

Some Observations on a Monk Seal Mother and Pup

Field Notes of Observations of Hawaiian Monk Seal (*Monachus schauinslandi*)

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I recently had the opportunity to observe a new born monk seal pup and its mother on Koki Beach just outside Hana. The pup was born on October 9, 2009 according to various sources. I had been photographing and studying the Hawaiian monk seals since 2006. In the course of that effort I was finding a number of discrepancies between material put out by National Oceanic Atmospheric Administration (NOAA) National Marine Fishery Service (NMFS) and what I observed in the field. Furthermore what I was seeing first hand was more consistent with my own understanding of animals based on fifty years of experience with a variety of wild animals including the river otters, racoons, foxes, skunks etc.

Hearing of the birth in Hana, I realized I had an opportunity to check it out first hand. In the last twenty years I had been to Hana perhaps a half-dozen times. Although Hana is not that far away in driving miles it is more complex than sheer distance for the road is narrow with numerous one lane bridges. Nevertheless I decided to photograph the creatures every five days. My commitments to other projects in Kihei such as the wedge tailed shearwater colony at Kamaole beach park III were demanding my attention. I had been monitoring the shearwaters since fall of the previous year and I needed to complete that project.

Basically what I was hearing was that mom would haul out some where and have a pup. She would nurse the pup for five or six weeks and then split. During this time she would fast and not eat. Her relationship with the pup was so tenuous that very little human interaction would result in her abandoning the pup. If she returned to the water she would likely depart and leave the pup on its own.

At the end of the five or six week feeding period the mother would leave the pup on the beach and it would have to fend for itself. Living off the nutrition of the rich seal milk the pup had to figure things out or perish. In any event the relationship between mother and pup was over and it was unlikely that the two would see each other again.

All of this struck me as strange. For starters it seemed hard to believe that the pup would grow from thirty five pounds to over a hundred in just five or six weeks. It also did not make sense that the mom was not more attached to her young. This was a warm blooded mammal that we were talking about and not some reptile where eggs are laid and then abandoned.

(Note: A quick overview of events. If this segment strikes your fancy you can really delve into the topic of a monk seal pup growing up in the pages and videos to follow.

Koki Monk Seal Summary Nine Weeks in Three Minutes (for Maui Daily)

http://www.youtube.com/watch?v=1yZji_3yhjQ)

My first trip to Hana was made on October 19, 2009 on the tenth day of the pups existence. A wedding conflict prevented me from going sooner. I decided to drive over and spend a few hours and then return home. The purpose of the trip to check out the situation and get the lay of the land. I was only at Koki Beach for three and half hours. Nevertheless I took over two hours of video. Monk seal mom and pup had my attention.

October 9, 2009 Friday Koki Beach

A large female monk seal had been observed hauled out on the more western end of Koki Beach slightly south of Hana. Not wearing tags she was still identified as RO-15, a seal familiar to NOAA personnel. She was known as Lite house Mom for she had hung out at Lite House Beach

on the island of Hawaii. She had born seven pups in this location over the past seven years as I understand things.

Various people I talked to had seen her in labor or had seen the pup. No one I spoke with actually saw the birth. A number had walked right up to the seal and had photo's to support their story. Some were close enough to provoke a reaction yet mother did not abandon the pup.

The location of the birth is in close proximity to waterline of splashing waves. With in a very short time the pup was nursing. The pup was not seen in the water by those I spoke with that first day. By the second day the pup was getting wet and one could clearly say the pup was in the water by the end of the second day. Mom would lie across the sand between the shore and the ocean and form a barrier to the gently surging waves washing ashore.

From the get go the close relationship between seal and water was noteworthy. Mom would lead the pup into the shallow water for practice and experience. Each day the water depth increase a little and the length of stay also increased.

Mom would lead the pup up the beach in advance of the tide. She would shelter the pup from the elements.

October 19, 2009 Monday Day 10 Koki Beach just south of Hana, Maui

Monk Seal Pup Koki Ten Days Old (for Maui Daily)

<http://www.youtube.com/watch?v=2dLcsFDYZPw>

1) KokiDoc101909WaterNymph Episode 10 Koki really likes to splash and surge. Sometimes he mistakes a rock for his mother.

Disc 1 of 15 raw footage begins here.

20091019115015 2:00 My first observation began with a local Hawaiian woman pointing out that the rock with the sand on it was the monk seal. Situated behind the sandy rock was a little black head peeking out from the far side. It was late morning and the sandy rock and pup were on the beach where the surf lapped on the shore.



(Interpretation of the numbers: 2009 year 10 month 19 day 115015 time eleven fifty and fifteen seconds 2:00 duration in minutes and seconds.)

20091019115232 10:31 Koki is still behind his mom and keeps poking his head up every now and then.

20091019120339 8:38 Koki is still behind his mom and generally not seen by the camera. He appears to be washed out by a slight wave. He swims back in. He appears to be positioning himself in proximity to a nipple.

20091019121252 8:34 Koki and mom lay in the surf. Waves come and go. Neither seems too concerned.

20091019122400 3:08 The water surged in and out. A nursing Koki was pulled off the nipple but

reconnected and continued.

2009101922837 1:30 A scan down the beach showed where the NOAA people had erected a fence. They had petitioned two thirds of the beach for the seals. The seals were positioned at the extreme far end of the beach which was surrounded by forty foot bluffs.

20091019124122 13:21 The next sequence shows Koki venturing out into the surf behind his mother. She acts like she is aware of what is going on and shifts her position such that she is facing the pup. The pup returns and gets right in her face and then gets carried away. Then he is back again. You can see mom vocalizing. At one point Koki moves up to a rock and appears to vocalize at it. Then he moves to the right to the bigger appearing rock which is his mother. Again he moves to her face and is right in it. The pair has slipped further into the wave surge and are pretty much continually cover by some water. Koki maintains a face to face situation adjusting for the pull of the ocean. This continues until a larger wave surge carries Koki inland a foot or so and then takes him out in the out flow a good six to ten feet. Koki is soon back and in his mother's face. The process repeats itself for the rest of this video clip.

20091019125450 13:10 In the next clip we see more of the same with mom moving slightly further into the surf. Koki's surge trips take him a few feet further away from his mom and it appears he has to work a little harder to get back. But he does.

20091019130807 16:25 Another segment pretty much the same as the previous. Koki gets a little further afield and you can see mom vocalizing although the wind at our location usually precludes our hearing it.

20091019132441 7:27 Mom and Koki still bopping around in the surf.

20091019133255 15:51 Mom is looking about and vocalizing and appears to be heading into shore. Koki is behind her and comes up alongside as she continues to vocalize. He vocalizes and ends up in her face. She snaps at him. Koki moves off and she continues to vocalize and definitely turns toward shore. Koki is on shore and he is vocalizing as well and moves back to go nose to nose with mom.

Disc 2 of 15 raw footage begins here.

20091019134852 15:46 Mom undulates slowly up the beach with Koki right besides her. This is a very slow progression but mom is slowly moving and finally starts to make a series of undulations that puts her just about out of the wave surge. Both seem to be vocalizing. After a delay of a few minutes mom gets motivated. Nevertheless, Koki is in her face. Finally she goes and sustains movement up the beach and out of the surge. Koki is right behind her. After a brief pause she again moves up the beach, pausing for a time and then moves on up the beach.

Eventually she makes it to the base of the cliff. There is a slight overhang and she situates herself near it. Koki has been moving up with her. Pausing when she pauses and moving pretty much when she does. He appears to be off in his own world, rolling on his back and minding his own business. He actually approaches mom and circumnavigates her, ending back at her tail. This has taken a while to transpire and takes but a few words to describe.

2009101940451 13:00 This segment finds mom moving parallel to the rock face. Koki moves up alongside and lays near her face. Bouncing about he is off and then back. Then he is moving toward her tail. She rolls on her back and the expectation is that Koki will be nursing in a moment or two. But no, Koki is heading back toward the ocean. Mom roles back on her stomach and watches as Koki moves down the beach. Mom vocalizes and turns to head down the beach. Koki takes a role in the surf and returns a vocalization and then lays on the beach above the surge line. He then crawls up the beach to a waiting mom. Koki is in mom's face big time! But then undulates back alongside and mom accommodates with a roll over onto her back. Koki is blocked from the camera's view but presumed to be nursing.

