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W6g

Informational update on sea lions at La Jolla Cove

December 10, 2025

CORRESPONDENCE

Outlook

Fw: NBC San Diego 7 Interview-La Jolla Cove

From Cain, Lindsey@Coastal <lindsey.cain@coastal.ca.gov>
Date Mon 12/8/2025 2:53 PM
To Cain, Lindsey@Coastal <lindsey.cain@coastal.ca.gov>

From: Matt Coumbe <mattcoumbe@level1consulting.com>
Sent: Sunday, December 7, 2025 8:17 AM
To: ExecutiveStaff@Coastal <ExecutiveStaff@coastal.ca.gov>
Subject: NBC San Diego 7 Interview-La Jolla Cove

To the Coastal Commission,

On Saturday, I was the featured "Diver" during NBC San Diego's piece on La Jolla Cove. I have now returned to Minnesota and will not be available to attend your upcoming meeting in person, but have an idea for the Commission to consider.

Since you will be considering future actions on potentially closing the La Jolla Cove beach to protect the local sea life, please consider an alternative approach. I wholly support the aggressive protection of sea lions and other wildlife in the area, but as a scuba diver for the last 35 years, I also understand the value in metered human exploration of natural environments. More specifically, a permitting process, with fee, to dive or swim from the La Jolla Cove stairs would allow experienced divers or athletes to enjoy and respect such a special place. For example, requiring at least 10 years of diving experience with proof and certification, and not allowing any camera equipment or electronic propulsion devices would be an important step in creating a safe and respectful environment for the local sea life. Park Rangers could also introduce other relevant education and information requirements prior to allowing permitted access to the Cove stairs. Additionally, introducing a fee of $100 per person would create a small stream of revenue that could be directed at supporting the Cove.

Again, closing the Cove to all swimmers and divers is a logical, and potentially easier solution to protect the native sea life, but please consider an approach that allows people who are conservationists and strong supporters of the ocean to access this amazing place. Lastly, no matter what action you pursue, I would applaud and strongly support the Cove beach itself be closed to all human traffic as this would dramatically reduce the number of potential animal harassment issues.

Regards,
Matt

Dr. Matt Coumbe, Ph.D.
Founder and Global Managing Partner
Success Begins at Level 1

Outlook

Fw: Public Comment on December 2025 Agenda Item Wednesday 6g - Informational update on sea lions at La Jolla Cove

From Cain, Lindsey@Coastal <lindsey.cain@coastal.ca.gov>
Date Fri 12/5/2025 8:32 AM
To Cain, Lindsey@Coastal <lindsey.cain@coastal.ca.gov>

3 attachments (3 MB)

NOAA Cal sea lion population report _2018 hl.pdf; 'An eco-disaster'_ Kelp forests disappearing off the coast of La Jolla for unknown reasons - La Jolla Light.pdf; La Jolla Light Kelp Commentary Kurt H. 1 20 2025.pdf;

From: Hoffman, Kurt <kurt.hoffman@ubs.com>
Sent: Thursday, December 4, 2025 5:06 PM
To: ExecutiveStaff@Coastal <ExecutiveStaff@coastal.ca.gov>; afeild@sandiego.gov
Cc: Elisabeth Frausto <elisabeth@lajolla.ca>
Subject: Public Comment on December 2025 Agenda Item Wednesday 6g - Informational update on sea lions at La Jolla Cove

You don't often get email from kurt.hoffman@ubs.com. Learn why this is important

Exec Staff & Director Field,

Any type of closure to human access at La Jolla Cove will encourage a further increase in the year-round CSL population and add to the destruction of our atmospheric, marine, and terrestrial environments. Limiting the number of tour buses, requiring tour bus permits (could be a new City revenue source), and requiring tour bus guides to keep the tourists from going down the beach at the Cove should be considered. The ocean access use only signs at Boomer Beach are working to keep CSL and human interaction issues at Boomer to a minimum. This same concept could be applied at The Cove.

