



SUMMARY OF HUMPBACK WHALE CALFS

This document contains a summary of calves encountered during the 2009 humpback whale season in Vava'u, Kingdom of Tonga. Images and text

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INTRODUCTION

This document is a summary of the humpback whale calves that we ([Tony Wu](#) and [Takaji Ochi](#)) encountered during August and September 2009 in the Vava'u island group in the Kingdom of Tonga. This is the second document we have compiled to record our calf sightings. Our summary for 2008 is available via this [link](#).

The purpose of this document is to provide a record and reference for ourselves for future whale seasons in Tonga, and also to share this information with anyone else who takes an interest in humpback whales.

During our stay in Tonga this year (08 August to 11 September), we identified 26 calves. We recorded an additional 24 sightings of calves we were unable to identify.

Subsequent to our departure, we received photos from our friends Alexis and Nathalie establishing ID for one additional calf, which brings the total count to 27. We hope that we will receive additional images over the coming months that will augment the calf count, as well as provide repeat sightings of calves we have already identified in this document. We will update this file as and when additional information comes in.

We would like to thank all of our friends (both those living in Tonga and our co-travellers), who helped us with finding and identifying these calves. It's a lot of work, and we relied on help from many people.

All of this work has been and is being done on our own time, with our own resources. We are not receiving financial or other assistance, and we are not affiliated with any person or organisation involved with cetaceans.

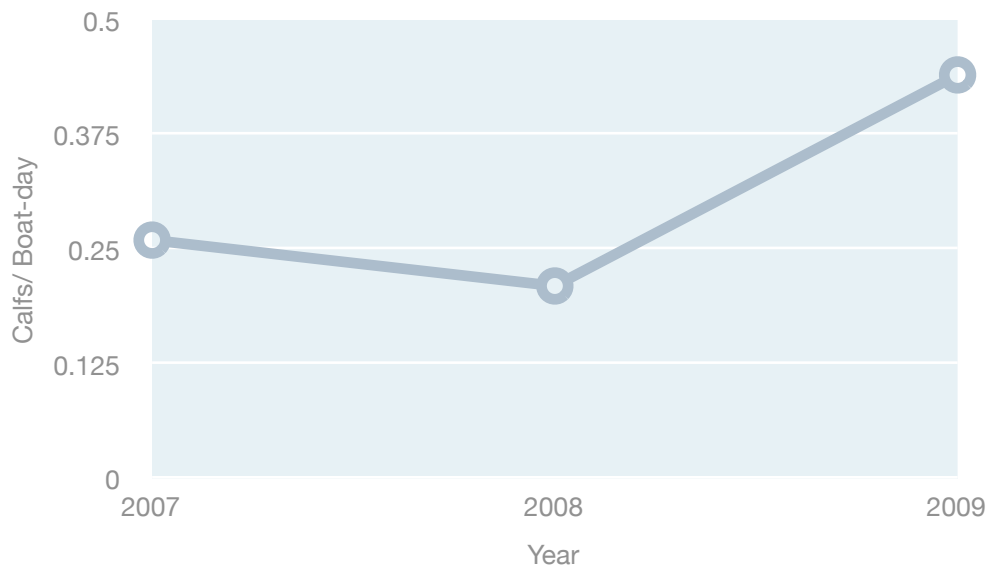
METHODOLOGY

1. We recorded GPS locations for all sightings of humpback whale calves, upon initial visual and/ or radio confirmation that a calf was in the water.
2. Where possible, we entered the water to photograph calves with their mothers and other associated whales if any.
3. When we were able to take photographs of sufficient quality and quantity to establish an ID, we named the calf for ease of future reference.
4. In those cases where we were unable to get photographs, we did not name the calves and recorded the sightings as unidentified calves.
5. We have uploaded all the GPS data to Google Maps, where the locations of all [ID-ed calves](#) and [unidentified calves](#) is available for viewing.

OBSERVATIONS

- 1) There were a lot of calves this year. During our stay, we were able to establish photo IDs for 26 calves during 59 boat-days on the water, meaning **0.44** calves/ boat-day (a boat-day being defined as a single day of approximately six hours on the water on a boat looking for whales). This compares with 14 calves in the Vava'u area we identified in 2008 during 66 boat days, or **0.21** calves/ boat-day. In 2007 (when we did not document the calves as rigorously as in 2008 and 2009), we believe we saw 13-14 unique calves. This was over a period of 53 boat-days, equating to about **0.26** calves/ boat-day. The dates of our stays in Vava'u occurred at approximately the same time of year in all three years.

Figure 1: ID-ed Calfs/ Boat-day



- 2) This year, we also kept records of calves that we sighted, but for which we were unable to establish photo IDs. We had 24 such sightings during our stay. There is no doubt a reasonably high probability that some of those sightings are of calves already identified in this document. We believe, however, that many of the 24 are additional calves not contained in this summary.
- 3) We recorded our sightings with GPS, and uploaded our GPS data to Google Maps (click to see sighting locations of [ID-ed calves](#) and [unidentified calves](#)). We used Garmin GPS 60 handheld units for marking GPS locations and converted to Google KML format.
- 4) One thing that becomes immediately apparent from the GPS data is that mother/ calf pairs are making full use of the topography of Vava'u. We found calves in every area accessible to us by boat, from the shallow areas to the east/ south dominated by reefs and small islands, through the inner channels between the islands, and out into the open ocean to the west and north. In other words, there does not appear to be any clustering or preference for any one specific area.

- 5) Related to this point is that many of our encounters were with mother and calf pairs that were going some place...heading south, heading north, coming in from the west, making a beeline east, coming down from the north, etc. In other words, the picture painted by the GPS data points coupled with our own observations of the whales' behaviour tends to support our observation last year that Vava'u is a transit area for calves and associated whales (discussed further in point 11 below).
- 6) We also noted the sex of the calves where possible. Of the calves on our ID list in Table 1, we were able to identify 10 as female and 8 as male.
- 7) The photographs contained in this document represent a small fraction of the images we collected. In most cases, we have many more images available for ID purposes.
- 8) In last year's summary, we noted that calf sightings seemed to come in clusters, with down-time in between sightings, based upon the timeline on page 5 of our [2008 summary](#). There does not, however, seem to be any such clustering in this year's data. Figures 2, 3 and 4 below, which set out timelines of all our calf sightings, show a continuous flow of calf sightings covering nearly every day of our stay in Tonga this season. In fact, there was only one day (09 August) during our stay that we were out on the water and did not see a calf (see Figure 4). It is possible that the apparent clustering effect in 2008 was due to a relatively smaller number of calves, as well as to the fact that we did not record calf sightings for which we were unable to establish photo IDs in 2008. We also lost 7 days to rain/ bad weather in 2008.
- 9) As with our procedure in 2008, we have compared the timeline of our calf sightings with the phases of the moon this year. There seems to be no apparent correlation.
- 10) We noted once again that on several occasions, we found mother/ calf pairs in close proximity to one another, with two to four such pairs being within visual distance of one another on some occasions.
- 11) Also consistent with our observations last year is that the Vava'u area appears to be a stopping off/ transit point for baby whales. The longest interim between sightings of a single calf was 23 days for Stitches (calf #4/ 2009). The next longest was 13 days for Luna (calf #13/ 2009). Of course, we are not able to find and record locations for every calf, but over a total of 125 boat-days during 2008 and 2009 in the limited area around Vava'u, we have only had a handful of long-term repeat sightings.
- 12) The weather was extremely windy during the entire duration of our stay. We noted last season that the conditions were the windiest we had experienced to that point. The 2009 conditions were more challenging. We speculate that the prevailing El Niño conditions may have something to do with this, as well as with the generally poor underwater visibility this season.
- 13) We documented the return of one mother from the 2008 season, the mother of Scratches (calf #1/ 2008) last year. She returned with another baby this season, which we named Stitches (calf #4/ 2009). The [mother is easily recognisable by her unique fluke](#). We have no way of determining what happened to Scratches.

