

QUEENFISH

The Past
A Killer Whale Short Story

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Author Magdalena Menchaca

to Toki

Valerie Greene Thank you for editing this story and your support.

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Hello,

Let me begin with the cover. What, who, and where is Queenfish? If you think it is a person, you are freezing. You will get an answer, or two, by the end of the book.

Does the front cover have a defect? What's with the dark slash across it? That has an easy answer.

It is a shadow.

This book is in two sections. The first part is a memoir of the journey to find the background of my patient. My patient was a killer whale, Toki. There has always been a lot of public interest around her, even now that she is gone. You see some people have given her a face that is not her own, and a mother that is not hers, and a video that is not her family. The second part is a short story based on that information. It is fiction inspired by true events. Someday it may be classified as true.

AUTHOR'S MEMOIR

Introduction

I was a veterinarian in the early 1990s and I met the most amazing animal, a killer whale, Toki. I would love to tell you all about the whale I knew, but the goal of this book is to talk about her past.

While volunteering, I was introduced to Toki's parallel worlds as soon as I entered her life. She had her life on the East Coast at an aquarium. On the opposite coast, a movement to release her back with her so-called family had begun. The movement was led by a small group. The two worlds clashed. I mostly watched the West Coast, noted, and visited.

I became Toki's veterinarian of record, her attending veterinarian.

When we first get a patient, we introduce their signalment. That is their age, species, breed... Wait Breed? For a killer whale? Is that a thing? No, but kind of... The grey begins. I thought I could check out her family and oh, how cool, her mother.

I set out on a quest to find her "breed," her family, her parents, her mother. You would think

it would have all been straightforward, but here twenty-six years later all I have is a theory, a tale.

Just like everybody else.

At the same time I was searching, I was also Toki's veterinarian. Not only was I researching her past, but also, I was part of her very real present. I studied her samples all the way back to her first blood sample from 1970. Her health was my top priority. I had hoped getting a glimpse into her family might help. As doctors know, many medical conditions are familial. Toki showed issues with her kidneys all the way back to that blood. I wondered if it was inherited. So, I kept looking and researching her background. Meanwhile we kept her as healthy as we could regardless. Toki got new owners after many years and new attending veterinarians. She is no longer with us. She is in heaven. If all dogs can go to heaven, then killer whales can too. But this book is Queenfish The Past, not the present. I conceptualized the idea many years ago while she was still alive. When I walked up to her pool and remembered the images the other side was spreading, I would tell her, "I know that is not you and that is not your family. I will keep looking." I am keeping my promise.

The Science

The Science was not complicated to research because there was so little. Hardly anything was known about killer whales until the last one hundred years. The little oyster has centuries of information, but not this mighty whale.

The initial science on large whales was not about them as individuals, but as a natural resource. There were many fisheries worldwide, and some countries began to study them. Some became worried. Were stocks being over depleted? In 1931 The International Whaling Commission documented over 43,000 whales died. That was in one year alone. These large whales were being depleted year after year. People feared the black and white whales. They thought the group was so scary they named it the killer whale, *Orcinus orca* for the scientific type.

The killer whale was not like the larger whales. It was in the dolphin family, classified as small cetacean compared to the other whales. It would not be until the 1970s that the smaller cetaceans would

be thoroughly studied. Many dolphins were dying in tuna nets. It was estimated that over 250,000 died in one year alone. From afar, the killer whales were even used as target practice by planes. I thought, “*For people with no knowledge came no caring.*”

In the mid-1900s biologists watched and documented killer whales in the Pacific Northwest, Toki’s area of capture. One scientist in particular noticed rare spikes in the number patterns. It was common to have days of twenty, forty or even eighty whales observed. But there were some rare entries with higher numbers. One hundred, even over two hundred were counted. What brought all these whales in? Plentiful food? A tsunami? An oceanic earthquake? A megalodon?

Later, I saw that wasn’t the only biologist that noted high numbers of whales on a given day. A data entry from a newer, prominent, orca biologist documented “a higher number” of whales in Kodiak Island, Alaska, in 2001. This one, I will be sure to come back to. It is quite interesting.

Back to the mid-1900s. The first killer whale was captured alive. The close contact opened people’s eyes. These mighty killer whales were also very intelligent and “trainable.” More captures proceeded.

In August of 1970, Toki was captured. I thought by diving deep into this day, I would get a clear answer about her past. But that day is where things turned greyer than grey.

That Day:

August 8, 1970

It was August 8, 1970. Four-year-old Toki the killer whale was captured, while some other whales died. When I first read how some others died, an immediate thought entered my head, and never left. I thought her mother was one of them. In my heart I decided to treat her like an individual; not part of a group. Until I found irrefutable data that showed her family, she was an *N* of one. The other whales were the Pacific Northwest Whales. Later, they were federally termed a distinct population segment, the Southern Resident Killer Whales (SRKW).