Shortly after, I wrapped things up and headed back to my base in Kihei.

October 23, 2009 Friday Day 14

2) KokiDoc102309MindofmyOwn Episode 14 Koki lets his mom know that he is in charge. He will swim when he wants and eat when he wants and not necessarily when his mom wants him to.

<http://www.youtube.com/watch?v=s2d1QSJP9BU>

Disc 3 of 15 raw footage begins here.

20091023132252 3:24 Mom and Koki are side by side and face to face on the beach below the cliff. A fellow on the cliff tells me that mom and pup had wandered off the beach and were unobserved for a time. Then returned.

20091023132707 3:57 Koki is in mom's and starts getting active although mom appears to be resting. She does roll on her back and Koki works down her body to breakfast. Waves gently splash on her rear flippers.

20091023133429 2:34 Waves lap higher Koki is content to lay alongside mom with his head toward her rear flippers

20091023133745 2:24 Waves lap higher Koki is content to lay alongside mom with his head toward her rear flippers.

20091023135931 2:00 Waves lap higher and surge past both and neither reacts.

20091023140751 0:49 Zoom in but no particular movement

20091023151656 14:50 Koki has shifted and is attempting to nurse and then moves forward and into mom's face. Rolls off and moves back to attempt nurse. Then back and in mom's face. Mom is non responsive for the most part. This continues for some minutes.

20091023155430 3:30 Time passes and mom and Koki have moved up the beach under the overhang. Koki is active rolling on his back adjacent to his mother. Mom does undulation under the ledge. Koki disappears and have to change camera angle.

20091023160357 10:04 Koki crawls around Mom and looks to be heading toward ocean. Mom

does some burrowing in the sand. Koki comes over and is in her face and she snaps at him and moves further under the outcrop. Koki does his thing where he ignores mom and goes down to the ocean for a dip and then returns. (good stand alone segment) Mom follows part way. Out zoom shows relationship of both. Zoom back to vocalization of mom, Koki ignores goes in water and vocalizes. Mom vocalizes and moves down the beach. Koki returns,

20091023161515 6:22 Continuation of above sequence. Koki and mom are laying in the sand out from under the outcrop. Koki is active moving about but does not actually nurse. In mom's face and some roll overs.

October 24, 2009 Saturday Day 15

Koki Fifteen Day Old Monk Seal Has Breakfast on the Beach

<http://www.youtube.com/watch?v=L8HAvdbuUZ0>

3) KokiDoc102409BreakfastTsunami Episode 15 This episode finds Koki enjoying breakfast at the beach when washed off point by a miniature rogue wave.

<http://www.youtube.com/watch?v=H10VdvyYbFA>

20091024060242 5:32 Dawn at National Park Campground

20091024060905 1:13 Truck at Campground

20091024061115 1:23 more truck campground

20091024070115 15:49 Koki is up and about. All over mom head to foot. Eventually starts to nurse. Good surge washes Koki about. Has to overcome being washed down the beach to get back to mom. She offers and he accepts nourishment. This clip contains the classic tsunami shot. A small wave washes Koki from his mother. (Good stand alone segment) Great interaction between mom Koki and the waves. Mom rolls over to accommodate.

20091024071915 13:41 Scan in to nursing Koki. Waves lapping mom's head to ocean. Koki moves down to mom's head and gets splashed about. Zoom in looking at crab back in mom face crawls by other side and stops. Mom rolls over and heads in sand and pushes toward ocean. Continues for a few minutes. Koki to back in face and then gets washed out. Barking and comes back. Bit of interaction between mom and Koki. Koki knocked backwards into surf. Two are head to head. Mom moves into surf with Koki to side. Mom moves out with Koki behind Circles around with Koki near by in water getting deeper with wave surge. Vocalization.

20091024073440 17:00 continuation of above. Mom moving about in moderate waves breaking into shore with Koki right there. Note vocalization as Koki moves about near mom. Wave washes pair toward shore but mom redirects and stays out. She appears to be on the sand when waves out. Vocalization and mom moves slightly farther out. Much vocalization as mom bounces around couple of rocks. Surges into shore and then washes out. Koki always thrashing about nearby. Lots of vocalization by mom. Some nose to nose stuff. Mom rolls over more vocalization.

Disc 4 of 15 raw footage begins here.

20091024075229 15:16 Have pulled back. Mom appears to be coming into shore. Slightly up the beach. This changes very dynamic situation but net movement appears toward shore. In and out with lots vocalization. In and out with progression down the beach away from the camera. Does not come in completely in entire segment.

20091024080750 2:48 Continuation of above with no clear egress of the ocean.

20091024081135 9:16 Continuation of above with mom more on the beach at the water line. But does not move further in.

20091024082518 0:16 Scan from the east end of beach at shore level. See fence.

20091024082722 2:09 Surfers in water.

20091024083142 1:34 Surfers in water with announcement of contest rules and instruction snippet.

20091024083342 0:11 Quick shot of surfers with scan to west does not catch the bluffs and beach however.

20091024083358 0:11 Straight out surfer shot short segment.

20091024084051 1:10 scan of fence from beach slightly east of it, Gal walks over and recovers boggie board lost by surfer.

20091024111909 21:19 Seals on shoreline still splashed by waves. About half way through is the classic squash shot. (Must have for stand alone sequence.) Following is nail biting.

20091024114035 11:03 Resting on the shoreline.

20091024115233 0:36 Scan of beach fence from bluffs location.

October 29, 2009 Thursday Day 20 Koki Beach Hana

Koki Monk Seal twenty Days Old (for Maui Daily)

<http://www.youtube.com/watch?v=-2n5S9fyrcM>

4) KokiDoc102909KokiDayOff Episode 20 Koki decides to take the day off. His mother is perplexed that Koki wants to snuggle up to a rock and snooze rather than go swimming.
(In production)

Disc 5 of 15 raw footage begins here.

20091029131312 3:52 Scan in to Koki laying beside mom on the beach. Waves gently lap against the two.

20091029131734 16:21 More of same above. Slight activity toward end of Koki rolling on back.

20091029133359 19:00 Similar to above Koki laying with mom gets more active and proceeds to nurse. Mom has head to water and underside toward camera. Clear view.

20091029135304 9:20 Koki continues to nurse tries variety of nipples and appears satiated toward end of clip.

20091029143930 13:42 Mom heads to ocean after nursing. Koki appears to be following but then breaks off. Mom continues but becomes aware at water edge that Koki is not there. She vocalizes.

20091029145340 19:20 Mom is in surf and turning toward beach vocalizing for Koki. Koki and moved up the beach and is laying against a rock and not responding to mom. Mom moves up the beach and nudges Koki who jumped slightly but continues to ignore mom. Mom lays next to Koki and video ends.

20091029151305 5:22 Koki laying far side of mom appears to be somewhat active rolling over on back. Mom basically is relaxing. Moves slightly away from Koki. Both appear rather sedate.

November 7, 2009 Saturday Day 29 Koki Beach, Hana

Disc 6 of 15 raw footage begins here.

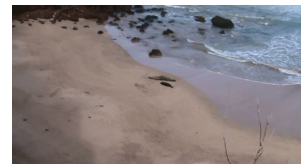
20091107133745 0:36 Koki and mom laying parallel to one another on the beach slightly up from the waters edge. Both appear asleep. Mother is noticeably trimmer.



20091107133847 0:56 Same as above gentle wave washes through.



20091107134154 0:30 Zoom shot of scene from bluff. Struck by multiple colors of mom.



20091107142198 10:02 Koki has changed position and is nursing.

Mother rolls away, Koki attempts to reconnect but mom is not cooperating. Waves gently wash in. Mom shift position and directs her head toward the cliff and then moves slightly up the beach. Koki scrambles and approaches mom in attempt to nurse. Mom accommodates in the new position up the beach after some prodding by a hungry pup.

20091107145013 1:28 Continuation of same scene above but appears to be taken from angle that suggest camera is on the beach.