The Cove Beach is not large enough for sunbathers and child play, The Shores is great for all those activities. La Jolla Cove signage could suggest such alternative areas for sunbathing, dog walking, and child's play. Human Ocean Access to Boomer Beach and La Jolla Cove must be preserved as long as humans walk in La Jolla. Human access to S. Casa Beach must be restored ASAP and The Children's Pool complete winter closure should be revisited as well. Waterperson access to all these limited safe ocean entry points in La Jolla should be preserved and protected year-round.

Keeping both Cove stairs open year-round for swimmers and divers is essential. Providing signage to discourage no-swimmer / divers from going on the Cove beach when Sea Lions are present could be considered, any type of closure is not the answer. The Cove has been a human access beach since our species walked or crawled in this area. Mountain Lions helped control the pinniped populations in La Jolla for centuries, then The Kumeyaay hunted Seals and Sea Lions for hundreds of years before they were displaced by Settlers. Today, we are continuing down this pinniped favoring path with The Children's Pool and Pt. La Jolla closures.

Our local marine ecosystem developed with very limited pinniped impacts for thousands of years, thanks to the above noted effective predators. Our tidepools, kelp, and fish populations are all being severely impacted by the continuing to increase CSL population in La Jolla, don't make this disaster any worse with more closures.

I suggest you consider some of the below outlined historic and scientific evidence of the current overpopulation of the CSL along our coast. The maximum net productivity level (MNPL) is estimated to be 183,481 animals, see page 2 of above attached report. In 2014, the CSL population was estimated at 233,515, we are likely at 4x the MNPL by now as we have not had a strong El Nino in well over a decade. El Ninos disrupt our local bait fish populations and CSL move north to find their forage fish or die.

Excess nitrogen in our coastal waters could be to blame for both the more frequent algae blooms and the current decline of our coastal kelp beds, see last attachment above. Excess nitrogen is an issue in Florida from agricultural run-off, on the West Coast we have experienced an explosion in the Sea Lion population over the past decade, this is a significant source of increased nitrogen in our coastal waters. The CSL, “Population size in 2014 was estimated at 257,606, which corresponded to a pup count of 47,691 animals”, Hanan Associates, 3/18/19. Laake et al (2018) estimated maximum net productivity level (MNPL) to be 183,481 animals with a net productivity rate of 7%. With the last weak CA El Nino event in 2014-15, the CSL population could now be over 800,000 animals along our coast, simple math (257,606 * 1.07 annual net productivity) * 11 years. This extreme CSL overpopulation level could be a significant factor contributing to the toxic algae bloom as well as the severely declining North La Jolla kelp beds.

Revisiting of the 1972 MMP Act should be considered prior to any further closures to human access. Non-lethal deterrents as well as further culling of the CSL must be considered to protect our marine environment from further destruction that we have encouraged with our pinniped favoring actions. The ecosystem is out of balance, many marine species, beyond Columbia River Salmon, are suffering from the current CSL population increase, likely five to six times the maximum net productivity level or MNPL of 183,481 sea lions.

Thank you,

Kurt Hoffman
Ocean Access Advocate
(858) 775-8091

LA JOLLA LIGHT

Guest Commentary: Declining kelp beds off La Jolla are one consequence of overpopulation of pinnipeds

Ongoing beach and bluff closures encourage more and more pinnipeds to congregate in north La Jolla and harm the delicate balance of the ecosystem

Kelp forests, once lush and pervasive, have been disappearing in parts of La Jolla's waters. (Ed Parnell)

By KURT HOFFMAN
PUBLISHED: January 20, 2025 at 3:00 PM PST

It is always enlightening to hear from a marine scientist and underwater expert. The insights from Ed Parnell shared in the *La Jolla Light* article "'An eco-disaster':

Kelp forests disappearing off the coast of La Jolla for unknown reasons" (July 13, 2003) shed light on the underwater ecosystem and local kelp bed decline.
My hope for the new year is that his SIO [Scripps Institution of Oceanography] team may be able to study the La Jolla marine ecosystem to help us understand the current issues he so dramatically documented in the once-teeming kelp forests in northern La Jolla specifically.

