DETERRING BEARS FROM URBAN HOMES

TOWN OF PINETOP-LAKESIDE

ARIZONA GAME & FISH HERITAGE FUND
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PINETOP/LAKESIDE
Celebrate the Seasons

DETERRING BEARS FROM URBAN HOMES

TOWN OF PINETOP-LAKESIDE

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INTRODUCTION

During the past 30 years Arizona's human population has increased from 750,000 to over 4 million, and is predicated to reach over 5 million by the year 2000. As Arizona's human population increased, greater numbers of people living in bear habitat have led to increased bear-human conflicts.

Traditionally, bear problems have been "campground bears," but an increasing problem is occurring in residential areas located in bear habitat. Each year Arizona Game and Fish Department (AGFD) wildlife managers in the Pinetop-Lakeside and Show Low areas respond to dozens of complaints of bears coming into housing areas. Similar problems occur in the Heber, Flagstaff and Payson areas, and in some areas of southeastern Arizona.

Currently, when bear complaints are received by the AGFD, they are handled according to the Department's "Nuisance Bear" policy. In some cases, if it is determined that a bear has only been observed in the area but has not caused any problems, no action may be taken. In other situations, such as when bears are causing damage, the animal might have to be captured and relocated, or if it is acting aggressively towards humans it might be killed.

As more humans move into bear habitat, the potential exists for residential bear problems to get even worse, and the chance of human injury to increase. These bear problems will require wildlife managers to spend an increasing amount of time away from their other duties while they capture and relocate residential bears. Also, the cost of moving these bears will certainly increase. Unfortunately, all this time and money might not help the homeowner, or the AGFD, because bears are not the entire problem. Humans also play a role.

Most urban bear problems are caused by bears that wander into residential areas looking for food. If they find it they tend to stay, making residents uneasy, and sometimes causing property damage. Moving or destroying such bears eliminates that individual animal from the area, but does not always solve the problem. Something attracted the bear in the first place and unless these attractants are identified and removed, or made inaccessible, another bear will eventually find them and cause new problems.

Unfortunately, many homeowners are unaware of what might attract or deter a bear from their home. If homeowners had such information they could take steps to "bear proof" their homes. This would not only help protect the homeowner, but also help the AGFD by reducing the time and expense needed to handle residential bear problems, and help the bear.

This project was designed to identify bear attractants and deterrents in urban areas by sampling residents living in selected portions of the Pinetop-Lakeside area that have experienced annual bear problems. The results of this sampling were then analyzed to determine what factors appeared to attract bears to some houses and made them avoid others. This report provides detailed results of this analysis including the extent and type of bear problems in the area, and public attitudes toward bears in Pinetop-Lakeside.

In addition to this report, a brochure will also be prepared and distributed to homeowners through out the Town of Pinetop-Lakeside that will incorporate the most significant findings of this project. Through the production of this brochure people in the Pinetop-Lakeside area will be able to obtain information on methods they can employ to deter bears from their property. By applying this information homeowners can reduce their chances of being injured by a bear, reduce property damage caused by bears, prevent some bears from being killed, and help the Arizona Game and Fish Department reduce residential bear problems,

This project was funded by a grant from the Arizona Game and fish Heritage Fund. We wish to thank the personnel from the AGFD Region 1 office in Pinetop-Lakeside for their help in planning this project. Also, to the Advanced Biology students from Corona del Sol High School who helped distribute and pickup questionnaires. We also appreciate the help of all the citizens of Pinetop-Lakeside who took time to fill out our questionnaire, and talk to our interviewers. Without their help this project could not have been completed.

Methods

Questionnaires

For sampling purposes, the AGFD was asked to select 2 residential areas in the Pinetop-Lakeside area that had annual bear problems. The areas selected were the Pinetop Lakes area, and the area along the Mogollon Rim from Pine Lake Meadows to Woodland Park (Fig. 1). Data collection in these 2 areas occurred in 2 phases. Questionnaires were distributed to each house along 6 survey routes in the 2 selected areas on August 10, 1994 (Fig. 2). One thousand questionnaires were distributed. Residents were asked to answer a series of questions about bear visitations, and their feelings about bears in their neighborhoods (Fig. 3). Completed questionnaires were picked up 3 days later and answers to each question tallied.

Interviews

Once all answers were tallied, completed questionnaires were then sorted by houses reporting "significant bear activity" (which was considered to be anything other than a bear walking or running through a person's yard), and houses "without significant visitations" (Fig 3 Q. 7). A total of 191 homeowners reported significant visits (Table 1).

Each of these 191 houses was then paired with the nearest neighboring house not reporting a significant visit. Then, beginning on August 18th, an attempt was made by a wildlife specialist familiar with bears and bear habitat to personally interview the owners of each of these 382 homes. If a homeowner could not be contacted a second attempt was made 1 to 2 days following the initial visit. If either of a paired set of homeowners could not be contacted after 2 attempts, neither of the pair was used in the final analysis.

In the planning of this project it was thought that approximately 100 homeowners reporting significant bear visits, and 100 reporting non-significant bear visits, needed to be interviewed in order to have a representative sample of the area. If, due to non-contacts, 200 individuals could not be interviewed, a comparison (interviewed vs. not interviewed) of the physical features and location of the residence would be made. If there were no obvious differences in the overall characteristics of the 2 groups of residences, it would be assumed that the interviewed group was representative of all groups. If differences were obvious additional attempts would be made to contact non-interviewed residents until at least 90% of the proposed 200 homes were contacted. After 2 attempts had been made to contact each pair of homeowners a total of 176 (88%) had been interviewed. At this time interviewers could perceive no obvious differences in those homes contacted and those not contacted, and that the sample was representative of the entire area surveyed.

Homeowners contacted were asked a series of questions about items on their property that potentially could attract or deter bears. Interviewers also observed and rated the location of each home in relation to its potential accessibility to bears (Fig. 4). Data from each questionnaire was entered into a computer form that duplicated the field form. Microsoft ACCESS Database was used for data entry, storage, and reporting. The data was imported into a Microsoft EXCEL Spreadsheet to produce descriptive statistics (Ex. means, percentages, regressions), and the graphics capabilities of EXCEL were used to produce appropriate charts and graphs.

Since the objective of this study was to determine what items at residences were attracting or deterring bears, a set of 14 questions covering possible variables was designed (Appendix I). For example, one question was: "*Was the presence or absence of outside garbage at the site related to whether or not the home was visited by a bear*?" Each question was then evaluated by the use of a test for association. The data was arranged into contingency classifications. In the above example the data were arranged into a 2 x 2 table representing the 4 possible combinations of observed values: (1) visited by bears with garbage available, (2) visited by bears but garbage not available, (3) not visited by bears with garbage available, and finally (4) not visited by bears and garbage not available.

To determine whether the bear visits were associated with the presence of garbage, however, we also needed to know what these counts would have been had there been no association between bear visits and the presence of garbage. These "expected" values were estimated from the overall sample. For example, using the above question, the probability of a bear visit to a home site was 88/176=50%. Likewise, the probability of a non-visit was 88/176=50%. One hundred thirteen people reported garbage at the site or 113/176=64%. Thus, the probability of there being no outside garbage as the site was 63/176=36%. The probability then of a bear visit and garbage at the site was 0.64 x 0.50 = 0.32 (32%). This value multiplied by the total sample of 176 gives an "expected" value

of 56 visits by bears to a site with garbage available. To test for significant association, the expected values were then compared with those observed. This same approach was then used for the remaining 13 questions (Appendix I).

Using the data derived from this analysis, a set of 12 more questions were developed concerning the chances that a homeowner might be visited by a bear. Each question was worded as if a homeowner were asking it. For example: "*What are my chances of being visited by a bear if I leave my garbage outside*?" A probability of such a visit occurring was then calculated for each question.

RESULTS

Questionnaires

The objectives of the questionnaires were 1) to determine the extent of bear problems in the areas of sampled, and 2) to sample homeowners feelings about bears in their neighborhoods. Of the 1000 questionnaires distributed, 495 were returned. Sample sizes for each question varied, however, because some individuals failed to answer every question (Table 1).

The returned questionnaires showed that the majority of people sampled (85%) had owned property in the Pinetop-Lakeside area for more than 1 year, but only 40% were year-round residents. The remaining 60% were seasonal residents, however, most resided in Pinetop-Lakeside during the summer months so they had an opportunity to be visited by a bear.

Bear problems appeared to be common and widespread. With the exception of Route 3 (Fig. 2), which sampled that portion of Pinetop Lakes lying adjacent to Highway 260, almost half of all homeowners contacted on other survey routes had seen bears on their property (Table 2). The highest number of incidents occurred on Route 1, which surveyed houses in the PineLake Meadows and White Mountain Club Village developments adjacent to the Fort Apache Indian Reservation (Fig. 2). On Route 1 nearly 70% of all homeowners contacted had received bear visits (Table 2).

Besides having a high number of bear visits, Pinetop-Lakeside residents also reported that many of these visits were of a significant nature. In other words, more than just a bear walking or running through their property. Of the 495 homeowners sampled, 50% reported they had actually seen a bear on their property since purchasing their residence (Table 1 Q.5). A total of 226 of these people reported that these visits had occurred during the past 2 years (Table 1 Q.7). One-hundred ninety one of the 276 (38.6%) reported that these bear visits were significant (Table 1 Q.7). These numbers, although relatively high, probably represent a minimum visitation rate. Undoubtedly other residents were also visited by bears that the homeowner did not "actually see". This fact was validated by some individuals writing on their questionnaire that they had found their garbage can tipped over, or that neighbors had told them they had seen a bear on their property.

Eighty-one percent of the observations were of bears getting into garbage. Food or nectar put out for other wildlife was second in importance, representing 11% of the observations, with all other types of activity making up less than 10% (Table 1 Q.8).

Problems with bears were not limited to one type of resident. A common viewpoint expressed to interviewers by year-round residents was that seasonal homeowners caused most of the problems with bears because they did not live in the area year-round and were not as aware of how to protect themselves from bear visits. This assumption, however, did not appear to be true. Of the seasonal homeowners sampled, 38% reported that they had experienced a significant bear visit during the past 2 years, while 40% of year-round residents reported similar visits (Table 3). This data indicates that seasonal residents are no more to blame for bear problems in Pinetop-Lakeside than year-round residents.

Sixty-four percent of the homeowners sampled said that being close to wildlife had some influence on their decision to live in Pinetop-Lakeside (Table 1 Q.3), and 86% enjoyed having wildlife on their property (Table 1 Q.4). Thirty-five percent of homeowners said they didn't mind having a bear on their property (Table 1 Q.14), and 58% did not mind having them in their neighborhood (Table 1 Q.12). Only 3% of all homeowners sampled said they did not like bears around at all, not even in the forests surrounding their neighborhoods (Table 1 Q.12).

People were most concerned about being injured by a bear, followed by fear of property damage (Table 1 Q.15). However, even though bear visits were common during 1993 and 1994 no one was injured (Table 1 Q.11), and only 27 people reported experiencing property damage, with most damage being in the form of a bird feeder being chewed up. Only one individual reported a bear causing more than $100 damage. It chewed some siding loose on their house.

Fears of human injury or property damage, however, did not lead most people to report bear problems. Only 12% of homeowners sampled said they had reported a bear visit to authorities (Table 1 Q.15). Many people (57%) wanted bears left alone, and if action had to be taken, preferred the bear be removed and relocated (Table 1 Q.16) No one sampled wanted a problem bear killed, and many homeowners took time to state this fact on their questionnaire (Appendix II).

Interviews

To determine actual bear attractants and deterrents the objective was to interview as many of the 191 homeowners reporting significant bear visits during 1993-1994 as possible. At each residence where an interview was obtained, the interviewer than attempted to interview the nearest neighbor that had not experienced a significant bear visit during the past 2 years. Following this procedure 88 pairs of homeowners were interviewed for a total of 176 interviews.

Analysis of this data showed that of possible bear attractants examined only 2, outside garbage and proximity to a bear travel corridor, were significant (Table 4, and Appendix I) Of these 2, leaving garbage outside was by far the most important. If a homeowner left garbage outside there was a 68%

chance they would be visited by a bear (Table 5). If that homeowner happened to live adjacent to a bear travel corridor, such as near the edge of a housing development or adjacent to a wooded area within a housing development, and left their garbage outside, their chances of being visited increased to 71% (Table 5). These chances for a visit remained the same regardless of where the garbage was located outside, and regardless of whether the top of the container was secured with a latch or tie-down of some type. Bears have good noses and can readily locate outside garbage containers, and any device used to secure the lids was easily opened by a bear. In fact, during the interview portion of this study the interviewers observed a small bear, estimated to be about 2 years old, easily obtain garbage from a can secured with a "bungee cord."

Some people interviewed believed that leaving their garbage outside was no problem because they did so and had not been visited by a bear. However, this is probably only a temporary situation. The data shows that garbage attracts bears and given enough time a homeowner leaving their garbage outside will be visited by a bear. In fact, during the 1 week period between the time the initial questionnaires were distributed and the interviews were conducted, several individuals who had reported they had not been visited by a bear had one get into their outside garbage container.

If leaving garbage outside attracts bears then one would think that storing garbage inside might deter bears, and this seems to be the case. The most significant bear deterrent was for the homeowner to store their garbage in a garage or outbuilding until the morning of garbage collection (Table 4). If this was done the homeowner had only a 2% chance of being visited by a bear, even if they lived near a bear travel corridor (Table 5). Of the 65 homes sampled that stored their garbage inside 62 (95%) had never been visited by a bear.

The other deterrent that was of some value was to fence the garbage container. However, fences were not successful in all cases (Table 4). Fencing was only a deterrent if it was high enough that a bear could not climb over it. Of 16 homes sampled that had their garbage fenced, 7 (44%) were still visited by bears. Five of these houses had woven wire fences less than 5 feet in height, 1 had a 6 foot chain-link fence, and 1 had a 6 foot wooden fence. Houses not visited had chain link fences over 6 feet in height. Therefore, in order for a fence to act as a deterrent it should be over 6 feet tall, but since outside garbage is such a strong attractant, such a fence still might not always deter a hungry bear.