**TABLE 1: HUMPBACK WHALE CALF IDENTIFICATIONS
VAVA'U, KINGDOM OF TONGA (AUG-SEPT 2009)**

([Click here to see map of sightings](#))

#	NAME		DATES/ LOCATIONS SIGHTED
1	Mellow	♂	08 Aug, inside Hunga channel
2	Speedy		13 Aug, near Matamaka
3	Pasta	♀	14 Aug, North Bay
4	Stitches	♀	18 Aug, 19 Aug, and 20 Aug between Sisia and Euakafa. Alexis/ Nathalie spotted Stitches 09 Sep at top of Hunga, with escort
5	Jaws		21 Aug, east from Taunga and Eueiki
6	Curious George	♀	21 Aug, east of Taunga and Kapa
7	White Patch	♀	24 Aug, Blue Lagoon area to Luamoko
8	Blackberry	♂	25 Aug, near Luahiapo; 27 Aug, outside Hunga; 02 Sep, inside Hunga channel
9	Sneakers		25 Aug, really far south
10	Genki	♀	26 Aug, bottom of Hunga channel
11	Hachi	♂	27 Aug, outside Hunga, heading in toward islands from the west
12	Ziggy	♂	28 Aug, near Taunga
13	Luna	♂	30 Aug, near Euakafa; 01 Sep, south of Ovaka; 11 Sep (Alexis/ Nathalie), outside Hunga
14	Vanilla	♂	31 Aug, initially near Tungasika, moving toward North Bay
15	Sesame		01 Sep, near Ovaka
16	Bubbles		02 Sep, outside Fofoa
17	Gelato	♀	03 Sep, half way to Fatumanga from Hunga channel
18	Dialga		03 Sep, south of Sisia; 04 Sep, south of Kapa; 05 Sep, south of Kapa
19	Palkia		03 Sep, inside Hunga channel
20	Mama's Boy		04 Sep, near main entrance to harbour, behind Tungasika

TABLE 1: HUMPBACK WHALE CALF IDENTIFICATIONS **VAVA'U, KINGDOM OF TONGA (AUG-SEPT 2009)**

([Click here to see map of sightings](#))

#	NAME		DATES/ LOCATIONS SIGHTED
21	Full Moon	♀	05 Sep, North Bay; 06 Sep, inside Hunga channel
22	Mei Mei	♀	06 Sep, North Bay; 09 Sept, North Bay
23	Daruma	♀	08 Sep, North Bay
24	Ika	♂	07 Sep, outside Hunga (Alexis/ Nathalie); 08 Sep, outside White Patch/ North Bay area
25	Noah	♂	09 Sep, North Bay; 10 Sep, North Bay
26	Nofo	♀	11 Sep, North Bay
27	Twist (Alexis/ Nathalie)		13 Sep, north of Mounu; 14 Sep, south of Langito'o; 15 Sep, between Mounu, Sisia and Euakafa

FIGURE 2: HUMPBAC WHALE CALF IDENTIFICATIONS VAVA'U, KINGDOM OF TONGA (AUG-SEPT 2009)

([Click here to see map of sightings](#))

06 Aug: Full Moon		Black = Tony/ Takaji/ Emiko Blue = Alexis/ Nathalie
	08 Aug: Mellow	
	13 Aug: Speedy	
	14 Aug: Pasta	
	18 Aug: Stitches	
	19 Aug: Stitches	
20 Aug: New Moon	20 Aug: Stitches	
	21 Aug: Jaws, Curious George	
	24 Aug: White Patch	
	25 Aug: Sneakers	
	26 Aug: Genki	
	27 Aug: Hachi, Blackberry	
	28 Aug: Ziggy	
	30 Aug: Luna	
	31 Aug: Vanilla	
	01 Sep: Luna, Sesame	
	02 Sep: Blackberry, Bubbles	
	03 Sep: Gelato, Dialga, Palkia	
	04 Sep: Mama's Boy	
05 Sep: Full Moon	05 Sep: Full Moon, Dialga	
	06 Sep: Full Moon, Mei Mei	
	07 Sep: Ika	
	08 Sep: Ika, Daruma	
	09 Sep: Noah, Mei Mei, Stitches	
	10 Sep: Noah	
	11 Sep: Nofo, Luna	
	13 Sep: Twist	
	14 Sep: Twist	
	15 Sep: Twist	

**TABLE 2: UNIDENTIFIED HUMPBACK WHALE CALFS
VAVA'U, KINGDOM OF TONGA (AUG-SEPT 2009)**

([Click here to see map of sightings](#))

#	DATES/ LOCATIONS SIGHTED
1	08 Aug, near Kitu
2	11 Aug, in front of Blue Lagoon
3	12 Aug, near Submarine Rock
4	12 Aug, just north of Blue Lagoon
5	16 Aug, just off the top end of Kapa
6	18 Aug, Sisia to Ovaka
7	19 Aug, near Sisia
8	21 Aug, east of Fua'amotu
9	22 Aug, north of Mounu, south of Lape
10	23 Aug, North Bay
11	26 Aug, Hunga channel, inside Vaka Eitu
12	27 Aug, south of Ovaka
13	27 Aug, Vaka Eitu
14	28 Aug, between Kapa and Sisia
15	28 Aug, between Euakafa and Taunga
16	29 Aug, west from North Bay, out in open water
17	30 Aug, near Foelifuka, toward Submarine Rock
18	30 Aug, near Euakafa
19	01 Sep, south of Ovaka
20	02 Sep, west from entrance to harbour area, in open water
21	06 Sep, near Laufatu
22	08 Sep, near Luamoko
23	09 Sep, North Bay
24	11 Sep, White Patch

FIGURE 3: UNIDENTIFIED HUMPBACK WHALE CALFS VAVA'U, KINGDOM OF TONGA (AUG-SEPT 2009)

([Click here to see map of sightings](#))



FIGURE 4: ALL HUMPBACK WHALE CALF SIGHTINGS VAVA'U, KINGDOM OF TONGA (AUG-SEPT 2009)

06 Aug: Full Moon		Black = Tony/ Takaji/ Emiko Blue = Alexis/ Nathalie Orange = Unidentified calfs
	08 Aug: Mellow, calf	
	09 Aug: No calfs	
	10 Aug: Did not go out on the water	
	11 Aug: calf	
	12 Aug: two calfs	
	13 Aug: Speedy	
	14 Aug: Pasta	
	15 Aug: Did not go out on the water	
	16 Aug: calf	
	17 Aug: Did not go out on the water	
	18 Aug: Stitches, calf	
	19 Aug: Stitches, calf	
20 Aug: New Moon	20 Aug: Stitches	
	21 Aug: Jaws, Curious George, calf	
	22 Aug: calf	
	23 Aug: calf	
	24 Aug: White Patch	
	25 Aug: Sneakers	
	26 Aug: Genki, calf	
	27 Aug: Hachi, Blackberry, two calfs	
	28 Aug: Ziggy, two calfs	
	29 Aug: calf	
	30 Aug: Luna, two calfs	
	31 Aug: Vanilla	
	01 Sep: Luna, Sesame, calf	
	02 Sep: Blackberry, Bubbles, calf	
	03 Sep: Gelato, Dialga, Palkia	
	04 Sep: Mama's Boy	
05 Sep: Full Moon	05 Sep: Full Moon, Dialga	
	06 Sep: Full Moon, Mei Mei, calf	
	07 Sep: Ika	
	08 Sep: Ika, Daruma, calf	
	09 Sep: Noah, Mei Mei, Stitches, calf	
	10 Sep: Noah	
	11 Sep: Nofo, Luna, calf	
	13 Sep: Twist	
	14 Sep: Twist	
	15 Sep: Twist	

1. MELLOW ♂

We named this calf for its mellow temperament.

Calf: No particular distinguishing marks.

Mom: Primarily black body, white underside of fluke. Discoloured area on left pectoral dorsal surface easily identifiable.

When & Where: 08 Aug, inside Hunga channel.

