



Arizona Game and Fish Department

Action Plan For Minimizing and Responding to Lion/Human Interactions

Plan Purpose

- To guide the Department's response to a report of a mountain lion–human interaction in a consistent fashion, while minimizing, to the extent possible, public safety risks and the need to eliminate specific mountain lions.
- To provide the public with an understanding of the basis for actions taken by the Department to resolve mountain lion–human interactions.
- To aid the Department in maintaining a central mountain lion–human interaction database using reporting forms to ensure consistency in reporting.

Problem Statement: Throughout the West, many people have chosen to live in the rural-urban interface in what has been, and in many cases continues to be, lion habitat. This has increased the frequency of people seeing and/or interacting with mountain lions. Also, deer, javelina, and other wildlife populations may be in higher concentrations due to the availability of ornamental plantings, access to free-standing water sources, and intentional feeding, which may result in increased mountain lion activities in the rural–urban interface. This may lead to an increase in mountain lion–human interactions, and has in some cases resulted in injury or death to humans and mountain lions, which in turn has led to conflicts over agency incident management. These incidents are infrequent: between 1998 and 2004, a total of 9 mountain lions were lethally removed in Arizona.

Mountain Lion Status and Regulations

Mountain lions are widespread and inhabit all suitable habitat in the state except the extremely arid southwest corner. The Department has mapped mountain lion distribution to include 62,000 square miles of occupied habitat; 10,700 square miles are classified as high quality habitat where lions are considered abundant. Mountain lions are classified as a game species with a yearlong season. The Arizona Game and Fish Commission meets annually to review and approve regulations pertaining to sport harvest regulations. There is a mandatory checkout process to gather information on age, gender and kill location. A.R.S. § 17-301.1 allows any person to take wildlife in self-defense or in defense of another person if it is immediately necessary to protect oneself or to protect another person. Additionally, A.R.S. §17-302 allows a livestock operator who has recently had livestock attacked or killed by a bear or lion to kill the animal causing the damage.

Information and Education

Education will be an ongoing effort to increase the public's knowledge about mountain lions and to create an awareness of how to reduce the potential of human/mountain lion conflicts. A

brochure, *Mountain Lions in Arizona*, has been developed and is available from the Department. The Department will also work with land management agencies to familiarize them with this plan and to develop appropriate signage in problem areas. Specific training can be provided for local police/sheriff's officers and animal control staff. Education efforts will be intensified when lion sightings increase in an area.

Lion Awareness Public Information and Education Campaign

The Department will contract with a communications firm to plan and conduct a mountain lion public information and education campaign. It is the Department's goal to use this campaign as a pilot project that can eventually be implemented statewide. This program will be an ongoing part of the Department's Public Information and Education Campaign to address mountain lion/human interactions.

The campaign will use an integrated approach of public relations, media relations, public- and private-sector partnership opportunities, and low-cost marketing techniques to educate and inform the public about co-existing with mountain lions. It will incorporate best practices of the national "Bear Aware" safety campaign and, where feasible, recommendations contained in the "Report of the Flagstaff and Phoenix Mountain Lion Workshops."

Activities related to the campaign will include:

- A public information campaign plan to include goals, objectives, activities and means of measuring success.
- Implementation of activities specified in the plan, to include preparation of interpretive materials and signage that may be used by other public, private and nonprofit entities.
- Communication activities that will include:
 - printed products,
 - media story placements,
 - signage at recreation areas,
 - partnerships for distribution of materials,
 - direct-marketing activities, and
 - public relations activities including one-on-one meetings and group communications.
- Review and revision of the Department's existing printed mountain lion public information materials for use in the campaign.
- Communication of campaign activities to, and establishing campaign partnerships with, other public, private, and nonprofit entities.
- Creation of a plan for future Department approaches and activities designed to maintain long-term public awareness of mountain lion safety.

This campaign addresses workshop recommendations related to a pilot campaign with targeted publics; education about lion habitat, environmental education and safety; refined messages using an integrated communications approach; and partnerships with other entities.