Of all other possible bear attractants evaluated, such as food for other wildlife, pet food, gardens, water, etc., none proved to be significant in attracting bears (Table 4). For example, if a person put food or water out for other wildlife, but stored their garbage inside, they had less than a 2% chance of being visited by a bear (Table 5). Likewise, of the other potential deterrents examined, such as dogs, or outside lighting, none appeared to be a significant deterrent (Table 4). If a person left their garbage outside, but had motion sensitive lighting in their yard, they still had a 65% chance of being visited by a bear as opposed to a 68% chance without the lighting (Table 5).

DISCUSSION

The results of this study show that bear problems in the Pinetop-Lakeside area are abundant and widespread. Although bears occasionally eat food put out for other wildlife or domestic pets, and homeowners should make every attempt to keep such items out of reach of bears, the major attractant appears to be garbage. Residents visited by bears commonly store garbage in non bear-proof containers, and keep these containers outside, or put them outside prior to the day of garbage collection. This outside garbage produces odors which attract bears, and as a result bears roam neighborhoods feeding on garbage. Houses most prone to bear visits are those that are located along the edges of housing developments or wooded strips of vegetation within developments. However, no homeowner that leaves garbage outside is immune to a bear visit. If you leave your garbage outside in Pinetop-Lakeside, and have not yet been visited by a bear, there is a 68% chance you eventually will.

Most bear visits appear to be of a nuisance nature. Some homeowners spend a great deal of time picking up garbage from overturned cans, and some neighborhoods appear unkept and littered following a bear visit. However, few residents experience any significant property damage, and no one reported being injured by a bear. This latter fact, however, is probably only a temporary situation. With the high number of bears in residential areas of Pinetop-Lakeside, it is inevitable that someone will eventually be hurt by a bear. This injury will probably not be due to an attack, but instead by someone simply surprising a bear on their property and getting injured as the bear attempts to defend itself or escape.

Because people are rarely hurt by bears a lot of residents don't take bears seriously. Many people interviewed expressed enjoyment in seeing bears, inviting other people to come and watch "their" bear, and in some instances told interviewers of purposely placing their garbage container adjacent to a window or door to lure the bear closer for photographs and videos. Unfortunately, such actions not only puts the homeowner at risk, but also jeopardizes their neighbors well-being, and could cause the bear to have to be killed.

The AGFD recognizes all these possibilities. Each year, in an effort to protect both humans and bears AGFD attempts to educate people about why they are experiencing bear problems, and attempts to capture and relocate any animals showing aggressive behavior toward humans. However, even though capture and relocation of a bear is the control action that most people support, what these individuals do not realize is that relocation does not assure that the bear will live, nor does it always solve the homeowners bear problems.

Since bears in residential areas have lost much of their fear of humans, once an animal is captured, AGFD makes every attempt to relocate it where it will not come into contact with humans, campgrounds, or other houses. This is becoming increasingly difficult as Arizona's human population increases. Some relocated bears are killed because they cause problems elsewhere. Also, a relocated bear must be placed in suitable bear habitat. This immediately exposes the relocated bear to resident bears that will try to kill it, or run it out of the area. Consequently some relocated bears are killed

by larger resident bears. Currently, AGFD does not know the survival rate of relocated bears, but they do know that, contrary to popular belief, relocation does not guarantee a bear will live.

Relocating bears also does not assure that the homeowner will not receive another bear visit. The bear, although a problem to the homeowner, is only a symptom of the real problem, which is usually the availability of garbage stored outside. Even though the offending bear is removed, the continued availability of garbage will attract another bear. The solution to reducing bear problems, the possibility of someone being hurt by a bear, or a bear being killed, is for homeowners to take steps to deter, rather than attract bears to their homes. By taking steps to deter bears the homeowner reduces the risk of injury to themselves and their neighbors, and may also prevent a bear from being killed. If a homeowner likes bears, the best action they can take to protect them is to prevent bears from getting any type of food around their house, especially garbage.

This study shows that the best way to prevent bears from getting garbage is to store it inside a garage, or outbuilding of some type, until the morning of garbage collection. This one simple step can reduce a homeowners chances of being visited by a bear from approximately 68% to 2%. If a homeowner does not have a garage or suitable outbuilding for storage, garbage might also be stored in some type of metal or wooden fenced structure. However, as the data shows, a standard size fence will not prevent a bear from climbing in and feeding on the garbage. If a fenced structure is used it must be made out of a material that a bear cannot tear apart, such as chain-link fencing or heavy lumber, and it must be very tall (7-9 feet high). If the structure is shorter it must have a top on it so a bear cannot climb over and get to the garbage.

Another option to prevent bears from getting garbage is to store it in bear-proof trash containers. Currently most residents in Pinetop-Lakeside use a commercial garbage pickup service. The containers, although made of a heavy rubberized plastic material with a top secured by a "bungee cord," are not bear-proof. There are, however, several types of bear proof containers available. Some of these are designed for use by individual homeowners, and others are dumpster type containers which can service several homes (Appendix III). Individual homeowners, or the Town of Pinetop-Lakeside, might want to look into the possibility of having garbage contractors provide such containers.

CONCLUSION

Results of this project show that wildlife is important to the residents of Pinetop-Lakeside. Over half of those homeowners surveyed stated that being close to wildlife played some role in their decision to live in the area. People enjoy seeing wildlife, and bears are no exception. Even though many residents voiced concern over the possibility of property damage or human injury, over half of all homeowners surveyed did not mind having bears in their neighborhoods, and many expressed their concern about the bear's well-being (Appendix II).

Unfortunately, many individuals who love bears are also the same people that are putting these animals at risk by allowing bears to get into their garbage. Each summer many bears are attracted to this food supply and some spend a great deal of time in close proximity to homeowners. Even though no one reported being injured by a bear, this high number of potential bear-human encounters probably makes it inevitable that someone will eventually be injured by a bear.

Realizing this potential risk, the AGFD spends a great deal of time during the summer months attempting to capture and relocate bears, and sometimes is even forced to kill a bear if it is acting too aggressive toward humans. Unfortunately all this effort does not solve the problem. Even though a bear is removed, the garbage which attracted it remains, and in a short period of time another bear is attracted and the risk to humans and bears continues.

The way to break this cycle is with the help of the residents of Pinetop-Lakeside. Residents need to eliminate those items which tend to attract bears to their homes, which is primarily garbage. By simply storing garbage in a closed garage, outbuilding, bear-proof fenced area, or in a bear-proof container until the morning of garbage collection homeowners can virtually eliminate their chances of being visited by a bear. If homeowners do not take such steps, they are putting themselves, their neighbors, and bears at risk.

Education of homeowners should be the joint responsibility of both the AGFD, and the Town of Pinetop-Lakeside. Education is important to the Department because it is responsible for the well being of bears, and to the Town because one of its major attractions is the wildlife of the area. The first step in this joint education program has already been met by the production of the "homeowner brochure" that is a companion product to this report. This brochure highlights why bear problems occur in Pinetop-Lakeside, and what steps homeowners can take to reduce their chances of being visited by a bear. The education process, however, should not stop here. Homeowners should be constantly reminded about keeping garbage away from bears. Several options appear available to accomplish this goal.

During the summer months, when the majority of bear problems occur, periodic radio and newspaper releases could be used to re-emphasize the importance of storing garbage out of reach of bears. AG&FD employees should also work with homeowner's associations to get similar messages out through their distribution systems.

Since the Town is already well known for its bears it could use this notoriety to help bears by sponsoring some type of a "Bear Awareness Week." For example, the Town Council could proclaim such a week in early summer when bear problems normally begin. AGFD could provide informational posters for display in local businesses and present educational programs on bears for residents of the community. Civic clubs and organizations could also be encouraged to donate funds to print flyers reminding homeowners about bears and garbage. These flyers could be distributed at stores and shopping malls by local youth groups.

Homeowners could also be reminded on a daily basis of the problem of bears getting garbage by asking an organization such as the North American Bear Society to provide funds to print some

type of a sticker that could be placed on each garbage container. These stickers could be put on by employees of the commercial trash collection company operating in Pinetop-Lakeside, or by volunteers from local civic or youth groups. Several possible stickers could read; "Help Protect Bears, Store Garbage Inside," "Failure To Store This Container Inside Could Result In The Death Of A Bear," "Protect Yourself And A Bear, Store This Container Inside," " Don't Love A Bear To Death, Store Garbage Inside."

To help homeowners who do not have a place to store garbage inside, the AGFD should also develop plans for an attractive bear-proof cage or box that would hold a garbage can, and have examples of commercially made bear proof garbage containers set up at their office. If plans and examples of bear proof garbage containers were available, homeowners would have the option of building or purchasing an outside container that would keep bears out of their garbage.

These suggestions are but some of the ways that people could continue to be educated about the problems of bears getting garbage. Obviously there are others that AGFD and Pinetop-Lakeside could discuss. Such actions will never completely eliminate bear problems in Pinetop-Lakeside but they certainly will reduce them

Bears are important to the residents of Pinetop-Lakeside, but if something is not done bear-human encounters will continue to increase, more residents will face the risk of injury, and one of the most unique and loved animals of the area will be increasingly put at risk. It is obvious that if bears and humans are going to continue to co-exist in Pinetop-Lakeside some changes in behavior are going to have to be made. Unfortunately bears are not able to change their behavior, only humans can.

Figure 1. Location of Pinetop-Lakeside residential sampling areas.

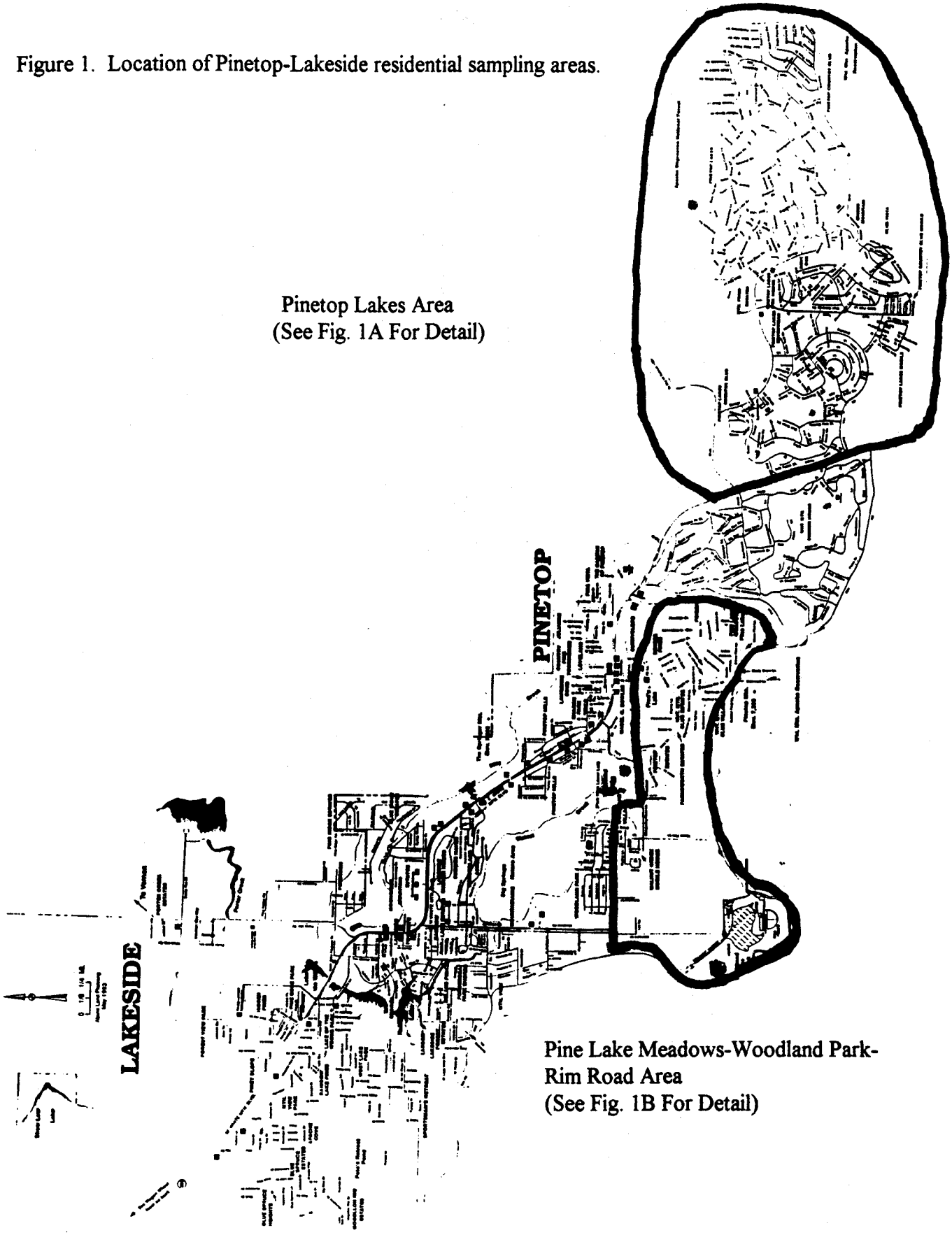


Figure 1A. Pinetop Lakes residential sampling area.

