The History HB Family

I first met the HB family in August 1975, a month before moving to Amboseli to work full-time on the project. They were in a group of approximately 20 elephants on the west side of the Park. During that first encounter I noticed a large unfamiliar female closely associating with Loretta, a female I had already identified earlier in 1975. This new female was tall and handsome with thick, almost straight tusks. I saw her again two days later in a large group of 100 elephants and confirmed that a teenage female accompanied her. They had some calves with them, but it was hard to be certain which ones belonged to them with so many elephants present. I thought Loretta might have been with them, but I wasn't sure, and then the family disappeared again.

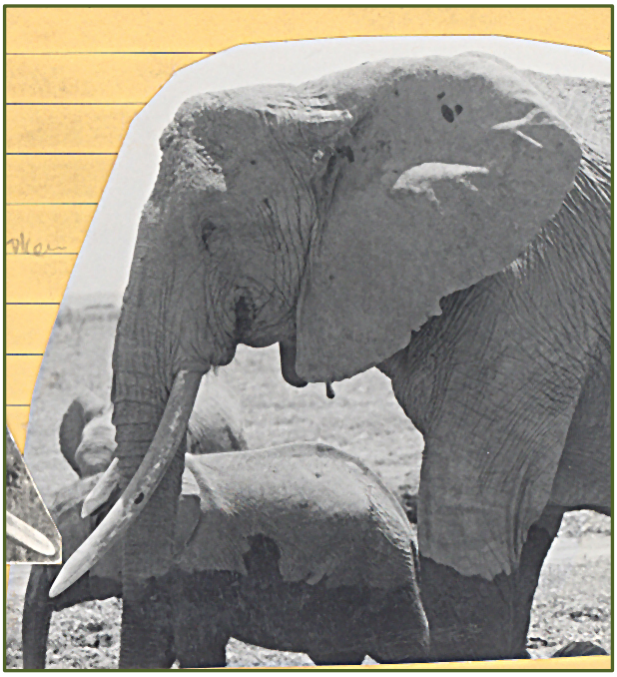
I didn't see them again until June 1976 when I came across a large aggregation of elephants in the north of the Longinye swamp. They were with many other families and submerged in the swamp. A month later I saw them again in Longinye; the big, handsome female, the young female and a calf I thought was between 2 ½ and three years old. In August 1976, a year after my first encounter I found them close to the place where they were first sighted in a small group of six elephants. Finally, I managed to make good notes on the family structure.

I estimated the big female to be in her early forties. She had a two to three-year-old calf with her, a seven-year old female calf, and a teenage daughter, who had small breasts, indicating she was pregnant. With them were two other immature elephants, a female I estimated to be around ten years old, and a male aged 8-10 years. I never saw either of these young elephants again.

Big, handsome female	about 40 years old
Calf	2 1/2 years old
Female calf	7 years old
Teenage female	about 16 years old
Adolescent female	about 10 years old
Adolescent male	8-10 years old

The 1970s up until 1977 was a period of low rainfall, culminating in a serious drought in 1976, and a time of relatively heavy poaching. Both these factors contributed to low birth and survival rates. The HB family was small, and I assumed they had lost family members due to drought or poaching. I didn't know how many other adults and calves the family may have started with at the beginning of the '70s because I only got to know them at the height of the '76 drought. Perhaps those two young mystery elephants had lost their mothers and were staying with the big female for protection.

Good rains fell in December 1976 and in the following three years there was higher than average rainfall with resulting abundant and nutritious vegetation. At the same time, for reasons I've never been sure about, the poaching stopped; and in 1978 the Maasai warriors were promoted to junior elders who no longer felt it necessary to spear elephants to prove their bravery. All these changes meant a period of peace and plenty for the elephants.



Early ID photo of Horatia

After the drought broke I didn't see this elephant family again for several months. In 1977 I spotted them regularly, although always in large aggregations of elephants, mainly on the west side of Amboseli. The groups were so large I was only able to identify the big female and not her calves. In March 1977, I finally assigned them the family letters HB and named the big, handsome female Horatia and her teenage daughter Hazel. The year 1977 established a pattern for the HBs, who became much more regular visitors. I never found out what happened to Hazel's pregnancy, but she must have lost the calf, probably as a result of the drought, because by January 1977 she was no longer pregnant. Horatia had lost her two youngest calves by the end of 1976, also as a result of the drought. There was no sign of the two adolescents I had seen with them the year before. Therefore, the HBs were reduced to two: Horatia and Hazel.