I also researched the past of the other whale who was with her in Miami from 1970 to 1980 named Hugo. He did have a typical saddle of the SRKW. In communication with one of her favorite trainers, it sounded like Toki's personality "bloomed" after Hugo was gone. Her medical entry after he passed away was normal appetite. I never thought she was related to him, either. Their saddles were different,

their flukes were different, and their dorsals were a little different. Males do have a much larger one so that topic is grey. To me, she was not related to any of them until the proof showed up. She was a unique individual.

She was Toki.

The day Toki was captured moved people. Various groups later became involved, including The International Whaling Commission. They wanted information and data about what was going on with these captures. They put a top biologist on it. He noted “That Day” there was an unusual number of whales. The local killer whales numbered eighty. All the entries stated there were eighty in the net and eighty outside of the net.

When he presented his report, the International Whaling Commission had him go back. They wanted more data on the captures and the stock. More data specifically for that day. “Woah!” I thought. Imagine getting told by the International Whaling Commission to go back and get more data. He certainly did. There were many visual documentations for all the captures, yet very few for “That Day”. As much as he tried, and he did try. There was also no video for “That Day.” The only

whale photo identified from the local group was a male outside the net on the perimeter, L8. A second study that went to the IWC later also only had one photo of the local whales “That Day”, L8. Thus, there were no photographs or video of Toki. And despite what you may have seen, there still isn’t.

The Images – The Video

I just said two studies only found one image of a confirmed local whale on the perimeter. But over the years some more images have sprung up. They have used other photos saying they showed Toki or her family. The video, however, uses the word “presumably.”

This next part was difficult to write, and you will see why. I could cut to the chase and be safe stating there is no confirmed video of Toki on “That day.” Everyone should agree on that because I have read the statements, and they use the word “presumably.”

There is great public interest in Toki. So I will share some notes and thoughts I have.

I saw the original commercial about Toki’s cause made back in the 1990s. I saw other videos as I searched her background in that area. Later, I saw a statement written that the video from all the captures that King 5 had were purchased for 10,000 dollars and if anyone used it, they would get sued. So, I will only say one thing about that video from 1970.

But first, I will talk about the video from 1971 when it was publicly shared. That video was initially made public. There was video in 1971 because a reporter filmed it and aired it on public television. People saw this capture on the public news back in 1971. The cinematographer even told a family member about it, and they wrote a story about it decades later. This story was in a Public Media shortly after Toki died in 2023. In 1971 there were more people in attendance since it was the year following the awareness of the 1970 capture.

In 2009 there was a story from The Whidbey New Times. The editor and publisher stated the video was from 1971.

In 2009 in a King 5 story a marine mammal researcher that was at the 1971 captures states the video with the reporter is 1971 video. The researcher was there in 1971.

There were people at both captures. I did not see Toki in the video.

The only thought I will write about the video that is labeled 1970 is not about the people, the whales, the boats, the nets, nor the docks. It is about the shadows. Shadows are created by the sun so very public.

The one thing that caught my eye all these years was the shadows.

There are so many shadows in all the videos. That's it.

There is one thing that we all agree on. None of the video documents or confirms Toki. There is no confirmed Toki in any of the videos on "That Day."

To take a break, I will cover the photograph of the young killer whale that is not Toki in a little while.

The Parallel Universes

The four-year-old whale went on to get the name Tokitae aka shimmering water in reference to Chinook. Remember, a person named her not a dictionary. That is what he said back then. Lolita was her stage name. To many of us, she was Toki.

Just like “That Day” moved people, Toki would too. Over the next several decades, she touched millions of people’s lives. Toki had parallel universes and boy, did they clash until they didn’t, and it ended up worse.

More Science

Back to the science. Biologists became intrigued and along came discovery. Biologist continued to study these killer whales. They discovered that yes indeed, the killer whales had different groupings. The local killer whales had three tight groupings known as pods (think cliques in high school). They were named pods J, K, and L. The larger groupings were called clans. They were resident, transient and offshore (think different high schools). They had different behavior, looks, and morphometrics (think the size of biceps and masks on superheroes).

Other biologists jumped in. One study had visuals for a decade. I found it interesting that this published study had only one “local” killer whale (perimeter dude L8) photographed on “That Day” in 1970. It agreed with the biologist that reported that capture to the IWC. The following year again only one male from the local group was photographed, L 16. The next time local killer whales were photographed was 1974. Let me repeat this; a long visual study

of killer whales in published papers agreed only one “local” killer whale documented in 1970. This was the male in the perimeter (perimeter dude L8). That study had no documentation that the whales in the net in 1970 were the local whales. Again, no photos or videos of Toki from “That Day.”

Biologists were good at documenting social behavior and put scientific data to work. One of the first sub-pods photographed in 1974 was the L25 sub-pod.