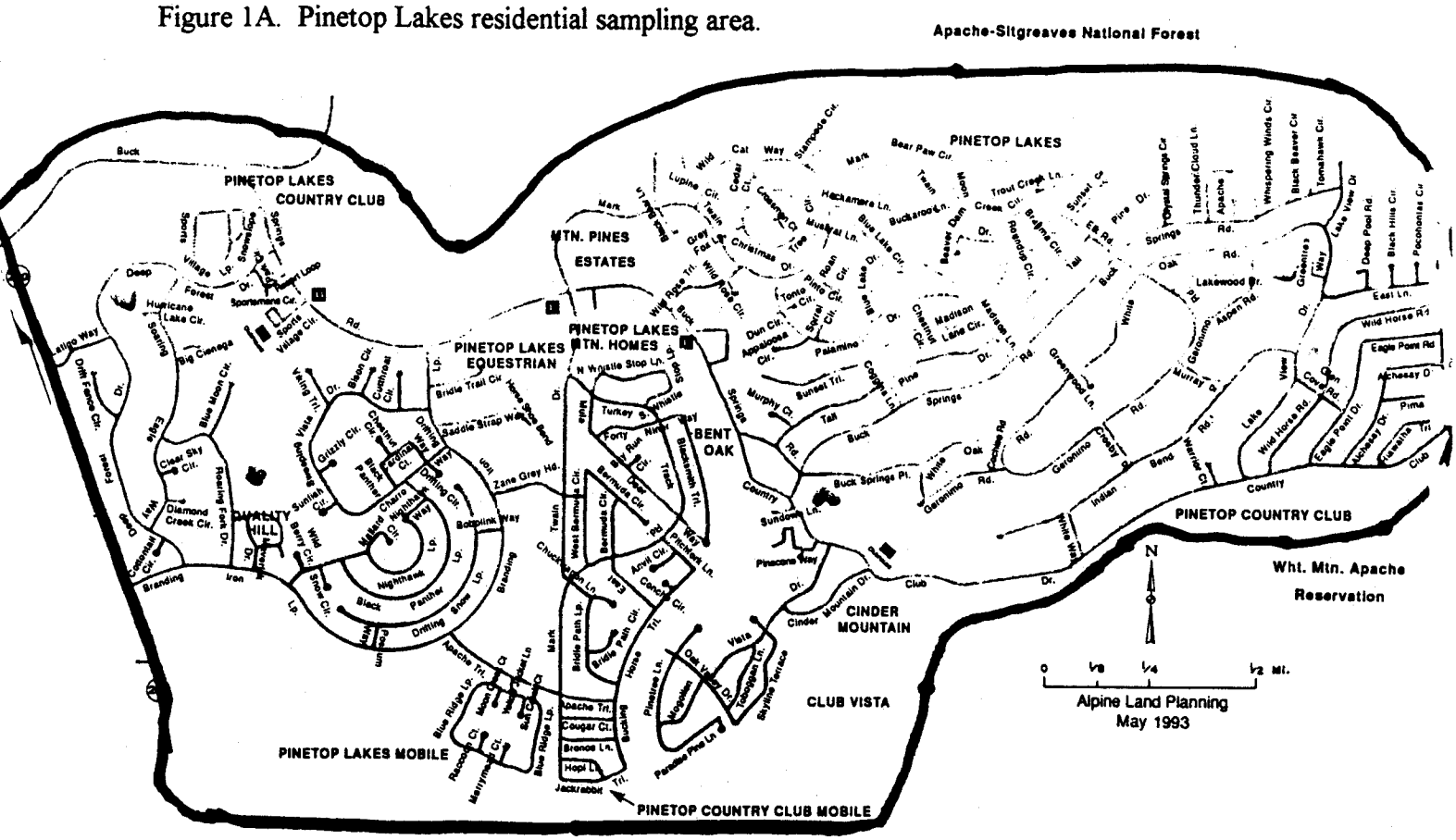


Figure 1B. Pine Lake Meadows-Woodland Park-Rim Road residential sampling area.

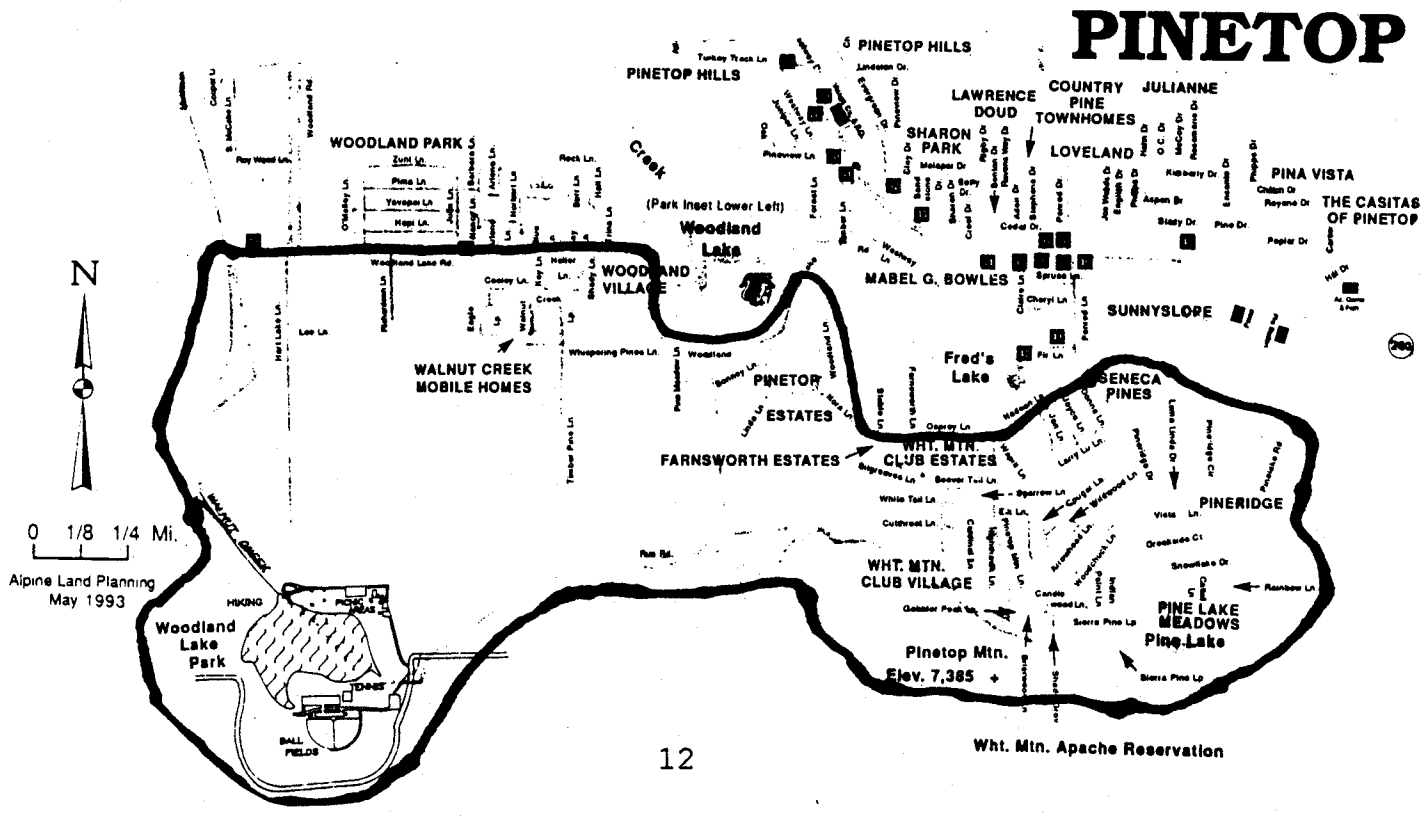


Figure 2. Questionnaire survey routes in Pinetop-Lakeside, August 1994.

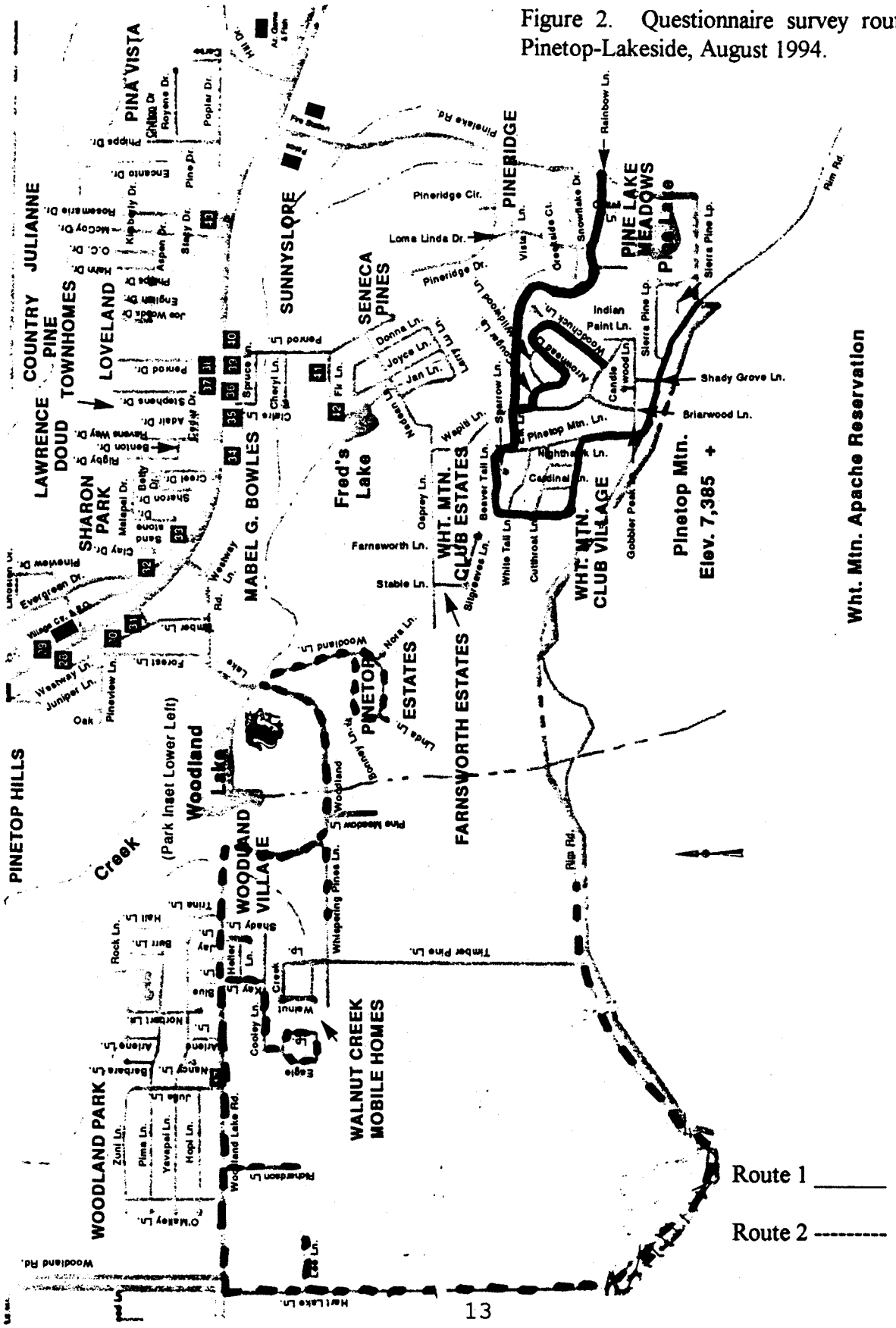


Figure 2. Cont.

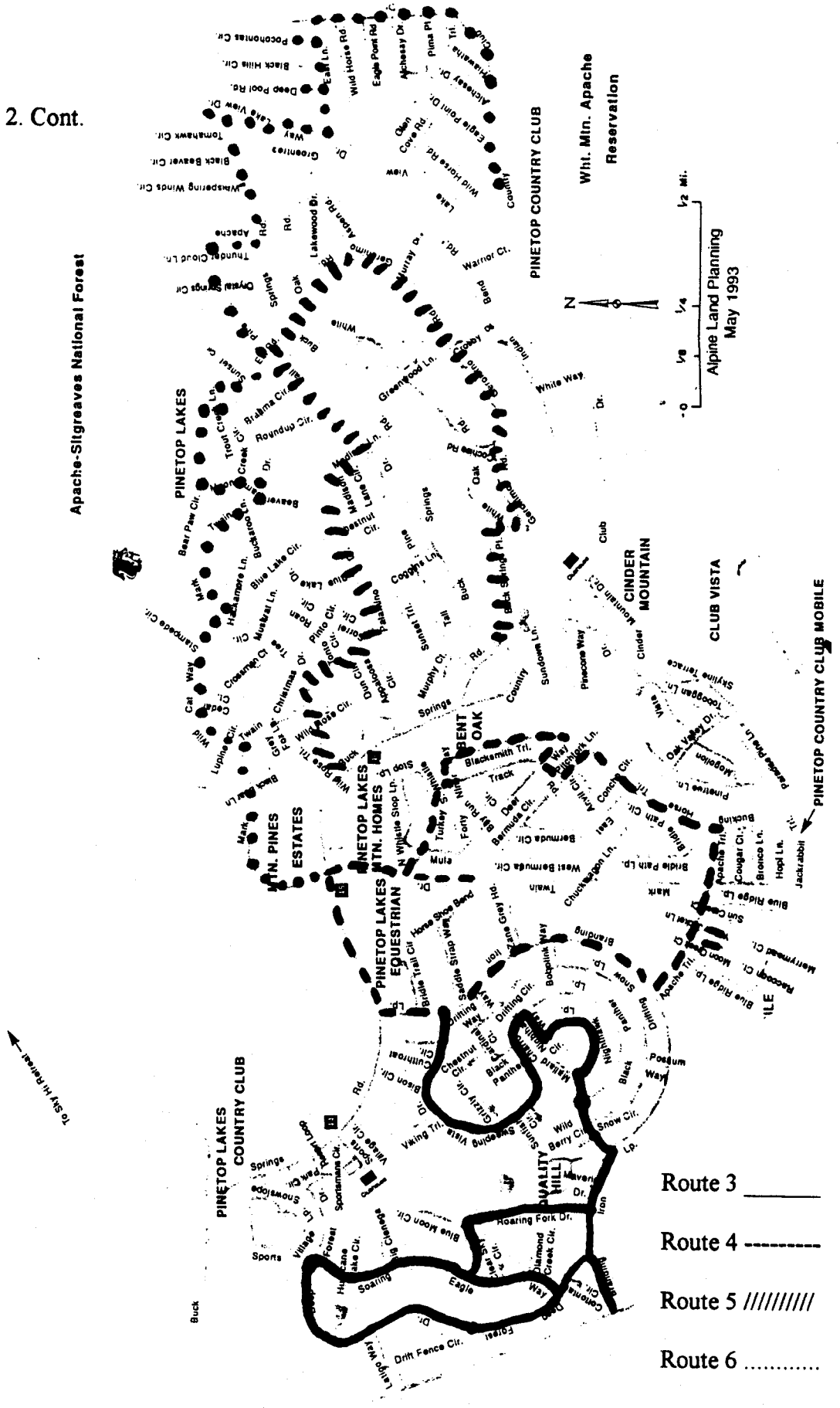


Figure 3. Pinetop-Lakeside urban bear project questionnaire.