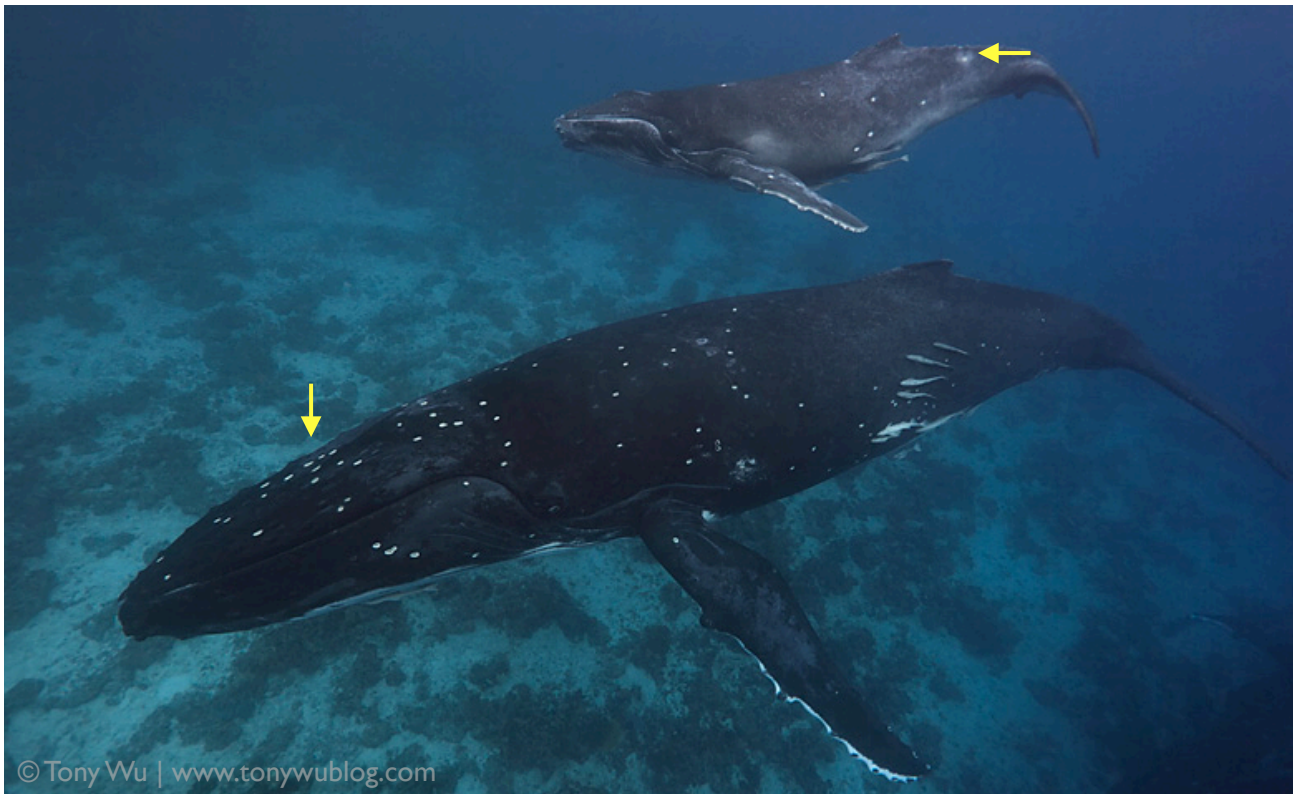


Mom's dorsal fin



Calf's dorsal fin





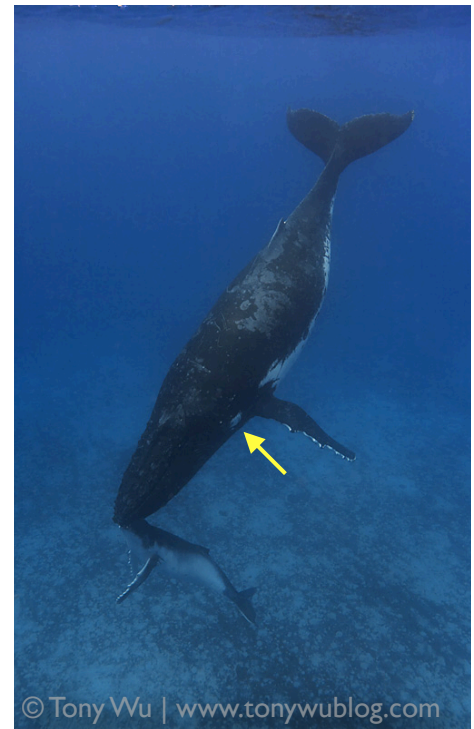
2. SPEEDY

One brief encounter, accompanied by escort. One whale (probably escort) vocalised as the trio swam past.

Calf: White area on left side, mid-way between dorsal and fluke.

Mom: Black, leading white edge on pectoral, lots of white spots.

When & Where: 13 Aug, near Matamaka.



3. PASTA ♀

Young calf, relaxed mom.

Calf: Too young at time of sighting to have distinct markings,

except general shape of dorsal fin.

Mom: Mottled skin. White body patterns easy to recognise. White area on rear edge of

dorsal fin (not visible in pictures here).

When & Where: 14 Aug, North Bay.



4. STITCHES ♀

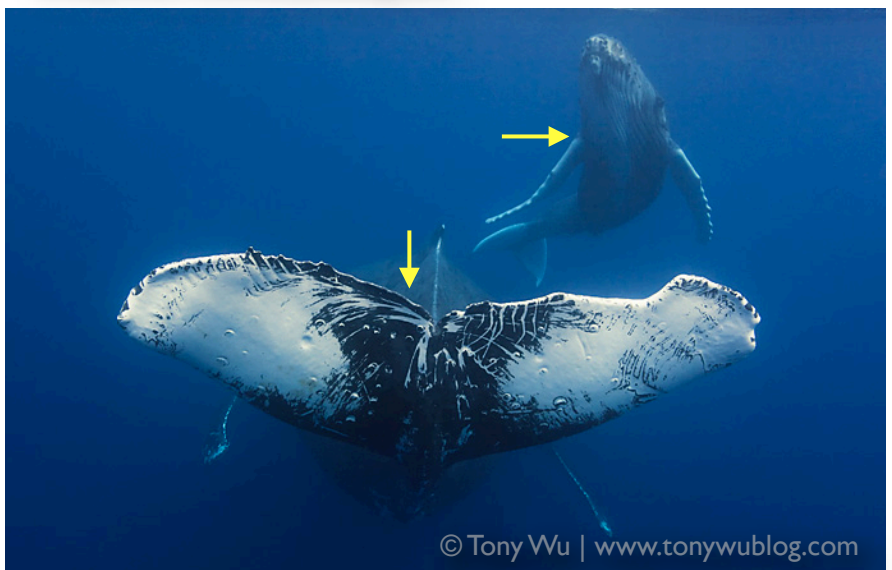
Stitches is the second calf we've seen with this female. (See Scratches in [2008 calf summary](#)).

Calf: Whitish pectoral fins. Dark ventral area, white in middle.

Mom: Fluke easy to ID.

When & Where:

18 Aug, 19 Aug, and 20 Aug between Sisia and Euakafa. Alexis/Nathalie spotted Stitches 9 Sept at top of Hunga, with escort.



5. JAWS

We named this calf because it opened its mouth while swimming.

Calf: No particular distinguishing marks, except a hooked dorsal.

Mom: Primarily black body, white lower ventral area easy to ID. Had a habit of resting tail-up both at the surface and at depth.

When & Where: 21 Aug, east from Taunga and Eueiki.

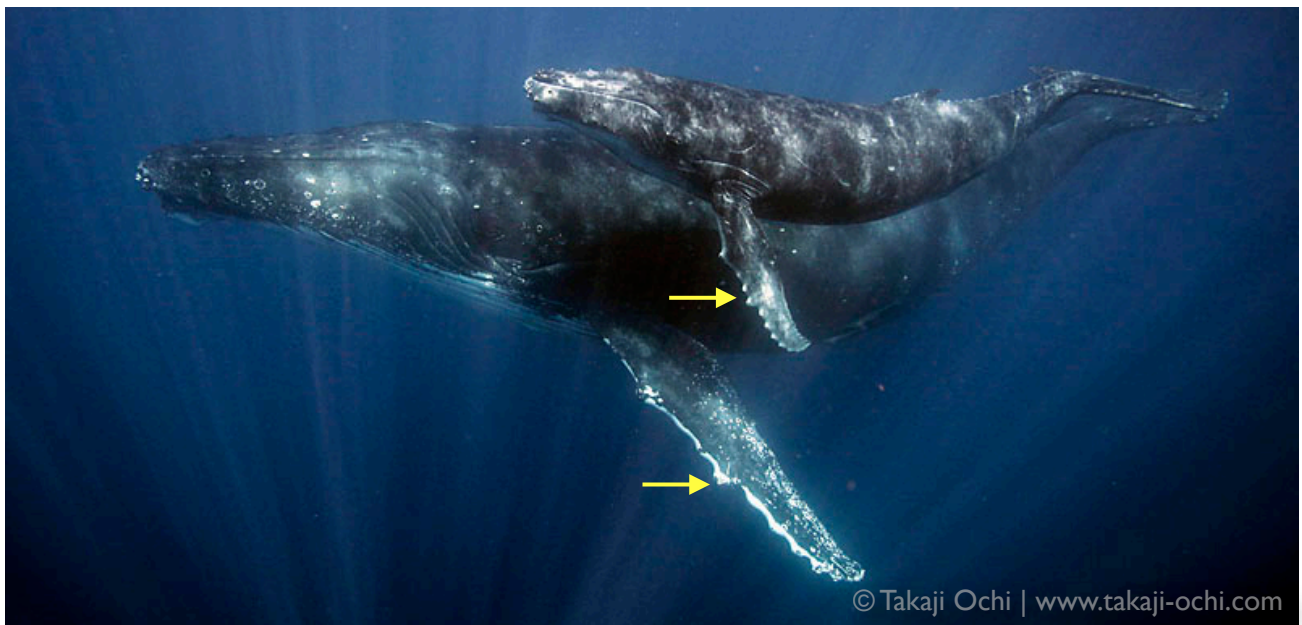


Mom's dorsal fin



Calf's dorsal fin





6. CURIOUS GEORGE

Calf highly inquisitive, but mother reserved.