Web-based Education Campaign for Arizona School Children

The Department will incorporate a module on mountain lion biology, habitats and interaction with humans into a new Web-based learning program that targets fourth grade students throughout the state. While the program is geared to fourth grade instruction, it will also feature several strands of activities that can be easily adapted by teachers for other grade levels.

The availability of the materials will be publicized through teacher workshops, direct mail to teachers, school administrators and school districts, homeschoolers, and the Department's public communication e-newsletters. In addition to Web delivery to classrooms, the program will also be available via CD and DVD formats.

This campaign addresses workshop recommendations related to environmental education; more accessible education vehicles to reach a wider audience; and an integrated campaign approach.

Definitions

NOTE: Not every wildlife-human interaction will easily fit into a specific category; each instance will thus have to be judged on all circumstances of that interaction. Investigators should look at each wildlife-human interaction for signs that an animal was present and displayed unacceptable behavior, or an unusual interest in, humans.

To ensure all reporting of mountain lion-human interactions are responded to in a consistent manner the following definitions will be used in filling out all Mountain Lion Observation Forms:

- **Sighting** – a visual observation of a lion or a report of lion tracks or other sign.
- **Encounter** – an unexpected and direct neutral meeting between a human and a lion without incident.
- **Incident** – an interaction between a human and a lion in which the human must take an action to make the lion back down or leave the area of the human, without injury to the human.
- **Attack** – when a human suffers bodily injury or is killed by a mountain lion.

Acceptable and Unacceptable Wildlife Behaviors

For the purpose of offering advice and establishing general guidelines, wildlife behavior relevant to humans can be categorized as acceptable or unacceptable. Acceptable behavior can be defined as any wildlife-human interaction where there is no unprovoked aggression from the animal toward the human. Unacceptable behavior is where an animal displays unprovoked aggression, repetitive nuisance acts, or unacceptable levels of damage to the resources.

1. Examples of acceptable behavior include:

- The animal retreats at the sight of a human.
- The animal stays put while humans show no aggression.
- The animal shows signs of curiosity while humans show no aggression.
- The animal crouches, twitches its tail and stares directly into the person's eyes, immediately followed by retreating or showing no further aggression.

2. Examples of unacceptable behavior include:

- The animal displays unprovoked aggression.
- The animal exhibits forms of predatory behavior towards humans.
- Intentionally approaching close to a human after the animal knows the human has seen it, even if the human did not have to take evasive or aggressive action to drive the animal off.
- The animal continues to disturb, raid, or investigate humans or high-human-use areas.
- A lion that is seen in the vicinity of a school or other areas where children are congregated, especially during hours when children are present.
- A mountain lion that is not cornered but refuses to retreat when objects are thrown at it.
- A mountain lion spending > 1 day in a residential area (neighborhood yards) and is eating pet food or pets.
- The animal aggressively approaches a human, or fails to retreat when a human takes aggressive actions.
- Intentionally approaching a human at close range that requires the human to take some evasive or aggressive action to avoid attack.

Schools and other locations where children regularly congregate present a special challenge and the Department will work with managers of these facilities, whenever lion activity is noted, to develop both an action plan and outreach effort. Due to the diversity of situations, including youth camps, school bus stops, playgrounds, etc., there is no simple guideline to address all circumstances and each situation will require an individual approach.

NOTE: Not every wildlife-human interaction will easily fit into one of the two behavior patterns listed above, and will have to be judged on all circumstances of that interaction. Investigators should look at each wildlife-human interaction for signs that an animal was present and displayed unacceptable behavior, or an unusual interest in humans.

In some instances, humans may unintentionally provoke unacceptable behavior on the part of the animal by:

- Immediately running away on sighting (especially children), triggering the chase instinct.
- Remaining in a location that does not allow the animal an escape route.
- Approaching an animal that is feeding, or is with its young.

