

California Mountain Lion Status Report

Doug Updike, Wildlife Branch, California Department of Fish and Game, 1812 9th Street, Sacramento, CA 95811, USA. dupdike@dfg.ca.gov

Distribution and Abundance

Lions are currently distributed throughout all suitable habitats within California. Lion numbers appear to be stable at an estimated 4,000 to 6,000 adults.

The number of lions in California is based upon extrapolating densities determined with the use of radio collars. These studies have been conducted in various locations of the state. The number of lions is determined by multiplying the densities and the area represented by the ecological province. The studies which provide local lion density data have been conducted over a period of a couple decades. Consequently, the Department recognizes the estimate has limited application.

The Department issues depredation permits to property owners who have experienced damage from a mountain lion. The following graph represents the number of mountain lion depredation permits issued and the number of lions which have been killed as a result.

Human Interactions/Conflicts

The Department's Public Safety Guidelines are included. This policy is intended to guide the actions and decisions of Department personnel who respond to mountain lion incidents.

A summary of the number of human/lion incidents (2000-2007) is provided below:

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
# of incidents	372	456	379	419	715	556	464	392
# of safety incidents	8	14	13	3	12	10	16	21
# Lions taken	7	11	13	2	12	7	11	12
male	4	8	6	1	6	1	3	6
female	3	3	5	1	5	5	6	5
unknown	0	0	2	0	1	1	2	1
# of sightings	174	240	224	237	503	423	351	291

We provide educational material to the public to foster an understanding and appreciation of lions. Most of the information, including our brochure, "Living with California Mountain Lions", is available at <http://www.dfg.ca.gov/news/issues/lion.html>.

The Department has completed a multiple species program to reduce interactions between wildlife and humans. This is the "Keep Me Wild" program, and the specific recommendations for mountain lions are available at <http://www.keepmewild.org/whattodolion.htm>.

Depredation permits may be issued by the Department subject to the conditions found in Section 402, California Code of Regulations, as follows:

- (a) Revocable permits may be issued by the department after receiving a report, from any owner or tenant or agent for them, of property being damaged or destroyed by mountain lion. The department shall conduct and complete an investigation within 48 hours of receiving such a report. Any mountain lion that is encountered in the act of inflicting injury to, molesting or killing livestock or domestic animals may be taken immediately if the taking is reported within 72 hours to the department and the carcass is made available to the department. Whenever immediate action will assist in the pursuit of the particular mountain lion believed to be responsible for damage to livestock or domestic animals, the department may orally authorize the pursuit and take of a mountain lion. The department shall investigate such incidents and, upon a finding that the requirements of this regulation have been met, issue a free permit for depredation purposes, and carcass tag to the person taking such mountain lion.
- (b) Permittee may take mountain lion in the manner specified in the permit, except that no mountain lion shall be taken by means of poison, leg-hold or metal-jawed traps and snares.
- (c) Both males and females may be taken during the period of the permit irrespective of hours or seasons.
- (d) The privilege granted in the permit may not be transferred, and only entitles the permittee or the employee or agent of the permittee to take mountain lion. Such person must be 21 years of age or over and eligible to purchase a California hunting license.
- (e) Any person issued a permit pursuant to this section shall report by telephone within 24 hours the capturing, injuring or killing of any mountain lion to an office of the Department or, if telephoning is not practical, in writing within five days after capturing, injuring or killing of the mountain lion. Any mountain lion killed under the permit must be tagged with the special tag furnished with the permit; both tags must be completely filled out and the duplicate mailed to the Department of Fish and Game, Sacramento, within 5 days after taking any mountain lion.
- (f) The entire carcass shall be transported within 5 days to a location agreed upon between the issuing officer and the permittee, but in no case will a permittee be required to deliver a carcass beyond the limits of his property unless he is willing to do so. The carcasses of mountain lions taken pursuant to this regulation shall become the property of the state.
- (g) Animals shall be taken in a humane manner so as to prevent any undue suffering to the animals.
- (h) The permittee shall take every reasonable precaution to prevent the carcass from spoiling until disposed of in the manner agreed upon under subsection (f) of these regulations.

- (i) The permit does not invalidate any city, county or state firearm regulation.
- (j) Permits shall be issued for a period of 10 days. Permits may be renewed only after a finding by the department that further damage has occurred or will occur unless such permits are renewed. The permittee may not begin pursuit of a lion more than one mile nor continue pursuit beyond a 10-mile radius from the location of the reported damage.

