

Staff Summary for April 15-16, 2026

22. Black Bear Hunting**Today's Item**Information Action

Consider adopting proposed amendments to regulations for black bear hunting and taking final action under the California Environmental Quality Act.

Summary of Previous/Future Actions

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|--|--------------------------|
| • Wildlife Resources Committee vetting | September 11, 2025; WRC |
| • Notice hearing | December 10-11, 2025 |
| • Discussion hearing | February 11-12, 2026 |
| • Adoption hearing | April 15-16, 2026 |

Background

At its December 2025 meeting, the Commission authorized publication of a notice of its intent to amend black bear hunting regulations to redefine hunt area boundaries in Lassen and Modoc counties; increase the possession limit to twice the daily bag limit; allow the purchase of up to two bear license tags in any one year; and make various enforceability and clarity improvements. The Commission subsequently published notice of intent to amend its regulations. A background and summary of the proposed amendments are included in Exhibit 1; details of the proposed amendments are provided in the initial statement of reasons (ISOR; Exhibit 2) and the publicly noticed regulatory language (Exhibit 3).

Update

For today's hearing, the Department summarized comments received during the notice period and provided recommended responses (Exhibit 6), and recommends no changes to the proposed amendments as noticed. Today, the Commission may consider adopting the proposed regulations.

California Environmental Quality Act

An initial CEQA review of the proposed project was conducted in accordance with CEQA in 2004, and the Commission certified "Final Environmental Document Regarding Bear Hunting" (State Clearinghouse No.2003112080). In the 2004 document, the Commission assessed that expanding the bear hunt zone east of Highway 395 in Mono County would have no new significant or substantially more severe environmental effects. The Commission adopted the regulations to expand the bear hunt zone.

The analysis from the 2004 document is the basis for the current proposal. The Department drafted an addendum to the 2004 environmental document. Commission staff evaluated the draft addendum and determined that it reflects the independent judgment of the Commission. No new significant or substantially more severe impacts under CEQA than those analyzed and disclosed in the 2004 document will occur due to this proposal; the addendum provides details of the CEQA analysis supporting this conclusion (Exhibit 5).

Staff Summary for April 15-16, 2026

Significant Public Comments

1. A coalition of eight organizations oppose the proposed second bear tag, stating that it is based on outdated science and unsound assumptions, it is unnecessary, it violates the spirit of holding bears and other wildlife in the public trust for all Californians, and enforcement and poaching concerns around existing bear hunting laws and regulations have not been addressed (Exhibit 7).
2. Several commenters oppose the proposed second tag on different grounds, such as black bear's value both ecologically and to the heritage of the state, lack of evidence that increased bear hunting will reduce human-wildlife conflict, and lack of evidence of benefits to deer populations (Exhibit 8).
3. A total of 1,278 substantively similar emails opposed to the proposed second tag were received between April 1, 2026 and April 2, 2026 (samples in Exhibit 9).
4. Four commenters express support for the proposal, stating that bear populations have expanded in the state, hunting is a valuable conservation mechanism, and the proposal increases hunter opportunity and data gathering through expanded bear hunts (Exhibit 10).
5. Citizens for Los Angeles Wildlife opposes the proposed second bear tag, stating that it is unnecessary since the statewide black bear harvest threshold is a maximum rather than a goal, bear hunting is overwhelmingly unpopular among the people of California, expanded hunting may put too much pressure on certain populations of bears, and human-wildlife conflict would not be mitigated (Exhibit 11).
6. BEAR League opposes the proposed second tag, castigates hunters and suggests those with a second tag are trophy hunters, and states that the organization will pursue a complete ban on bear hunting in the state if the Commission adopts the proposed regulatory amendments (Exhibit 12).

Recommendation

Commission staff: Find that the Commission, having considered the addendum and associated environmental document, approves the revised project pursuant to CEQA, and adopts the proposed amendments.

Department: Adopt the proposed amendments to black bear hunting regulations as detailed in the ISOR and noticed regulatory language.

Exhibits

1. [Staff summary for Agenda Item 13, December 10-11, 2025](#) Commission meeting (*for background purposes only*)
2. [ISOR](#)
3. [Noticed regulatory language](#)
4. [Black Bear Conservation and Management Plan for California](#), dated April 2025
5. [Addendum to 2004 Environmental Document Regarding Bear Hunting](#)
6. [Department pre-adoption memo, including responses to public comments](#), received April 7, 2026

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7. [Email from Jenny Berg, California State Director, Humane World for Animals](#), received February 6, 2026
8. [Email from Michelle Fletcher representative of five substantively similar comments](#) received between March 30, 2026 and April 1, 2026
9. [Ten emails, representative of almost 1,300 emails opposed to the proposal](#), received between April 1, 2026 and April 2, 2026
10. [Four emails in support of the amendments, received between](#) April 1, 2026 and April 2, 2026
11. [Email from Tonny Tucci, Chair, Citizens for Los Angeles Wildlife](#), received April 2, 2026
12. [Email from Ann Bryant, Executive Director, BEAR League](#), received April 2, 2026

Motion

Moved by _____ and seconded by _____ that the Commission, having considered the addendum and associated environmental document, approves the revised project pursuant to the California Environmental Quality Act, and adopts the proposed amendments to sections 365, 366, and 708.12 related to black bear hunting.

Staff Summary for December 10-11, 2025
(For Background Purposes Only)

13. Black Bear Hunting

Today's Item

Information

Action

Consider authorizing publication of notice of intent to amend regulations regarding black bear hunting.

Summary of Previous/Future Actions

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|---|-----------------------------|
| <ul style="list-style-type: none"> • Wildlife Resources Committee (WRC) vetting and recommendation | September 11, 2025; WRC |
| <ul style="list-style-type: none"> • Today's notice hearing | December 10-11, 2025 |
| <ul style="list-style-type: none"> • Discussion hearing | February 12-13, 2025 |
| <ul style="list-style-type: none"> • Adoption hearing | April 16-17, 2025 |

Background

The Commission may adjust various regulations related to hunting for black bear (genus *Ursus*), including seasons, bag and possession limits, hunt zones, and the annual harvest threshold. The Commission has not amended black bear regulations since 2012 and, in recent years, deferred considering any proposed changes until the Department completed an update to its bear management plan. In April 2025, the Department released *Black Bear Conservation and Management Plan for California* (Exhibit 6).

Black bear hunting is subject to an annual harvest threshold of 1,700 bears. Once the Department has determined that 1,700 bears have been taken, the season (including the archery season) closes. Notably, the annual harvest threshold has not been reached since before 2013, when a statutory prohibition on the use of dogs while black bear hunting took effect.

California contains one of the largest black bear populations, and one of the lowest bear harvest rates, in the United States. In northeast California, the black bear range is expanding. The proposed regulations seek to increase black bear hunting opportunity and facilitate opportunities alongside the expanding black bear range by:

- Redefining hunt area boundaries to include the entirety of Lassen and Modoc counties;
- Changing the possession limit to twice the daily bag limit, allowing hunters to harvest two bears in a license year;
- Allowing the purchase of up to two bear license tags during any one license year; and
- Making enforceability and clarity improvements, such as reordering and clarifying the definition of a legal bear and inserting California Fish and Game Code language regarding possession of bear gall bladders.

The proposed amendments would apply identically to both general and archery hunting for black bear. No change is proposed to the 1,700-bear harvest threshold for closing the season.

Staff Summary for December 10-11, 2025
(For Background Purposes Only)

Further details on the proposal can be found in the draft initial statement of reasons (Exhibit 2), proposed regulatory language (Exhibit 3), and Department's presentation (Exhibit 5).

Today, the Department will present a summary of the proposed regulatory amendments.

Significant Public Comments (N/A)

Recommendation

Commission staff: Authorize a notice of intent to amend black bear hunting regulations as recommended by the Department and WRC.

Committee: Authorize a notice of intent to amend black bear hunting regulations.

Department: Authorize a notice of intent to amend black bear hunting regulations as detailed in the ISOR.

Exhibits

1. [Department memo, received November 17, 2025](#)
2. [Draft initial statement of reasons](#)
3. [Draft proposed regulatory language](#)
4. [Draft economic and fiscal impact statement \(STD. 399\)](#)
5. [Department presentation](#)
6. [Black Bear Conservation and Management Plan for California, dated April 2025](#)

Motion

Moved by _____ and seconded by _____ that the Commission authorizes publication of a notice of its intent to amend sections 365, 366, and 708.12 related to black bear hunting regulations.

State of California
Fish and Game Commission
Initial Statement of Reasons for Regulatory Action

Amend Sections 365, 366, and 708.12
Title 14, California Code of Regulations
Re: Bear Hunting

I. Date of Initial Statement of Reasons: October 20, 2025

II. Dates and Locations of Scheduled Hearings:

(a) Notice Hearing:

Date: December 10-11, 2025

Location: Sacramento

(b) Discussion Hearing:

Date: February 11-12, 2026

Location: Sacramento

(c) Adoption Hearing:

Date: April 15-16, 2026

Location: Sacramento

III. Description of Regulatory Action

(a) Statement of Specific Purpose of Regulatory Change and Factual Basis for Determining that Regulation Change is Reasonably Necessary

Unless otherwise specified, all section references in this document are to Title 14 of the California Code of Regulations (CCR).

The California Fish and Game Commission (Commission) periodically considers the recommendations of the California Department of Fish and Wildlife (Department) in amending regulations on big game hunting, including black bear (*Ursus americanus*; henceforth referred to as bear) hunting. Considerations include recommendations for adjusting harvest thresholds, hunt areas, hunt area boundaries, authorizing methods of take, among others, to help achieve management goals and objectives for bear.

Current regulations in Section 365 specify hunt area boundaries, bag and possession limit of one bear per license year, that no feed or bait may be used to attract a bear, season start dates and end dates, as well parameters for closing the season earlier. Specifically, once the Department has determined that 1,700 bears have been taken pursuant to the reporting, the Department shall close the season. Regulations in Section 366 describe regulations for archery bear hunting. Section 708.12 describes regulations surrounding bear license tag distribution, fees, quantity allowed to purchase, instructions for filling out license tags after harvest, use of guides, validation of bear license tags, and reporting.

Bear harvest in California has not reached the existing harvest threshold of 1,700 set in 2002 since the 2012 season, which was the last season that bear hunting with dogs was allowed. Bear hunting in California is generally limited to a spot-and-stalk method, and while over 30,000 tags are regularly sold each year, actual annual harvest has generally hovered between 1,000-1,400 bears since 2013. In addition to harvest opportunity, bear hunting also provides data that enhances the Department's ability to monitor bear

populations including population size estimates and associated trends, spatial, age, genetic, and disease information. As described in the Department's Black Bear Conservation and Management Plan for California (2025), the Department has two overarching goals related to bear conservation and management:

1. To conserve and manage bear populations that are ecologically functional, disease-resilient, genetically diverse statewide and regionally, and conserve and enhance their habitats; and
2. To provide opportunities for bear hunting, viewing, and public education; minimize human-bear conflict; consider animal welfare in bear conservation and management; and be inclusive of all Californians in bear conservation and management decisions.

California contains one of the largest bear populations and one of the lowest harvest rates in the United States.

The proposed changes focus on adding portions of Modoc and Lassen counties to the existing hunt zone in Section 365 (a), changing the possession limit to be twice the daily bag limit (i.e., adding a second tag) in Section 365 (c) and changing the annual purchase limit for bear license tags to two in Section 708.12. The last time these regulations were substantively amended was 2004 to expand the bear hunt area east of Highway 395 in Mono County. The proposed amendments here represent the cumulation of the Department's internal discussion as well as input from hunting constituents and the broader public. The proposed changes expand on and maintain sustainable hunt opportunities. They are consistent with management plan recommendations and Fish and Game Code.

Current Statutory Setting

FGC section 200 provides the Commission with the power to regulate the take or possession of birds, mammals, fish, amphibians, and reptiles.

FGC section 203 specifies that the Commission has authority to promulgate regulations concerning open and closed seasons, bag and possession limits, hunt zones, methods of take, and restrictions based on physical distinctions.

FGC section 203.1 requires the Commission to consider populations, habitat, food supplies, animal welfare, and other pertinent facts.

FGC section 1050 describes the process and procedure for assigning fees to hunting entitlements.

FGC section 3950 provides a definition for game mammals: deer, elk, prong-horned antelope, black and brown or cinnamon bears, mountain lions, jackrabbits, and varying hares, brush rabbits and pygmy rabbits, and tree squirrels. Nelson bighorn sheep are game mammals only for the purposes of sport hunting as described in FGC section 4902.

FGC section 4750 specifies that a license tag is required before taking a bear.

FGC section 4751 describes who may procure a bear tag, the fees required, and where revenue is deposited.

FGC section 4752 describes when bear license tags are valid.

FGC section 4753 describes when a bear license tag should be carried, use and disposition of the tag, and unlawful possession of an untagged bear.

FGC section 4754 provides that any person convicted of a violation of FGC sections 4750-4763 shall forfeit their bear license tag and not apply for a bear license tag for the following year.

FGC section 4755 requires that any person legally killing a bear shall have their license tag countersigned and describes who may countersign tags.

FGC section 4757 specifies that any person taking a bear must retain possession of the head and skin of the bear, for what period of time, and that they must produce these items on demand.

FGC section 4758 prohibits the sale, purchase, or possession for sale bear parts in the state of California. It also specifies that possession of more than one bear gall bladder is prima facie evidence that the bear gall bladders are possessed for sale.

FGC section 4759 describes how lawfully taken bear parts may be used and possessed, and how and to whom they may be donated.

FGC section 4760 specifies that provisions of this chapter apply to bears taken outside of the state.

Current Regulations Governing Bear Hunting in the State of California

Section 265 provides criteria and limitations for the use of dogs for the take of mammals or for dog training.

Section 350 defines big game species.

Section 352 provides hunting and shooting hours on big game.

Section 353 provides methods that are authorized for taking big game.

Section 365 provides definitions, hunting zone descriptions, season opening and closing dates, tag quotas (total number of hunting tags to be made available), and bag and possession limits for bear hunting.

Section 366 provides archery bear hunting regulations.

Section 708.12 provides a description of the bear license tag validation process and associated requirements.

Proposed Regulations

The Department has identified areas where expanded bear hunting opportunities under sections 365 and 366 are feasible and are supported by management objectives. The proposed changes to sections 365, 366, and 708.12 have been developed to allow for hunter opportunity without impact to the population through hunt zone expansion and allowance of the purchase of a second tag during a license year. This expanded

opportunity will be bound by the current harvest threshold of 1,700 bears. Additionally, minor changes are proposed for clarity and consistency.

Section 365 Bear

- **Amend subsection 365(a)(1)** to redefine the hunt area boundaries to include the entirety of Lassen and Modoc counties. The expanded hunt area will add the Northeastern California Bear Conservation Region as defined in the Black Bear Conservation and Management Plan for California (2025).
 - Problem Statement: There is a large and expanding bear population [2,225 (1,223-3,192), CDFW 2025] in the Northeastern California Bear Conservation Region (BCR) and considerable public interest in bear hunting in the area, which is currently not within the defined hunt area.
 - Statement of Purpose: The purpose of the proposal is to allow for hunter opportunity without impact to the population by expanding the hunt area to include the Northeastern California BCR. This zone expansion will continue to be bound by the current harvest threshold of 1,700 bears.
 - Statement of Benefits: The proposal will allow for hunter opportunity without impacting the population. It will also support the Department's ability to monitor, conserve, and manage bears.
 - Statement of Necessity: The proposal is necessary to expand upon hunting opportunities in northeastern California in congruence with the expansion of black bear populations in Modoc and Lassen counties.
- **Amend subsection 365(c)** to change the possession limit to be twice the daily bag limit, i.e., allow hunters to harvest two bears in a license year.
 - Problem Statement: The harvest threshold of 1,700 has not been reached since 2012 and the current possession limit is one adult bear per hunting license year.
 - Statement of Purpose: The purpose of the proposal is to allow for hunter opportunity without impact to the population by increasing the possession limit to two. This possession limit will continue to be bound by the current harvest threshold of 1,700 bears.
 - Statement of Benefits: The proposal will allow for hunter opportunity without impacting the population. It will also provide opportunities for hunters to harvest two bears in a single license year.
 - Statement of Necessity: The proposal is necessary to allow for hunter opportunity without impacting populations.
- **Add subsection 365(c)(1)** to reorder and clarify the definition of a legal bear.
 - Problem Statement: The use of the term "adult" in "one adult bear" is problematic, given it is illegal to harvest adult females with cubs, and it is

legal to harvest yearlings over the specified weight. This ambiguity has the potential to cause confusion among hunters and lead to violations.

- Statement of Purpose: The purpose is to clarify the definition of a legal bear to prevent confusion, illegal take, and ensure that its definition is clear, precise, and unambiguous.
 - Statement of Benefits: The proposal will help the public understand what is legal, and aims to reduce the likelihood of violations. Clear definitions will help ensure that only appropriate animals are targeted under legal hunting practices, which supports conservation goals and ecologically functional black bear populations in California.
 - Statement of Necessity: The proposal is necessary to enhance the flow and clarity of the regulation.
- **Add subsection 365(c)(2)** to state that hunters may not be in possession of more than one bear gall bladder, as such possession is prima facie evidence that bear gallbladders are possessed for sale, as defined in Fish and Game Code Section 4758 (b).
 - Problem Statement: Allowing a second bear tag could ostensibly create a discrepancy with Fish and Game Code Section 4758(b), which treats possession of two gall bladders as prima facie evidence of sale. Sale of bear parts is prohibited by Fish and Game Code Section 4758(a).
 - Statement of Purpose: The purpose of the proposal is to align the second tag option with Fish and Game Code Section 4758(b) by clarifying the possession limit for bears (including their gall bladders).
 - Statement of Benefits: The proposal will allow lawful use of two tags while maintaining protections against poaching and illegal trade.
 - Statement of Necessity: The proposal is necessary to resolve any discrepancy between Sections 365 and Fish and Game Code Section 4758(b), and ensure enforceable protections against poaching.

Section 366 Archery Bear Hunting

- **Amend subsection 366(c)** to change the possession limit to be twice the daily bag limit, i.e., allow hunters to harvest two bears in a license year.
 - Problem Statement: The harvest threshold of 1,700 has not been reached since 2012 and the current possession limit is one adult bear per hunting license year.
 - Statement of Purpose: The purpose of the proposal is to allow for hunter opportunity without impact to the population by increasing the possession limit to two. This possession limit will continue to be bound by the current harvest threshold of 1,700 bears.

- Statement of Benefits: The proposal will increase hunter opportunity without impacting the population. It will also provide opportunities for hunters to harvest two bears in a single season.
- Statement of Necessity: The proposal is necessary to allow for hunting opportunities in northeastern California in congruence with the expanded range of black bear populations in California.
- **Add subsection 366(c)(1)** to reorder and clarify the definition of a legal bear, specific to the archery season.
 - Problem Statement: The use of the term “adult” in “one adult bear” is problematic, given it is illegal to harvest adult females with cubs, and it is legal to harvest yearlings over the specified weight. This ambiguity has the potential to cause confusion among hunters and lead to violations.
 - Statement of Purpose: The purpose is to clarify the definition of a legal bear to prevent confusion, illegal take, and ensure that its definition is clear, precise, and unambiguous. This section focuses specifically on archery bear hunting and needs to be consistent with Section 365(c).
 - Statement of Benefits: The proposal will help the public understand what is legal, and aims to reduce the likelihood of violations. Clear definitions will help ensure that only appropriate animals are targeted under legal hunting practices, which supports conservation goals and ecologically functional black bear populations in California.
 - Statement of Necessity: The proposal is necessary to enhance the flow and clarity of the regulation.
- **Add subsection 366(c)(2)** to state that hunters may not be in possession of more than one bear gall bladder, as such possession is prima facie evidence that bear gallbladders are possessed for sale, as defined in Fish and Game Code Section 4758 (b), specific to the archery season.
 - Problem Statement: Allowing a second bear tag ostensibly creates a discrepancy with Section 4758(b), which treats possession of two gall bladders as prima facie evidence of sale.
 - Statement of Purpose: The purpose of the proposal is to align the second tag option with Section 4758(b) by clarifying the possession limit on gall bladders.
 - Statement of Benefits: The proposal will allow lawful use of two tags while maintaining protections against poaching and illegal trade.
 - Statement of Necessity: The proposal is necessary to resolve any discrepancy between Sections 365 and 4758(b) and ensure enforceable protections against poaching.

Section 708.12 Bear License Tags

- **Amend subsection 708.12(a)(4)** to allow for the purchase of up to two bear license tags during any one license year.
 - Problem Statement: The harvest threshold of 1,700 has not been reached since 2012 and the current possession limit is one adult bear per hunting license year.
 - Statement of Purpose: The purpose of the proposal is to allow for hunter opportunity without impacting the population or increasing the harvest threshold by increasing the possession limit to two.
 - Statement of Benefits: The proposal will allow for hunter opportunity without impacting the population. It will also provide opportunities for hunters to harvest two bears in a single season.
 - Statement of Necessity: The proposal is necessary to conserve and manage ecologically functional bear populations in California.

(b) Goals and Benefits of the Regulation

As set forth in Fish and Game Code Section 1801, it is the policy of the state to encourage the conservation, maintenance, and utilization of fish and wildlife resources for the benefit of all the citizens of the state. The objectives of this policy include, but are not limited to, the conservation and management of ecologically functional bear populations and supporting recreational opportunity. The adoption of science-based hunt areas, seasons, and harvest thresholds provide for recreational hunt opportunities without detriment to California's black bear population. The fees that hunters pay for licenses and tags help fund wildlife conservation and management.

(c) Authority and Reference Sections from Fish and Game Code for Regulation

Section 365 Authority cited: Sections 200, 203 and 265, Fish and Game Code. Reference: Sections 110, 200, 203, 203.1, 265, 4758, and 4759 Fish and Game Code.

Section 366 Authority cited: Sections 200, 203 and 265, Fish and Game Code. Reference: Sections 110, 200, 203, 203.1, 265, and 4758 Fish and Game Code.

Section 708.12 Authority cited: Sections 200, 203, 219, 265, 270, 275, 1050, 1572, 3960 and 10502, Fish and Game Code. Reference: Sections 110, 200, 201, 203, 203.1, 219, 255, 265, 270, 275, 1050, 1570, 1571, 1572, 3950, 3960, 4750, 4751, 4752, 4753, 4754, 4755, 10500 and 10502, Fish and Game Code.

(d) Specific Technology or Equipment Required by Regulatory Change:

None

(e) Identification of Reports or Documents Supporting Regulation Change

California Department of Fish and Wildlife (CDFW). 2025. Black Bear Conservation and Management Plan for California. West Sacramento, California, USA. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=231227&inline>

California Department of Fish and Wildlife (CDFW). 2025. Interim Black Bear Take Report 2021-2023. West Sacramento, California, USA. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=231210&inline>

Connor, T., Dheer, A., Dorcy-Ponce, J., Steinbeiser, C., Landers, R., Klip, M., & Furnas, B. (2025). Estimating wildlife populations and their dynamics using multiple data sources and a hierarchical integrated model: The case of California's black bears. *Ecological Solutions and Evidence*, 6(3), e70076. DOI: <https://doi.org/10.1002/2688-8319.70076>

Peterson, Steffen D. (2023). Estimating black bear population parameters with spatial capture recapture in a high desert mountain ecosystem. Cal Poly Humboldt Theses and Projects. <https://digitalcommons.humboldt.edu/etd/693/>

Petition for Regulation Change submitted by Dan Ryan. Petition 2021-017: [Materials for January 27, 2022 Workshop on Regulation Change Petition 2021-017](#).

(f) Public Discussions of Proposed Regulations Prior to Notice Publication

- Wildlife Resources Committee, May 2025
- Wildlife Resources Committee, September 2025

IV. Description of Reasonable Alternatives to Regulatory Action

(a) Alternatives to Regulation Change

No alternatives were identified.

(b) No Change Alternative

Without the proposed changes, the outstanding issues concerning the regulations currently governing bear hunting would remain unaddressed. Retaining the current hunting regulations would not be responsive to black bear range expansion in California or availability of hunter opportunity within the current harvest threshold of 1,700 bears. The proposal is necessary to allow for hunter opportunity and expand black bear hunting in congruence with the range expansion of black bear populations.

V. Mitigation Measures Required by Regulatory Action

The proposed regulatory action will have no negative impact on the environment; therefore, no mitigation measures are needed.

VI. Impact of Regulatory Action

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following initial determinations relative to the required statutory categories have been made:

(a) Significant Statewide Adverse Economic Impact Directly Affecting Businesses, Including

the Ability of California Businesses to Compete with Businesses in Other States

The proposed action will not have a significant statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states. The proposed action adjusts tag quotas for existing hunts by introducing a second bear tag. Given the number of tags available and the area over which they are distributed, these proposals are economically neutral to business.

- (b) Impact on the Creation or Elimination of Jobs Within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California; Benefits of the Regulation to the Health and Welfare of California Residents, Worker Safety, and the State's Environment

The Commission does not anticipate impacts on the creation or elimination of jobs or businesses within the State; no significant impacts to the creation of new business, the elimination of existing businesses, or the expansion of businesses in California are anticipated. While approximately 1-2% of bear hunters use guides, the allowance of a second bear tag is unlikely to stimulate demand in a way that would cause guides to enter the market given the years of experience and skill it takes to become one, and for similar reasons is not expected to cause existing guides to expand their businesses by hiring additional guides. The Commission does not anticipate direct benefits to the general health and welfare of California residents, the environment, or to worker safety, however bear hunters will benefit generally through access to recreational opportunities created by the proposed changes.

- (c) Cost Impacts on a Representative Private Person or Business:

The Commission is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

- (d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State:

No new costs/savings or changes to federal funding are anticipated for state agencies. However, the Department is projected to experience higher bear tag sales with the allowance of a second bear tag that may result in revenue increases. Together, the projected revenue increase may be \$158,474.80 annually (see STD399 and Addendum).

- (e) Nondiscretionary Costs/Savings to Local Agencies: None

- (f) Programs Mandated on Local Agencies or School Districts: None

- (g) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4, Government Code: None

- (h) Effect on Housing Costs: None

VII. Economic Impact Assessment

- (a) Effects of the Regulation on the Creation or Elimination of Jobs Within the State

The Commission does not anticipate impacts on the creation or elimination of jobs within the state, as the expected economic impacts are unlikely to be substantial enough to stimulate demand for goods related to bear hunting in a way that would cause the related businesses to expand their labor force. While approximately 1-2% of bear hunters use guides, the allowance of a second bear tag is unlikely to stimulate demand in a way that would cause guide operations to expand their labor force given the years of experience and skill it takes to become one.

(b) Effects of the Regulation on the Creation of New Businesses or the Elimination of Existing Businesses Within the State

The Commission does not anticipate impacts on the creation of new businesses or the elimination of existing businesses within the state because the expected economic impacts of the proposed regulations are unlikely to be substantial enough to stimulate demand for goods or services related to bear hunting. While approximately 1-2% of bear hunters use guides, the allowance of a second bear tags is unlikely to stimulate demand in a way that would cause guide operations to expand their labor force given the years of experience and skill it takes to become one.

(c) Effects of the Regulation on the Expansion of Businesses Currently Doing Business Within the State

The Commission does not anticipate impacts on the expansion of businesses currently doing business within the state because the expected economic impacts of the proposed regulations are unlikely to be substantial enough to stimulate significant demand for goods or services related to bear hunting. About 1-2% of bear hunters use guides, and while demand for guides may rise from the availability of a second bear tag, it is unlikely to be significant enough to stimulate the expansion of existing guide businesses.

(d) Benefits of the Regulation to the Health and Welfare of California Residents

Hunting is an outdoor activity that can provide several health and welfare benefits to California residents. Hunters and their families benefit from fresh game to eat, and from the benefits of outdoor recreation, including exercise. People who hunt have a special connection with the outdoors and an awareness of the relationships between wildlife, habitat, and humans, and can be a family tradition and a bonding activity.

(e) Benefits of the Regulation to Worker Safety

The Commission does not anticipate impacts on worker safety.

(f) Benefits of the Regulation to the State's Environment

As set forth in Fish and Game Code section 1801, it is the policy of the state to encourage the conservation, maintenance, and utilization of fish and wildlife resources for the benefit of all the citizens of the state. The objectives of this policy include, but are not limited to, the maintenance of ecologically functional bear populations to ensure their continued existence and supporting recreational opportunity. Adoption of scientifically based bear seasons and

tag quotas provides for the maintenance of bear populations to ensure those objectives are met. The fees that hunters pay for licenses and tags help fund wildlife conservation.

Informative Digest/Policy Statement Overview

Unless otherwise specified, all section references in this document are Title 14 of the California Code of Regulations (CCR).

Current regulations in Section 365 specify hunt area boundaries, bag and possession limit of one black bear (*Ursus americanus*; henceforth referred to as bear) per license year, that no feed or bait may be used to attract a bear, season start dates and end dates, as well parameters for closing the season earlier. Specifically, once the Department has determined that 1,700 bears have been taken pursuant to the reporting, the Department shall close the season. Regulations in Section 366 describe regulations for archery bear hunting. Section 708.12 describes regulations surrounding bear license tag distribution, fees, quantity allowed to purchase, instructions for filling out license tags after harvest, use of guides, validation of black bear license tags, and reporting.

Bear harvest in California has not reached the existing harvest threshold of 1,700 set in 2002 since the 2012 season when the use of dogs to hunt bears was outlawed. California contains one of the largest bear populations, and one of the lowest bear harvest rates, in the United States.

The proposal is necessary to facilitate black bear hunting in congruence with expanding black bear range in northeastern California and to allow for hunter opportunity without impacting the population. This possession limit will continue to be bound by the current harvest threshold of 1,700 bears. The additional data collected will also enhance the Department's ability to monitor, conserve, and manage bears.

The proposed changes are as follows:

Amend subsection 365(a)(1) to redefine the hunt area boundaries to include the entirety of Lassen and Modoc counties. The expanded hunt area will add the Northeastern California Bear Conservation Region as defined in the Black Bear Conservation and Management Plan for California (2025).

Amend subsection 365(c) to change the possession limit to be twice the daily bag limit, i.e., allow hunters to harvest two bears in a license year.

Add subsection 365(c)(1) to reorder and clarify the definition of a legal bear.

Add subsection 365(c)(2) to state that hunters may not be in possession of more than one bear gall bladder, as such possession is prima facie evidence that bear gallbladders are possessed for sale, as defined in Fish and Game Code Section 4758 (b).

Amend subsection 366(c) to change the possession limit to be twice the daily bag limit, i.e., allow hunters to harvest two bears in a license year.

Add subsection 366(c)(1) to reorder and clarify the definition of a legal bear, specific to the archery season.

Add subsection 366(c)(2) to state that hunters may not be in possession of more than one bear gall bladder, as such possession is prima facie evidence that bear gallbladders are

possessed for sale, as defined in Fish and Game Code Section 4758 (b), specific to the archery season.

Amend subsection 708.12(a)(4) to allow for the purchase of up to two bear license tags during any one license year.

Benefit of the Regulations

As set forth in FGC Section 1801, it is the policy of the state to encourage the conservation, maintenance, and utilization of fish and wildlife resources for the benefit of all the citizens of the state. The objectives of this policy include, but are not limited to, the maintenance of ecologically functional populations of bears and supporting recreational opportunity. Adoption of science-based hunting regulations supports ecologically functional bear populations to ensure those objectives are met. The fees that hunters pay for licenses and tags help fund wildlife conservation and management.

Consistency and Compatibility with Existing Regulations

The proposed regulations are neither inconsistent nor incompatible with existing state regulations. Section 20, Article IV, of the state Constitution specifies that the Legislature may delegate to the Commission such powers relating to the protection and propagation of fish and game as the Legislature sees fit. The Legislature has delegated to the Commission the power to adopt regulations governing bear hunting, and reporting requirements (California Fish and Game Code Section 200). No other state agency has the authority to adopt regulations governing bear hunting and reporting requirements. The Commission has reviewed its own regulations and finds that the proposed regulations are neither inconsistent nor incompatible with existing state regulations. The Commission has searched the CCR for any regulations regarding the adoption of bear regulations; therefore, the Commission has concluded that the proposed bear hunting and reporting regulations are neither inconsistent nor incompatible with existing state regulations. Commission staff have also searched the Code of Federal Regulations (CFR) and, pursuant to subdivision (b)(6) of California Government Code Section 11346.2, have determined that the proposed regulations avoid unnecessary duplication and do not conflict with federal regulations contained in the CFR.

