Wylie (1974). I am not aware of any archaeological associations of Promontory pegs with the four snare types discussed in this paper.

## Scissors Snares

Scissors snares were named by Spier (1955: 5) after the Mohave term *cokta'vam* 'to pinch them'. The principal parts of these snares are two small peeled sticks *ca.* 18 cm. long by 0.5 cm. in diameter, which are loosely tied together at one (the lower) end. At the upper end of one of the sticks is a small cordage slip loop secured with sinew. A length of vegetable cordage, the draw cord, 90 cm. or more long, is tied to the upper end of one of the sticks and passes through the slip loop. When the draw cord is pulled, the slip loop slides along it and the snare pulls shut. The distal end of the draw cord is either tied off in an overhand knot or bound to a short, sharpened hardwood peg. Variations include snares from Sawmill Shelter (Schellbach 1927), White Dog Cave (Guernsey and Kidder 1921:Pl. 41a), and Painted Cave (Haury 1945:Pl. 24a). The Sawmill Shelter variation is depicted in Fig. 2. It differs from the more common form in that there is no slip loop for the draw cord to pass through; rather,



\* Numbers refer to sites in TABLE 1

Fig. 1. Distribution of snare bundles recovered from archaeological sites.

the draw cord is attached at the midpoint of a length of cordage that connects the upper ends of the sticks. The sharpened peg is connected to a short length of cordage which is also tied to this midpoint rather than to the distal end of the draw cord. The White Dog Cave snare has a hole drilled in the upper end of one of the sticks which provides a substitute for the slip loop. The snare pictured by Haury (1945:Pl. 24a) is essentially identical to other scissors snares except it is somewhat smaller (*ca.* 12.5 cm. long) and it has a downy feather attached to the end of the draw cord. Though functionally problematical, it is tempting to assign some ideological or ornamental interpretation to this snare.

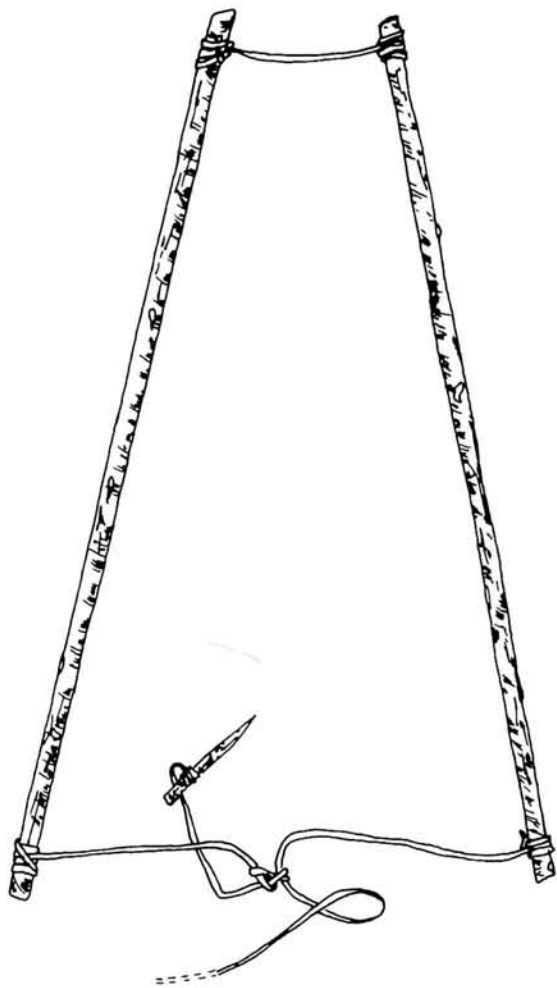


Fig. 2. Scissors snare, Sawmill Shelter, Nevada. After Schellbach (1927).

### Hinged-stick Snares

These snares are quite similar to the scissors snares in design; however, rather than using two sticks, one stick is bent so as to form both jaws of the trap. And instead of a cordage slip loop, the stick itself is knotted to form a loop for the draw cord to pass through (see Fig. 3). Those from Lovelock Cave (Loud and Harrington 1929:Pl. 44) have the sharpened peg at the end of the cord. The small size of