20091107145154 1:05 Camera is on the beach and shot is of person on the bluff and then again of seals on the beach. Koki still nursing or resting.

20091107145421 0:42 View of seals on the beach over the fence with an emphasis on the sign that is on the fence.

20091107151211 0:54 View of seals on beach with Koki laying beside mother. NOAA spokesman can be heard talking to visitor about purpose of fencing.

20091107153203 Mom and pup have moved up the beach and into the shelf below the overhang where they have been before. Zoom in and then pull back. Late afternoon and decide to leave the area.

November 8, 2009 Sunday Day 30 Koki Beach

Koki Monk Seal Thirty days old (for Maui Daily)

<http://www.youtube.com/watch?v=tCpH1PR4aFk>

5) KokiDoc110809DoNotFence Episode 30

Koki and his mom move down the beach beyond the barrier placed by NOAA and associates. Its great fun for the seals but the NOAA people don't seem to laugh.

http://www.youtube.com/watch?v=fDsbGIQAB_o

20091108061743 5:46 Sunrise Koki Beach Hana Maui from bluff. Few minutes duration.

20091108062403 0:27 View from bluff distant shot. Koki and mom are not visible since they are under overhang.

20091108063048 0:21 Back to sunrise with sun clearly breaking through.

20091108063116 0:20 More sunrise.

20091108063821 1:05 View from bluff of seal tracks from ocean previous day. No seal in sight. Presumed under overhang.

20091108065908 1:36 View of divider fence with volunteers assembled to get first view of the seals when they emerge from their retreat under the cliff overhang. Taken from bluff above.

20091108070717 14:35 View from above of seal tracks waiting for emergence, zoom in to find head out and then mom undulates out with Koki close behind. Stop and go as pair moves down the beach. (Great sequence for stand alone.) Koki is in mom's face and rolling about. The pair proceed to and enter the water. End of sequence can be seen in the surf swimming about.

20091108072158 8:32 Entire sequence pair swimming about in surf. Moderate wave activity appears to pose no problem for either.

20091108073058 0:22 Short sequence pair swimming in the surf slightly down the beach to the east.

20091108073230 3:01 Same above, but longer with Koki moving about mom in moderate surf.

20091108073700 1:42 Zoomed in shots of pair in the surf.

20091108074012 0:47 More of same as above. short sequence

20091108074256 1:12 More of same as above but longer sequence.

20091108074627 1:56 More of same. Just off shore at bluff end of Koki beach.

20091108074922 0:41 More of same. Short sequence.

20091108075153 7:36 More of same, possibly look like coming in. Into shallow water but then head back out.

20091108080140 3:58 Close to shore romping in surf. Some vocalization and interaction between mom and “in her face” Koki. Seem heading east end of video.

20091108081018 1:07 Similar to above including some “in your face” interaction. Shorter clip.

20091108081336 2:55 Tighter shots of “in your face” interaction. Noteworthy in fact. End of clip appears coming in.

20091108081752 1:32 Pair moving down the beach in the surf. Mom in the lead with Koki in tow.

20091108082222 0:58 View from hi ground with Koki and mom in surf just off where the beach fence divider hits the ocean.

20091108082412 7:37 Mom is just east of divider fence in surf vocalizing, Koki surges in and out and mom moves up beach vocalizing as she goes. Koki right with her. Surge brings them in. (Good stand alone sequence.)

20091108083232 1:10 View of seals on beach by fence from bluff to west. Good overview and scan in.

20091108083617 1:55 View of seals east of fence from hillside. Koki alongside mom.

20091108083848 1:09 View of seals hauled out to east of demarcation fence. Shot from hillside to east. Interesting perspective on mom with Koki laying by her side.

20091108084141 3:08 Mom and Koki are on the beach to the east of the fence and signs placed by NOAA. Koki is moving behind mom to nurse. Shot from the beach.

20091108084503 1:14 Mom close up and then pull back. Mom and Koki are now to east of beach fence divider giving the NOAA people fits because they have come up on the wrong side

of the fence.

November 12, 2009 Thursday Day 34 Fish Pond approximately one half mile east of Koki Beach

Disc 7 of 15 begins here.

20091112141739 4:09 Mom and Koki are sacked out on the grass strip that is to our left as we face the fish pond from the roadway. It is raining and the seals are wet and one can hear the rainfall.

20091112142238 1:42 Slightly different view. Look like couple of wet rocks. One large and one small. Probably would not know they were there if you were not told and looking for them.

20091112142424 1:01 Continuation of above with very little movement.

November 13, 2009 Friday Day 35 Fish Pond

Koki Monk Seal Thirty-five days old (for Maui Daily)

<http://www.youtube.com/watch?v=rcGoWm1f168>

November 13, 2009 Day 35 Everything about the events of this day are remarkable. We have been lead to believe that the monk seals would occupy a specific area on the beach and if they were disturbed the link between the mother and pup would be broken and the pup doomed. Instead we find that mother has taken junior out on little excursions over the last few days. The latest being down to the fish pond a half mile or so from their original nesting spot. Mom does not abandon the pup but expands his limited knowledge of the world with ever expanding field trips.

Note the color of the pup. It still appears to be black. Is it slightly lighter? We have been told that the pup will change colors after it has been weaned. It has been suggested the weaning process can be completed in 39 days. In the next segment it appears to me that the pup is slate gray. What strikes me as odd about this stems from my prior knowledge of the Monk Seal shedding its skin. It does not shed its skin like a dog for example i.e. hair by hair but rather it sheds like a snake. The skin comes off in patches. These patches are unique with hair sticking out on both sides of the skin. Mother will do this catastrophic molt within a month or two of finishing the job of raising the pup. What I am wondering is if the shedding of the fur by the pup is different than the catastrophic molt of the mother and more similar to that of a dog. I will be reviewing the videos taken during the time frame from November 13 to November 18. Most of my material is on the anniversary days but I might have a snippet a day or two before or after a given date. I came across a reference to shedding and my suggestion that possibly the first color transition is associated with shedding hairs much like a dog or many other mammals. The catastrophic molt which is basically shedding the skin like a snake will occur presumably a year or so from now. Something to watch for and document..

Another aspect of this new location that struck me was the difference in the substrate. We have moved from a sandy beach to a gravel shore line and a vegetation base of grass and tree leaves.

Observations at night: Up to this point I was not really aware of what was happening at night. I was camping in the National Park down the road. I would leave before dark and return close to sunrise. This day I left late afternoon as a rain front was moving in and I wanted to be in a relatively secure environment during the storm. I had left the seals hauled out sleeping on the grassy slope they had taken to during the day.

Since I had gone to bed so early I found myself awake about two thirty in the morning. Deciding I was up for the day I decided to drive back to the fish pond. The road back was littered with debris from the storm but was not blocked to the point of being impassable. I pulled into the area adjoining the fish pond about three thirty. I decided it would be a good time to go back to sleep and retired into my camper. Occasionally I heard the bark of a monk seal in the night.

At day break when I shifted to the cab of the truck as the morning broke I was astonished to find the seals were within thirty feet of the truck on the other side of a fallen tree. Other volunteers came by and we watched the snoozing seals until later in the morning.

6) KokiDoc111309NewHaulOutFishPond Episode 35 Koki and his mom have relocated about a half mile from the beach where he was born. They have taken up residence in an Hawaiian fish pond.
(In Production)

20091113062243 4:00 Morning with seals on edge of fish pond directly below pond access. Koki is moving about on far side of mom who appears motionless.

20091113063447 0:47View more from above near road. Very little movement if any.

20091113063550 3:27 Same view as above with some minor movement from Koki. He moves his head about and that is about it.

20091113064347 0:51 Side shot of above showing Lisa moving rope barricade.

20091113065233 1:22 Close up side view. Mom is still motionless with Koki moving about on far side. May see a flipper.

20091113070500 12:39 Finally get some movement. Initially mom and Koki as above but then mom gets energized and moves into the pond. Koki is right behind her as head out. Some vocalization as Koki gets in mom's face in the pond.

20091113071813 6:46 Mom and Koki are in the pond Low key interaction with Koki either in mom's face or swimming near by. Mom is often vocalizing.