Calf: White area on pectoral fins.

Mom: Left fluke partially missing, easy to ID.

When & Where:

21 Aug, east of Taunga and Kapa.



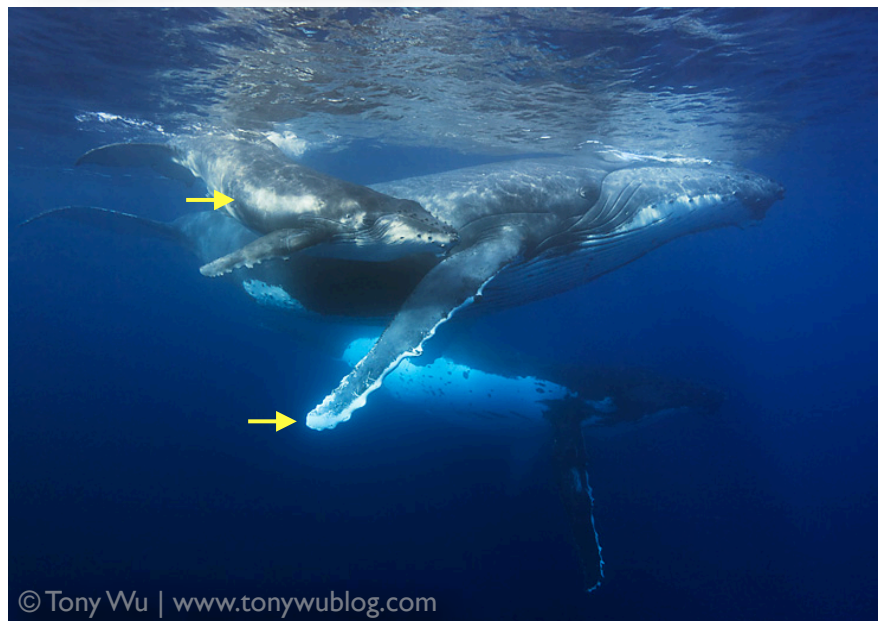
7. WHITE PATCH ♀

Easy to ID this calf and mom.

Calf: White patches on both left and right sides. Dorsal fin squared off like mom's fin.

Mom: Battleship grey dorsal surface. Ventral area white with grey in middle. Dorsal fin squared off. White-edge right pectoral fin.

When & Where: 24 Aug, Blue Lagoon area to Luamoko.



Mom's dorsal fin



Calf's dorsal fin



8. BLACK-BERRY ♂

Three encounters with mom and calf, twice with an escort.

Calf: Whitish posterior area, somewhat stumpy dorsal fin.

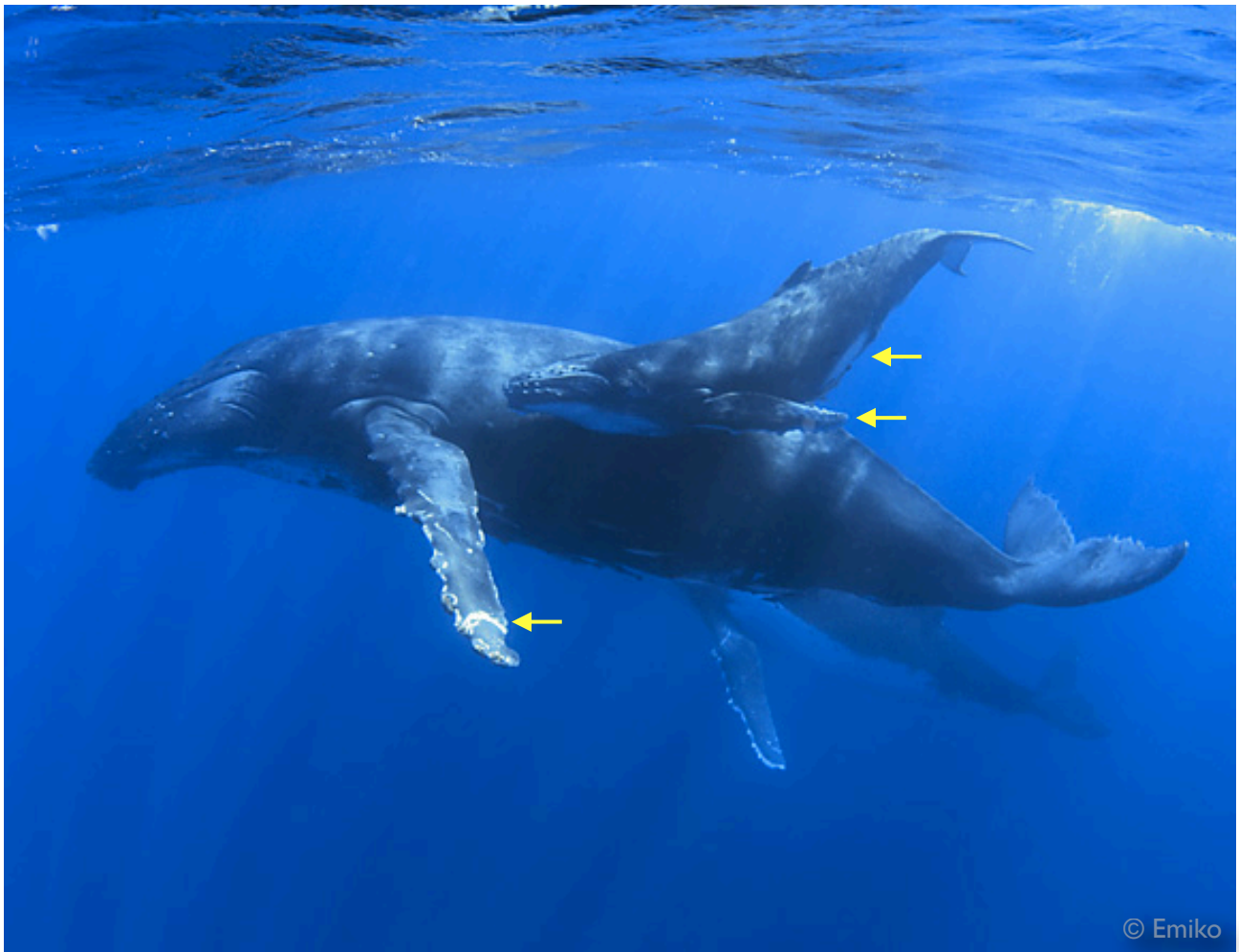
Mom: All black except underside of fluke. Lots of white dots all over body. Squared off dorsal fin.

When & Where:

25 Aug, near Luahiapo;
27 Aug, outside Hunga;
02 Sep, inside Hunga channel.



Blackberry's mom's dorsal fin (left), Blackberry's dorsal fin (right)



9. SNEAKERS

Only one brief encounter with mom, baby and escort.

When & Where: 25 Aug, really far south.

Calf: White are mid-torso ventral area. Somewhat hooked dorsal. Discolouration on left pectoral fin.

Mom: Mostly dark body with minimal white ventral area. Band of white at the end of left pectoral fin.



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10. GENKI ♀

We named this calf for its incredible energy level. "Genki" means healthy/ full of energy in Japanese.

Calf: Extremely energetic, curious. Continuous breaching, tail-slapping.

Mom: White pattern on body easy to ID.