PINETOP-LAKESIDE URBAN BEAR PROJECT QUESTIONNAIRE

Name (Optional)_____

Address or Lot#_____

1. How many years have you lived at this residence?
   (A) less than 1 yr.___ (B) 1-5 yr.___ (C) 6-10 yr.___ (D) more than 10 yr.___

2. Do you live at this residence year round?
   (A) Yes___ (B) No___

3. How much did being close to wildlife influence your decision to live in this location:
   (A) Primary reason___ (B) Slightly important___ (C) Not important___

4. Do you like having wildlife on your property?
   (A) Yes___ (B) No___

5. Have you ever actually seen a bear on your property?
   (A) Yes___ (B) No___

6. How many times did you actually see a bear on your property in:
   (A) 1993___ (B) 1994___

7. If you did see any bears on your property during 1993 or 1994 check (x) what it/they were doing.
   (A) Walking/running through property___
   (B) Eating or drinking on property___
   (C) Getting on porch or looking in windows___
   (D) Trying to get into house or other buildings___
   (E) Attempting to get pets or other animals___
   (F) Attacking people___
   (G) Other_____

8. If the bear was eating something on your property what was it eating?
   (A) Garbage___ (B) Pet food___ (C) Food or nectar put out for other wildlife___
   (D) Plants in garden___(E) Fruit from trees___ (F) Food from compost pile___
   (G) Other_____

Figure. 3 Cont.

9. Did you experience any property damage from bears in 1993 or 1994?
   (A) Yes___ (B) No___

10. If "Yes" what would be the approximate dollar amount of bear damage?
    (A) less than $100___ (B) $100-$500___ (C) more than $500___
    (If you know the actual amount please list)_____

11. Was any member of your family injured by a bear during 1993 or 1994?
    (A) Yes___ (B) No___

12. Do you like having bears in the forest, as long as they do not come into your neighborhood?
    (A) Yes___ (B) No___

13. Do you like having bears in your neighborhood, as long as they do not come onto your property?
    (A) Yes___ (B) No___

14. Do you like having bears on your property?
    (A) Yes___ (B) No___

15. Have you ever contacted any governmental agency (Game & Fish, Sheriff or Police Dept, Forest Service) about bears on your property?
    (A) Yes___ (B) No___

16. If you had a bear on your property what action would you like to see taken:
    (A) none/bear left alone___ (B) bear removed and relocated___ (C) bear destroyed___
    (D) other_____

17. What concerns you <u>most</u> about living in an area that has bears (Please check only one answer)
    (A) Property damage___ (B) Human injury___ (C) No concern___

Thank you for taking the time to help us out with this survey.
Please use the following area for any additional comments you would like to make:

Figure 4. Pinetop-Lakeside urban bear project homeowner interview form.

Not Visited___ Visited___

PINETOP-LAKESIDE URBAN BEAR PROJECT INTERVIEW FORM

Name_____

Address _____Lot#____

1. Do you have an outside garbage can or dumpster?
   (A) Yes___ (B) No___

2. If "Yes", is this garbage can or dumpster in the:
   (A) Front yard___ (B) Back yard___ (C) Side yard___

3. Do you:
   (A) Haul you own garbage___(B) Use a commercial garbage pickup service___

4. Do you leave pet food outside?
   (A) Yes___ (B) No___

5. Do you put food out for wildlife?
   (A) Yes___ (B) No___

6. If "Yes", what type of food is put out for wildlife?
   (A) grain/seed___ (B) fat/suet___ (C) nuts/fruit___(D) hummingbird nectar___
   (E) talescraps___(F) other_____

7. Do you have a wildlife water source (bird bath/pond/water trough) on your property?
   (A) Yes___ (B) No___

8. Do you have a vegetable garden?
   (A) Yes___ (B) No___

9. Do you have a compost pile?
   (A) Yes___ (B) No___

10. During the summer (June, July, and August) do you use an outdoor barbecue:
    (A) No___ (B) Less than once a month___(C) Once a month___ (D) Twice a month___
    (E) More than twice a month___

11. Do you have a dog that stays outside most of the time, or at least at night?
    (A) Yes___ (B) No___

Figure. 4 Cont.

12. If "Yes", does the dog bark at intruders on the property?
    (A) Yes___ (B) No___

13. Do you have "motion sensitive" lighting, or outside lighting that stays on all night?
    (A) Yes___ (B) No___

14. Do you have producing apple or pear trees in you yard?
    (A) Yes___ (B) No___

Interviewer Please Complete The Following:

15. Is there fence around any part of the property?
    (A) Yes___ (B) No___

16. If "Yes", what type of fence, and where is it located.?

Type	Height	Front Yard Only	Back Yard Only	Entire Property
(A) Electric				
(B) Barbed Wire				
(C) Woven Wire				
(D) Wood Rail				
(E) Wood Slat				
(F) Block				
(G) Other				

17. Is the garbage contained in a fenced area?
    (A)Yes___(B) No___

18. Does the house set on the edge of a potential bear travel corridor?
    (A) Yes___ (B) No___

19. If "No" what is the distance of the house from the nearest potential bear travel corridor?
    (A) less than 50 ft.___(B) 50-100 ft.___ (C) 101-200 ft.___ (D) 201-300 ft.___
    (D) over 300 ft.___

20. Does this house have other houses within 50 ft. on:
    (A) no sides___ (B) 1 side___ (C) 2 sides___ (D) 3 sides___(E) 4 sides___

Comments:

Table 1. Homeowners responses to Pinetop-Lakeside urban bear questionnaire.

1. How many years have you lived at this residence? (495*)	
(A) less than 1 yr.	75 (15.2%)
(B) 1-5 yr.	144 (29.1%)
(C) 6-10 yr.	128 (25.9%)
(D) more than 10 yr.	148 (29.8%)
2. Do you live at this residence year round? (495)	
(A) Yes	188 (40.0%)
(B) No	307 (60.0%)
3. How much did being close to wildlife influence your decision to live in this location: (484)	
(A) Primary reason	92 (19.0%)
(B) Slightly important	219 (45.2%)
(C) Not important	173 (35.8%)
4. Do you like having wildlife on your property? (475)	
(A) Yes	410 (86.3%)
(B) No	65 (13.7%)
5. Have you ever actually seen a bear on your property? (495)	
(A) Yes	248 (50.1%)
(B) No	240 (48.5%)
Not Answered	7 (1.4%)
6. How many times did you actually see a bear on your property in: (118)	
(A) 1993	1.4 Avg.
(B) 1994	1.1 Avg.
7. If you did see any bears on your property during 1993 or 1994 check (x) what it/they were doing? (276)	
(A) Walking/running through property	85 (31.8%)
(B) Eating or drinking on property	178 (63.3%)
(C) Getting on porch or looking in windows	9 (3.4%)
(D) Trying to get into house or other buildings	4 (1.5%)
(E) Attempting to get pets or other animals	0
(F) Attacking people	0
(G) Other	0
8. If the bear was eating something on your property what was it eating? (167)	
(A) Garbage	136 (81.4%)
(B) Pet food	5 (3.0%)
(C) Food or nectar put out for other wildlife	19 (11.4%)
(D) Plants in garden	0
(E) Fruit from trees	3 (1.8%)
(F) Food from compost pile	1 (0.6%)
(G) Other	3 (1.8%)

Table 1 Cont.

.9. Did you experience any property damage from bears in 1993 or 1994? (464)	
(A) Yes	32 (6.9%)
(B) No	432 (93.1%)
10. If "Yes" what would be the approximate dollar amount of bear damage? (27)	
(A) less than $100	26 (96.3%)
(B) $100-$500	1 (3.7%)
(C) more than $500	0
11. Was any member of your family injured by a bear during 1993 or 1994? (479)	
(A) Yes	0
(B) No	479 (100%)
12. Do you like having bears in the forest, as long as they do not come into your neighborhood? (462)	
(A) Yes	448 (97.0%)
(B) No	14 (3.0%)
13. Do you like having bears in your neighborhood, as long as they do not come onto your property? (439)	
(A) Yes	255 (58.1%)
(B) No	184 (41.9%)
14. Do you like having bears on your property? (450)	
(A) Yes	158 (35.1%)
(B) No	292 (64.9%)
15. Have you ever contacted any governmental agency (Game & Fish, Sheriff or Police Dept, Forest Service) about bears on your property? (487)	
(A) Yes	57 (11.7%)
(B) No	430 (88.3%)
16. If you had a bear on your property what action would you like to see taken: (470)	
(A) none/bear left alone	266 (56.6%)
(B) bear removed and relocated	203 (43.2%)
(C) bear destroyed	0
(D) other	1 (0.2%)
17. What concerns you <u>most</u> about living in an area that has bears (Please check only one answer) (480)	
(A) Property damage	37 (7.7%)
(B) Human injury	243 (50.6%)
(C) No concern	200 (41.7%)

* Sample Size

Table 2. Percent of people who had seen bears on their property in Pinetop-Lakeside by Route number.

Route #	Total Homes Sampled	Homes Visited By Bears	% Homes Visited By Bears
Route 1	80	55	68.8%
Route 2	82	45	54.9
Route 3	85	23	27.1
Route 4	82	43	52.4
Route 5	84	41	48.8
Route 6	76	37	48.7
Unknown	6	4	66.7
Total	495	248	

Table 3. Bear visits to yearlong and seasonal residents homes in Pinetop-Lakeside.

Route #	Yearlong Resident		Seasonal Resident	
	Total Bear Visits	Significant Bear Visits	Total Bear Visits	Significant Bear Visits
Route 1	30	16	50	26
Route 2	49	18	33	28
Route 3	36	8	49	10
Route 4	22	11	60	15
Route 5	20	8	64	15
Route 6	29	15	47	19
Unknown	2	0	4	2
Total	188	76 (40.4%)	307	115 (37.5%)

Table 4. Potential bear attractants or deterrents tested for significance in Pinetop-Lakeside, August 1994.

Possible Attractants	Significant*	Not Significant
Outside garbage	X	
Location of garbage		X
Water		X
Food put out for other wildlife		X
Outside pet food		X
Barbecue use		X
Gardens		X
Garden compost		X
Fruit trees		X
Proximity to a bear travel corridor	X	
Distance from a bear travel corridor		X
Possible Deterrents		
Garbage not outside	X	
Fenced garbage (over 6 ft high)	X	
Outside/motion sensor lighting		X
Dogs		X
Neighboring houses		X

*For values see Appendix I

Table 5 Probability of a Pinetop-Lakeside homeowner experiencing a bear visit under various conditions.

What are my chances of being visited by a bear if:	
1. I leave my garbage outside?	67.7 +10.1% (102)*
2. I do not leave my garbage outside?	2.0 +5.1% (64)
3. I leave my garbage outside and live near what is considered a bear travel corridor?	70.8 + 13.7% (58)
4. I do not leave my garbage outside but I live near what is considered a bear travel corridor?	2.4 +10.1% (26)
5. I leave my garbage outside and put food out for other wildlife?	65.3 + 11.6% (83)
6. I do not leave my garbage outside, but I do put food out for other wildlife?	1.4 + 5.8% (45)
7. I leave my garbage outside, and put both food and water out for other wildlife?	66.7 + 18.4 (37)
8. I do not leave my garbage outside, but I put food and water out for other wildlife?	5.6 + 23.6% (12)
9. I leave my garbage outside, put food and water out for other wildlife, and live near a bear travel corridor?	100.0 + 8.3% (16)
10. I do not leave my garbage outside, but I put food and water out for other wildlife and I live near a bear travel corridor?	0.0 + 29.3% (5)
11. I leave my garbage outside, but fence my yard with a fence that is less than 5 feet in height?	57.1 + 14.4% (60)
12. I leave my garbage outside, but I have a motion sensor light in my yard?	65.2 + 17.7% (40)

* Sample size

APPENDIX I

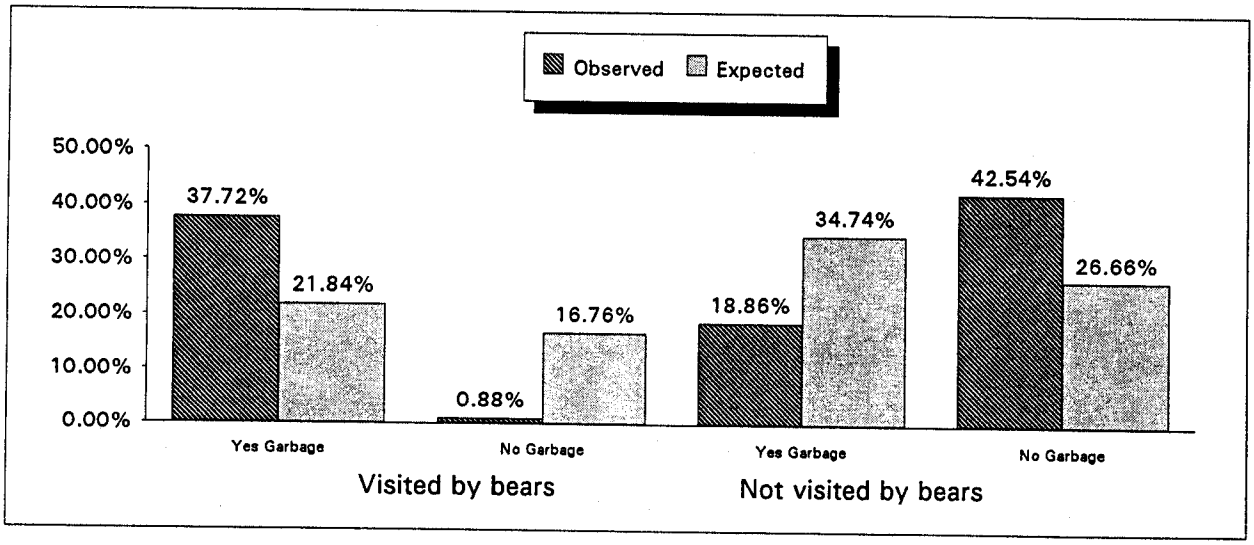
Observed And Expected Values Of Potential Bear Attractants
Or Deterrents In Pinetop-Lakeside, August 1994

Was the presence or absence of outside garbage at the site related to whether or not the home was visited by a bear?

	Observed Values		
	Yes Garbage	No Garbage	Total
Visited	86	2	88
Not visited	43	97	140
Total	129	99	228

	Expected Values		
	Yes Garbage	No Garbage	Total
Visited	49.8	38.2	88.0
Not visited	79.2	60.8	140.0
Total	129.0	99.0	228.0
	Observed		
Visited	37.7%	0.9%	
Not visited	18.9%	42.5%	
	Expected		
Visited	21.8%	16.8%	
Not visited	34.7%	26.7%	

Chi-square = 98.77308146
Probability = 0.



Given that outside garbage was present on site, was visit by bear related to whether or not garbage was inside a fenced area?