The number of depredation permits has increased dramatically since the early 1970s; the number peaked in 1995, the year following two fatal attacks on humans. The number of permits issued and the number of lions taken as a result of those permits is shown below (Fig 5):

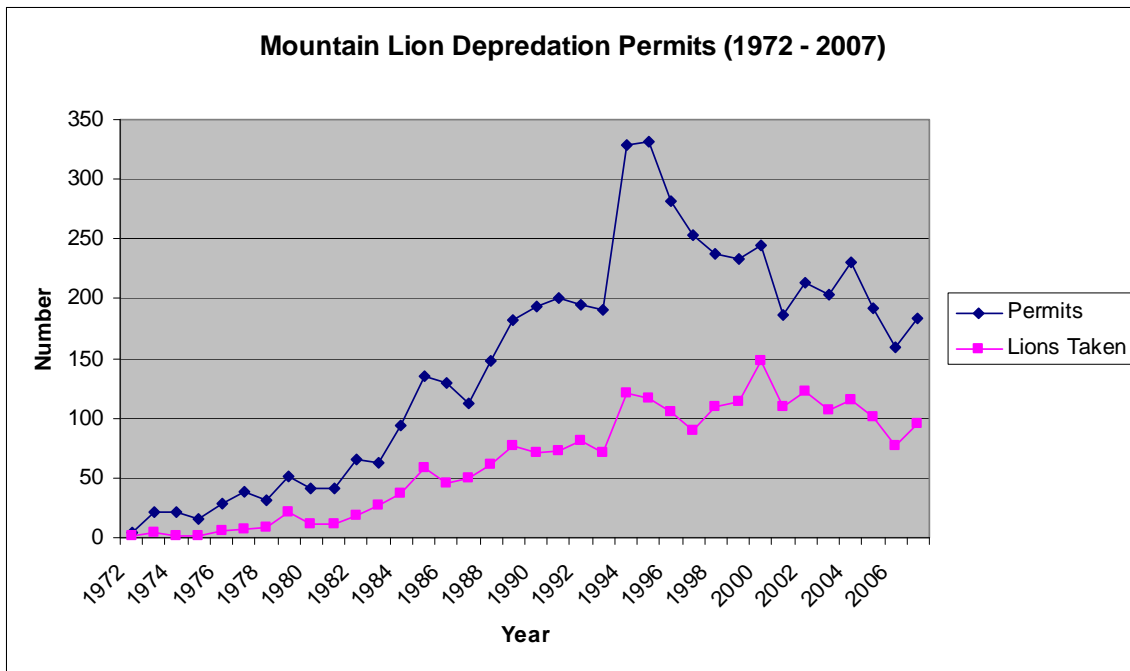


Figure 5. The number of permits issued and the number of lions taken as a result of those permits

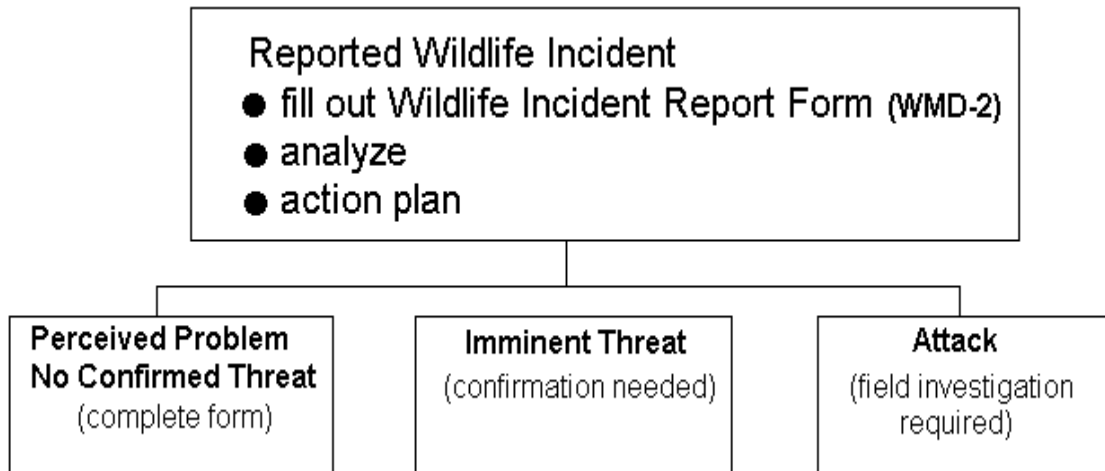
Consistent with Section 1801 of the Fish and Game Code, these Public Safety Wildlife Guidelines provide procedures to address public safety wildlife problems. Mountain lions, black bears, deer, coyotes, and large exotic carnivores which have threatened or attacked humans are wildlife classified as public safety problems. Public safety wildlife incidents are classified into three types:

- A. Type Green (sighting): A report (confirmed or unconfirmed) of an observation that is perceived to be a public safety wildlife problem. The mere presence of the wildlife species does not in itself constitute a threat.
- B. Type Yellow (threat): A report where the presence of the public safety wildlife is confirmed by a field investigation and the responding person (law enforcement officer or Department employee) perceives the animal to be an imminent threat to public health or safety. Imminent threat means there is a likelihood of human injury based on the totality of the circumstances.
- C. Type Red (attack): An attack by a public safety wildlife species on a human resulting in physical contact, injury, or death.

