THE HISTORY OF THE HA FAMILY

Not all the families in Amboseli are big and successful. Some have struggled and failed and have become extinct; the BA, DA, GA, NA, NB, QA and TB families no longer exist because there were no females to continue. Other families hold on by a thread. The HA family seems destined to be tiny. Harvey and I first met the members on October 5, 1973. It was early morning and we found three elephants along the edge of the Enkongo Narok swamp. This small group consisted of a female and two calves. There were no other elephants in the immediate area. The female was large and handsome. The two calves were both females, one about three years old and the other just reaching puberty at approximately 11 years old. We were sure the younger calf was the big female's because she suckled from her; the older one was probably her daughter as well, but we could only guess that by their behavior.

Harriet and Hilda in October 1973

It was unusual to find such a small family and we wondered what their history was. Of course, I could never know. However, we did get to know these animals very well over the next few years. The family did,



indeed, only consist of those three animals. They were assigned the code letters HA and we named the adult female "Harriet" and her older daughter "Hannah"; a few years later the younger calf was named "Hilda". We saw them two more times in 1973, only once in 1974, but then in 1975 I saw them frequently; and once I set up my camp in the Park in September 1975 I found them several times each month from then on.

After a few dozen sightings a pattern began to emerge. They proved to be western elephants, that is, in the dry season they were almost always found on the western side of the Enkongo Narok swamp. I also discovered, that although they were a small family, they formed a bond group with two other family units that used the same area: the FAs and KAs. It was my impression that Harriet formed a close bond with the matriarch of the FAs, Filippa. Over the next years I was to see them perform intense greetings ceremonies when they met up. The greetings with the KAs were not quite

as emotional, but there was obviously a bond there as well. Often these three families would move together as one group.

On August 17, 1975 Harriet appeared with a huge square out of her right ear. I have no idea how it happened. She didn't seem to have any other wounds. It definitely made her very easy to recognize.

During 1975 there had been low rainfall in the Park and surrounding areas, and in 1976 the rains failed with only a miserly couple of inches falling during what was supposed to be the wet season. There was a brief flush of green in April and May and then a serious drought set in. It was during the short period of rain that Harriet gave birth to a male calf. I found her with the new calf on June 14, 1976. He was a big, robust calf, and I estimated that he had been born two or three weeks before in May.

It was a very bad year to be born in Amboseli. I recorded the birth of 29 calves. By the end of the year only 15 remained. Of those that died most were probably the victims of drought. It was sad and depressing watching these calves get weaker and weaker and then disappear. Their mothers had milk but probably not in great quantity or quality. What really seemed to affect the calves was the lack of suitable vegetation to feed on once they reached the age when they should have started to eat solid food. Calves start to eat a bit of grass when they are between three and four months old, and by the time they are eight months old they need quite a lot of food to sustain them. In 1976 as the drought progressed there was only swamp vegetation which the voung calves had difficulty both handling and digesting. Many of the calves that had been born in the early part of the year died in September, October and November. Finally rains came in December and the elephants, adults and calves, gradually recovered. Harriet's calf was one of the lucky ones. He made it through the drought and grew up to be a fine young male named Henry.

The next three years proved to be very favorable ones for the elephants. The rainfall was higher than average with the result that there was abundant and nutritious vegetation. In addition the poaching that had occurred in the areas surrounding the Park came to end in 1977; and in 1978 the Maasai warriors were promoted to junior elder, and with that change the incidents of spearings of elephants decreased dramatically. All in all it was a very peaceful and productive period for the elephants.

Females started reproductive cycling again and by the end of 1978 the first calves were born after a 16 month period of no births. In the HA family Hannah conceived in April 1977 and gave birth to her first calf in February 1979. The calf was a female. Hannah was a mother at 17 years old, which was relatively late by elephant standards, but the drought had delayed puberty and first conception for all the females her age.

I expected Harriet to have another calf around 1980 or 1981 after the usual

four to five year calving interval, and true to course she produced another son in December 1980. Her older male calf was named Henry. With the birth of his younger brother he was weaned and had to fend for himself, at least for food.