Pursuant to subdivision (d) of Section 11346.3 of the Government Code, the Commission finds that the proposed changes for bear tag reporting associated with a potential second tag serve the welfare of the people of the state.

Proposed Regulatory Language

Section 365, Title 14 CCR, is amended as follows:

§ 365 Bear.

Except as provided in Section 366, bear may be taken only as follows:

(a) Areas:

(1) Northern California: In the counties of Del Norte, Humboldt, Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama and Trinity; ~~and those portions of Lassen and Modoc counties west of the following line: Beginning at Highway 395 and the Sierra-Lassen county line; north on Highway 395 to the junction of Highway 36; west on Highway 36 to the junction of Highway 139; north on Highway 139 to Highway 299; north on Highway 299 to County Road 87; west on County Road 87 to Lookout Hackamore Road; north on Lookout Hackamore Road to Highway 139; north on Highway 139 to the Modoc-Siskiyou county line; north on the Modoc-Siskiyou county line to the Oregon border.~~

(2) Central California: In the counties of Alpine, Amador, Butte, Calaveras, Colusa, El Dorado, Glenn, Lake, Mendocino, Nevada, Placer, Sacramento, Sierra, Sutter, Yolo and Yuba and those portions of Napa and Sonoma counties northeast of Highway 128.

(3) Southern Sierra: That portion of Kern County west of Highway 14 and east of the following line: Beginning at the intersection of Highway 99 and the Kern-Tulare county line; south on Highway 99 to Highway 166; west and south on Highway 166 to the Kern-Santa Barbara county line; and those portions of Fresno, Madera, Mariposa, Merced, Stanislaus, Tulare and Tuolumne counties east of Highway 99.

(4) Southern California: In the counties of Los Angeles, Santa Barbara and Ventura; that portion of Riverside County north of Interstate 10 and west of Highway 62; and that portion of San Bernardino County south and west of the following line: Beginning at the intersection of Highway 18 and the Los Angeles-San Bernardino county line; east along Highway 18 to Highway 247; southeast on Highway 247 to Highway 62; southwest along Highway 62 to the Riverside-San Bernardino county line.

(5) Southeastern Sierra: Those portions of Inyo and Mono counties west of Highway 395; and that portion of Madera County within the following line: Beginning at the junction of the Fresno-Madera-Mono county lines; north and west along the Madera-Mono county line to the boundary of the Inyo-Sierra National Forest; south along the Inyo-Sierra National Forest boundary to the Fresno-Madera county line; north and east on the Fresno-Madera county line to the point of beginning. Also, that portion of Inyo county west of Highway 395; and that portion of Mono county beginning at the intersection of Highway 6 and the Mono county line; north along Highway 6 to the Nevada state line; north along the Nevada state line to the Alpine county line; south

along the Mono-Alpine county line to the Mono-Tuolumne county line and the Inyo National Forest Boundary; south along the Inyo National Forest Boundary to the Inyo-Sierra Forest boundary; south along the Inyo-Sierra Forest boundary to the Fresno-Madera county line; north and east along the Fresno-Madera county line to the junction of the Fresno-Madera-Mono county line; south along the Mono-Fresno county line to the Mono-Inyo County line; east along the Mono-Inyo county line to the point of beginning.

(b) Seasons: Except in the deer hunt areas designated as zones X-1 through X-7b in subsection 360(b), the bear season shall open on the opening day of the general deer season as described in subsections 360(a) and (b) and extend until the last Sunday in December in the areas described in subsections 365(a)(1), (2), (3) (4) and (5) above. In those areas designated as deer hunting zones X-1 through X-7b, the bear season shall open on the second Saturday in October and extend for 79 consecutive days. The bear season shall be closed when the department determines that 1,700 bears have been taken pursuant to the reporting requirement in subsection 708.12(d). The department shall notify the commission, the public via the news media and bear tag holders via the U.S. mail and the news media when implementing this closure.

(c) Daily Bag and Possession-Limit Limits: The daily bag limit is one legal bear per day. The possession limit is twice the daily bag limit. One adult bear per hunting license year. ~~Cubs and females accompanied by cubs may not be taken (cubs are defined as bears less than one year of age or bears weighing less than 50 pounds).~~

(1) A legal bear is any bear, with the exception of cubs and females accompanied by cubs. Cubs are defined as bears less than one year of age or bears weighing less than 50 pounds.

(2) Possession of more than one bear gall bladder is prima facie evidence that bear gall bladders are possessed for sale, as defined in subdivision (b) of Fish and Game Code Section 4758.

(d) No open season for bear in the balance of the state not included in subsection (a) above.

(e) Bait: No feed, bait or other materials capable of attracting a bear shall be placed or used for the purpose of taking or pursuing a bear. No bear shall be taken over such bait. No person may take a bear within a 400-yard radius of a garbage dump or bait.

NOTE: Authority cited: Section 200, 203 and 265, Fish and Game Code.

Reference: Sections 110, 200, 203, 203.1, ~~and 265~~, 4758, and 4759, Fish and Game Code.

Proposed Regulatory Language

Section 366, Title 14 CCR, is amended as follows:

§ 366 Archery Bear Hunting

Bear may be taken with bow and arrow during the bear season as specified in Section 365 and as follows:

(a) Areas: Those portions of the state as described in subsection 365(a).

(b) Season: The archery bear season shall open on the third Saturday in August and extend for 23 consecutive days. There is no open season for taking bear with bow and arrow in the balance of the state.

(c) Daily Bag and Possession Limit-Limits: The daily bag limit is one legal bear per day. The possession limit is twice the daily bag limit. One adult bear per hunting license year. Cubs and female accompanied by cubs may not be taken. (Cubs are defined as bears less than one year of age or bears weighing less than 50 pounds).

(1) A legal bear is any bear, with the exception of cubs and females accompanied by cubs. Cubs are defined as bears less than one year of age or bears weighing less than 50 pounds.

(2) Possession of more than one bear gall bladder is prima facie evidence that bear gall bladders are possessed for sale, as defined in subdivision (b) of Fish and Game Code Section 4758.

(d) The use of dogs is prohibited during the archery season for bear.

(e) Bait. No feed, bait or other materials capable of attracting a bear to a feeding area shall be placed or used for the purpose of taking or pursuing a bear. No bear shall be taken over such bait. No person may take a bear within a 400 yard radius of a garbage dump or bait.

Note: Authority cited: Sections 200, 203 and 265, Fish and Game Code.

Reference: Sections 110, 200, 203, 203.1, ~~and 265,~~ and 4758, Fish and Game Code.

Proposed Regulatory Language

Section 708.12, Title 14 CCR, is amended as follows:

§ 708.12 Bear License Tags

(a) Bear License Tags:

(1) With the exception of permits and tags issued pursuant to section 4181 of the Fish and Game Code, all bear license tags shall be available to the public through the department's Automated License Data System terminals at any department license agent or department license sales office.

(2) The department shall require that the specified fee provided for in section 4751 of the Fish and Game Code for such bear license tags be paid as a prerequisite to obtaining a bear license tag.

(3) The department shall charge a nonrefundable processing fee, as specified in Section 702, for each bear license tag.

(4) Applicants may purchase up to two ~~only one~~ bear license tag ~~tags~~ during any one license year. ~~Any person who purchases more than one bear license tag may be denied bear license tags for the current license year.~~

(5) Upon the killing of any bear, that person shall immediately fill out all portions of the tag including the report card completely, legibly, and permanently, and cut out or punch out and completely remove notches or punch holes for the month and date of the kill. The bear license tag shall be attached to the ear of the bear and kept attached during the open season and for 15 days thereafter.

(b) Use of Guides: Any holder of a bear license tag who utilizes the services of a guide or guides shall verify that the guide is in possession of a valid guide's license and shall place the guide's license number on the bear license tag in the space provided.

(c) Validation of Bear Tags:

Only department employees may validate bear license tags (This provision supersedes section 4755 of the Fish and Game Code). Bear license tags shall be countersigned by a department employee before transporting such bear except for the purpose of taking it to the nearest department employee authorized to countersign the bear license tag. If department offices are closed, the bear tag shall be validated within one (1) business day of transporting the bear from the point where taken.

(d) Return of Bear License Tags:

(1) Every person who takes a bear shall immediately return the report card portion of the bear license tag, after having the tag countersigned as required in (c) above. The

tag may be presented to a department office/officer or returned through the United States Mail.

(2) Every person who is unsuccessful in taking bear shall return the report card portion of the bear license tags by February 1 of the current license year. The tag may be presented to a department office/officer or returned through the United States Mail.

Note: Authority cited: Sections 200, 203, 219, 265, 270, 275, 1050, 1572, 3960 and 10502, Fish and Game Code.

Reference: Sections 110, 200, 201, 203, 203.1, 219, 255, 265, 270, 275, 1050, 1570, 1571, 1572, 3950, 3960, 4750, 4751, 4752, 4753, 4754, 4755, 10500 and 10502, Fish and Game Code



Black Bear Conservation and Management Plan for California

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Statement from CDFW Director

There are few wildlife species in California more iconic than black bears (*Ursus americanus*). While they are widely recognized and appreciated for their intrinsic and ecological value, opinions sometimes differ on how best to manage black bears in our state. Today, 40 million people share California's diverse habitats with an estimated 60,000 black bears, one of the largest bear populations in the United States. These factors make California bear management and conservation a complex and intricate undertaking.

The California Department of Fish and Wildlife is proud to present a Black Bear Conservation and Management Plan for California that aims to balance the complex viewpoints about this species. Over the past few years, the plan was developed through accelerated research coupled with extensive outreach and input from the public, scientists, hunting and non-hunting organizations, Tribes and other important partners. We received and attempted to address over 5,000 comments on this plan, a testament that Californians care deeply about bears and want the best possible outcomes for them, ecosystems and for our communities. The plan sets forth a framework for using the best available science to inform future regulatory recommendations about hunting and other actions using an adaptive management approach. It also provides a roadmap of how the department intends to rigorously monitor bear populations throughout the state and addresses the premier conservation challenges facing bears including how monitoring data can be best leveraged to inform effective management decisions.

Conserving and managing ecologically functional black bear populations invariably involves other wildlife species. Given the keystone role bears play in the ecosystems they inhabit – as predators, seed dispersers, scavengers, and more – their interactions with other wildlife species are critically important to understand. This plan accounts for these intricacies and aims to better understand them. Moreover, we are in a time of substantial global change with ongoing environmental pressures including climate disruption, persistent periods of drought, megafires and habitat fragmentation. This plan also underlines the need to understand how these factors affect black bears.

It is imperative that we use the best available science to conserve and manage our state's impressive biodiversity and that we are focused on engaging and including all Californians in this process. We invite you to join us as we seek to advance black bear conservation and management through the implementation of this plan.



Charlton H. Bonham

Director, California Department of Fish and Wildlife

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CHAPTER 1

INTRODUCTION

CHAPTER 1. INTRODUCTION

The black bear (*Ursus americanus*) is an iconic species that garners a high degree of public interest in California, as it does across North America (Graber and White 1983, Klip 2012). The relationship between black bears and people is complex, however, and public attitudes and opinions concerning black bears are diverse (Siemer et al. 2023). Black bears are highly valued for various reasons. For example, black bears are culturally significant to many Native American Tribes, are a favored game species to many hunters, are sought after for viewing and photography opportunities, and are widely recognized for their intrinsic value and ecological role as an omnivorous predator. Black bears can also be a source of conflict when they use areas of high human activity (i.e., they become habituated to people), seek out anthropogenic food sources and cause property damage (i.e., they become food-conditioned), prey upon livestock, contribute to reducing ungulate populations (Monteith et al. 2014, Wittmer et al. 2014) below desired management thresholds, or threaten public safety through aggressive or predatory behavior (Hopkins et al. 2010). Given the diverse array of values surrounding black bears, a comprehensive statewide plan guiding their conservation is necessary.

It is difficult to define the differences between wildlife conservation and management (Appendix 1). The former terminology is broader than the latter, such that conservation can partly include some aspects of management. Further, Fish and Game Code (FGC) section 1801 declares wildlife “conservation” a policy for California. For these reasons, this document is referred to as a “conservation and management plan” (Plan) which considers both passive and active management strategies for maintaining black bear populations throughout California while mitigating human-black bear conflict (HBC).

The previous black bear “management plan” of the California Department of Fish and Wildlife (CDFW) was developed more than two decades ago [California Department of Fish and Game (CDFG) 1998] when black bear population size estimates were based on less contemporary methods than what is currently available. Until recently CDFW applied an indirect population modeling approach using age information inferred from tooth samples collected annually by hunters (Fraser 1976). While annual age data collected from hunter harvested tooth samples remain an important source of information, this modeling approach has long been recognized to be error prone, especially when there are changes in hunter effort and other analytical assumptions (Harris and Metzgar 1987). At an April 2022 meeting of the California Fish and Game Commission (“Commission”), CDFW presented preliminary results of an updated, more accurate, integrated population modeling approach to make better use of black bear age data and other data sources (CDFW 2022b) and committed to revise its management plan to include details about improved black bear population monitoring.

CDFW is the state trustee agency responsible for the conservation of wildlife and their habitats (FGC § 1802). It is charged with implementing and enforcing regulations set by the Commission, as well as providing biological data and expertise to inform Commission decision-making on a wide variety of issues affecting wildlife. The Commission enacts wildlife regulations in a manner that considers information on populations, habitat, food availability, and animal welfare (FGC § 200-203). Issues of

regulation include recreational harvest, use of protected areas, permitting of wildlife rehabilitation facilities, and listing of species under the California Endangered Species Act (CESA), among others. State policy set by the legislature recognizes a balance between protecting wildlife for their intrinsic and ecological values; providing for beneficial and recreational uses including regulated hunting; and mitigating economic, human safety, and public health damages caused by wildlife (FGC § 1801). An essential concept recognized in this policy is that wildlife is a renewable resource and that, through regulated management, abundant and thriving populations can be perpetuated.

Through California Executive Order B-10-11 (2011), state policy reaffirmed that California Native American Tribes have sovereign authority over their territories and activities, and thus cross-jurisdictional issues require effective government-to-government consultation between state agencies and Tribes. The policy of CDFW is to notify and consult with Tribes regarding proposed activities affecting fish, wildlife, and plant resources and other Tribal interests, and to encourage collaborative relationships resulting in co-management of resources, such as black bears (CDFW 2014).

Black bears are classified as a game mammal in California (FGC § 3950) such that regulated hunting of the species includes licensing, fees, harvest season and area, and other restrictions (Title 14 California Code of Regulations (CCR) § 365, 366, 367.5, FGC § 4750-4763). CDFW also manages black bears associated with HBC, which may include issuing lethal depredation permits when non-lethal efforts to address problems prove ineffective (FGC § 4181, CDFW 2024a). The current decision-making process for addressing HBC and other related issues such as animal welfare is described in a policy developed by CDFW (2024a).

Regulated hunting has been a central component of wildlife conservation in California and throughout North America for over a century (Geist et al. 2001, Organ et al. 2012). For example, CDFW conservation and management activities that benefit both game and non-game species alike (e.g., population monitoring, research, land acquisition, habitat improvement, law enforcement etc.) are substantially funded by revenues generated from hunting license fees and from taxes on firearms and ammunition pursuant to the Pittman–Robertson Federal Aid in Wildlife Restoration Act of 1937 (see Section 3.6). Additionally, partnerships between CDFW and hunting-focused non-governmental organizations (NGOs) play important roles in habitat creation and protection that benefit a wide variety of species. Specific to black bears, hunters also provide CDFW with tooth samples from harvested animals (over 1,000 samples annually). Age estimates from these samples constitute a key source of scientific data that is critical to efficient estimation and monitoring of black bear populations throughout California.

Changing societal views towards hunting highlight the need for wildlife managers to ensure they are adequately considering the perspectives of non-hunters (Peterson and Nelson 2017). Wildlife managers have also been criticized for undervaluing the perspectives and contributions of Native Americans—both those that hunt and those that do not—to wildlife conservation (e.g., Hessami et al. 2021). Recognizing these concerns, the Commission has a policy statement addressing justice, equity, diversity, and inclusion that acknowledges prejudices and barriers experienced by historically

marginalized and underserved communities regarding access to nature and regulatory decision-making processes. This policy commits the Commission to a set of actions for correcting these inequities. CDFW shares this goal; it will seek to broaden input beyond traditional constituencies while continuing to value hunting as an important tradition and conservation and management tool.

In consideration of the background and history summarized above, CDFW's goals for black bear conservation and management apply to both black bears and people:

Black Bear Conservation and Management Goals:

1. Conserve and manage black bear populations that are ecologically functional, disease-resilient, and genetically diverse statewide and regionally, and conserve and enhance their habitats.
2. Provide opportunities for black bear hunting, viewing, and public education; minimize human-bear conflict; consider animal welfare in black bear conservation and management; and be inclusive of all Californians in black bear conservation and management decisions.

CDFW's approach to achieving these goals includes monitoring black bear populations and using these data in an adaptive and structured decision-making process to inform conservation actions and policies about hunting, other human interactions with black bears, and responses to climate change, land use, and other conservation stressors. This Plan includes background on black bear biology (Chapter 2) and the ecological and social framework for black bear conservation and management (Chapter 3), describes the monitoring and modeling approach for tracking black bear populations (Chapters 4 and 5), explains how this information will be applied in decision making (Chapter 6), and lists the resources and next steps needed to successfully implement the Plan (Chapter 7). Specific recommendations about hunting rules (e.g., tag quotas, season dates, methods of take) for black bears will not be made in this Plan. However, the information in this Plan and the implementation thereof will inform future regulations to establish or adjust hunting seasons for black bears (FGC § 302). Additionally, those rule changes generally require changes to CCR Title 14 regulations by the Commission or statutory changes to FGC by the California Legislature.

This Plan was written and developed by two primary editors along with considerable input from a Technical Advisory Group (TAG) comprised of internal CDFW staff with subject matter expertise across a variety of fields and geographical locations relevant to black bear conservation and management in California. A team of statistical modelers and data scientists developed the population modeling framework presented within the Plan and CDFW management and leadership reviewed the Plan's contents. The Plan also underwent Tribal (January 2024 – March 2024), peer (January 2024 – March 2024), and public (April 2024 – June 2024) review periods. Nine California Native American Tribes, three peer reviewers, and over 5,000 public commenters provided feedback on the Plan. In addition, two listening sessions were held with California Native American Tribes in May 2023 to understand their perspectives on black bear conservation and management and co-management of black bears between CDFW and Tribes. Updates on the status and the contents of

the Plan while it was being developed were given at several Commission and Wildlife Resources Committee meetings which provided opportunities for the public to discuss and comment on the Plan. Moreover, an informational public meeting was held in May 2024. In the interest of transparency and being inclusive of all Californians pursuant to FGC section 1801, comments received during the public review period have been published along with the contents of this Plan.





CHAPTER 2

BLACK BEAR BIOLOGY AND ECOLOGY

CHAPTER 2. BLACK BEAR BIOLOGY AND ECOLOGY

2.1 PHYSICAL CHARACTERISTICS

Black bears are large, powerfully built mammals. Adult females typically weigh between 45 and 90 kg, and adult males typically weigh between 70 and 160 kg, with some individuals exceeding 220 kg (Lariviere 2001). Bears in excess of 300 kg have been found in places where anthropogenic food sources are abundant. Pelage color is generally mostly uniform and ranges from off-white, cinnamon, tan, brown, to black. Pale patches can occur on the chest (Lariviere 2001).

2.2 DENNING

Black bears typically hibernate during the winter months in response to a seasonal shortage of food. In contrast to other winter-hibernating mammals that reduce their metabolic rate by >90% and body temperature to near 0° C (e.g., rodents), black bears only reduce their metabolic rate by 20-50% and maintain a near normal body temperature, which allows them to quickly react to danger (Hellgren 1998, Stenvinkel et al. 2013). Other hibernating mammals are slow to arouse because they must gradually warm themselves.

During hibernation, black bears remain inactive without eating, drinking, urinating, or defecating. This too differs from other hibernating mammals, which must arouse every 4-10 days to feed, defecate, and urinate (Folk et al. 1976, Hellgren 1998). Hibernating animals recycle waste products (e.g., urea), preserve muscle and bone mass, and do not acquire bed sores—adaptations that are of interest to medical practitioners seeking to improve human health in areas such as heart and kidney disease, muscle wasting, obesity, and osteoporosis (Stenvinkel et al. 2013, Berg von Linde et al. 2015). Under the constraints of hibernation, adult female black bears also experience the physiological demands of gestation, parturition, and lactation, which other hibernating mammals generally do not experience.

Though hibernation is an adaptive response that allows black bears to avoid thermal extremes and food shortages, it does not come without risk. Black bears can be vulnerable to anthropogenic disturbance, excessive snowfall, flooding, and inter- and intra-specific predation while denning (Beckmann and Lackey 2018, Linnell et al. 2000, Kurth et al. 2024). Occasionally, black bears will abandon their dens in response to such disturbances (Rayl et al. 2014).

Most black bears in California hibernate each year, but if sufficient food resources are available some black bears, particularly males, may remain active all winter (Graber 1989). Typically, females enter their dens earlier and emerge later than males do (Long et al. 2024). Black bear dens are often in tree cavities, rock or brush piles, underground burrows, or open-ground beds (Lariviere 2001). In California, other common documented den sites are talus slopes and cavities in downed logs or at the base of trees (Graber 1982, Koch 1983, Braden 1991, Stafford 1995). Occasionally, black bears den in anthropogenic structures (e.g., crawl spaces and under decks, Schafer et al. 2018).

2.3 REPRODUCTION

Litters typically comprised of 1-4 cubs are born in January-February. Mothers and cubs typically emerge from their dens during April-May. Cubs remain with their mothers through the following winter, and then separate prior to the breeding season (e.g., June-July). In total, cubs remain with their mothers for approximately 16 months (Lariviere 2001). Black bears have been shown to be capable of social learning in foraging behaviors from their mothers (Mazur and Seher, 2008) but are a solitary species (Suraci et al. 2017).

Reproductive success in female black bears is related to abundance and availability of quality food (Elowe and Dodge 1989, Costello et al. 2003). As adult female nutrition increases, reproductive parameters likely change in the following order: litter size increases, age of first reproduction decreases, yearling survival increases, cub survival increases, and interbirth interval decreases (Noyce and Garshelis 1994).

Adult females generally breed every other year but may breed in consecutive years if a litter is lost. Reproductive parameters of black bears in California are generally unknown outside of Yosemite National Park, where Graber (1982) and Keay (1990) reported mean litter sizes ranging from 1.6 to 2.0, a mean age of first reproduction of 4.2 years, and a mean interbirth interval of 2.5 years.

2.4 MORTALITY

Mortality rates for black bears are relatively high during the first few years of life (18-47%; Kolenosky 1990) and common causes of death include cannibalism, infanticide, starvation, and abandonment (LeCount 1987, Elowe and Dodge 1989). Once adulthood is reached, mortality rates decrease substantially, in part because adult black bears have few natural predators and are relatively unaffected by parasites and disease (Rogers 1983). Anthropogenic causes of mortality (e.g., hunting, vehicle collisions, management removals) are the dominant causes of mortality for adult animals in both areas where harvest is allowed and where it is not, but overall rates of mortality are generally low and sustainable (Gantchoff et al. 2020). Adult female mortality rates are usually lower than those of adult males. Estimates of black bear survival rates and causes of mortality in California have not been reported in recent years. Black bears can live to an age of 30 years or longer, though in the wild, most die before they are 20 years old (Powell, Zimmerman, and Seaman, 1997). The longest-lived wild black bear ever recorded died at an age of 39.5 years, in Minnesota (Garshelis et al., 2020b).



2.5 FOOD HABITS

Black bears are omnivores, and their teeth are adapted for feeding on both plant and animal matter. They are highly opportunistic and will eat nearly anything edible. Black bear food habits vary widely with season and location. In general, following emergence from winter dens in spring, black bears forage on green grasses and forbs, insects, and carrion. Black bears shift to eating berries when they become available (Graber 1982, Grenfell and Brody 1983) and focus on mast crops such as acorns (*Quercus* spp.) in the fall. Where present, manzanita berries (*Arctostaphylos* spp.) are an important food resource during late summer and fall (Kelleyhouse 1980), as are sugar pine (*Pinus lambertiana*) seeds (Mazur et al. 2013). While the diet of black bears is mostly comprised of vegetation, they may prey upon newborn ungulates in the spring (Zager and Beecham 2006, Monteith et al. 2014) and scavenge the kills of mountain lions (*Puma concolor*) and other predators year-round, including during the winter (Elbroch et al. 2015, Allen et al. 2021). The opportunistic foraging behavior of black bears often brings them into conflict with people, as black bears will damage property such as homes, storage sheds, and vehicles while seeking out human food and garbage, damage agricultural crops, and occasionally kill livestock (CDFW unpublished data).



CHAPTER 3
**CONSERVATION
AND MANAGEMENT
FRAMEWORK**

CHAPTER 3. CONSERVATION AND MANAGEMENT FRAMEWORK

The framework for black bear conservation and management in California includes a mix of ecological and social factors. This chapter summarizes background information relevant to the conservation and management goals introduced in Chapter 1.

3.1 ECOLOGICALLY FUNCTIONAL POPULATIONS

It is a goal of CDFW to conserve and manage ecologically functional black bear populations because of their ecological role among the wildlife species that inhabit California. Ecologically functional populations have the abundance or density, and the appropriate population structure, that allow their ecological interactions, roles, and functions to take place (Conner 1988; Appendix 1). The maintenance of ecologically functional wildlife populations is necessary for ecosystem balance and health and is inclusive to entire ecological communities (Akçakaya et al. 2019; Ebenman et al. 2017; Grace et al. 2021). Thus, conserving and managing ecologically functional black bear populations provides a broader and more cohesive goal than putting forth an abundance target would. In California, ecologically functional black bear populations are generally abundant and common. Abundant, common species such as black bears tend to have large, widespread ranges (Lawton 1993), and there usually tend to be relatively few common species versus many rare species within ecological communities (Preston 1948, Fig. 1). CDFW aims to use its population modeling approach to determine what abundance levels are consistent with the goal of conserving and managing ecologically functional black bear populations in California.

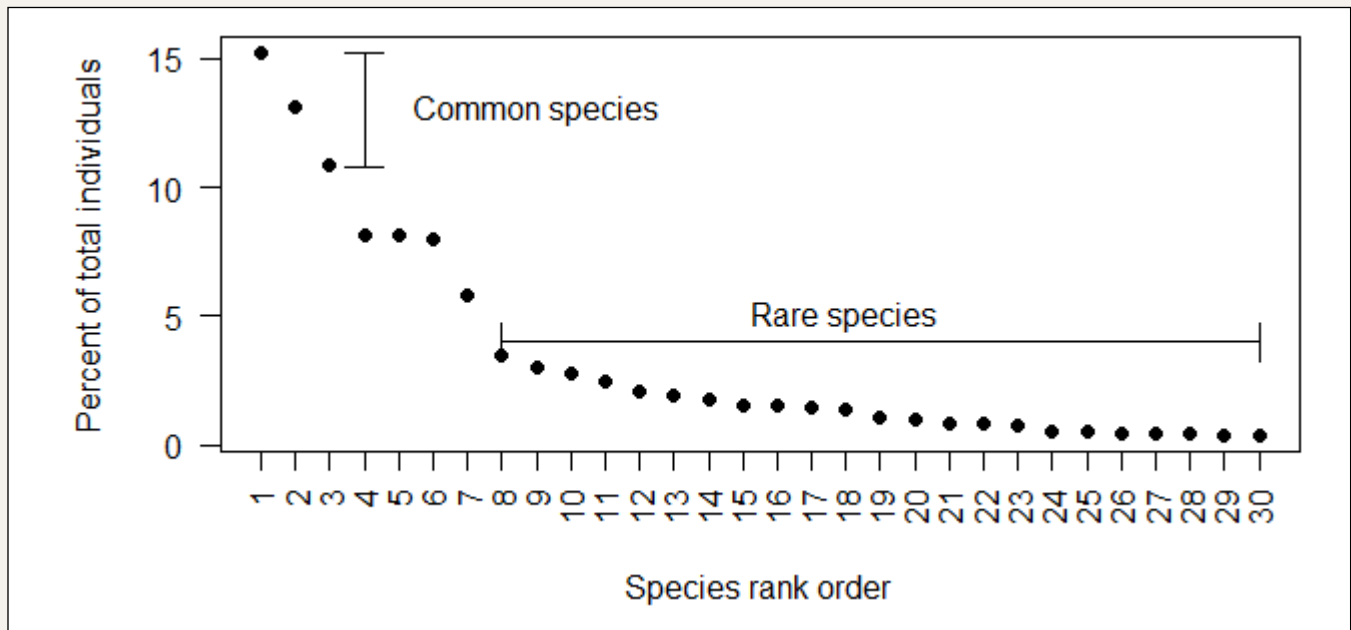


Figure 1. Commonness and rareness of wildlife species. As illustrated in this simulated example, ecological theory and empirical data demonstrate that there are usually a few common, abundant species versus many rare, less abundant species. In California, black bears are an example of an abundant, common species.

Black bears are widespread and common throughout most forested habitats of California; they are one of the most commonly occurring large mammal species in California forests (Furnas et al. 2022). Occupancy modeling is a statistical approach for analyzing the proportion of locations a species occurs at to assess its relative abundance with respect to other species (MacKenzie et al. 2006). The geographical range of black bears in California covers 40% of the state's land area and the average probability of black bear occurrence at any point within the 2009 range for a month sampling period is estimated at 63% based on occupancy analysis of detections from camera surveys at 2,954 locations (Furnas et al. 2022). In comparison, examples of less widespread and common species in California include Pacific fisher (*Pekania pennanti*, range=29%, occupancy<20%) and red fox (*Vulpes vulpes*, range=16%, occupancy<1%) (CDFW unpublished data).

Black bear densities, however, are not evenly distributed throughout their range in California. Roughly half of the statewide black bear population resides in the North Coast and Cascade regions (see Fig. 7 for regional locations). Studies indicate that black bear densities typically range from 38 to 96 black bears per 100 km² (Piekielek and Burton 1975, Kelleyhouse 1977, CDFG 1993) in these regions. About 40% of the black bear population inhabits the Northern and Southern Sierra Bear Conservation Regions (BCRs). Density is lower than in the North Coast and Cascades BCRs, with estimates of 19 to 38 black bears per 100 km² (Sitton 1982, Grenfell and Brody 1983, Koch 1983). Fusaro et al. (2017) reported that density within the town of Mammoth Lakes (38 black bears per 100 km²) was 3 times greater than in a nearby wildland study area, Slinkard Wildlife Management Area. The remainder of the black bear population inhabits other areas of the state including the South Coast region, where densities are probably less than 10 black bears per 100 km² (Stubblefield 1992, Novick et al. 1981, Moss 1972). The highest reported recent black bear densities from California are 156 black bears per 100 km² near Klamath in Del Norte County (Arias 2007), 133 black bears per 100 km² on the west side of the Hoopa Valley Reservation (Matthews et al. 2008), and 84 bears per 100 km² in the Lake Tahoe basin (Owens-Ramos et al. 2022). These densities are among the highest recorded for black bears across their range, with the Klamath estimate exceeding the second-highest reported density across the species' range, from Alaska (155 black bears per 100 km²; Peacock et al. 2011). Based on this, California may be home to the densest recorded population of black bears in the world.

Common species, such as black bears in California, have substantial effects on the broader ecological community such that the conservation and management of common species should be considered alongside concerns about rare species (Gaston and Fuller 2007). The abundance of black bears in California is likely driven by their diverse, omnivorous diet and ability to use many different habitat types and seral stages as a generalist species, and their adaptability to varied environmental conditions over time (Garshelis et al. 2020b). Due to their abundance and ecological role, black bears may serve as a potential indicator species for guiding wider conservation and management efforts as demonstrated by their foraging ecology (Steenweg et al. 2023), use of large woody debris (Mitchell and Powell 2003), association with wildfire (Furnas et al. 2022), and habitat associations with many other species (Cox et al. 1994, Simberloff 1999). For all of these reasons, it is important that black bears remain ecologically functional throughout their range in California.

