

Power Beneath

By Ella McKhann

*all words and images by author



We putter along through the steep swell, the rhythmic ocean and the thrum of dual engines lulling me into a subdued stupor. I glance up through the glass windowing the helm of the *Blackfin* to find the captain motioning insistently for me to come inside. “K-Dubs,” he booms as I push the latch down firmly on the door, sealing us off from the crisp ocean air. “Five of them, traveling east, just killed an adult elephant seal.” His eyes shine bright with excitement behind his salt-weathered face, a smile tugging beneath a grey worn mustache. I am suddenly alert. My heart rate picks up as I start pulling my materials together. A notebook to write down every surfacing and behavior, a watch to keep dive times, a camera to take ID-photos. As a leading whale watch in the Monterey Bay, one of the world’s marine hotspots, this company is run by a killer whale specialist. As such, it sits as a practical front for a killer whale research boat. And it falls on my shoulders to meticulously record everything we are about to see.

The energy revives among the deckhands after the uneventful hour-long passage out to deeper waters, excitement palpable as the information gets relayed through the chain of command by way of crew earpieces. Passengers pick up on the subtle change, coming back to life and looking around as the people in charge start bustling around them, getting updates from the captain I sit beside. We listen to the radio buzz, deciphering chatter from other whale watch boats already at the scene. We may compete for passengers on land, but out here on the water, everyone works together. As we approach the coordinates, I head back out into the wind and start scanning, eager yet scrupulous as my eyes roam over the horizon like a pendulum, back and forth.

Suddenly, I feel a shift, a pulsing undercurrent, a premonition of power. The air turns electric, standing up the hair on my arms. And then I see it. A tall black knife, slicing through the water. Followed by another. And another. All five are at the surface. I had seen my first wild orcas the month before, but this time was different. Those were leisurely and languid, traveling with peaceful grace like a tabby cat stretching in the sun with a yawn. Those were toying with us. These were different, displaying the powerful ferocity the others had tucked away. The stalking cheetah living inside the tamed tabby: unleashed. We start photographing. Click-click-click-click, the camera shutter flickers with every puff of orca breath. As they dive a mere couple of minutes later, I text a picture to my boss. The patch of white behind the tall, dark fin of a killer whale known as a saddle patch is unique to each individual, and I'm hoping this is a crew easily identified. Regional marine biologists know the local orca populations inside out, and she immediately replies that it is Louise's pod, the CA140B's, with children Stinger, Bee and Buzz in tow.

We have yet to see the downed elephant seal, so I fear we have arrived too late to watch the hunt. But a couple of dives later, the group surfaces close together, with a large adult male California sea lion in their midst. The cetaceans circle. Over the course of a few breathtakingly tense moments, we watch the sea lion steal his last, gasping breath as an orca circles low and black, a shadowed grim reaper pulling the pinniped beneath the surface for the very last time.



The sea lion takes its final breath as an orca pulls him to his untimely death from beneath.

Part of my heart aches for all wildlife that cannot escape the jaws of demise, especially at the teeth of a hunter who takes pleasure in dragging out the game. But there is something different for me about watching nature act as nature intended. So many marine mammals perish at the hands of humans, as mere bycatch or casualties of ignorance. I briefly close my eyes and send the sea lion a wish of peace, but my heart does not feel burdened the way it does when humans are involved. There is a sacred beauty in the natural order, in one animal eating another for sustenance in the food chain as it was always meant to.

We watch the adults roll at the surface with their kill, celebrating with tail-lobbing and spyhopping, popping their panda-colored faces out of the water and showing off in a mini fiesta of their own creation. Killer whales tend to think rather highly of themselves, top predators of the ocean that they are, and these individuals are no exception.

They dive for a few minutes, coming back up with the carcass once again. To the shocked cry of onlookers, Louise, matriarch of the family, surfaces close to the boat with a loud rush of air, the carcass slung lazily over her dorsal fin. Everyone gasps in stunned delight. She pops back up next to our neighboring boat, as if flaunting her hard work to this audience that she just knows is basking in her greatness. The group travels around her as Louise continues to surface with the sea lion draped over her back. I am struck by the strangeness of this behavior. Why aren't they feasting on their meal? These animals are incredibly intelligent. There must be a reason for this behavior. So what is it?



CA140B "Louise" carries the intact sea lion carcass over her back as she traverses with her family.