When & Where:

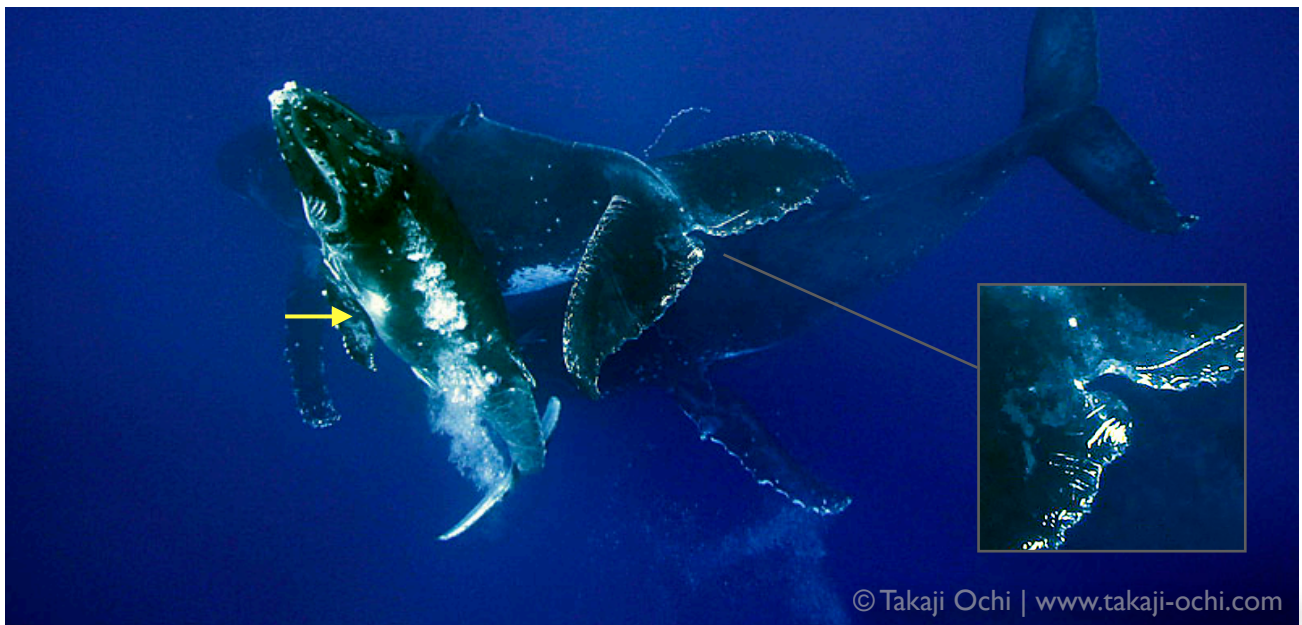
26 Aug, bottom of Hunga channel



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11. HACHI

Calf took long time between breaths, was left behind often by mom and escort. Calf breached completely clear of water.

Calf: White areas on side of torso.

Mom: Notch in middle of fluke.

When & Where:

27 Aug, outside Hunga, heading in from the west.





12. ZIGGY ♂

Difficult to follow, as both mom and calf are dark. Named for tendency to swim in zig-zag pattern.

Calf: Pattern of white dots. Small hole in right fluke.

Mom: Mostly dark. Ventral and fluke patterns easiest to ID.

When & Where: 28 Aug, near Taunga.

13. LUNA ♀

One of the easiest calfs to identify, based on mom's unique dorsal fin.

Calf: Whitish area around pectoral. Sharp dorsal fin.

Mom: Nearly non-existent dorsal fin, with rune-like white markings.

When & Where:

30 Aug, near Euakafa;
01 Sep, south of
Ovaka; 11 Sep
(Alexis/ Nathalie),
outside Hunga.



Luna's dorsal fin (left), Luna's mom's unique dorsal fin (right)



14. VANILLA

Named for the delicious vanilla gelato Franco makes. We named calf #17 Gelato to complete the “vanilla gelato” reference.

Calf: White area under the chin.

Mom: Easy to distinguish white patches on torso.

When & Where: 31 Aug, initially near Tungasika then moving toward North Bay.



15. SESAME

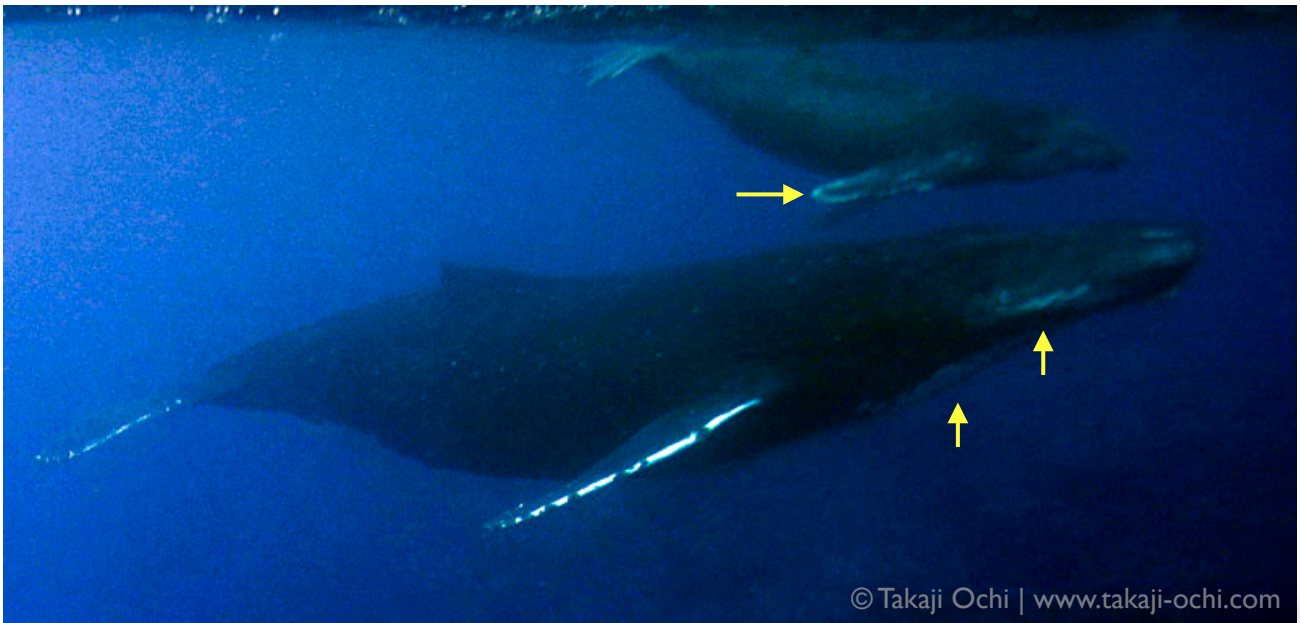
One brief encounter.
Both mom and baby
dark all over.

Calf: Almost entirely
dark colour. White spots

on left dorsal. Whitish
area underside of fluke.

Mom: Underside of
fluke, pectoral and a bit
under the chin white.
Otherwise dark.

When & Where: 01 Sep,
near Ovaka.



