

MOUNTAIN LION MANAGEMENT

Annual Report – 2014 and 2015

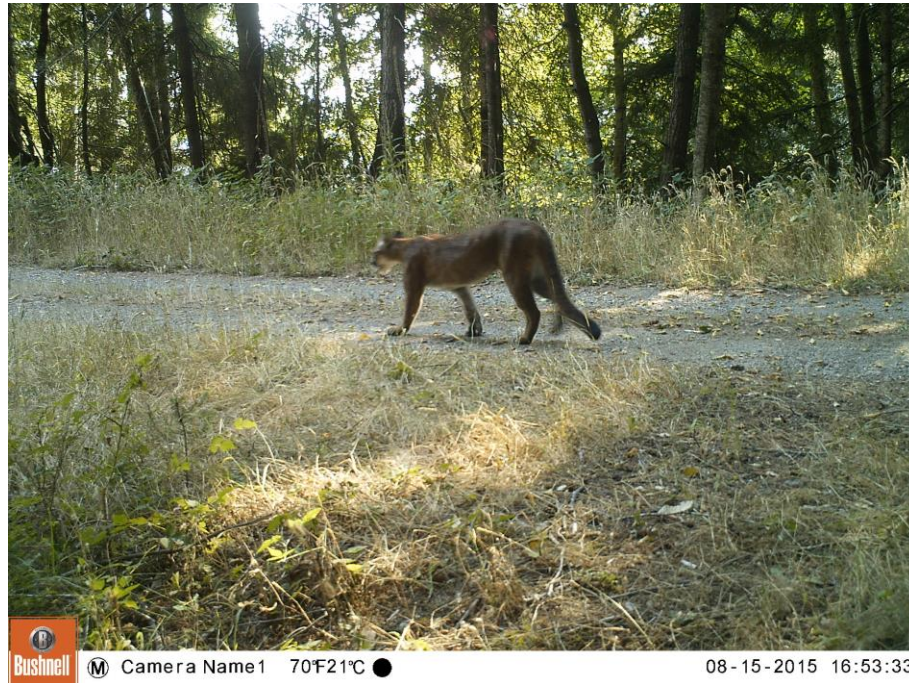


Photo: Redwood National Park

April 2016

INTRODUCTION

This report summarizes mountain lion management activities that occurred within Redwood National and State Parks (RNSP or “parks”) during 2014 and 2015, including mountain lion observations and incidents, education/meetings, mortalities, and research. Mountain lions in RNSP are “managed” using *Standard Operating Procedures (SOP): Reporting and Responding to Mountain Lion Observations in Redwood National and State Parks (2013)*.

MOUNTAIN LION OBSERVATIONS AND INCIDENTS

Mountain Lion Database Entries Summary

In 2014, there were 13 mountain lion observations reported in RNSP, consisting of 11 animals observed directly, 1 animal photographed on a kill, and 1 set of tracks (see Fig. 1 and Appendix A). In 2015, there were 21 observations consisting of 13 lions observed directly, 2 caught on camera, 1 fresh lion kill, 2 vocalizations only reports, 1 set of tracks, and 2 scat reports. The number of direct observations in 2014 was below, and the number in 2015 was equal to, the number of lions observed in 2013. The 11 animals observed in 2014 were the second lowest reported in the years since 2000, with the lowest being 7 in 2012. The 16 lions reported in 2015 tied for the 3rd lowest reported since 2000. The 16-year average (2000-2015) number of direct lion observations was 25 (range 7-37). Note that the 2014-15 numbers refer to lion observations reported by visitors and parks’ staff; they do not include lions captured on camera traps during a research project (Duquette and Szykman Gunther 2015) in the national park between June 2014 and April 2015 (see below).

All but 1 of the 27 direct observations during 2014-15 were of single lions; the other was an observation of 2 lions together. Mountain lions were reported in February and April through September in 2014 and May through late November in 2015.

Of the 34 observations reported during the 2 years, 10 were reported by RNSP employees, 1 by a California Department of Transportation (Caltrans) worker, and 1 by an Alder Camp work crew. The remaining 22 observations were reported by park visitors. Lions were observed during the day and night, as early as 7:30 a.m. and as late as 11:00 p.m.