20091113073043 6:27 Mom and pup pretty much in same place gently bobbing in calm waters of pond.

20091113074541 2:21 Slightly different location mom and Koki still gently bobbing about.

20091113080905 2:23 Koki is moving up the beach to the south of the usual haul out location. Mom is in the water nearby. Part way on shore Koki reverses direction and heads to mom in the water.

20091113081447 0:42 Koki bobbing around in the pound. Short clip.

20091113082211 2:35 Mom and Koki are together in the fish pond About midway out.

20091113082558 0:52 Mom and Koki swimming about in the fish pond.

20091113083059 3:31 Mom and Koki in shallows both vocalizing. Koki attempts to nurse cooperating mother. Two just hanging out together.

20091113083443 4:15 Koki faces mom just off shore. Both vocalizing. Koki is trying to get a snack. Not quite working out in the water. Koki comes into shore by rope swing. Holds off shore and rolls around with mom.

20091113085014 4:10 Mom is trying to go ashore through tree branch in water adjacent grass. Rolls over and allows Koki to nurse. After some interaction mom gives up and heads to shore below tree branch.

20091113085452 0:18 Clip shows mom coming ashore with Koki alongside.

20091113085524 4:10 The final push up the beach. Mom rolls over to accommodate Koki who proceeds to nurse. Local man has approached me and challenged me about being on other side of rope demarcation line. I swing camera and catch the individual moving away.

20091113090116 0:09 Further footage on individual who thinks he is “in charge” his words.

November 17, 2009 Tuesday Day 39 Fish Pond

7) KokiDoc111709FishPondFishing Episode 39

(in production)

Disc 8 of 15 raw footage begins here.

20091117120626 1:44 Koki and mom are laying in the water just at the shoreline to the north where the shoreline is close to the road. Pull back shows the demarcation tape and “please do not disturb” sign.

20091117121332 2:26 Close up of Koki’s face alongside his mom. Both laying in the sand at the waters edge.

20091117122009 0:11Barrier down the road. This is the area where the two came up on the roadway in the previous night or so. The importance of this is really the idea that they are moving about at night rather than sleeping through the night at a specific location.

20091117122111 0:40 Another view of the barrier and its relation to the beach and road looking to the North.

20091117122317 0:56 From the southern area of pond looking to north with mom and Koki laying on the edge of the pond on the red sandy beach.

20091117122512 0:59 More of same view above. No movement.

20091117122652 0:27 Path up the red sand beach to the barrier alongside the road. Gives a pretty good view and understanding of the relationship between the fence and water.

20091117123111 2:16 View from the road of the two seals as scene on the beach in previous shot.

20091117123409 1:16 More of same as above. Two sleeping seals.

20091117123643 0:27 People standing along roadway behind the barriers.

20091117123802 0:59 Another closeup of two sleeping seals from slightly different angle. Note the brown of mom and the grey of Koki.

20091117123932 1:20 Even closer close up particularly of Koki. Can see his nostrils open and close.

20091117124650 0:18 Couple of volunteers standing across road by orange cones etc.

20091117124948 1:19 Looking over Cindy's shoulder at seals on shore below. Same position as above shots.

20091117133535 7:50 Koki and mom resting in water shoreline edge. Mom head out. Koki head in. Waves lapping.

20091117135915 4:04 More close up with water lapping up over noses of sleeping seals. (Actually Koki nose and mom's rear flippers.) Different angle.

20091117140354 7:46 Close up of Koki's nose. Water flowing about.

20091117141231 2:54 Different angle and more water washing over the pair. So much so they may be thinking about moving.

20091117141922 0:13 Same as above.

20091117142000 5:23 More same above. Some Koki squirm. Mom starts to shift and move off with Koki following.

20091117142557 1:48 Koki and mom near shore interacting in shallow water.

20091117142758 1:52 Koki and mom a little further out and again interaction. Some face to face stuff.

20091117143018 16:52 Continuing interaction as two move in general direction of grass side haul out. Both in mid region of pond throughout this segment.

20091117144904 5:24 continuing interaction as pair move out toward the fish pond wall to the east.

20091117145539 9:27 Interaction continues as pair is just inside fish pond wall. Bobbing up and down and in close proximity to each other.

20091117150747 3:17 Great fish in Koki mouth shot. Mom and Koki are bobbing around out by the fish pond wall.

20091117152005 6:39 Mom and Koki are just off shore to east of main roadside haulout area. Koki and mom appear to be playing and interacting with one another. At one point Koki appears to drop a fish from his mouth. Lot of swimming close together with either seal turning over on back.

20091117152845 7:08 Moving in closer to shore. Lot of vocalization, Good imagery of such, interaction as get closer to shore shift to south and do not come in during this segment.

20091117153655 2:41 Koki appears to be coming in with mom right behind, vocalization, but then Koki turns and heads out to mom. Tries nurse but mom rebuffs and heads further out with Koki behind.

Disc 9 of 15 raw footage begins here.

20091117171621 11:08 Koki and mom swimming in the fish pond and heading in. Koki leads coming into the shore and the haulout point most adjacent to road. Koki does a lot of vocalization. Splashing and vocalizing in rocks continues just on shore while mom approaching

20091117172805 6:57 Mom and Koki appear to be coming a shore to nurse but in end of segment mom heads out with Koki trailing along.

20091117173630 0:50 Mom and Koki swimming together and interacting while traveling south.

20091117192100 11:22 Infrared night shot of vegetation aside road, no creatures evident. Had been in this location earlier.

November 18, 2009 Wednesday Day 40 Fish Pond

8) KokiDoc111809TitlePendinginProduction Episode 40

Koki Monk Seal Forty Days old.(for Maui Daily)

<http://www.youtube.com/watch?v=A44f6uz2wjM>

20091118061400 1:23 First light Koki and mom are in the tree line to the left of the fish pond. Do not see any activity.

20091118061658 2:20 A more direct shot. Koki and mom are twenty feet or so from the road way. Mom is seen to roll over toward her sleeping pup.

20091118062114 1:01 More of the same as above. Little more light but not any more activity.

20091118062403 1:40 Mom is a little more active, rolling over onto her stomach. Note the cars going past between the seals and the camera.

20091118062553 0:00 very short clip, a second or less

20091118062558 1:37 Same as above with very little movement if any.

20091118062802 1:39 Koki's rear flippers can be seen moving in this segment. Camera pull back shows the relationship of the sleeping seals and the road.

20091118065707 0:22 Unclear if some movement down to the water or just a different camera angle that makes them appear to be closer.

20091118071205 1:11 Different angle shot confirms that seals have not moved. Still sacked out although the sun is clearly up although overcast.

20091118073056 2:08 Mom is on her back and only moves her head slightly in this clip. No sign of Koki who is on far side of mom.

20091118081500 1:32 Very slight movement from mom. Koki can be seen slightly on the far side. Maybe a flashing flipper or his back raised a hair.

20091118081919 8:35 Things are happening. A vocalizing Koki heads toward the pond. After slight delay turns to face mom vocalizing and moves up the beach. Mom proceeds down and passes alongside of Koki and pauses. Restarts and enters the water holding in the shallow while Koki turns and joins her. Mom pushes further out with Koki following and vocalizing.

20091118082650 0:53 Seals are just off shore and pretty much on surface. Relatively short segment.

20091118083017 5:48 Koki is bobbing around with rear flippers flaying in the air. In close proximity to mom. Both seem to be directing their attention to something below in the water. They seem to be in pretty much the same place and just keep bobbing along.

20091118101352 0:46 Short sequence similar to above.

20091118101614 0:25 Short segment and Koki has moved in closer to shore.

20091118101649 1:26 Back out with attention directed under water. Mom in same location.

20091118104104 1:27 Closeup of Koki vocalizing and mom is right there as well.

20091118104308 12:30 Koki is coming into shore behind trees. Have to change position to be able to see him. Vocalizing.

20091118104558 0:30 Koki nearby behind trees and vocalizing.

20091118104658 3:19 Mom has come in and is to the right of Koki. They go nose to nose for a while. Move out together to slightly deeper water and to the left.