For now, we must preserve and share our memories. Advocating for better solutions to manage the growing pinniped population is crucial, as the current beach and bluff closures continue to harm the marine environment.

Just a decade ago, the kelp forests were healthy and vibrant, before the pinnipeds became the dominant species in the local marine ecosystem — by my count over 600 California sea lions around Point La Jolla in December.

California sea lion numbers need to be documented on a daily basis by the park rangers that monitor Point La Jolla. We need to designate street parking for the rangers, as parking on the once-grass area is not appropriate in one of our most important local parks.

Hundreds of sea lions rest at Point La Jolla on Dec. 22. Managing the growing

pinniped population is crucial, as it is harming the marine environment, local resident Kurt Hoffman writes. (Kurt Hoffman)

In the early 2000s, large schools of yellowtail frequently fed just offshore, and white seabass spawned in our dense La Jolla kelp beds. I caught 20 yellowtail and 20 white seabass — all over 20 pounds — during the remarkable 2010-11 season, fishing just once a week from a kayak.

This was the golden age of La Jolla kayak fishing, a time when the marine ecosystem thrived. I feel blessed to have been able to experience such abundance. This is why I'm so passionate about preserving the memory of our once-rich waters.

La Jolla shouldn't be defined by seal selfies but celebrated for its unique ocean swimming areas, bodysurfing-only reef break and safe kayak launches from La Jolla Shores. We need to shift the narrative away from the seal sanctuary and push for policies that protect the environment.

Many locals oppose the current beach and bluff closures, especially the Point La Jolla closure. We must share the history of La Jolla's kelp forests and help our elected officials understand the consequences of their policies, which contribute to the overpopulation of pinnipeds in La Jolla and the degradation of our local waters and kelp beds.

I appreciated Parnell's openness to my theory that there may be a link between kelp die-off and high nitrogen levels in the north La Jolla waters due to the growing pinniped populations in this area.

Private funding for a study of our kelp forests could be the key to finding answers, as the city of San Diego has ignored our requests for an environmental impact report before closing Point La Jolla and Boomer Beach for seven years.

Pinniped advocates often overlook the historic role of natural predators. Mountain lions, coyotes and the Kumeyaay people maintained natural pressures that kept pinnipeds from hauling out and birthing pups in La Jolla. Over time, human actions — including the displacement of these natural predators — have eliminated the ecological balance that once existed along our shores.

The recent devastation in the once-dense north La Jolla kelp forest is quite evident. If global warming was the answer to this issue, the Bird Rock portion of

once-continuous La Jolla kelp forest would be equally depleted. This is not the case. North La Jolla kelp is severely depleted while south La Jolla kelp beds are healthy.

Water temperatures in north La Jolla are cooler than in the south, related to the submarine canyon that ends at La Jolla Cove, with cold upwellings regularly flowing south from the oldest marine protected area, or MPA, in the U.S., referred to as Matlahuayl, or Place of the Caves, in reference to our local Kumeyaay heritage.

The current direction of beach and bluff closures continues to encourage more and more pinnipeds to congregate in north La Jolla and harm the delicate balance of the ecosystem that developed and flourished without large numbers of those aggressive predators feeding and defecating on our shores.

Reversing the closures at Point La Jolla and the Children's Pool and allowing dog walkers within all of Scripps Park and along Boomer Beach, the Children's Pool and The Cove could help restore the natural balance.

We need to consider creative solutions to protect our coastal waters and prevent further ecological damage from the growing pinniped populations that have upset the delicate balance of the once-thriving La Jolla kelp bed ecosystem.