Thirteen observations were of mountain lions crossing, or near, roads reported mainly by people in vehicles. Ten reports, including the heard-only detections, were from people hiking on trails, 3 reports were of a lion or lion tracks on a beach, 4 were from Redwood Creek gravel bars, and 1 was photographed on an elk kill near the former South Operations Center (SOC) facility. Unlike 2013, no lions were observed in a developed campground. There were 3 lion observations north of the Klamath River, 2 in 2014 and 1 in 2015; the other observations were from northern Coastal Drive just south of the Klamath River to the south end of the park in the Coyote Creek basin (Fig. 1 and Appendix A). In addition to Coastal Drive, other roads used by lions included Howland Hill Road, Bald Hills Road, Tall Trees Access Road, U.S. Highway 101, Newton B. Drury Parkway, K&K Road, and roads in the Coyote Creek Basin. The K&K and Coyote Creek roads are for administrative use only, but open to the public as hiking trails.

Reporting and Documentation

Upon receiving a report of a mountain lion every attempt is made to contact the observer(s) and ask a series of standardized questions about the observation including details of the location, a summary of the observation (or incident), a description of the lion, the observer's and lion's activities at the time of observation, and the responses of both observer and lion. This information is recorded on the RNSP "Mountain Lion Observation Form" and entered into the mountain lion observation database. Based on the details provided, or if the person is known (e.g., a staff member), a reliability rating between 1 (highly reliable) and 5 (highly questionable) is attached to the observation. Tracks and scat and vocalization-only reports, unless the observer's abilities are well-known, are automatically given a rating of 3, 4, or 5. If an interview with the observer is not possible, the observation may be given a lower rating depending upon the level of detail provided on the observation form. Of the 34 observations in 2014 and 2015, 9 (26%) were rated "3", and 3 (9%) were rated "4". The remaining 22 (65%) observations were all considered "1" or "2", or highly or reasonably reliable.

