

The History of the JA & JA2 Families

The JA family is one of the best known of the 64 elephant families in Amboseli. It is a favorite of many of the researchers who have worked on the Amboseli Elephant Research Project. I think we all like the family so much because it was, for 19 years of the study, led by the magnificent matriarch Jezebel. She died in her late 50s in 1993 and at the time was one of the oldest elephants in the population. She had beautiful, long, elegantly-curved tusks, which were exceptional for a female. In fact, Jezebel's tusks caused confusion at the very beginning of the study.

My colleague Harvey Croze and I first met Jezebel and her family on February 24, 1974. We photographed the adult females and some of the juveniles and when we developed and printed the pictures we gave the adult females names: Jezebel, Jessica and Juliet.

Some months before this we had found a large aggregation of elephants and had photographed as many individuals as we could, including adult males. One handsome male was given the number M5. We pasted his picture in the



Amazing Jezebel with son Jerome and other family members in November 1975: it's easy to see how she was mistaken for a male

male recognition file. It wasn't until sometime in 1975 that I noticed that this "male" was Jezebel. The photograph just showed the head, ears and tusks from head on; with her large tusks Jezebel looked like a bull!

The JA family lives on the western side of the Park and

moves outside the boundaries to the southwest towards and into Tanzania. In April 1974, when we were trying to get information on the movements of the Amboseli elephants, we radio-collared three females. One of these was Sona the matriarch of the SB family. It turned out that the JAs and SBs formed a bond group along with the YAs. We did not know this at the time we darted Sona. She just happened to be the female we came upon when we were looking for a western elephant. In fact we had not even seen this family before. She was named after she was darted. Once we started following her we realized that she had a special relationship with Jezebel and her family and with another family led by a very large, old female whom I called Yolanda. These three families moved together much of the time.

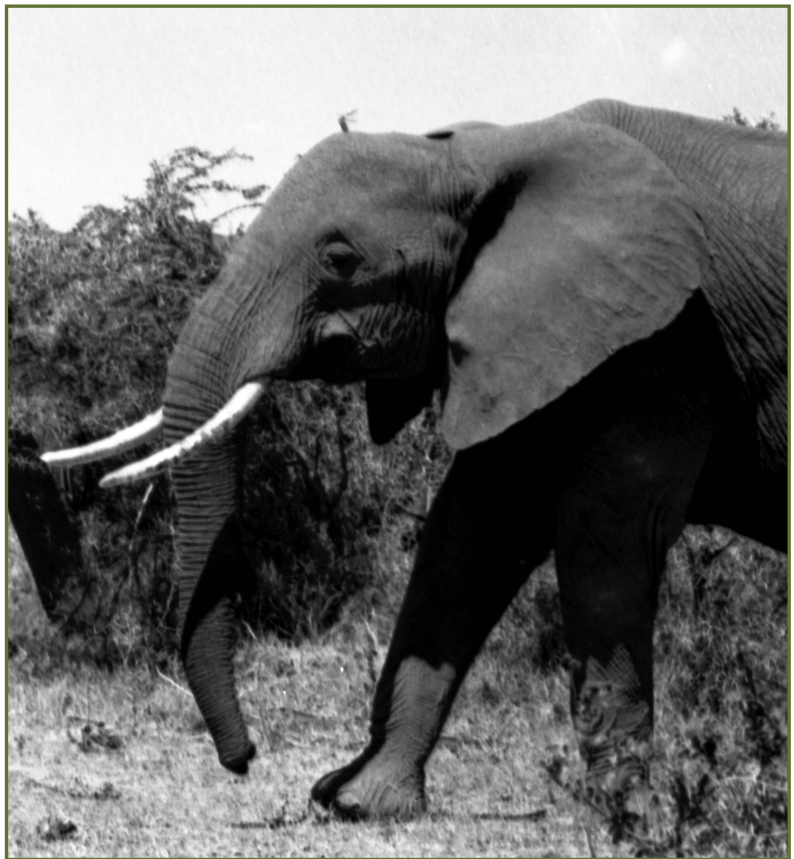
When we first photographed the JAs we noted that Jezebel and Juliet, both had calves less than a year old, and that Jessica had a calf which was about two and half years old. On October 10, 1975 I noted that Jezebel's calf was missing. A month later, on November 9, when I had a better look at the family, I found that Juliet and her calf were also missing. The early and mid-70s were years when there was poaching of the Amboseli elephants, particularly when they went outside the Park, and I suspect that these three animals died as a result of an encounter with poachers. It was on this November sighting that I photographed another large adult female in the JA family who had been overlooked before. She was eventually named Joyce.