20091118105102 10:48 Koki comes back into shallow water vocalizing as he does so. Comes right into shore. Great frontal shot and vocalizing. Mom is nearby but stays out. Koki rotates, vocalizing as he does and ultimately returns to water in mom's direction.

20091118110208 2:21 Continuation of sequence with Koki back in water with mom. Vocalizing apparently wanting to nurse. Mom greets interest with her face to Koki. Mom does not offer but lays on her stomach.

20091118110450 3:23 Mom initially ignores Koki persistence but eventually rolls on her back and give in to his desires. Koki and mom are laying just off shore in water.

20091118110839 1:42 This segment is Koki nursing throughout.

20091118111852 1:01 Koki continues to nurse from a cooperating mom. Mom is just off shore in very shallow water. Koki is further out.

20091118112111 1:58 Koki continues as above. Mom is cooperative.

November 22, 2009 Sunday Day 44 Fish Pond

9) KokiDoc112209NotSoClosePlease Episode 44 Koki and his mom are hauled out near the road at the fish pond. A woman with a camera comes up to the pair before the NOAA volunteer can react. Mom lunges toward the woman while Koki snoozes unconcerned
<http://www.youtube.com/watch?v=iLoloxGdpmc>

Disc 10 of 15 raw footage begins here.

20091122124145 8:06 Mom and Koki are out in front of the break wall of the fish pond. Lot of splashing around with head in water eventually cruise in.

20091122125138 12:49 Koki is playing with a stick. Stick is few feet long. He is on his back with it tucked under his front flippers. Mom is nearby. Having a great time. Toward end of

segment does blow air under water. Vocalization exchange between the two. (Good stand alone piece)

20091122130516 1:51 Pair bobbing around and appear to be coming in to beach center area where they often come in. Vocalization between mom and pup at end of segment.

20091122130708 0:12 I move camera on in anticipation of them coming out.

20091122130724 13:21 Koki leads, vocalizing as he comes ashore. Mother coming in behind. No hurry with head submerged for periods of time on approach. (Good stand alone sequence) Shows different colors of creatures, mom reddish brown while Koki is grey. Head on shot shows relative size and how big Koki has gotten.

20091122132050 7:12 Continuation of above. Koki leads into shore with vocalization. Koki's fan club is waiting up the slope behind the rope barrier. Koki does hit the beach in the end of this segment. Mom coming as well.

20091122132825 1:36 Koki on thresh hold of beach and mom moves behind tree to south.

20091122133011 5:01 Mom comes out and Koki moves to her in anticipation of nursing. Vocalization and head sparing. Close to nursing but does not occur in this segment.

20091122133524 0:41 Mom leads as pair move slowly up the beach. Stall after couple feet.

20091122133624 1:21 Mom appears to offer to Koki who is side farthest from camera and out of sight.

20091122133634 5:34 Looks like repeat of previous segment in all respects.

20091122133828 13:09 Mom moves up the slope and repositions with Koki apparently nursing behind. Maneuvering and vocalization. Note position of volunteers truck which is placed parallel to road on fish pond side. Done so intentionally to keep seals from moving onto road surface. Probably a good idea.

20091122134618 13:09 Slightly different angle on situation as above. Koki nursing. Includes view of truck which has been positioned by volunteer to prevent seals from moving onto road?

20091122140515 2:48 More of same as above.

20091122140828 6:47 Same above with some nice tight shots of both and some pulled back shots of total scene. (Good stand alone sequence here) Midway through is lunge shot of mom at female photographer approaching to close.



20091122141550 0:32 Some shifting to right. Least interesting and short clip of this series.

20091122141950 0:47 Koki is on shore on his back by trees just off roadway. Mom is situated nearby edge of frame.

20091122142117 1:37 Do not know what this is. Looking down beach with no animal present.

20091122142341 7:29 Mom emerges from left and heads down the beach with Koki right behind. Enters water and moves out slowly.

Disc 11 of 15 raw footage begins here.

20091122143804 4:49 Few minute segment of Koki and mom bobbing in the water relatively near shore where I have often filmed them before.

20091122145135 3:25 Koki appears to be dipping his head and blowing bubbles. Early vocalization Conversation in background with tourist interested in seals.

20091122150526 1:09 Koki bobbing and blowing bubbles, close up short segment.

20091122150748 0:00 very short segment, second or less

20091122150751 1:42 Mom and Koki swimming together and Koki bobbing and blowing bubbles.

20091122151013 2:56 Koki moves in closer to shore. Appears to be playing with something. Can not quite make it out. Blowing bubbles and in very tight but can not quite see. Interesting sequence.

20091122151402 2:38 Koki on his back and then interesting head to head interaction with mother. Then move out a little in pond.

20091122151716 1:08 The two are a little further out goofing around in the rocks. In close physical proximity and appear to be making contact.

20091122170033 3:40 Koki is near shore and mom is just slightly off shore vocalizing. Good shot of her moving in and vocalizing as she comes.

20091122171759 0:49 Mom coming up, camera pulled back and includes sign saying keep dogs 50 yards from seals.

20091122171912 2:34 Close up of mom's head on ground and then rollover to back.

20091122172237 9:05 Koki and mom have hauled out at the trees just below the roadway. The area is cordoned off by yellow tape. They move above the tree line and are fairly close to road. I am shooting from across the road and have some delightful close-ups of Koki maneuvering for the nipple. Koki does a lot of vocalization. (Good stand alone material)

20091122173236 4:04 Close up of Koki head seeking nipple and other maneuvering.

20091122174122 7:40 Close up from side of Koki nursing. Mother's head toward camera. Light is diminishing. Taken from other side of roadway with cars passing by.

20091122075526 4:03 After dark late evening with infrared. No creatures just vegetation and signs. No sound of creatures so assume they have probably moved. Of late Koki and mom appear to be doing more nocturnal stuff as monk seals are prone to do.

November 23, 2009 Monday Day 45 Fish Pond

Koki Monk Seal Forty-five days old (for Maui News)

<http://www.youtube.com/watch?v=OuWH4YhT7yc>

10) KokiDoc112309TitlePendinginProduction Episode 45

20091123052106 0:28 Very early morning with infrared. Vehicle passes between camera and beach area.

20091123063741 4:06 Early morning contingent (R, H and L) look to sunrise. Koki and mom are just inside the fish pond wall to the east. Note the waves breaking beyond the wall.

20091123064609 2:44 Mom and Koki are just inside the fish pond breakwall. Sun is just up and the two appear to be bobbing in the surf. Of late seals do not seem to be sleeping through the night at one location but rather shifting around with periods in the pond at night.

20091123071938 0:31 Koki in water swimming away. Short segment.

20091123072044 1:50 Seals out near breakwall of fish pond. Bobbing.

20091123072658 3:40 Koki and mom have moved in and are positioning to haul out on grassy area. Tide is in with rock submerged. When segment ends seals are still in water.

20091123073100 1:06 Mom and pup move on shore at usual grassy area haul out area about one third way down.

20091123073246 3:18 Mom leads pup to tree line and closer to road. Koki wants to nurse and may do so at end of this segment.

20091123093606 0:35 Koki and mom back in the pond. Brief segment.

20091123093820 2:58 Mom and Koki looking to haul out at beach near road but head back into surf and goof around in the immediate area. Mom makes herself available to nurse. Koki shows some interest.

20091123094151 0:31 Koki and mom are swimming in the fish pond and are coming into shore. Brief segment.

20091123094237 1:46 Koki and mom are near shore appear to be coming in. At least when they are ready and in their own good time.

20091123094457 2:23 Moved over to north and grassy area. Mom just beyond downed tree. Koki rolling over on back in front of mom.

20091123094829 1:40 Similar to above with mom moving toward shore at end of segment.

20091123095035 3:03 Mom moves up grassy slope with Koki coming along. Note that the tide is in.

20091123112429 2:06 Mom and Koki are out of the pond. Have moved up the hill and are at the tree line. Mom on her back and Koki nursing.

20091123113142 1:58 Mom and Koki on hillside. I am in this video doing some on camera statements.

20091123113532 1:07 Me doing some more narrative with seals in background.

20091123115028 1:06 Mom still on back. Koki is finished eating and is laying on his back.