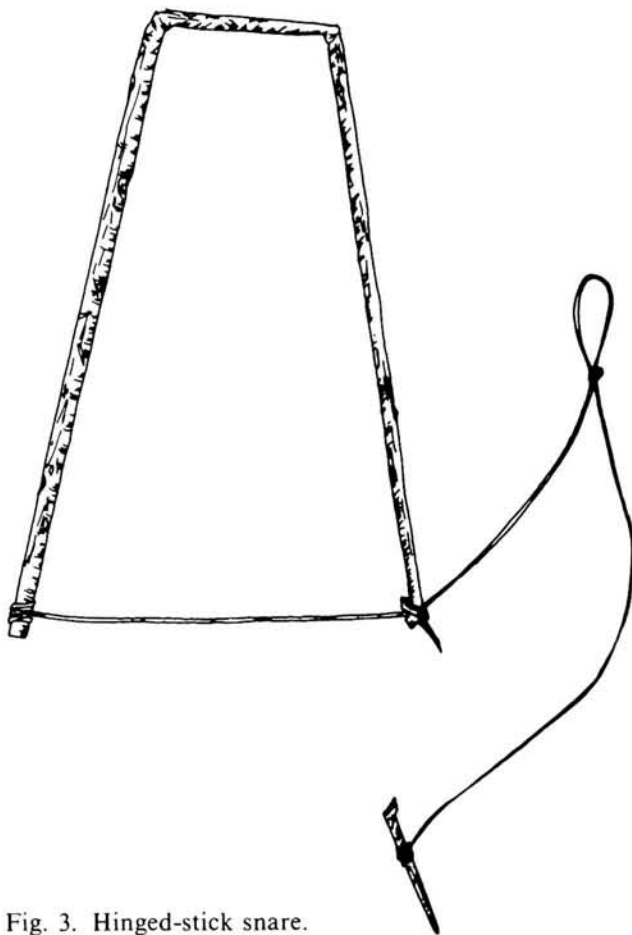


Fig. 3. Hinged-stick snare.

the Lovelock snares is discussed by Spier (1955:5), who estimates the rectangle enclosed by the set trap to be only 2 cm. by 9 cm. The snares are described by Loud and Harrington (1929:178-179) as 11 cm. in length. The hinged-stick snares from Eastgate Cave appear identical to the Lovelock snares except they have no cordage associated with them and are larger

(ca. 17 cm. long) (Elsasser and Prince 1961). Elsasser and Prince also report a variation of this type from the Granite Mountain area 110 miles northwest of Lovelock, Nevada (site not shown on Fig. 1). Here the slip loop was made by thinning one end of the stick, bending it back, and tying it down with sinew or fiber.

### Bird Snares

Bird snares consist of a stick measuring 50 to 60 cm. long by 0.5 to 0.75 cm. in diameter to which lengths of human hair or vegetable cordage have been secured (Fig. 4). At the

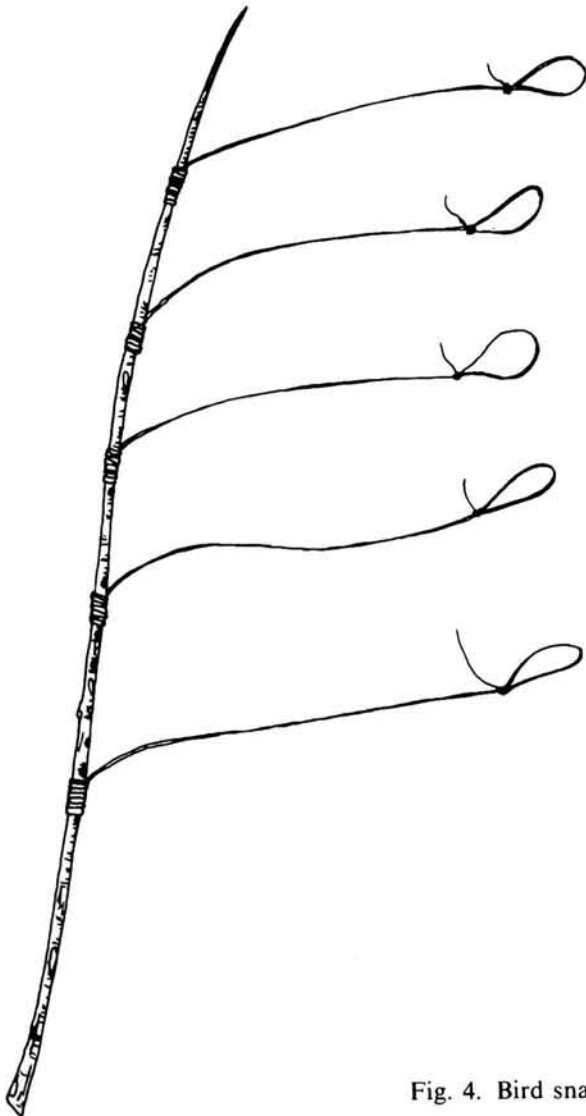


Fig. 4. Bird snares.

distal end of each length of cordage is a small slip noose. Variation is restricted to the number of cords (from 1 to 6) attached to the snare sticks.

### Noose Snares

These are the simplest of the snare types. They consist of a length of cordage up to 2 m. long with a slip loop in the end similar to a lariat. The cord passes through the slip loop to make a noose which tightens when the cord is pulled. The noose snares from Mesa Verde, Cowboy Cave (Fig. 5), White Dog Cave, and Mantles Cave have either hollow reed or bone slip loops. Cosgrove (1947:137, Fig. 42) shows some of the variation in the construction of slip loops for noose snares and Guernsey 1931:Pl. 31*d*) pictures a more complicated noose snare.