The L25 sub-pod

One of the first local killer whale families documented was the L25 sub-pod. It had a mother, L25, her daughter, L23, and her two grand kids, L14 and L49. Poor little L49 passed away very young. L14, the grandson also passed away and was found as a full body, roughly 8,000-pound carcass. As such, he is in several published papers. The author on one of those papers was a killer whale geneticist. I felt a sense of relief that those genetics were handled very well. The daughter, L23, disappeared in 1982 and only L25 remained. She was very easy to spot because she had a distinct mark, typical of the L pod orcas on her saddle. For folks who saw Hugo the first killer whale in Miami, he had a similar saddle mark.

The Urban Legend

Then, all of a sudden, years after “That Day” an urban legend began in the Pacific Northwest. It was started by a small group of people but grew. I say urban legend because prior to that there was another. It stacked up five “recollecting” assumptions on top of each other to make a claim about a dear old whale. In the end, science would show it was not correct.

For Toki’s urban legend, I think someone “recollected” that they saw L25 with Toki. The legend stated L25, Ocean Sun, was Toki’s mother. A baby photo claiming to be Toki in the net suddenly appeared. In spite of the fact that the International Whaling Commission’s biologist gathered everything. He did not find any pictures or video of “That Day.” In spite of the long study not having any documentation that any of the local whales were photographed in the net. Yet, somehow, decades later, a photo or two and a video surfaced out of the shadows. A photograph of a young killer whale in a net was promoted as being Toki.

An urban legend was born.

“The myth was that Toki’s mother was L25, Ocean Sun.”

The movement began. Toki should go back to her mother. Non-profit groups formed. Step aside Big Foot, there was a new larger myth.

Toki’s mother was alive, and Toki should return to her.

But L25 was part of a sub-pod. That added players to my quest bag. You see, the myth carried out would have others that Toki was mythically related to. She not only had a mythical mother, L25. She would have a mythical sister L23, her mythical nephew, L14, and her mythical niece, L49.

Toki’s parallel universes continued to clash. In a facility on the east coast and a movement based on a myth that her mother was alive on the west coast.

The Photos: The Facial Fingerprint

Let me cover the photographs with more detail since there is so much public interest in her. For those of us that saw Toki day in and out every which way it was easy. But it may not be to people that seldom saw her.

Spoiler: Killer whales keep their markings. People observed her for several decades. The millions of people she touched on the East Coast took millions and millions of pictures. Forty million may be a good estimate. That is not counting the sharing over the decades. They began when she arrived as a four-year-old in 1970. None of the so-called baby pictures in the wild or in the net are her. Her eye patch and the miniscule markings on her have not changed in decades. If you look closely at the white patch above each eye. They each have a very distinctive shape. With very specific edges. Like fingerprints on each of your fingers. But she has more. The edge of her mouth has distinct miniscule marks she has kept

for decades. Also, the marks are different on either side of her body and head. There are several other markings that I will keep to myself. Now look at the baby in the wild pictures. That sad baby in the net is not even close to resembling her. Look at the white patch above its right eye in the net picture. It immediately rounds out towards the middle in a circular fashion. Toki's right eye patch immediately compresses ever so slightly inward before subtly changing in the middle in a very specific shape. I refer to that location like a "neck". It gives her eye patches quite unique shapes (amongst other details). It has not changed since 1970. Actually, quite the opposite of the baby's eye patch. Look at the edge of the baby's black coloration around her lip. It fades and is messy and bleeds for a distance. Toki's is very distinct with several specific tiny marks. The miniscule distinct markings have also been there since 1970. Toki's pictures go back to when she arrived in Miami back in 1970. There is still no photo or video of Toki on "That Day".

I have to add that I thought it was unusual that a couple of people from the West Coast "demanded" every picture of Toki at one point. I say "demanded" because they tried to get it in legal terms during a

lawsuit. They wanted every picture of Toki. I was baffled. Why on earth would they want all her pictures? Or is it that they wanted to own and control all her pictures? Ah, I had seen that reference before. I pondered over a thought and questions. I thought of how all the capture video was bought and controlled. Did they think they could do that with her photographs as well? Did they want to control a narrative that the baby was Toki in the net by controlling all the photos?

One very large problem was in the way. Over decades, millions of people and generations have taken photographs of Toki. There are millions of images. It is impossible to get all of them. The answer was they could not have all her images. That is just reality. It was an impossible feat. The people might also be upset if you asked them to give them up. And why should they? To keep a myth going?

I will add this personal note. That baby in the net is a very moving photograph and that baby deserves its own name.

Toki's parallel universes continued to clash. In a facility on the East Coast and a movement based on a myth that her mother was L25 on the West Coast.

The Genetics Rules

So even in fiction and fantasy stories that involve genetics, the rules are spelled out. Let me put the scientific genetic rules up front. First, when DNA sequences are discovered in a living entity, the sequence is forever. If a fish has sequence GGTGGTGGT in a specific place. A frozen sample taken years after the fish died, will still have that GGTGGTGGT.

Second, all published scientific papers now have to submit the genetics when published. This now includes human and animal. These sequences must be archived in a gene bank. They are stored in a universal digital archive of sequences. Like bank account numbers that can never change for individuals. But they can go out to thousands of sequences.