Actions

It is the policy of the Game and Fish Department to direct all problem lion management efforts at the individual lion deemed to be dangerous or a potential threat to human safety, or to the lion responsible for depredation. Mountain lions will be destroyed if they attack a human or when they are judged to be a substantial threat to public safety. Consideration was given to trapping and relocating problem lions; however, due to their large home ranges, the fact that all suitable habitat is occupied; and intraspecific defense of occupied habitat, this option will not be used. Loose dogs and cats can serve as an attractant for lions and loss of these free roaming animals will not result in any Department action, but will be considered in the totality of circumstances.

Game and Fish Staff Response

1. Sightings

- Handle primarily through outreach education efforts, including distribution of *Mountain Lion In Arizona* brochure.
- Personal contact may be warranted.
- Information regarding the location and animal behavior will be recorded on a Human–Mountain Lion Interaction Public Interview Form.
- The completed Human–Mountain Lion Interaction Public Interview form should be forwarded to the appropriate Wildlife Manager and entered into the Arizona Game and Fish Department’s centralized database within one week of the observation by the Regional Game Specialist. The appropriate Field Supervisor and the Regional Supervisor will be advised via e-mail that a report has been entered into the database.

2. Encounter

- A field response is encouraged to verify presence of a lion.
- Information regarding the location and animal behavior will be recorded on a Mountain Lion Observation Report. Additionally, an analysis of the situation should be provided with recommendations for reducing future conflicts.
- The completed Mountain Lion Observation Report form should be forwarded to the appropriate Wildlife Manager, the appropriate Field Supervisor, the Regional Game Specialist, the Regional Supervisor, and the Regional Information and Education Program Manager, and entered into the Arizona Game and Fish Department’s centralized database within one week of the observation by the Regional Game Specialist.

3. Incident

- A prompt response to the incident location is required to verify if a lion was involved. If at all possible, the reporting party should accompany the Department employee responding to the scene of the incident.
 - If the appropriate Wildlife Manager is not immediately available to respond, the next choices in order are an adjacent Wildlife Manager, the Field Supervisor, the Game Specialist, the Wildlife Program Manager or other appropriate Department employee.

Note: During an initial interview, the investigator needs to avoid asking leading questions.

- Information regarding the location and animal behavior will be recorded on a Mountain Lion Observation Report. Additionally, an analysis of the situation should be provided with recommendations for reducing future conflicts.
- Immediately notify the Regional Supervisor and the Regional Information and Education Program Manager, and the Arizona Game and Fish Department's Ombudsman or other Director's Office representative.
- If a lion was involved, the decision on the disposition of the lion will be based on the totality of the circumstances of the incident using, in part, the list of unacceptable mountain lion behaviors listed above.
- As soon as practical, contact the appropriate land management agency and local law enforcement authority to discuss possible closure of the area or increased signage and outreach if the evidence suggests this is a reasonable measure to reduce the risk of escalating mountain lion-human interactions.
- The following factors will be considered in making a decision:
 - The location of the incident in relation to the probability of reoccurrence;
 - Whether or not other incidents have been reported in the immediate area;
 - The timeliness of the report in terms of ability to determine whether or not a lion was involved and whether or not there might still be a threat;
 - Whether or not the lion was protecting a kill site or kittens;
 - If pets are present with the person, the proximity of the pet to the person and hence the threat to the person, will be considered, not the nature of injury to the pet;
 - The type of action the person had to take to deter the lion.
- If a decision is made to kill the lion, the preferred option is to employ APHIS – Wildlife Services to track and kill the lion. They can be reached in Phoenix at 602-870-2081. If Wildlife Services cannot respond in a timely manner, other persons experienced in tracking lions may be employed to track and kill the lion. When logistically feasible, the

lion will be submitted to the Veterinary Diagnostics Laboratory at the University of Arizona for a necropsy.

- The responding Department employee will complete a report detailing the incident and actions taken. This will include an analysis of the incident and recommendations for reducing the chance of future conflicts. Copies of this report will be distributed to the appropriate Field Supervisor, Regional Game Specialist, Regional Supervisor, and Regional Information and Education Manager, and entered into the Arizona Game and Fish Department's mountain lion incident central database within 24 hours by the Regional Game Specialist.