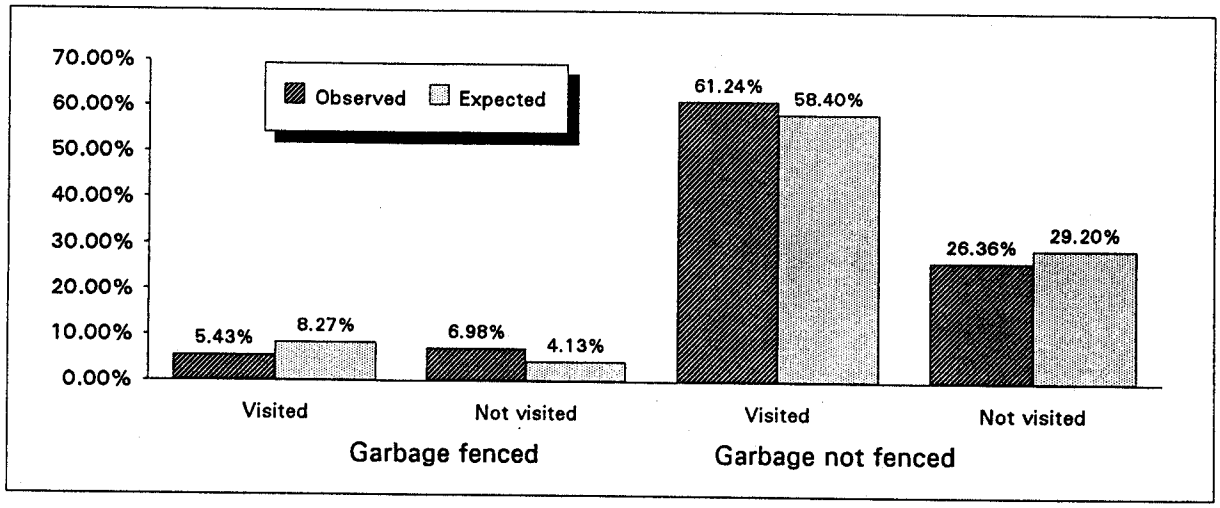
	Observed Values		
	Visited	Not visited	Total
Fenced	7	9	16
Not fenced	79	34	113
Total	86	43	129

	Expected Values		
	Visited	Not visited	Total
Fenced	10.67	5.33	16.00
Not fenced	75.33	37.67	113.00
Total	86.00	43.00	129.00

Chi-square =	4.31664823
Probability =	0.037741

	Observed	
Fenced	5.43%	6.98%
Not fenced	61.24%	26.36%

	Expected	
Fenced	8.27%	4.13%
Not fenced	58.40%	29.20%



Given that outside garbage was present at the home, was whether or not a bear visited related to whether garbage was located in front, back, or side yard?

Observed Values

	Front yard	Back yard	Side yard	Total
Visited	40	21	25	86
Not visited	13	13	17	43
Total	53	34	42	129

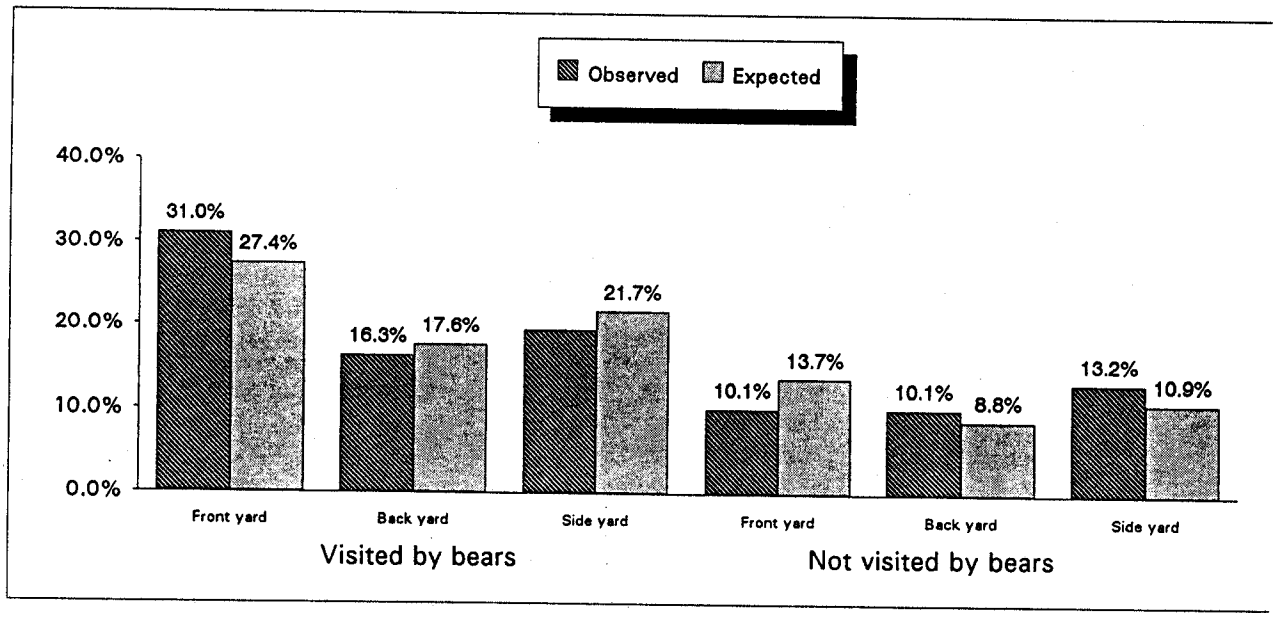
Expected Values

	Front yard	Back yard	Side yard	Total
Visited	35.33	22.67	28.00	86
Not visited	17.67	11.33	14.00	43
Total	53.00	34.00	42.00	129

Chi-square = 3.180989377
Probability = 0.203825

Visited	31.0%	16.3%	19.4%	
Not visited	10.1%	10.1%	13.2%	100.0%

Visited	27.4%	17.6%	21.7%	
Not visited	13.7%	8.8%	10.9%	100.0%



Was the presence or absence of food for wildlife at the site related to whether or not the home was visited by a bear?

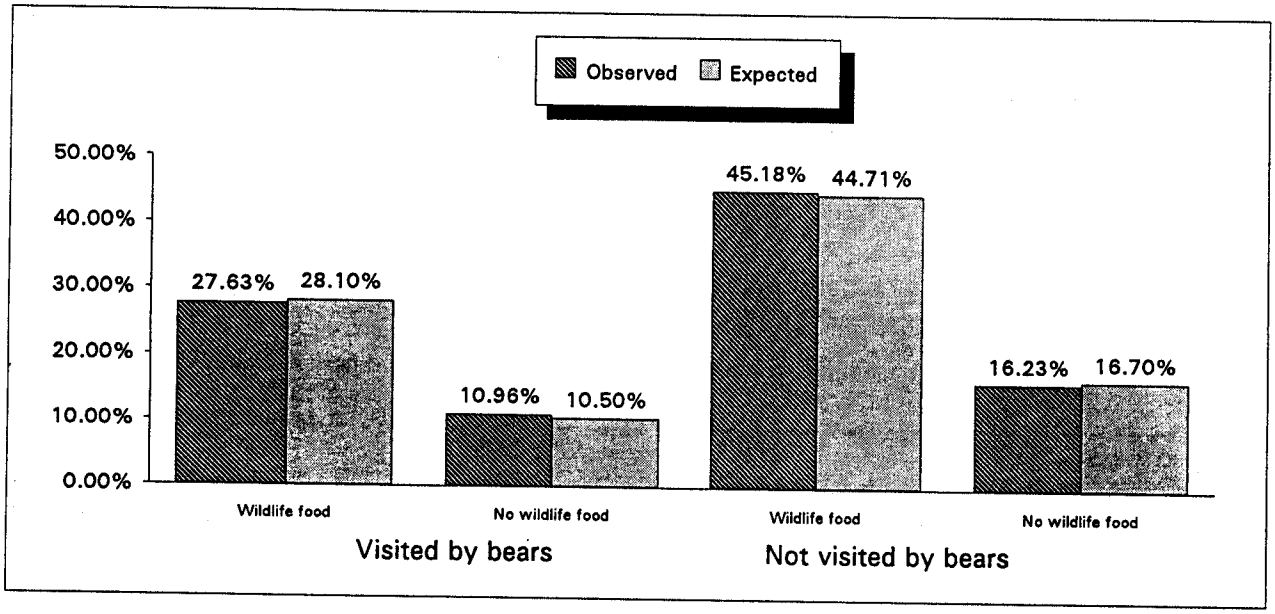
	Observed Values		
	Wildlife food	No wildlife food	Total
Visited	63	25	88
Not visited	103	37	140
Total	166	62	228

	Expected Values		
	Wildlife food	No wildlife food	Total
Visited	64.07	23.93	88.00
Not visited	101.93	38.07	140.00
Total	166.00	62.00	228.00

Visited	27.63%	10.96%
Not visited	45.18%	16.23%

Visited	28.10%	10.50%
Not visited	44.71%	16.70%

Chi-square = 0.107054275
Probability = 0.743523



Was the presence or absence of a vegetable garden at the site related to whether or not the home was visited by a bear?

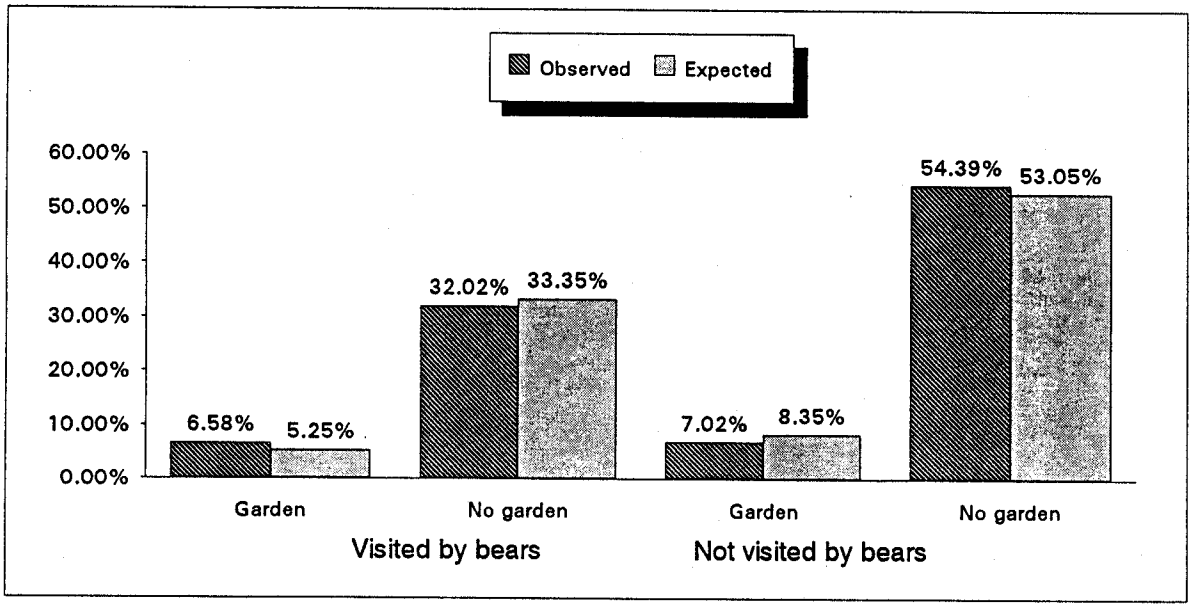
	Observed Values		
	Garden	No garden	Total
Visited	15	73	88
Not visited	16	124	140
Total	31	197	228

	Expected Values		
	Garden	No garden	Total
Visited	11.96	76.04	88.00
Not visited	19.04	120.96	140.00
Total	31.00	197.00	228.00

Visited	6.58%	32.02%
Not visited	7.02%	54.39%

Visited	5.25%	33.35%
Not visited	8.35%	53.05%

Chi-square = 1.451136975
Probability = 0.228346



Was the presence or absence of fruit trees on the site related to whether or not the home was visited by a bear?

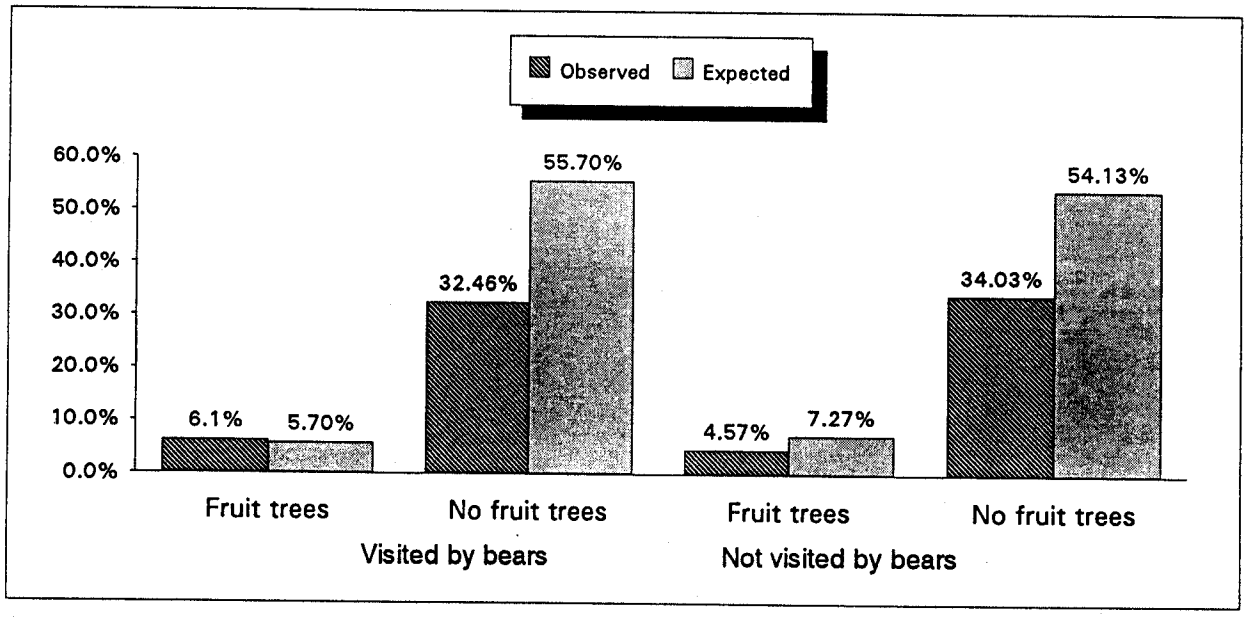
	Observed Values		
	Fruit trees	No fruit trees	Total
Visited	14	74	88
Not visited	13	127	140
Total	27	201	228

	Expected Values		
	Fruit trees	No fruit trees	Total
Visited	10.42	77.58	88.00
Not visited	16.58	123.42	140.00
Total	27.00	201.00	228.00

Chi-square =	2.270620921
Probability =	0.131847

Visited	6.1%	32.46%
Not visited	5.70%	55.70%

Visited	4.57%	34.03%
Not visited	7.27%	54.13%



Was whether or not the residence was near a bear corridor related to whether or not the home was visited by a bear?