Third, it used to be equations that did the comparing of sequences for relatedness. Now it is software. Old software added location where the DNA was found as a variable. New ones do not

because the sequences stand-alone (think serial killers that travel across great distances). Location does not matter. The sequence patterns stand alone.

Genetic rules listed, back to our tale.

Toki's Genetics

The first orca genetics paper was published in 1989.

It included Toki.

Let me re-word it in case it did not sink in.

The first orca genetics paper published in 1989 included Toki.

Toki's genetics have been in many published papers. The facility in Miami was up front with her genetics for all of the scientific community to see.

Toki was actually among the first Southern Resident maternal haplotype found. Haplotypes are a set of genetic markers that show descended from a single parent. For some of us, it would be like Eve might have given us a specific maternal haplotype.

Through the years I've had people ask me, "Why doesn't the facility give a sample?"

They became quiet when I said, "It did back in 1989. We are not the ones hiding genetics."

Southern Resident SR Haplotype

The whole southern resident (SR) thing is confusing. Let me see if I can give a generalized quick explanation. Killer whales on the coast in Canada and Washington had different maternal haplotypes. They called the Canadian ones Northern Residents and the Washinton-ish ones the Southern Residents (SRs). But it was later discovered that the same SR maternal haplotype existed further north in the Pacific. It was found as far as Alaska, Russia, the Bering Sea and even beyond the Arctic Sea to Iceland and Scotland. The Scottish clans are considered the oldest descendants dating back. That means a killer whale mom (or her family) traveled from Scotland to the northern Pacific sometime in the world's history. That or south across the entire Atlantic Ocean around the tip of South America, then north the entire Pacific Ocean.

Digging Into Toki's Genetics

It was clear Toki's genetics had been in published papers since 1989. I dove into the parallel Toki universe on the West Coast. I researched all those papers that now spanned to journals, even in England. I spoke to some geneticists. Those that would talk to me. Not all would.

The world is familiar with paternity testing. Shoot, they even take saliva off cups to check for deadbeat dads.

To check if L25, Ocean Sun, was Toki's mom, which had been stated for decades, L25's genetics had to be done.

So that was what happened. In a roundabout way.

L25's genetics were run over several software systems either allegedly directly or truthfully indirectly. Even using the location of genetics found variable.

She still did not have any relation to Toki.

Follow me and you might get the same “What the Heck?!” reaction I did.

Toki’s sample was labeled “Lol.” I called and asked the two geneticists. “The female whale in Miami, Lolita, is Labeled Lol.”

In one paper, they did not directly pair and compare Toki with any of the L25 sub-pod. They paired and compared her to L 79. Why? L79 is an adult male SRKW that no one has tied to Toki.

I asked that geneticist, “Why did you specifically test her against that whale?”

The geneticist answered, “Someone wanted to test his (L79’s) mother. To see if that killer whale was Lolita’s mother.

“*What on earth?*” I thought.

L 79 would have half of his mother’s genes. By testing his sample, they were really forcing the geneticist to test his mother, L22, against Toki.

They continued with more relevant information. “But I still tested all the whales I have against each other. Even all the non-residents. None of the ones I have showed any close relation or kinship to her.”

I asked one more time. “You mean she is not related to any of the SRKW you have?”

They answered, “No, she is not showing any kinship or anything remotely close to any SRKW, but I do not have all the SRKW.”

At the time they had 23 of the 80 SRKW. That would be 23 directly but 40 indirectly. Remember that testing L79 would be like indirectly testing his mother. His mother was L22, Spirit. There were several mother and offspring combos by now in the SRKW. One can apply their own twisted logic here of testing moms through offspring. Toki did not show any relation or kinship to 40 of the SRKW on that 2010 paper.

The final question was about one sample that really disturbed me, L23.

I asked about that sample. They said it just came labeled L23.

L23 Disappeared in 1982

L23 disappeared in 1982. Disappeared means she was no longer documented through observation. Observational count for an individual one year could be anything from many visuals to one twenty-minute visual the entire year. Thus, she was simply no longer seen after 1982. There was no body with genetic material that washed up. She just disappeared in the deep blue sea. This disappearance in 1982 was long before anyone even knew how to handle wild killer whale genetics. The first paper wouldn't be until 1989.

My head spun as yours most likely is too.

How on earth did this sample L23 just show up on the desk of these geneticists in 2010 when she disappeared in 1982?

“Was it mislabeled? Is it really L25 mislabeled on purpose?” I thought to myself.

You see, in my opinion it was lose if you did or lose if you didn't. You can gather our own opinion. I thought maybe the daughter's number (L23) was

allegedly used to conceal that L25 was the whale really being tested. Nevertheless, it didn't matter. Daughters carry half of their mother's genes.

