

5.3.14 Mountain Lion (Southern California/Central Coast ESU) (*Puma concolor*)



Mountain lion
Photo Credit: Ivan Parr

Status

- State Specially Protected Mammal
- State Candidate for Listing

Ecological Requirements

- RCIS Regions: All terrestrial regions
- RCIS Natural Communities: All terrestrial communities (CDFW 1988a; Yap and Rose 2019)
- Large, nocturnal carnivore that requires extensive areas of riparian vegetation and brushy stages of various habitats, with interspersions of irregular terrain, rocky outcrops, and tree/brush edges (CDFW 1988a; Yap and Rose 2019)
- Territorial and solitary, requires large areas of relatively undisturbed habitats with adequate connectivity (Yap and Rose 2019)
- Large ungulates make up approximately 70 percent of the mountain lion's diet; however, as opportunistic predators, they will eat a variety of other larger and smaller prey (Yap and Rose 2019).

- Threats include vehicle-impact mortality, decreased habitat connectivity, secondary poisoning, inbreeding depression, disease, and conflicts with livestock ranchers (Dellinger et al. 2020; Gustavson et al. 2018; Yap and Rose 2019)
- Full species account available: CDFW Mountain Lion Life History Account (CDFW 1988a)
- RCIS Conservation Target: Moderate (widely distributed habitat, representative of terrestrial habitat connectivity, required large contiguous undisturbed habitats)

Associated Non-Focal Species

- American badger (*Taxidea taxus*)
- Jolon clarkia (*Clarkia jolonensis*)

Climate Change Vulnerability Assessment

Mountain lion southern California/central coast ESU (ML) occurs in all habitat types and all regions in the RCIS area and thus are less susceptible to changes in any one habitat type. Mountain lion has a high dispersal range (48.92 kilometers per year) and are likely able to keep pace with large-scale climate changes (Schloss et al. 2012). Despite being highly mobile, mountain lion is still likely susceptible to stochastic, catastrophic weather events such as severe, wind-driven fires (Yap and Rose 2019). Climate change will also likely exacerbate all threats listed in Table 5-22.

The goals, objectives, and actions shown in Table 5-22. aim to protect, enhance, and restore present day suitable habitats for mountain lion, as well as habitats that may become suitable in the future because of projected climate changes. Actions also address population stability, such as promoting genetic diversity, which may allow individuals to move to newly suitable habitats in the future. Figure 5-10 shows the range and modeled habitat for the mountain lion.