I had begun my full-time study in Amboseli in September 1975 and started to see all the families far more frequently. By early 1976 I had a fairly good idea who was in the JA family. It consisted of the following nine animals (with estimated year of birth in parentheses):

Jezebel (35)	F
Jerome (69)	M
Jake (65)	M (probably Jezebel's)
Joyce (41)	F
Jared (68)	M (probably Joyce's)
Jessica (50)	F
Jasper (71)	M
Jill (64)	F
Joan (65)	F

I did not know how Jill and Joan fit in. Jill could have been Juliet's daughter, but Jill spent some of her time with the YAs and I was never 100% sure which family she should be assigned to. For a brief time I changed her name to "Ylla", but then she seemed to spend more time with the JAs, and so I reverted back to Jill. Joan turned out to be even more intriguing. Years later when we carried out DNA studies of the families we found that Joan was not even closely related to the other members of the JA family; she was from an entirely different matriline. She must have been what we call a "floater"--a female who has lost all the other members of her family and wanders on her own or moves from family to family. Joan was lucky because the JAs took her in and allowed her to become an integrated member of their family.

The year 1976 turned out to be a bad one for the Amboseli elephants and other animals as well, because there was a very serious drought. It was also a time of heavy poaching and of spearing by Maasai. Over 60 elephants died that year. The JAs actually fared well, perhaps because they had such an old and experienced matriarch. In March 1976 I recorded Joyce with a new calf, a male. He survived during much of the drought but he finally succumbed in October when many other calves died as well. There wasn't enough food for them or their mothers. Of the 30 calves that were born to the whole population in 1976, 14 died before they were a year old. There were no other losses in the JA family but their close bond group members did not do as well. Yolanda disappeared in November 1976, along with her six-year-old calf leaving only a



Joyce in 1975: she would grow into an impressive female and take over as matriarch in 1993

small group of three: Ysolde, her two-year-old son, Yves, and an adolescent male. A year later Sona disappeared, also leaving a small family of only five behind.

After the deaths of these two matriarchs it was interesting to see how the three families interrelated. Ysolde basically joined Jezebel's group and very rarely moved on her own. On the other hand, the SBs led by Sara became far more independent and spent less and less time with the JAs and YAs. I always wonder how bonds between individual elephants are formed and why some are stronger than others. Jezebel and Yolanda were around the same age and

JA calves playing in a mudwallow



I suspect that their bond kept those two families together. Ysolde appeared to have a stronger bond with some of the younger members of the JA family. The three families still formed a bond group but it definitely was not as tight as when the three older matriarchs were alive.

Good rains fell in December 1976 and continued through 1977, 1978 and 1979. At the same time the serious poaching came to an end. This was a very good period for the Amboseli elephants with only a few Maasai spearings to mar the halcyon days. Jezebel had managed to carry a calf to term during

the terrible 1976 drought and gave birth in December 1976. This calf, later named Jolene, survived. Only two calves were born to the Amboseli population from January 1977 to November 1978. There was a very low birth rate, because females were not in good enough condition to reproduce. After the good rains fell, they gradually recovered and began to conceive. Twenty-two months later in December 1978, an elephant baby boom began.

The first of the JA females to give birth during this baby boom was Joyce who had a male calf in January 1979. Jessica followed in April with another male and little Joan had her first calf, a female, in November 1979. From this point on the JA family grew and thrived. In November 1981 Jill gave birth to her first calf, a male. In February 1982 Jezebel gave birth to a male, after a fairly long calving interval of over five years.