Thus, the sample L23 is either allegedly all of L25 or truly half of it. At least one person knew this. The person that wanted to test L22, Spirit, as Toki's possible mother and used L79's genetics to do so. L79 is the male SRKW that no one thought had anything to do with Toki and, of course the genetics proved it.

I thought, "So why on earth would they even be asking to test his mother, L22, Spirit?"

One explanation hit me like a two by four piece of wood to the head. They already knew L25 was not related to Toki. They were desperately looking for another SKRW mom to keep their myth going. "They had debunked their own myth but somehow had to keep it going." I remember saying it so loudly that my vet tech almost fell off her chair sitting across from me.

That was still enough to prove genetically if a whale was Toki's mother or not. L25 is not Toki's mother.

They had known L25 is not Toki's mother since before 2010. Maybe they knew way before.

The geneticist ran all the samples against each other. There was another L25-subpod member sample there, L14.

L14 8000 Pounds of Genetic Material

L14 was the grandson of L25, the son of L23. The L14 sample had 8000 pounds of genetic material available. That genetic material was handled by a genetist. It was an incredibly strong sample.

L 14 was paired with the L23 sample and there was a maternal kinship. The geneticist confirmed it verbally. But of course, there would be. If the sample was L23, that was his mother, or if L25, then his grandmother. Hence maternal kinship proven for the grandson or the son. L14 (8000 pounds of genetic material) did not have any relation to Toki (Lol) either.

No SRKW Genetics Tied To Toki

Several papers had SRKW and Toki (or Lol). I began to chart and eliminate which SRKW had been tested directly or indirectly to Toki through the papers. Other geneticists had used her genetics in their work. The scientist that did Toki's original genetics always answered all my questions. Geneticists for other species were also very helpful.

I thought about my theory, *“What a plot to use the son to test the mother and then also label genetics of a long-gone daughter to hide the identity of the mother just to create a narrative “L25 is Toki’s mother” and continue the urban legend “her mother is still alive.”*

The genetics papers kept adding more SRKW whales as they collected more samples. No relation has been documented for Toki to any of the SRKW in all those papers, not even distant cousins or aunties.

One year later, I was excited that a paper with more SRKW was published by NOAA as the lead

author agency. In 2011 a paper was published on SRKW paternity. It included additional SRKW individuals. I quickly opened it and looked at the supplemental data. This is where all the whales were listed.

All I got was punches to the gut.

In the supplemental data, the entire L25 sub-pod was listed as having no genetics available.

There was no L25 nor L23.

However, the biggest punch came when I saw L14 had listed no genetic material available.

No L14? The carcass that washed up with 8,000 pounds of genetic material handled by a killer whale geneticist in a previous paper? The main agency that authored that paper was NOAA, a federal agency. A second author was on a previously published paper that had L14. That paper was about what L14 ate because he was an 8,000 carcass with his intestinal tract fully available.

Why would they leave him out of this one?

There are more papers.

You may ask, “Who knew?”

Dig up the papers everyone has Google now. Ask journals to review all those published papers, even those in England. It is a responsibility they

have. If a journal published inaccurate information, they should review it and clear it up.

Ask geneticists. Ask NOAA. All the sequences should be archived. Ask the people that changed their statement from “L25 is Toki’s mother” to “We think L25 is Toki’s mother.” I think they knew that was not her mother. Adding the “we think” does not cover it. Ask the people that changed her reference from SRKW to just resident.

L25 is not Toki’s mother. No SRKW has shown any close relation to Toki. It has been known for many years.

Everyone kept saying “Her Family” when they knew it wasn’t.

SRKW listing

The SRKW population is a sad story. Their population number was coming up in the 1990s, like the NRs in Canada. Then for several reasons the numbers plummeted after 1995. As I was researching Toki's past, I was also marking off the dying SRKW. During the time frame that I took care of one whale, I crossed off about 85 SRKW that died. Since some were born during that time the number has remained in the mid-70s for a long time. A part of me thought about that small group "Why don't you take care of your whales at home more?"

Food depletion, toxins, and vessel traffic were the big variables causing their death. They needed the study and protection the endangered status brought with it. It was tricky because all killer whales are one species. Some like the NRs and now the Transients have good population numbers. There is recent news that they may be dividing the species. I just hope they really think it through and don't create the Southern Residents are now north of the Northern

Residents dilemma. I hope they really think the names through carefully. There is already one species name that people misunderstand. NOAA created the distinct population segment SRKW for those local whales. They studied them, had public workshops, and public comment. Finally, in 2005, the SRKW were listed endangered.