### TEMPORAL DISTRIBUTION AND CULTURAL AFFILIATION

The dates and contexts of the snares researched show that snare use was probably not widespread in the Great Basin until shortly after the time of Christ. As seen in Table 1 the only dated snares are those from Ord Shelter, A.D. 180±100 (P. J. Wilke, personal communication, 1979), and Cowboy Cave, A.D. 110±65 and A.D. 370±60 (Jennings *et al.*, in press). Nearly all of those from the Southwest are associated with Basketmaker or Fremont deposits. None of those from the Great Basin are dated although the Eastgate Cave snares are indirectly associated with a Fremont type moccasin in thin, disturbed deposits. In all cases, the snares occur in association with hunter-gatherer or part-time horticulturalist remains. Possible exceptions to this are the snares from Mesa Verde which may be from a post-Basketmaker context and the bird snare design motif on a Mimbres bowl (Fewkes 1923:27, No. 1), which documents their use by the Mogollon probably after A.D. 1000

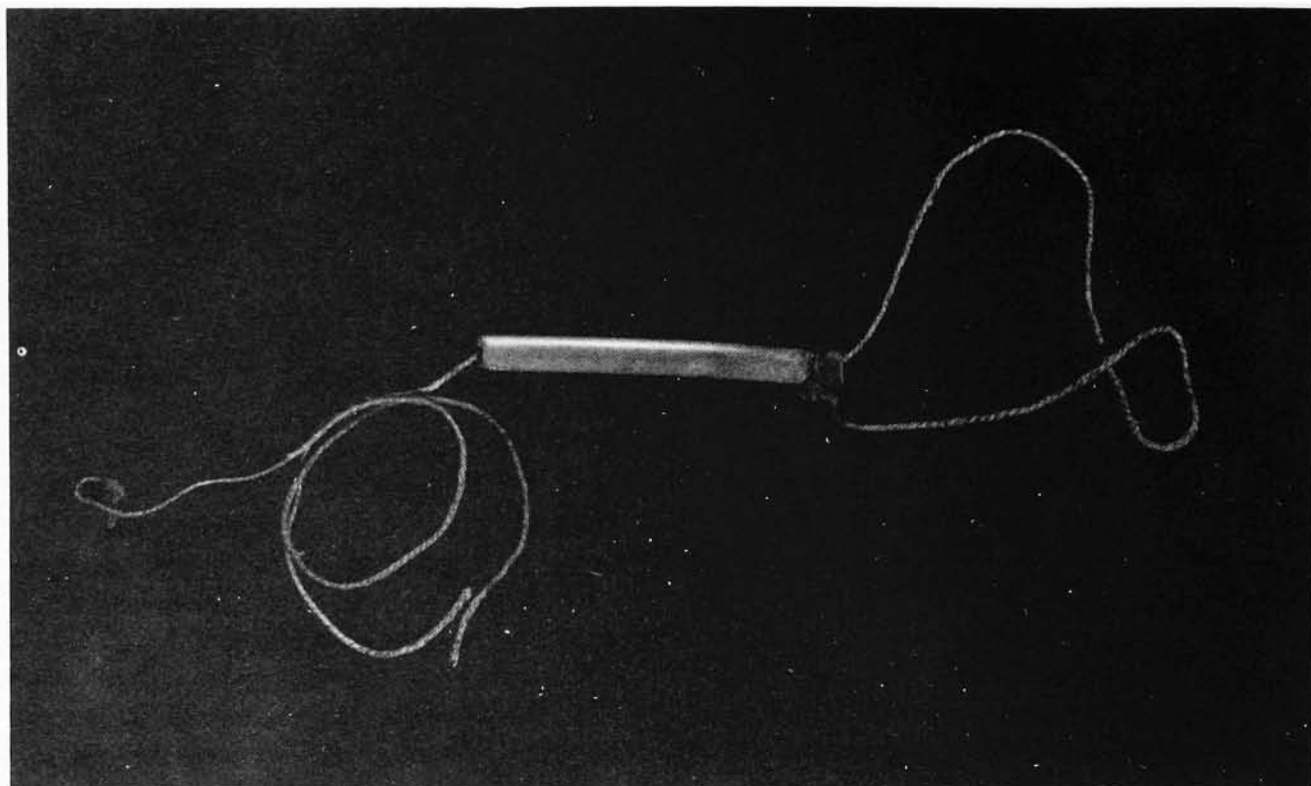


Fig. 5. Noose snare from Cowboy Cave, Utah. Length of reed tube, 7 cm.

**Table 1**  
**SITES CONTAINING SNARES IN THE GREAT BASIN AND GREATER SOUTHWEST**

Location	Snare Type	Number	Date or Affiliation	Primary Reference
Arizona				
1. Adugegi Canyon	Bird	55	BM	Guernsey 1931
Adugegi Canyon	Noose	48	BM	Guernsey 1931
2. Kin Boko Canyon	Scissors	1	BM	Kidder and Guernsey 1919
3. Painted Cave	Scissors	1	BM	Haury 1945
4. Sand Dune Cave	Bird	11	BM	Lindsay <i>et al.</i> 1968
5. Tyenda Cave	Noose	3	BM	Guernsey and Kidder 1921
6. White Dog Cave	Scissors	1	BM	Guernsey and Kidder 1921
White Dog Cave	Noose	1	BM	Guernsey and Kidder 1921
Baja California				
7. Castaldi Collection	Scissors	3		Massey 1966
California				
8. Ord Shelter	Scissors	55	A.D. 180±100	Wilke 1979 (personal comm.)
Colorado				
9. Mantles Cave	Noose	1		Burgh and Scoggins 1948
10. Mesa Verde	Noose	3	PII	Mesa Verde Museum

Table 1 (cont'd.)