In much of the animal kingdom, females are seen to lose value after they are no longer able to reproduce. After all, the biological point of life is to propagate. But there are a number of matriarchal species whose postmenopausal females are regarded in high esteem, leading societies and protecting their families with hard-earned wisdom. Killer whales exist in one of these such systems. Female killer whales can live up to 20 years postmenopause, the longest nonhuman span.¹ Mothers teach their young how to survive, how to hunt. Young males will live with their mothers often for their entire lives, metaphorically crashing on their mom's futon indefinitely.²

With more time on their figurative hands once their young are raised, mother orcas are able to fill other vital roles in their communities. One recent study showed that males with postmenopausal mothers are better protected than those that are orphaned or have younger mothers, displaying less injuries and scarring.¹ It was found that while these mothers likely don't physically intervene in altercations, they are able to prevent situations of violence to begin with. A typical mother, they strive to keep their young out of trouble. And by prioritizing her sons, a mother orca can ensure that her genes will be passed on to a future generation. Basically, female orcas are ringleaders, and badasses.

Lousie is matriarch of her family here, head of the CA140B's, along with her children CA140B1, 2 and 3, affectionately named Stinger, Bee and Buzz. At the time of this encounter in 2021, Stinger was 8, Bee was 5 and Buzz was 2.³ They were traveling with one other female individual from another family line. But Louise is a daughter too. And she comes from a very strong matrilineal line. Louise's mother Emma, CA140, is a mother of five, and her mother before, Xena, CA40, is a mother of four. This family has been observed and researched in the Monterey Bay area over the course of four generations, with all four females still alive in these waters today.

The theory here is that Louise was showing her young how to hunt. An immobile prey is far easier to learn on, and with Stinger, Bee and Buzz all being female, it is Louise's responsibility to teach them how to fend for themselves. Just as my Italian mother taught me how to cook and feed myself growing up as her grandmother did before her, Louise is providing for her young while showing them how they will provide for themselves one day. Just as Emma taught Louise, Louise will teach her daughters the skills required to care for their own families in the hunt someday, vital skills they will then pass on.

There is much we humans can learn from this kind of system, in the worship of archaic wisdom that comes with generations of experiences passed down. It felt like being let in on a sacred secret to watch Louise in this very act, birthing a new generation of female orca hunters, warriors of the sea.

After experiencing the wild ferocity of killer whales hunting in the open ocean, the idea that these personalities, so entrancingly powerful, could be contained to a tank the dimensions of a tennis court is near unfathomable to imagine. But that is the reality for many, including Tokitae, a female orca whose story caused uproar across the nation.

On my computer screen, Tokitae swims slowly on her back, pectoral fins spread wide like massive black dinner plates, up in service to her trainers.⁴ A woman in a sleek wetsuit kneels on her stomach, waving to the crowd. The orca awkwardly shimmies through the unnatural movement, her huge body slow and confined. The video cuts to another scene, an overhead shot of her in the same small stadium tank that she resided in after her retirement in 2022. She keens into a corner of the manmade metal structure, still and stagnant in water less deep than she is

long. After much back and forth with advocates, local governments, and the Lummi tribe of Tokitae's birthplace in the Pacific Northwest, a plan was crafted to release Tokitae back into the wild. She had been living in captivity for 53 years after her traumatic capture as a baby, netted, pinned and stolen from her mother while she cried in panic.⁵ As the oldest killer whale in captivity, Tokitae had spent nearly her entire life in the smallest orca tank in the country, sharing it first with another orca who perished after repeatedly banging his head into the wall, and then with dolphins who harassed her. A mere few months before she was set to be moved to a sea pen to begin her journey back home to her origin population of Southern Resident orcas, the most endangered killer whale population in the world, Tokitae died in August of 2023 from illness complications. I remember watching the process, hope turning to grief in my gut at the unfairness of it all. If only she could have known that just a couple of months later she would find her way home. If only she could have held on just a sliver longer. But her time in captivity had been too long, too brutal and alien on her system, and it wasn't to be. This story is a devastating reminder of what can happen when we exploit animals for profit, forgetting the intricately felt livelihoods of creatures beyond the human. This is just one of these heartbreaking narratives. But there are also stories of hope to be found.