Kurt Hoffman is a La Jolla businessman and waterman. ♦

Revised 3/18/2019

CALIFORNIA SEA LION (*Zalophus californianus*): U.S. Stock

STOCK DEFINITION AND GEOGRAPHIC RANGE

California sea lions breed on islands located in southern California, western Baja California, and the Gulf of California (Fig. 1). Mitochondrial DNA analysis identified five genetically distinct geographic populations: (1) Pacific Temperate, (2) Pacific Subtropical, (3) Southern Gulf of California, (4) Central Gulf of California and (5) Northern Gulf of California (Schramm *et al*. 2009). The Pacific Temperate population includes rookeries within U.S. waters and the Coronados Islands just south of U.S./Mexico border. Animals from the Pacific Temperate population range into Canadian and Baja California waters. Males from western Baja California rookeries may spend most of the year in the United States.

International agreements between the U.S., Mexico, and Canada for joint management of California sea lions do not exist, and sea lion numbers at the Coronado Islands is not monitored. Consequently, this report considers only the U.S. Stock, i.e. sea lions at rookeries north of the U.S./Mexico border. Pup production at the Coronado Islands is minimal (between 12 and 82 pups annually; Lowry and Maravilla-Chavez 2005) and does not represent a significant contribution to the overall size of the Pacific Temperate population.

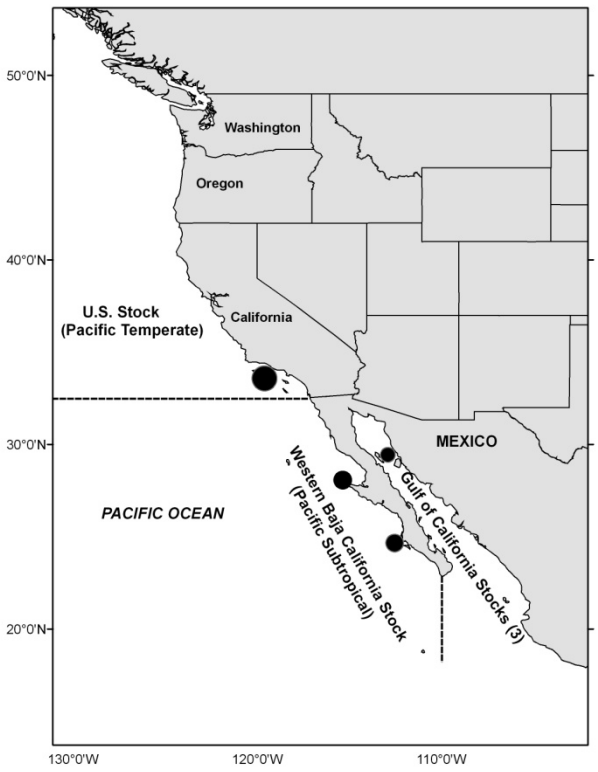

Figure 1. Geographic range of California sea lions showing stock boundaries and locations of major rookeries. The U.S. stock also ranges north into Canadian waters.

POPULATION SIZE

California sea lion population size was estimated from a 1975-2014 time series of pup counts (Lowry *et al*. 2017), combined with mark-recapture estimates of survival rates (DeLong *et al*. 2017, Laake *et al*. 2018). Population size in 2014 was estimated at 257,606 animals, which corresponded with a pup count of 47,691 animals along the U.S. west coast (Lowry *et al*. 2017, Laake *et al*. 2018).

Minimum Population Estimate

Minimum population size for 2014 is taken as the lower 95% confidence interval (CI) of the 2014 population size estimate, or 233,515 animals (Laake *et al*. 2018). The lower 95% CI is used as an estimate of N_{min} in this report because the lower 20th percentile of the estimated population size is not calculated in Laake *et al*. 2018. The lower 95% CI is a more conservative estimate of minimum population size and is superior to previous approaches that simply used 2x the annual pup count, which were negatively-biased because not all age classes were represented.