Location	Snare Type	Number	Date or Affiliation	Primary Reference
Nevada				
11. Lovelock Cave	Hinged-stick	ca. 15		Loud and Harrington 1929
12. Massacre Lake Cave	Hinged-stick	1		Cressman 1942
13. Sawmill Shelter	Scissors	(3 bundles, 1 with 60)		Schellbach 1927
14. Eastgate Cave	Hinged-stick	40	Fremont	Elsasser and Prince 1961
15. Etna Cave	Noose	1		Fowler 1973
New Mexico				
16. Chevez Cave	Scissors	1 ?	BM	Cosgrove 1947
Chevez Cave	Noose	8	BM	Cosgrove 1947
17. Cordova Cave	Scissors	1		Martin <i>et al.</i> 1952
18. Doolittle Cave	Scissors	1 ?	BM	Cosgrove 1947
Oregon				
19. Roaring Springs Cave	Twig snares?	5		Cressman 1942
Texas				
20. Ceremonial Cave	Scissors	2	BM	Cosgrove 1947
Ceremonial Cave	Noose	5	BM	Cosgrove 1947
Utah				
21. Alvey Site	Scissors	50		Gunnerson 1959
22. Cave in Colorado Canyon	Bird	100		Sharrock 1963
23. Cowboy Cave	Scissors	23	A.D. 370±60	Jennings <i>et al.</i> (in press)
Cowboy Cave	Noose	3	A.D. 110-A.D. 370	Jennings <i>et al.</i> (in press)
24. Dupont Cave	Bird	137	BM	Nusbaum 1922
25. Fish Creek Cove Site 11	Noose	26	Fremont	Morss 1931
26. Grand Gulch	Scissors	5	BM	Thomas 1979 (personal comm.)
Grand Gulch	Bird	25	BM	Thomas 1979 (personal comm.)
27. Johnson area	Noose	121	BM	Cosgrove 1947
28. Moccasin Cave	Scissors	1	Fremont	Morss 1931
Moccasin Cave	Bird	a bundle	Fremont	Morss 1931
29. Moki Canyon	Scissors	36	BM	Judd 1970
30. Nine Mile Canyon - 31	Bird	a bundle	Fremont	Morss 1931
31. Oak Creek Site	Noose	32	Fremont	Morss 1931
32. Pantry Alcove	Scissors	9	BM	Fowler 1963
33. Slick Rock (Lake?) Cnyn.	Scissors	50	BM	Bernheimer 1929
34. Sulphur Creek Site 8	Noose	3	Fremont	Morss 1931
35. Image Cave	Bird	?	Fremont	Morss 1931

(Jennings 1974:292). The use of scissors snares with the Mohave apparently continued until modern times.

In contrast to the above, Grosscup (1960) suggested that snare use was widespread in the Great Basin by 1000 B.C. His position, based

on his inferences from Lovelock Cave, is tenuous, however, in light of the problems of interpreting Lovelock's stratigraphy from the notes of the original excavator, despite Heizer's reexamination of the cave (Heizer and Napton 1970).



### SPATIAL DISTRIBUTION

Figure 1 shows the spatial distribution of archaeologically recovered snares in the Great Basin and Greater Southwest, and Table 1 provides a listing of those sites by state. The data for Fig. 1 were obtained through an extensive, but not exhaustive, search of the literature. Consequently, there may be some snare references that are not cited here. Regardless, some differences in distribution are apparent. For instance, hinged-stick snares are confined to the western Great Basin while bird snares have been found primarily in the Four Corners region of the Southwest. Scissors snares, however, are distributed from extreme western Texas to Baja California. Noose snares are widespread in North America, as an Eskimo noose snare nearly identical to the Cowboy Cave and Mesa Verde specimens is pictured by Wheeler (Fowler 1973:24; Fig. 26*d*), and Lips (1936) and Cooper (1938) have described a wide array of traps and deadfalls as well as noose snares used by the north-eastern Algonkian and Athapaskan groups.

### FUNCTIONAL CONSIDERATIONS

The fact that all the snares being considered often occur in bundles of several to over a hundred suggests they were set out in "trap lines." This conclusion is supported by the observations of Kelly (1932:88), who noted that in Surprise Valley, California, "A person might set such traps (deadfalls) at twenty-five holes; often he set one on either side of the hole." Scissors snares, hinged-stick snares, and bird snares all appear to be designed so as to be set, left, and checked at a later time. No surveillance was necessary. Some of the noose snares probably demanded a person as the energy source at the end of the draw cord while others (for reasons mentioned below) were set and left. A trap line concept has implications for acceptable reconstructions of snare use; that is, traps being set out in quantities would

predictably be designed so that the time taken to set each trap would be minimal, as would the number and complexity of accessories needed to set the trap. With such economizing in mind, a functional description for each snare type is made below.