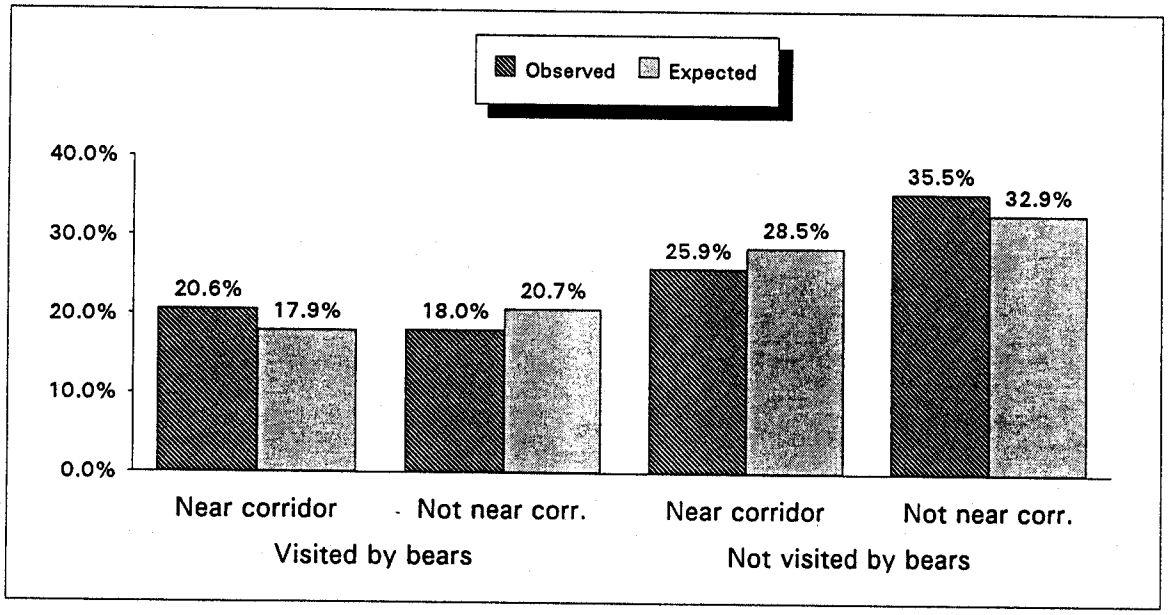
	Observed Values		
	Near corridor	Not near corr.	Total
Visited	47	41	88
Not visited	59	81	140
Total	106	122	228

	Expected Values		
	Near corridor	Not near corr.	Total
Visited	40.91	47.09	88.00
Not visited	65.09	74.91	140.00
Total	106.00	122.00	228.00

Chi-square =	2.757003868
Probability =	0.096829

Visited	20.6%	18.0%
Not visited	25.9%	35.5%

Visited	17.9%	20.7%
Not visited	28.5%	32.9%



Given that the home was not considered to be near a bear corridor
was distance from a corridor related to whether or not home was visited by a bear?
(No records for <50 ft. and >300 ft.)

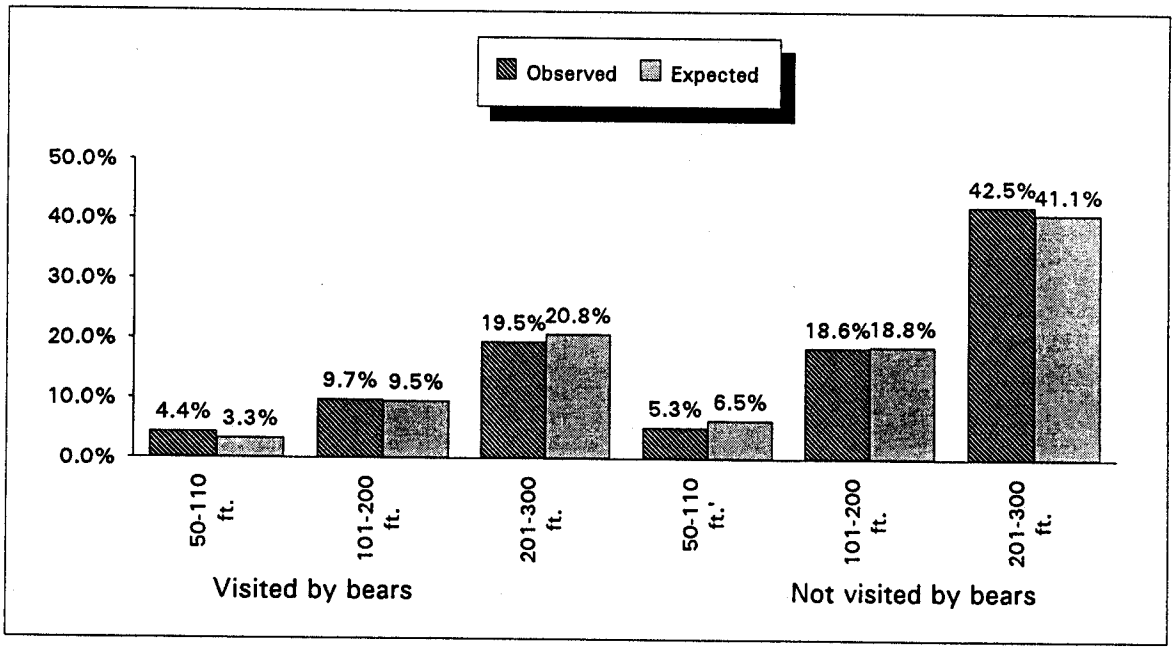
	Observed Values 50-110 ft.'	101-200 ft.	201-300 ft.	Total
Visited	5	11	22	38
Not visited	6	21	48	75
Total	11	32	70	113

	Expected Values 50-110 ft.	101-200 ft.	201-300 ft.	Total
Visited	3.70	10.76	23.54	38
Not visited	7.30	21.24	46.46	75
Total	11.00	32.00	70.00	113

Chi-square = 0.849035116
Probability = 0.654085

Visited	4.4%	9.7%	19.5%
Not visited	5.3%	18.6%	42.5%

Visited	3.3%	9.5%	20.8%
Not visited	6.5%	18.8%	41.1%



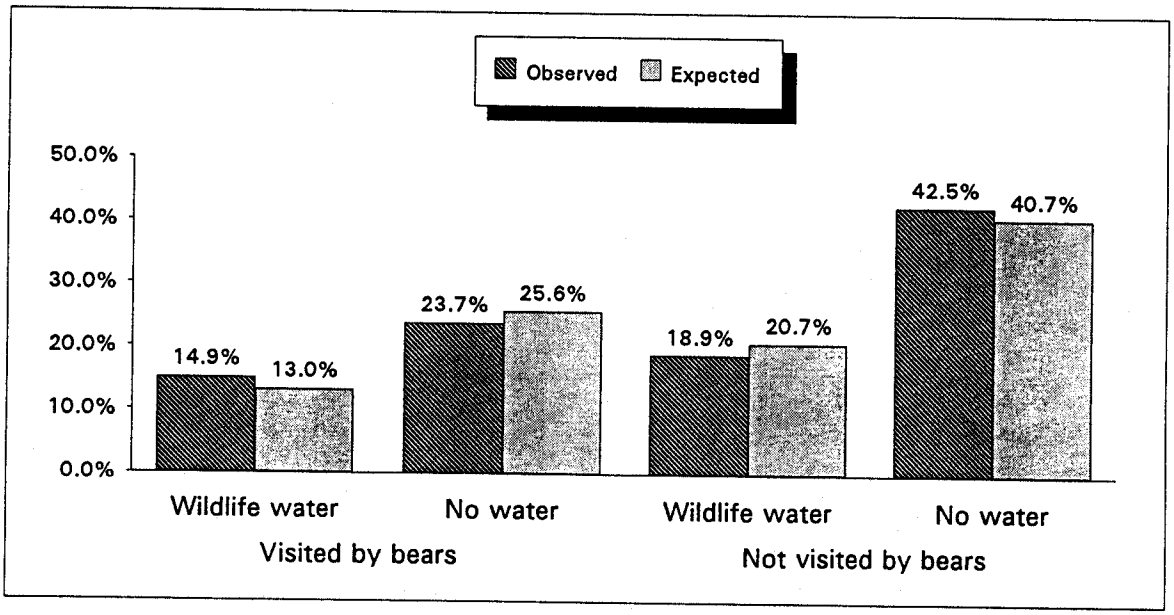
Was the presence or absence of water for wildlife at the site related to whether or not the home was visited by a bear?

	Observed Values		
	Wildlife water	No water	Total
Visited	34	54	88
Not visited	43	97	140
Total	77	151	228

	Expected Values		
	Wildlife water	No water	Total
Visited	29.72	58.28	88.00
Not visited	47.28	92.72	140.00
Total	77.00	151.00	228.00

Chi-square = 1.516198638
Probability = 0.218196

	Observed	
Visited	14.9%	23.7%
Not visited	18.9%	42.5%
	Expected	
Visited	13.0%	25.6%
Not visited	20.7%	40.7%



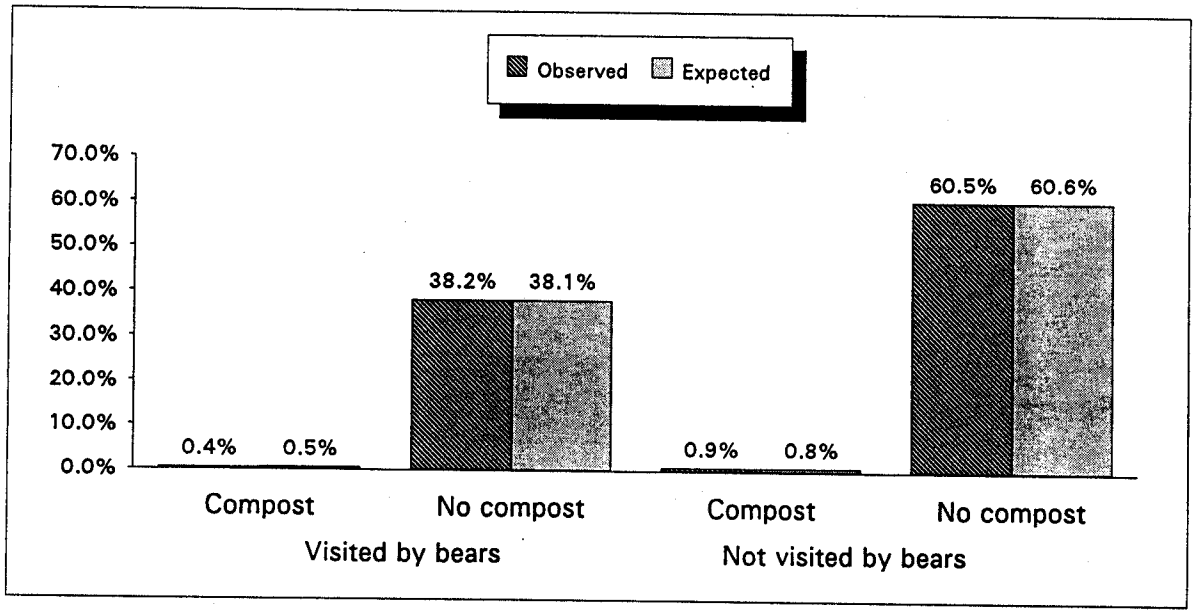
Was the presence or absence of a compost pile at the site related to whether or not the home was visited by a bear?

	Observed Values		
	Compost	No compost	Total
Visited	1	87	88
Not visited	2	138	140
Total	3	225	228

	Expected Values		
	Compost	No compost	Total
Visited	1.16	86.84	88.00
Not visited	1.84	138.16	140.00
Total	3.00	225.00	228.00

Chi-square = 0.035532468
Probability = 0.850484

	Observed	
Visited	0.4%	38.2%
Not visited	0.9%	60.5%
	Expected	
Visited	0.5%	38.1%
Not visited	0.8%	60.6%



Was the presence or absence of a motion sensor and light related to whether or not the home was visited by a bear?