Elephant families take time to recover after drought events, and this one had been both severe and prolonged. I saw the HBs regularly between 1977 and 1980, and soon realised that they were a bond group with the BC and JB families, peripheral elephants who used the western edge of the ecosystem and ranged into Tanzania. These cross-border elephants have always been difficult to classify, because their visiting patterns can be erratic and they can disappear for long periods. In fact, Loretta, the female I had noticed with Horatia when I first saw her, belonged to the BC family; one of the naming anomalies that was common in the early years with regard to peripheral elephants.

In April 1980 Hazel gave birth to a daughter, whom I later named Hope. The following year in December, Horatia also had a daughter, Heather. I was very happy both of these calves were female because if they survived they would make it possible for the family to grow. As females they would stay with the

family, help raise subsequent calves, and ultimately reproduce themselves. Maybe the HBs would be able to boost their numbers once again, having been reduced to such a sad little family of two.

Hazel wasted no time in trying to increase the family size. She had a second daughter just three years and one month after her first, a very short inter-birth interval. The average interval between calves is four-five years. Both calves survived despite a severe drought in 1984. At the end of that year Horatia also had another daughter.

All through the remainder of the 1980s and then in the 1990s both Horatia and Hazel continued to have calves, a high proportion of which were daughters. Those daughters grew up and gave birth. Hope had her first calf, a daughter in 1994 and Heather had a female in 1995. By the end of the 1990s I had recorded fifteen births in the HB family, of which only four were males. All except two of these calves survived: in 1995 Hazel lost a male calf who died as a result of a suckling conflict with an older sibling. She had had another very short span between her calves, and her son Heliotrop was just three and a half when her second son was born in 1994. Although Hazel had previously managed to rear two calves even closer together in age, male elephant calves need more nutrition than females because they grow faster, and Heliotrop continued to suckle and compete with his younger brother. Hazel couldn't produce enough milk to sustain both of her growing sons, and ultimately the younger calf died at ten months old.

In 1997 Horatia lost a two-year-old son to drought, but the rest of the family escaped unscathed. By 1999 the family numbered fifteen, and Horatia was a great-grandmother three times over. It was an amazing success story considering they had started with just two members. Between them they gave birth and raised seven daughters and four granddaughters.

Individual	Sex	Estimated or Known Month & Year of Birth	Mother if Dead
Horatia	F	1934	
Hagenia	F	May-91	
Hilary	F	Dec-84	
Heather	F	Dec-81	
Hal	M	Mar-99	
Hydra	F	Feb-95	
Hazel	F	1960	
Hadil	F	Jul-98	
Heliotrop	M	May-91	
Hatsy	F	May-87	
Hollie	F	May-83	
HOL96	F	Nov-96	

Hope	F	Apr-80	
Heidi	F	Dec-99	
Hadley	F	Dec-94	

Throughout the 1980s and 1990s the HBs continued to associate with the BC and JB families. They were particularly close with the BC family. Loretta, the big old matriarch of the BCs had died of old age in 1975, but the HBs continued their friendship with the BCs despite several changes in matriarch. Beda became the leader after Loretta died and reigned until she was speared and died in 1988. Bronwen took over next but was a victim of poaching in 1992. After Bronwen's death something profound happened--the families decided to shift their range. Having been peripheral western elephants for almost twenty years, all three families in the bond group (HB, BC and JB) started spending much more time using the central zone of the Park, and the area immediately to the south. Perhaps they felt safer in this area, as Tanzania in particular was becoming more dangerous for Amboseli elephants in the late 1980s before the ivory trade ban took effect.