In 1984 there was another severe drought, which took a tremendous toll on the population. Many of the calves that had been born in 1983 died, but once again the JAs did better than most of the families. They were one of the few families that had no deaths at all during that dreadful year. Two of the females, Joan and Jill, had conceived during 1983 and managed to carry their calves through 1984. Joan gave birth to a male calf in May 1985 and Jill gave birth to a female in July of the same year. Sadly Joan's calf did not survive and died in October 1985, perhaps because he had not been well-nourished in the womb. Jill's calf survived but she was small for her age.

By the end of 1985 the JA family was large and vigorous. Three of the males had been successfully reared and had gone independent: Jake, Jerome, and Jared. The remaining 15 members of the family consisted of the following:

Individual	Sex	Month-Year of Birth Known or Estimated
Jezebel	F	1935
Jocelyn	M	2-82
Jolene	F	12-76
Joyce	F	1941
Jonathan	M	6-83
Joshua	M	1-79
Jessica	F	1950
Janet	F	2-83
James	M	4-79

Jasper	M	1-71
Jill	F	1964
Judith	F	7-85
Jethro	M	11-81
Joan	F	1965
Jody	F	11-79

The next two years were peaceful and uneventful for the JAs, but their luck did not hold out. In January 1988 Jessica was speared and killed, making orphans of Janet, James and Jasper. Unfortunately, the Maasai had promoted a new set of warriors who had to prove their bravery, and spearing elephants was one guaranteed way to do it. Jessica was in the wrong place at the wrong time.

Another three years passed with no losses and several births, and then Joan, the female who was adopted by the JAs, died in October 1991 and her 1988 calf died about a month later unable to survive without her care and the milk she provided. From the evidence, we think Joan might have died in childbirth or as a result of a miscarriage. Joan's, daughter, Jody, 12 years old at the time, remained with the family.

In the meantime more young males left the family to strike out on their own, including James's older brother Jasper. The JA family has always had a preponderance of male calves, which means that its numbers tends to dwindle as these youngsters reach sexual maturity. James and Joshua left in the early 90s and Jethro was clearly in a transition stage, sometimes with the family and sometimes away. Joyce and Jill seemed to be trying to make up for the lack of females by giving birth to daughters in 1990. They were eventually named Jamila and Josephine.

The grand, old matriarch of the JA family, Jezebel, died in November 1993. Over the previous year she had been looking distinctly old--sunken and bony, and then a few months before her death she started to be seen on her own from time to time. By October she was alone frequently and was slow and lethargic. All of us on the project were very sad knowing she did not have long to live. In late November she disappeared having last been seen on November 20th. After searching for her by plane, her carcass was found on December 3rd in the centre of her home range. All the evidence indicated that she had died of natural causes. It seemed like the end of an era in Amboseli.

The next oldest female in the family, Joyce, took over the leadership. At the time she was estimated to be in her early 50s. DNA evidence indicates that she is probably Jezebel's sister. In any case, her experience and age made her a natural leader for the others to follow and as a result the bonds within the family did not immediately break down as sometimes happens when there are only young females left in the family after the matriarch dies.

Unusually there were no births in the JA family for nearly four years until Jill gave birth to another daughter in April 1994. But once again, true to form, in 1995 more males arrived. Jody gave birth to her first calf at age 14 on March 6 and Joyce gave birth to a very tall, robust-looking male calf on March 23. I found Joyce and her new calf myself only a few hours after he was born. Joyce had blood on her legs and the umbilical cord was still present on the calf. He was so large and well developed that I think if I had recorded the birth only a few days later I would have thought he was about a month old already.