4. Attack

- An immediate field response is required.
 - If the appropriate Wildlife Manager is not immediately available to respond, the next choices in order are an adjacent Wildlife Manager, the Field Supervisor, the Game Specialist, the Wildlife Program Manager, or other appropriate Department employee.
- The Department representative on site will secure the scene and treat it as a crime scene.
- Immediately notify the Regional Supervisor, the Regional Information and Education Program Manager, and the Arizona Game and Fish Department Ombudsman or other Director's Office Representative, and follow the Department's Critical Incident Policy, L1.7.
- Notify the appropriate local law enforcement agency and land management agency.
- Immediately contact APHIS – Wildlife Services in Phoenix at 602-870-2081 and request that they respond to track and kill the lion. If Wildlife Services cannot respond in a timely manner, other persons experienced in tracking lions may be employed to track and kill the lion. When logistically feasible, the lion will be submitted to the Veterinary Diagnostics Laboratory at the University of Arizona for a necropsy.
- The appropriate Wildlife Manager will complete a report detailing the incident and actions taken. This will include an analysis of the incident and recommendations for reducing the odds of future conflicts. Copies of this report will be distributed to the appropriate Field Supervisor, Regional Game Specialist, Regional Supervisor, and Regional Information and Education Manager.

Media guidelines

Any interaction between a human and a mountain lion may evoke strong feelings from members of the public and is likely to generate media interest.

Response to Incidents and Attacks

- Media inquiries about incidents or attacks must be referred to the regional Information and Education Program Manager (RIEPM), and the Department's Critical Incident Policy, L1.7, must be followed. If the RIEPM is unavailable, the next choices, in order are: Regional Supervisor, FOHQ Field Operations Coordinator, IED Public Information Officer.
- The Regional Information and Education Program Manager will coordinate media contacts with the Information Branch Chief, and will share information with all AGFD public information officers.
- A media fact sheet will be developed and distributed as needed for each human–lion interaction in the “Incident” or “Attack” categories. Incidents or attacks may fall under the Department's Critical Incident Policy L1.7. It is the responsibility of the Deputy Director to determine whether a critical incident exists; if that determination is made, a Department-wide notification will be issued and employees will follow the policy.

Data Collection and Interview Forms (attached)

Two forms have been developed to facilitate consistent collection of data related to mountain lion–human interactions. The first of these is the Mountain Lion Observation Form. This form is intended to be used when conducting field-based investigations. The Public Interview Form is to be used when collecting preliminary report data from an individual who has information on a mountain lion–human interaction.



**ARIZONA GAME AND FISH DEPARTMENT
HUMAN-WILDLIFE INTERACTION REPORT
PUBLIC INTERVIEW FORM**

For consistency of reporting when completing this form, the questions should be asked exactly as written and in the numbered order.

LOGISTICAL DETAILS OF THE INTERACTION

1.	What date did the interaction occur?	
2.	What time did the interaction occur (military)?	
3.	How many people were with you when you interacted with the animal?	
4.	What is the spelling of the names of the other people who were with you when you interacted with the animal?	
	a. _____	d. _____
	b. _____	e. _____
	c. _____	f. _____
		g. _____
5.	What are their telephone numbers so we can contact them?	
	a. _____	d. _____
	b. _____	e. _____
	c. _____	f. _____
		g. _____
6.	Where specifically did the interaction occur?	_____ _____ _____

ANIMAL DESCRIPTION AND SPECIFICS OF INTERACTION

7.	What did the animal look like?	_____ _____ _____
8.	What size was the animal?	_____
9.	What was the color of the animal?	

10.	Were there any distinguishing characteristics of the animal?	<hr/> <hr/> <hr/>
11.	How close, at the closest point, was the animal from you or other members of your party?	<hr/> <hr/> <hr/>
12.	What specifically did the animal do during the interaction?	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

REPORTING PARTY CONTACT INFORMATION

13.	What is the spelling of your name?	First: _____ M.I. _____ Last: _____
14.	What is your address?	<hr/> <hr/>
15.	What is your telephone number?	