These guidelines are not intended to address orphaned, injured, or sick wildlife which have not threatened public safety. To achieve the intent of these guidelines, the following procedures shall be used.

- A. Wildlife Incident Report Form. Fill out a Wildlife Incident Report Form (WMD-2) for all reports of public safety wildlife incidents. The nature of the report will determine the response or investigative action to the public safety problem. For those reports which require a follow-up field investigation, the Wildlife Incident Report Form will be completed by the field investigator. All completed Wildlife Incident Report Forms shall be forwarded through the regional offices to the Chief, Wildlife Programs Branch (WPB).
- B. Response to Public Safety Wildlife Problems

The steps in responding to a public safety wildlife incident are diagrammed below:



Any reported imminent threats or attacks on humans by wildlife will require a follow-up field investigation.

If a public safety wildlife species is outside its natural habitat and in an area where it could become a public safety problem, and if approved by the Deputy Director for the Wildlife and Inland Fisheries Division (WIFD), it may be captured using restraint techniques approved by the Wildlife Investigations Laboratory (WIL). The disposition of the captured wildlife may be coordinated with WIL.

- A. Type Green (sighting). If the investigator determines that no imminent threat to public safety exists, the incident is considered a Type Green. The appropriate action may include providing wildlife behavior information and mailing public educational materials to the reporting party.
- B. Type Yellow (threat). Once the field investigator finds evidence of the public safety wildlife and perceives the animal to be an imminent threat to public health or safety, the incident is considered a Type Yellow. In the event of threat to public safety, any Department employee responding to a reported public safety incident may take whatever action is deemed necessary within the scope of the employee's authority to protect public safety. When evidence shows that a wild animal is an imminent threat to public safety, that wild animal shall be humanely euthanized (shot, killed, dispatched, destroyed, etc.). For Type Yellow incidents, the following steps should be taken:
 1. Initiate the Incident Command System (ICS). The Incident Commander (IC) consults with the regional manager or designee to decide on the notification process on a case-by-case basis. Full notification includes: the field investigator's supervisor, the appropriate regional manager, the Deputy Director, WIFD, Chief, Conservation Education and Enforcement Branch (CEEB), Chief, WPB, WIL, Wildlife Forensics Lab (WFL), the designated regional information officer, and the local law enforcement agency.

2. If full notification is appropriate, notify Sacramento Dispatch at (916) 445-0045. Dispatch shall notify the above-mentioned personnel.
3. Secure the scene as appropriate. Take all practical steps to preserve potential evidence. The IC holds initial responsibility and authority over the scene, locating the animal, its resultant carcass, and any other physical evidence from the attack. The IC will ensure proper transfer and disposition of all physical evidence.
4. In most situations, it is important to locate the offending animal as soon as practical. WIL may be of assistance. The services of USDA, Wildlife Services (WS) can be arranged by the regional manager or designee contacting the local WS District Supervisor. If possible, avoid shooting the animal in the head to preserve evidence.
5. If an animal is killed, the IC will decide on the notification process and notify Sacramento Dispatch if appropriate. Use clean protective gloves while handling the carcass. Place the carcass inside a protective durable body bag (avoid dragging the carcass, if possible).

C. Type Red (attack)

In the event of an attack, the responding Department employee may take any action necessary that is within the scope of the employee's authority to protect public safety. When evidence shows that a wild animal has made an unprovoked attack on a human, that wild animal shall be humanely euthanized (shot, killed, dispatched, destroyed, etc.). For Type Red incidents, the following steps should be taken:

1. Ensure proper medical aid for the victim. Identify the victim (obtain the following, but not limited to: name, address, phone number).
2. Notify Sacramento Dispatch at (916) 445-0045. Dispatch shall notify the field investigator's supervisor, the appropriate regional manager, the Deputy Director, WIFD, Chief, CEEB, Chief, WPB, WIL, WFL, the designated regional information officer, and the local law enforcement agency.
3. Initiate the Incident Command System. If a human death has occurred, an Enforcement Branch supervisor or specialist will respond to the Incident Command Post and assume the IC responsibilities. The IC holds initial responsibility and authority over the scene, locating the animal, its resultant carcass, and any other physical evidence from the attack. The IC will ensure proper transfer and disposition of all physical evidence.
4. Secure the area as needed. Treat the area as a crime scene. In order to expedite the capture of the offending animal and preserve as much on-scene evidence as possible, the area of the incident must be secured immediately by the initial responding officer. The area should be excluded from public access by use of flagging tape or similar tape (e.g., "Do Not Enter") utilized at crime scenes by local law enforcement agencies. One entry and exit port should be established. Only essential authorized personnel should be permitted in the excluded area. A second area outside the area of the incident should be established as the command post.
5. In cases involving a human death, WFL personnel will direct the gathering of evidence. Secure items such as clothing, tents, sleeping bags, objects used for defense