Sustained and systematic monitoring of black bear abundance at statewide and regional scales is essential to effective conservation and management of black bears and other wildlife in California. Quantifying a target population abundance of black bears is not solely a scientific question, because it depends on both the ecological status of black bears and the needs of human society in a state of nearly 40 million inhabitants in 2023. On one hand, ecological considerations can be used to estimate the biological carrying capacity of how many black bears available habitats can support, although this number would be expected to fluctuate up and down from year to year with environmental cycles (McClelland et al. 2021). On the other hand, the needs and desires of people may define a different, social carrying capacity of how many black bears human society is willing to tolerate on the landscape (Decker and Purdy 1998, Cleary et al. 2021). As part of its mission, CDFW is charged with balancing these potentially conflicting goals. As such, CDFW intends to meet an ecological goal of maintaining ecologically functional black bear populations by ensuring that black bears remain common and widely distributed within secure, well-connected habitats, and are not experiencing any long-term population declines of conservation concern pursuant to either FGC section 1801 or CESA. Additionally, CDFW intends to use the population modeling framework described in Section 4.2 to identify ecological carrying capacities statewide and regionally. CDFW would use these estimates, in conjunction other information on species interactions (e.g., prey and other species), human dimensions (e.g., HBC) and other factors (e.g., disease), to guide conservation and management actions via the adaptive management process described in Chapter 6.

3.2 HABITAT

Black bears occupy most mountain ranges in California outside of the Mojave and Sonoran deserts, and most of the 145,000 km² of forested habitat that is biologically suitable for them. This Plan provides the first updated range map (Fig. 2) for black bears in California since 2009 using expert opinions from CDFW scientists and research grade records from iNaturalist and the Global Biodiversity Information Facility (GBIF) (iNaturalist contributors 2025, CDFW unpublished data). The range layer was created from a base layer called "EcoHUC" which combines United States Forest Service (USFS) Ecoregion Subsections and HUC12s. Black bears continue to occupy the distribution first mapped by Grinnell (1937), and expanded populations now also exist in areas where black bears were formerly rare or absent, such as the Central Coast, much of Northeastern California, and the San Bernardino and San Gabriel mountains of Southern California. Range expansion in Southern California is the result of a translocation of black bears from Yosemite National Park to the San Bernardino mountains in the 1930s, which resulted in a persistent population (Brown et al. 2009).

More recently, black bears appear to have expanded into other areas of California where they were previously rare or absent, such as the Warner Mountains in Modoc County and the Mayacamas Mountains of Sonoma and Napa Counties (Fusaro et al. 2017, CDFW unpublished data). Range expansion has continued outside of California as well. In the 1980s, black bears originating in California began recolonizing habitat in the Carson Front of Nevada, where black bears had been absent for >80 years (Lackey et al. 2013, Malaney et al. 2018, Sultaire et al. 2023).

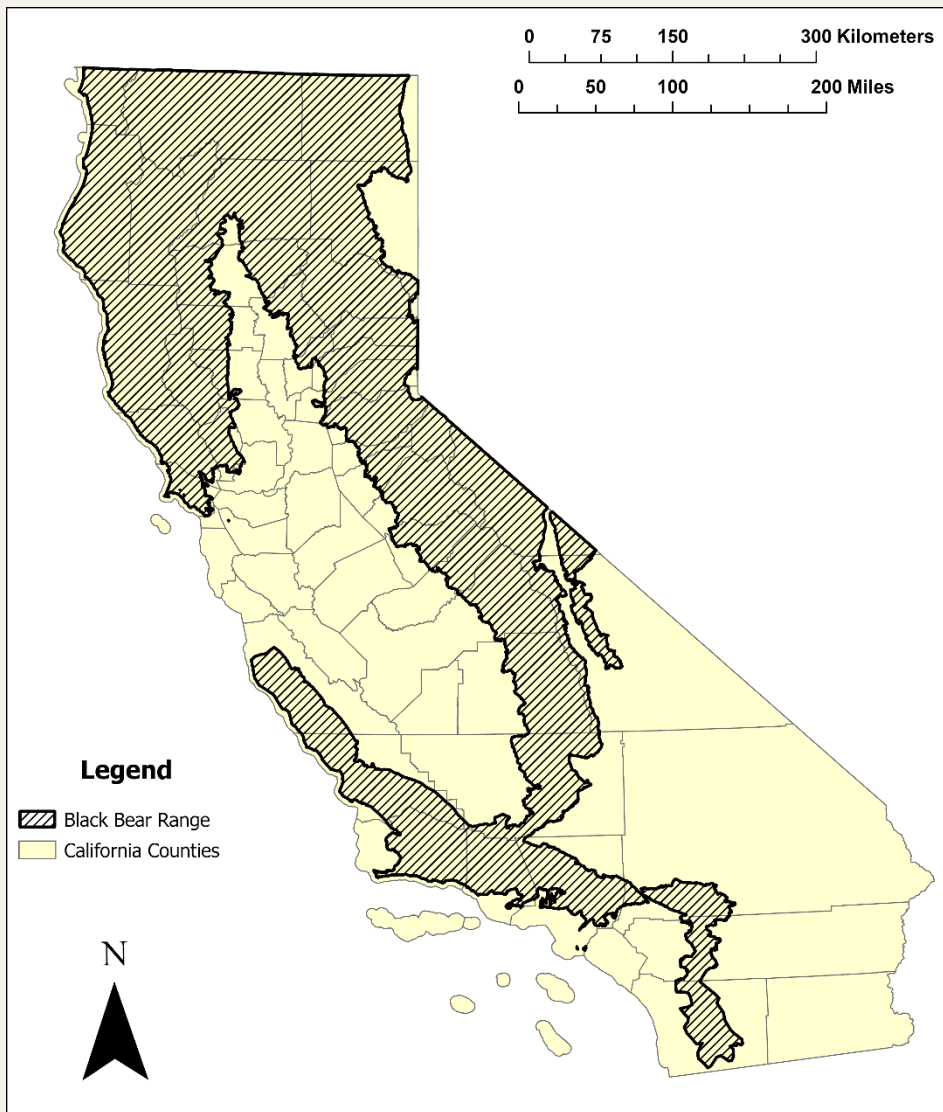


Figure 2. Black bear range map for California. This map was developed in 2024 using local CDFW biologists’ expert feedback, verified records from iNaturalist and the Global Biodiversity Information Facility, and created from a base layer called “EcoHUC” combining USFS Ecoregion Subsections and HUC12s. The map displays resident populations, i.e., cases of black bear sightings that were deemed to be transient or unverified were not included.

Over half of the suitable black bear habitat in California is in public ownership, managed primarily by the USFS and National Park Service (NPS). Approximately 10% of California’s black bear habitat is managed as either wilderness or designated park. These areas represent large blocks of undeveloped habitat and core areas within their habitat where black bears encounter few humans. The abundance of black bear habitat in public ownership where development is restricted provides an important buffer against habitat loss. Because black bears are highly adaptable to living in human-modified environments, human development along the wildland-urban interface (WUI) in areas such as the Lake Tahoe Basin is more of a concern for management of HBC than it is for habitat loss and/or fragmentation negatively impacting black bear populations. However, habitat enhancement using fire management and other methods may serve to mitigate HBC (see Section 3.9).

3.3 GENETIC DIVERSITY AND CONNECTIVITY

Overall, black bear populations appear to be genetically diverse throughout California. Brown et al. (2009) identified 3-4 genetic clusters in a study of 504 black bears from across California collected by hunters and researchers. The occupation of black bears in the Central Coast region was hypothesized to have occurred relatively recently following a release from competition with extirpated brown bears (*Ursus arctos*), and a range expansion of black bears from the Southern Sierra Nevada and Tehachapi mountains, rather than from Southern California (Sherman and Ernest 2015).

Black bears in Northwestern California had the highest levels of genetic diversity, probably as a result of connectivity with black bear populations in Oregon and throughout the Pacific Northwest. Similarly, there was evidence of high genetic diversity and gene flow among the interconnecting populations in Northern California and the Sierra Nevada mountains. Black bears in the Southern California and Central Coast regions were geographically isolated from larger populations to the north, but still maintained a similar level of genetic diversity as other North American black bear populations (Brown et al. 2009, Clarke et al. 2001, Paetkau et al. 1998, Paetkau and Strobek 1994).

More recently, Sherman and Ernest (2015) studied the genetic diversity of black bears in San Luis Obispo and Monterey Counties. Genetic diversity in these areas was found to be lower than in other populations in California but because the area had only recently been colonized by black bears expanding from elsewhere, the authors concluded that management intervention was not warranted.

3.4 DISEASE

Black bears are susceptible to many infectious and non-infectious diseases, most of which do not significantly impact black bear populations. While there is no evidence that disease is an important factor in California black bear population dynamics or population health, there are some diseases of concern to monitor. These include emerging diseases like sarcoptic mange (Niedringhaus et al. 2019) with an unknown risk to California's black bear populations, zoonotic diseases that could affect people like trichinellosis (Schellenberg et al. 2003), or diseases that could increase the likelihood of HBC like idiopathic encephalitis (Alex et al. 2020). As such, disease, and health in general, is important for black bear conservation and management at both the level of the individual black bear and the population.

CDFW veterinarians investigate potential diseases in black bears opportunistically through mortality investigations and actively through specific disease surveillance projects or programs. Disease and mortality investigations consist of either a full necropsy with postmortem workup and ancillary testing, or through targeted sample collection and testing, depending on the situation. Currently, CDFW maintains an active research and surveillance program for encephalitis in black bears. This emerging condition in California and Nevada black bears potentially has more than one cause. It tends to affect young black bears, often orphaned cubs of the year or yearlings. Clinical signs range from mild changes in behavior and mentation that often mimic habituation, to overt neurologic changes including head tilt, ataxia, tremors, and seizures. The disease is often seen in black bears

involved in conflict situations. CDFW also supports active surveillance of *Yersinia pestis* by providing samples from black bears and other species to the California Department of Public Health for serologic surveillance. Moreover, CDFW continues both active and opportunistic surveillance for pesticides like anticoagulant rodenticides, organophosphates, carbamates, and bromethalin in black bears. Pesticides can be direct sources of mortality for black bears and public health risks to hunters as some can accumulate in consumable portions like meat and fat.

In addition to ongoing mortality investigations and active surveillance projects in black bears, there have been and continue to be several serology-based surveillance projects. These projects utilize archived serum collected either from hunter harvest, depredation, or management actions and measure antibody prevalence to various pathogens in one or more of California's black bear populations. These projects confirm that California's black bears are variably exposed to multiple different pathogens including, but not limited to, *Toxoplasma gondii*, *Borrelia burgdorferi*, *Anaplasma phagocytophilum*, *Trichinella spiralis*, canine distemper virus, canine adenovirus type 1, *Yersinia pestis*, *Trypanosoma cruzi*, and *Francisella tularensis* (Mortenson 1998, Stephenson et al. 2015, CDFW unpublished data). While serologic surveillance for antibodies is an important tool for disease and pathogen surveillance, it is only informative about exposure to pathogens—not the presence or absence of disease associated with pathogens.

CDFW continues to perform mortality investigations to support Law Enforcement and HBC programs, and to investigate abnormal mortalities. Common causes of death include trauma (thermal burns, gunshot, vehicle strike, or conspecific aggression being the most common), infections (viral, fungal, bacterial, and parasitic), and neoplasia or cancer. Infections are more commonly diagnosed in young black bears, especially cubs and yearlings. Idiopathic encephalitis, canine adenovirus type 1, and generalized dermatophytosis have been the most commonly diagnosed infections in recent years (CDFW unpublished data). Generalized dermatophytosis is often indistinguishable from sarcoptic mange and may be either a primary disease or secondary to some other infection (e.g. *Ursicoptes* sp. or *Sarcoptes* sp. mite infestation) or immunosuppression (Clothier et al. 2022). Trauma, particularly from vehicle strikes or gunshot wounds (e.g., sustained due to depredation or other conflict behavior, or from poaching) or infections secondary to trauma are more commonly seen in prime age adult black bears. With increasingly severe wildfire activity associated with climate change, black bears with thermal burns from wildfires are being seen more commonly, affecting young and old black bears alike. Neoplasias are more commonly diagnosed in old black bears, and older sows may be particularly susceptible to mammary gland tumors (CDFW unpublished data).

3.5 ANIMAL WELFARE

Animal welfare for black bears is defined in CDFW Bulletin Number 2022-01 Black Bear Policy in California: Public Safety, Depredation, Conflict, and Animal Welfare (henceforth Black Bear Policy; CDFW 2024a) as “the physical, psychological, social, and environmental well-being of an animal.” It is CDFW’s responsibility to consider animal welfare whenever managing black bears. In implementing this policy, CDFW follows Bulletin Number 2018-02 Department of Fish and Wildlife Animal Welfare Policy, which states that:

- Research, surveys, and experiments involving free-ranging and captive invertebrates, reptiles, amphibians, fishes, birds, and mammals shall consider:
 - Whether the use of animals is necessary;
 - The number of animals needed to obtain valid scientific data; and
 - Methods to avoid or minimize pain, discomfort, and distress consistent with sound research design and practice.
- Animals shall be housed under conditions that are species-appropriate in environments that are safe and secure for animals and staff.
- Methods of euthanasia shall be consistent with current recommendations of the American Veterinary Medical Association (AVMA) Panel on Euthanasia, unless alternatives have been justified and approved by the appropriate CDFW Program (Wildlife Branch, Fisheries Branch, or Marine Region).

One prominent example of how animal welfare concerns are addressed with black bears is the care and rehabilitation of injured and orphaned black bears. In the absence of being taken into captivity, most of these black bears would die. While these deaths will not result in changes to black bear population health, the experiences of the black bears themselves prior to their death would be unpleasant and there is substantial demand from the public for wildlife managers to intervene in these situations (Beecham et al. 2016). Options include non-intervention; humane euthanasia; reuniting black bears with their biological mothers; fostering black bears to wild, adoptive females; transporting black bears to a permanent captive facility; and transporting black bears to a rehabilitation facility for eventual release (Beecham et al. 2015). CDFW veterinarians work with regional staff to identify individual black bears that have been injured or orphaned and determine appropriate interventions.

Animal welfare is also an important consideration in wildlife field research. Examples include decisions regarding whether to externally mark (e.g., ear tags) and/or remotely monitor (e.g., GPS collars) black bears, what types of traps to use, what types of chemical immobilization drugs to use, etc. In these cases, actions taken by researchers to better understand black bear ecology have the possibility of causing distress, pain, or behavioral changes to black bears. Thus, it is important that the negative impacts are weighed against the benefits. Consequently, prior to initiating any research or monitoring program for black bears, capture plans are developed and reviewed by CDFW veterinarians.

3.6 REGULATED HUNTING

The use of black bear meat and other black bear resources through hunting by humans dates back to prehistory across much of the species' range (McLaren et al. 2005, Ramsey 2013). Black bear meat provides a healthy and sustainable protein source to hunters as well as valuable non-meat resources

including rendered fat, hides, skulls, and claws (Unger et al. 2013, Waselkov 2020). Hunters also report physical, psychological, and emotional health benefits experienced when hunting black bears (Dunk 2002, Gundrum 2019, Hristienko and McDonald 2007).

In the United States, hunting regulations (e.g., the setting of seasons and methods of take, bag limits, etc.) are the product of municipal, state, and federal laws that began as early as 1646, when the colony of Rhode Island established a season for white-tailed deer (*Odocoileus virginianus*) hunting and enforced penalties for hunting out of season (Organ et al. 2012). However, expectations regarding how, when, and why wildlife was harvested were implemented by indigenous people for thousands of years prior to the arrival of Europeans (Eichler and Baumeister 2018).

Outside of NPS lands such as Yosemite and Sequoia and Kings Canyon National Parks, where the hunting and trapping of any species has been prohibited since the late 1800s, the first formal regulations governing black bear hunting in California were enacted in 1948, when black bears became classified as game animals. A license became required for hunting and trapping, and a bag limit of two black bears per hunter was established. Over time, regulations have generally become increasingly restrictive, both to ensure black bear harvests are sustainable and to reflect changing public attitudes. For example, recreational trapping was prohibited in 1961, the bag limit was reduced to one in 1968, harvest of cubs or females with cubs was prohibited in 1972, a quota limiting the number of black bears harvested annually was initiated in 1990, and the use of dogs to hunt black bears was prohibited in 2013.

Since 1957, successful black bear hunters have been required to submit report cards that describe sex and age class of harvested black bears, along with the location and date of harvest. Beginning in 1982, report cards became required of all tag holders, regardless of success, and hunters were required to bring harvested black bears to CDFW for tag validation and removal of a premolar tooth, which is used to determine the black bear's age in years. As discussed in Chapter 4, these samples are the key source of data utilized by CDFW for estimating and monitoring black bear populations and their vital rates. As demonstrated in California and elsewhere, the public (including hunters who provide age and sex information on black bears) contributes to conservation and management through scientific data collection that supports population monitoring efforts (Cretois et al. 2020, El Bizri et al 2020, Candler et al. 2022). While black bears are widespread in California, hunting is not permitted in all areas that black bears inhabit (Fig. 3). Collectively, areas without hunting can function as sanctuaries that provide a reservoir of adult females with relatively high survival rates that produce dispersing offspring and contribute to hunted populations (Beringer et al. 1998). However, protection from hunting may not necessarily result in greater survival, and consequently, population growth rates. For example, in unharvested black bear populations near carrying capacity, cub and yearling survival may decrease in association with density dependent natural causes of death, such as starvation, intraspecific competition, and predation (Schwartz et al. 2006, Obbard and Howe 2008, Czetwertynski et al. 2007). These unharvested populations may also have high rates of HBC (Fusaro et al. 2017).

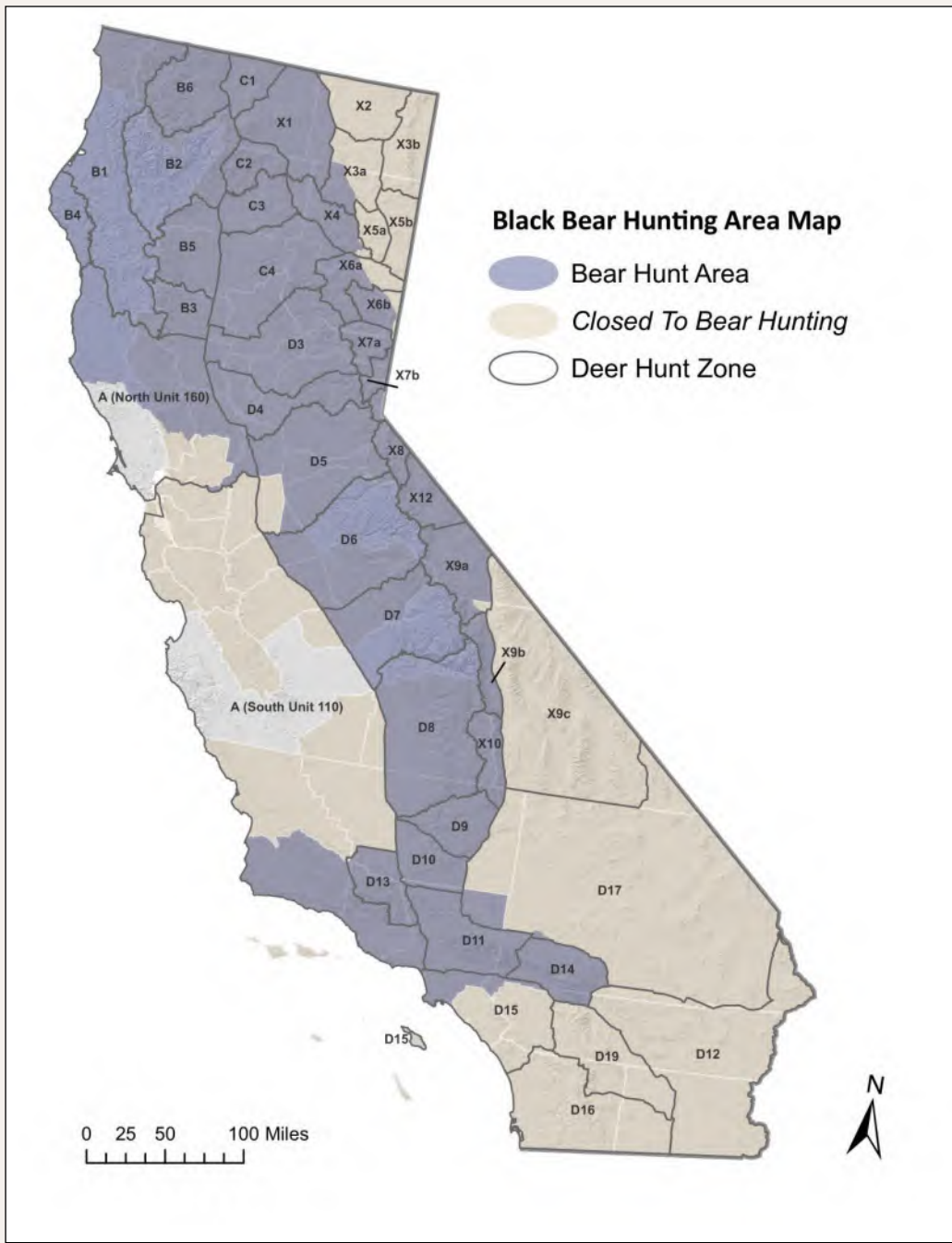


Figure 3. California black bear hunting map. This map shows the existing single black bear hunt zone for California as of April 2025. The black bear hunt zone was developed based on deer hunt zone boundaries. There are resident black bear populations in areas outside the hunt zone.

Regardless of the difference in population dynamics in hunted vs unhunted populations, researchers generally agree that hunting can be either an additive or compensatory form of mortality in black bears depending on the bear’s age and sex class (Gantchoff et al. 2020; Raithel et al., 2017). This, combined with their low reproductive rates, indicates that unless management objectives call for population reduction, harvest should be conservative to prevent overexploitation. Under optimal survival and reproductive rates, the maximum sustainable annual hunting mortality rate for black

bears has been estimated to be as high as 15.9% (Miller 1990), although Pennsylvania, Virginia, and Wisconsin have reported increasing or stable black bear populations with harvest rates >20% (Hristienko and McDonald 2007).

Based on current best estimates of black bear populations statewide and regionally, hunters harvest less than 5% annually of the bears present in any BCR of the state, and under 3% overall (see Section 4.2). This harvest rate is considerably lower than the maximum sustainable harvest rates discussed above and is also lower than recent harvest rates in nearby states such as Oregon (ODFW 2022) and Washington (WDFW 2022). In some BCRs, the actual harvest rate may be as low as 1% of the black bear population. Harvest reduced substantially since the use of dogs for bear hunting was prohibited starting with the 2013 season. Since then, spot-and-stalk (Appendix 1) has been the only method of take for bears in California, with no ability for hunters to use bait, dogs, a second tag, or a spring season. Most harvest occurs in Northern California where bear densities are highest (i.e., Humboldt, Mendocino, Shasta, Siskiyou, and Trinity Counties), which typically accounts for 35-40% of the overall state harvest (CDFW 2021, CDFW 2024b, CDFW unpublished data).

Over the last 10 years (2014-2023), an average of 29,245 black bear tags were sold annually which generated \$13.3 million in revenue, ranging from \$1.0 million to \$1.7 million per year. Additionally, pursuant to the Pittman-Robertson Act of 1937, a federal tax on firearms and ammunitions sales allocates between \$10 and \$30 million per year to wildlife and wildlife habitat conservation in California. CDFW uses a portion of these funds to staff its conservation and hunting programs for black bears and other game species. For example, over the last 10 years (2014-2023), the amount of these state and federal funds that CDFW has used annually for staff, contracts, and procurement of equipment such as GPS collars has varied between \$500,000 and \$4 million. These funds have also been used for a variety of black bear research projects including some of the local density studies listed in Section 4.2 that CDFW is integrating into its updated population monitoring approach. Additionally, a portion of the revenue from bear tags is allocated to law enforcement, administration, regulatory development, and lands management.

The California State Legislature established the Big Game Management Account in 2010 (FGC § 3953) to ensure that funds generated through the purchase of pronghorn, elk, mule deer, wild pig, black bear, and bighorn sheep tags are used for acquiring land, completing projects, implementing programs to benefit these species, expanding public hunting opportunities, and related public outreach, and supporting administrative and enforcement costs. FGC section 3953 also mandates a public advisory committee, as determined by CDFW, that includes “interested non-profit organizations that have goals and objectives related to the management and conservation of big game species” and primarily represent the interests of persons licensed to hunt in California (FGC § 3031). This public advisory committee serves in an advisory capacity to review and provide comments to CDFW on all proposed projects funded through the Big Game Management Account.

Since at least the 19th century, hunting and wildlife conservation organizations have promoted hunter ethics in North America. This includes concepts of fair chase, appreciation of nature, humane killing methods that avoid unnecessary pain and suffering, and avoiding waste of harvested animals (Organ et al. 1998). CDFW promotes ethical hunter behavior through hunter education programs, which hunters are required to take prior to obtaining hunting licenses.

California's first hunter education law was enacted in 1954. Classes are offered throughout the State by more than 1,000 certified volunteer instructors, often CDFW game wardens. Along with curricula focusing on understanding firearm equipment, shooting and hunting skills, and safety, there is additional emphasis on being a responsible and ethical hunter. Students discuss (and perhaps debate) the concept of fair chase, which is defined by law, regional differences in ethical standards (e.g., hunting seasons and methods of take vary by US state) and learn how and why hunting laws are passed. Hunting ethics, which generally covers behavior that has to do with issues of fairness, respect, and responsibility not covered by laws are also discussed. Students learn that not everyone will agree on what is considered ethical hunting and thus it is important for each individual to develop their own personal code of conduct. To aid in this development, discussions might include questions the law does not address such as (1) at what distance should a shot be taken, considering the distance, hunter skill level, and personal convictions regarding whether the shot is a fair one? (2) is shooting birds on the ground, on water, or in trees acceptable? or (3) how much should one share with strangers about the locations of quality hunting locations on social media (i.e., hotspotting)? Collectively, discussions about hunting ethics can be summarized by the statement, "Just because you can, does not mean you should."

Beyond basic hunter education courses, CDFW promotes ethical hunter behavior through advanced hunting clinics that are specific to the game being targeted (e.g., turkey, upland game, waterfowl, and big game). Topics covered in each clinic include type of firearm, ammunition, importance of sighting in the firearm, gauging distance, scouting, tracking, field dressing, shoot-don't shoot scenarios, hunter ethics, landowner-hunter relationships, conservation, and safety. The goal of this series of hunting clinics is to develop ethical, conservation-minded, successful hunters through education, taking the hunter a step beyond the basic hunter education course.

Examples of regulations that have attempted to address ethical hunter behavior with respect to black bears include prohibition of (1) the use of traps (FGC § 3011), (2) the use of bait (CCR Title 14 § 365), and (3) the harvest of cubs and females accompanied by cubs (CCR Title 14 § 365). Many regulations are in place that describe requirements for firearms and archery equipment that promote humane harvest and fair chase (e.g., centerfire rifle cartridges are required, shotguns may hold no more than 3 shells, there are draw weight requirements for bows, etc.) (CCR Title 14 § 353 and 354). Other examples of regulations promoting fair chase include hunting and shooting hours restrictions (CCR Title 14 § 352), prohibition on taking big game with the aid of artificial light (CCR Title 14 § 353), and regulations related to the use of motorized equipment while hunting (FGC § 3003.5, CCR Title 14 § 251). To avoid needless waste, hunters are prohibited from leaving any portion of meat normally eaten by people in the field (FGC § 4304). Because the sale of black bear parts is considered both unethical and unlawful, the possession of >1 black bear gall bladder is considered "prima facie

evidence that the bear gall bladders are possessed for sale” (FGC § 4758). To address issues related to poaching, unlawful sale of black bear parts, and other potential threats to black bear populations, CDFW’s Law Enforcement Division (LED) has a confidential witness program called CALTIP which encourages the public to provide CDFW with factual information leading to the arrest of poachers. CDFW’s Black Bear Program will continue to work with LED to combat black bear poaching and assess how it influences the long-term conservation and management of the species in California.

Cultural, societal, and demographic changes have resulted in a declining participation in hunting and fishing in California since the 1970s. Recognizing the importance of sustaining interest in the hunting tradition, CDFW began state-wide participation in the federal Recruitment, Retention, and Reactivation (R3) program in 2017, with the aim of increasing statewide hunting and fishing participation by collaborating with diverse stakeholders to transform barriers into opportunities (CDFW 2019). In addition, the opportunity to purchase discounted Junior Resident Bear Tags beginning in 2020 appears to have contributed to increased hunter retention (CDFW unpublished data). Groups cooperating with CDFW in this program include Tribes, non-governmental organizations, clubs, media, industry, educators, and members of the public. An important component of the R3 program is to address barriers to participation, focusing beyond traditional hunter education and community outreach efforts that have existed for decades, by becoming socially relevant and creating spaces where both traditional hunting and fishing identities are celebrated, and new identities, inclusiveness, and difference are embraced. CDFW’s Black Bear Program is working with the R3 program to provide additional outreach and collaboration efforts with hunting and wildlife conservation organizations on black bear conservation and management.

Currently, California has the largest estimate black bear population size in the contiguous United States and one of the lowest harvest rates among the 34 U.S. states with regulated black bear hunting (current as of April 2025; CDFW unpublished data, pers. comm.). However, it is important to note that not all states (or jurisdictions outside the United States) use the same method to estimate black bear population size (CDFW unpublished data). While California’s black bear harvest has averaged 1,219 over the past 5 years, the harvest rate is only 1.7%-2.5% due to the state’s large black bear population size (Table 3). Among the 34 U.S. states with regulated black bear hunting, 26 have an annual bag limit of 1, one has an annual bag limit of 2, one has an annual bag limit of 3, and six have an annual bag limit that varies by specific hunt zone, license type, or other factors. In terms of bait, 21 do not allow the use of bait for black bear hunting, 10 allow the use of bait for black bear hunting, and three allow or disallow the use of bait for black bear hunting based on specific hunt zone, license type, or other factors. 27 states do not have a spring black bear season, six have a spring black bear season, and one has a spring black bear season based on specific hunt zone, license type, or other factors. 18 states do not allow the use of dogs for black bear hunting, 12 allow the use of dogs for black bear hunting, and four allow the use of dogs for black bear hunting based on specific hunt zone, license type, or other factors. All 34 states have an archery season for black bear hunting and/or allow archery equipment for hunting black bears. Only one state allows trapping of black bears for hunting, specific only to certain zones. Finally, 10 states do not require meat retrieval for black bears, 22 do, and two do based on specific hunt zone, license type, or other factors.

3.7 VIEWING

Black bear viewing has long been a popular activity with visitors to National Parks in California, such as Yosemite and Sequoia and Kings Canyon. As described by Graber and White (1983) in a study of black bear food habits in Yosemite, “The sight or sound of a 100 to 200 kg beast poking around one’s camp in the gloom of night has provided a thrill tinged with varying degrees of terror to generations of tourists.” Black bear viewing has been associated with terms such as ecotourism or sustainable tourism, which is often considered an important way to increase tourism through encouraging the public to visit local environments and natural surroundings with a focus on environmental education and ecological conservation (Stronza et al. 2019, Streimikiene et al. 2021). Most black bear viewing in California likely occurs in largely undeveloped National Parks, but some semi-urban areas such as the Lake Tahoe Basin and Mammoth Lakes, are popular destinations for black bear viewing as well (Klip 2012). Wildlife (including black bear) viewing can provide substantial economic benefits to National Parks and other areas with charismatic species and accessible terrain (Gunther et al. 2018). In addition to providing economic benefits, black bear viewing has also been positively associated with educational and psychological benefits (Curtin 2013, Siemer et al. 2023).

In contrast to hunting, black bear viewing is considered a non-consumptive activity. However, as with hunting, black bear viewing can still have negative consequences for both black bears and people if not managed appropriately. Black bears inhabiting areas popular for black bear viewing have frequent benign encounters with people, which can cause them to become habituated to human presence and show no overt reaction to people (Penteriani et al. 2017). Habituated black bears are often a significant management concern because they are at an increased risk of becoming food-conditioned, either through being directly fed by people or by finding human food themselves (Hopkins et al. 2010). While food-conditioning is common both inside and outside of protected areas, habituation is probably more common in parks and other areas where hunting (i.e., a potential form of negative conditioning) is restricted (McCullough 1982).