When Free Willy was released in 1993, the movie took the world by storm. Much of this love had to do with the charismatic orca at the center, "Willy," who stole the hearts of many. But fans were dismayed to discover that "Willy" was not in fact free, but a killer whale by the name of Keiko who had spent the previous 11 years confined to a dolphin tank at a tiny marine park in Mexico City.⁶ Accustomed to the freezing temperatures of the North Atlantic where Keiko was pulled from his native waters, he had trouble accommodating to the temperate nature of Mexico

City. Bags of salt were dumped into Keiko's tap-water-filled enclosure in an attempt to recreate the ocean he was designed to inhabit. All of this resulted in a skin disease, and a rapidly deteriorating prognosis.

But Keiko had a fanbase. After over 400,000 calls from outraged fans, the world rallied around Keiko and provided the resources necessary to return him to the ocean he was taken from. Warner Brothers approached the International Marine Mammal Project at the Earth Island Institute to find a way to formulate Keiko's rescue plan, an experience marking the first of its kind.⁶ Keiko was moved to a sea pen in Oregon, where he spent a couple of years regaining his strength and healing his skin lesions with the feel of real saltwater on his skin for the first time in 14 years. In 1998, Keiko was transported back home to Iceland. He was placed in a bay pen, where he slowly eased towards the freedom he had only before experienced in the world of cinema. As the first and only released orca, Keiko was an experiment of sorts. Without a framework, the experience was mainly driven by Keiko himself. Lacking the knowledge that would have been passed down to him by his mother on how to hunt and fend for himself, Keiko needed a crash-course on how to be an orca. He was taught to catch fish and endurance trained, following a boat on longer journeys like a marathon pacer. Keiko put on over 3000 pounds, returning him to a healthy weight. He travelled more and more independently, until one day, he didn't come back.

Critics say that the project wasn't a success. Keiko never reunited with his family, reestablishing those bonds so vital to a wild orca's prosperity, and remained rather psychologically dependent on his trainers for the majority of his journey. He never fully rewilded. But advocates say that even if he had only made it to that first sea pen Oregon, the mission would have been successful. Keiko's health was rapidly deteriorating in his tiny Mexico

tank, and the act of reimmersing him in true saltwater was healing enough. Connected to the greater body of our oceanways, that move in itself was a baptism, a cleansing of all he had endured and a return home to the sea. That enough would have been worth the effort. But Keiko made it beyond Oregon. He made it back to the very waters of his birth. He interacted with wild orcas. Eventually, he embarked on his own and traveled across a 1000+ mile expanse of the Atlantic to Norway (over 46,000 times the length of his tank in Mexico City), feeding himself along the way.⁷ And in 2003, he died as close to his true nature as was possible.

Today, there are 55 killer whales in captivity, 33 of which have never touched the sea.⁸ Legislation in recent years has prohibited the possession of killer whales in parks in the state of California, halting SeaWorld's captive breeding programs.⁹ No orcas have been captured from U.S. waters since the late 1970s, but at least 19 have been taken from other native waters since 2002 alone.⁸ There has been forward movement in the prohibition of wild orca capture, but what about the return of those already taken?

For those 22 killer whales still alive in captivity today who were wrongfully pulled from their homes, their loss was felt. Killer whales are highly intelligent, feeling beings. In 2018, news headlines rocked the world as Tahlequah, known scientifically as J35 of the Southern Resident orca population, mourned the death of her stillborn baby in the most critically endangered killer whale population in the world.¹⁰

In July of 2018, Tahlequah gave birth to a baby girl, who died within mere hours of her first breath. Tahlequah went on to carry her baby for the next 17 consecutive days, pushing her deflated form up on her rostrum to keep the lifeless body from disappearing into the depths. Traveling over 1000 miles, Tahlequah held her baby, refusing to let go, refusing to dismiss her

grief, refusing to let her child be forgotten. Tahlequah held tight to the image of what could have been, even when her physical entity began to decompose before her eyes. Animals grieve, and Tahlequah is a heartbreaking example of how the loss of a child echoes in the hearts of mothers belonging to species far beyond the human.

As we begin to understand the depth of feeling that these beings hold, it becomes more abhorrent the way young are traumatically captured in large nets and stripped from their families to be sold to marine parks. But as Keiko's story proves, this doesn't have to be the end of the story. Together, with compassion, effort, and advocacy, we can work to return some of those babies to the families that grieved their losses so deeply. At the very least, as we saw with Keiko, there is healing in returning to the wild, in presence and in spirit.