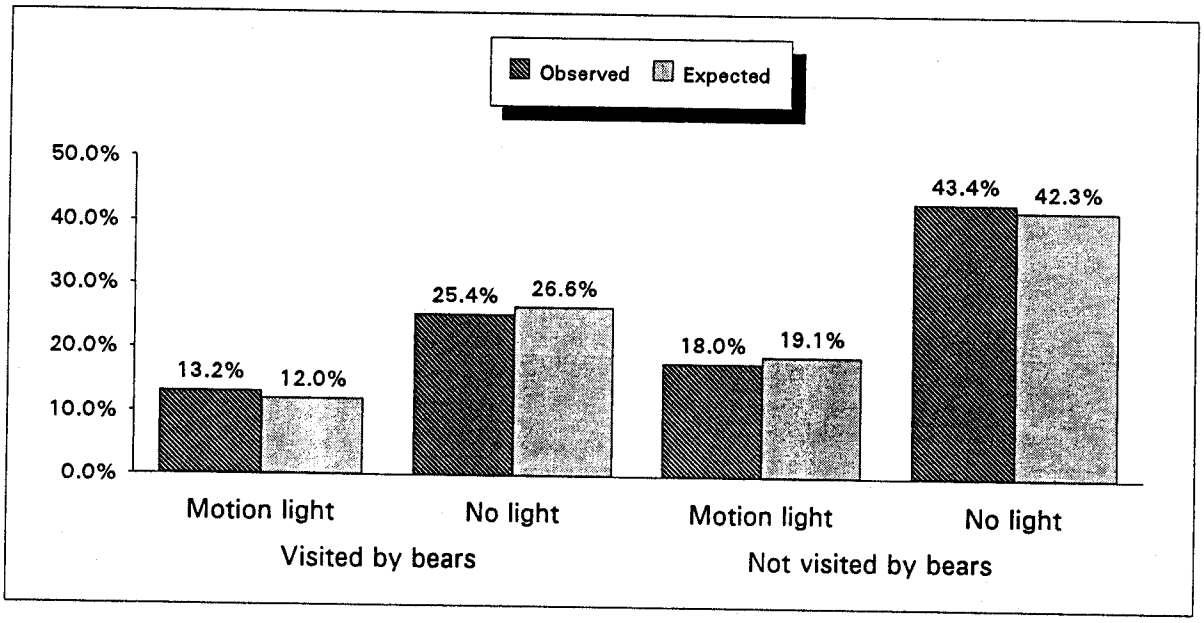
	Observed Values		
	Motion light	No light	Total
Visited	30	58	88
Not visited	41	99	140
Total	71	157	228

	Expected Values		
	Motion light	No light	Total
Visited	27.40	60.60	88.00
Not visited	43.60	96.40	140.00
Total	71.00	157.00	228.00

Chi-square = 0.581848008
Probability = 0.445589

	Observed	
Visited	13.2%	25.4%
Not visited	18.0%	43.4%

	Expected	
Visited	12.0%	26.6%
Not visited	19.1%	42.3%



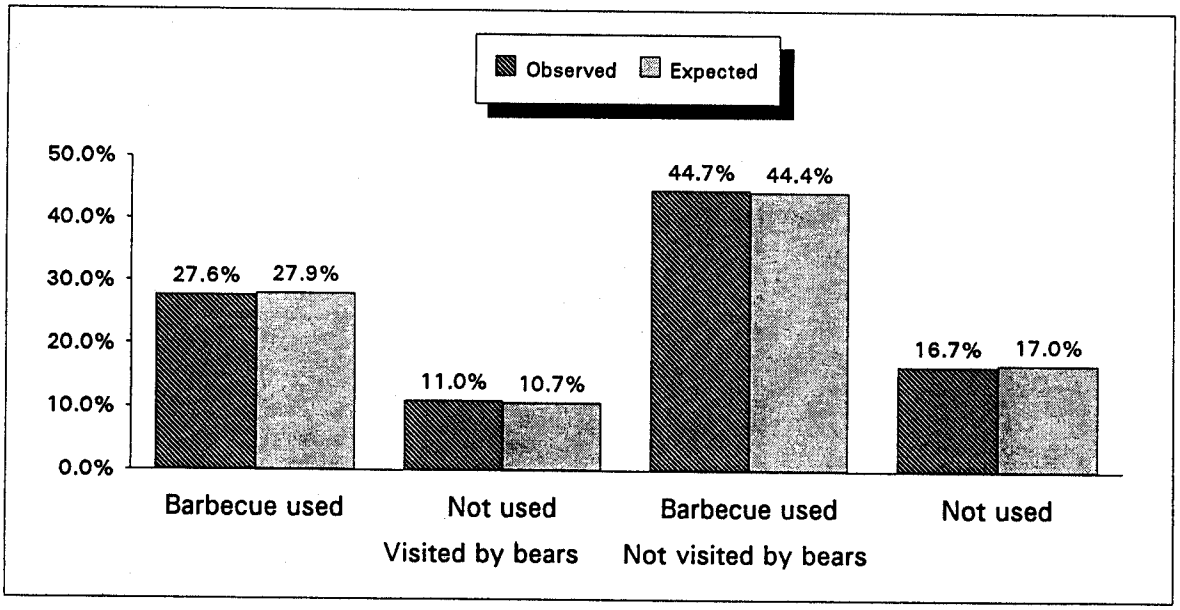
Was the use of a barbecue at the home site
related to whether or not the home was visited by a bear?

	Observed Values		
	Barbecue used	Not used	Total
Visited	63	25	88
Not visited	102	38	140
Total	165	63	228

	Expected Values		
	Barbecue used	Not used	Total
Visited	63.68	24.32	88.00
Not visited	101.32	38.68	140.00
Total	165.00	63.00	228.00

Chi-square = 0.043326025
Probability = 0.835113

		Observed
Visited	27.6%	11.0%
Not visited	44.7%	16.7%
		Expected
Visited	27.9%	10.7%
Not visited	44.4%	17.0%



Was the frequency of use of a barbecue at the site related to whether or not the home was visited by a bear?

Observed Values

	None	<1/mo.	1/mo.	2/mo.	>2/mo.	Total
Visited	25	14	6	9	34	88
Not visited	38	16	22	19	45	140
Total	63	30	28	28	79	228

Expected Values

	None	<1/mo.	1/mo.	2/mo.	>2/mo.	Total
Visited	24.3	11.6	10.8	10.8	30.5	88.0
Not visited	38.7	18.4	17.2	17.2	48.5	140.0
Total	63.0	30.0	28.0	28.0	79.0	228.0

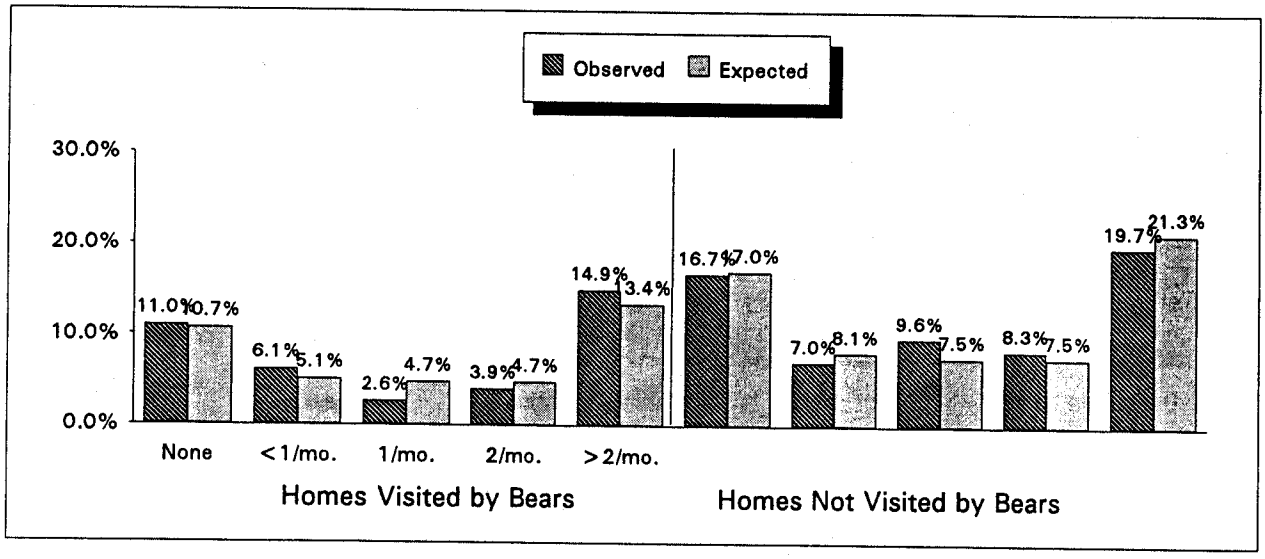
Chi-square = 5.487598107
Probability = 0.064326

Observed

Visited	11.0%	6.1%	2.6%	3.9%	14.9%
Not visited	16.7%	7.0%	9.6%	8.3%	19.7%

Expected

Visited	10.7%	5.1%	4.7%	4.7%	13.4%
Not visited	17.0%	8.1%	7.5%	7.5%	21.3%



Did the proximity of neighboring houses
relate to whether or not the home was visited by a bear?

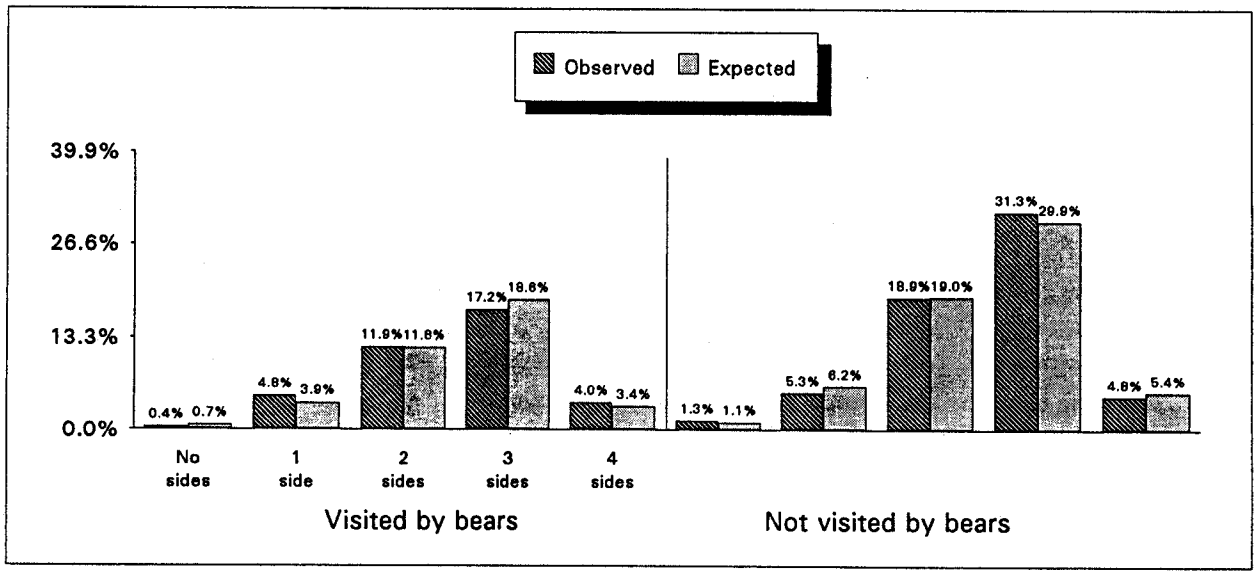
	Observed Values					
	No sides	1 side	2 sides	3 sides	4 sides	Total
Visited	1	11	27	39	9	87
Not visited	3	12	43	71	11	140
Total	4	23	70	110	20	227

	Expected Values					
	No sides	1 side	2 sides	3 sides	4 sides	Total
Visited	1.53	8.81	26.83	42.16	7.67	87.00
Not visited	2.47	14.19	43.17	67.84	12.33	140.00
Total	4.00	23.00	70.00	110.00	20.00	227.00

Chi-square = 1.941076581
Probability = 0.378879

	Observed				
Visited	0.4%	4.8%	11.9%	17.2%	4.0%
Not visited	1.3%	5.3%	18.9%	31.3%	4.8%

	Expected				
Visited	0.7%	3.9%	11.8%	18.6%	3.4%
Not visited	1.1%	6.2%	19.0%	29.9%	5.4%



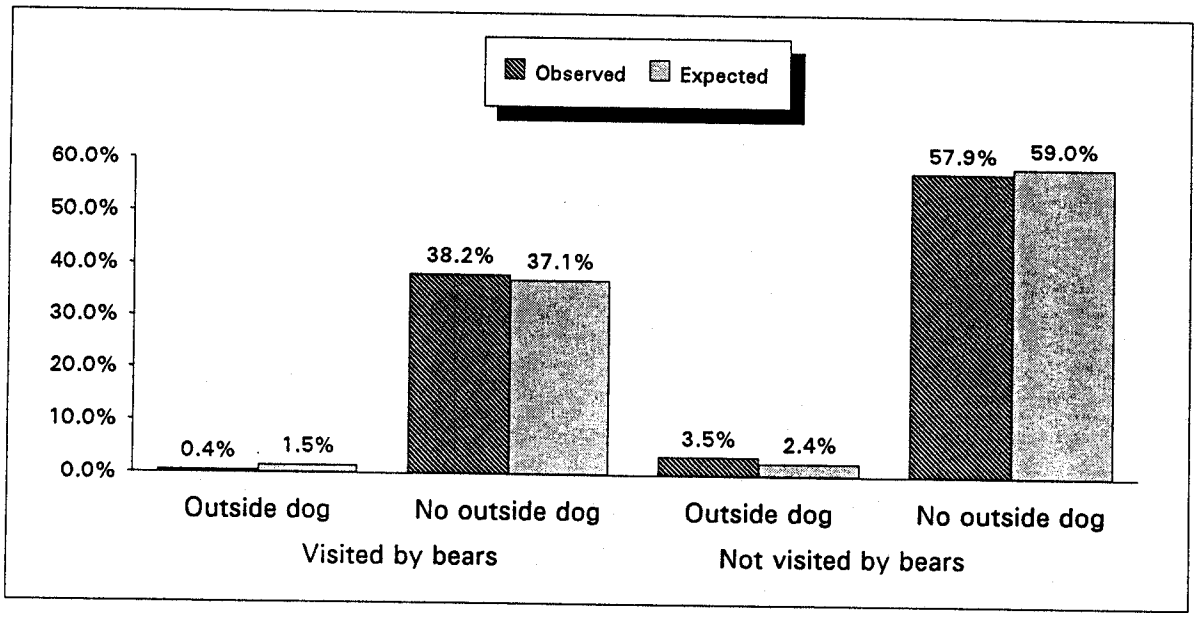
Was the presence or absence of a dog that stays outside at least part of the night related to whether or not the home was visited by a bear?