20091123115147 0:32 Much the same as above.

November 26, 2009 Thursday Day 48 Fish Pond (see 12-4-2009 file)

20091126170309 0:54 Koki is out in the fish pond in front of the wall sheltering the fish pond from the elements.

20091126170502 0:00 short clip less than second

20091126170505 4:04 Koki in fish pond as above, nothing remarkable

November 27, 2009 Friday Day 49 Fish Pond

11) KokiDoc112709DayBeforeWeaning Episode 49

20091127061719 3:11 Dawn and seals are hauled out on the grass. Koki closest to camera with mom just beyond.

20091127062513 1:23 Later in morning and no activity.

20091127064549 2:16 Still later and no activity that I can discern.

20091127064822 1:01 Sun is breaking through the clouds and the seals are still motionless on the grassy area where they have been all morning.

20091127065102 1:12 Sun is higher yet still no activity worth mentioning.

20091127070814 1:13 View of Dr Leisure's truck with flags unfurled.

20091127074601 1:09 Seals unmoved.

20091127075255 2:27 Koki flexing his flippers and body.

20091127075623 1:42 Koki moves about just a bit and may have attached.

20091127083022 1:25 Koki trying to nurse, mom responds a little but basically ignores the kid.

20091127084017 2:03 Very much the same as above.

20091127090204 0:50 Same old Same old

20091127090404 0:54 Koki flops around and mom twitches but no significant movement

20091127094319 1:56 Koki moves slightly down hill toward water and waits.

20091127094620 2:39 Koki enters the pond and moves out in southerly direction

20091127094934 8:36 Koki is goofing around and blowing bubbles, mom finally moves down hill and enters the water, swims out and connects with Koki and interacts. Nose to nose with Koki on back for a time.

20091127095901 0:35 The pair heads out to deeper water to south.

20091127101328 5:01 Koki and mom appear to be diving in middle of pond. Mom and Koki make head contact at one point.

20091127102541 1:17 Koki is out by fish pond wall bouncing about.

20091127102744 2:47 Koki and mom just this side of fish pond wall.

20091127122550 8:11 Mom is in rocks by grass haulout with Koki nearby trying to nurse.

20091127123415 1:37 Mom heads up the hill at grassy haulout area with Koki coming along very shortly.

20091127124946 0:34 Mom and Koki hauled out on the grass. Tide is in. Koki seeking to nurse.

20091127125159 1:46 Koki nursing the whole segment. Mom on her back.

November 28, 2009 Saturday Day 50 Fish Pond

Koki Monk Seal Fifty days old (for Maui Daily)

<http://www.youtube.com/watch?v=A9nTTIWbWEw>

12) KokiDoc112809Weaning Episode 50 This is the day that Koki is weaned by his mother. The action unfolds late afternoon. Mom heads for the water while Koki snoozes up the shoreline near the trees. (8:44)

<http://www.youtube.com/watch?v=aX94rGJzHoY>

Disc 12 of 15 raw footage begins here.

20091128064558 1:14 Pre sunrise at the fish pond.

20091128065304 1:28 Mom and Koki in the fish pond in the morning sun rays off the pond.

20091128065952 0:31 Mom and Koki through foliage a little closer in.

20091128070042 0:51 Little tighter shot of seal moving left to right with vocalization

20091128070224 0:40 Similar above with seal moving right to left vocalizing and moving toward shore.

20091128070352 8:34 Fisherman with throw net on pond wall casting into ocean. Seals are in foreground in the fish pond. Koki appears to be doing a lot of splashing around. Generally heading to right with lots of vocalization middle of clip then seal moves to left. And then reverses.

Must be Koki with a lot of playing around. Mom very nearby.

20091128071310 2:01 More of same as above. Pull back with camera and see shoreline with fisherman on rocks above the seals working the ocean side.

20091128072214 7:57 Koki is working into the shoreline vocalizing and nosing around as he goes. Heads in but changes direction and moves out. Connects with mom. Some close up intertwining of heads. Movement toward shore with vocalization. Mom makes definitive move toward shore. Hangs in shallow and Koki attempts to nurse.

20091128084240 0:36 Koki closer to shore with mom slightly out yet neither in.

20091128084517 1:00 Same as above no real movement. Koki floating on back looks to be snoozing.

20091128084640 2:24 More of above. Both seals appear to be resting. Koki on his back nearer to shore.

Disc 13 of 15 raw footage begins here.

20091128085808 3:26 Koki has moved out to mom and attempting to nurse.

Without results and mom moves closer to shore and Koki still attempting to nurse apparently without success.

20091128090423 2:16 More of same above from slightly different view angle. Both seals still in water. Koki attempting to nurse but not likely successful given apparent angle.

20091128093417 3:13 Short sequence same above slightly different angle.

20091128093449 0:03 very short “not getting any right now.” Dr Leisure.

20091128093454 1:20 similar above with two parallel and more likely resting than nursing still in the water at threshold of shore.

20091128093905 2:56 Koki grows more restless and moves away from mom.

20091128094216 0:59 Koki moves to deeper water and fusses around.

20091128094520 3:03 Koki has returned to mom and now both move out from shore and head general direction of south along the shore. Slow and interactive as they go.

20091128094443 1:22 Both are farther south and out in the fish pond but are returning to north where they had been earlier. Note tide has come in and rocks are submerged.

20091128094658 1:09 Still offshore Koki is diving and goofing around.

20091128094842 1:48 Mom offshore slowly eases in closer to shoreline.

20091128095212 0:50 Koki still bouncing around with mom in frame.

20091128095549 2:15 Koki appears closer to shore with mom hanging out off shore and taking it easy.

20091128095835 7:40 Koki and mom goof around in shallow for much of this segment but mom hauls out in the end with Koki right behind her.

20091128110642 0:14 Mom is up on the grass and Koki moves up to her.

20091128110842 0:19 Mom and Koki in close proximity on grass short segment.

20091128112256 0:18 Koki appears to be nursing. Short sequence.

20091128114827 0:43 Woman sunbathing in grass above resting seals is talked with by NOAA personnel.

20091128114944 0:51 More as above.

20091128115332 1:10 Closer look at reclining woman, NOAA personnel have retreated. Seal scratches head but does not seem to manifest concern.

20091128115711 0:43 Show woman lying in grass above Koki and mom.

20091128135931 2:55 A little later mom and Koki have shifted position and have their heads in the water at the shoreline.

20091128141023 0:45 Mom and Koki are at the waterline. Mom shifts inland while Koki stays on the edge of rocks. Tide is going out.

20091128141155 1:20 Mom and Koki in same position with little if any movement during this segment.

20091128141942 2:53 Mom and Koki in same position. No movement to speak of. Koki does shift slightly.

20091128150031 0:57 Mom and Koki in same positions. Note that tide is going out and rocks are exposed. The seals had been at the waterline but now appear up the beach and they have not changed their position.



20091128152036 0:21 Closeup Koki in his back in the rocks.

20091128152256 0:52 Relative closeup of Koki and mom on the rocks as above.

20091128165342 6:08 **MOST RELEVANT SEQUENCE:** Mom is basically where she had been. Koki has moved up the grass and is in the treeline taking a nap. Mom starts to move to the water which has now receded quite a bit. Mom looks over her shoulder in Koki's direction and proceeds down the shoreline. Shift camera position and catch her swimming off. Anticipating her, I close this sequence and look for her further to south. Actually she circles around and does a swim by which I miss but hear about from others on the scene. She then disappears to the south and is not seen again the rest of the day. Koki is on his own. This is the weaning.



20091128170016 0:08 Koki snoozing in tree line. His mother has just decided to split and has done so. He does not appear to be aware.

20091128170037 0:16 Mom swimming in the fish pond in general direction of south. After I loose her here she apparently turned back and did a swim by while I was moving further south in anticipation of seeing her do whatever she was going to do.

20091128170748 2:05 This is a scan of the fish pond along the fish pond wall to the south end of the pond. I am expecting to see mom in the water or possibly going over the fish pond wall to the open ocean. I do not see her. I speculate that she has not yet come down here. On my return from this effort I find reports of her having done a swim by to check on her put. I have probably missed her as she slipped by while I was returning. I did hear a bark at one point as I got close to the initial site.