Current Population Trend

Population size trends from 1975 through 2014 are shown in Fig. 2. The time series of population estimates are derived from 3 primary data sources: 1) annual pup counts (Lowry *et al*. 2017); 2) annual survivorship estimates from mark-recapture data (DeLong *et al*. 2017); and 3) estimates of human-caused serious injuries, mortalities, and bycatch (Carretta and Enriquez 2012a, 2012b, Carretta *et al*. 2016, Carretta *et al*. 2018a, 2018b). These 3 data sources were combined to reconstruct the population size estimates shown in Fig. 2 (Laake *et al*. 2018). Age- and sex-specific survival rates of California sea lions were estimated by DeLong *et al*. (2017), and female survivorship exceeds that of males. Annual pup survival was 0.600 and 0.574 for females and males, respectively. Maximum annual survival rates corresponded to animals 5 years of age (0.952 and 0.931 for females and males, respectively). Survival of pups and yearlings declined with increasing sea surface temperatures (SST). For each 1 degree C increase in SST, the estimated odds of survival declined by 50% for pups and yearlings, while negative SST anomalies resulted in higher survival estimates (DeLong *et al.* 2017). Such declines in survival are related to warm oceanographic conditions (e.g. El Niño) that limit prey availability to pregnant and lactating females (DeLong *et al*. 2017).

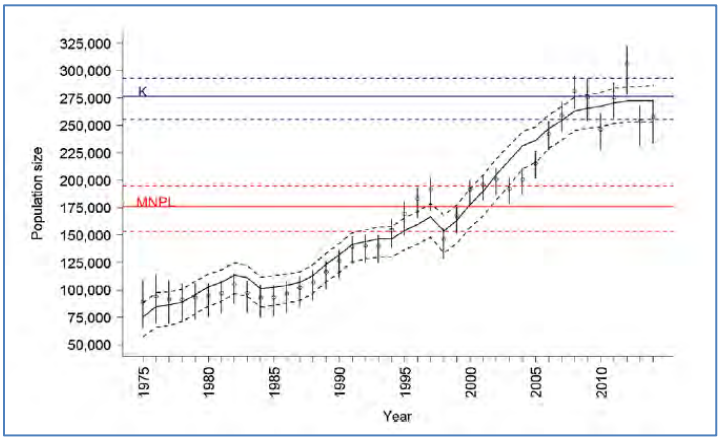

Figure 2. Fitted logistic growth curve (solid line) and 95% bootstrap intervals (dashed line) for reconstructed California sea lion annual population sizes in the United States, 1975–2014. Vertical lines indicate 95% confidence intervals for reconstructed annual population sizes. We also present estimated carrying capacity (K; solid blue line) with 95% confidence intervals (dashed blue line) and maximum net productivity level (MNPL; red solid line) with 95% confidence intervals (dashed red line). Figure from Laake *et al*. 2018.

CURRENT AND MAXIMUM NET PRODUCTIVITY RATES

Using a logistic growth model and reconstructed population size estimates from 1975-2014, Laake *et al*. (2018) estimated a net productivity rate of 7% per year. This estimate includes periods of sharp population declines associated with El Niño events and excludes undocumented levels of anthropogenic removals through bycatch and other sources (Carretta *et al*. 2016). The net productivity rate estimate of 7% per year is not considered a maximum net productivity rate, and Laake *et al*. (2018) note that the population is capable of faster growth rates. Therefore, we use the default maximum net productivity rate for pinnipeds of 12% per year (Wade and Angliss 1997). Laake *et al*. (2018) also estimated the population size at maximum net productivity level (MNPL) to be 183,481 animals.

POTENTIAL BIOLOGICAL REMOVAL

The potential biological removal (PBR) level for this stock is calculated as the minimum population size (233,515) times one half the default maximum net growth rate for pinnipeds (½ of 12%) times a recovery factor of 1.0 (for a stock within OSP, Laake *et al*. 2018, Wade and Angliss 1997); or 14,011 sea lions per year.