### Scissors Snares

Schellbach (1927) speculated on the manner in which scissors snares were used and Spier (1955) documented ethnographically the Mohave technique for setting these traps (see Fig. 6) for "big mice, rats, and the swift (kit fox)." The method described by Spier would require that, in addition to the snare, bent-

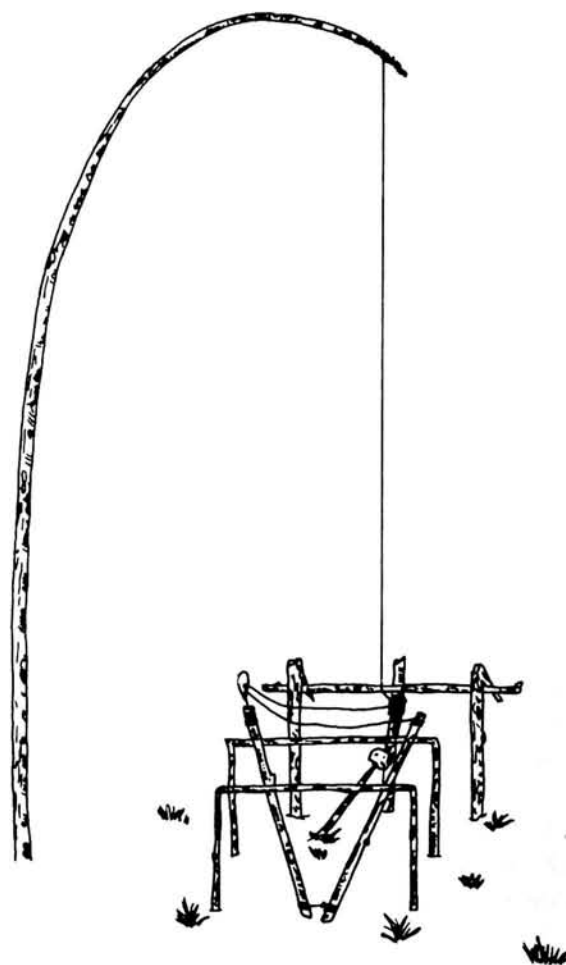


Fig. 6. Mohave method of setting scissors snares. After Spier (1955).



pole energy source, and an arrowweed runway to direct the animal to the snare, seven pieces of wood were used to set the snare. In other words, to set an average-sized bundle such as that from Cowboy Cave (23 snares) (Fig. 7) 161 additional pieces of wood would have to be fashioned unless the trapper had made them beforehand. However, no such pieces are included in the archaeologically derived bundles and none has been recognized in the associated material. One bundle from Moki Canyon, Utah (Judd 1970), did have an additional item included. That was an oak "block" with a notch cut in one end. These findings seem at odds with the assumption made above regarding setting time and accessories. Also, the method described by Spier does not account for the sharpened peg at the end of the draw

cord of many of the snares, though he does speculate that it was used as a baited trigger. Additionally, the Mohave method does not seem to allow for the formal variation of the Sawmill Shelter snares.

Considering the above, it seems appropriate to suggest an alternative method for setting these snares which would require fewer pieces per set, explain the role of the peg, and allow for variation. This suggestion does not imply that Spier's observations are being questioned; it follows from the fact that because variant forms of the scissors snare have been found, variant functional reconstructions are appropriate. Such an alternative is pictured in Fig. 8. Only two additional pieces of wood are necessary with this design, and it could be used with the Mohave snares as well