- during the attack, objects chewed on by the animal, or any other materials which may possess the attacking animal's saliva, hair, or blood.
6. If the victim is alive, advise the attending medical personnel about the Carnivore Attack-Victim Sampling Kit for collecting possible animal saliva stains or hair that might still be on the victim. If the victim is dead, advise the medical examiner of this evidence need. This sampling kit may be obtained from the WFL.
 7. It is essential to locate the offending animal as soon as practical. WIL may be of assistance. The services of WS can be arranged by the regional manager or designee contacting the local WS District Supervisor. If possible, avoid shooting the animal in the head to preserve evidence.
 8. If an animal is killed, the IC will notify Sacramento Dispatch. Treat the carcass as evidence. Use clean protective gloves and (if possible) a face mask while handling the carcass. Be guided by the need to protect the animal's external body from: loss of bloodstains or other such physical evidence originating from the victim; contamination by the animal's own blood; and contamination by the human handler's hair, sweat, saliva, skin cells, etc. Tape paper bags over the head and paws, then tape plastic bags over the paper bags. Plug wounds with tight gauze to minimize contamination of the animal with its own blood. Place the carcass inside a protective durable body bag (avoid dragging the carcass, if possible).
 9. WFL will receive from the IC and/or directly obtain all pertinent physical evidence concerning the primary questions of authenticity of the attack and identity of the offending animal. WFL has first access and authority over the carcass after the IC. WFL will immediately contact and coordinate with the county health department the acquisition of appropriate samples for rabies testing. Once WFL has secured the necessary forensic samples, they will then release authority over the carcass to WIL for disease studies.
 10. An independent diagnostic laboratory approved by WIL will conduct necropsy and disease studies on the carcass. The WIL will retain primary authority over this aspect of the carcass.

D Responsibilities of WIL

WIL investigates wildlife disease problems statewide and provides information on the occurrence of both enzootic and epizootic disease in wildlife populations. Specimens involved in suspected disease problems are submitted to WIL for necropsy and disease studies. Most animals killed for public safety reasons will be necropsied to assess the status of health and whether the presence of disease may have caused the aggressive and/or unusual behavior.

Type Yellow public safety animals killed may be necropsied by WIL or an independent diagnostic laboratory approved by WIL. Contact WIL immediately after a public safety animal is killed to determine where it will be necropsied. Arrangements are to be made directly with WIL prior to submission of the carcass to any laboratory.

Type Red public safety animals killed will be necropsied by an independent diagnostic laboratory approved by WIL. Contact WIL prior to submission of the **carcass to any** laboratory to allow the Department veterinarian to discuss the disease testing

requirements with the attending pathologist. A disease testing protocol has been developed for use with Type Red public safety wildlife.

E Responsibilities of WFL

WFL has the statewide responsibility to receive, collect, examine and analyze physical evidence, issue reports on evidence findings, and testify in court as to those results. WFL's primary function in public safety incidents is to verify or refute the authenticity of the purported attack and to corroborate or refute the involvement of the suspected offending animal.

Type Yellow public safety animals killed may be examined by WFL personnel. The examination of the carcass will be coordinated with WIL.

All Type Red public safety animals killed must be examined by WFL personnel or a qualified person approved by WFL supervisor using specific procedures established by WFL.

If a human death occurs, coordination of the autopsy between the proper officials and WFL is important so that WFL personnel can be present during the autopsy for appropriate sampling and examination. In the event of human injury, it is important for WFL to gather any relevant physical evidence that may corroborate the authenticity of a wildlife attack, prior to the treatment of injuries, if practical. If not practical, directions for sampling may be given over the telephone to the emergency room doctor by WFL.

F Media Contact

Public safety wildlife incidents attract significant media attention. Issues regarding site access, information dissemination, the public's safety, carcass viewing and requests to survey the scene can be handled by a designated employee. Each region shall designate an employee with necessary ICS training to respond as a regional information officer to public safety wildlife incidents.

Type Yellow public safety wildlife incidents may require the notification of a designated employee previously approved by the regional manager or designee to assist the IC in responding to the media and disseminating information. The IC has the authority to decide if the designated employee should be dispatched to the site.

All Type Red public safety wildlife incidents require that a designated employee, previously approved by the regional manager or designee, to assist the IC in responding to the media and disseminating information, is called to the scene.

The Department will develop and provide training for designated employees to serve as information officers for public safety wildlife incidents.