All went smoothly for the HAs over the next few years, but then in 1982 I started to find Hannah's calf completely on her own in the vicinity of the Enkongo Narok swamp. This was very peculiar behavior for a calf of only three years old. The only other time I recorded calves on their own was during very harsh drought times when calves around this age seemed to weaken and not be able to keep up with their families. I saw several calves on their own in 1975 and 1976. All eventually disappeared except Audrey of the AA family, who returned to her family after the drought was over. But this was not a time of drought, so I could only assume that Hannah's calf was ill or Hannah did not produce enough milk to nourish her. Sadly, she too disappeared.

Hannah & newborn calf

In February 1983, exactly four years after her first calf was born, Hannah gave birth again, this time to a male. I hoped she would do better with this one. However, environmental conditions worked against her. In 1984 there was a



severe drought. At the same time the Maasai had promoted a new warrior set and the combination of the drought and scores of young men out to prove their bravery was devastating for the elephants. Unfortunately, the HAs were one of the hardest hit families. Harriet was speared and was very ill for a long time, but miraculously recovered. Hannah's 1983 male calf died in September 1984 at the height of the drought. Three months later Harriet's four-year-old calf died of spear wounds in December. The family, which had grown to seven by the beginning of 1984, was reduced once more to four, back to where it was at the end of 1976. It consisted of the following animals:

Individual	Sex	Estimated or Known Month & Year of Birth	
Harriet	F	1938	
Henry	M	5-76	
Hilda	F	1970	
Hannah	F	1962	

The drought ended in 1985 and it looked as if the elephants would enter a new period of good times. Two females in the HA family managed to carry calves right through the 1984 drought. Harriet gave birth to another male in March 1985, which meant she had conceived in May 1983. And young Hilda at 15 years old gave birth to her first calf in December 1985 having conceived in February 1984 just as the drought was setting in. This calf was a female. Both calves seemed healthy and robust.

In the meantime Hannah did not lose any time getting pregnant again. Three months after her calf died she conceived in December 1984 and gave birth to a son in October 1986. I thought sure she would be able to raise this one, but Hannah seemed to be jinxed.

A death occurred in April 1987 which all of us who had worked on the project felt acutely. Harriet, who was a favorite elephant ours, was speared to death. We were angry and sad. Her family was devastated. Harriet was estimated to be 49 years old at the time of her death. She was a wise, experienced female. Without her leadership the others were in complete disarray for months afterwards. Hannah was found either on her own or at the edge of other families. Her 1986 calf was gone. Hilda was seen several times with both '85 calves: hers and Harriet's. But by May Harriet's calf was gone and after that we didn't see Hilda for a long time. For a while I thought both she and her calf were dead, but eventually she appeared again with no calf. It was almost another year before Hilda and Hannah were found together again on a regular basis.

The death of a matriarch has massive repercussions for a family particularly when there are no middle-aged females to take over the role. Hannah was only 25, Hilda 17. It makes one realize what poaching is doing to the family structure and reproductive potential of the elephants throughout Africa. The death of one large adult female almost always means the deaths of several more animals in the family.

Eventually Hannah and Hilda re-formed their little family and struggled to survive. Hannah did not give up trying to raise calves. She must have conceived again within a month of losing her calf in 1987, because she gave birth to a son on February 17, 1989. As soon as this calf was born Hilda continuously stayed with Hannah and helped take care of him and thus he was lavished with attention. In addition, Hannah and Hilda now

tended to stay with the KAs whose young females also watched over and played with the calf.

In the meantime, after Harriet's death, Henry went independent. We always thought Henry was doomed from the start. First of all he was born in one of the worst possible years, 1976. Almost 50% of the calves born that year died before the year was out. By the time Henry lost his mother there were only eight individuals in the whole population remaining from those born 1976. Our studies showed that calves born during bad drought years do badly in subsequent years and are more likely to die than calves born in good years. We thought the chances of Henry living long enough to reproduce were slim, but we wished him well.