3.8 BLACK BEAR INTERACTIONS WITH OTHER WILDLIFE

Black bears are important predators of neonate ungulates and can have significant impacts on ungulate population dynamics (Linnell et al. 1995, Bowyer et al. 1998, Zager and Beecham 2006; Popp et al. 2018). Within California, Monteith et al. (2014) found neonate mule deer (*Odocoileus hemionus*) born west of the Sierra Crest, where black bear densities are higher than east of the Sierra Crest, were >6 times more likely to die of black bear predation than any other cause. High rates of black bear predation were thought to limit deer abundance in this area by causing a reduction in the proportion of deer that migrate to summer range, as deer trade off obtaining superior nutritional benefits to avoid predation (Monteith et al. 2014). Black bear predation is also a common cause of mortality for black-tailed deer (*Odocoileus hemionus columbianus*) fawns in the Mendocino National Forest (Forrester and Wittmer, 2019, Wittmer et al. 2014). The conservation, restoration, maintenance, and utilization of California’s wild deer populations is a policy of the State Legislature (FGC § 450).

Within the Mendocino National Forest, black bears frequently displaced mountain lions from their kills, a behavior called kleptoparasitism. Elbroch et al. (2015) found black bears at 77% of

mountain lion kills, and black bears displaced mountain lions from them 72% of the time. Black bear kleptoparasitism caused mountain lions to increase their kill rates substantially to recoup energetic losses to black bears (Elbroch et al. 2015, Allen et al. 2021) and mountain lion ungulate kill rates in this system were the highest reported for the species across their range (Allen et al. 2021, Cristescu et al. 2022). Collectively, high rates of predation on fawns and kleptoparasitism of mountain lion kills by black bears have likely contributed to declining deer population size in this area (Wittmer et al. 2014, Marescot et al. 2015). Coyotes have also been suggested to be significant predators of fawns across different parts of North America (Murphy et al. 2023, Whittaker and Lindzey, 1999) and in California (Furnas et al. 2020).

Black bear interactions with gray wolves (*Canis lupus*) can be lethal or kleptoparasitic. Packs of gray wolves are known to displace black bears from carcasses or predate on black bears themselves (Ballard et al. 2003). In areas without gray wolves, black bears may exhibit a release of predation and/or competition (Frey et al. 2022). In California, these interactions are not yet well understood and impacts on survival and prey selection are yet to be quantified. With gray wolves re-establishing themselves in California, CDFW aims to assess black bear-gray wolf interactions to better understand their dynamics ranging from interspecific predation to kleptoparasitism and scavenging.

In addition, black bears are also potential predators of desert tortoises (*Gopherus agassizii*) (Lovich et al. 2014), which are listed as threatened under CESA. While even a single black bear could have negative effects on small populations, such interactions are likely extremely rare because black bears and desert tortoises have very different habitat preferences.

More indirectly, black bears interact with other wildlife by dispersing seeds that they consume. Black bears often swallow fruits whole, and the seeds remain intact once excreted. Given their large home ranges, black bears can be even more effective than birds in seed dispersal (Harrer and Levi 2018), and the movement of seeds contributes to the maintenance of food and cover for many wildlife species. Some plant species even germinate better after being digested and deposited in black bear scats than if seeds do not go through this process (Rogers and Applegate 1983, Auger et al. 2002). Secondary seed dispersers, such as small mammals, can become involved in multiple ways. Small mammals can experience nutritional benefits by obtaining concentrated food sources from deposited scats. Black bear scats can contain thousands of seeds containing enough energy to meet the daily calorie requirements of >90 mice (Shakeri et al. 2018). Additionally, while long-distance seed dispersal by black bears is important for plant propagation, some species may not germinate well within scats because of high predation rates, competition, or an inadequate temperature and moisture environment. Small mammals can disperse seeds a second time from black bear scats and then bury them in safer locations, making the combined effect of black bears and small mammals for seed dispersal greater than each species would have alone (Enders and Vander Wall 2011).

3.9 HUMAN-BLACK BEAR CONFLICT

With a population of almost 40 million people, conflicts between people and black bears are common and management of these conflicts is a high priority for CDFW. HBC appears to have been increasing for decades due to increasing spatial overlap between people and black bears (i.e., increased human development and recreation in black bear habitat and expansion of black bear distribution). The vast majority of HBC involves the intersection of black bears and attractants, such as food, garbage, and livestock.

Records of HBC are managed by CDFW staff. More standardized statewide recordkeeping began in 2017, when the existing Wildlife Incident Reporting (WIR) system was expanded so that both CDFW staff and the public can submit reports to it (Fig. 4). CDFW staff respond to the reports.

From 2017-2023, excluding reports of black bear sightings in which no conflict occurred, there were 7,219 HBC reports submitted through the WIR. In descending order of frequency, reports were of depredation and property damage (59%), nuisance behavior (28%), and potential human conflicts (12%). Reports of HBC averaged 1,031/year from 2017-2023. Hotspots of HBC reports included the Lake Tahoe Basin, Pine Mountain Club, and the foothills of the San Gabriel Mountains.

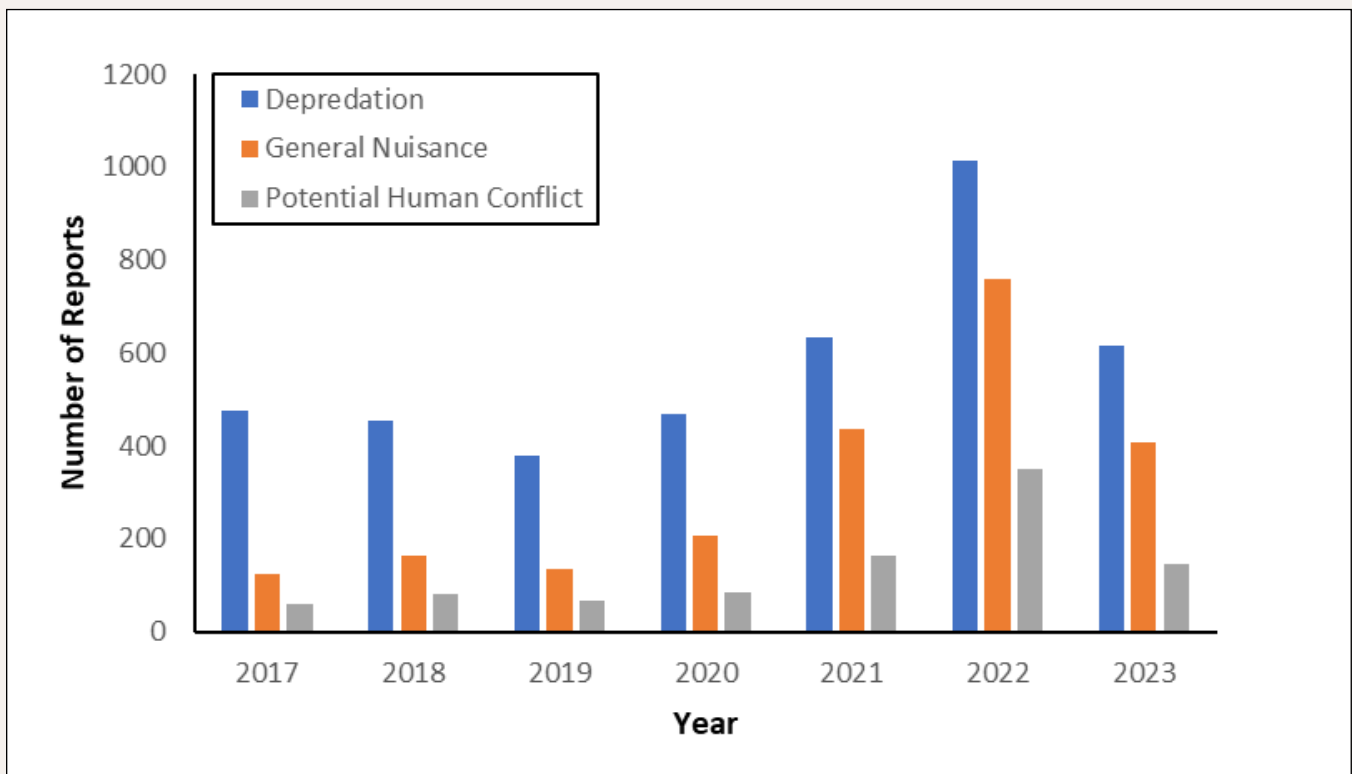


Figure 4. Plot showing the number of human-black bear conflict reports submitted to CDFW's Wildlife Incident Reporting system each year from 2017-2023. Reports are classified by type (Depredation, Nuisance, and Potential Human Conflict). Reports can be submitted by CDFW staff and the general public, and CDFW staff respond to the reports.

While documenting the frequency, location, and severity of HBC is commonly used by management agencies to track trends through time and evaluate the effectiveness of management strategies, caution is warranted in interpreting the data. Trends in reports may not accurately reflect actual trends in HBC. For example, we observed a substantial increase in HBC reports during 2021 and 2022, but the degree to which these increases reflect an actual increase in HBC or an increase in reporting is unclear, but it is likely that an increase in reporting was an important factor during 2022 at least. In February of that year, CDFW began implementing its Black Bear Policy (CDFW 2024a), which increased staff awareness of the WIR system by requiring its use for all incidents requiring a response by CDFW. The expansion of CDFW's Human-Wildlife Conflicts Program including the onboarding of dedicated limited term staff across the state to respond to conflict situations may have also played a role in the observed increase of HBC reports.

Additionally, public reporting behavior can be biased in different ways. Howe et al. (2010) thought that increases in HBC reports in Ontario, Canada were more likely the result of public dissatisfaction with a controversial decision to end the spring black bear hunt, rather than actual increases in HBC. Similarly, Wilbur et al. (2018) found that in Colorado, the people most displeased with black bear management had the highest HBC reporting rates. Other factors that were predictive of a resident's decision to report HBC included their prior experience with black bears and attitudes related to tolerance of black bears. Recognizing these potential biases is important because public attitudes are often geographically clustered, meaning that spatial patterns of HBC reports may not reflect actual HBC (Wilbur et al. 2018).

In addition, environmental variables may influence HBC trends. For example, drought and climate change can amplify human-wildlife conflict (Calhoun et al. in review). CDFW aims to continue to monitor HBC trends in relation to conflict mitigation efforts, public behavior, environmental variables, and other factors.

California is currently a member of BearWise, a program developed and managed by biologists from multiple jurisdictional natural resource agencies (member agencies of the Association of Fish & Wildlife Agencies) to provide consistent information and messaging about coexisting with black bears. It promotes education and preventative action as the most effective tools for reducing HBC. Informational resources on black bear biology, behavior, and conflict prevention can be found on the BearWise website.

CDFW staff provide assistance to landowners experiencing HBC in the form of education and advice on corrective actions to prevent re-occurrence (e.g., hazing; eliminating unnatural food or attractants by removing trash and bear-proofing food storage areas; enclosing animal pens; installing fencing or electric fencing, motion lights and sprinklers, noise machines, guard animals; or securing and blocking access to crawl spaces or other potential denning sites). Depredation permits may also be issued (Fig. 5), typically after other non-lethal management options have been exhausted in accordance with the Black Bear Policy (CDFW 2024a).

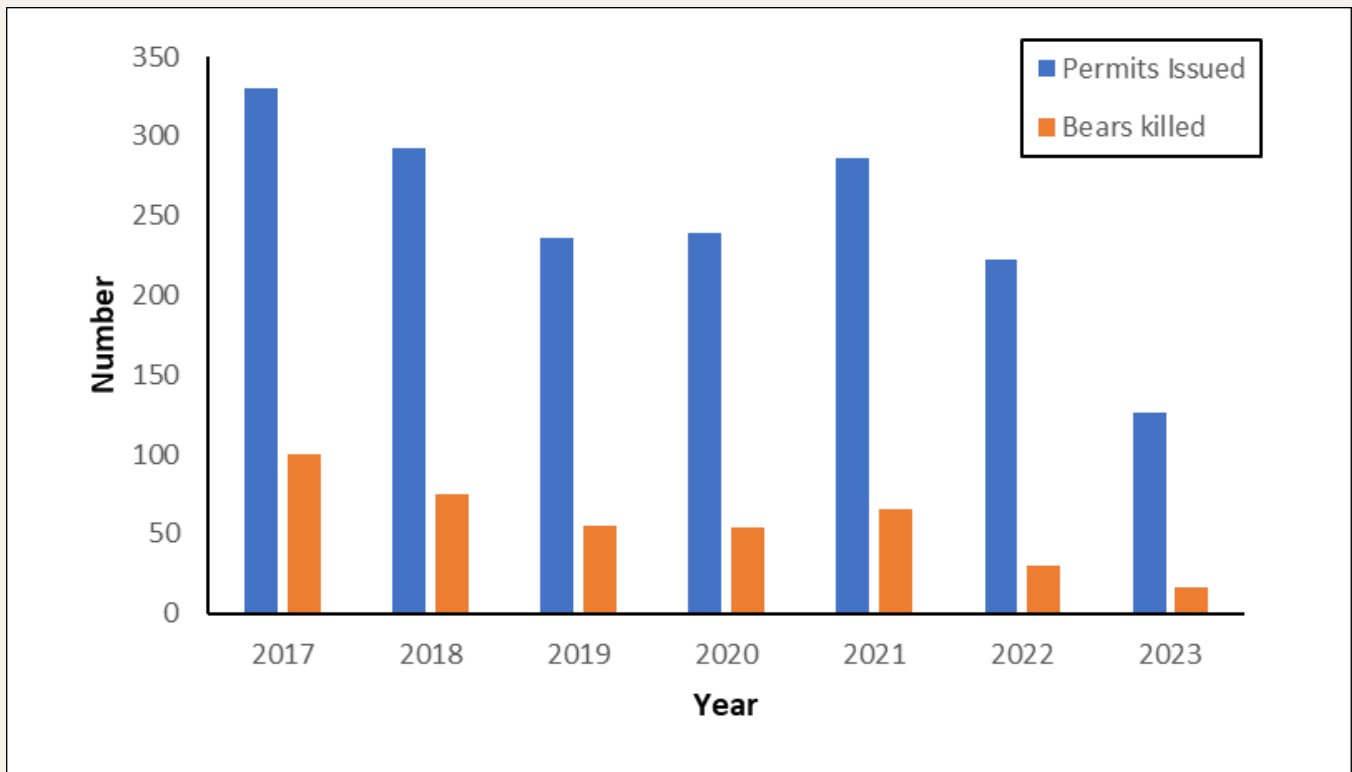


Figure 5. Number of CDFW-issued black bear depredation permits issued and numbers of black bears killed each year from 2017-2023. CDFW’s Black Bear Policy (CDFW 2024a) was implemented in February 2022 and prioritizes non-lethal conflict mitigation before issuing permits for lethal take.

During 2017-2023, there was a declining trend in both the number of black bear depredation permits issued total (lethal and non-lethal permits combined) and the numbers of black bears killed under the permits (Fig. 5). The number of black bears killed under depredation permits has decreased annually from 100 in 2017 to 16 in 2023. Moreover, there has also been an annual increase in the percentage of permits issued that do not result in black bears being killed, from 69.7% in 2017 to 87.3% in 2023. Though these trends may partly reflect changes in human attitudes toward black bears, there was also a significant policy shift in 2022 that is likely influencing recent patterns in depredation permit issuance and outcomes. CDFW’s Black bear Policy (CDFW 2024a) prioritizes non-lethal conflict mitigation measures before issuing permits for lethal take when possible. Permits for hazing black bears have been issued, although these are still classified as depredation permits.

Key predictors of HBC include the availability of both natural foods and anthropogenic foods, proximity of black bear habitat to humans, and black bear abundance and density (Garshelis et al. 2020a). CDFW does not support diversionary feeding practices, and modifying the availability of natural foods is generally infeasible because periods of scarcity are driven by uncontrollable weather events such as drought, wildfires, late spring frosts, etc. However, maintaining a diversity of habitat types through prescribed fire and other silvicultural practices may be beneficial (Weaver 2000).

Hunting black bears at a rate high enough to reduce their growth rates and abundance across a large spatial scale can be effective for reducing HBC (Garshelis et al. 2020a). Spring hunting seasons in particular have been highlighted as potentially providing mechanisms to reduce HBC (Hristienko and McDonald 2007) and may have relatively minor effects on population dynamics given that spring harvest is generally very male-biased (Hristienko et al. 2004). Whether hunting would be an effective mechanism to reduce HBC in California remains unclear, however, given that harvest rates over the past decade have been very low (e.g., less than 3% annually of the statewide population) despite an increase in tag sales (CDFW 2024b). There is also substantial public opposition to increasing black bear harvest to a rate that would be effective in controlling populations (CDFW 2022b). It should be noted, however, that the framing and positioning of questions related to hunting (i.e., whether the question specifies that hunting is regulated and used for meat) may strongly affect public acceptance (Duda and Nobile 2010). Regardless, encouraging the public to minimize black bear access to human foods has been the primary tool used to manage HBC recently, in conjunction with non-lethal methods designed to temporarily remove animals from conflict situations (e.g., hazing), and targeted lethal removal of individuals involved in conflicts by CDFW or through the issuance of depredation permits. CDFW's Black Bear Policy (CDFW 2024a) governs CDFW's response to HBC.

Reducing black bear access to human food can be effective for reducing HBC (Johnson et al. 2018), but black bear resistant containers and associated infrastructure are often cost-prohibitive for individuals and municipalities alike (McCarthy and Seavoy 1994). Even when present, black bear resistant containers are often not used correctly (Lewis et al. 2015). Therefore, planning and coordination at local and state levels will be critical for reducing HBC linked to anthropogenic food sources. Research from North America suggests that availability of anthropogenic food sources may increase bear reproductive and recruitment rates, thereby contributing to increased bear population density on the wider landscape (McLean and Pelton 1990, Gould et al. 2021). Alternatively, there is also evidence that low survival rates in urban environments due to HBC outweigh any increases in fecundity and lead to an "ecological trap" in which wildland bears disperse into urban environments and reduce overall bear density through source-sink dynamics (Beckmann and Lackey 2008, Baruch-Mordo et al. 2014). This information suggests that reducing access to anthropogenic food sources may reduce both HBC and local black bear densities by reducing either recruitment or immigration rates. Reducing black bear access to anthropogenic food also supports human safety (Herrero et al. 2011). Food-conditioned black bears can be potentially dangerous to humans and domestic animals. The first-ever reported human fatality caused by a black bear in California occurred in 2023 in Downieville, Sierra County.

Black bears can have large home ranges and often travel long distances to locate seasonal food sources. Consequently, they frequently cross roads where they are susceptible to vehicle collisions. An average of 111 black bears were reported killed on California roads annually during 2016-2020 (University of California 2021). While reporting rates of black bear-vehicle collisions are probably higher than they are for species that are more commonly killed on roads, such as birds and small mammals (Paul et al. 2014) and black bear carcasses are more likely to be detected by highway workers, it is unknown how these incidental reports compare to the true number of black bears

killed, which is likely higher, as there is no formal reporting structure to document black bear-vehicle collisions. In addition, age and sex information are generally not collected from road-killed black bears, which further limits the ability of these data for informing the impacts of vehicle collisions on black bear populations. CDFW's Black Bear Program is looking into ways to opportunistically collect and include these data in its population monitoring framework. At a population-level scale, vehicle collisions have not been reported to be influential in population dynamics, but at local scales vehicle collisions can have pronounced effects (Brandenburg 1995, Laufenberg et al. 2018).

While further study of the impacts that vehicle collisions have on black bear populations may be warranted, black bear-vehicle collisions are a management concern nonetheless for several reasons. First, they pose a substantial safety risk to people. Between 4-10% of vehicle collisions with large mammals result in human injury (US Department of Transportation 2008). Second, they are financially costly. The average cost of a collision with a deer, including vehicle repair, medical bills, towing and law enforcement, monetary value of the animal and carcass disposal is estimated at \$6,700 (US Department of Transportation 2008). Finally, black bear-vehicle collisions generate concern about animal welfare (see Section 5.4), particularly when cubs become orphaned or when animals experience prolonged suffering prior to death or severe injury without death.

3.10 CLIMATE CHANGE, WILDFIRE, DROUGHT, AND LAND USE

The global climate is changing at a faster pace than previously anticipated (Smith et al. 2015, Xu et al. 2018) and scientists expect cumulatively deleterious impacts to wildlife (Pimm et al. 2014, Ceballos et al. 2017, Spooner et al. 2018). In California, climate change is expected to 1) alter vegetation composition of wildlife habitats forcing species to either shift their geographical ranges or otherwise adapt, 2) increase wildfire extent and severity, 3) increase variation in precipitation leading to both extended droughts and periods of severe flooding, 4) create phenological mismatches between wildlife species and their habitat and foraging resources, and 5) exacerbate land use impacts and other anthropogenic stressors on biodiversity (Parmesan 2007, Mann and Gleick 2015, Williams et al. 2019, Huang and Swain 2022).

Wildfires and droughts can impact black bear habitat by altering vegetation structure and/or composition, which black bears rely on for cover, denning, and food. In the short-term following wildfires, black bears may continue to use all areas of a burn, even those burned with high severity (Crabb et al. 2022). Conversely, black bears may avoid burned areas until vegetation recovery occurs (Bard and Cain 2020), and reduced food availability may result in low cub recruitment (Cunningham and Ballard 2004). Either way, wildfires with substantial areas of high burn severity have not been found to be catastrophic for black bears (Crabb et al. 2022, Koel et al. 2019). In the long term, low intensity wildfires generally have positive effects and mosaics of burn ages and intensities produce diverse habitat conditions that provide black bears with necessary cover and forage resources (Young and Beecham 1986, Stratman and Pelton 2007, Crabb et al. 2022).

In particular, low severity fire can diversify food resources for omnivorous mammals such as black bears and thereby possibly mitigate HBC (Weaver 2000, Crabb et al. 2022). These fires can also create

logs and other structural features for denning while maintaining forest cover. Overall, research from California shows that low severity burning at an average annual rate of 2% across forested landscapes benefits black bears and other species (Furnas et al. 2022). The current rate of low severity fire is much lower than this threshold, and it is also lower compared to the mixed severity fire regime that shaped the structure and heterogeneity of California forest over millennia prior to climate change, fire suppression, and other anthropogenic impacts (Taylor and Skinner 2003, Millar et al. 2007). Nonetheless, even in an era of increasing megafires, there is still more low severity than high severity fire in California forests (Fig. 6). As demonstrated by California Native American Tribes and others, prescribed burning can be an effective management tool and surrogate for naturally occurring wildfire that benefits black bears and other wildlife (Connor et al. 2022, Furnas et al. 2022).

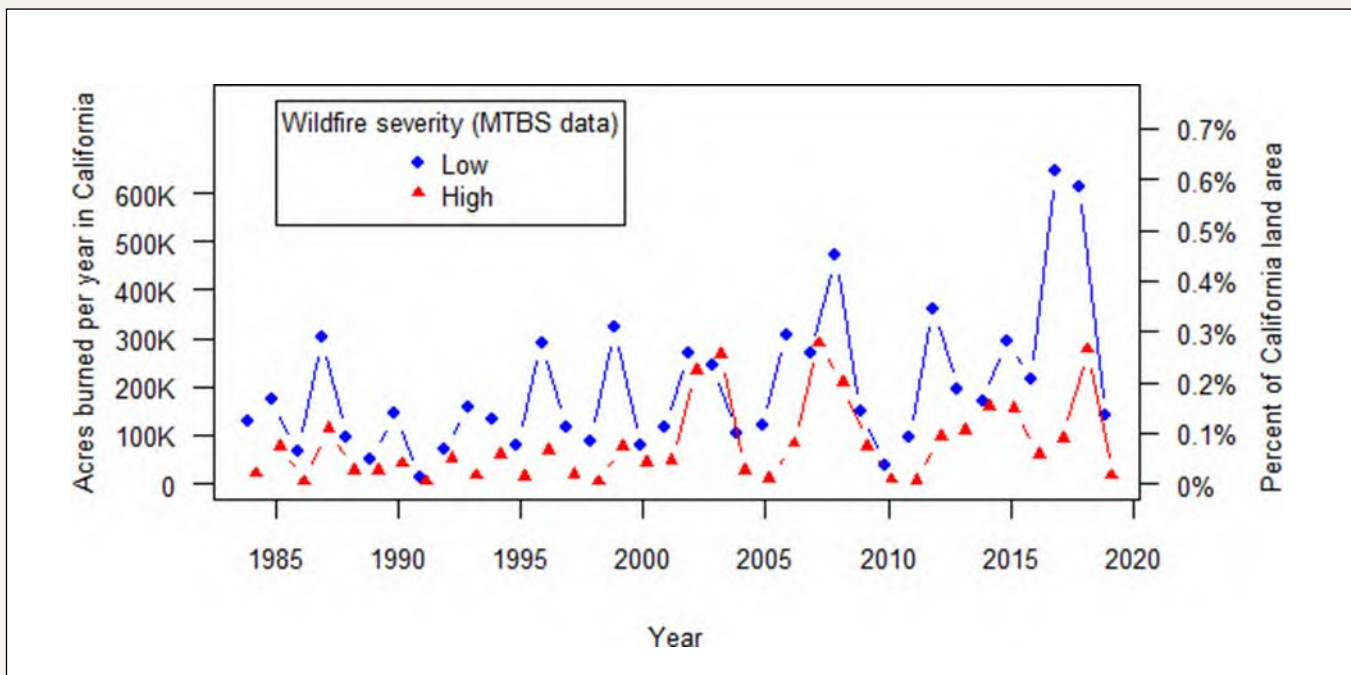


Figure 6. Low and high burn severity amounts in California through time based on analysis of the Monitoring Trends in Burn Severity database (methods described in Eidenshink et al. 2007) from 1984-2019. Wildfire severity is displayed as both acres burned per year and the percent of California’s total land area burned.

Climate change in conjunction with the availability of human food sources is expected to reduce the average duration of bear hibernation thereby extending the active bear season and potentially exacerbating HBC in some places (Johnson et al. 2017). In systems with little human development, natural food shortages, often associated with droughts, may cause declines in reproduction (Rogers 1976, Elowe and Dodge 1989) but generally do not impact adult survival (Kasbohm et al. 1996, Clark et al. 2005). In these circumstances, food shortages have limited effects on black bear populations (Laufenberg et al. 2018). In developed areas however, natural food shortages may induce black bears to shift their foraging to human foods, increasing their exposure to human-caused mortality (Baruch-Mordo et al. 2014, Laufenberg et al. 2018). For one black bear population near Durango, Colorado, a natural food shortage was associated with the most severe black bear population

decline ever documented over a 1-year period, which was suspected to be the result of much higher-than-normal human-caused mortality rates, primarily vehicle collisions (Laufenberg et al. 2018). Although black bear populations are likely to be resilient to climate change due to their remarkable adaptability to changing environmental conditions (Garshelis et al. 2020b), they may face declines due to interactions between climate change and forest management-induced food shortages and anthropogenic pressures (Baruch-Mordo et al. 2014, Laufenberg et al. 2018, Rettler et al. 2021).

3.11 TRIBAL AUTHORITY AND PERSPECTIVES

Since time immemorial California has been home to a great diversity of Native American Tribes. Although these Tribes vary considerably in terms of language and culture, they share a strong ecological, cultural, and spiritual connection to the land (Rawls 1984). This includes a long history of using fire and other tools to manage habitats for the plant and wildlife resources which supported Tribal peoples in California (Anderson 2005).

European settlement of California severely impacted Tribal populations, their cultures and livelihoods, and their tenure over the land (Rawls 1984, Starr 2005). Yet, approximately 180 distinct Tribes remain active in the state today. Many are providing leadership in wildlife science, conservation, and management (Matthews et al. 2008, Ramos 2022, Connor et al. 2022). This includes a Tribal management plan for black bears (Higley et al. 2006). Black bears are an especially important animal to many California Tribes to which many people ascribe kinship. For example, an annual ceremonial “bear dance” honoring this bond is still practiced by some Tribes. Based on comments provided at the listening sessions described below, the names for black bear in various California Tribal languages include *Virusur*, *Cher’ere*, *Wah’ima*, and *Sa:ts’* among many others.

In Executive Order B-10-11 and reaffirmed in Executive Order N-15-19, the State of California recognizes the sovereign authority of California Tribes over their ancestral territories and activities. Additional actions by the California Natural Resources Agency (CNRA) to integrate the historical knowledge of Tribes support efforts to further incorporate tribal perspectives in scientific and policy discussions. Further, it is the policy of CDFW to notify, consult, and promote collaboration and co-management with Tribes on proposed activities affecting black bears and other wildlife species (CDFW 2014). In June 2022, CDFW notified all California Tribes of our intention to revise this black bear conservation and management plan and requested their input via consultation. After further notification, two online listening sessions were held with Tribes in May 2023. In total, CDFW received and heard comments, interests, and views pertaining to black bears from nine Tribes, which are summarized below (Table 1). The nine Tribes were the Barbareno/Ventureno Band of Mission Indians, the Hoopa Tribe, the Karuk Tribe, the Morongo Band of Mission Indians, the Pit River Tribe, the Quartz Valley Indian Community, the Resighini Rancheria, the Rincon Band of Luiseño Indians, and the Yurok Tribe.

Table 1. Summary of black bear comments, interests, and views expressed by California Native American Tribes. Comments were received during the Tribal review process from January – March 2024 and during two listening sessions held in May 2023. While this table includes summaries of comments received from California Native American Tribes that provided comments on this Plan, we acknowledge that it may not represent the full breadth of perspectives on black bear conservation and management held by all California Native American Tribes.

SUMMARY OF BLACK BEAR COMMENTS, INTERESTS, AND VIEWS EXPRESSED BY CALIFORNIA NATIVE AMERICAN TRIBES	
1.	California Native American Tribes are diverse, representing a variety of perspectives with respect to black bear conservation and management, however, overall black bears and humans are viewed as intrinsically connected spiritually, culturally, and ecologically.
2.	Tribes expressed concerns about the ecological health of habitats supporting black bears and other species and provided recommendations for using prescribed fire to restore those habitats.
3.	Tribes expressed concerns about the need for improved human infrastructure to enable successful non-lethal responses to human-black bear conflict (HBC). This included discussion of the affordability and availability of secure garbage containers.
4.	Tribes noted the need for clarifying the applicability of Tribal ordinances to non-Tribal persons who hunt on Tribal lands.
5.	Tribes noted a desire to streamline a process facilitating Tribes to recover black bears that are killed in collisions with vehicles. This included discussion that black bears are important culturally and spiritually to many California Native American Tribes.
6.	There is a diversity of views among Tribes pertaining to the ethics of black bear hunting, but sport and subsistence hunting of black bears is not common among California Native American Tribes. There is greater (but not widespread) support for killing black bears, in some circumstances, as part of management to mitigate HBC.
7.	One Tribe expressed concern about bear hunting in southern California mountain ranges that overlap their ancestral territories. They requested that CDFW prohibit hunting in any areas where population density is low.
8.	There is interest in combining CDFW wildlife research activities with Tribal youth environmental education programs.
9.	There is also interest in increased collaboration and co-management regarding conservation and management of black bears and other wildlife species. This included discussion about the value of supporting, sustaining, and expanding the capacity of Tribal wildlife research and management departments, and developing agreements for data sharing. It also included discussion of interest in developing approaches for increasing opportunities for Tribal hunting and subsistence use of game species, but this interest was focused on species other than black bears.
10.	One Tribe expressed concern about CDFW’s Black Bear Policy (CDFW 2024a), the Wildlife Incident Reporting system, and the integrated population model. It also requested that CDFW focus on educating communities on how to avoid conflict with black bears and to encourage biologists to be responsive to rural Californians.

3.12 RULEMAKING PROCESS

The California State Legislature has delegated a variety of powers to the Commission. These powers are delegated within California Statutes that comprise FGC). The FGC establishes the basis of fish, wildlife, and native plant management and protection in California, and can only be established and modified by the State Legislature. The FGC more specifically establishes the Commission's authority in fish and wildlife rules, regulations, and policy making, whereas CDFW is designated as the trustee for fish and wildlife resources. CDFW is charged with implementing and enforcing regulations set forth by the Commission, as well as providing biological data and expertise to inform the Commission's decision-making process. Under administrative law, the CCR codifies general and permanent rules and regulations to be enacted by the agency responsible for implementation. The Commission and CDFW work within CCR Title 14 - Natural Resources. Regulations routinely addressed under CCR Title 14 include general harvest regulations including harvest quota, season dates, and hunt zone boundaries. Management features can be adopted, amended, or repealed via the Administrative Procedures Act (APA) rulemaking process. The APA is a requirement by law that allows the public to participate in the adoption of state regulations to ensure that the regulations proposed are clear, necessary, and legally valid.

CDFW provides recommendations for adopting, amending, or repealing regulations based on inventory and monitoring of resources, as well as both biological and social conditions. To change hunting regulations for any species, an additional parallel document is required through the California Environmental Quality Act (CEQA). CEQA requires all public agencies to evaluate the environmental impacts of projects, including regulation changes which may have potential to significantly affect the environment. CDFW has prepared Environmental Documents for each harvested species, including black bear, on behalf of the Commission. This document serves as a guide for periodic harvest adjustment recommendations within the APA process.