These killer whales, held in small tanks in marine parks worldwide, seem so compliant as they show their flashy learned tricks to the applause of audiences, rewarded with a dead fish and a pat on the head. Have they been truly tamed? Or is their wildness merely lying dormant, simmering underneath thick blubber, waiting for the chance to be reminded that they are pure, unbridled magic. Waiting to remember that they rule the entire ocean. There is much to learn from the kind of freedom you behold in the presence of a top predator in their natural habitat, especially one as otherworldly as a killer whale. Louise and her family showed me firsthand the power hidden beneath the surface of these remarkable animals, and reminded me of the primal freedom that accompanies that range. And watching Louise and her tribe hunt in the wild, I felt a flicker of my own wild burn brighter within me.



References

1. Foster, E. A., Franks, D. W., Mazzi, S., Darden, S. K., Balcomb, K. C., Ford, J. K. B., & Croft, D. P. (2012). *Adaptive Prolonged Postreproductive Life Span in Killer Whales*. *Science* (American Association for the Advancement of Science), 337(6100), 1313–1313. <https://doi.org/10.1126/science.1224198>
2. Jacobs, P. (2023, July 20). *Killer whale moms protect their sons from fights with other whales*. *Science*. <https://www.science.org/content/article/killer-whale-moms-protect-their-sons-fights-other-whales#:~:text=Each%20pod%20is%20a%20well,mother%20for%20their%20entire%20lives.>
3. Wiki, C. T. K. W. (n.d.). *CA40 Xena*. Killer Whale Wiki. https://killerwhales.fandom.com/wiki/CA40_Xena
4. FOX 13 Seattle. (2023, July 4). *Seaquarium sues activist who released Tokitae videos | FOX 13 Seattle* [Video]. YouTube. https://www.youtube.com/watch?v=x3W3s1r4_ZU
5. Gibson, C. (2023, December 5). The Call of Tokitae. *Washington Post*. <https://www.washingtonpost.com/lifestyle/interactive/2023/tokitae-lolita-orca/>

6. *Long synopsis - The Untold Story - Keiko The Untold story of the star of Free Willy*. (2020, February 1). Keiko the Untold Story of the Star of Free Willy. <https://www.keikotheuntoldstory.com/about/keiko/thestory>
7. International Marine Mammal Project. (2018, May 23). *Frequently asked questions about Keiko*. <https://savedolphins.eii.org/news/frequently-asked-questions-about-keiko>
8. *Fate of orcas in captivity - Whale & Dolphin Conservation USA*. (2024, May 22). Whale & Dolphin Conservation USA. [https://us.whales.org/our-goals/end-captivity/orca-captivity/#:~:text=At%20least%2055%20orcas%20\(killer,at%20each%20of%20the%20parks](https://us.whales.org/our-goals/end-captivity/orca-captivity/#:~:text=At%20least%2055%20orcas%20(killer,at%20each%20of%20the%20parks)
9. *Freeing killer whales through legislation*. (2023, March 21). Seaside. <https://www.seasidesustainability.org/post/freeing-killer-whales-through-legislation>
10. Archie, A., & Croft, J. (2018, August 11). *'It's heartbreaking': Killer whale continues carrying dead calf for 'unprecedented' length of mourning*. CNN. <https://www.cnn.com/2018/08/10/us/orca-whale-still-carrying-dead-baby-trnd/index.html>

Reflection:

I am very drawn to the balance between personal narrative and science communication, in taking the reader along for the investigative journey with the author. Like all writers, science communicators have their own positionality. A lot of science writers care deeply about the environment, and also carry their other perspectives, biases, and experiences, however objective they try to be. Being close to nature brings out the depths of our human experience, and that kind of emotional connection is both unique to the individual and shared by the collective. By sharing not just the science but also that emotional connection, readers who have never experienced that sort of connection to nature can get a taste of it secondhand, and perhaps be inspired to connect with the natural world in their own way. You only wish to protect what you care about, so fostering care for the environment in this way has far reaching implications for conservation.

There is so much beauty and so much pain in conservation, and showing enough pain for people to know how dire things are, and enough beauty that people don't feel the cause is lost can be tricky.

I wanted to get a little bit existential at the end and tie it back to the human experience. Even if people don't care about the environment, they often care about themselves. A bit similar and partly inspired by Glennon Doyle's tamed cheetah analogy in her book *Untamed*, this entire paper, while genuinely about saving killer whales, could also be seen as a metaphor for the wildness suppressed within many of us. Society and culture, especially in this country, tame a lot of wild souls. With that ending bit, I wanted to encourage people to see that analogy: that we are really not all that different from these creatures, and that hope for them can be connected to hope for us.