20091128173103 8:36 Koki is in the tree line up the beach. He does not seem to be aware that his mother has gone. This is the first time that I am aware of where the mother was not in general proximity to the pup since I began filming this event.

November 29, 2009 Sunday Day 51 Fish Pond

13) KokiDoc112909WeaningDay2 Episode 51 (In Production)

20091129065952 4:17 Morning looking for Koki in the pool and on the grass strip where they usually have hauled out. Flashes of gray turn out to be bird sitting under a tree. Verified some time later when I walk through the area. Should have taken a video but did not. Could have been a Shearwater.

20091129074435 1:37 Looking at the south end of the fish pond we find Koki swimming with his mom! Randy remarks that he did not see her when he saw Koki last night swimming in the moonlight.

20091129081354 4:24 Koki and mom seem to be interacting half way out in fish pond near North end. Vocalization and interaction and pair moves out toward fish pond wall.

20091129082021 3:42 Koki is climbing on mom in the pond. Appears he is trying to nurse and generally thrashing around. Much vocalization. Mom seems to be tolerating but not accommodating a braying Koki.

20091129082449 0:54 Continuation of above.

20091129084041 1:07 Koki splashing around and vocalizing between mom and shore.

20091129084151 0:19 Short clip of similar interaction as above.

20091129084332 0:21 Pair splashing about moving toward shore. Short clip.

20091129095117 2:35 Mom has moved closer to shore and is on her back. Koki is nursing. Seems content but still throws head back and vocalizes.

20091129095520 1:52 Mom tires of nursing and heads toward deeper water of pond. Koki is following nearby.

20091129100018 1:27 Unclear if one or two seals splashing about. May be Koki just heading to south.

20091129100820 2:57 Koki is doing the main splashing with mom nearby and off to the side. Koki has head down and flippers flapping above the water. Relatively close to shore and collection of onlookers.

20091129112728 2:00 Koki is on the grass to the north side (a usual haul out position in the

grass) Rolling about. Tide is in. Do not see mom in frame.

Disc 14 of 15 raw footage begins here.

20091129113129 4:30 Mom is offshore in the water swimming out toward the fish pond wall. Mom is vocalizing and bobbing and moving back down toward resting Koki on the shore presumably same location as clip above. Mom turns and heads back toward fish pond wall.

20091129113624 1:01 Koki is still on shore laying in the grass fairly close to the water. He is looking about. Tide is in and splashing near by. No mom in this frame.

20091129113903 4:08 Camera shot is pulled back. Koki is on shore and mom is in the water. Koki leaves shore and joins mom in the pond and pair heads to south relatively close in. Mom and Koki are together with Koki vocalizing. Mom moves further south. Koki lags.

20091129120428 2:19 Bird in the water with wings held overhead. May be Shearwater.

20091129120739 1:05 Koki does swim by and appears to be heading toward grass pull out.

20091129120921 4:31 Mom is slightly off shore while Koki is on the shore vocalizing and heading up. Area is between the grassy area that extends out and the beach parallel to the road. Koki is vocalizing and heads back into the water and connects with mom. Both move off to east.

20091129134514 7:57 Koki and mom are now on the grassy area in essentially the same area as yesterday. Koki is heading back toward the water. The tide is just slightly out. Koki seems to hang up at the water rock interface. Maintains this position for short time and then turns and heads up the beach past his mom.

20091129135448 2:56 Koki is past his mom and heading into the same general area where he was yesterday when his mom went off. He finds a spot and puts head down.

20091129140130 0:26 Mom is where we left her a couple of segments ago. Laying in the grass. This is a short segment.

20091129145217 2:50 Koki has moved down from his resting spot up the grassy slope and has made it to the water below his mom. He continues across the rocks with mom coming up behind. Everybody pauses at this point.

20091129151159 0:39 Mom is on her side and appears to sack out with Koki in the foreground. Short segment.

20091129164019 2:51 After a rest period where Koki has moved back up the hill we find mom has moved down over the rocks and is headed out. The tide is out and mom has to cover some rocks to get to the water. No swim by this time. She heads due east as soon as she can for the fish pond wall. (Not visible in this segment.)

20091129164329 0:32 Koki has moved back up the grass and appears as a grey lump sleeping on

the grassy slop. Short segment.

20091129164649 7:52 Mom is visible at the fish pond wall. She is seen actively undulating across the wall. It takes her a few minutes to get across. On the other side of the wall the waves of relatively heavy surf are breaking. Segment ends with pull back and side scan which reveals Koki close to the tree line appearing as grey white fur cover rock. He doesn't react in any way.

20091129165536 0:39 Another scan of the ocean beyond the wall. No sign of mom. Short segment.

20091129165622 0:30 Various observers on the beach by the road commiserating about what they have just witnessed.

20091129170934 0:38 A final zoom in on Koki in the grass. He doesn't appear to move. Short segment.

November 30, 2009 Monday Day 52 Fish Pond

14) KokiDoc113009TitlePendinginProduction Episode 52

20091130065233 1:26 Early morning Randy and H. catch a glimpse of Koki down the other end of the fish pond.

20091130065434 1:23 Same above general shot with no people or Koki.

20091130071207 5:39 Koki is flipping around inside the rocks protruding from the fish pond. Looks like he is looking for dinner. Sequence includes having stuff in his mouth. Mom is nowhere to be seen.

20091130071857 2:38 Koki is farther out splashing about and shallow diving.

December 11, 2009 Friday Day 63 nine weeks (See Panasonic files)

Koki Hawaiian Monk Seal sixty-three days old (for Maui News)

<http://www.youtube.com/watch?v=a1lXY2Q4U8c>

Koki Monk Seal Summary Nine Weeks in Three Minutes (for Maui News)

http://www.youtube.com/watch?v=1yZji_3yhjQ

December 11, 2009 Day 63 Sunday Koki was tagged a few days earlier in the week. The tag number is RA 26. I transpose the letters in the video commentary. The really interesting event is not mentioned in the video but appears in these field notes. Mom came by and paid a visit on two occasions. It is generally reported in the literature that mom and pup do not stay in contact after weaning. This is clearly not the case in Koki's case and must be noted.

15) KokiDoc121109NineWeeksOldOnHisOwn Episode 63 (in production)

Disc 15 of 15 raw footage begins here.

panasonic
SD_VIDEO
PRG007

MOV001 11:19am 2:20 Begins with zoom to Koki on the rocks by grass, tide is out slightly.

MOV002 11:45am 1:29 Zoom to Koki on the rocks now on his back.

MOV003 11:46am 0:34 Tighter shot of Koki on rocks on his back toward head.

MOV004 11:52am 0:49 Different angle with zoom to Koki on the rocks on his back.

MOV005 12:06pm 0:45 View of Koki Beach from the other side of rock/grass spit that separates fish pond from Koki Beach. Then general scan of area.

MOV006 12:07pm 0:29 Another view of Koki Beach same position as above but no scan.

MOV007 12:10pm 0:38 Jeep pull out from fish pond beach access parking.

MOV008 12:19pm 2:03 Tour bus pull in and off load observers through watching and reloading and departing.

MOV009 12:19 pm 2:03 zoom to Koki on the rocks note his tags.

MOV00A 1:42pm 1:03 truck back scan to Koki on the rocks through tree line.

MOV00B 1:46pm 1:58 Koki same position on his back tight shot little movement if any.

MOV00C 1:51pm 3:35 Different camera angle zoom into Koki on rocks as above tide has moved out. Shift to foreground for some bird activity.

MOV00D 1:57pm 4:50 Koki same above with more foreground bird activity.

MOV00E 1:58pm 1:27 Koki close up same above with shift to rear flippers flexing and tags visible

MOV00F 2:00pm 0:45 Foreground bird bathing sequence

MOV010 2:02 pm 1:41 Koki on the rocks, starts with licking his flippers, still on his back.

MOV011 2:05pm 2:40 Koki on back same above little if any apparent movement.

MOV012 2:54pm 3:56 Bird in foreground dipping in the water between rocks foreground. Good shots of bird gather and eating. Type of sand piper I believe.