The APA process for enacting new CCR Title 14 regulations generally requires a 12–18-month timeline composed of several public meetings (Table 2). The process generally begins with 2 initial discussion meetings at public meetings of the Wildlife Resources Committee (WRC) which is chaired by one member of the Commission. An initial scoping meeting of the WRC is typically held in May to discuss general rulemaking needs and is followed by a recommendation meeting of the WRC in September to approve or reject moving the rulemaking under consideration forward to present to the Commission. If a rulemaking is approved to move forward by the WRC, the proposed regulation change is presented to the Commission at a public notice hearing in December. A public comment period follows this meeting. In February, a public discussion hearing is held, where the details of the proposed changes are discussed by the Commission and the general public and comments are responded to by CDFW staff. Adoption hearings would then be held in April, where final recommendations are presented by CDFW staff – formed in part by public comments and inquiry and discussion with the Commission. The regulatory framework is a public process that provides multiple opportunities for the public to engage with the Commission and CDFW to manage our shared resources effectively. The Commission has final approval authority to adopt, amend, repeal,

or reject proposals set forth by CDFW or the general public. If a new regulation is approved, CDFW is responsible for implementation. Generally, this occurs in the fall when hunting seasons open.

Table 2. Administrative process and general timeline for adopting California Code of Regulations Title 14 regulations affecting black bear hunting, conservation, and management.

ACTION	GOVERNMENT AUTHORITY	TIMEFRAME
Initial scoping	Wildlife Resources Committee	May, year 1
Recommendation to proceed	Wildlife Resources Committee	September, year 1
Notice hearing	Fish and Game Commission	December, year 1
Public discussion	Fish and Game Commission	February, year 2
Adoption vote	Fish and Game Commission	April, year 2
Implementation	California Department of Fish and Wildlife	June-November, year 2



CHAPTER 4

POPULATION

MONITORING

CHAPTER 4. POPULATION MONITORING

4.1 BEAR CONSERVATION REGIONS

Due to California’s geographical size and ecological diversity, black bear populations throughout the state differ in terms of abundance, density, genetic diversity, disease susceptibility, and interactions with humans. Therefore, CDFW intends to monitor black bear populations separately within nine BCRs representative of these potential differences.

Black bear hunting generally runs concurrent with the deer hunting seasons, and the area open to black bear hunting is largely delineated by deer hunt zones. For these reasons CDFW is adopting BCRs conforming to groups of deer zones (Fig. 7). These BCRs also generally conform to different ecological regions and CDFW administrative regions.

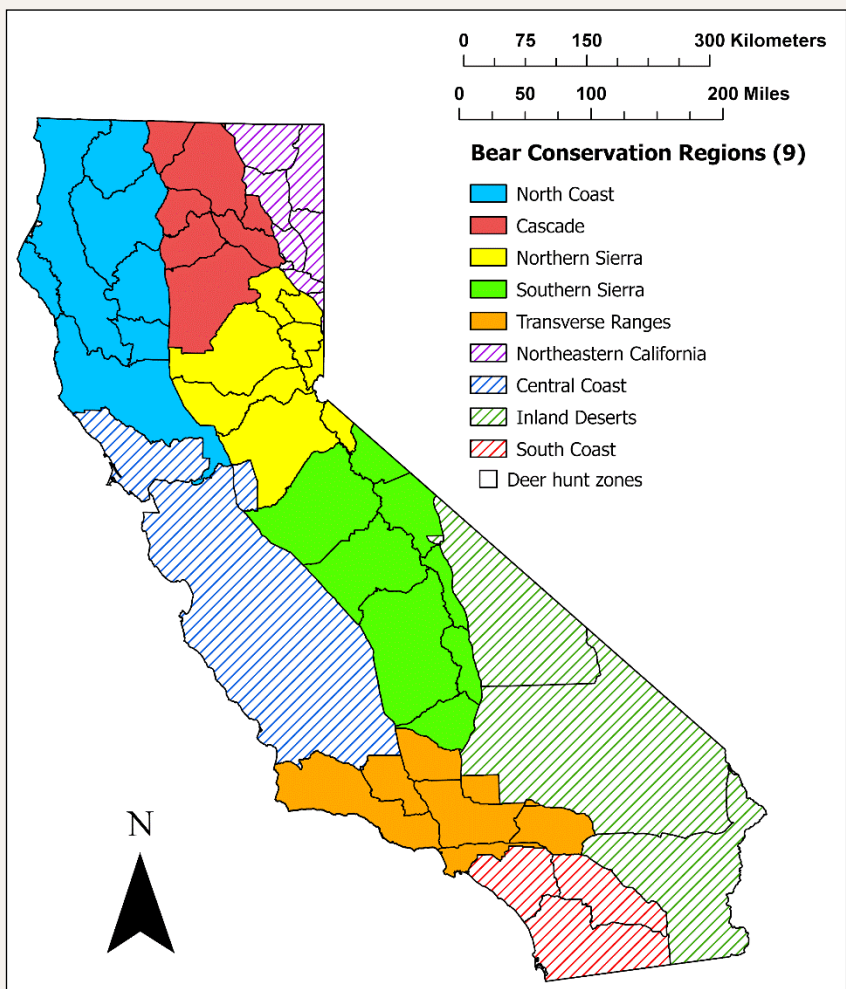


Figure 7. Bear Conservation Regions (BCRs). Boundaries are based on the existing black bear hunt zone map, which in turn is based on existing deer hunt zone boundaries. BCRs were delineated based on California’s diverse biogeography and ecoregions. Both hunt and no-hunt BCRs are displayed, as well as deer hunt zone boundaries within which population trends would be monitored and harvest limits set. Solid patterns represent BCRs where hunting currently occurs, and dashed patterns represent BCRs where there is currently no hunting.

The 56,931-km² **North Coast** BCR lies mostly in CDFW Region 1, overlaps the Northern California Coastal Ranges and Klamath Mountains ecoregions, and includes deer zones B1—B6, and portions of the A North Unit.

The 29,640-km² **Cascade** BCR lies mostly in CDFW Region 1, overlaps the Southern Cascades ecoregion, and includes deer zones C1—C4, X1, X4, and portions of X3a.

The 34,463-km² **Northern Sierra** BCR lies mostly in CDFW Region 2, overlaps the Sierra Nevada ecoregion, and includes deer zones D3—D5, X7a, X7b, X8, and portions of X6a and X6b.

The 53,437-km² **Southern Sierra** BCR lies mostly in CDFW Regions 4 and 6, overlaps the Sierra Nevada ecoregion, and includes deer zones D6—D9, X9a, X9b, X10, and X12.

The 32,046-km² **Transverse Ranges** BCR lies mostly in CDFW Regions 5 and 6, overlaps the Transverse Ranges ecoregion, and includes deer zones D10, D11, D13, D14, and portions of D15, D17, and the A South Unit.

The 16,165-km² **Northeastern California** BCR lies entirely in CDFW Region 1, overlaps the Modoc Plateau ecoregion, and includes deer zones X2, portions of X3a, X3b, portions of X4, X5a, X5b, and portions of X6a and X6b.

The 68,284-km² **Central Coast** BCR lies mostly in CDFW Regions 3 and 4, overlaps the Central California Coast and Great Valley ecoregions, and includes portions of the A North Unit and A South Unit.

The 93,355-km² **Inland Deserts** BCR lies mostly in CDFW Region 6, overlaps the Mojave Desert and Sonoran Desert ecoregions, and includes deer zones D12, D17, and X9c.

The 24,746-km² **South Coast** BCR lies in CDFW Regions 5 and 6, overlaps the Southern California Coast and Southern California Mountains and Valleys ecoregions, and includes deer zones D16 and D19 and portions of D15.

Although CDFW intends to monitor black bear populations at the BCR scale, regulatory changes approved by the Commission would be required to modify the statewide annual harvest limit (e.g., currently 1,700 black bears) so that separate limits apply within each BCR. CDFW also plans to monitor black bear populations in unharvested areas to inform conservation and management in these areas and to understand any potential range expansion.

4.2 INTEGRATED POPULATION MODEL

Black bear age and sex structure (i.e., percent of black bears by each year of age for each sex, Fig. 8) is a key source of data that CDFW uses to monitor black bear populations in California. CDFW can use this information to evaluate the effects of hunting and other factors on the statewide black bear population. For over two decades, hunters have provided tooth samples from harvested black bears, a critical data source for CDFW's Black Bear Program. CDFW sends these teeth to a laboratory that counts annual rings visible in each tooth to determine the age of each harvested bear. For many years, CDFW used these data in a mathematical model that estimated the total statewide black bear population size each year by comparing the age structures of males and females to the total number of harvested black bears (Fraser 1976). As males are more frequently harvested than females, there is a greater proportion of them in the younger age classes of harvested bears. This effect dissipates with older bears, so the sex ratio approaches 1:1 at a given age (Fig. 8). The age at which this occurs was then used as a parameter for estimating the total population size. However, a key accuracy assumption of the model was violated when hunter effort and success changed in 2013, when the use of dogs to hunt black bears was discontinued (Harris and Metzgar 1987, CDFW 2022b).

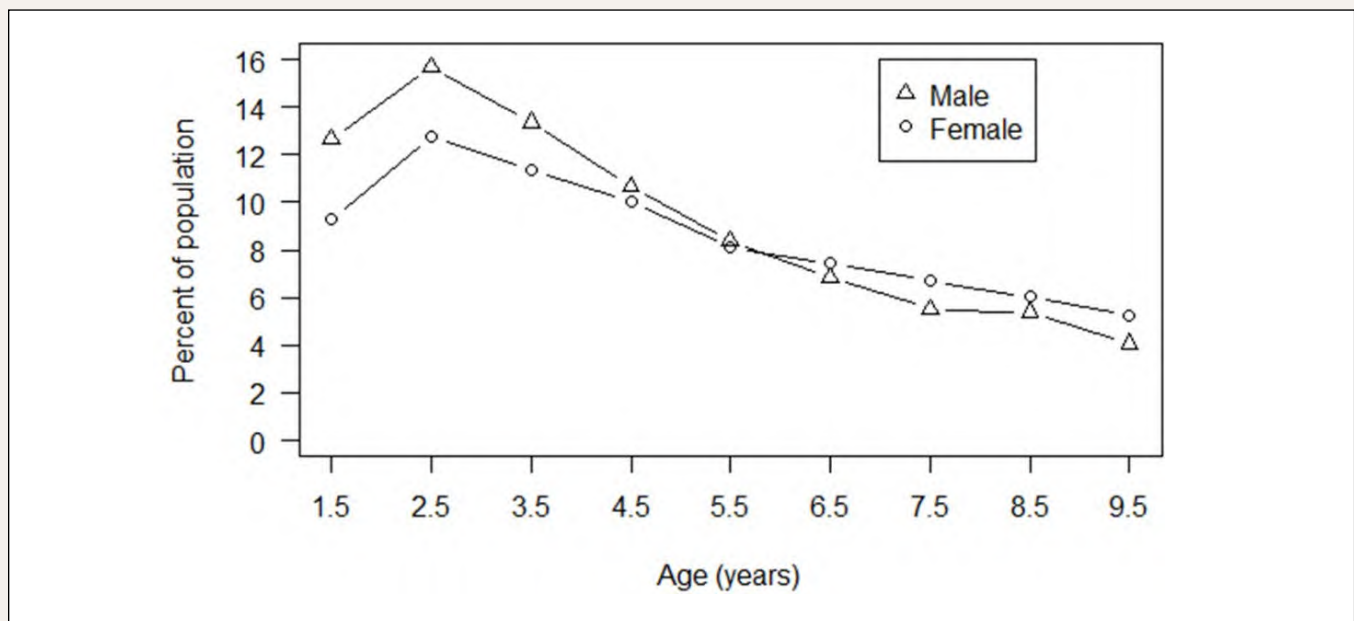


Figure 8. An example of age and sex structure data for black bears in California. Hunters provide a premolar tooth from each harvested bear ($n \sim 1,300$ each year) from which the age can be estimated by a laboratory by counting cementum annuli. Males (boars) generally comprise the majority ($\sim 60\%$) of annual take.

Integrated population models (IPMs) are powerful tools to efficiently combine different types of available information (e.g., population surveys, age and sex structure, survival, and reproductive rates) to better monitor population sizes and trends and understand the drivers of trends (Arnold et al. 2018, Zipkin and Saunders 2018). Recent advances in computing speed and Bayesian algorithms to solve complex problems have led to the increased application of IPMs and other types of advanced hierarchical models in wildlife ecology (Schaub and Kery 2012, Kery and Royle 2021). In

particular, Bayesian models facilitate incorporating multiple sources of data including through the use of “informative priors”. Put in other words, final estimates combine inferences from the data being modeled and prior information from other studies. In 2022, CDFW began the process of adapting a black bear IPM originally developed in Wisconsin for use in California (Allen et al. 2018a). The new IPM for California black bears combines the age and sex structure information from tooth sampling with additional information on vital rates (e.g., reproduction and survival) and other factors (e.g., non-reporting rate for hunter harvest) (Connor et al. in review). For the time being, most of the information included in the IPM on vital rates comes from published studies throughout North America. It includes some California information on hunting season adult survival which is expected to be higher in California than in Wisconsin where the IPM was first applied. The California black bear IPM also includes local information on the harvest non-reporting rate based on available data for deer. CDFW does not currently have the non-reporting rate for black bears but will be prioritizing the collection of those data. In the meantime, CDFW is using the deer non-reporting rate due to the substantial overlap between California’s deer and black bear hunters.

CDFW also used information from local black bear density studies and species distribution modeling from camera traps to calculate informative priors on the initial value of black bear population size in each BCR (Fig. 9, Fig. 10). The IPM then applies an algorithm called Markov chain Monte Carlo (MCMC) to compute statistical probabilities which it uses to estimate the most likely final values (i.e., posterior distributions) of the population sizes and other model parameters, given the totality of information considered in the model. To get these priors, CDFW used a special type of occupancy model (Royle and Nichols 2003) to estimate how relative abundance varies spatially with covariates (e.g., elevation and forest cover) across the state at thousands of camera trap locations. CDFW then calibrated the camera modeling against black bear densities independently estimated from 11 local studies that used various methods ranging from counts of GPS collared bears to spatial capture-recapture modeling (Arias 2007, Matthews et al. 2008, Fusaro et al. 2017, Owen-Ramos et al. 2022, Peterson 2023, CDFW unpublished data).

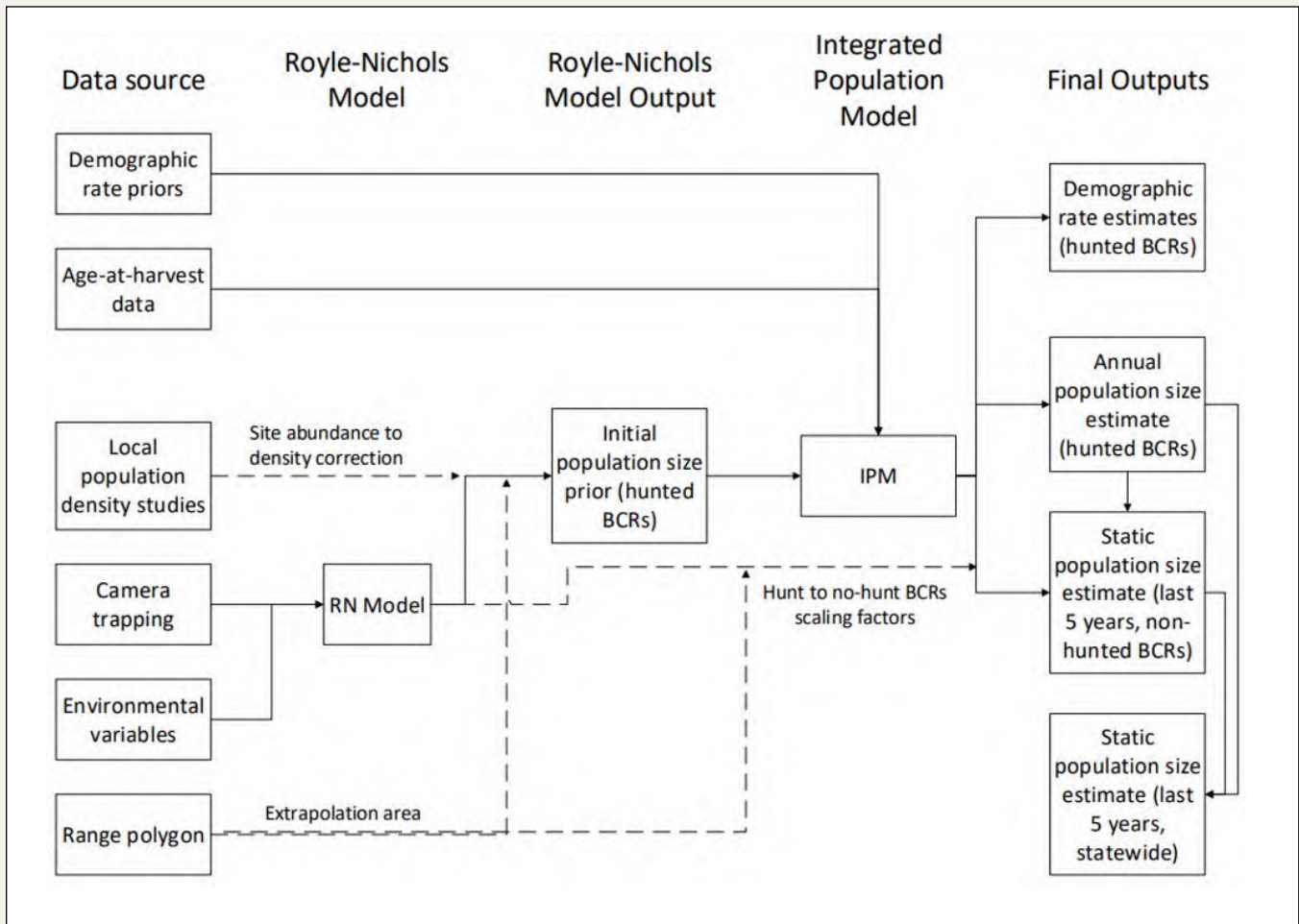


Figure 9. A flowchart showing the components and framework of the integrated population model (IPM). Solid lines indicate direct inputs or outputs. Dashed lines indicate modifying or scaling effects. RN refers to the Royle-Nichols occupancy models that are used to predict black bear abundance using camera trap data. IPM refers to the integrated population model which estimates black bear population size and structure. This flowchart depicts the current IPM structure and outputs, but these aspects will be iteratively refined and improved by CDFW's Black Bear Program.

Using the IPM with currently available data, CDFW estimates a total statewide black bear population (5-year average, 2020–2024) of 59,851 (90% credible interval (CI): 49,412–70,611, Table 3). It is expected that the accuracy and precision of population estimates will improve further as CDFW begins to regularly collect local information on vital rates. In addition, CDFW will be able to better understand the drivers of population dynamics and interactions between black bears and ecological variables as additional data are collected. Nevertheless, CDFW considers the current estimate reliable because it is based on multiple sources of information and a modeling framework that has been shown to be robust to inaccuracies about vital rates (Allen et al. 2018a).

Table 3. Average estimated black bear population sizes in nine Bear Conservation Regions (BCRs) across California between 2020-2024. Hunter harvest numbers and estimated harvest rates are also presented for hunt BCRs. 90% CI refers to the 90% credible interval.

BEAR CONSERVATION REGION		POPULATION ESTIMATE (90% CI)	AVERAGE ANNUAL HARVEST	AVERAGE ANNUAL HARVEST RATE
HUNT	North Coast	22,555 (16,845–28,196)	442	1.6%–2.6%
	Cascade	13,147 (9,735–16,524)	189	1.1%–1.9%
	Northern Sierra	10,076 (7,592–12,657)	265	2.1%–3.5%
	Southern Sierra	7,860 (6,032–9,649)	268	2.8%–4.4%
	Transverse Ranges	1,645 (1,142–2,143)	55	2.6%–4.8%
NO-HUNT*	Northeastern California	2,225 (1,223–3,192)	N/A	N/A
	Central Coast	1,631 (1,076–2,184)	N/A	N/A
	Inland Deserts	230 (122–337)	N/A	N/A
	South Coast	481 (291–666)	N/A	N/A
Statewide		59,851 (49,412–70,611)	1,219	1.7%–2.5%

*Population estimates in no-hunt BCRs are currently based on spatial predictions from the camera trap-based Royle-Nichols occupancy model (Royle and Nichols 2003) scaled to results from an age-at-harvest-based integrated population model. Thus, estimates in no-hunt BCRs should be interpreted cautiously.

The IPM also provides strong preliminary evidence that black bear populations have been stable in California over the past decade (Fig. 10). One caveat is that the current modeling approach allows CDFW to extrapolate black bear population size in the no-hunt BCRs using occupancy modeling of camera trap surveys, but the lack of age distribution data outside of hunted regions currently precludes evaluation of population trend in the no-hunt BCRs. This issue could be rectified through the analysis of additional camera trap data and expansion of the age distribution and vital rates monitoring from areas where no hunting currently occurs.

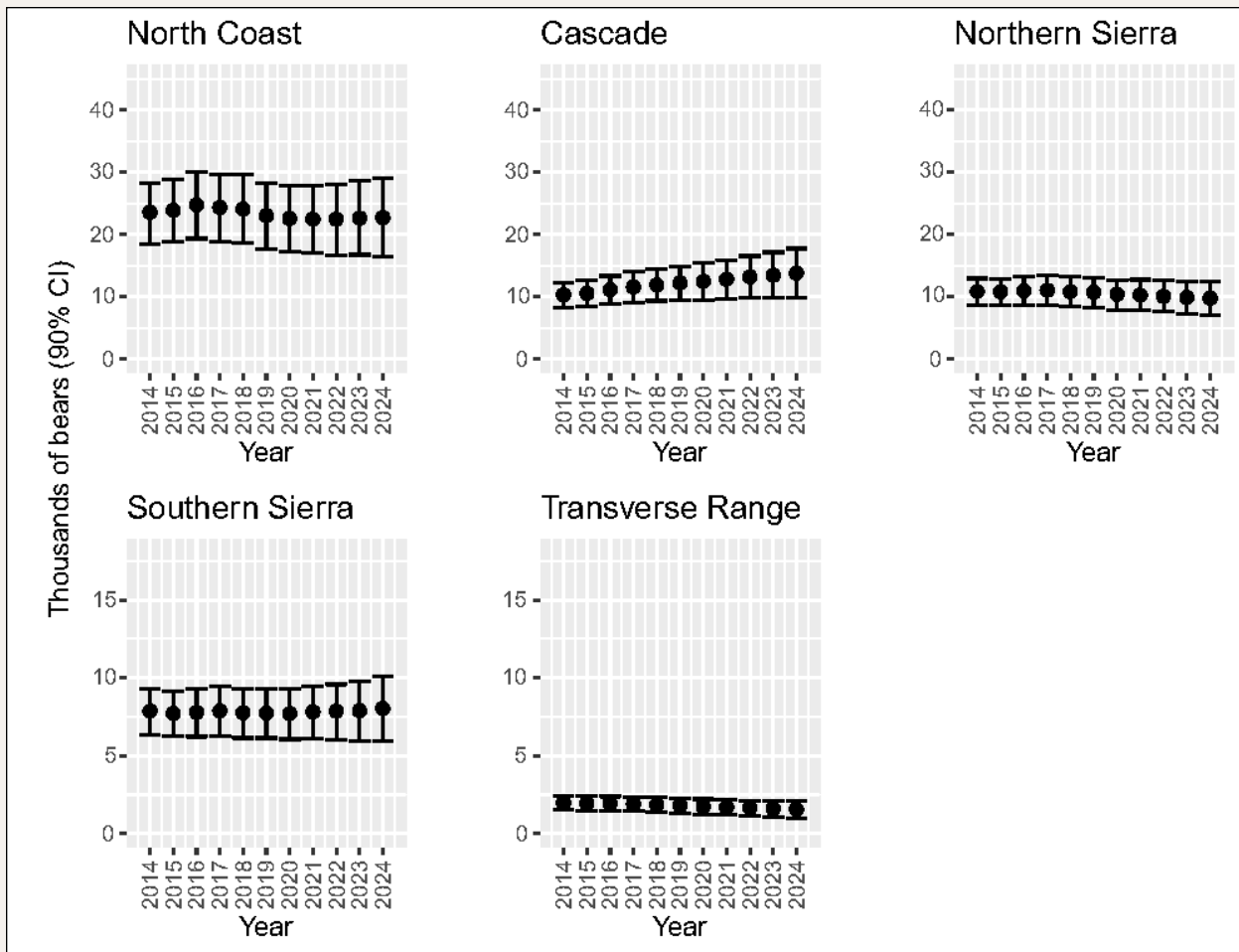


Figure 10. Preliminary estimated population trends in all California Bear Conservation Regions where hunting occurs based on the integrated population model (IPM) each year from 2014-2024. Trends will become more accurate and precise as additional vital rates data are collected from the field and integrated into the IPM.

In addition, CDFW fit a second statewide IPM to age-at-harvest data dating back to 1990 to evaluate evidence of longer-term population trends. Because spatial information on harvest was not available before 2013, the data needed were grouped and the model was fit statewide. Additionally, because there were minimal supplementary data and studies to inform population size in 1990, a broad, uninformative prior between 0 and 100,000 was used for initial population size. There was large uncertainty and limited chain convergence in the population size estimates in the early years of the IPM, and no statistically significant evidence of any trend (negative or positive) in black bear population size over the study period. There was also no evidence of a detectable temporal trend in the percent females harvested and median age of harvested females, the raw harvest metrics previously used as management thresholds. That said, given the relatively low proportion of black bears harvested in California and limited amount of supplemental data and studies before 2013, this estimate of population trend since 1990 should be interpreted with caution.

Regarding the population estimate and associated 90% CI, it is important to note that the population estimate (a point estimate) is a single value that represents a single best estimate of the average

population size over the last five years based on the current data and model. However, because full censuses of wildlife populations are generally infeasible and statistical models that estimate their total size from samples always contain some level of uncertainty, the point estimate is accompanied by a 90% credible interval. This interval represents a range within which the true population size is likely to fall, given the current data and assumptions, with a 90% probability. Essentially, while the point estimate is our best single estimate, the credible interval reflects the relative uncertainty around that estimate and the range within which the actual population size is likely to fall. It is also important to understand that these estimates population size and the associated 90% credible interval are just that – estimates – and as new data, such as vital rates information, additional harvest data, and the effects of environmental variables, are incorporated into the IPM, both the point estimate and the credible interval are likely to shift. This is an expected outcome of CDFW's iteratively improving understanding of black bear populations over time. Changes in estimates or trends should not be a cause for alarm but rather a reflection of the dynamic nature of black bears populations and the increasing precision of the science used to study them. CDFW's focus is on continually refining these estimates to better inform and guide black bear conservation and management into the future.

Based on the age distributions and other sources of data included in the IPM, the model is estimating a hunting season survival rate that is higher and more precise than the prior information CDFW included in the modeling (Fig. 11). The updated posterior estimate makes sense considering that there is less hunting pressure in California than in other regions of North America. The current modeling approach, however, highlights the need for designated local study areas throughout California to monitor black bear vital rates and other information, to complement the age and sex structure data used in the IPM. The locations of these study areas should be chosen to represent the range of black bear habitats across California and within BCRs. Vital rates (metrics of population dynamics such as mortality and recruitment per unit time, Kohyama et al. 2018) within study areas could be monitored through a combination of GPS telemetry collars, den checks, camera grids, hair snares, fecal DNA, and other methods. Vital rates could also be estimated outside of these study areas using the thousands of camera traps surveyed in California each year, through analyzing how the number of cubs per adult female photographed changes each month. Additionally, CDFW intends to explore options for gathering information about pregnancy status inferred from the same tooth samples used to estimate ages of harvested bears. Thinner tooth cementum annuli rings are often a signal of pregnancy in female bears, but methodological uncertainties will need to be formally addressed if the data are included in the IPM (Allen et al. 2017).

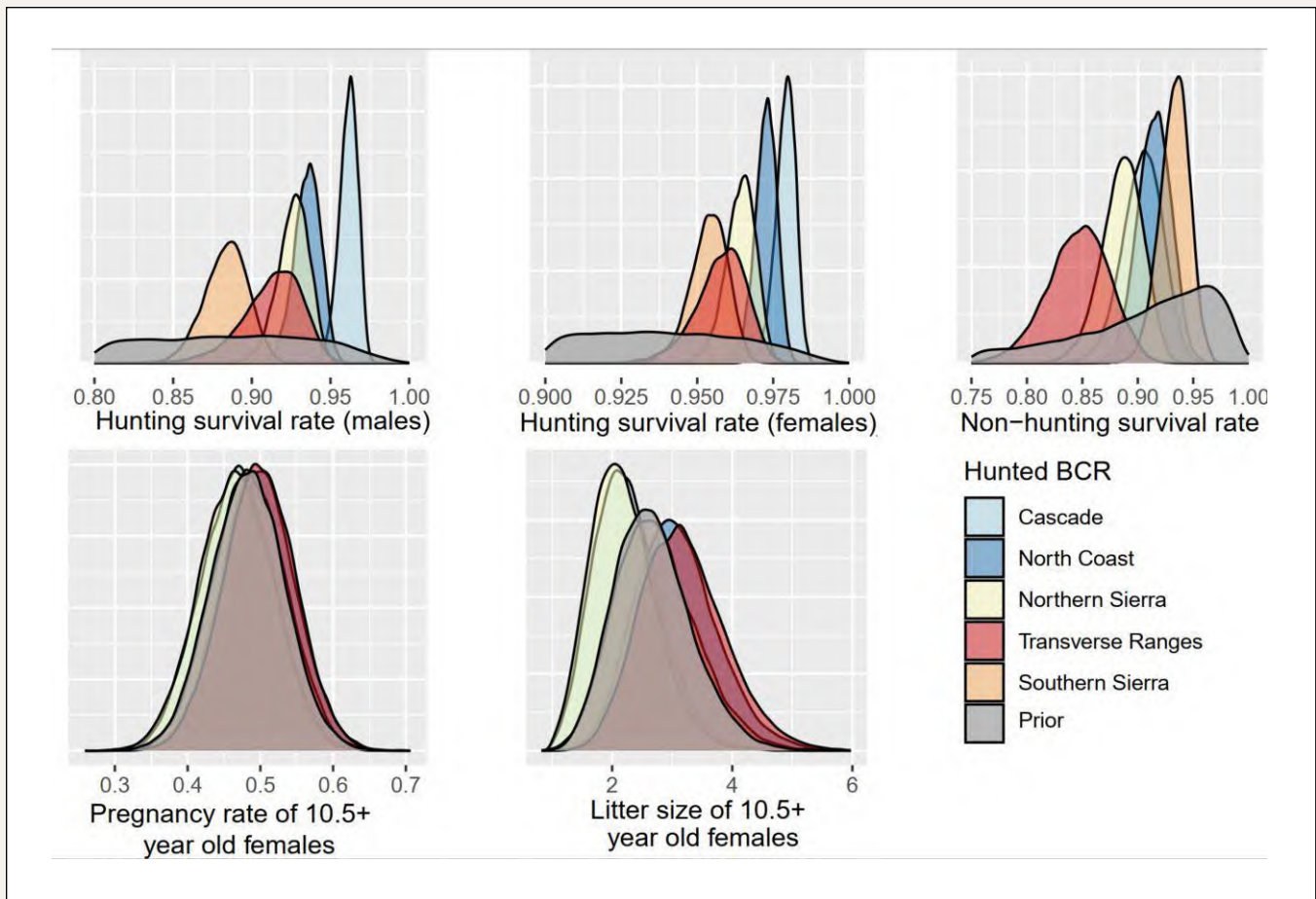


Figure 11. Prior and posterior distributions of five black bear vital rate parameters from the integrated population model (IPM) across the five Bear Conservation Regions (BCRs) where hunting occurs. The survival rate values come from the second year of the model run (2014), while the fecundity parameters do not vary annually in the model. Posteriors for the different BCRs are depicted in different colors with transparency for ease of visualizing overlapping distributions. As additional vital rates data are collected from the field and integrated into the IPM, the estimates will become both more accurate and precise.