	Observed Values		
	Outside dog	No outside dog	Total
Visited	1	87	88
Not visited	8	132	140
Total	9	219	228

	Expected Values		
	Outside dog	No outside dog	Total
Visited	3.47	84.53	88.00
Not visited	5.53	134.47	140.00
Total	9.00	219.00	228.00

Chi-square = 2.98672834
Probability = 0.08395

		Observed
Visited	0.4%	38.2%
Not visited	3.5%	57.9%
		Expected
Visited	1.5%	37.1%
Not visited	2.4%	59.0%



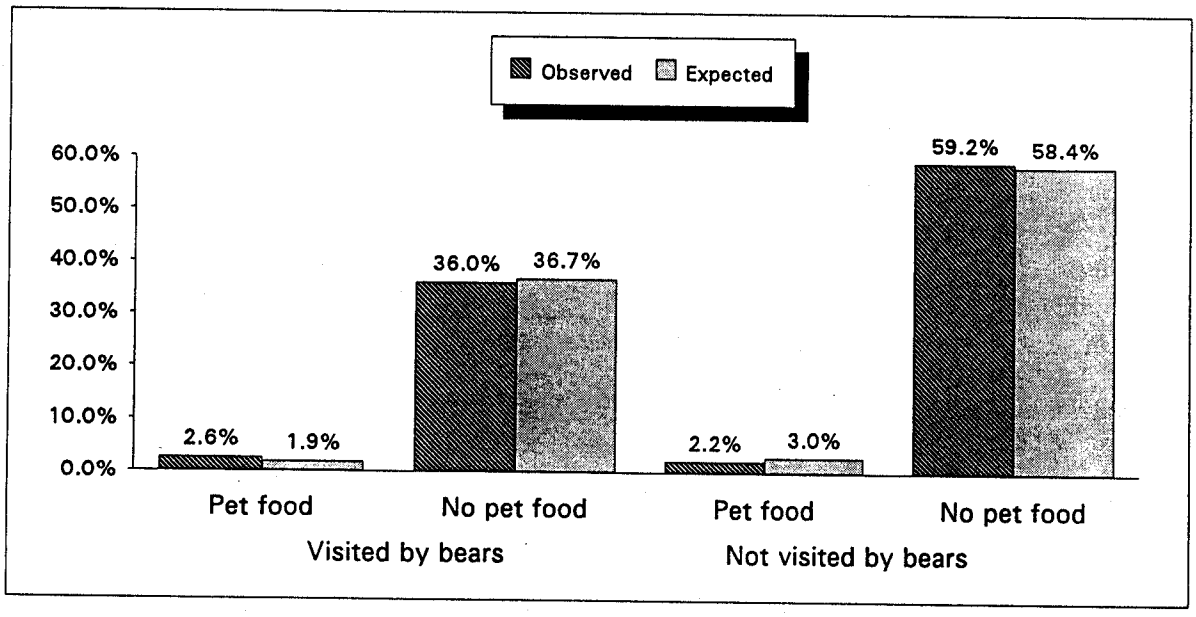
Was the presence or absence of outside pet food at the site related to whether or not the home was visited by a bear?

	Observed Values		
	Pet food	No pet food	Total
Visited	6	82	88
Not visited	5	135	140
Total	11	217	228

	Expected Values		
	Pet food	No pet food	Total
Visited	4.25	83.75	88.00
Not visited	6.75	133.25	140.00
Total	11.00	217.00	228.00

Chi-square = 1.24048553
Probability = 0.265378

		Observed	
Visited	2.6%	36.0%	
Not visited	2.2%	59.2%	
		Expected	
Visited	1.9%	36.7%	
Not visited	3.0%	58.4%	



APPENDIX II

Selected Homeowner Comments On The Presence And Well-being
Of Bears In Pinetop-Lakeside

I do not think that bears should be killed because they are rummaging to sustain their own lives. If we practice bear proofing our homes and yards, we can live harmoniously with each other.

The bears were here first.

We moved into the bears neighborhood, they didn't move into ours.

Bears have become a part of the community and if we the people use common sense we could all live together without many problems. I for one do not want the bears to be relocated.
Their part of our land and have a right to continue to live here.

The careless fashion with garbage is a continual summer problem. When a bear becomes ornery it's thanks to those fools who have been both careless and thoughtless about leaving food available where no food would help solve the problem.

They were here first. Leave them alone, Please!!

Leave the bears alone. They were here long before man.

Let the bears alone. They are beautiful!

Please leave the bears alone. They were here first.

We enjoy the wild bears, and the squirrels.

The bears are not really on anyone's property. We are all taking their property. If people would only use common sense we would almost never have to relocate any animals.

I do not mind the bears as long as they are not dangerous and do not destroy anything.

Leave the bears alone.

People are the ones to blame, not the bears.

People are usually the problem, not the bears.

Not concerned about bears.

We have heard rumor that someone up here puts food out for them and takes their picture. These people should be punished, not the bears!

Feel strongly that the bears should be left alone. Homeowners should be more cautious and not encourage animals.

The bears were here first. We invaded their property. We don't bother the bears, and they don't really bother us. We enjoy seeing them.

We enjoy the bears.

Leave the bears alone they were here first. If you don't want to live in Bear Country move.

They seem to come around after 9PM and 8AM. Am troubled about bumping into one - that could be a dangerous situation.

I very much like having all the wild animals here. I do not want to see the bears chased away. We have invaded their country - not the opposite.

We surely do not want bears killed.

I would welcome more information about bears so we can go on enjoying them without them posing a threat to humans.

We enjoy a visit by the bears. We let them alone, and they don't bother us too much. Their visit is pay enough for any damage.

Its fun and exciting to see bears.

Just leave them alone.

A rogue bear has to be taken care of - removed only - but otherwise, leave them alone!

Bears have as much right to the area as humans.

Bears add to the natural beauty of this environment.

Under No Circumstances do I feel bears should be euthanized with exceptions only for rabies or crazed marauders, both of which are highly unlikely. Thank you for seriously addressing this problem.

They want no part of us! They are not aggressive and don't want any confrontation.

People should leave them alone. They are great animals and should have a right to co-exist with man.

Bears are a part of living near the forest.

It's great to have bears but they need to be hauled off when they become too unafraid of humans.

The bears were here first; if we can't learn to live with them, we should leave.

Endorse helping bears survive.

Residents who violate common sense rules in bear country have no right to complain and demand removal of bears.

We love bears.

Eating garbage from neighbors careless handling of garbage. This is the problem not the bears in the area.

Please don't kill them.

Let's save the bears.

The bears are no problem if people will use common sense.

We do not wish to see any bear destroyed.

You cannot control nature and be selective to that kind of nature that lives around us. Until people understand this and are educated about their impact in this area bears will always be a problem.

This is where they lived before we put up these houses.

We love animals, including bears.

If bears are going after humans or pets or causing extensive property damage, I'd like to see them relocated.

Have lived among bears a good part of my life. Am not afraid of them, but I respect them.

I care greatly about bears. They were here long before we were. We enjoy one of Gods great gifts.

We are in the bear's house - we should act that way.

I so not mind the bears as long as they run away when they see humans. They were here first.

As long as they harm no one they are fine to have around.

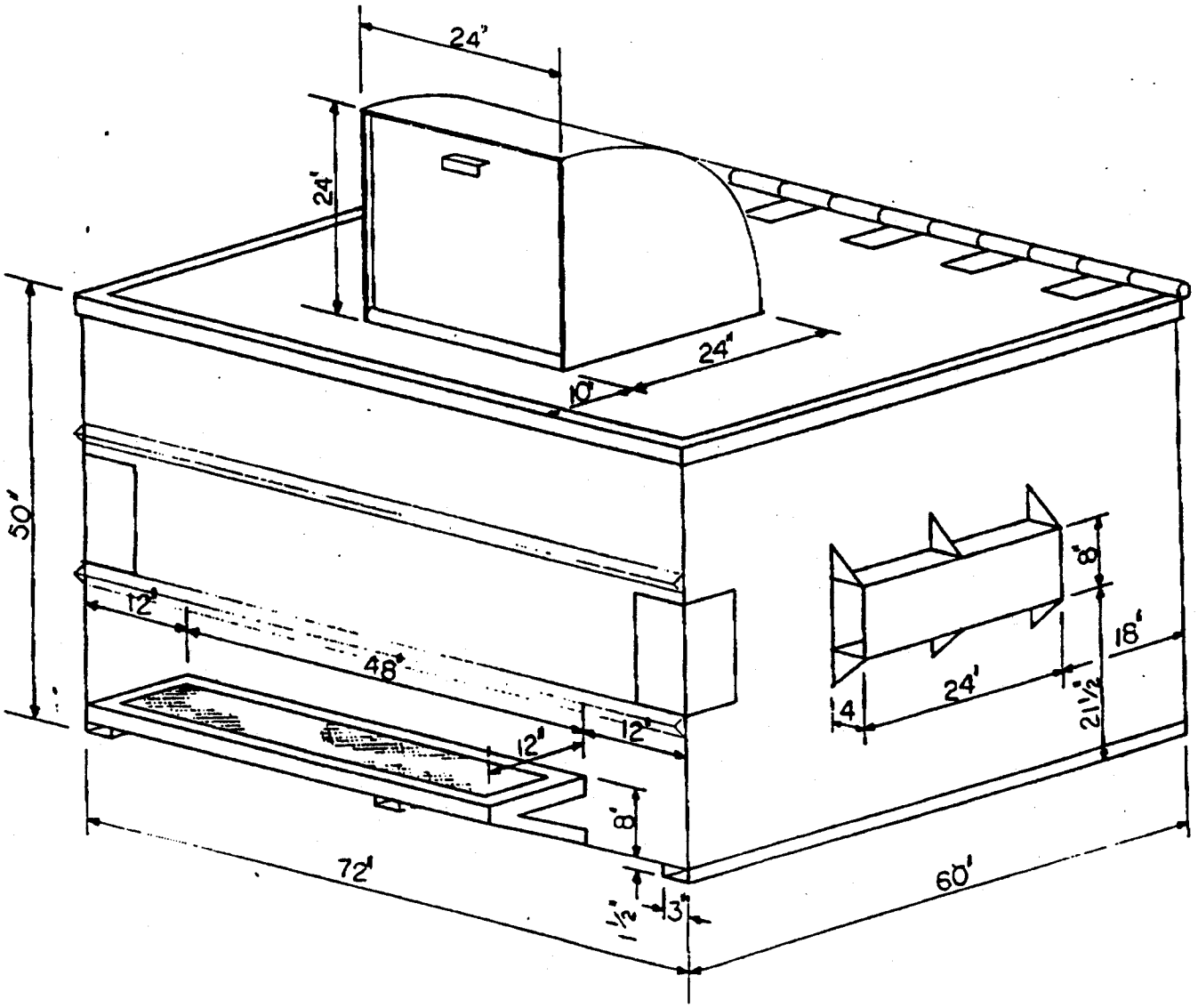
We are strictly against bears being harmed as long as they are not considered dangerous to human life.

APPENDIX III

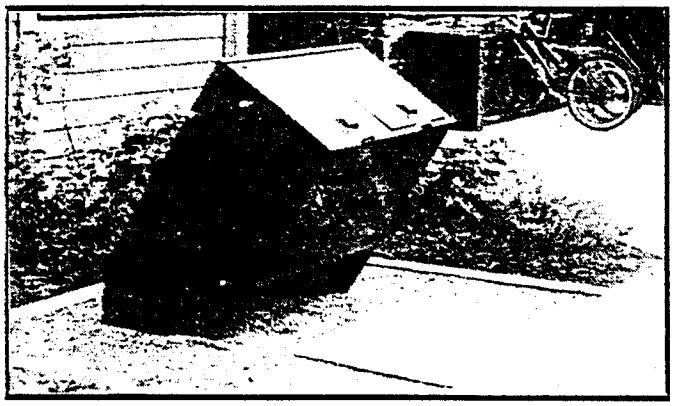
Designs And Sources For Bear Proof Garbage Containers

WASTE MANAGEMENT-NORTH AMERICAN BEAR SOCIETY BEAR PROOF DUMPSTER

Bear proof dumpster designed by Waste Management, and built by the North American Bear Society in conjunction with the Arizona State prison. This design is currently being used in campgrounds in 11 states including Grand Teton, Glacier, and Yellowstone National Parks, and various U.S. Forest Service campgrounds. This dumpster has also been purchased and used by the city of Vail Colorado. For information or ordering, contact the North American Bear Society at (602) 451-7439.

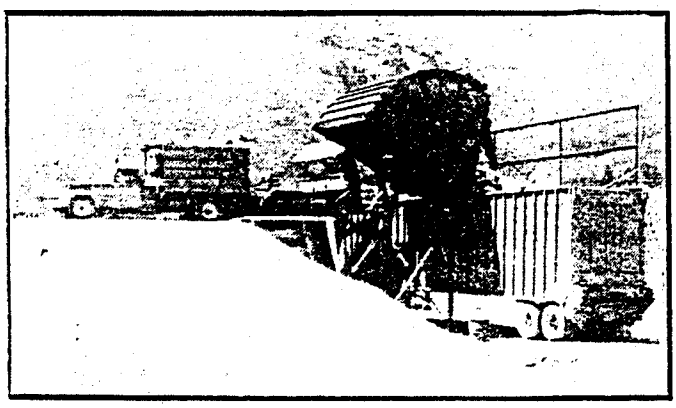


Hyd-A-Meal Food Storage Locker



Hid-A-Bag II Refuse Container

Hyd-A-Way Containers & Collection Vehicles



Transtor Regional Collection System

A Comprehensive Solution to Bear-Proof Food Storage and Waste Handling

Bear experts agree that bear habituation to humans -- and the risk of dangerous confrontations -- can only be controlled when bears do not have access to human food and garbage. The problem of food conditioning and habituation has traditionally been addressed by narrowly focused fixes: special lids for trash cans, fencing off landfills, and destroying problem bears.

The Haul-All Bear Management System is the first comprehensive approach to solving the problem at all points where bears forage for human food.

Hyd-A-Meal ™ Bear-Proof Food Storage Lockers are high-capacity lockers designed for installation in campgrounds and remote back-country campsites. Standard units have double doors for easy access, and open from the inside to prevent children from getting trapped inside.

Hid-A-Bag® Bear-Proof Refuse/Recycling Containers have been used for years in parks throughout North America. Available in standard and handicapped accessible models from 32 to 130 gallon capacity, the Hid-A-Bag's stainless steel bear-proof latches and sturdy construction provide effective protection against foraging bears. Their patented rear-loading system provides protection against back injury during unloading.

Hyd-A-Way® Self-Dumping Hydraulic Containers are bear-proof collection containers for high-volume residential and commercial areas. Available in 2, 4, and 6 cubic-yard models, Hyd-A-Way containers are currently installed in over two thousand locations in the Canadian National Park system. Hyd-A-Way containers are designed for use with Haul-All's reliable economical collection vehicles, which are available in 12, 14, 15, 18 and 30 cubic-yard models.

Transtor® Regional Collection Systems are 42-cubic yard self dumping transfer stations designed to replace small landfills and push pits within park boundaries. They are simple to install and built to provide years of efficient service. The Transtor system can be installed in single or multiple units, and can be operated by a single driver.

For further information, please contact:

McClintock Metal Fabricators, Inc.
455 Harter Avenue, Woodland, CA 95776-6105
Phone: 800/350-3588 Fax: 916/666-7071

GSA Contract #: GS07F-5477A