Toki Listing No Protection

Then it was Toki's turn. Since the world believed "The Tales" from the West Coast I felt her case was up before it ever began. NOAA reviewed some data (not all of it) and took public opinion. We fought. Toki's owner allowed me to get her genetics expanded to do more genomics. Her samples were sent and stored. We were about to begin when suddenly, the company accepted her listing. The company would not fight anymore. I was told that if she got listed as SRKW, NOAA would protect her. She would be endangered and get the protections of endangered animals. NOAA would have oversight along with USDA. Two federal agencies would watch over her. She was listed as an endangered SRKW by NOAA in 2015. Years later, NOAA did not protect her. Even after her death, they accepted a cause of death that they knew was inaccurate. An email from NOAA questioned if the cause of death should be changed. It was not. Much later, the USDA gave up their

jurisdiction as well with the caveat that she would not be on public display. No one was allowed to use her image for economic benefit after March 2022 when the USDA stopped their oversight. Toki was listed as an endangered SRKW. I agreed that she was endangered but I disagreed that she was SRKW. Kind of like the Florida Panther babies that were born to Texas Cougar moms. I think she is an endangered cross-blood. So many more papers with additional individual SRKW and she still has not shown any close relation to any SRKW. They knew this. One particular hard issue I had was when they wanted to put sounds from an L pod in her pool. She hadn't shown any relation to any of them. New sounds in her pool scared her. They were OK scaring her just to keep up with the myth.

Genetic Loose Ends

On some software programs Toki had sequencing similar to other groupings, not just SRKW. On several genetics papers she sits on the edge or perimeter of family trees. It seems she may not be pure blood. Sometimes when I went to see Toki I mused in my head and told her outload “Tok, I think your granddaddy may be from the transient or offshore clans. Maybe your granny found herself a handsome transient or offshore male.” One day it might be proved correct.

In one genetics paper the closest whale to her that also had sequences to different groupings on that software was an “Ancestral Migrant”. That whale specimen was from Iceland.

An interesting note is that genetics have been sequenced on museum and buried specimens. It can even be done on jaws and teeth alone.

Maybe folks “reclected” the wrong year and the wrong whale going to Miami, since the first killer whale, Hugo, had a saddle like L25. I stated that at

a presentation in 2017. Some people from the West Coast were there. I presented my theories about her past to a documentarian as well.

Oh, Hugo's skull is stored away.

Parallel Universes Come Together

Toki's universe on the East Coast changed and things spiraled down for her. She had new owners, then another. She got new attending veterinarians. In the end, the two parallel universes finally came together. The small group from the West coast came directly into Toki's life. But not for long. In most stories, when there is a kumbaya moment and everyone works together, there is a happy ending. In this case the introduction of the collaborators would only accelerate Toki's demise. She would not survive. She passed away with no protections and no oversight despite her classification as an endangered animal. One question I have is; Could the USDA jurisdiction be posthumously turned back since her image was and is still being used for economic benefit?

Of Two Endings There Was One

Originally, I felt there was one ending for this tale of the past. But always tried to include a second in my heart. Then, a recent event observed by the entire world led me to the conclusion that there would only be one ending. A killer whale mother carried her dead baby for days after it died. If Toki's mother survived that day, could she have left back out to sea with her group? Did she leave because she was scared of the nets? That sad killer whale who carried her baby for days on end showed us a killer whale mother would not leave her baby. Toki's mother would have returned day after day. Staring at the dock and staring at the people. There are still killer whales out there that we don't know anything about. That granddaddy I think she might have had may have had more offspring.

The Oddity - “Too Many Whales”

Back to the oddity “Too many whales.” Remember those data observations when there were rare large number of whales on “That Day?” Paper after paper, Toki had no relation to any SRKW. I was curious for her. I wanted to offer a different plausible past for her. Remember, in 2001 there were “a higher-than-normal number” of whales in Kodiak Island, Alaska. The observation was made by a prominent orca biologist. The Russian Clan, the Bering Sea Clan and the Alaskan Clan of killer whales were all seen in Kodiak Island, Alaska. Clans with that same SR maternal haplotype. Something in their heritage made them all react the same way to the same location. What was happening to bring all these whales together, in such a small area at the same time? Could what happened then, have occurred on “That Day” of 1970? That would account for eighty whales in and eighty whales out. A total of 160 whales were there when the local group only

numbered eighty. Even if it wasn't that high, since that is grey, everyone states a higher than 80 number the area. Was there another grouping, clan, or discreet population segment visiting or hiding there? When I found a possible answer, I envisioned a tale. People have been using L25 to tell a different tale. Try as they may, (and boy have they "tried") it has not been proven.

There is public interest. See which you believe.

I don't believe Toki is SRKW. Those that have hidden the truth, may just call her "Resident".

A Very Loud Sound

I dug the world's history for similarities for those two days in 1970 and 2001, that higher than normal numbers of killer whales in the area. There was no storm. There was no earthquake. There was no megalodon.