Another source of potential bias in the IPM is that the age structure data are based on the ages of harvested black bears. While the age structure of harvested bears may not be fully representative of the age structure in the total population, the IPM can account for different harvest rates faced by different sex and age classes by estimating age, sex, and year-specific hunting season survival rates (Allen et al. 2018a). Following the recommendations of Allen et al. (2018b), CDFW made additional adjustments to priors included in the IPM to offset the effects of expected age distribution bias in the black bear harvest. Additionally, CDFW aims to develop independent methods to sample the ages of non-harvested black bears. CDFW intends to compare the age distributions of harvested and non-harvested black bears, and use this comparison to adjust the IPM, if necessary (e.g., double sampling, Cochran 1977). CDFW expects that this adjustment would require a substantially smaller sample of non-hunted black bears with respect to the large amount of age data provided by hunters.

Spatial capture-recapture (SCR) modeling using field collection of genetic samples is a powerful method for robustly estimating bear abundance (Royle et al. 2013). CDFW does not need to rely on this method for black bears as much as for other species such as deer (Furnas et al. 2018), because of the age distribution data available for both sexes used in the IPM. CDFW did use SCR from local genetic studies (e.g., Owen-Ramos et al. 2022) for providing prior information on bear densities used in the IPM. To improve precision and accuracy of the IPM, CDFW plans to periodically conduct additional genetic surveys among the designated local study areas for updating local densities used as priors in the IPM.

CDFW intends to develop a Black Bear Monitoring Plan for California following completion of this Plan. It will provide greater detail on the data inputs and structure of the IPM, and protocols, timelines, and logistics for collecting all the necessary data statewide and within local study areas. This will be crucial to make sure appropriate data are being collected for use in the IPM.

4.3 OTHER POPULATION INDICATORS AND HARVEST METRICS

Monitoring how black bear population size varies by BCR and year (i.e., using the IPM) is the primary scientific information CDFW needs to conserve the species throughout the state and ensure regulated hunting is sustainable. Vital rates (e.g., recruitment and survival) are key inputs into the IPM which will also provide CDFW with the ability to better understand the potential causes of any population trend. Some of the methods to estimate vital rates will involve deploying GPS collars on adult black bears, using GPS data to locate and monitor dens, and using camera traps to estimate litter size and cub recruitment.

In combination with population and vital rates estimates, CDFW intends to use other metrics to inform its adaptive management of black bears as described in Chapter 6. These metrics include those CDFW previously used in the absence of robust population estimates: 1) the average (or median) age of female bears ascertained from the same age distribution data used in IPM, and 2) the percentage of harvested bears that are females ascertained from harvest success reporting required of hunters (CDFG 1998). When possible, CDFW staff will confirm reported bear sex when handling bears to extract teeth. This approach of using harvest-based metrics to guide sustainable levels of hunter harvest has been used by many other state wildlife agencies throughout North America (IDFG 1999, WGFD 2007, NYDEC 2014, Allen et al. 2018a, Allen et al. 2018b).

CDFW maintains a database of harvest statistics of annual black bear tags sold and the mandatory reporting information on harvest locations and dates. Besides using this information to inform population monitoring, the information is used to assess factors affecting hunter success at the BCR scale.



CHAPTER 5
OTHER DATA FOR
INFORMING CONSERVATION
AND MANAGEMENT

CHAPTER 5. OTHER DATA FOR INFORMING CONSERVATION AND MANAGEMENT

5.1 GENETIC DIVERSITY

Brown et al. (2009) found that genetic diversity among California black bears is substantial and similar to that of other states (Brown et al. 2009, Clarke et al. 2001, Paetkau et al. 1998, Paetkau and Strobek 1994). However, given the age of this study, these estimates require an update. CDFW is currently collaborating with the University of California, Santa Cruz to conduct a statewide genomic study (the California Conservation Genomics Project) to assess genetic diversity, population structure, and adaptive differentiation of black bears. This study will serve as a baseline assessment that can be used to evaluate genetic diversity in subsequent years. Given the substantial genetic diversity, minimal population structure, and high connectivity among California black bears, there are currently few conservation concerns regarding genetics. Given the time lag between when a population may experience anthropogenically induced reductions in size and/or connectivity versus when the genetic effects of such events become detectable, statewide efforts to re-estimate genetic diversity should occur every 10-20 years. On that schedule, CDFW scientists should estimate standardized measures of genetic diversity (e.g., heterozygosity, allelic richness, etc.), as well as re-evaluate genetic population structure. Both can provide insights regarding whether anthropogenic activities have significantly fragmented available habitat or reduced population size. To facilitate these updates, CDFW will continue to build and maintain a DNA archive for black bears throughout the state.

5.2 MOVEMENT ECOLOGY AND CONNECTIVITY

California Assembly Bill 2344 (Safe Roads and Wildlife Protection Act) was enacted in 2022 and provides new authority and funding to support the evaluation of wildlife connectivity across roads, and other barriers, to benefit wildlife populations and reduce vehicle collisions. In part in response to these priorities, CDFW will develop a Black Bear Monitoring Plan for California to guide how to most efficiently deploy GPS collars on black bears to better understand their spatial ecology and vulnerability to vehicle collisions. For example, autocorrelated kernel density estimators can be used to estimate bear home range sizes and understand factors associated with differences in those ranges (Fleming et al. 2015), and GPS collar data will also allow for detailed analyses of black bear movement and habitat selection through methods such as Brownian bridge movement models and integrated step selection functions (Koehler and Pierce 2003, Thurfjell et al. 2014). Results from these analyses will allow for better predictions of where black bears cross roads and where vehicle strikes are most prevalent, which will help inform mitigation efforts like the installation of wildlife road crossings (Zeller et al. 2020).

A secondary purpose of the GPS collars will be to estimate survival rates, and how they change over space and time. As noted in Section 4.2, vital rates are a key source of information included in the IPM to monitor black bear populations.

Additionally, in 2022, CDFW initiated a project to document the space use of black bears involved in HBC and cubs released from rehabilitation facilities. Over the next 3-5 years, fine-scale habitat use data (i.e., 12-24 fixes per day) will be collected from up to 250 black bears fitted with GPS collars. Collars fitted to adults will be scheduled for automatic drop-off for 2 years and collars fitted to yearlings or small juveniles will last for 9 months to accommodate increase in body size. This data can be used to inform habitat selection in relation to environmental factors (e.g., forest cover, riparian areas, fires, droughts, etc.), improve understanding of black bear road crossings, and evaluate the ability of non-lethal management tools for altering conflict behavior.

CDFW and other researchers are increasingly placing cameras at wildlife crossings below or above roads to document and evaluate the effectiveness of these structures for facilitating wildlife connectivity (Ng et al. 2004, Caldwell and Klip 2020). Cameras in these settings provide information on the species using connectors, the times of day they are more likely to use these structures, and interactions among species, for instance whether prey species such as deer are at greater risk of ambush by predators such as mountain lions. These data could help inform an expanded assessment of the importance of underpasses and overpasses to reduce vehicle collisions with black bears and the degree to which black bears alter the behavior of other species using these structures.

Roadkill data is also relevant to mitigating traffic collisions and other aspects of wildlife conservation and management (Schwartz et al. 2020). The California Department of Transportation maintains a wildlife roadkill database including species, date, road number, and mile marker location. Further, the UC Davis Road Ecology Center compiles some of these data and other sources of citizen science wildlife roadkill observations in another database (Shilling and Waetjen 2015).

5.3 DISEASE

Collecting biologic samples and associated metadata (age, sex, date, location, etc.), whether for archive or immediate analysis, is important to inform managers about the health, disease status, and HBC involvement of individual animals within the context of populations. If sample collections are from a large and diverse enough subset of one or more populations, results either from a point in time or, better yet, across time can collectively provide significant information on health and disease status of populations. Trends in results could indicate changes in population health. CDFW and its partners maintain multiple tissue sample archives including serum, whole blood, hair, formalin-fixed paraffin embedded tissues, and various fresh tissues collected from black bear mortality investigations, management actions, and hunter harvests. CDFW will continue to collect and archive these samples so they will be available for future use. The value of maintaining this archive is that if a health or disease related issue does emerge, samples are available that could be used to assess over space and time, giving managers a better understanding of any potential impacts.

5.4 ANIMAL WELFARE

One of the primary animal welfare concerns of CDFW is the disposition of orphaned black bear cubs. Up to 30 cubs are assessed for care annually by CDFW veterinarians for placement in one of four permitted rehabilitation facilities in the state. Monitoring of these bears following release from

rehabilitation facilities with GPS collars began in 2022. Information on short-term (i.e., 9-month) survival, causes of mortality, and conflict behavior of the animals will be compared to that of wild bears to evaluate and/or improve practices for management of orphaned cubs.

5.5 HUMAN INTERACTIONS WITH BLACK BEARS

CDFW intends to continue to maintain and use its WIR database to monitor HBC trends. The public can submit reports online directly to the WIR, or a CDFW staff member can enter a report on the public's behalf. The report consists of the date the incident occurred, the species of wildlife involved, the address of the property, the approximate GPS coordinates, and a brief description of the incident.

CDFW's Black Bear Policy (CDFW 2024a) defines different types (categories) of bear incidents requiring a response:

- 1) **Conflict bear:** A catch-all term for any bear that requires response due to its behavior or situation, including animal welfare bears, habituated bears, and "no harm/no foul" bears which may require assistance returning to nearby habitat.
- 2) **Depredation bear:** A bear that is threatening to, damaging, or destroying property for which a revocable depredation permit has been requested and can be issued in accordance with FGC.
- 3) **Public safety bear:** A bear demonstrating aggressive action that has resulted in physical contact with a human; or a bear exhibiting an immediate threat to public health and safety.

Once a WIR report has been submitted, it is reviewed by a CDFW staff member. If the incident warrants further investigation or action, the staff member will follow up with the reporting party and often performs a site visit to inspect the situation firsthand. For black bears, this may involve providing information on conflict avoidance and mitigation techniques and coexistence. If the incident is a depredation concern, the depredation permit process may be initiated per the steps in the Black Bear Policy (CDFW 2024a).

Human dimensions studies on the quality of human interactions with wildlife including black bears focus on both the general public, particularly those living in black bear habitat, and California's black bear hunters. Specifically, understanding the factors influencing effective implementation by the public of preventative measures to reduce HBC will be important for effective conservation (Baruch-Mordo et al. 2011). Further research on how the California public values black bears will be necessary to better estimate and manage social tolerance levels for the species in different settings and help set conservation goals accordingly (Vaske et al. 2022, Delie et al. 2023). Additionally, understanding the experiences of California's black bear hunters will be useful for predicting hunter effort, interest in black bear hunting, and evaluating the role of hunter harvest in black bear conservation and management. Such work can help identify the behavior of hunters and the barriers and limitations that hunters face. Hunter satisfaction surveys are the easiest surveys for CDFW to perform because CDFW has the contact information of hunters purchasing a black bear tag or hunting license. For

most surveys of the general public, CDFW would need to purchase a survey panel or sample to have a scientifically robust sample. CDFW aims to continue to conduct such surveys of hunters as part of its outreach efforts.

There is a wealth of other social science studies on human and black bear interactions. These studies transcend disciplines and include, but are not limited to, research on the sociology, psychology, anthropology, economics, communication, and political science aspects of human and bear interactions. A full review of this literature is beyond the scope of this Plan. Because this research encompasses so many disciplines and requires disparate expertise in so many fields, it is important for CDFW’s Black Bear Program to partner and collaborate with other research institutions. An example of this was a recent collaboration with data science interns at the University of San Francisco to extract and analyze social media posts about black bears from X (formerly known as Twitter) throughout California during 2010-2022. A preliminary analysis of emotional sentiment using data science methods suggests that the predominant sentiments towards black bears were ambivalence (38%), fear (24%), and joy (19%) and that there were seasonal shifts in the relative frequency of these sentiments (Fig. 12, Ai 2023). These projects can serve as templates for future collaborations between CDFW and other researchers to continue to study human and black bear interactions.

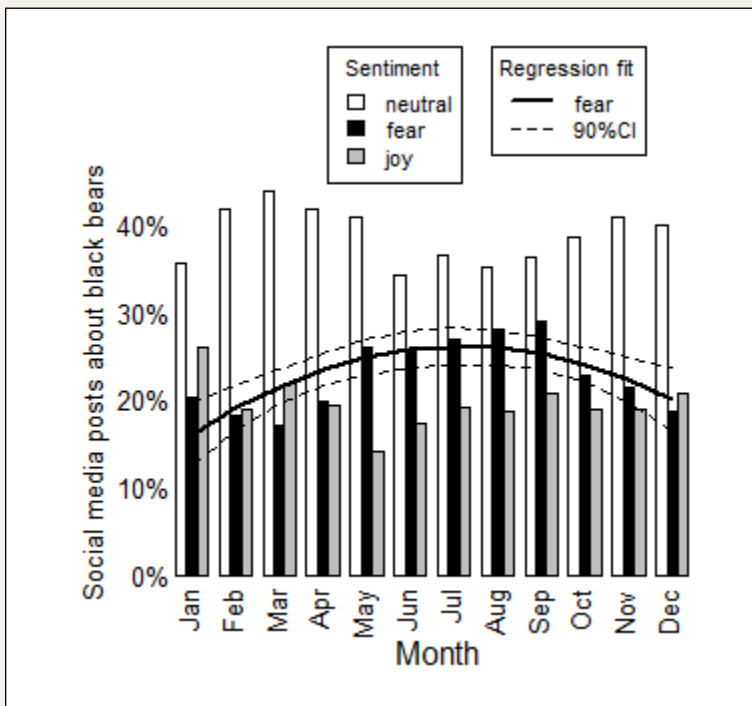


Figure 12. Analysis of emotional sentiments expressed within black bear social media posts from California from 2010-2022. Data science methods were applied to remove non-wildlife related tweets (e.g., Black Bear Diner) and to infer emotional content of phrases and sentences. Results suggest negative sentiments peaked during summer when human wildlife conflict incidents are more prevalent (Ai 2023).



CHAPTER 6

ADAPTIVE MANAGEMENT

CHAPTER 6. ADAPTIVE MANAGEMENT

6.1 CONSERVING AND MANAGING ECOLOGICALLY FUNCTIONAL BLACK BEAR POPULATIONS AND THEIR HABITATS

An ability to estimate and monitor bear population abundances statewide and regionally constitutes the foundation of CDFW's approach to meeting its conservation management goals for black bears. CDFW intends to apply population information within an adaptive management framework for guiding, supporting, and communicating decisions affecting hunting, HBC, and other conservation and management actions for black bears (Walters 1986, Fig. 13). This adaptive approach will provide CDFW with the flexibility to adjust its approach to black bear conservation and management based on the most up-to-date data and evidence.

As detailed in Chapter 4, CDFW plans to monitor black bear population totals and their trends within each BCR. Consistent with the goal to maintain ecologically functional black bear populations, if there is a conservation or management concern about population performance, CDFW plans to use the IPM to follow up with an evaluation of vital rates, associations with specific stressors (e.g., harvest, habitat, climate, food availability, fire, etc.), and related conservation metrics (e.g., genetic diversity, disease). If concern remains, CDFW would attempt to apply the IPM to simulate expected future conditions and provide a population viability analysis to help quantify the conservation risk (Penman et al. 2022). Moreover, in addition to using data from GPS collared black bears to monitor vital rates, CDFW is also looking into ways to collect and interpret data from unmarked bears (e.g., mortalities caused by poaching, vehicle collisions, or poisoning) to augment its population monitoring approach. CDFW would rely on findings from these analyses and assessments to inform any recommendations to the Commission about regulatory changes including (but not limited to) hunting quotas, methods, and seasons. CDFW would also use its findings to inform other potential conservation and management responses, including initiating new research and collaborating with external partners (federal and state agencies, tribes, non-government organizations, private landowners) on developing conservation approaches which could include forest and fire management strategies for improving black bear habitat.

As discussed in Section 3.1, there is a goal to maintain ecologically functional black bear populations, which are often abundant and common. This may pose conservation and management challenges, however, because areas where black bears are abundant and common can experience high rates of HBC, adversely impacts to other wildlife species and high incidence of disease (see Chapter 3 and Appendix 1 for greater detail). If there is a concern about black bear overpopulation within a BCR and associated impacts on humans or other wildlife species, CDFW would use its population monitoring approach and adaptive management framework to assess how overabundance contributes to the given concern as it pertains to its conservation and management goals for black bears. CDFW would then evaluate and appropriately implement management actions for addressing the concern. These actions include the application of educational and public outreach approaches included in CDFW's Black Bear Policy (CDFW 2024a) and working with local municipalities and other groups to provide expanded access to secure waste disposal and other infrastructure that reduces the availability of

anthropogenic food sources to black bears (Johnson et al. 2018). CDFW plans to use its IPM-based population monitoring approach to evaluate whether reduced levels of HBC lead to reductions in recruitment and population size. Specifically, CDFW aims to coordinate vital rates monitoring among groups of black bears representative of different levels of HBC and utilization of anthropogenic food and shelter resources. This will help CDFW assess whether reducing attractant-based HBC leads to either lower regional population size via reduced recruitment or lower local density via reduced immigration. CDFW will continue to evaluate the application of non-lethal strategies for managing the potential effects of black bear predation on ungulates and other species of management or conservation concern. For example, outside of California relocation of black bears off elk (*Cervus elaphus*) calving grounds has been used to improve calf recruitment (Yarkovich et al. 2011).

As black bears have recently expanded their range in some areas of California (Section 3.2), effecting a potential for increased hunting opportunity and increased HBC, CDFW is prioritizing analysis of occurrence (e.g., cameras) and movement (e.g., GPS collars) monitoring in these areas. If necessary, CDFW will adjust boundaries or create additional BCRs to reflect the changing distribution of black bear populations.

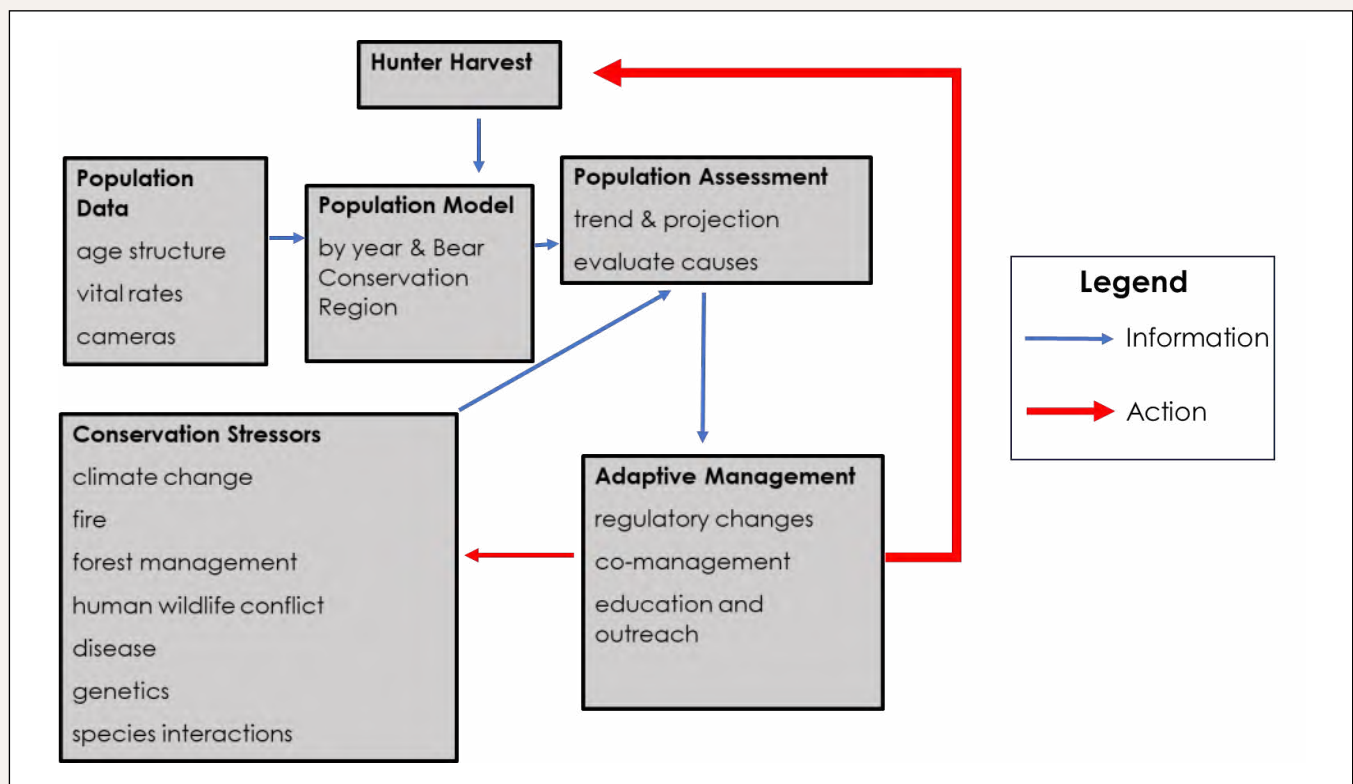


Figure 13. Adaptive management framework for using population data, and other information, to inform black bear conservation and management in California. The framework differentiates between information and action, the former of which provide essential information and data to execute the former using an evidence-based approach and the best available science.

6.2 CONSERVING AND MANAGING GENETICALLY DIVERSE BLACK BEAR POPULATIONS

By monitoring and reassessing black bear genetic diversity every 10 to 20 years (Section 5.1), CDFW will be able to determine if anthropogenic activities have significantly fragmented habitat and limited gene flow. Should such situations occur, CDFW plans to use other existing and future data sources (e.g., from GPS collared individuals, road-kill surveys, etc.) to identify locations where mitigation projects to improve connectivity (e.g., highway crossing structures, habitat corridor protection and enhancement) could occur.

6.3 CONSERVING AND MANAGING DISEASE-RESILIENT BLACK BEAR POPULATIONS

Black bear populations currently appear to be stable and disease-resilient in California. CDFW will continue to opportunistically surveil black bears for emerging health or disease concerns through mortality investigations and routine sample collections from management actions or conflict black bears. In particular, CDFW aims to research idiopathic encephalitis in black bears, which can substantially alter black bear behavior and has been suggested to exacerbate HBC (Sinnott et al. 2022).

6.4 PROVIDING BLACK BEAR HUNTING OPPORTUNITIES

FGC section 1801, CDFW aims to analyze and assess black bear population data, and other sources of information including data on hunter opportunity and success, to inform any recommendations to the Commission about changes to hunting regulations (e.g., tag limits, seasons, methods of take).

CDFW's primary analytical tool for determining sustainable harvest levels would be the IPM combined with simulation of the future population trajectory under different harvest scenarios.

As CDFW will be monitoring black bear populations at the BCR scale, it makes sense to manage hunting levels, seasons, and methods of take at this scale. Regulatory changes (CCR Title 14) would be required for this to be possible. This is because current regulations set a 1,700 black bear annual harvest limit at the state level.

CDFW intends to continue to promote hunter ethics through hunter education activities.

6.5 MANAGING HUMAN-BLACK BEAR CONFLICT AND CONSIDERATION OF ANIMAL WELFARE

Although concerns about HBC and conserving ecologically functional populations are linked (see Section 6.1), management of HBC is a broader issue that is largely addressed in a separate policy (CDFW 2024a).

This policy places a high priority on animal welfare. Specifically, the policy prioritizes use of non-lethal, corrective actions (e.g., eliminating attractants and adding bear-proofing structures) before authorizing depredation permits for killing conflict bears. The annual number of black bears taken under depredation permits has decreased since 2017 and averages around 60 bears per year. These losses amount to less than 0.1% of the state population and are unlikely to have detectable population level impacts. Additionally, CDFW will continue to coordinate with rehabilitation

facilities around the state to ensure humane and effective veterinary care for black bears recovered during wildfires and other circumstances. Further, CDFW veterinarians will continue to lead review of capture plans required for research investigations that include the capture and temporary immobilization of black bears to place GPS collars or for other purposes. These capture plans safeguard animal welfare by specifying methods of capture, proper use of immobilization drugs, and monitoring of the physical and psychological health of captured animals.

CDFW intends to continue to consider animal welfare in its planning activities and regulatory change proposals affecting regulated hunting. Besides conserving ecologically functional, genetically diverse, and disease-resilient black bear populations, and consistent with efforts to promote hunter ethics (see section 6.4), CDFW will consider the effects of hunting seasons and methods of take on animal welfare.

6.6 COMMUNICATION AND OUTREACH ABOUT BLACK BEARS

CDFW plans to produce an annual report on the status of California black bear populations at the BCR scale which it will post on its website by September 15th each year. The report will include estimates and trends for population sizes, vital rates, and harvest statistics. The report will discuss emerging conservation or management issues and identify areas requiring new, focused research to further investigate those issues.

Additionally, the CDFW Statewide Black Bear Coordinator regularly leads meetings of Black Bear Working Groups (i.e., CDFW regional biologists and subject area experts) to discuss black bear conservation and management issues and implementation of this Plan.

6.7 CO-MANAGEMENT OF BLACK BEARS WITH TRIBES AND OTHER PARTNERS

Consistent with policy (CDFW 2014), CDFW intends to continue to notify and consult with Tribes regarding any regulatory change proposals involving black bears. CDFW also plans to prioritize co-management opportunities with Tribes including actions that address comments summarized in Table 1. Other potential opportunities include potential funding to help support and sustain Tribal wildlife conservation and research programs and collaboration on population monitoring of black bears.

CDFW will actively seek opportunities to partner with Tribes, federal and state agencies, hunter and animal welfare interest groups, and others to collaborate on 1) research studies, 2) habitat improvement activities (e.g., prescribed fire, forest management, food availability, movement connectivity, climate adaptation), and 3) human infrastructure programs (e.g., increasing access to secure waste disposal, electric fencing, and educational outreach about their proper use) that are likely to benefit stable black bear populations and minimize HBC.

6.8 PERIODIC REVIEW AND UPDATING OF THE BLACK BEAR CONSERVATION AND MANAGEMENT PLAN FOR CALIFORNIA

CDFW aims to review and update this Plan in its entirety every 10 years and update individual sections as necessary.





CHAPTER 7

RESEARCH, RESOURCES, AND ORGANIZATIONAL SUPPORT REQUIRED FOR PLAN IMPLEMENTATION

CHAPTER 7. RESEARCH, RESOURCES, AND ORGANIZATIONAL SUPPORT REQUIRED FOR PLAN IMPLEMENTATION

7.1 DATA COLLECTION

This Plan provides a general summary of the types of data that will need to be collected for use in population modeling and other sorts of analyses to inform effective conservation and management of black bears in California. CDFW will also need to develop a Black Bear Monitoring Plan for California that details the logistics for sustaining collection of these data over time. Such a plan could take multiple years to develop; it would need to include specifics on the locations of the local study areas where recruitment and survival data would be collected and where genetic spatial capture-recapture surveys would occur for validating population estimates from the IPM. The logistical considerations would include equipment, samples sizes, the scheduling of surveys, and CDFW staff in Regions and Headquarters required to administer this work. CDFW would also need to identify suitable and sufficient sources of funding to cover the anticipated actions.

In the first few years of implementing new and expanded black bear population monitoring efforts, CDFW will need to prioritize research of new survey and analytical methods, especially for vital rates and the most efficient design of genetic spatial capture-recapture studies. Currently, CDFW relies on the use of the teeth from harvested bears as the primary source of information on age distribution. However, the estimation of DNA methylation levels is an emerging and potentially promising alternative method that CDFW plans to investigate. Higher DNA methylation levels, which can be estimated from blood, hair, and tissue samples, are associated with older age in mammals (Nakamura et al. 2023).

7.2 DATA MANAGEMENT

Historically, CDFW and other wildlife agencies have placed greater emphasis on gathering wildlife survey data than on planning for management and analysis of that data once collected (DeWan and Zipkin 2010, Scotson et al. 2017). CDFW has made additional investments in data management and stewardship to manage and quality check these data in a timely manner.

Data storage and workflow management pipelines are also important considerations for ensuring data integrity, security, and ease of use (Brousil et al. 2023). CDFW continues to develop its data science capabilities through contracts to help manage its camera trap data (e.g., Wildlife Insights) and sound recorder surveys for birds and bats (e.g., UC Berkeley). CDFW will also need to investigate similar approaches for telemetry and genetic spatial capture-recapture data. The effectiveness of data sharing practices will also need to be considered (Urbano and Cagnacci 2021), especially since numerous entities outside of CDFW use camera traps and other survey methods (e.g., roadkill counts) that generate data that would likely be instrumental to big game species conservation and management in California. Pooling large data sets for improving statistical modeling will require the development of collaborative relationships that are ultimately formalized through data sharing agreements and memorandums of understanding. For example, it is very likely that the designated

black bear study areas under this Plan will require collaboration with Tribes, other state and federal agencies, private landowners, and non-government organizations.

7.3 DATA ANALYSIS

Modern computing allows for more robust modeling and stronger scientific inferences by combining data from multiple sources and adjusting for uncertainties and biases in the sampling methods (Kery and Royle 2016). One of the challenges is that these analyses are often highly complex, requiring advanced statistical expertise. CDFW continues to make investments and is preparing staff to take advantage of new data science tools and computational methods as they develop in order to guide and advise on population modeling of big game species. Additional modeling support may be required to expedite analytical work for black bears and other big game species in a timely manner in response to conservation and management decisions that arise during the adaptive management process (Fig. 13).

Computing speed is often a constraint on the efficiency and effectiveness of solving complex statistical models that include spatial data or multiple sources of data (de Valpine et al. 2017, Turek et al. 2021). It may be necessary to work with university researchers to customize software for improving the efficiency, performance, and scalability of the IPM and spatial capture recapture models (e.g., Nimble package for R software). CDFW also may need to invest in additional computing power for use by staff running complex models.

7.4 COLLABORATION AND CO-MANAGEMENT

The CDFW Statewide Black Bear Coordinator leads collaboration and co-management activities, but support from various other functions are critical to success of these efforts. Co-management of habitat conditions through forest and fire management that require outreach to Tribes, and other state (e.g., CAL FIRE, California State Parks) and federal agencies (e.g., USFS, NPS) are best achieved in consideration with the needs of multiple wildlife and plant species. This highlights the importance of a broader, co-management approach within CDFW that is coordinated across species, habitats, and programs.



Photo: CDFW Ecoregional Biodiversity Monitoring Project, Northern Region.

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Appendix 1: Glossary

TERM	DEFINITION AS USED IN PLAN	SOURCE
Animal welfare	The physical, psychological, social, and environmental well-being of an animal.	Black Bear Policy in California: Public Safety, Depredation, Conflict, and Animal Welfare (2024)
Black Bear Policy	The current version and any subsequent versions of CDFW’s policy for addressing human-black bear conflict.	Black Bear Policy in California: Public Safety, Depredation, Conflict, and Animal Welfare (2024)
California Native American Tribe	Federally recognized tribes and non-federally recognized tribes located in California that are on the contact list maintained by the CA Native American Heritage Commission for the purposes of cultural resources assessment and protection.	California Governor’s Office of Tribal Affairs: Tribal Affairs – California Natural Resources Agency
Carrying capacity	The population size limit for a given species in a given area, shaped by socio-ecological processes and interdependent relationships between finite resources and the consumption of those resources.	Del Monte-Luna et al., 2004
Conservation	Maintaining and restoring the viability of ecological collectives that persist over time – namely, species and native populations and ecosystems. Conservation is a constituent element of sustainability.	Vucetich et al., 2018
Ecologically functional	A population which has the abundance or density, and the appropriate population structure, that allows its ecological interactions, roles, and functions to take place.	IUCN Green Status of Species
Harvest	The legal and regulated killing of game species by licensed (i.e., authorized) hunters.	Bowyer et al., 2020

TERM	DEFINITION AS USED IN PLAN	SOURCE
Human dimensions	The application of social science theory and methods to help understand the cultural, sociological, psychological, economic, biological and physical aspects of natural resource management and environmental problem-solving.	Minnesota DNR
Human-black bear conflict	Any situation where there is a real or perceived threat to human life or property by black bears.	Reich, 2024
Integrated population model	The single, unified analysis of multiple independent data sets to estimate population dynamics, which increases statistical precision and adequately accounts for all sources of uncertainty.	Schaub & Abadi, 2009 ; Lawson et al., 2022
Recreational hunting	Non-commercial, regulated pursuit of game animals.	Sharp & Wollscheid, 2009
Spot-and-stalk	A hunting method whereby a hunter uses optics, binoculars, and/or glassing on a ridge to locate a black bear, and then approach it to within shooting distance, without the use of bait or dogs. The stalk generally entails a strategic hike in silence.	Washington DFW
Sustainability	Meeting human interests in a socially-just manner without depriving species, native ecosystems or native populations of their health.	Vucetich et al., 2018
Wildland	A nonurban, natural area that contains uncultivated land, timber, range, watershed, brush or grassland.	U.S. Forest Service
Wildland-urban interface	The zone of transition between unoccupied land and human development. The line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.	U.S. Fire Administration
Wildlife Management	The management of rare and common habitats and animal populations for multiple uses at multiple scales to achieve ecosystem integrity and sustainable use of available resources.	Anderson et al., 2002

State of California
Natural Resources Agency
Addendum to the *2004 Environmental Document*
Regarding Bear Hunting

Title 14, California Code of Regulations
Sections 365, 366, 708.12
2026 Hunting Season

Prepared by:

California Department of Fish and Wildlife

On behalf of:

California Fish and Game Commission,
as lead agency under the California Environmental Quality Act

December 2025

(OAL Notice File No. **Z2026-0113-07**)

Introduction

The California Department of Fish and Wildlife (CDFW) has prepared this addendum pursuant to the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., to inform consideration by the California Fish and Game Commission (Commission) of proposed amendments to existing regulations governing bear hunting in California (California Code of Regulations (CCR), Title 14, sections 365, 366, and 708.12). California Fish and Game Code (F&G Code) Section 3950, subsection (a), designates bear as a game mammal in California.