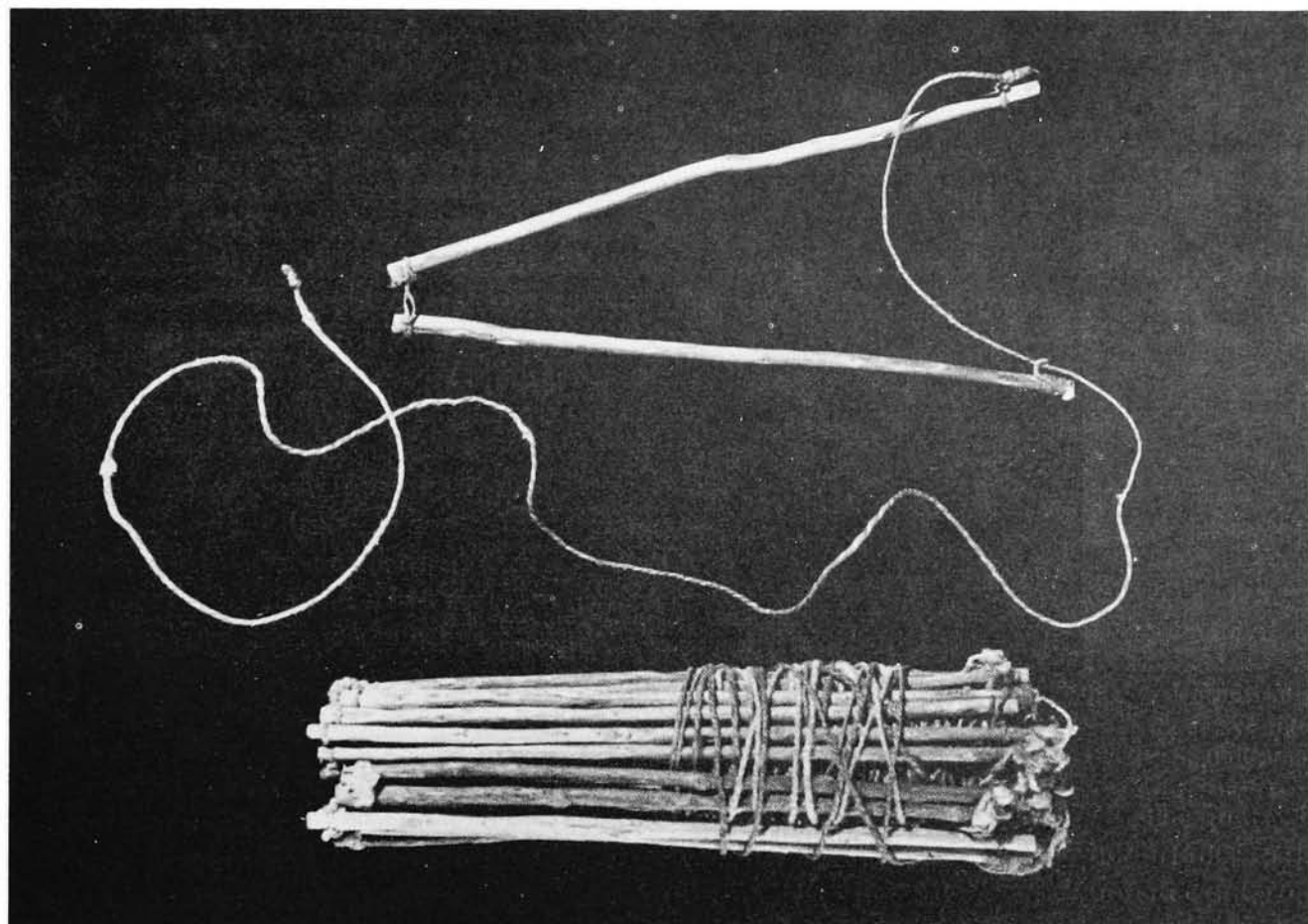


Fig. 7. Scissors snare bundle from Cowboy Cave, Utah. Length of snare bundle, 18.5 cm.

as with the Sawmill Shelter form. The notched block of oak reported by Judd (1970) could have served to push the two parts of the trigger set into the ground. The author has made and set snares in the manner pictured in Fig. 8. The traps worked very well when tripped, although how they function when the tripper is a rodent remains to be seen as they have not been adequately field tested.

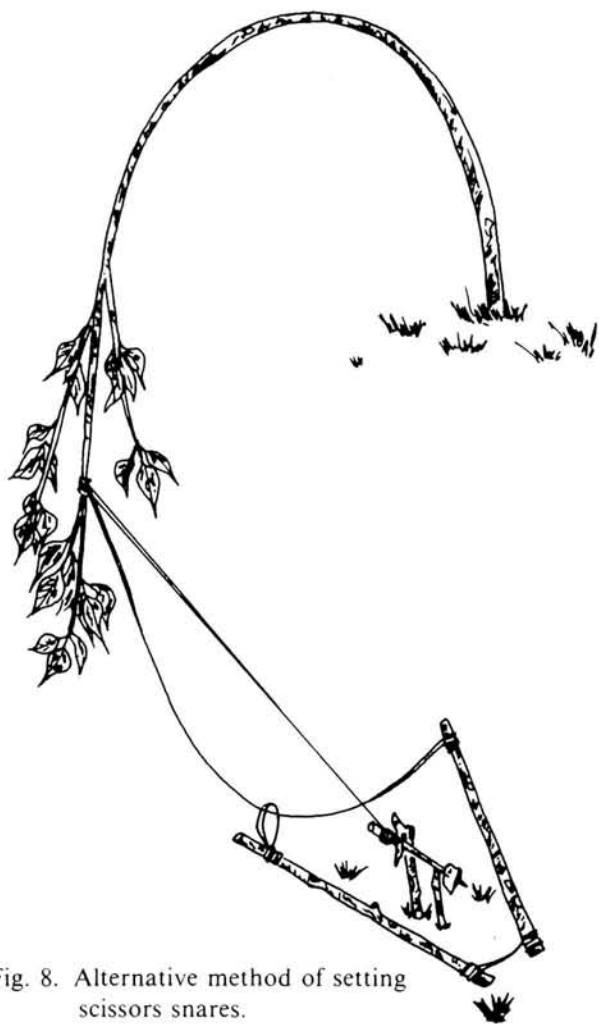


Fig. 8. Alternative method of setting scissors snares.

### Hinged-stick Snares

Little needs to be said regarding these snares as they appear to work on the same principle as the scissors snares. It should be mentioned that the loop in the draw cord a

short distance from the peg, as seen in the Lovelock Cave specimens (Loud and Harrington 1929:Pl. 48b), could have served to hold the bent twig in place as seen in Fig. 3. When setting the experimental snares mentioned above, such a loop was perfectly adequate for this purpose. The small size of some of these traps suggests they were used for microfauna such as mice or perhaps birds.

### Bird Snares

A functional description of bird snares is provided by Lindsay *et al.* (1968:69), who recovered eleven of these snares from Sand Dune Cave, Arizona. These were identified as bird snares by two Hopi consultants who related how they were used. The snare stick is buried in the sand, the hair cordage loops spread out, and a bait such as corn meal was sprinkled over the ground. Because of the slippery nature of the hair loop, a bird's foot entering it will cause the noose to tighten. An anchor is usually tied to the snare twig to prevent the bird from flying off with it. This interpretation is consistent with the economizing assumption as only the anchor and the bait are additional to the snare sticks.

### Noose Snares

The noose snare could have been used in a variety of ways, including relying on an individual as the energy source at the end of the draw cord while waiting for the prey to appear and timing his pull accordingly (see Fig. 9).