REPORT TAKEN BY:	RADIO #:
REPORT DATE:	REPORT TIME (MILITARY):
GF REGION:	

A copy of this form needs to be forwarded to the appropriate Wildlife Manager, the Regional Game Specialist, and the Regional Supervisor who shall determine if a field investigation is warranted. The Regional Game Specialist shall enter this report into the Arizona Game and Fish Department's Mountain Lion-Human Interaction central database within seven days of the report being taken.

Arizona Game and Fish Department Mountain Lion Observation Report

Date of Incident	Time of Incident	County	
Name of Reporting Party	Address	General Location Description	
Phone			
Township	Range	Section	½ Section
Latitude	Longitude	UTM Coordinates	
Location of Event <input type="checkbox"/> Dense Residential <input type="checkbox"/> Developed Recreation Area <input type="checkbox"/> Sparse Residential <input type="checkbox"/> Undeveloped, Natural Vegetation		Distance from Observer or Other People	
Type of Event <input type="checkbox"/> Sighting (Visual observation or sign of lion only) <input type="checkbox"/> Encounter (neutral meeting between lion and human without incident) <input type="checkbox"/> Incident (lion displays threatening behavior) <input type="checkbox"/> Attack: <input type="checkbox"/> Person - Gender (m/f): _____ Age: _____ <input type="checkbox"/> Livestock - Type: _____ <input type="checkbox"/> Pet - Type: _____ Type of Attack: <input type="checkbox"/> Non-injury <input type="checkbox"/> Injury (describe below) <input type="checkbox"/> Fatality <input type="checkbox"/> Other _____ Injury Description: _____			
Threatening Lion Behavior <input type="checkbox"/> Repeated vicinity of small children (<13 yrs) <input type="checkbox"/> Staring or unusual interest in humans (describe) <input type="checkbox"/> Remains in close proximity (<50 yds) to humans <input type="checkbox"/> Fails to yield to humans <input type="checkbox"/> Pet depredation <input type="checkbox"/> Displays aggressive behavior to humans (circle all those that apply) crouching, advancing, stalking, growling <input type="checkbox"/> Other: _____			
Lions Seen by Reporting Party: Number of Adults: _____ Kittens: _____ Description: _____			
Employee Action			
Initial Response Date: _____ Time: _____ Employee Name: _____ Title: _____ <input type="checkbox"/> Phone call only <input type="checkbox"/> On-site investigation		Lion Brochure Provided <input type="checkbox"/> Yes <input type="checkbox"/> No Date: _____	
Credibility of Report Verified with physical evidence? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please check all that apply: <input type="checkbox"/> Kill <input type="checkbox"/> Track <input type="checkbox"/> Scat <input type="checkbox"/> Hair <input type="checkbox"/> Scrape <input type="checkbox"/> Other Description of Evidence or Kill Species: _____ _____ <input type="checkbox"/> Not considered Credible <input type="checkbox"/> Considered Credible Why? (Check all that apply) <input type="checkbox"/> Experience/Knowledge of Observer Explain: _____ <input type="checkbox"/> Physical Description/Observation Conditions (lighting, distance, etc.) Explain: _____ <input type="checkbox"/> Observed or heard by Responding Employee Explain: _____ <input type="checkbox"/> Corroborated by Other Observers Explain: _____ <input type="checkbox"/> Other Explain: _____		Employee Field Response (describe response) <input type="checkbox"/> No Action <input type="checkbox"/> Aversive Conditioning: Type: _____ Response: _____ <input type="checkbox"/> Pursued (how?) _____ _____ <input type="checkbox"/> Captured (how?) _____ _____ <input type="checkbox"/> Euthanized: _____ _____ <input type="checkbox"/> Disposition of Carcass: _____ _____ <input type="checkbox"/> Other: _____ _____ _____	