The HA family in 1997 with (left to right): Hercules, Hannah, Harley, Hestia and Hilda

There were no more births or deaths for the HAs in the early 90s. It was a time of recovery for



them. Then in December 1993 Hilda gave birth a female calf. This calf survived. In April 1995 Hannah gave birth to a male and much to our relief she was successful at rearing him. Hilda's calf was named Hestia and Hannah's was named Hercules. By the beginning of 1997 the family had grown to five and consisted of the following:

Individual	Sex	Estimated or Known Month & Year of Birth	
Hannah	F	1962	
Hercules	М	4-95	
Harley	М	2-89	
Hilda	F	1970	
Hestia	F	12-93	

Those were the good times for the HAs. They had more sorrows to come. It's hard for those of us working on the project to observe a family like this one over the years. One so wants them to succeed and it is painful

when they have such a difficult time. The HAs suffered a series of losses. First Hilda had a calf, another female in July 1997, but she died from unknown causes when she was six months in January 1998. Hilda was trying hard though and conceived again a month later.

However, two years later another terrible drought hit Amboseli. Hilda had her calf in January 2000 just as the drought started. Hannah had a calf in April. Neither of these calves survived but fortunately the older calves made it through.



Harriet's son Henry in musth

In September 2001 tragedy struck the family again. Hannah was speared and died. Hilda at 31 years old took over as matriarch. She kept the little family together and added a new member in 2002, another daughter. It was good that she had a daughter because the family needed more females to build up their

numbers. It's fine to produce males but they eventually leave the family to join the world of independent bulls.

Harley left the family after Hannah died. He joined his Uncle Henry who by some miracle was still alive. In fact, much to our delight we saw Henry in musth for the first time in October 2006, when he was 30 years old. Although Henry is small for his age we were very happy to see him in musth, which takes strength and energy. We even saw him mate with a young female, Ipomoea from the IA/IC family. I was with my colleague Phyllis Lee. Henry had been one of our study calves when we were doing a joint project on mother-calf behavior and calf development in the early 1980s. Phyllis said it was like watching your child on his first date.

Somewhere along the way Henry managed to tear a huge hunk out of his right ear. It was strange because the same thing had happened to his mother Harriet although different ears. The tear made Henry easy to identify.

The HAs with Hilda as matriarch recovered from the drought but perhaps never from the death of Hannah. Hilda kept trying. She raised her own daughter named Hipolito and kept Hannah's son Hercules alive. Hilda's older daughter Hestia was eight years old at the time of Hannah's death; we noted that she only had one right tusk. With only a single adult female in the family there would be no more births for at least four years, the normal inter-birth interval for elephants.



Hannah's son Harley

Hestia turned out to be the first to have a calf. She reached sexual maturity, mated and gave birth in March 2007 to a male calf. Hilda didn't have her next calf until January 2009 at the start of the worst drought in living memory in Amboseli. The calf made it through but then Hilda died in December. She was one of 60 adult

females who died during 2009. We never found her carcass so we don't know if she died of the drought or of poaching. Her orphaned calf died later in 2010.

So after 37 years of known records starting in October 1973, the HA family were reduced once again to only three individuals:

Individual	Sex	Estimated or Known Month & Year of Birth	
Hestia	F	12-93	
Hendricks	М	3-07	
Hipolito	F	4-02 (Hilda's)	

Hestia is very young to be a matriarch. She took over from Hilda when she was only 17 years old. Fortunately, she is a member of a bigger bond group, which includes the FAs and KAs. Perhaps that will help. We're rooting for her.



Hestia with Hendricks and Hipolito behind and a visiting male calf at the front

In some ways the males in the HA family have been luckier than the females. There are three adult males who should be able to father calves of their own, so Harriet's lineage still has a chance to go on.

Individual	Birth Date	Male No.	Mother
Henry	May-76	314	Harriet
Harley	Feb-89	475	Hannah
Hercules	Apr-95	589	Hannah

Cynthia Moss Amboseli April 2011