Horatia was a matriarch of matriarchs; in this photo she is helping Brita of the BCs with her newborn calf

At the turn of the millennium the HB family was doing well, and their range shift meant I got to see them more often, which was I was pleased about. They were still often found in large aggregations with other families, particularly during the wet season. However, the new decade brought mixed blessings for the family. After 2000, another sixteen calves were born to the HB females, doubling the family size in just a decade as all Horatia's daughters and granddaughters gave birth. The sex ratio in those ten years remained female-biased, with just five of the births being male calves. Overall the sex ratio for the Amboseli elephants is 50:50 males to females at birth, but the HBs definitely have tend to give birth to females.

In 2002 tragedy struck the HB family when Horatia died of what appeared to be old age. She was well into her 60s by the time she died, and had raised a large and successful family. Her eldest daughter Hazel was an experienced 42-year-old by this time, already a grandmother and well able to lead the family. Nonetheless the family must have felt Horatia's loss keenly as she was mother, grandmother or great-grandmother to them all. It's always sad when old elephants die, but I found it comforting to think that while a long and wonderful life had come to an end, Horatia left a thriving legacy. The family continued to experience very low rates of loss, although in 2005 Hollie's nine-year-old daughter Houston disappeared, presumably from natural causes.

Hazel inherited her mother's thick tusks and her overall size which was taller than average

Hazel assumed the leadership of the family after Horatia's death, but her tenure did not last long; in December 2008 she died. I believe she was poached for her large tusks. By the end of 2008 Amboseli was in the grip of the worst drought in living memory. Thousands of cattle, sheep, goats, zebras, wildebeest and other animals died. The elephants were not spared, as we lost almost 400 of the 1550 elephants known to the project.

Elephant families often split into small foraging groups when food becomes scarce, but they continue to move in a co-ordinated fashion and keep in touch with each other using long-distance vocalizations. All the elephants were exhausted, trying to make it from one day to the next. It must have been extra tough for the HBs to lose their matriarch at such a difficult time. Hazel's eldest daughter Hope assumed charge of the family, and all in all they fared remarkably well, losing only one calf to the drought, Hadil's two-year-old son. At a time when some families lost all their members less than ten years old, and halved in size, Hope did an excellent job of keeping her family safe.

The drought broke in December and fairly good rain fell in 2010. African savannahs are remarkable in being able to recover quickly. Within a couple of months the woodlands and plains were transformed from what looked like bare soil to lush green swards. It always amazes me. Underneath that dusty ground the seeds and roots remain waiting for the moisture to release them.

Slowly the elephants began to recover. They put on weight and there was a spring in their step. The ATE team had their work cut out for them trying to discover who had died, who had survived, and who all the orphans were. It took almost a year to be able to figure it all out.

Hope even gave birth to a daughter in January 2010, having carried her calf through the drought, and it appeared to be a good omen for the HBs. However, in May 2010 Heather disappeared and we were never sure what the cause of her death was. As the second oldest female in the family, Heather's death also impacted the rest of the HBs, not just her daughter Hydra and son Hal, who was not yet independent.

Hope with her daughter Hanan born in 2010

In May 2011 the ATE team found Hollie with a stillborn premature male calf, accompanied by her daughters Hub and Hibiscus. It was a sad event, as Hollie had managed to retain her pregnancy through the worst of the 2009 drought. A month later, we discovered that Hydra's two-year-old male was no longer with the family, and must have died. This was also made sadder by the fact he was born just as the drought began to bite, and had made it all the way through. Our research here shows that calves that survive drought events are at higher risk of mortality throughout their lives. Presumably, the challenges were just too much for this particular male.

In the meantime, it didn't take the females in the Amboseli population long to recover enough to start breeding again. Already in January and February 2010 we recorded females in oestrus. With a twenty-two month gestation period we expected to start finding new calves in November 2011. And that's exactly what happened. There were actually two births in October, so those females were surprisingly early. More calves came in November and December: a total of 49, and then in 2012 there was a deluge of calves, another 201!

Because the HBs had lost few calves during the drought they stuck to their own schedule of giving birth. Hollie's daughter Hub had her first calf in August 2012 and Hatsy gave birth in November. Both had females.

The others waited until 2013. Four calves were born, to Heidi, Hollie, Hadil and Hilary and three of them were males, which made a change. Hadil had a daughter, the other three sons. By the end of 2013 there were 31 members of the HB family, an amazing increase from just Horatia and Hazel in 1979.