F&G Code Section 203 authorizes the Commission to fix the area or areas, seasons and hours, bag and possession limit, sex, and total number of bears that may be taken pursuant to its regulations. F&G Code Section 203.1 requires the Commission to consider populations, habitat, food supplies, the welfare of individual animals, and other pertinent facts when establishing hunting regulations for bears. The Commission establishes bear hunting tag quotas through regulations, amended as needed, based on population estimates derived from surveys by CDFW.

The Commission serves as the CEQA lead agency when it promulgates and amends bear hunting regulations (Public Resources Code, Section 21067; CEQA Guidelines Section 15367).¹ The Commission established regulations for bear hunting in California in 2004 with the certification of a final environmental document under CEQA (2004 Bear Hunting ED; SCH No. 2003112080). The 2004 Bear Hunting ED provides relevant and important informational value to the Commission as it considers proposed amendments to the existing regulations for bear hunting in California. This addendum documents the Commission's consideration of related environmental effects for 2026 and subsequent hunt seasons.

Earlier Project Approval

CEQA review of the proposed project was conducted in accordance with the Commission's certified regulatory program approved by the secretary for the California Natural Resources Agency pursuant to Public Resources Code Section 21080.5 (see generally Title 14, CCR Section 781.5 and subsection (b) of Section 15251). CEQA requires all public agencies in the State to evaluate the environmental impacts of discretionary projects they propose to carry out or approve, including promulgating regulations, which may have a potential to significantly affect the environment.

In 2004, as part of its review and adoption of bear hunting regulations, the Commission certified the 2004 Bear Hunting ED as the lead agency under CEQA, focusing on the potential for significant environmental impacts from expanding the bear hunt zone east of Highway 395 in Mono County. The Commission determined that adopting the amended regulations as proposed would not result in any new significant or substantially more severe environmental effects, using a population model based solely on age-at-harvest data (Fraser 1976).

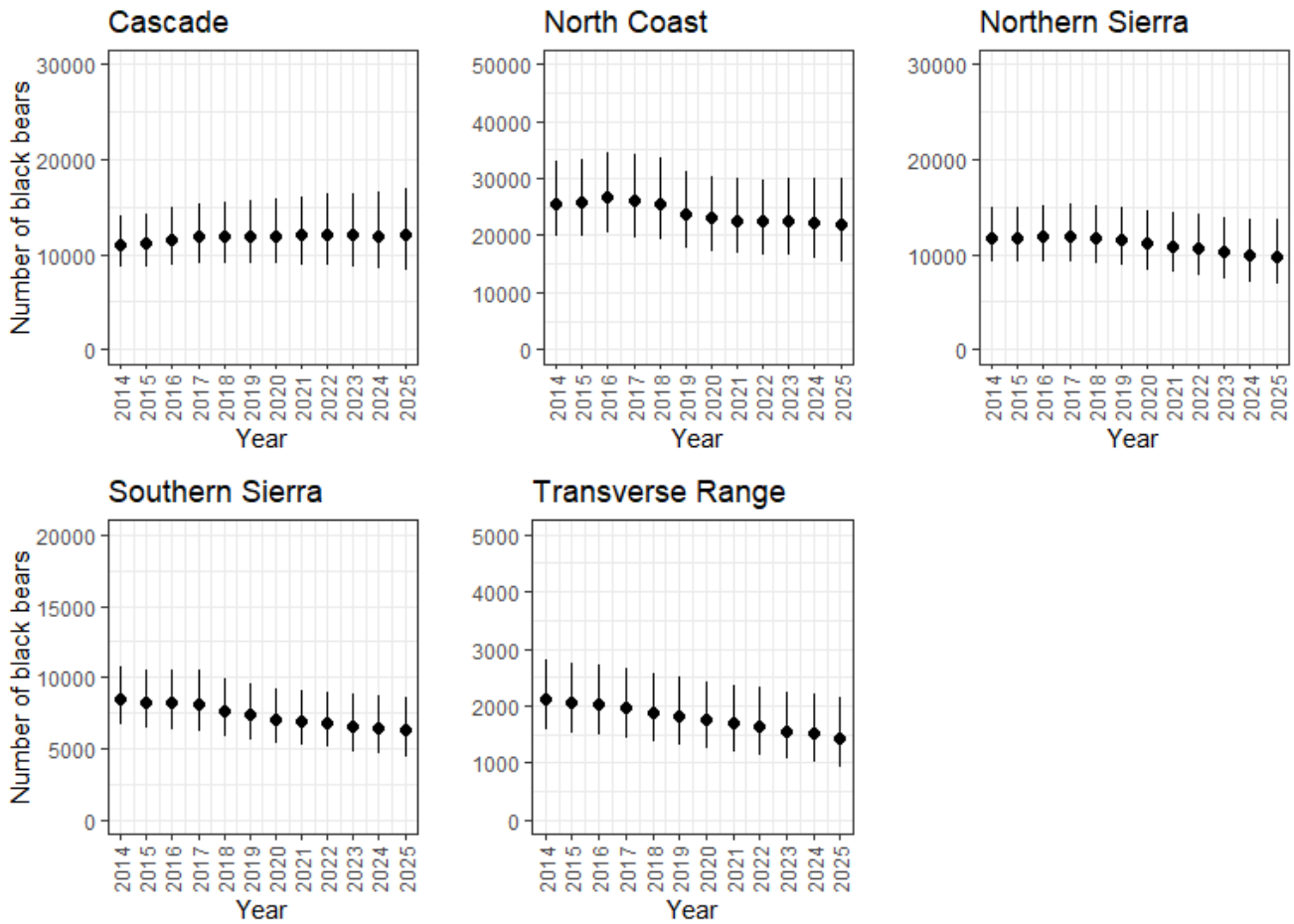
¹ The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Integrated Population Model

The Fraser 1976 model was not robust to changes in hunter effort (e.g. resulting from the 2012 ban on the use of dogs to hunt black bears) and significantly underestimated black bear population size in California. In 2024, CDFW developed a Bayesian integrated population model (IPM) to monitor California's black bear population (CDFW 2025a), replacing the age-at-harvest data population model, which significantly underestimated black bear population size in California. The IPM makes use of age-at-harvest data, as with the previous method, but also accounts for hunter effort and integrates auxiliary data from widespread camera trapping surveys, local density estimates, and informative prior distributions (i.e., outputs from the model are informed by estimates from rangewide black bear data) for vital rates. By combining multiple data streams and accounting for hunter effort, the IPM is robust to potential biases that may arise from relying solely on a single method. A peer-reviewed study focused on the IPM was published in 2025 (Connor et al. 2025).

Using the latest iteration of the IPM (which includes age-at-harvest data from 2024), CDFW estimates an average population size of 61,329 (90% CI: 49,720-72,660) black bears in California for the years 2020-2024 inclusive (CDFW 2025b). The population is stable overall: there is no evidence of a statistically significant change to population size statewide or within any Bear Conservation Region (BCR) (Figure 1).

Figure 1: Annual black bear population estimates and 90% credible intervals for BCRs where there is currently hunting



Note: None of the population trends depicted in this figure are statistically significant (i.e., California’s black bear population is stable).

Proposed 2026 Changes for Black Bear Hunting

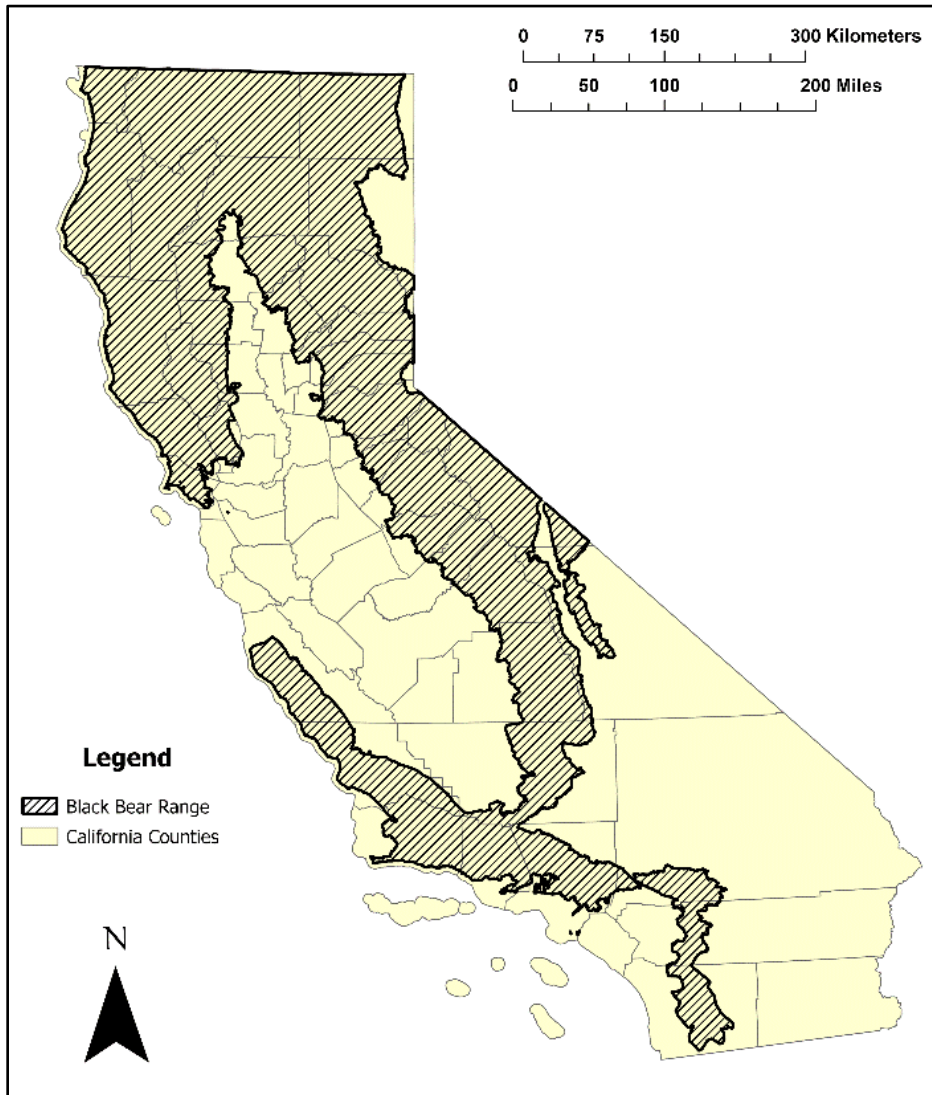
Hunt Area Expansion

Amendments to 365(a)(1) redefine the hunt area boundaries to include the entirety of Modoc and Lassen counties. Black bears have significantly expanded their range in California between 2004 and 2025 (Figure 2; Figure 3). There is a large and expanding black bear subpopulation (estimated at 2,300 animals; Figure 3) in northeastern California and considerable public interest in bear hunting in the area. Moreover, black bears in the Northeastern California BCR are not isolated from those in other parts of the state – recent genomics research reveals that black bears in California effectively form a single, healthy, and contiguous population without evidence of genetic isolation or inbreeding (CDFW unpublished data). Genetically, the population is on a north-to-south latitudinal cline and reflects high landscape connectivity.

Figure 2: Black bear range as displayed in the 2004 Bear Hunting ED



Figure 3: Updated black bear range as presented in the Black Bear Conservation and Management Plan for California (CDFW 2025c), reflecting the species' expansion across various parts of the state

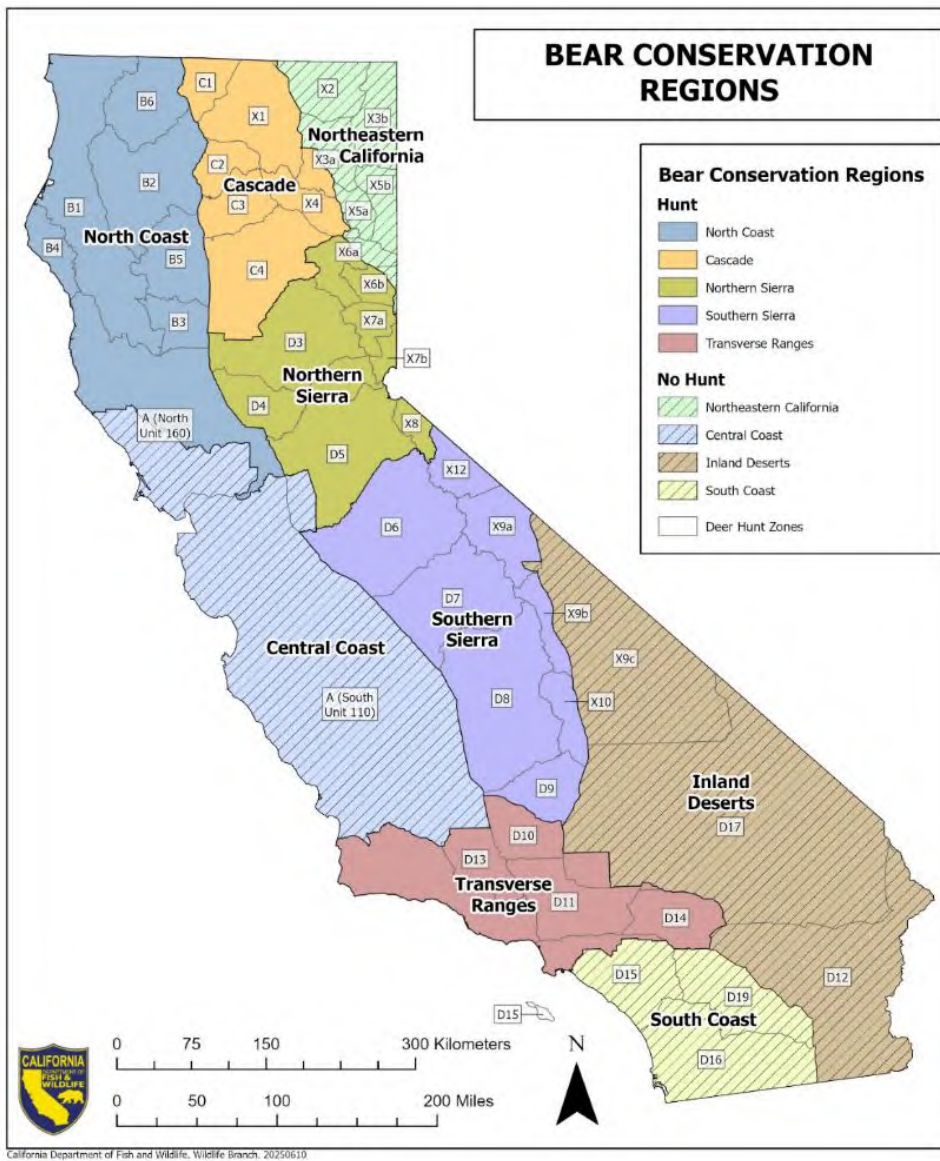


The proposal, if implemented, would be a strategic tool to increase hunter opportunity without impact to the bear population nor adjusting the harvest threshold. The proposal is unlikely to significantly increase harvest considering current methods of take in California and the open, arid habitat and climate of the Northeastern California BCR. The proposed expanded hunt area will add the Northeastern California Bear Conservation Region (Figure 4), as defined in the Black Bear Conservation and Management Plan for California (CDFW 2025c), to the hunt zone.

Specific safeguards included in the proposed project will ensure that bear harvest will be at a level below the state's population sustained-yield capabilities. These safeguards include an in-season closure mechanism when 1,700 bears are reported harvested. CDFW is notified weekly via an automated email what the bear harvest total is, and a staff member enters the data on a continuous basis as harvest is reported. The season ends when the harvest total hits 1,700 or on the last Sunday of December, whichever comes first. Because the reporting deadline is February 1, some reports come in well after the season ends; thus, there is a

chance harvest slightly exceeds 1,700. Yet, even if the 1,700 threshold were to be reached, the harvest rate would be around 2.8%, which is far below a level that would significantly impact the population (up to 20%). The harvest threshold has not been exceeded since the use of dogs to hunt black bears was discontinued in 2012.

Figure 4: Bear Conservation Regions as defined in the Black Bear Conservation and Management Plan for California (CDFW 2025c)



Proposed Tag License Quantity Increase

Amendments to subsection 365(c) change the possession limit to be twice the daily bag limit of one legal bear per day, i.e., allow hunters to harvest two legal bears in a license year. Amendments to subsection 366(c) change the possession limit to be twice the daily bag limits,

specific to the archery season. Additionally, the amendments add subsections 365(c)(2) and 366(c)(2) to state that hunters may not be in possession of more than one bear gall bladder, as such possession is prima facie evidence that bear gall bladders are possessed for sale.

Amendments to section 708.12(a)(4) allow for the purchase of up to two bear license tags during any one license year. The tags can be purchased at the same time or at different times. The harvest threshold of 1,700 has not been reached since 2012 and the current possession limit is one adult bear per hunting license year. The purpose of the proposal is to increase hunter opportunity without impacting the population nor changing the harvest threshold by increasing the possession limit to two. It will also provide opportunities for hunters to harvest two bears in a single season.

The proposal is not expected to result in a significant increase in black bear harvest. Even if the harvest were to increase, the season would close once harvest hits 1,700 which is far below a level (up to 20%) that would significantly impact the population. This critical threshold was used in the 2004 Bear Hunting ED, which this document is an addendum to, and remains valid.

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No Subsequent Environmental Document is Required

In general, CEQA applies whenever a public agency proposes to carry out or approve a discretionary project. (Public Resources Code, Section 21080(a)). CEQA provides that, where a public agency proposes to modify a previously approved project for which a final environmental document was prepared and certified:

“The lead agency or a responsible agency shall prepare an **addendum** to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.” (Title 14, CCR Section 15164)

A “subsequent ED” (Section 15162) is required when there is substantial evidence that:

- Substantial changes are proposed in the project, which will require major revisions to the previous environmental impact report (EIR) or ED.

- Substantial changes occur with respect to the circumstances under which the project is being undertaken, which will require major revisions to the previous EIR or environmental documentation.
- New information, which was not known and could not have been known at the time the previous EIR or ED was certified as complete, becomes available.

A “supplement to an ED” (Section 15163) is appropriate when:

- A subsequent ED is not required.
- Only minor changes to the project are described.
- Only that information to make the ED adequate is provided.

An “addendum to the certified ED” (Section 15164) is proper when:

- The changes or additions presented in this project are necessary, but none of the conditions described in Section 15162 calling for preparation of a subsequent ED have occurred.

The Commission may properly prepare and may rely on an addendum in accordance with Section 15164 to fulfill its obligations under CEQA.

No Additional Impacts Under CEQA

The Commission has determined that amending the current bear hunting regulations will not result in any new or significant or substantially more severe environmental impacts than previously analyzed and disclosed in the 2004 Bear Hunting ED for this project.

This project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. There are no impacts to the habitat of fish and wildlife species.

This approval action expands the area where black bear may be hunted and increases the number of bear tags a hunter may purchase and use from one to two. No other aspect of the project has changed. No new significant or substantially more severe impacts under CEQA will occur due to these changes.

Amendment of the Bear Hunting Regulations

The Commission subjected the draft to its own review and analysis. Based on that review and analysis, the draft reflects the independent judgment of the Commission and fulfills the Commission’s responsibilities. In conclusion, the Commission finds that amending the bear hunting regulations in CCR, Title 14, sections 365, 366 and 708.12 will not result in any new significant or substantially more severe environmental effects than previously analyzed and disclosed in the 2004 Bear Hunting ED. The Commission also finds that subsequent or supplemental review beyond this addendum is not warranted pursuant to the CCR, Title 14, Section 15164, in connection with this proposed action.

Melissa Miller-Henson, Executive Director
California Fish and Game Commission

Date

MEMORANDUM

Date: April 7, 2026

To: Melissa Miller-Henson, Executive Director
Fish and Game Commission

From: Meghan Hertel, Director

Subject: Submission of Memo in Lieu of Pre-Adoption Statement of Reasons for the April 15-16, 2026, Fish and Game Commission Meeting to Amend Section 365, 366, and 708.12, Title 14, California Code of Regulations, re: Bear Hunting

The Department of Fish and Wildlife (Department) has prepared this Memorandum to update the Fish and Game Commission (Commission) as well as summarize and provide responses to public comments received by the Commission on the proposed amendments to sections 365, 366, and 708.12 regarding black bear hunting. The Department received 27 comments as of February 27, 2026. The Department is not recommending any further amendments to the regulatory text based on comments received.

The Department recommends the Commission adopt the proposed rulemaking to redefine hunt area boundaries to include the entirety of Lassen and Modoc counties; change the possession limit to twice the daily bag limit, allow a hunter to harvest two bears in a license year; allow the purchase of up to two bear license tags during any one license year; and make enforceability and clarity improvements, such as reordering and clarifying the definition of a legal bear and inserting California Fish and Game Code language regarding possession of bear gall bladders. The proposed amendments would apply identically to both general and archery hunting for black bear. No change is proposed to the harvest threshold of 1,700 for closing the season.



Melissa Miller-Henson, Executive Director
Fish and Game Commission
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If you have any questions on this item, please contact Scott Gardner, Wildlife Branch Chief, at (916) 801-6257. The Department point of contact for this rulemaking is Statewide Black Bear Coordinator, Dr. Arjun Dheer, who can be contacted at BigGame@wildlife.ca.gov.

Attachment 1: Summarized Comments and Responses

ec: **Department of Fish and Wildlife**

Chad Dibble, Deputy Director
Wildlife and Fisheries Division

Scott Gardner, Chief
Wildlife Branch

Mario Klip, Game Conservation and Wildlife Connectivity Programs
Manager
Wildlife Branch

Chelle Temple-King, Big Game Unit Supervisor
Wildlife Branch

Arjun Dheer, Statewide Black Bear Coordinator
Wildlife Branch

Regina Vu, Regulations Specialist
Wildlife Branch

Ona Alminas, Env. Program Manager
Regulations Unit

Daphne Nandino, Regulatory Scientist
Regulations Unit

Robert Pelzman, Assistant Chief
Law Enforcement Division

Fish and Game Commission

David Thesell, Deputy Executive Director

Ari Cornman, Wildlife Advisor

David Haug, Analyst

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Responses to written comments (1-4) received up to February 27, 2026, and to oral comments (5-27) received at the February 12, 2026, and December 10, 2025, Fish and Game Commission meetings.

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
1. Wolfgang Tertel, None, Email, 01/23/2026	<p>1a. This commenter states that the bear population requires even more active management than proposed and suggests lowering the cost of bear tags.</p> <p>1b. This Commenter also suggests the Commission bring back the use of hounds to hunt bears in a limited fashion.</p>	<p>1a. Fish and Game Code § 4751 sets the statutory fees for bear tags. All revenue from bear tag sales is deposited into the Big Game Management Account and is used for wildlife management activities as outlined in statute. Because these fees are established in law, any change to bear tag pricing would require legislative action.</p> <p>1b. The use of dogs to hunt bears was outlawed in 2012 under Senate Bill 1221. Thus, the use of dogs for bear hunting is a legislative issue rather than a regulatory one and does not fall under the purview of the Commission or the Department.</p>
2. M, None, Email, 01/26/2026	2. This commenter suggests allowing baiting for bears, either generally or on private property.	2. Baiting is not being considered in this regulatory package and is prohibited for all game mammals under Cal. Code Regs. Tit. 14, § 257.5.

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
3. A Preston Taylor, None, Email, 01/26/2026	3. This commenter suggests breaking the state into separate bear management zones, each with a sub-limit constituting the 1700 bear statewide limit.	3. The Bear Conservation Regions (BCRs) delineated within the Black Bear Conservation and Management Plan for California (Bear Plan; 2025) describe the scale at which black bear populations are being monitored in the state. In the future, as additional data are collected, the Department may explore the possibility of dividing the statewide harvest limit between the BCRs and having separate thresholds for each BCR.
4. James Rankin, None, Email, 01/27/2026	4. This commenter suggests loosening or removing onerous requirements for bear tag validations, such as the presentation of meat, hide, and head to the Department for tooth removal.	4. These requirements are described under Fish and Game Code § 4757 which is not part of Cal. Code Regs. Tit. 14. Thus, bear tag validations are a legislative issue rather than a regulatory one and do not fall under the purview of the Commission.
5. Dan Epperson, Amador County Supervisor, Oral, 2/12/2026	5. This commenter spoke in support of the proposals and requested adding a lifetime deer/bear hunting tag.	5. This idea could be explored in the future. The Deer Conservation and Management Plan for California (Deer Plan) is in development. Deer-related changes will be considered upon completion of planning documents.

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
<p>6. Jenny Berg, Humane World for Animals, Oral, 2/12/2026</p>	<p>6a. This commenter opposed the proposals, particularly increasing the bag limit to two. They referred to the fact that most Californians oppose black bear hunting and claimed that the species is vulnerable and rare; and that they reproduce slowly, are threatened by humans, habitat loss, corridors, and food due to drought and wildfire.</p> <p>6b. The commenter also stated that this proposal will increase poaching and will not resolve human-black bear conflict.</p>	<p>6a. Black bears are neither vulnerable nor rare in California. There is a stable population of approximately 60,000 black bears in California and there is no evidence that they are threatened by humans, habitat loss, corridors, and food due to drought and wildfire. California’s black bears are functionally a single population with high levels of genetic and landscape connectivity. The black bear population shows strong resilience to challenges such as drought and wildfire. The Department will however continue to assess the effects of such environmental variables on black bear populations.</p> <p>6b. Within California, there is also no evidence that poaching substantially affects the population. Finally, the aim of these proposals is not to resolve human-black bear conflict (HBC); the Department’s approach to HBC mitigation is governed by the Black Bear Policy in California: Public Safety, Depredation, Conflict, and Animal Welfare (2024).</p>

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
<p>7. Kimberly Richard, Napa County Wildlife Conservation Commission Member, Oral, 2/12/2026</p>	<p>7a. This commenter spoke in opposition to the second tag option. They claimed that the current population estimate of roughly 60,000 is significantly less than what there used to be in California.</p> <p>7a. They also claimed that there are less than 78 black bears in Napa County and that hunting could drop the Napa County population size would reduce to 68, given that she knows 5 black bear hunters in Napa County.</p>	<p>7a. The current estimate of roughly 60,000 is a stable estimate and there is no evidence that abundance is less than what it was at any point in the recent past. Black bears have expanded their range substantially in the past few decades, including within the North Bay Area.</p> <p>7b. Only a portion of Napa County is open to bear hunting, and it is highly unlikely that all 78 black bears in the County (assuming if this population estimate is accurate) reside in the portion of the County where there is black bear hunting. Additionally, given that hunting success rate for the species is so low (4%), it is statistically dubious that all 5 of these hunters would successfully harvest a black bear.</p>

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
<p>8. Bill Gaines, California Deer Association, California Houndsmen for Conservation, California Bowmen Hunter State Archery Association, Oral, 2/12/2026</p>	<p>8. This commenter spoke in strong support of both proposals. They said black bears are overabundant and that their range has expanded. They also said they are not sure how much the second tag will increase harvest but that it is the right thing to do; also, that the Northeastern California BCR was not previously part of the hunt zone because it is new habitat for black bears.</p>	<p>8. Support noted.</p>
<p>9. David Bess, Backcountry Hunters and Anglers, Oral, 2/12/2026</p>	<p>9. This commenter spoke in support of both proposals and said they are rooted in sound, peer-reviewed science and mentioned that his organization looks forward to being an active and engaged partner on future regulatory packages.</p>	<p>9. Support noted.</p>

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
<p>10. Carol Misseldne, , Advisory Board Member for Project Coyote, Oral, 2/12/2026</p>	<p>10. This commenter opposed the proposal to “double bear hunting tags.” They said that black bear hunting does not reduce human-black bear conflict nor improve public safety. They highlighted non-lethal approaches.</p>	<p>10. The proposal would not double bear hunting tags; there is no change to the total number of bear hunting tags available as part of these proposals and the proposal does not intend to reduce HBC. Additionally, the harvest threshold would remain at 1,700 under these proposals. Finally, non-lethal approaches to HBC mitigation are prioritized by the Department per the Black Bear Policy in California: Public Safety, Depredation, Conflict, and Animal Welfare (2024).</p>
<p>11. Camilla Fox, Executive Director of Project Coyote, Oral, 2/12/2026</p>	<p>11a. This commenter opposes the proposal for a second bear tag. They highlighted the Commission’s terrestrial predator policy and asked how killing twice the number of bears would comport with the policy.</p>	<p>11a. The harvest threshold would remain at 1,700. Thus, the idea that this proposal would allow for killing twice the number of bears is not accurate.</p>

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
	<p>11b. They also claim that the Department's black bear integrated population model (IPM) relies on outdated studies and is untested and questionable.</p>	<p>11b. Additionally, the IPM is not questionable or untested. It was published in a peer-reviewed scientific journal in 2025. It makes use of contemporary data from various sources: age-at-harvest data, camera trap data, and local density estimates. Moreover, the Department has deployed GPS collars on over 200 black bears to collect local vital rates data from the field to ensure its data is validated and rooted in the best available science.</p>
<p>12. Jeremy Cutler., None, Oral, 2/12/2026</p>	<p>12. This commenter supports the package, mentions that they are a black bear hunter, that they enjoy black bear meat, and that the Black Bear Conservation and Management Plan for California shows that the package is backed by science.</p>	<p>12. Support noted.</p>
<p>13. J.R. Young, None, Oral, 2/12/2026</p>	<p>13. This commenter supports the package and clarifies that the package would not allow for doubling of take; rather, that it would allow for the purchase of a second tag. Moreover, they mentioned a black bear recipe they made recently and highlighted various benefits of black bear hunting.</p>	<p>13. Support noted. The clarification is correct.</p>

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
14. Alex Birkhofer, None, Oral, 2/12/2026	14. This commenter supports the package and mentions that black bears are the most fully utilized hunted animal in California. They also stated that the Black Bear Conservation and Management Plan for California suggests that hunting is sustainable and would benefit other species.	14. Support noted.
15. James Fey, None, Oral, 2/12/2026	<p>15a. This commenter supports the package and mentions that black bear hunting is primarily done by deer tag hunters and is thus not sure how much take would increase. They also mentioned the value of hunting by hunters from outside the state.</p> <p>15b. Finally, they said there is no black bear hunting in Napa County.</p>	<p>15a. Support noted. It is correct that the majority of black bears hunted in California are harvested by hunters who were hunting for deer and also had a bear tag.</p> <p>15b. Per Cal. Code Regs. Tit. 14, §§ 365(a)(2) and 366(a), black bear hunting is allowed in the portion of Napa County northeast of Highway 128.</p>

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
16. Donald C. Martin, California Wild Sheep Foundation, Oral, 2/12/2026	16. This commenter supports the package and says California has more black bears than ever before. They also highlight kleptoparasitism of mountain lion kills and stress on deer populations. Finally, they state that the harvest threshold has not been reached in years.	16. Support noted.
17. Nick Cutler, None, Oral, 2/12/2026	17. This commenter echoes what the other black bear hunters said and expressed interest in the second black bear tag. They also mentioned the use for various black bear body parts such as fat for soap, and sharing joy with their community.	17. Support noted.
18. Amanda Duchardt, California Bowmen Hunters/State Archery Association, Oral, 2/12/2026	18. This commenter thanks the Department for stakeholder engagement and partnership and expressed full support for the package.	18. See response 9.
19. Phoenix, None, Oral, 2/12/2026	19a. This commenter opposes the package and says California should not double black bear tags;	19a. See Response 10 regarding doubling black bear tags.