In 2001, however, there was a huge commotion on the other side of the Arctic Sea. The *Kurst* submarine was being cut in half to bring it up. The *Kurst* was the nuclear submarine that sunk out at sea. It was a horrible disaster. Since it had a nuclear reactor, it had to be taken out of the ocean. In 2001 it was cut in half so that it could be raised. That very loud sound would indeed be very new and different. At the time it was being cut, was when all the killer whales across the other side of the Arctic Sea were observed at Kodiak Island. Orcas are very sensitive to sonar. Could the immense vibrations made while cutting a nuclear submarine in half have scared the different clans to huddle on the other side of the world at Kodiak Island? Did anything like this

happen the summer of “That Day” in 1970? Nuclear submarines had traveled the oceans for many years and the whales should have been familiar with them. It would have to have been something odd, something maybe noisy for them. Something like that might urge killer whales to seek a quieter place they had been at before. Was there a “noisy” nuclear submarine at the end of that summer in the Pacific Ocean?

Yes, there was.

A SHORT TALE OF A
KILLER WHALE'S PAST

QUEENFISH

The Past
A Killer Whale Short Story

A Loud Sound

The story begins thousands of years ago. When the only sounds around were made by nature. The sea is full of life but also death. It was feeding time. A group of large whales swam rapidly into the underwater cloud of silver fish. The cloud had hundreds of silver fish in it. The whales stood out with their brilliant black and white coloration. The largest lead the way, with smaller ones following their lead. With open mouths they turned every which way. As the fish entered their mouths, there was no time to chew. The whales swallowed them whole filling up their bellies. Little ones tried but had to take a few bites before they comfortably went down. The eldest, the matriarch, watched her family. In these whale communities, females lead. How she enjoyed seeing them eat. “*Eating sustains life,*” she thought. It was amusing as the youngest chased the fish. The cloud of fish stayed in formation. It flowed in every direction but did not break up. The whales swam through grabbing many but quickly the formation and flow

of fish were back. Then, all of a sudden, a loud sound resonated.

The cloud of fish stopped. The whales stopped. Within a few seconds, a jolt was felt throughout the sea. The adult whales turned hastily towards the land to detect the direction it came from. A second blast reached them louder than the first. Bracing for impact, the whales looked up. The underwater shock did not faze them because they could see now what created it. A plume of fire had risen straight up into the air. The volcano had erupted.

Large boulders landed in the water, and the currents continued to churn.

Mother whales whisked around their babies. The strong stream of water from their bodies grabbed the babies close to them. This slip stream let the babies stay right next to mom. The whales bolted frantically away as fast as they could. Explosions continued to create underwater turbulence. The matriarch quickly led the way. She turned time after time to make sure her clan was all following. Every time she caught a glimpse of the ash that was now falling from the sky. She did not want her clan to breathe the ash, so she continued at top speed. On and on they swam as far away as they could go.

The Journey

They reached the ice but decided to go farther. The sky behind them had become dark. The kind of dark where there are no stars. They were worried because they did not know what that would bring. The adults all helped by taking the young ones in their slip streams. This let some of the mothers rest while still moving forward. They followed a maze of rivers that flowed through glaciers. They were careful not to dive too deep with the little ones, as they needed air to breathe. On several occasions, the strongest had to break through the ice to allow them a hole to breathe. Hot blows sounded off from holding their breath for so long. The mothers were scared. The possibility of drowning was suddenly very real. The sky gradually became clear and a beautiful coloration at night gave them hope. The stars in the sky were the same but in different positions. This gave them faith and they pressed forward. It became more difficult as the glaciers became harder to travel around. They continued on without food and without much rest.

The babies at least had some milk to drink. This was no place to stay for very long. They did not know how long they traveled.

Finally, they reached the open sea again. They all used their sonar to map out their surroundings. Their echolocation told them this was an entirely new ocean. The water was calm, and the glaciers were gone. They swam towards the land to rest. The coast had always been their haven.

As the new sun broke through, the matriarch stated, and the group agreed; They must find food because they could never go back.

Somehow, they had crossed the Arctic Sea.

New Home

Migration patterns began. To their amazement, the fish they liked were plentiful here. One new one, chinook salmon, became a favorite. They found out that whales like them were already living on this side of the world. Some were slightly smaller, some had slightly different dorsal fins, but they all had the brilliant black and white color. Not all of the new whales ate the fish. Some ate larger prey and migrated differently. One of their smaller groups would stick to this new fish they liked, chinook salmon, for many generations to come. They only ate the chinook, even if it meant starvation. The larger group grew and separated through the many generations that passed. They dispersed to new home ranges. Some continued to hug the coast, while others swam further out to sea. A few mingled with other groups. The offspring were not pure blood. But they were, they just were.

Generations after that volcano displaced them, the small group led by one matriarch from the other

side of the world grew to inhabit the entire Northern Pacific Ocean. Some went to the far western continent, some hugged the eastern continent, some stayed out at sea. Some changed with the food source, and some were cross-bloods.

New Species

After thousands of years, new sounds arose, created by a new species. A species much smaller than whales, humans. Man traveled in vessels. At first the vessels were wood then they created them from metal. Humans competed with whales for food sources as they set nets to capture millions of fish. But fish were plentiful back then.

Humans were unpredictable. Many times, they quietly traversed the ocean or sky. Sometimes they created loud rumbles and turbulence like that volcano from centuries past. They would also hurt each other and destroy each other's vessels. That also affected those around.