16. BUBBLES

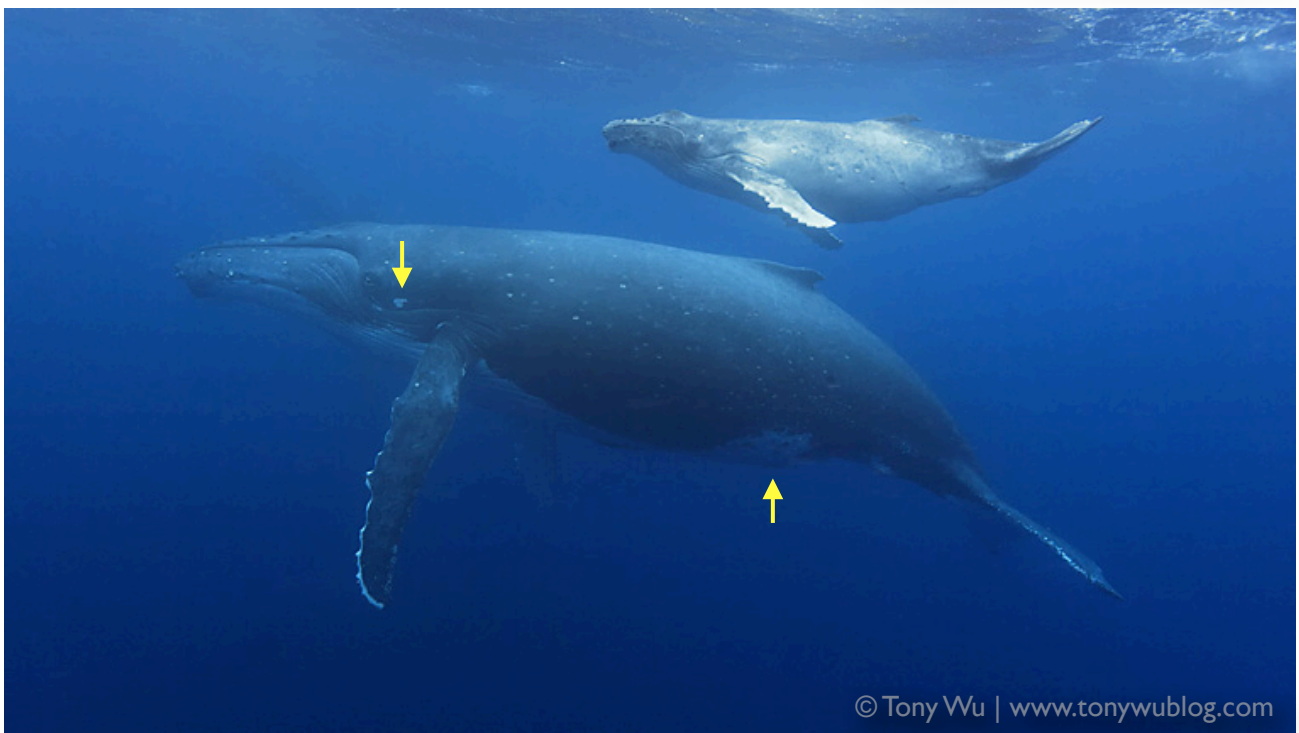
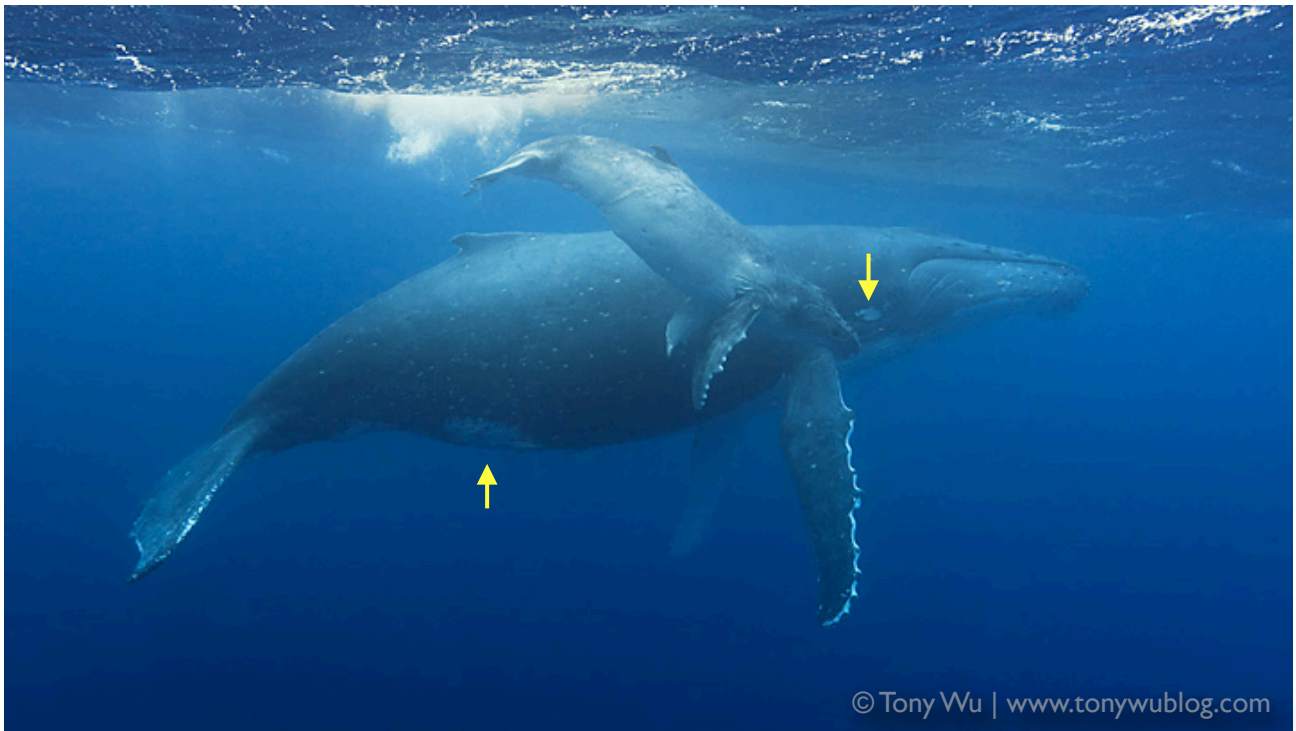
Named for escort's penchant for blowing bubbles. Brief encounter, difficult conditions.

Calf: Difficult to ID based on photos we have.

Mom: Mostly dark, white area along jaw line and under chin.

When & Where:
02 Sep, outside Fofoa.





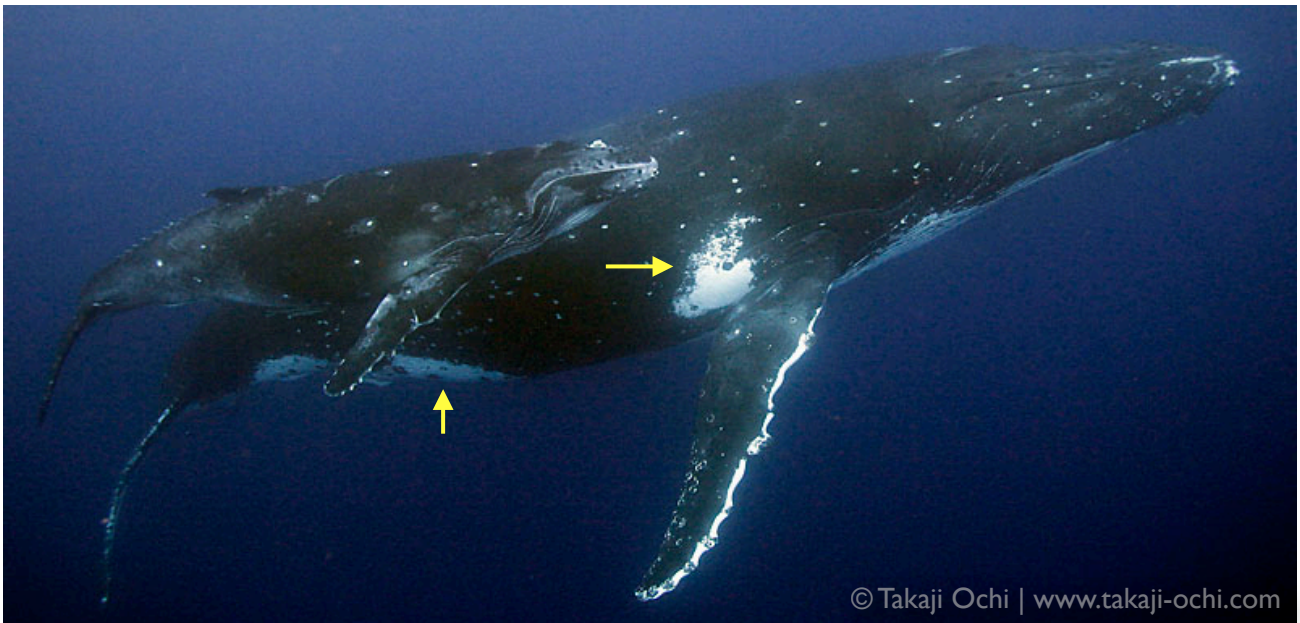
17. GELATO ♀

Mom and calf in the middle of large heat run. Mom fed calf while males were active all around the pair.

Calf: Young, very white. Difficult to ID.

Mom: ID by the white patches near eye on both sides.

When & Where: 03 Sep, half way to Fatumanga from Hunga channel.



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18. DIALGA

Was a challenging calf to ID. Only one look in the water. Other IDs by calf's dorsal fin.

Calf: Sharp, pronounced dorsal fin.

Mom: White patch behind pectoral fin. White lower ventral area.

When & Where:

03 Sep, south of Sisia;
04 Sep, south of Kapa; 05 Sep, south of Kapa.

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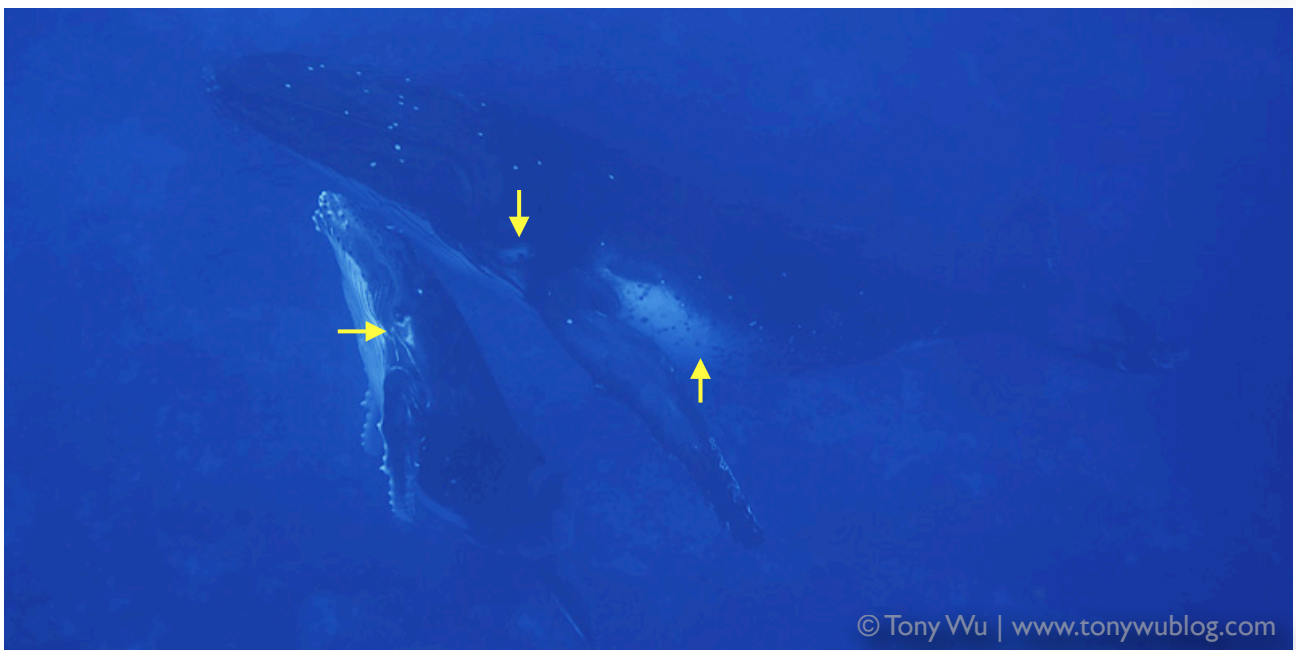
19. PALKIA