MOV013 3:00pm 4:09 Koki on the rocks on his back, a position he assumed for most of the day. Some flexing yet still on back.

MOV014 3:08pm 3:29 View of island and landscape beyond with Koki in foreground.

MOV015 3:10pm 1:31 Same view as above but island is more illuminated by late afternoon sun.

MOV016 3:14pm 1:34 Koki on back same above close in and no apparent activity.

MOV017 3:15pm 0:36 view of island which is now in shadow.

MOV018 3:35pm 1:45 Koki still on the rocks.

December 12, 2009 Saturday Day 64

16) KokiDoc121209TitlePendinginProduction Episode 64

PRG008

MOV001 4:12am 1:17 Pre sun rise. The sky is pink as the new dawn is breaking.

MOV002 4.14am 0:38 continuation of sun rise.
 MOV003 4:21am 0:39 continuation
 MOV004 4:45am 0:49 continuation
 MOV005 4.47am 1:39 Sun actually breaks out in this sequence.
 MOV006 5:07am 3:05 Koki is in south end of pond in proximity to cluster of rocks inside exterior pond rock wall.
 MOV007 5:14am 0:47 Confirmation of Koki hind flippers in the air as he dives. Short segment.
 MOV008 6.24am 0:56 Koki just inside the exterior pond wall diving and trashing in the surf.
 MOV009 6:32am 1:42 No sign of Koki perceived as traveling under water from out by wall and heading into side area of rocks.
 MOV00A 6:40am 6:48 Koki splashing about just off rocks to North side and playing with a stick.
 MOV00B 7:05am 5:24 Continuation of above with Koki rolling over and splashing about with a stick.
 MOV00C 7.23am 7:03 a little tighter in of Koki playing with the stick and swimming around on his back.
 MOV00D 7.33am 4:03 Still more tighter of Koki playing with stick and swimming on his back.
 MOV00E 7.40am 5:51 still playing has moved a little closer to shore. Move into cluster of rocks in the water toward the end of this video.
 MOV00F 7:48am 6:59 Takes a snooze in the rocks immersed in water (actually floating) and then has difficulty extracting himself. (Good segment for stand alone piece on behavior)
 MOV010 7:49am 0:28 Flippers up as Koki splashes mid pond, short segment.
 MOV011 8.01am 3:48 Three young girls are moving along the grass and rocks which extend out to the left of pond. Koki is hauled out on the rocks and they may not be aware of him. But local individual who is monitoring the seal yells to "get away from there. Back off"
 MOV012 8:05am 2:18 Koki is snoozing in the rocks on the edge of the pond. Same location as previous sequences.
 MOV013 9.08am 1:05 Zoom to Koki sleeping in the rocks still
 MOV014 9.09am 0:57 Koki on the rocks at the water line, on his back

December 21, 2009 NOAA personnel are talking about relocating Koki! They are ever fearful that he will get "to friendly" and he must be relocated for his own good. It has been my experience that monk seals are very curious and friendly animals. I have talked with numerous individuals and indeed have photographed a number of encounters between humans and monk seals. In the cases that I am aware of where the seal has been moved it has been detrimental to the animal. In most instances the animal is not seen again and presumed dead.

Fortunately talk of moving Koki dies down and he is not relocated.

January 1, 2010 About 2 pm it is reported that a local woman is sitting near Koki on the grassy knoll and engaged in conversation. This woman has a history of approaching Koki and gives the

NOAA people fits over the matter of not interacting with monk seals.

January 2, 2010 Koki is coming in on Koki beach in shallow water with people present. Hauls out near parking lot.

January 4, 2010 Monday no sign of Koki but sighting various days of seal which may be his mom.

January 8, 2010 Friday Koki shows up

January 9, 2010 Saturday not seen

January 10, 2010 Sunday Koki in the rocks all day heads out late
RO 15 (Koki's Mom) and RH 44 are seen together on Black Sand beach

January 11, 2010 Monday is day planned to place transmitter but alas no Koki.

January 12, 2010 Tuesday **Transmitter** is placed on Koki at the fish pond.

On the Black Sand beach to the south RO 15 is observed but RH 44 is no longer present. About in this time frame I will learn that Bleached mark F 3, tagged RH 44 is the seal that lost the pup in April. This was her third with the two previous born on Molokai.

January 15, 2010 Friday Koki has not been seen since the transmitter was in place. Headed out after it was attached.

January 17, 2010 Sunday Still no Koki, mother seen beach to south and molting. Been there a few days.

January 20, 2010 Wednesday, reports of Koki at Red Sand beach to north. Mom is about finished molting at Black Sand Beach to south.

January 24, 2010 Sunday, reports of Koki Hana Bay and Red Sand area in general appears moving to the north

January 30, 2010 Saturday, two seals at Red Sand Beach, Koki and Mom? (Red Sand Beach is about two miles North of birth place Koki Beach)

January 31, 2010 Sunday, seal in Hana Bay and thinking it is Koki.

February 2, 2010 Tuesday **Transmitter Imagery** shows Koki to North moving about Hana Bay. Northern point with exclusions to East and deeper water.

February 5, 2010 Friday, Mom and Koki on Red Sand Beach although fifty feet apart.

February 6, 2010 Saturday, Mom at Koki Beach

February 7, 2010 Sunday, **Transmitter Imagery** shows Koki has moved from Hana Bay down coast to Koki Beach and return Hana Bay.
Koki Black Sand Beach

February 8, 2010 Monday Koki Red Sand Beach (report by mainland visitor)

February 10, 2010 Wednesday Koki Red Sand Beach harassed (Report by mainland visitor)

February 13, 2010 Saturday, Koki at Red Sand Beach with two fish hooks, one in left flipper and second vicinity of genital slit on lower belly. Apparent to observer that he is growing longer.

February 15, 2010 Monday, Mom seen on Prio Beach, Koki heading south

February 17, 2010 Wednesday **Transmitter Imagery** shows Koki to South of birth beach ranging from Haleakala National Park Visitor Center to west Nonou Bay area.

February 21, 2010 Sunday **Transmitter Imagery** shows Koki moved from Visitor Center to coast of Makulau.

February 22, 2010 Monday **Transmitter Imagery** shows Koki off Kalama pretty much in same local with single venture to deeper water to East.

February 28, 2010 Sunday **Transmitter Imagery** shows Koki off Kalama as above with local movement and one venture to deeper water.
Confirmation reports south of Kaupo, seen by fisherman. (this would be about sixteen miles south and west down the coast from birth place Koki Beach)

March 10, 2010 Wednesday, another seal in the Hamoa Beach area not Koki or his mom

March 11, 2010 Thursday, **Transmitter Imagery** (appears composite of March 1 - March 11)
Show Koki off Kalama and ranging west and east.

March 12, 2010 Friday, **Transmitter Imagery** shows single location approximately half way between Kalama Bay and Visitor Center.

March 16, 2010 Tuesday, two other seals in general area, not Koki or mom, recent printout suggest in general area to south perhaps further down than last

March 21, 2010 Sunday **Transmitter Imagery** flagged at point near Muolea which is East of Kalama

March 30, 2010 Tuesday, mom at Koki Beach, no sign of kid.

April 2, 2010 Tuesday, may be Koki in bay just south of Makaalae Pt.

April 4, 2010 Thursday **Transmitter Imagery** Single point flagged 98380 west of Kalama area

designated in earlier reports.

April 6, 2010 Tuesday, no sightings from Hana contact on any seals.

April 14, 2010 Wednesday **Transmitter Imagery** supplied by NOAA has Kalama point marked by yellow pin but no red flags or pins which have been used in the past to designate transmitted location. This position is characterized as "Koki's Spot"

April 19, 2010 Monday, Rumor circulating in the Hana area that Koki is dead. The rumor seems to be from the Kaupo area where our last confirmed siting occurred in the end of February. The story circulating is that Koki was eating too many fish in the area and a spear fisherman put a spear through him. Fact or fiction. At this point I have no confirmation on any of this. The satellite data appears to have ended in that general time frame. Anyone with information is asked to let me know. Address appears in box below. Aloha Dr. L