Fig. 9. Capturing rodents with noose snare. After Seton (1929).

More complex settings of noose snares employing spring poles and trigger bars are documented for the Northeast by Lips (1936: 34-35) and Cooper (1938:7-49). However, if the snares were used in the manner seen in Fig. 9, no advantage is gained by having a bundle of snares as the trapper is forced to stay with his snare rather than setting out several traps to be checked at a later time.

It is probable that noose snares were used in different ways for different animals. Kidder and Guernsey (1919:Pl. 93*b*), for instance, record the pictographic depiction of noose snares used for capturing a mountain sheep. In the pictograph, the draw cord is held by an individual who appears to be lassoing the sheep. Guernsey (1931:Pl. 31*d*) shows that some noose snares were more complicated functionally than the generalized form seen in Figs. 5 and 9, as his snare has an additional loop on it. The deer snares from Owens Valley, California (Osborne and Riddell 1978), are also rather complicated morphologically. Each consists of a heavy rope (12-18 mm. in diameter) with a slip-noose braided into one end to which a lighter (2-4 mm.) double line is attached. A hypothetical functional reconstruction using a spring pole and a trip bar trigger mechanism is offered by Osborne and Riddell (1978:Fig. 4).<sup>1</sup> Noose snares recovered by Palmer in the Johnson area of southern Utah apparently were tied open by thin strands of hair, which suggests they were set and left rather than maintained until the game appeared (Cosgrove 1947:138). Stewart (1941: 222) and Stewart (1941:423) report the use of noose snares in capturing birds such as sage grouse.

## DISCUSSION

The snares described were used for various animals ranging from mountain sheep to small birds. Their importance, however, stems from their probable role in securing various micro-

faunal species during the traditionally lean season of early spring to early summer. Judging from the ethnographic and archeological material, the most commonly snared animals were the small rodents such as ground squirrels, kangaroo rats, and mice. The numbers of these animals available for collecting has been hinted at by Downs (1966:11), who sets the number of mammals per square kilometer in western Nevada at about 4600. Most of these are small species such as squirrels, gophers, and mice. In support of this figure, Shelford (1965:265) estimates the numbers of jack rabbits, kangaroo rats, kangaroo mice, pocket mice, and antelope ground squirrels in western Utah at between 1400 and 4100 per square kilometer. Some of these rodents, e.g., the Townsend ground squirrel (*Citellus townsendii mollis*), are especially abundant at particular times of the year. Long (1940), for instance, working in southwestern Utah in 1935-36 noted "unbelievable numbers" of Paiute or Townsend ground squirrels probably in the spring to the west of Cedar City. Also, Alcorn (1940), who poisoned Townsend ground squirrels for the Bureau of Reclamation just east of Fallon, Nevada, reports 254 dead squirrels from two acres in April of a peak population year. In June of 1939 (a year of ground squirrel population decline), he estimated the ground squirrel density at 30 per acre. Seton (1929:262-263) offers estimates very close to this on *C. richardsonii* (a colonizer like *C. townsendii mollis*) in Manitoba, where he guessed the population at 25 squirrels per acre, and in Saskatchewan, where estimates were placed at 10 per acre. Even higher estimates were made on a "colony" in Manitoba which stretched for a mile or more. In the center of this concentration Seton suggests there were 600 squirrels per acre.

The time of year when ground squirrels were most abundant was from early spring to middle summer. On his ranch near Fallon,

Alcorn noted that *C. townsendii mollis* appeared above ground by the middle to the end of February. The females were impregnated with from 8 to 15 embryos by the middle of March and the young began appearing by May 1. Hibernation began in July with the fattest squirrels (usually the males) disappearing first, and by August most were underground (Alcorn 1940:162).

The potential these rodents offered to Great Basin peoples and the timing of their collection is also commented on by Alcorn, who observed Paiutes in June collecting ground squirrels by pouring water down their burrows. Each animal was caught by the neck and its ribs felt to see if it was fat; if not, it was released. He reports two young Indians in June of 1937 with several hundred live squirrels in the back of their automobile. They planned to take them back to Pyramid Lake where they could sell them for 10 cents apiece. They made from \$5.00 to \$20.00 a day in this manner (Alcorn 1940:160-161).

In the Gosiute area, Egan (quoted in Steward 1938:138-139) records Great Basin Indians collecting 25 to 30 "gophers" in a half-hour by diverting water into their holes, though the time of year is not mentioned. These were skinned, eviscerated, and dried with the bones intact. Another early-day observer was Jacob Schiel (Bonner 1959:100), who traveled through the northern Basin in the mid-1800's. His diary entry on the 27th of May states:

Several days after crossing the Humboldt Mountains, we met some Indians who were busy catching ground squirrels. The animals are fat and numerous at this season. They are killed with blunt arrows, caught in traps which have almost the shape of the figure 4, or else [they are] dug out. Some had forty to fifty of them hanging from their sides, the harvest of a single day.

Seton (1929:260) gives the weight of a male (*C. richardsonii*) at 16 oz. If these squirrels supplied usable meat at the rate of 70 percent of their live weight (White 1953:398) each would contain 10 to 12 oz. of edible flesh prior to drying. Simple multiplication tells us the Indians observed by Schiel were obtaining about 25 lb. of squirrel meat per day.