Mom quite shy, so even though visibility was good, unable to get close for extended observation.

Calf: White area in middle of pectoral fin.

Mom: Substantial white area along torso and below/ just behind eye.

When & Where: 03 Sep, inside Hunga channel.



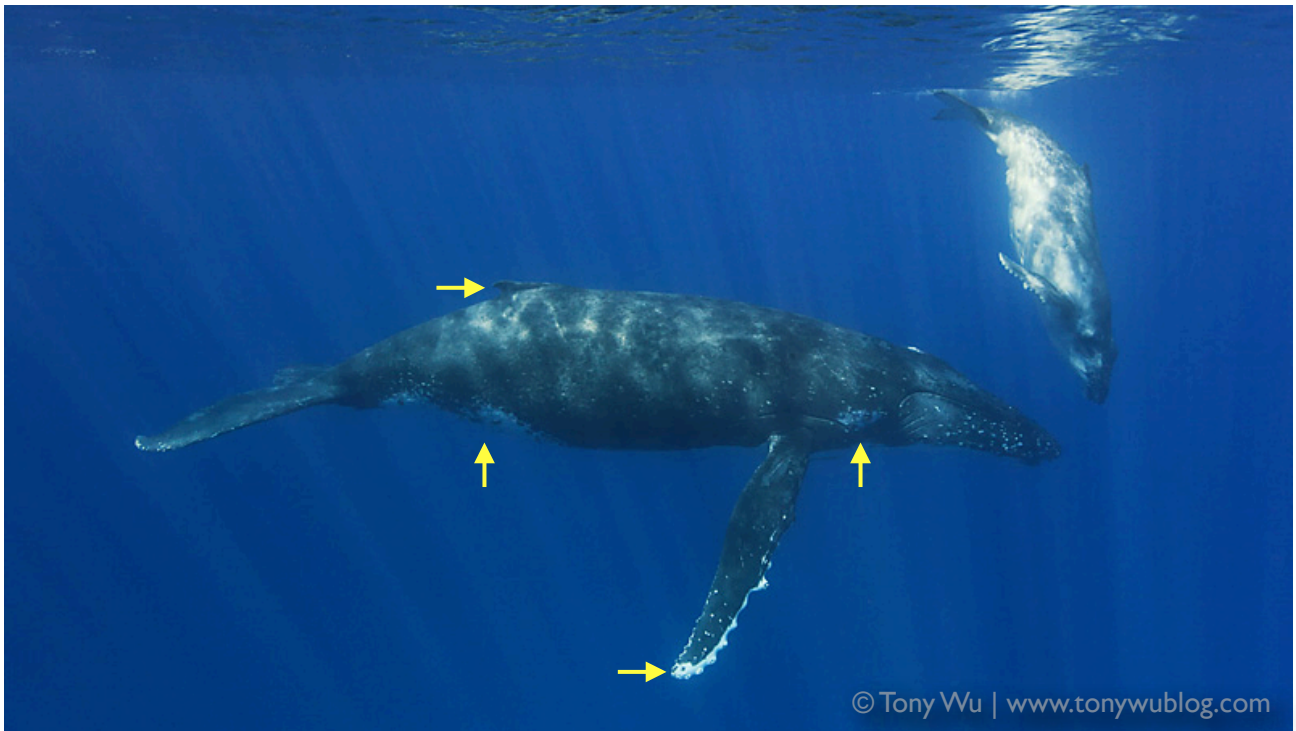
20. MAMA'S BOY

Despite being quite big, calf never left mom's side. Difficult to ID.

Calf: White patches behind eye.

Mom: Have to rely on whole-body ID of white areas and spots.

When & Where: 04 Sep, near main entrance to harbour, behind Tungasika.



21. FULL MOON ♀

First found in North Bay during full moon.

Calf: Young, difficult to ID on its own.

Mom: Dark on dorsal side, white on ventral with strip of black under chin. White mottling behind eye. Sharp dorsal fin.

When & Where: 05 Sep, North Bay; 06 Sep, inside Hunga channel.



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22. MEI MEI ♀

Came across this calf in the bay above North Bay. Seems to have stayed in the area for a few days thereafter.

Calf: White along both sides of torso.

Mom: White patches behind eye, and general pattern of white torso areas makes the mom relatively easy to ID.

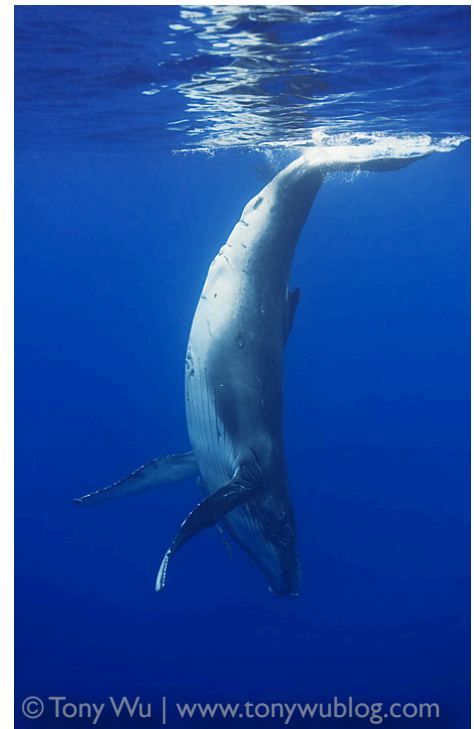
When & Where: 06 Sep, North Bay; 09 Sept, North Bay. [Video of Mei Mei.](#)



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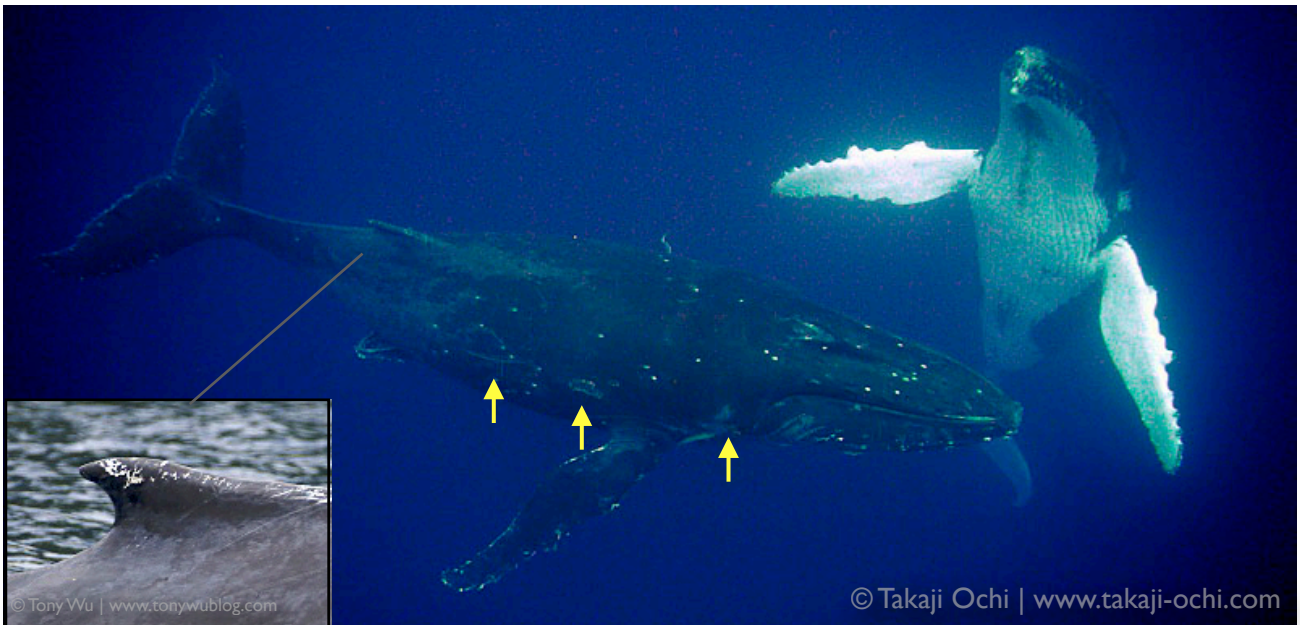
23. DARUMA ♀

Initially mis-ID-ed as Mei Mei, due to similarity of mothers and proximity of where and when we encountered the two calves.