Individual	Sex	Estimated or Known Month & Year of Birth	Mother {grandmother}if Dead
Hope	F	Apr-80	Hazel {Horatia}
Hanan	F	Jan-10	
Henriette	F	Jan-05	
Heidi	F	Dec-99	
HEI13	M	Mar-13	
Hadley	F	Dec-94	
Hollie	F	May-83	Hazel {Horatia}
HOL13	M	Jul-13	
Hibiscus	F	Apr-07	
Heath Ledger	M	Mar-03	
Hub	F	Jan-00	
HUB12	F	Aug-12	
Hatsy	F	May-87	Hazel {Horatia}
HAT12	F	Nov-12	
Hart	M	Mar-08	
Helen	F	Mar-03	
Hadil	F	Jul-98	Hazel {Horatia}
HDL13	F	May-13	
Heliotrop	M	May-91	Hazel {Horatia}
Horlicks	M	Apr-07	Hazel {Horatia}
Halle Berry	F	Jun-03	Hazel {Horatia}
Hilary	F	Dec-84	Horatia
HLY13	M	Mar-13	
Hooplah	F	Jun-07	
Hagenia	F	May-91	Horatia
Hekaya	M	Apr-06	
Hydra	F	Feb-95	Heather {Horatia)
Hanneka	F	Feb-09	
Hal	M	Mar-99	Heather {Horatia}
Hayden	F	Jan-03	Heather {Horatia}
Hottoddy	F	Apr-07	Heather {Horatia}

The following year 2014 proved to be a tragic one for the HBs. They had been doing so well but for reasons we don't understand seven members of the family died. The matriarch Hope, her young calf born that year, her daughter Hadley, Heather's daughters Hydra and Hottoddy, and Hydra's two calves, one born that year and other born in 2009, all died. We never found carcasses. We can only guess that they ran into poachers when they were outside the Park.

Lovely Hollie has the same look as Hope and Hazel

In 2015 Heather's daughter Hayden died. Again, we did not know the cause. However, from that point on up until the present, the HBs have not lost another individual. Hope's daughter Hollie had taken over as matriarch. At 31 years old she had enough experience to lead the family and she has been doing so successfully for more than four years now. She is a particularly beautiful female with a calm and dignified air.

Fourteen more calves have been born since Hollie took over. Typically, of the HBs, only two are males. This means that the family will continue to grow and we predict it will be one of the biggest families in the Amboseli population. We can't help but be proud of Horatia and Hazel and what they did to regenerate their family.

Cynthia Moss
Amboseli National Park
March 2019

Current Structure and Composition of the HB Family

Individual	Sex	Estimated or Known Birth	Mother {grandmother}if Dead
Hollie	F	May-83	Hazel {Horatia}
HOL17	F	May-17	
Humphrey	M	Jul-13	
Hibiscus	F	Apr-07	
HIB18	F	Jun-18	
Hub	F	Jan-00	
HUB17	F	Nov-17	
Hadza	F	Aug-12	
Hatsy	F	May-87	Hazel {Horatia}
HAT17	F	Apr-17	
Happy	F	Nov-12	
Hart	M	Mar-08	
Helen	F	Mar-03	
HDL17	M	Apr-17	
Hadil	F	Jul-98	Hazel {Horatia}
HDL18	F	Jan-18	
Hermione	F	May-13	
Horlicks	M	Apr-07	Hazel {Horatia}
Halle Berry	F	Jun-03	Hazel {Horatia}
HLL18	F	Feb-18	
Hilary	F	Dec-84	Horatia
HLY18	F	Mar-18	
Horatio	M	Mar-13	
Hooplah	F	Jun-07	
Hagenia	F	May-91	Horatia
HAG18	F	Apr-18	
Hoho	M	Apr-14	
Heidi	F	Dec-99	Hope {Hazel}
Hamlet	M	Mar-13	
Henriette	F	Jan-05	Hope {Hazel}
HTT16	M	Jan-16	
Hanan	F	Jan-10	Hope {Hazel}
Independent Males	**Code No**	**Birth**	**Mother**
Heliotrop	513	May-91	Hazel
Hal	672	Mar-99	Heather
Heath Ledger	817	Mar-03	Hollie
Hekaya	887	Apr-06	Hagenia