They began hunting large whales. These very large whales were considered a natural resource a commodity. The number hunted grew year after year. Over thousands of years man depleted some stocks. In 1931, it was documented that over 43,000 large whales were hunted. That was in one year alone. Man began to study the whales to avoid

depletion of stocks as some had become endangered. This included several species. But not particularly the black and white whales. They were not part of that. Man found these mighty whales scary and gave them the name Killer Whales. Some humans even shot at them for target practice as they flew in the planes. Killer whales continued on, not being a part of man's world, yet.

The Arctic Sea

In the 1950s, one human vessel set out on a quiet quest.

The USS Nautilus was the first operational nuclear submarine. It set out on a grand journey. Its goal was to map out the Arctic Sea. It would stay submerged to go to the North Pole and map out the polar region. This included the ice dimensions and locations. It created quite a detailed map of the Arctic Sea. It was not harmful to the whales. The whales had no idea it was mapping the dangerous path their foremothers had followed thousands of years past. Perhaps the path was no longer there. It was so long ago it was nearly forgotten. What remained was something generations handed down. Something they learned from their ancestors.

Move to safety when the need arises.

Killer Whale Science

Some whales used the inland waters of the San Juans as a haven through the years. The group that liked the chinook salmon stayed in that area. Other groups went in and out. One group bred with other groups. The offspring were cross-bloods. They had inheritance and culture from different groups. This cross-blood group mostly stayed out at sea.

Humans had started to observe and study these whales, not only as a natural resource but as a biological entity. They were documented by biologists. One scientist noticed how some whales resided in the coastal area. Then at unique times, more of these killer whales came into the area.

In the 1960s, one orca was captured, and people realized these mighty whales were also very smart and “trainable.” More captures proceeded. What was once a scary beast in the water was now a highly intelligent and mesmerizing animal. People were moved by them. People wanted to see them.

A Second Nuclear Submarine

By 1970, two groups of humans were at odds. The cold war was escalating. A more comprehensive version of the map the Nautilus originally created was needed. In 1970, a second nuclear submarine was commissioned. It had installed the latest in sonar equipment. It was very important to get depth, ice thickness, and the bottom surface of the sea. However, it did not have its name written on it, as was normal. This state-of-the-art nuclear submarine with advanced sonar equipment went on a highly secretive operation to create a much more detailed Arctic Sea map. The operation was to be secret for many years to come.

It was the USS Queenfish.

“That Day”

August 8, 1970

The USS Queenfish was named after a beautiful metallic blue and silver fish. It set out from Hawaii on its secret mission at the end of July 1970. It had a stop in Seattle before going through the Strait of Juan de Fuca. Killer Whales would have been desensitized to nuclear submarines by this time as many were traversing the waters. But this was no ordinary nuclear submarine with its sonar equipment. It was highly technically advanced to map the ocean floor and glaciers from every angle. It crossed the Pacific Ocean north. Killer Whales in those waters would not have recognized all the sonar vibrations. The dolphin family (which includes killer whales) is sensitive to sonar. This loud sound was new to the whales. Some did what they had done before. One cross-blood family of whales from far out in the deep blue sea remembered. The new vibrations confused and worried them. The matriarch led the clan to a place they had been to before. The San Juan waters

were a haven (or so they thought). An orca capture was taking place, and they swam directly into a trap. The killer whales present that day were not only the local killer whales but also a cross-blood clan from far out at sea.

The Net

Not knowing, they swam into a net. The local killer whales remained outside. Some local whales watched from the perimeter. One male local whale was photographed on the perimeter far from the net. Orca mothers are fierce. They are the matriarchs of their clans. The thousands of years of surviving was ingrained from the ancestors that swam to safety from volcanoes thousands of years ago. Those mothers saved their babies and crossed to the other side of the world. But these were not glaciers to swim under or break through. This was a net made by humans.

A Four-Year-Old

Many whales were captured by the net. One mother had a four-year-old girl. An orca mother would not leave her baby. She would fight to her last breath. Especially these killer whales, these mothers would fight to get those babies to safety. But they did not know about nets. Several orcas died that day. Their bellies were slit and filled with rocks to be sunk. When the captors had what they wanted, they raised the net. The remainder of the clan eventually fled back out to sea, never to return to any coast again. Later, the sunken dead whales floated and washed ashore. Their remains were buried. Several young killer whales were taken, including one four-year-old cross-blood. Days later she was named Tokitae, “shimmering water.” Toki, to many. Toki lost her mother on “That Day”.

Epilogue

This tale of Toki's past ends when her life under human care began. There are many killer whales out there that humans know nothing about. One group was documented just days prior to publishing this story. In that group, an eye patch, a saddle, and a fluke had a resemblance to Toki's. Some day we may still be able to find Toki's clan.



A killer whale short story

A tale of a killer whale's past. A memoir of the journey to unravel the urban legend created about her past.