Calf: White border along dorsal area between dorsal fin and fluke.

Mom: White covers part of eye area. Right fluke partially missing.

When & Where: 08 Sep, North Bay.



24. IKA ♂

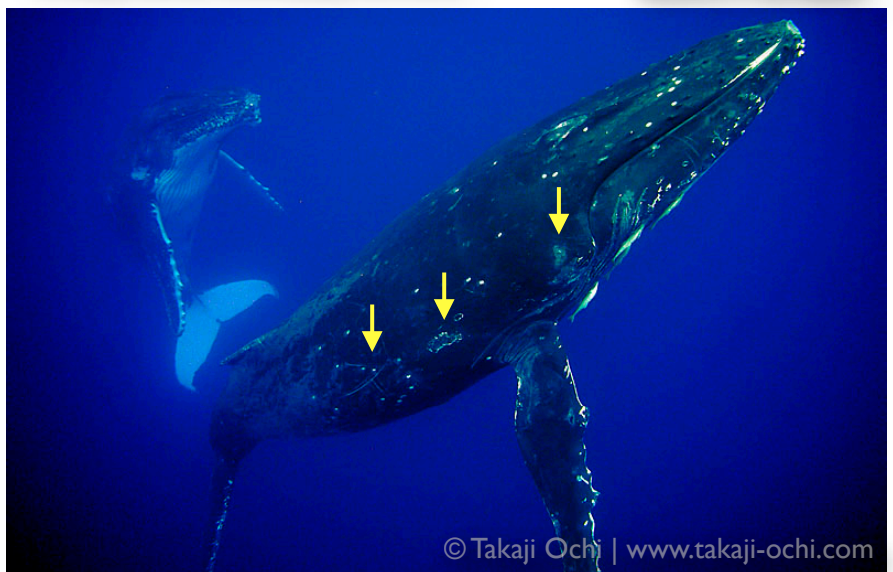
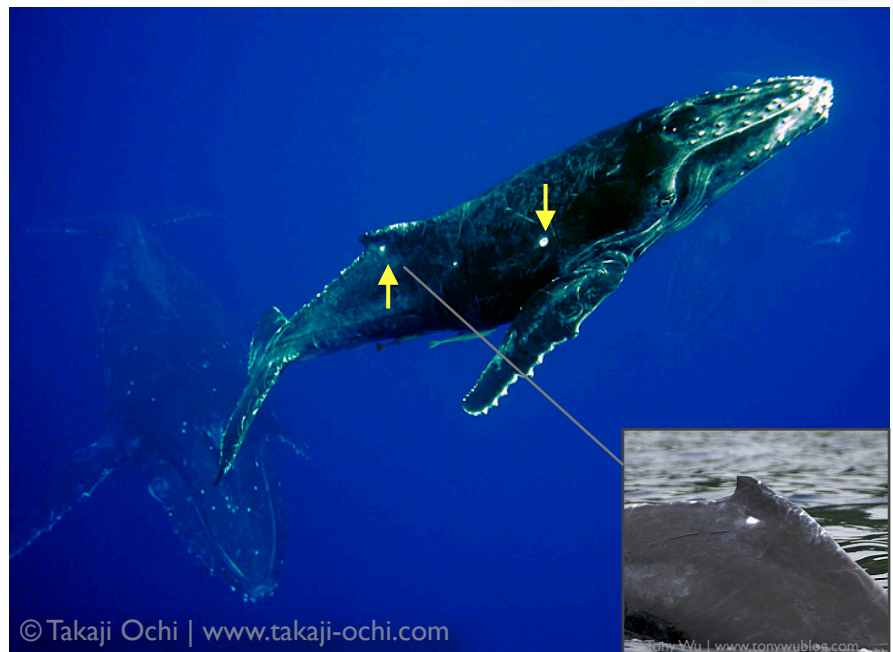
Named for our friend Ongo's eldest son.
Sighted with mom and escort.

Calf: White spot left torso and right side of dorsal fin.

Mom: Mostly dark, some scars/ discolouration.
White scratches on dorsal fin.

When & Where:

07 Sep, outside Hunga (Alexis/ Nathalie); 08 Sep, outside White Patch/ North Bay area.





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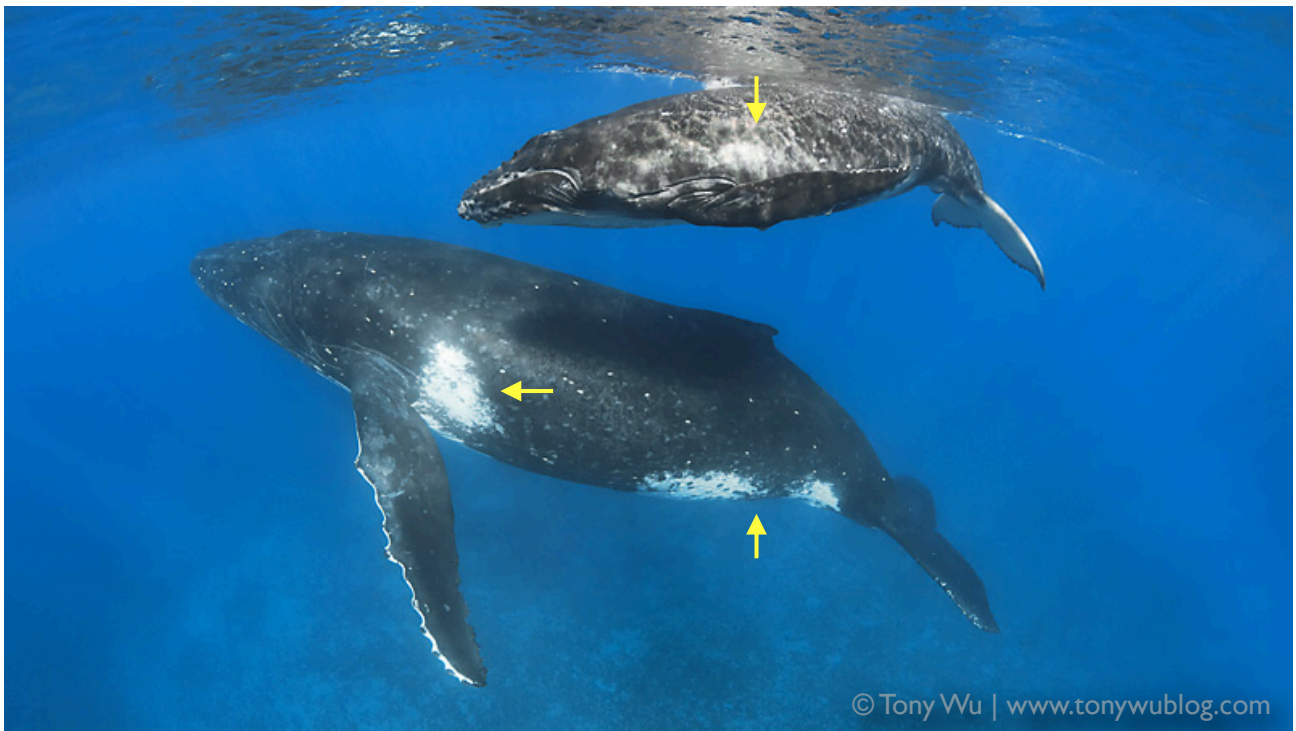
25. NOAH ♂

Young calf with mom and very white escort we nicknamed "Tux" because it looks like he's wearing a white tuxedo.

Calf: Young, difficult to ID on its own.

Mom: White patterns on torso are easiest to identify.

When & Where: 09 Sep, North Bay; 10 Sep, North Bay.



26. NOFO ♀

Our last day on the water. Named for our friend Aunofo.

Calf: White area left torso, similar to mom.

Mom: White area left torso and lower ventral areas.

When & Where: 11 Sep, North Bay.