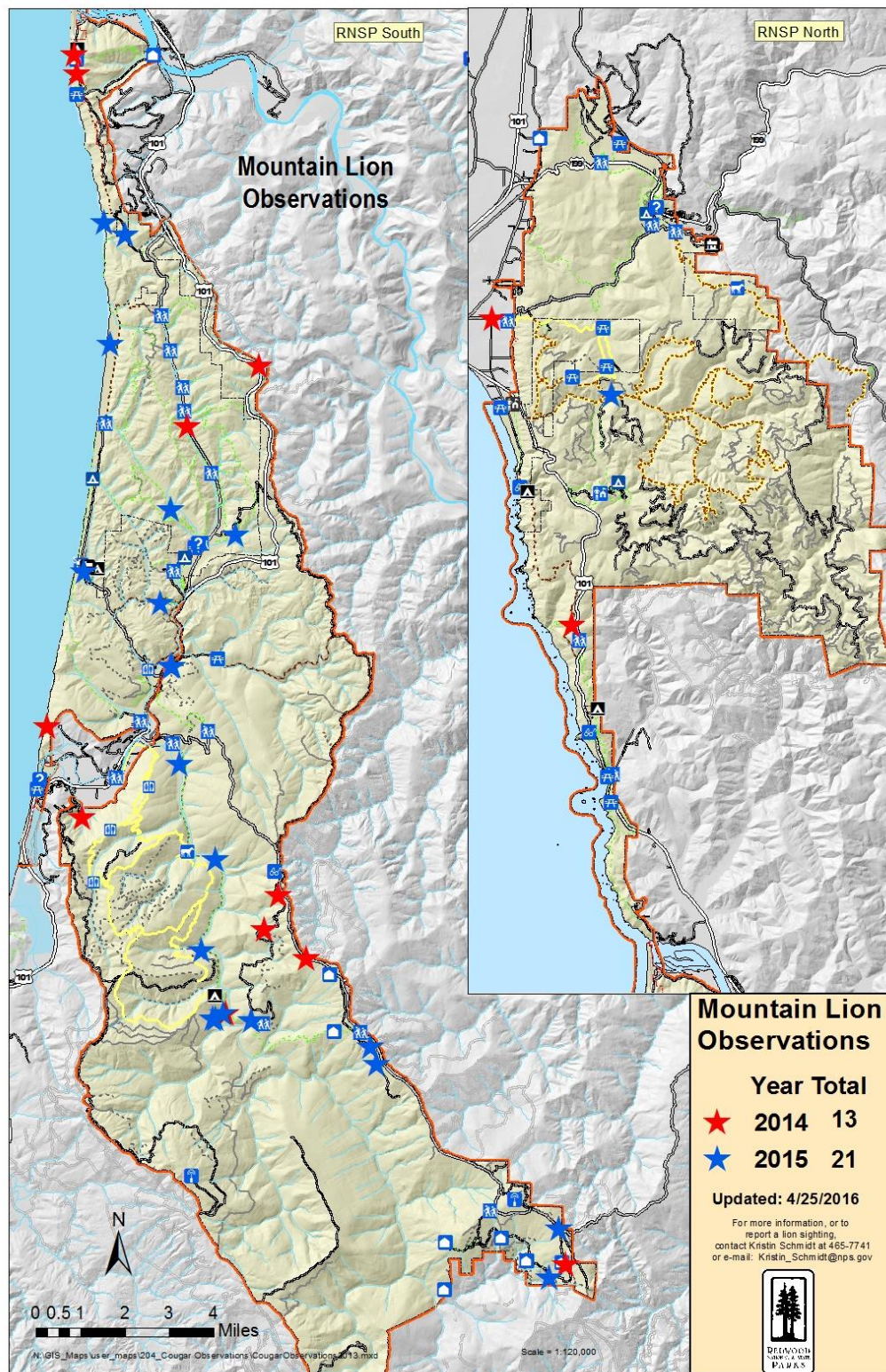


Figure 1. Mountain lion observation (all types) locations in Redwood National and State Parks, 2014 and 2015.

Notable Observations/Encounters

A mountain lion observation is considered notable if it occurs in an area with concentrated human use or is not simply a lion running across a road, or running away. A mountain lion encounter is defined in the SOP as “an unexpected direct meeting between a human and a mountain lion without incident”.

In April 2014, a man walking on a beach near Redwood Creek encountered a lion on the beach. The man had a small dog with him that he apparently picked up when he saw the lion. There was no other information provided regarding this encounter. It’s noteworthy that 1 of 2 lion attacks on a human in the parks occurred on a beach with an associated dog running off leash.

In early May 2014, an employee residing in park housing near old SOC in Orick was out for an early morning walk when she noticed a freshly dead elk that was covered with grass. A wildlife camera was set up at the carcass and a mountain lion was photographed feeding on the kill.

In October 2015, residents at the Gold Bluffs Beach housing unit came upon a mountain lion while out for a walk down their driveway at night.

Lions were heard “growling”, but not seen on 2 occasions, once along the Rhododendron Trail in Prairie Creek Redwoods State Park and the other on the Tall Trees Loop Trail.

Campgrounds, Facilities and Housing Areas

There were no mountain lion observations in a campground in 2014 or 2015. Lion observations near facilities included the kill near old SOC mentioned above and a lion seen near the Mill Creek watershed nursery. The one housing area visited by a mountain lion was near the Gold Bluffs Beach residence. Fresh mountain lion tracks were observed near an historic shack in the Coyote Creek basin. A fresh lion kill was observed by a park employee on an administrative road used as a hiking trail by the public, also in the Coyote Creek basin.

Trail Observations (visual only)

Redwood Creek Trail/Gravel Bar (June 18, 2014): A lion was reported to have been stalking a deer near the Tall Trees Trail junction. No further information was obtained.

Damnation Creek Trail (August 29, 2014): Just past the junction with Coastal Trail a lion was observed approximately 50 ft (15 m) away from 2 hikers. The observers stated it took little notice of them and may have been involved in chasing prey.

Miner’s Ridge Trail (May 6, 2015): About 1 mi (0.6 km) east of the junction with the Clintonia Trail, a lone adult male hiker encountered a lion standing in the trail facing him; it disappeared into the woods. The hiker elected to backtrack to James Irvine Trail.