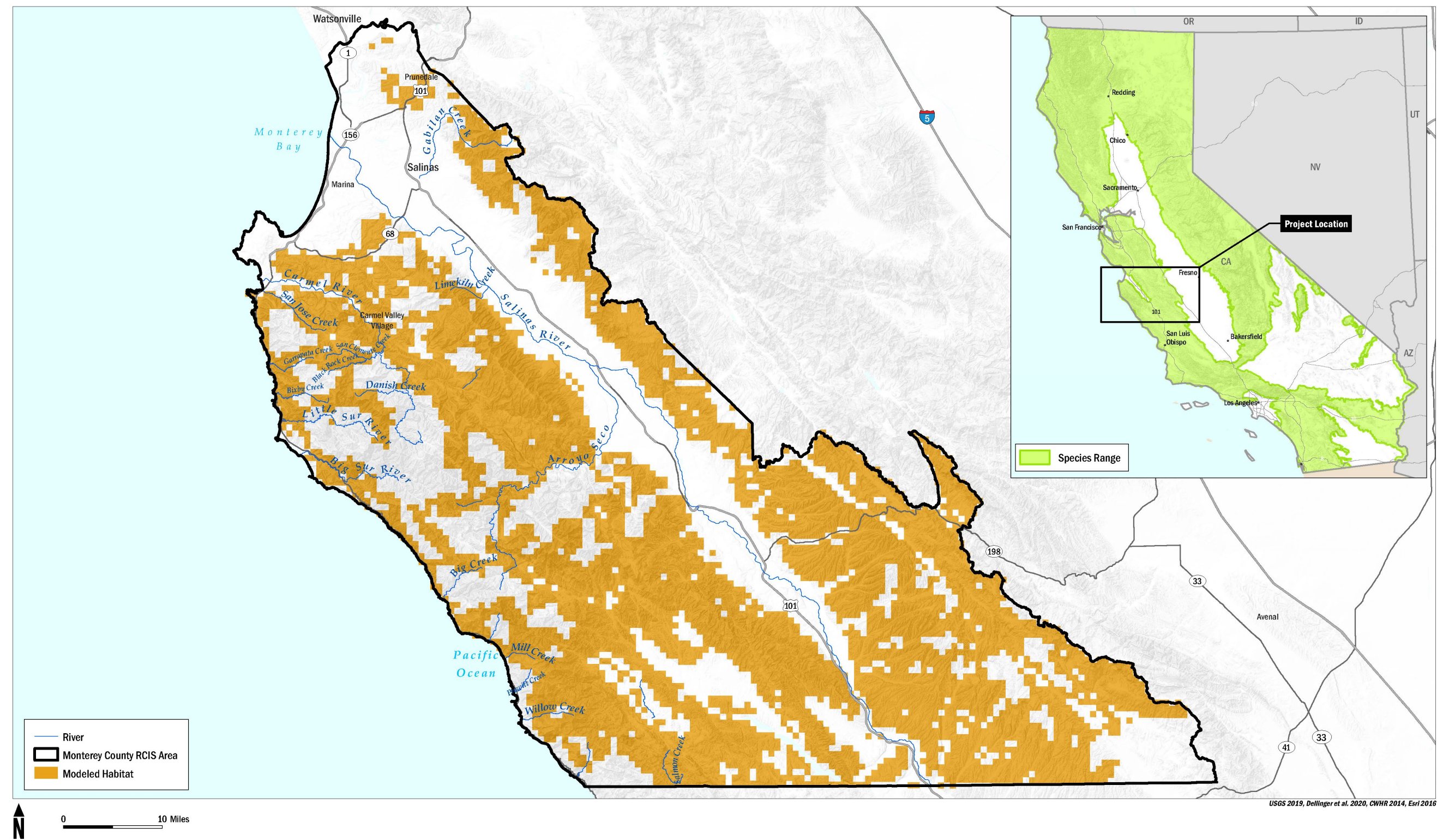


FIGURE 5-10

Mountain Lion (Southern California/Central Coast ESU)

Figure 5-10. Mountain Lion (Southern California/Central Coast ESU) Range and Modeled Habitat

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Mountain Lion Conservation Priorities, Goals, Objectives, and Actions

All RC goals, objectives, and actions apply to mountain lion. Table 5-22. summarizes specific goals, objectives, and actions for the species.

Conservation Priorities

- Acquire and protect habitat that offers corridor linkages for mountain lion in the Coast and Gabilan Range, such as the Jolon Hills that connect the Salinas Valley to Fort Hunter Liggett, the Powell Canyon area, and Stockdale Mountain (RC Objective 1.1).

Table 5-22. Mountain Lion Goals, Objectives, and Actions

Goal	Objective	Threats	Co-Benefits	Action
ML Goal 1: Promote persistence of mountain lion populations in the RCIS area by improving habitat connectivity, prey habitats, and public awareness.	ML Objective 1.1: Protect known occurrences and allow expansion by protecting 335,600 acres of suitable habitat. Measure progress toward achieving this objective in the number of acres of habitat and adjacent/equivalent acres that are protected.	<ul style="list-style-type: none"> • Habitat loss, degradation, fragmentation 	<ul style="list-style-type: none"> • Connectivity • Other focal/non-focal species • Intraspecific competition because of limited habitat • Increased wildfire frequency and severity 	RC Objective 1.1 (Protection) actions

Goal	Objective	Threats	Co-Benefits	Action
ML Goal 1:	ML Objective 1.2: Improve habitat connectivity for mountain lion. Measure progress toward achieving this objective in acres of corridor habitat protected and the number of barriers to movement modified, removed, or otherwise upgraded and used by mountain lion.	<ul style="list-style-type: none"> • Vehicle-impact mortality • Decreased habitat connectivity 	<ul style="list-style-type: none"> • Connectivity • Other focal/non-focal species • Intraspecific competition because of limited habitat • Increased wildfire frequency and severity 	ML 1.2.1: Install, repair, and improve infrastructure (e.g., by adding large culverts, undercrossings, overcrossings, bridges, directional fencing, scuppers, barrier breaks, roadside wildlife detection systems), and remove existing barriers to promote wildlife movement and reduce road mortality (Yap and Rose 2019). Focus on areas with high numbers of vehicle-related mountain lion mortality and areas with high Area of Conservation Emphasis Terrestrial Connectivity rankings.
ML Goal 1:	ML Objective 1.2:	<ul style="list-style-type: none"> • Vehicle-impact mortality 	<ul style="list-style-type: none"> • Connectivity • Other focal/non-focal species 	ML 1.2.2: Work with transportation districts or others to collect and analyze roadkill data, to identify hotspots where mountain lions are killed, to inform the design of wildlife crossing infrastructure improvements (Yap and Rose 2019).