HUMAN-CAUSED MORTALITY AND SERIOUS INJURY

Historical Depletion

Historic exploitation of California sea lions include harvest for food by native Californians in the Channel Islands 4,000-5,000 years ago (Stewart *et al*. 1993) and for oil and hides in the mid-1800s (Scammon 1874). Other exploitation of sea lions for pet food, target practice, bounty, trimmings, hides, reduction of fishery depredation, and sport are reviewed in Helling (1984), Cass (1985), Seagers *et al*. (1985), and Howorth (1993). There are few historical records to document the effects of such exploitation on sea lion abundance (Lowry *et al*. 1992).

Fisheries Information

California sea lions are killed in a variety of trawl, purse seine, and gillnet fisheries along the U.S. west coast (Barlow *et al*. 1994, Carretta and Barlow 2011, Carretta *et al*. 2018a, 2018b, Julian and Beeson 1998, Jannot *et al*. 2011, Stewart and Yochem 1987). Sources with recent observations or estimates of bycatch mortality are summarized in Table 1. In addition to bycatch estimates from fishery observer programs, data on fishery-related sea lion deaths and serious injuries comes largely from stranding data (Carretta *et al*. 2018b). Stranding data represent a minimum number of animals killed or injured, as many entanglements are unreported or undetected.

California sea lions are also killed and injured by hooks from recreational and commercial fisheries. Sea lion deaths due to hook-and-line fisheries can result from complications involving hook ingestion, perforation of body cavities leading to infections, or the inability of the animal to feed. Many animals die post-stranding during rehabilitation or are euthanized as a result of their injuries. Between 2012 and 2016, there were 146 California sea lion deaths / serious injuries attributed to hook and line fisheries, or an annual average of 29 animals (Carretta *et al*. 2018b).

Table 1. Summary of available information on the mortality and serious injury of California sea lions in commercial fisheries that might take this species (Carretta *et al.* 2012a, 2012b, 2014a, 2018a, 2018b;). Mean annual takes are based on 2012-2016 data unless noted otherwise. Bycatch estimates for 2 additional years, 2010 and 2011, have been included for the CA halibut and white seabass set gillnet fishery because this fishery has not been observed recently or lacks estimates of bycatch.

Fishery Name	Year(s)	Data Type	Percent Observer Coverage	Observed Mortality	Estimated Mortality (CV in parentheses)	Mean Annual Takes (CV in parentheses)
CA/OR thresher shark/swordfish large mesh drift gillnet fishery	2012 2013 2014 2015 2016 2012-2016	observer	 19% 37% 24% 20% 18% 23%	 6 3 3 0 0 12	 16.1 (0.58) 11.6 (0.35) 10.9 (0.59) 6.2 (0.92) 17 (0.67) 62.3 (0.24)	12.5 (0.24)
CA halibut and white seabass set gillnet fishery	2010 2011 2012 2013 2014 2015 2016	observer	12.5% 8.0% 5.5% n/a 0% 0% 0%	25 6 18 0 n/a n/a n/a	199 (0.30) 74 (0.39) 326 (0.33) 0 (n/a) n/a n/a n/a	150 (0.28)
CA small-mesh drift gillnet fishery for white seabass, yellowtail, barracuda, and tuna	2010 2011 2012	observer	0.7% 3.3% 4.6%	0 0 0	0 (n/a) 0 (n/a) 0 (n/a)	0 (n/a)
CA anchovy, mackerel, sardine, and tuna purse- seine fishery	2004-2008	observer	~5%	2	n/a	≥2 (n/a)
WA, OR, CA domestic groundfish trawl fishery (includes at-sea hake and other limited-entry groundfish sectors)	2012-2016	observer	98% to 100% of tows in at-sea hake fishery Generally less than 30% of landings observed in other groundfish sectors	95	n/a	≥ 19 (n/a)
Unknown entangling net fishery	2012-2016	stranding	n/a	55	n/a	≥ 11 (n/a)
Unidentified fishery interactions	2012-2016	stranding	n/a	11	n/a	≥ 2.2
Minimum total annual takes						≥ 197 (0.23)