Lishak recorded the potential of ground squirrel harvesting and reports catching 10 *C. tridecemlineatus* (13-lined ground squirrel, a non-colonizing species) per hour with a type of noose snare (1976:365). Also, McCarley (1966:295) was able to capture full litters of *C. tridecemlineatus* with the use of a simple noose snare much like those recovered in the Southwest.

The implication of these examples is that rodents were available as early as February 15th and in quantities by early May. This was the season often characterized by near-starvation in the Basin as the stores of nuts and seeds harvested in the fall were now depleted and the first foods of early spring were eagerly anticipated as a break from the daily mushes. Therefore, meat protein supplied by the easily-gathered ground squirrels would have filled an important gap in the seasonally scheduled subsistence round of the Basin peoples. Such may have also been the case with Southwest Basketmaker groups, though ethnographic evidence is more difficult to approach given the reliance of most Southwestern groups on agriculture at the time of contact.

## IMPLICATIONS

The implications of the above data fall into two categories: (1) archaeological, and (2) cultural-historical. Archaeological implications stem from the stated conclusions of Basin ethnographers naming microfauna as staple food items (Alcorn 1940:160; Steward 1938:138-139, 1941:224; Loud and Harrington



1929: 153-154; Hunt 1960:12). Given this conclusion, a reasonable hypothesis would be that such was also the case prehistorically, an assumption that seems borne out by the occurrence of snare bundles in archaeological sites. However, ethnographically observed rodent collecting was accomplished by various means of which traps and snares may have been the least common (Kelly 1964:52; Steward 1941: 224), although the trap line concept referred to in this paper was employed by Numic speakers in the Basin (Steward 1938:138; Kelly 1932:88). It is also very likely that the animals were consumed bones and all, leaving almost no archaeologically recoverable debris other than bone fragments and hair in human coprolites (e.g., Heizer and Napton 1970:101). Such would be the case, for instance, if the animal were skinned, eviscerated, and dried as reported by Egan; and, as is the case with dried rabbit meat, pounded into a meat powder for flavoring the seed mushes. As a consequence, if precontact food processing practices were analogous to observed patterns, little other than the snare bundles remain as testament to the prehistoric reliance on rodents. Rodents also were roasted whole, however, and this practice could have left the scattered skeletons for archaeologists to recover (Kelly 1932:93). Regardless, archaeologically derived subsistence profiles, with some notable exceptions (e.g., Thomas 1969; Aikens 1970; Fowler *et al.* 1973), often relegate rodents to an "also present" status or fail to mention them at all. This apparent underrepresentation of rodents in the prehistoric diet as defined by archaeology may be attributed to gross excavation techniques (Thomas 1969:393), to simply ignoring small bones, or to the possibility that the remains of utilized rodents are available primarily in human fecal material which is seldom found. An additional problem is the separation of culturally deposited bones from those naturally deposited, although Thomas (1971) has outlined guide-

lines for making this distinction. In order to test the hypothesis that microfauna were important prehistorically in the Great Basin and Southwest, archaeologists must exercise finer screening techniques and continue to pursue coprolite analysis as a means of gaining better control of conclusions regarding subsistence practices.

In addition to the above implications, some speculation can be made regarding the scheduled use of the sites wherein the rodent-oriented snare bundles occur. Given the seasonal nature of the appearance of the ground squirrel, for instance, a calculated guess can be made that sites containing the bundles were occupied during the spring and early summer. This guess, of course, is based on the assumption that the snares were actually used for ground squirrel harvesting. Additional attention needs to be given to the context of snare bundles to relate them to particular microfauna as well as to determine if the site containing them was simply an off-season storage place rather than a spring/summer camp.

The implications for Great Basin culture history derive from the apparent fact that, although the distinctive scissors and hinged-stick snares were used prehistorically in the Great Basin, there is no documentation of their utilization by historic Numic speakers. Rodent procurement observed by Steward (1933, 1938, 1941) and Kelly (1932) relied on means such as drowning or driving out with water, and deadfalls, rather than on the snares described here. This anomaly exists despite the apparent continuity in subsistence strategy (i.e., broad-spectrum foraging) over the past several thousand years. Only to the south, among the Hokan-speaking Mohave, have these peculiar traps (scissors snares) been observed ethnographically (Spier 1955). This situation could be interpreted as evidence in support of linguists' arguments against a long (over 1500 years) history of Numic speakers in the Basin (Miller n.d.; Lamb 1958).

### CONCLUSIONS

Snare use in the arid Desert West of North America is characteristic of a broad-spectrum subsistence strategy, a conclusion supported by the contextual occurrence of snare bundles. Such a system insured against economic crises by including a wide range of plants and animals on its list of food items. It is suggested that microfauna, which are often relegated to the "also present" category of archaeologically derived subsistence profiles, played a significant role in the prehistoric annual round of the Desert West and possibly a key role in the spring.

### ACKNOWLEDGEMENTS

I thank Kristen Hawkes and Jim O'Connell for their comments and encouragement on this paper.

### NOTE

1. The Owens Valley snares are not located on Fig. 1 nor listed in Table 1 since the intended prey for which those snares were used was macro- rather than microfauna.

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