Goal	Objective	Threats	Co-Benefits	Action
ML Goal 1:	ML Objective 1.2:	<ul style="list-style-type: none"> • Vehicle-impact mortality • Decreased habitat connectivity 	<ul style="list-style-type: none"> • Connectivity • Other focal/non-focal species 	ML 1.2.3: Create and sustain long-term funding for long-term management of crossings, including exclusion fencing repairs, solar panels for roadside detectors, weed abatement, and culvert clean out.
ML Goal 1:	ML Objective 1.3: Support sustainable natural prey populations and habitat. Measure progress toward achieving this objective by increases in prey populations and health of prey habitats, compared to present day.	<ul style="list-style-type: none"> • Rodenticide poisoning 	<ul style="list-style-type: none"> • Other focal/non-focal species • Biodiversity 	ML 1.3.1: Manage bait stations to prevent ingestion of poisoned prey species by mountain lion.
ML Goal 1:	ML Objective 1.3:	<ul style="list-style-type: none"> • Decreased prey density 	<ul style="list-style-type: none"> • Other focal/non-focal species • Biodiversity 	ML 1.3.2: Introduce native ungulates to historical ranges.
ML Goal 1:	ML Objective 1.3:	<ul style="list-style-type: none"> • Power transmission corridors 	<ul style="list-style-type: none"> • Other focal/non-focal species • Biodiversity 	ML 1.3.3: Manage utility transmission corridors to be compatible to mountain lion and its prey base.

Goal	Objective	Threats	Co-Benefits	Action
ML Goal 1:	ML Objective 1.4: Reduce human-mountain lion conflicts that negatively affect mountain lion and landowners. Measure progress toward achieving this objective by the number of outreach actions or a decrease in livestock depredation, compared to present day.	<ul style="list-style-type: none"> • Human-wildlife conflict (e.g., livestock depredation) • Poaching 	<ul style="list-style-type: none"> • Other focal/non-focal species • Biodiversity • Working lands 	ML 1.4.1: Support outreach programs that educate landowners about non-lethal methods to decrease livestock depredation, such as use of predator-proof enclosures (Yap and Rose 2019).
ML Goal 1:	ML Objective 1.5: Increase the mountain lion population size above the minimum effective population size (100), to prevent inbreeding depression (Yap and Rose 2019). Measure progress toward achieving this objective by numbers of individuals and increases in genetic diversity.	<ul style="list-style-type: none"> • Low genetic diversity 	<ul style="list-style-type: none"> • Connectivity 	ML 1.5.1: Increase connectivity to other population segments outside the RCIS area, to increase gene flow (Yap and Rose 2019).

Goal	Objective	Threats	Co-Benefits	Action
ML Goal 2: Support stability and recovery of mountain lion populations in the RCIS area by reducing direct mortality.	ML Objective 2.1: Reduce toxin-related mortality. Measure progress toward achieving this objective by the reduction of toxin-related mountain lion deaths detected, compared to present day.	<ul style="list-style-type: none"> • Decreased prey density 	<ul style="list-style-type: none"> • Other focal/non-focal species • Biodiversity • Working lands 	ML 2.1.1: Reduce/eliminate the use of second-generation anticoagulants, rodenticides, and other environmental toxicants (Yap and Rose 2019).
ML Goal 2:	ML Objective 2.2: Reduce pathogen-related mortality. Measure progress toward achieving this objective by the reduction of pathogen-related mountain lion deaths detected, compared to present day.	<ul style="list-style-type: none"> • Disease 	<ul style="list-style-type: none"> • Other focal/non-focal species • Biodiversity 	ML 2.2.1: Monitor for diseases that affect mountain lion populations and implement management actions to reduce their transmission and impacts on the species.

Source: CDFW 1988a, 2015; Dellinger et al. 2020; Gustavson et al. 2018; Yap and Rose 2019,