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
	<p>19b. That black bears face drought, wildfires, and habitat loss.</p> <p>19c. They also state that the Department needs to seek other funding solutions.</p>	<p>19b. See Response 6 regarding the effects of environmental variables.</p> <p>19c. Currently, black bear conservation and management at the Department is funded via Pittman-Robertson grants; 75% of the funds in those grants come from a federal tax on firearms and ammunition and the remaining 25% is a match sourced from state funds generated through hunting license and tag revenue, in-kind contributions, and third-party contributions.</p>
	<p>19d. Last, that every black bear is someone and that hunters should not take innocent lives.</p>	<p>19d. Per California Fish and Game Code § 1801(e), it is the policy of the state to “To maintain diversified recreational uses of wildlife, including the sport of hunting.”</p>

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
<p>20. Jacinthe Messier, Tribal Historic Preservation Officer for the Paskenta Band of Nomlaki Indians, also speaking on behalf of Grindstone Indian Rancheria for Sheila, Oral, 12/10/2025</p>	<p>20. This commenter speaks to coexistence with bears and states they are definitely opposed to the proposed changes. The commenter states that bears are important to Tribes and states they want to open discussions going forward regarding bears.</p>	<p>20. The Commission and Department appreciate the relationship that California Native American Tribes have with black bears and the suggestion to continue to have open discussion regarding the species. Per the Bear Plan and the Department’s Departmental Bulletin 2014-07: Tribal Communication and Consultation Policy, the Department will continue to notify and consult with California Native American Tribes regarding black bear conservation and management and will prioritize co-management opportunities.</p>
<p>21. Bill Gaines, California Houndsmen for Conservation, California Bowmen Hunters and State Archery Association, California Deer Association, Hunting and Conservation Coalition Bear Management Plan Sub-committee, Oral, 12/10/2025</p>	<p>21. This commenter strongly supports the second tag and expanded hunt zone.</p>	<p>21. Support noted.</p>

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
22. Chris Bowles, California Bowmen Hunters and State Archery Association, Oral, 12/10/2025	22. This commenter supports the proposal and appreciates the second bear tag and the work the Department has done to get here.	22. Support noted.
23. David Bess, Backcountry Hunters and Anglers, Oral, 12/10/2025	23. This commenter commends the Department for the package and looks forward to future engagement in the next two meetings.	23. Support noted.
24. Ned Coe, Modoc County Supervisor, and Chair of the Board, Oral, 12/10/2025	24. This commenter is pleased with the proposal, including the expansion of the hunt area. The commenter notes bear population increase and impact to beekeepers, apple orchards in the area, family ranching operations, and deer, and urges the Commission adopt as proposed.	24. Support noted. Per the Bear Plan, the black bear population is stable, though its range has expanded in areas such as Modoc County.
25. Jeremy Cutler., None, Oral, 12/10/2025	25a. This commenter thanks Arjun Dheer specifically for the Black Bear Management Plan. The commenter approves of additional opportunity and appreciates the Commission’s focus on sustainability.	25a. Support noted.

Attachment 1 – Pre-adoption Statement of Reasons (2026)

365– Responses to Public Comments: Bear Hunting

Commenter Name, Affiliation, Comment Format, Date Received	Comment Summary	California Fish and Game Commission (Commission) and California Department of Fish and Wildlife (Department) Response
	25b. The commenter also asks if there will be a release of the bear hunter survey data.	25b. The hunter survey results will be shared at a later date.
26. JR Young, None, Oral, 12/10/2025	26. This commenter echoes comments from Bill Gaines and fully supports the proposal.	26. Support noted.
27. Nick Cutler, None, Oral, 12/10/2025	27. This commenter expresses support for the proposal, and enthusiasm for the Black Bear Management Plan and the State of California.	27. Support noted.

Request to reject proposal allowing the purchase of a second bear tag

From Jenny Berg [REDACTED]
Date Fri 02/06/2026 03:43 PM
To FGC <FGC@fgc.ca.gov>
Cc Cornman, Ar [REDACTED] Miller-Henson, Melissa [REDACTED]
[REDACTED] Samantha Hagio [REDACTED] Wendy Keefover (she/her)
[REDACTED]

Good Afternoon,

On behalf of several non-governmental organizations, we submit this letter into the administrative record and respectfully urge the California Fish and Game Commission reject the Department of Fish and Wildlife's proposal to allow hunters to purchase a second black bear tag.

No evidence exists demonstrating that a hunter needs to kill two bears per year, or that a second tag results in a benefit to the environment, or is in keeping with Californians' values. It certainly won't help the economy or the agency's budget.

Increasing bear-hunting opportunities will not resolve human–bear conflicts, nor will it bolster California's deer populations. Instead, allowing two tags per hunter could heighten law-enforcement challenges for a species already targeted by poachers for the illegal trade in bear parts, including gall bladders and claws.

Public sentiment in California overwhelmingly favors strong protections for black bears. Surveys consistently show that most Californians do not support bear hunting at all.

For these reasons, we urge the Commission to reject the proposed regulation and instead prioritize science-based, nonlethal, and publicly supported approaches to wildlife management.

Thank you for your consideration.

Sincerely,

Jenny Berg

California State Director, State Affairs

jberg@humaneworld.org

P 916-201-7594

humaneworld.org



Together, we tackle the root causes of animal cruelty and suffering to create permanent change. Stay up to date with our work to help animals and follow us on [Facebook](#), [Instagram](#), [X](#), [YouTube](#) and subscribe to our [blog](#).



**Humane
World for
Animals**

**project
coyote**



LIVE OAK
ASSOCIATES, INC.

February 6, 2026

Attn: Melissa Miller-Henson, Executive Director
Erika Zavaleta, President
California Fish and Game Commission
P.O. Box 944209, Sacramento, CA 94244-2090
fgc@fgc.ca.gov

Re: Proposed 2026 black bear (*Ursus americanus*) regulations

Dear President Zavaleta, Vice President Murray and California Fish and Game Commissioners:

The undersigned groups respectfully urge the California Fish and Game Commission (“FGC”) to reject the California Department of Wildlife’s (DFW’s) proposed regulations to allow hunters to purchase a second bear tag. DFW relies on outdated science to inform this proposal and thus a second tag is unnecessary. Hunting bears will not resolve human-bear conflicts nor increase California’s deer numbers. The sale of two tags per person could increase law-enforcement violations on a species who is already poached in unknown numbers for illegal trade in body parts, particularly gall bladders and claws. Most Californians want no bear hunting at all.¹

1. DFW’s proposal is based upon outdated science and unsound assumptions

Apex carnivores such as black bears are inherently uncommon.² Large-bodied carnivores occur at low densities, reproduce slowly, invest heavily in parental care, and depend on social stability to maintain population resilience.³ They are further limited by habitat availability and climatic conditions and are capable of natural self-regulation.⁴ These biological realities necessitate cautious management—particularly where data are incomplete.

Our fundamental concern with the DFW’s Black Bear Conservation and Management Plan (“Plan”) was its reliance on outdated studies and an untested population model. The Plan estimates 65,000 bears in California—a 63–116% increase over the prior estimate of 30,000–40,000—without sufficient validation. Although DFW correctly acknowledged that the previous model lacked scientific grounding, the new model remains unproven and should not be the impetus to justify increased black bear hunting.

As Garshelis and Hristienko (2006) warn, wildlife agencies frequently rely on unreliable indicators such as sightings, harvest levels, or conflict reports to infer population trends.⁵ We have voiced our concerns that California bears face escalating threats from climate change, megadroughts, wildfires, habitat loss, and fragmented corridors—harms that the Plan failed to meaningfully address.

Hunting exacerbates these risks by disrupting bear social structures. The removal of dominant males can cause sexually selected infanticide, while killing breeding females dramatically reduces cub survival.⁶ Hunters disproportionately remove older, fitter bears, altering population demographics

and increasing juvenile mortality.⁷ Hunting also forces bears to expend critical energy avoiding humans during the hyperphagia period, when they must accumulate fat to survive hibernation.⁸

Additionally, research conducted nearly two decades ago identified genetic concerns in two of California's four bear populations, including inbreeding. No updated genetic analyses exist to resolve these issues. Given the lack of reliable population or genetic data and the accelerating threats from climate change, the FGC should apply the precautionary principle and reject the proposal to allow a second bear tag per hunter.

2. A second bear tag is unnecessary

A. Bear hunting does not reduce human-bear conflicts

Scientific evidence consistently shows that bear hunting does not reduce human-bear conflicts or improve public safety.⁹ Conflicts are driven by unsecured garbage, bird feeders, livestock feed, and other attractants—not bear population size.¹⁰ Reviews by Lackey et al. (2018) and others demonstrate no consistent relationship between harvest levels and conflict reduction.¹¹

Recent studies confirm that increased bear kills do not reduce incidents and may coincide with higher conflict rates.¹² In contrast, non-lethal measures—especially electric fencing—are highly effective, reducing agricultural damage by up to 100%.¹³ Human-bear conflicts are a preventable “people problem,” best resolved through education and coexistence strategies.

B. Predator-control claims (killing bears to grow mule deer herds) have no validity

Some assert that killing bears is necessary to protect deer herds, yet decades of research refute this claim. Deer in California face far more serious threats unrelated to predation, including habitat loss, migration-corridor fragmentation, vehicle collisions, drought, wildfire, declining forage quality, and the looming spread of chronic wasting disease.

Monteith et al. (2014) core finding of their California mule deer study found that population growth is most strongly influenced by nutrition, particularly the condition of adult females.¹⁴ More recent California research confirms this conclusion. Taylor (2024) found that carnivores—including bears—accounted for only a small fraction of deer mortality, while survival closely tracked body condition.¹⁵

Vehicle collisions alone kill approximately 48,000 deer annually in California—more than 10% of the statewide population and roughly twice the number killed by hunters.¹⁶ Climate-driven changes in wildfire patterns further reduce forage quality, worsening nutritional stress.¹⁷ Across the West, human activity remains the dominant driver of deer decline.¹⁸

Multiple long-term studies demonstrate that predator removal does not increase deer populations.¹⁹ Predation is largely compensatory; deer that avoid predation often succumb to other limiting factors such as malnutrition or severe weather.²⁰ Protecting habitat, migration corridors, and winter range—not killing native carnivores—is the path to deer recovery.

3. California's bears belong to all residents—not just hunters

California's wildlife is held in public trust, for all its residents. But this proposal benefits an extremely small, but vocal, faction at the rest of the public's expense. In fact, less than 1% of Californians hold hunting licenses with 0.08% of hunters hunting black bears.

Independent economic analyses show that wildlife conservation is largely funded by the general public through federal and state taxes, while the administration of hunting programs can exceed

license revenues.²¹ Most Californians oppose bear hunting²²—their voices should be acknowledged and listened to as well. Doubling the bear tag allowance lacks both scientific necessity and social justification.

4. We have unaddressed enforcement and poaching concerns

Black bear poaching is well documented nationwide and has historically matched or exceeded legal take in California.²³ Weak penalties provide little deterrence and risk increasing illegal trade in bear parts. Expanding bear hunting under these conditions would worsen, not reduce, management problems.

5. Conclusion

No credible scientific or social science evidence supports the necessity for these proposed changes. Californians overwhelmingly oppose bear hunting and value black bears for their intrinsic worth and essential ecological roles, including seed dispersal, nutrient cycling, biodiversity support, and ecosystem stability.

Given profound scientific uncertainty, escalating climate hazards, persistent enforcement concerns, and clear public opposition, the Fish and Game Commission must reject the CDFW's proposed regulation allowing two bears tags per person.

Sincerely,

Jenny Berg

California State Director
Humane World for Animals
jberg@humaneworld.org

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Women for Wolves
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- ¹ Remington Research Group, "California Public Opinion (Black Bears)," <https://www.humaneworld.org/sites/default/files/docs/2020-Remington-Research-CA-publicopinionsurvey.pdf> (2020).
- ² A. D. Wallach et al., "What Is an Apex Predator?," *Oikos* 124, no. 11 (2015).
- ³ Ibid.
- ⁴ J. L. Weaver, P. C. Paquet, and L. F. Ruggiero, "Resilience and Conservation of Large Carnivores in the Rocky Mountains," *Conservation Biology* 10, no. 4 (1996); Wallach et al., "What Is an Apex Predator?," *ibid.*
- ⁵ D. L. Garshelis and H. Hristienko, "State and Provincial Estimates of American Black Bear Numbers Versus Assessments of Population Trend," *Ursus* 17, no. 1 (2006), p. 6
- ⁶ R. Bischof et al., "Regulated Hunting Re-Shapes the Life History of Brown Bears," *Nature Ecology & Evolution* 2, no. 1 (2018). Shane C. Frank et al., "Harvest Is Associated with the Disruption of Social and Fine-Scale Genetic Structure among Matrilines of a Solitary Large Carnivore," *Evolutionary Applications* 14, no. 4 (2021).
- ⁷ S. C. Frank et al., "Indirect Effects of Bear Hunting: A Review from Scandinavia," *Ursus* 28, no. 2 (2017).
- ⁸ A. Ordiz et al., "Do Bears Know They Are Being Hunted?," *Biological Conservation* 152 (2012).
- ⁹ Cassandre C. Venumière-Lefebvre et al., "Bears Avoid Residential Neighborhoods in Response to the Experimental Reduction of Anthropogenic Attractants," *Frontiers in Ecology and Evolution* Vol. 13 (2025); M. E. Obbard et al., "Relationships among Food Availability, Harvest, and Human-Bear Conflict at Landscape Scales in Ontario, Canada," *Ursus* 25, no. 2 (2014); Joseph M. Northrup et al., "Experimental Test of the Efficacy of Hunting for Controlling Human–Wildlife Conflict," *The Journal of Wildlife Management* (2023).
- ¹⁰ C. W. Lackey et al., "Human-Black Bear Conflicts: A Review of Common Management Practices. Human-Wildlife Interactions," *Monograph* 2 (2018).
- ¹¹ Ibid.; Heather Johnson et al., "Assessing Ecological and Social Outcomes of a Bear-Proofing Experiment," *The Journal of Wildlife Management* (2018); H. E. Johnson et al., "Human Development and Climate Affect Hibernation in a Large Carnivore with Implications for Human-Carnivore Conflicts," *Journal of Applied Ecology* 55, no. 2 (2018); Jared S. Laufenberg et al., "Compounding Effects of Human Development and a Natural Food Shortage on a Black Bear Population Along a Human Development-Wildland Interface," *Biological Conservation* 224 (2018); Venumière-Lefebvre et al., "Bears Avoid Bear-Proofed Residential Neighborhoods."
- ¹² Northrup et al., "Experimental Test of the Efficacy of Hunting for Controlling Human–Wildlife Conflict."; Obbard et al., "Relationships among Food Availability, Harvest, and Human-Bear Conflict at Landscape Scales in Ontario, Canada."
- ¹³ Igor Khorozyan and Matthias Waltert, "Variation and Conservation Implications of the Effectiveness of Anti-Bear Interventions," *Scientific Reports* 10, no. 1 (2020).
- ¹⁴ K. L. Monteith et al., "Life-History Characteristics of Mule Deer: Effects of Nutrition in a Variable Environment," *Wildlife Monographs* 186, no. 1 (2014).
- ¹⁵ Glenden Taylor, "Survival and Cause-Specific Mortality of Mule Deer in the Eastern Sierra Nevada, California, USA" (Utah State University, 2024).
- ¹⁶ Fraser Shilling et al., "Roadkill, a Preventable Natural Disaster," *Road Ecology Center, U.C. Davis* (2024).
- ¹⁷ Carly Q. White, Joshua P. Bush, and Benjamin N. Sacks, "Deer Dietary Responses to Wildfire: Optimal Foraging, Individual Specialization, or Opportunism?," *Molecular Ecology* 32, no. 24 (2023).
- ¹⁸ Chris T. Darimont et al., "The Unique Ecology of Human Predators," *Science* 349, no. 6250 (2015); Monteith et al., "Life-History Characteristics of Mule Deer: Effects of Nutrition in a Variable Environment."
- ¹⁹ M. A. Hurley et al., "Demographic Response of Mule Deer to Experimental Reduction of Coyotes and Mountain Lions in Southeastern Idaho," *ibid.*, no. 178 (2011); Christopher C. Wilmers et al., "The Ecological Impacts of Large-Carnivore Recovery in North America," *Annual Review of Ecology, Evolution, and Systematics* 56 (2025).
- ²⁰ T. D. Forrester and H. U. Wittmer, "A Review of the Population Dynamics of Mule Deer and Black-Tailed Deer *Odocoileus Hemionus* in North America," *Mammal Review* 43, no. 4 (2013); C. J. Bishop et al., "Effect of Enhanced Nutrition on Mule Deer Population Rate of Change," *Wildlife Monographs*, no. 172 (2009).
- ²¹ Cameron Murray, "Trophy Hunters of Native Carnivores Benefit from Wildlife Conservation Funded by Others," *A report for the Humane Society of the United States* https://www.humanesociety.org/sites/default/files/docs/HSUS_Trophy-Hunting-Economics-2020.pdf (2020). John P. Casellas Connors and Christopher M. Rea, "Violent Entanglements: The Pittman-Robertson Act, Firearms, and the Financing of Conservation," *Conservation and Society* 20, no. 1 (2022).
- ²² Remington Research Group, "California Public Opinion (Black Bears)."
- ²³ California Department of Fish and Game, "Black Bear Management Plan," <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=82769&inline> (1998); Remington Research Group, "California Public Opinion (Black Bears)."

California residents oppose expanded bear hunting

From Michelle Fletcher [REDACTED]

Date Wed 04/01/2026 05:27 PM

To FGC <FGC@fgc.ca.gov>

I am writing to respectfully but firmly voice my strong opposition to the proposed regulation that would allow hunters to obtain a second bear tag in California.

As a dedicated resident of this beautiful state, I recognize and deeply value California's black bears not just as wildlife, but as an indispensable part of our natural heritage and the ecological balance of our wild spaces. These magnificent creatures play a crucial role in our ecosystems, and their continued health and sustainability are paramount.

The introduction of a second bear tag would inevitably lead to a substantial and unnecessary increase in bear mortality. This decision would mark a step backward for conservation, escalating hunting pressure beyond what is justifiable and potentially destabilizing local bear populations. Such an expansion of hunting opportunities would result in more tragic and avoidable deaths for these animals, undermining our collective commitment to responsible wildlife stewardship.

Furthermore, it is critical to address the flawed rationale often cited for expanding bear hunting. The notion that increasing the number of bears taken will resolve human-bear conflicts is largely unsupported by evidence. These conflicts typically stem from issues such as habitat encroachment, improper attractant management (like unsecured food waste), and a lack of public education on coexistence strategies, not from an overpopulation of bears. True solutions lie in proactive measures, including robust public awareness campaigns, effective waste management protocols, and responsible land use planning, rather than simply reducing bear numbers.

Similarly, the argument that increased bear hunting would significantly boost deer populations for hunters is ecologically unsound. Bear predation is generally not a primary limiting factor for healthy deer populations; rather, factors such as habitat quality, disease, and other environmental influences play a far more substantial role. Sacrificing more bears will not yield the desired effect on deer numbers.

I urge the commission to prioritize sound ecological principles, ethical wildlife management, and the long-term health of California's bear population. Please reject the proposal for a second bear tag and instead champion strategies that promote coexistence, conserve our precious wildlife, and uphold our state's commitment to biodiversity.

Sincerely,

Michelle Fletcher

California residents oppose expanded bear hunting

From Nishant Bhajaria [REDACTED]
Date Wed 04/01/2026 11:25 AM
To FGC <FGC@fgc.ca.gov>

Hello,

As a California resident, I value our bears and oppose the proposal to allow hunters to obtain a second bear tag. Expanding bear hunting would result in more cruel deaths for bears and would not resolve human-bear conflicts or increase the deer population for hunters.

Nishant



Outlook

Please listen to Californians: No expansion of bear hunting

From mareawoolrich [REDACTED]

Date Wed 04/01/2026 11:27 AM

To FGC <FGC@fgc.ca.gov>

As a huge animal lover, I don't understand why this would be allowed. First the senseless killing of a mother bear with two young cubs and now this?

Please be a voice for the poor animals who cannot fight for themselves. Humans kill and abuse animals every day, and it breaks my heart.

Marea Woolrich

Please listen to Californians: No expansion of bear hunting

From Kristina Ketelsen [REDACTED]

Date Wed 04/01/2026 09:16 PM

To FGC <FGC@fgc.ca.gov>

As a California resident, I value our bears and oppose the proposal to allow hunters to obtain a second bear tag. Expanding bear hunting would result in more cruel deaths for bears and would not resolve human-bear conflicts or increase the deer population for hunters.

Concerns regarding proposed changes to bear tag limits

From Myke Savage [REDACTED]
Date Wed 04/01/2026 02:08 PM
To FGC <FGC@fgc.ca.gov>

To whom it may concern --

As a South Lake Tahoe, California resident, I value our bears and oppose the proposal to allow hunters to obtain a second bear tag. Expanding bear hunting would result in more cruel deaths for bears and would not resolve human-bear conflicts or increase the deer population for hunters.

We should go in the opposite direction -- bears should NEVER be killed for trophies. These beautiful animals belong here more than we as humans do. I'm shocked that a state like California allows hunting of bears at all. We should absolutely not be allowing that!

Bears are beautiful animals and naturally help control the environment in many ways. We should get out of their way and let them do their thing. Living in the mountains in Tahoe, I get to see these beautiful bears every once in a while on a hike. I have never felt threatened by them nor in danger. Let's protect California's bears, not murder them!!

[Myke Savage](#)

California residents oppose expanded bear hunting

From Alice Ramirez [REDACTED]
Date Wed 04/01/2026 02:21 PM
To FGC <FGC@fgc.ca.gov>

I absolutely oppose expanding the already-obscene practice of bear hunting. Frankly slaughtering even one bear to satisfy someone's stupid ego is already one to many! But two? NO!!
I'd like to see trophy- hunting of any animal banned altogether. These Nimrods are not eating these poor murdered animals. If they needed to hunt to live, it'd be different. Just for ego? NO! NO TWO-BEAR KILLS!!!!
Sent from my iPhone

Concerns regarding proposed changes to bear tag limits

From Christie Reed [REDACTED]
Date Wed 04/01/2026 05:47 PM
To FGC <FGC@fgc.ca.gov>

Dear Sir/Madam,

As a child of California I have valued our states leadership in balancing the needs of wild things and wild places with escalating human pressures. An additional tag for existing hunters is likely to increase the pressure on specific populations and skew those ecosystems. I feel it's in all our interests to live with and in balance (as much as is possible) with nature.

Regards,

Christie Reed
[REDACTED]
[REDACTED]

Concerns regarding proposed changes to bear tag limits

From Michael Henderson [REDACTED]
Date Wed 04/01/2026 10:18 PM
To FGC <FGC@fgc.ca.gov>

California FGC,

As a lifelong California resident, I greatly value population of our bears in the wild and strongly oppose the proposal to allow hunters to obtain a second bear tag. Expanding bear hunting would result in more cruel deaths for bears and would not resolve human-bear conflicts or increase the deer population for hunters.

Please consider science and humane solutions.

Thank you,

Michael Henderson

Opposition to Expanding California's Black Bear Hunt

From Jessica Howard [REDACTED]
Date Thu 04/02/2026 09:57 AM
To FGC <FGC@fgc.ca.gov>

Dear California Fish and Game Commission,

I'm writing to express my opposition to any proposal to expand California's black bear hunt. With wildlife already under increasing strain from habitat loss, climate change, and growing human encroachment, expanding hunting is not a responsible or necessary step.

Black bears play an important role in maintaining healthy ecosystems, and their management should reflect a thoughtful, science-based approach that protects long-term balance. Expanding the hunt risks disrupting that balance and doesn't align with the values of many Californians who care deeply about conservation and coexistence.

I encourage the Commission to reject any expansion of the bear hunt and instead invest in non-lethal management strategies, education, and habitat protection.

Thank you for your time and consideration.

Sincerely,
Jessica Howard

Opposition to Proposal Allowing Additional Bear Hunting

From Candace Rocha [REDACTED]

Date Thu 04/02/2026 11:55 AM

To FGC <FGC@fgc.ca.gov>

Dear California Department of Fish and Wildlife,

I am writing to formally express my opposition to any proposal that would allow hunters to obtain a second tag for the killing of black bears in California.

Granting additional bear tags is a reckless policy decision, particularly given the existing pressures on California's black bear population. These animals are already facing significant environmental stressors, including prolonged drought, increasingly severe wildfires, habitat fragmentation, and vehicle collisions. Expanding hunting opportunities under these conditions raises serious conservation concerns.

Available scientific research does not support the claim that increased bear hunting will meaningfully improve deer populations or reduce human-wildlife conflict. On the contrary, such measures risk destabilizing bear populations without delivering the intended management outcomes.

This proposal appears to be driven, at least in part, by special interest groups advocating for expanded trophy hunting rather than by sound, evidence-based wildlife management principles. It is also inconsistent with the values of many Californians, who broadly support humane and conservation-focused approaches to wildlife stewardship.

I urge the Department to reject any expansion of bear hunting opportunities and instead prioritize policies grounded in ecological science, habitat protection, and non-lethal conflict mitigation strategies.

Thank you for your time and consideration.

Sincerely,

Candace Rocha
[REDACTED]



California residents oppose expanded bear hunting

From ALLISON JOHNSTON [REDACTED]net>

Date Thu 04/02/2026 04:58 PM

To FGC <FGC@fgc.ca.gov>

Sir/Madam,

Please don't allow hunters to hunt more bears from a concerned California citizen.

Thank you,
Allison Johnston

[Yahoo Mail: Search, Organize, Conquer](#)

Increase Bear Tags and add a Spring Bear hunt too!

From Kirk Younker [REDACTED]

Date Wed 04/01/2026 07:22 PM

To FGC <FGC@fgc.ca.gov>

I support increasing black bear tags to two per hunter per season and would like to have the opportunity for a spring bear hunt like many other states do. Black bears are increasing in the areas I hunt in Northern California as well as Modoc County, where I'm happy to hear you're going to open that area up to bear hunting too.

On many deer hunts I see more bears than deer anymore!

Thanks your consideration

Kirk Younker
[REDACTED]

Sent from my iPhone

Second bear tag

From Tyler Contreras [REDACTED]

Date Wed 04/01/2026 07:42 PM

To FGC <FGC@fgc.ca.gov>

To whom it may concern

My name is Tyler Contreras, I live in Porterville California and I am writing today in favor of adding a second bear tag.

I believe the science and data backs it up, being the quota hasn't changed since we had an estimated 30,000 bears. Personally, I believe higher quota, second tags, spring season and even the re-addition of hound hunting, although legislation would have to be passed, are all beneficial to aiding in the control of bear populations, rise in deer populations, and if implemented correctly, such as opening seasons in highly populated counties with high bear human conflicts, would aid to reduce these conflicts. Hunting is conservation, and hunting is tool for conservation.

Truthfully, I am probably preaching to the choir. I do believe in the data, and not ballot box biology. Hopefully this found you well

-Tyler

Bear tags

From wvogler99 [REDACTED]

Date Wed 04/01/2026 09:03 PM

To FGC <FGC@fgc.ca.gov>

To Whom It May Concern,

I approve of the proposed regulatory language with regard to bear tags. This can give the CDFW more tools for predator control on a predator with no other controls than human hunters. Allowing the successful hunters to have another go will likely result in the take of more bears, which in some areas is necessary.

--

Carl "Willy" Vogler

[REDACTED]

[REDACTED]

[REDACTED]

Comments on Proposed Bear Hunting Amendments

From Richard Owens [REDACTED]
Date Thu 04/02/2026 02:03 PM
To FGC <FGC@fgc.ca.gov>

Hello,

My name is Richard Owens and I am a hunter living in Southern California. I hunt bears in the Angeles and San Bernardino National Forests. I am in favor of allowing hunters to possess two bear tags per license year. I am curious to see what the data shows after the first year and how the Commission will adjust/respond to that data.

Bests,
Richard

Black Bear Amendments - Agenda Item #24 (April 15-16, 2026)

From tony clawonline [REDACTED]

Date Thu 04/02/2026 11:10 AM

To FGC <FGC@fgc.ca.gov>

Please share with the commissioners our CLAW letter (attached), which is in strong opposition to changing the black bear regulations.

Sincerely,

Tony Tucci (he/him)

Chair & Co-founder

Citizens for Los Angeles Wildlife (CLAW)

12444 Ventura Blvd. Suite 205

Studio City, CA 91604

o. 818-821-6000

c. 310-968-6314

www.clawonline.org



PO Box 50003 Studio City, CA 91614
(818) 821-6000 info@clawonline.org www.clawonline.org

April 2, 2026

Eric Sklar, President
California Fish and Game Commission
1416 Ninth Street, Suite 1320
Sacramento, CA 95814
Via: fgc@fgc.ca.gov

RE: Proposed Amendments to Black Bear Regulations - *OPPOSED*

Dear President Sklar and Commissioners:

Citizens for Los Angeles Wildlife (CLAW) is a non-profit environmental organization concerned with the wellbeing of wildlife and wildlife habitat for the City of Los Angeles and beyond. A citizenry of more than 5,000 individuals support our organization's multiple calls for biodiverse practices and policy to benefit LA City, County, California and the globe. CLAW strongly opposes the proposal that would allow for a second bear tag.

One has to wonder what benefit this proposal brings to the table. While the full quota of bear killings is usually not met each year, the reported numbers consistently reach over 1,000. This, of course, does not include unreported deaths. Presumably, allowing a hunter to kill two bears would raise numbers closer to the established quota. It is imperative to keep in mind that **the quota is set as a maximum, not a goal**. To change regulations in order to increase bear killings closer to this maximum amount may please a small minority of hunters, but is contrary to the vast majority of Californians who oppose hunting black bears for sport. One also has to wonder why one person interested in hunting bears would want to kill another so badly that the state is willing to rewrite regulation for them.

Allowing for a second tag may create increased pressure within certain populations of black bears. California simply does not have the data available to determine whether this pressure can create longer term issues for populations from both a genetic and/or ecological standpoint. The state continues to operate on incomplete science to make these decisions. Furthermore, the arguments to

support such hunting are increasingly outdated. Studies consistently find that hunting does not reduce human-bear conflict, nor does it help to increase deer numbers.

If we are not going to keep black bear hunting numbers at zero like we should be, then we should at the very least keep the number as close to zero as possible, especially until sound science, and not arbitrary opinions, can support the issuance of increased hunting permits.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Tucci". The signature is stylized and written in a cursive-like font.

Tony Tucci, Chair

CLAW is a public benefit non-profit 501(c)(3) environmental organization that works to protect and restore the environments of wildlife of Los Angeles and California from dwindling open spaces. Our mission is to promote, educate and protect the fundamental importance of wildlife, wildlife habitats and wildlife corridors everywhere.

Two Bears Each

From Ann Bryant [REDACTED]
Date Thu 04/02/2026 11:29 AM
To FGC <FGC@fgc.ca.gov>; FGC <FGC@fgc.ca.gov>

Hello Esteemed Members of the California Fish and Game Commission.

I am writing---and speaking---for the BEAR League and our 2500 members, as the Executive Director.

First let me say, we are very appreciative, supportive and respectful to each of you and are grateful to have this Commission overseeing the activities, policies, and governing of the CDFW. Not an easy task. Thank you for the decency and common sense you have shown for the past many years.

The blatant disrespect this plan---to increase each hunters' quota to 2---displays to the overwhelming number of California residents, who don't condone trophy hunting, that these types of hunters are selfish, disgusting, pathetic people and must be stopped and put into place. Only you can do this. We would be shocked if you don't.

Without sounding like a threat, but instead a warning..... let me say now. If this passes it will positively be the catalyst for all anti trophy-hunting advocates to rise up, vehemently rally and stop the Bear Hunt entirely. Passing this disturbing increase would be the proverbial 'last straw on the camel's back'. Witnessing this Commission's brave and intelligent decisions over many years leads me to only one conclusion: If you allow this to happen... you are giving us the Red Light to move forward to Ban Bear Hunting in the great State of California once and for all. And we will do so!

Thank you for all you have done and continue to do to promote respect and fairness for the Wild Animals of California and those of us who prefer to enjoy them Alive.

Very sincerely yours,

Ann Bryant

Executive Director

BEAR League

530.525.PAWS