Other Mortality

California sea lions strand with evidence of human-caused mortality and serious injury from a variety of non-commercial fishery sources, including shootings, hook and line fisheries, power plant entrainment, marine debris entanglement, oil exposure, vessel strikes, and dog attacks (Carretta *et al*. 2018b). Between 2012 and 2016, there were 485 mortality and serious injuries documented from these sources, or an annual average of 97 sea lions (Carretta *et al*. 2018b). The most common sources of mortality and serious injury were shootings (n=155), hook and line fisheries (n=146), entanglements in marine debris (n=65), and oil exposure (n=58), which accounted for 87% of all cases. These values represent a minimum accounting of impacts, because an unknown number of dead or injured animals are unreported or undetected.

Under authorization of MMPA Section 120, individually identifiable California sea lions have been euthanized or relocated since 2008 in response to their predation on endangered salmon and steelhead stocks in the Columbia River. Relocated animals are transferred to aquaria and/or zoos. Between 2012 and 2016, 122 California sea lions were removed from this stock (115 lethal removals and 7 relocations to aquaria and/or zoos). The average annual mortality due to direct removals for the 2012-2016 period is 24.4 animals per year (Carretta *et al*. 2018b). Relocations to aquaria/zoos are treated equivalent to mortality because animals are effectively removed from the environment.

Mortality and serious injury may occasionally occur incidental to marine mammal research activities authorized under NMFS protected species permits issued to government, academic, and other research organizations, including research trawls and animal studies that require handling and tagging of individuals. From 2012-2016, nine mortalities were reported during research activities, resulting in a mean annual mortality and serious injury rate of 1.8 sea lions (Carretta *et al*., 2018b).

NOAA declared an unusual mortality event (UME) for California sea lions during 2013-2017. High mortality of pup and juvenile age classes were documented during this time and NOAA identified changes in the availability of sea lion prey species, particularly sardines, as a contributing factor. Changes in prey abundance and distribution have been linked to warm-water anomalies in the California Current that have impacted a wide range of marine taxa (Cavole *et al*. 2016).

Habitat Concerns

The algal neurotoxin domoic acid has been linked to mortality of California sea lions since 1998 (Scholin *et al*. 2000, Brodie *et al*. 2006, Ramsdell and Zabka 2008). Future mortality is expected to occur, due to the repeated occurrence of such harmful algal blooms.

Exposure to anthropogenic sound may impact individual sea lions. Experimental exposure of captive California sea lions to simulated mid-frequency sonar (Houser *et al*. 2013) and acoustic pingers (Bowles and Anderson 2012) resulted in a wide variety of behavioral responses, including increases in respiration, refusal to participate in food reward tasks, evasive hauling out, and prolonged submergence.

Expanding pinniped populations have resulted in increased human-caused serious injury and mortality, due to shootings, entrainment in power plants, interactions with hook and line fisheries, separation of mothers and pups due to human disturbance, dog bites, and vessel and vehicle strikes (Carretta *et al*. 2018b).

Increasing sea-surface temperatures in the California Current negatively impact prey species availability and reduce survival rates of California sea lions (DeLong *et al*. 2017, Laake *et al*. 2018, Lowry *et al*. 1991, Melin *et al*. 2008, 2010). Increasing ocean temperatures may continue to limit the population size of the California sea lion stock within the California Current (Cavole *et al*. 2016, DeLong *et al*. 2017, Laake *et al*. 2018).