Davison Trail (May 27, 2015): A bicyclist observed a lion on the trail ahead of him. It “bolted” after being seen.

Tall Trees Loop (July 23, 2015): A lion was observed in a clump of ferns near Redwood Creek. The hiker made noise to scare it away.

Dolason Trail (a.k.a. K&K Road; August 15 and September 22, 2015): Mountain lions were photographed on both of these dates at 2 separate trail cameras. One of these cameras was placed approximately 0.25 mi east of Dolason Trail junction with the K&K. The 2nd camera was approximately 0.75 mi to the east of the junction.

Carruther's Cove Trail (October 23, 2015): A visitor reported seeing a mountain lion "crouched" in underbrush and that it "stared" at the person who waved arms and yelled.

Tall Trees Trail (November 14, 2015): Three hikers observed an adult lion chasing 2 deer. It ran between the split group of people within approximately 15 ft (5 m) and aborted the chase when it saw the hikers.

Redwood Creek Trail (November 30): A park employee saw a mountain lion while hiking on this trail approximately 0.25 mi (0.4 km) from the parking lot. The lion was walking toward him but turned around and went the other way upon seeing the man.

Incidents

A mountain lion incident is defined in the SOP as "a conflict between a human and a mountain lion that has, or may have, resulted in serious injury". There were no such incidents in 2014 and there was one incident in 2015.

On June 30, 2015, 2 lions approached 2 visitors camping on the Redwood Creek gravel bar approximately 5.5 mi (8.8 km) up from the Redwood Creek trailhead and would not leave. It was approximately 10:00 p.m. when the first lion was observed near a bear-proof canister that was placed about 100 ft (30 m) away from the tent. The campers moved their tent closer to the creek and built a fire when they noticed the second lion. For the next 2 hrs the couple yelled and screamed at the lions and threw objects including burning sticks. The animals "flanked" the couple on both sides and continued moving in closer. Eventually another family of 3, camped up river and around a bend, heard the yelling and screaming and decided to investigate what was happening. They observed the lions circling around the camping couple but split apart when they (the other family) approached. It was reported that it was difficult to keep track of where the animals were at all times due to low headlamp batteries and smoke from the campfire. However, one of the lions was eventually seen crouching in nearby streamside vegetation. The couple decided to move to the family's camp for safety. The lions were heard vocalizing to one another, but the sounds were not described as "aggressive".

OBSERVATIONS AND HABITAT

Twenty-two (65%) of the mountain lion observations occurred in or adjacent to forested habitat; 5 were in second growth and 12 were in old-growth redwood/Douglas-fir; 3 observations were in "riparian" woodland; and 2 observations were in spruce forest. Ten (29%) observations were in

non-forested habitats including, coastal scrub, beach, and the Bald Hills prairies. In 2 cases habitat was not able to be determined from the information provided.

EDUCATION / MEETINGS

Mountain lion safety orientations were given to seasonal RNSP interpretation staff and a Youth Conservation Corps work crew. RNSP Interpretation staff informed visitors about basic mountain lion safety while staffing visitor centers and during various interpretive programs and guided walks.

Caution and warning signs were posted at Redwood Creek and Tall Trees trailheads after the lion incident on the gravel bar.

MORTALITIES

There was one reported case of mountain lion mortality in RNSP in 2014, the result of a vehicle strike on the U.S. Highway 101 Bypass.

RESEARCH

A research project (Permit # REDW-2014-SCI-0013) that employed 20 remote infrared cameras was conducted from June 5, 2014 through April 21, 2015. These cameras were placed throughout the national park south of Prairie Creek Redwoods State Park adjacent to trails and administrative roads open to the public for hiking. The objective of the study was to assess mountain lion trail use relative to use by humans and large prey. There were 72 mountain lion photographs recorded at 12 cameras, including a female with a cub and 2 lions at a deer kill. Cameras with the majority of lions photographed were along Geneva Road/Lost Man Creek hike and bike trail and administrative roads within the Coyote Creek basin. Cameras were set to photograph for the entire 24-hr period. Lions were most frequently photographed from 5:00 a.m.-12:00 p.m. and 5:00 p.m.-5:00 a.m. (Duquette and Szykman Gunther 2015).