STATUS OF STOCK

California sea lions in the U.S. are not listed as "endangered" or "threatened" under the Endangered Species Act or as "depleted" under the MMPA. The stock is estimated to be approximately 40% above its maximum net productivity level (MNPL = 183,481 animals), and it is therefore considered within the range of its optimum sustainable population (OSP) size (Laake *et al*. 2018). The carrying capacity of the population was estimated at 275,298 animals in 2014 (Laake *et al*. 2018). Mean annual commercial fishery mortality is 197 animals per year (Table 1). Other sources of human-caused mortality (shootings, direct removals, recreational hook, research-related and line fisheries, entrainment in power plant intakes) average 97 animals per year. Human-caused mortality and serious injury of this stock is ≥ 321 animals annually, which does not include undetected and unreported cases. California sea lions are not considered "strategic" under the MMPA because human-caused mortality is less than the PBR (14,011). The fishery mortality and serious injury rate (197 animals/year) for this stock is less than 10% of the calculated PBR and, therefore, is considered to be insignificant and approaching a zero mortality and serious injury rate.

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NEWS

‘An eco-disaster’: Kelp forests disappearing off the coast of La Jolla for unknown reasons

Kelp forests, once lush and pervasive, have all but disappeared in parts of La Jolla's waters. (Ed Parnell)

VIDEO: Take a tour of the ocean floor off La Jolla.

BY ELISABETH FRAUSTO | STAFF WRITER

JULY 8, 2023 8 AM PT

The kelp forests off the coast of La Jolla are disappearing, and local scientists are stumped as to why they're not recovering.

The two largest kelp forests on the West Coast — off La Jolla and Point Loma — have been slowly getting smaller amid rising ocean temperatures, especially in the kelp beds off northern La Jolla between Marine Street Beach and La Jolla Shores.

Kelp beds off southern La Jolla have shown patchy regrowth, but those in northern La Jolla appear decimated.

"I'm not sure why that is," said Ed Parnell, a marine ecologist at UC San Diego's Scripps Institution of Oceanography in La Jolla. The La Jolla kelp "should be doing better than it's doing," he said.

A 2014 heat wave, followed by a 2016 El Niño — which resulted in a series of warmer storms — resulted in "massive kelp mortality" all along the West Coast, Parnell said.

Cooler water in 2017-18 led to sporadic recovery, he said, though another warm-up in 2019 again diminished the forests.

Temperatures in the northern La Jolla kelp areas are a bit higher than in the southern portions, but "not enough to account for … the complete lack of kelp recovery," Parnell said.

“I’m trying to understand what’s going on,” he said.

A still from a May video of northern La Jolla ocean waters shows virtually no remaining kelp. (Ed Parnell)

There are several potential reasons for the kelp’s failure to regenerate, including disease, competition for space with other species of algae and a lack of light in deeper waters needed for growth.

The kelp forests are both a home and a food source for several species. Individual kelp plants can live eight to 10 years and regrow quickly.

Sea urchins often are the cause of kelp eradication, as they feed quickly on the kelp. But “right now, we don’t have a sea urchin overgrazing problem off San Diego County,” Parnell said. That problem is more contained to California’s central coast.

Finding the cause of the kelp’s decline will take time, Parnell said. It’s difficult to test for individual factors.

“The answer is probably going to be complicated; it’s probably several factors, and the timing of those factors has come into play,” he said.

With another El Niño on the horizon for next winter, which portends warmer water, “we’re going to lose what little kelp has come back,” Parnell said.

Scuba diver Rod Watkins has watched the decline for more than a dozen years.

The loss of the kelp “has had a dramatic effect on the ecosystem,” Watkins said, “because many species of fish use the kelp canopy as a home. … You used to be able to find an abalone in the reserves under almost every rock. Today, you can hardly find an abalone out there. It’s sad … it’s an eco-disaster.”

Watkins, the owner of Scuba San Diego Inc., has led dives into the kelp forests off San Diego since 1968 and said the local kelp has “been completely degraded due to [increasing] ocean temperatures.”

Though the kelp decimation hasn't affected his business "because people still want to come and see" what little is left, it's "nothing like what there was 15 to 20 years ago," Watkins said.

The surface of the ocean "[used to] be covered with kelp canopy" from south of Point La Jolla to the Marine Room restaurant in La Jolla Shores, he said. "I haven't seen that in 15 years." ◆

Elisabeth Frausto

Elisabeth Frausto is a reporter for the La Jolla Light.