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Reference: Duquette, J.F. and M. Szykman Gunther. 2015. Estimating mountain lion density and relationship to human use in Redwoods National and State Parks. Final Rept.

Appendix A. Date, location, observation type, and observer and lion activity associated with mountain lion reports within RNSP during 2014-2015.

Observation Date	Location	Observation Type	Observer Activity	Lion Activity
2/14/2014	Highway 101 Bypass, northbound lane past the Cal Trans sand hut.	Visual	Driving	Dead
4/23/2014	Elk Camp Prairie on Bald Hills Road.	Visual	Driving	Standing Still
4/23/2014	Mussel Beach.	Visual	Hiking	Unknown
5/4/2014	Near Old SOC Road culvert near facility.	Visual	Hiking	Probably hiding in nearby forest, lion kill-lion later photographed.
5/26/2014	Howland Hill Road.	Visual	Driving	Unknown
6/16/2014	Near Tall Trees Access gate.	Visual	Driving	Crossing road
6/18/2014	Redwood Creek Trail where sandbar meets Tall Trees Trail.	Visual	Hiking	Stalking prey
6/29/2014	Tall Trees Access Road.	Visual	Driving	Crossing road
7/28/2014	Newton B. Drury Parkway.	Visual	Driving	Crossing road
8/20/2014	Near Coyote Creek Line Shack.	Track	Hiking	Unknown
8/29/2014	Damnation Creek Trail, just past the junction with the Coastal Trail.	Visual	Hiking	Running away
9/6/2014	Coastal Drive near Flint Ridge on Coastal Trail.	Visual	Driving	Running away
9/20/2014	Coastal Drive before Flint Ridge parking lot.	Visual	Driving	Walking
5/3/2015	~0.75 mi north of Cathedral Trees Trail on Rhododendron Trail.	Sound	Hiking	Unknown
5/6/2015	Miner's Ridge Trail, 1 mi east of Clintonia Trail junction.	Visual	Hiking	Crossing trail
5/27/2015	Davison Trail, between Wolf Creek Road and Streelow Creek.	Visual	Biking	Crossing trail
6/30/2015	Redwood Creek west bank ~ 5.5 miles up from trailhead.	Visual	Camping	2 lions pacing around; would not leave.
7/3/2015	Tall Trees Grove Loop just past Redwood Creek.	Sound	Hiking	Unknown
7/17/2015	Off Highway Road that connects to Geneva Road.	Visual	Preparing to cut a tree.	In old stump, staring, then ran off.
7/18/2015	Mill Creek facility near gate entrance into shop/nursery area.	Visual	Driving	Crossing road
7/23/2015	Tall Trees Loop Trail at the bottom near Redwood Creek.	Visual	Hiking	Crouched in ferns
8/4/2015	Redwood Creek on gravel bar near Gans South Creek.	Scat	Hiking	Unknown

Observation Date	Location	Observation Type	Observer Activity	Lion Activity
8/15/2015	K&K Road.	Photograph	N/A	Walking
8/30/2015	Bald Hills Road near Coyote Peak.	Visual	Driving	Crossing road
9/7/2015	Across Redwood Creek from Tall Trees.	Visual	Camping	Pacing
9/8/2015	US Highway 101 between Orick and Lost Man Creek.	Visual	Driving	Crossing road
9/13/2015	Lower Rock Fork Road.	Prey kill	Driving	Unknown
9/22/2015	K & K Road.	Photograph	N/A	Walking
9/29/2015	Carruther's Cove.	Scat	Hiking	Unknown
10/15/2015	Road to employee housing at Gold Bluffs Beach.	Visual	Hiking	Crossing road
10/23/2015	Upper 1/3 of Carruthers Cove Trail.	Visual	Hiking	Crouched
10/27/2015	Gold Bluffs Beach, ~1.5 miles south of Ossagon Trailhead.	Track	Hiking	Unknown
11/14/2015	Tall Trees Trail.	Visual	Hiking	Chasing prey
11/30/2015	Redwood Creek Trail, 1/4 mile from trailhead parking lot.	Visual	Hiking	Walking on trail