By the end of 1995 the JA family stood as follows:

Individual	Sex	Month-Year of Birth Known or Estimated
Joyce	F	1941
JOY95	M	3-95
Jamila	F	4-90
Jonathan	M	6-83
Jill	F	1964
JIL94	F	4-94
Josephine	F	5-90
Judith	F	7-85
Jolene (Jezebel's)	F	12-76
Jocelyn (Jezebel's)	M	2-82

Jody (Joan's)	F	11-79
JOD95	M	3-95
Janet (Jessica's)	F	2-83

Joyce's 12-year-old son Jonathan and Jezebel's 13-year-old son Jocelyn were both in transition, sometimes with the family, sometimes off on their own or with other males. They were gone by the following year to join their older brothers and uncles out in the world of the adult bulls.



Joyce and her son Jackson after mudwallowing in 2007

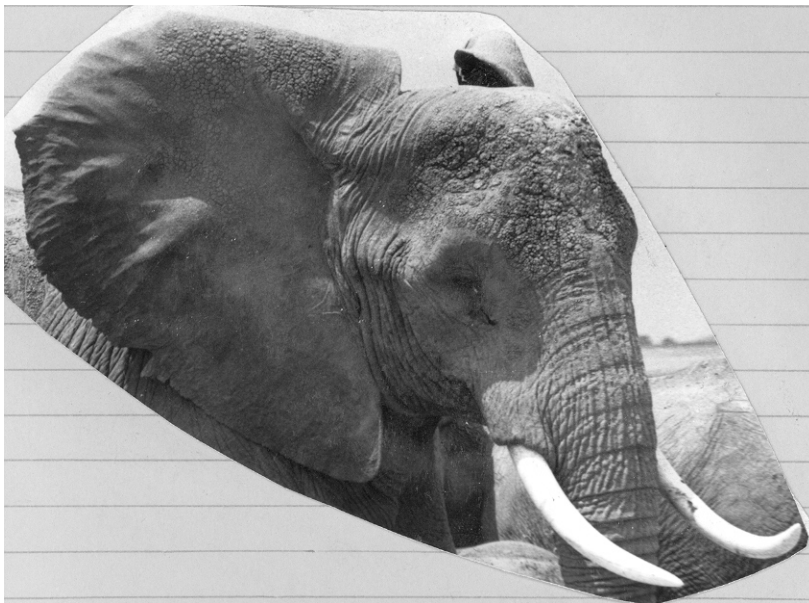
Although the family went down to 11, the JAs still formed a very close bond with the YAs, the small family of three led by Ysolde, who had two daughters: Yvonne, who was six and a half, and Yvette, who was 12. These

three animals spent virtually all their time with the JAs and thus together they make up a group of 14, which was above average size for Amboseli.

There was another gap in births, this time three years before any new calves appeared, but in 1998 there was veritable baby boom for the JAs. Jill gave birth to a male in April and her daughter Judith gave birth to her first calf, also a male. Janet also gave birth to her first calf but sadly it died right away, which tends to be common for first births, especially for a female who doesn't have her mother to help her. Another first birth occurred in July when Jolene had a daughter. The following year Jody had her second calf.

Janet got pregnant right away and gave birth to another calf in January 2000, but once again this calf died. Without her mother Jessica to help her she was having a hard time. Finally, wasting no time again, Janet had another calf in February 2002 and this one survived the difficult early months.

In the meantime, Joyce had given birth to a male in September 2000 and Jill had another daughter in December 2001. Then in 2002 there was another tragedy for the JAs. Joyce's male calf, who had been named Judson, was speared and died in October. He was also speared the year before, but we were able to get the KWS vet team down from Nairobi to treat him. He recovered then, but when he was speared again about a year later he did not survive. We suspect Judson was more adventurous than most calves and somehow got into trouble with the Maasai, perhaps for chasing cattle.



Jill's ID Photo

From 2002 to the end of 2007, eleven calves were born to the JAs. Two of these died before they were two months old. In December 2006 Janet died of unknown causes and her small calf died soon after. Joyce, who was estimated to be 66 years old in 2007,

continued as matriarch and except for the spearings of Judson, the death of Janet and the three calves all was going well for the JAs. Nevertheless, the family gradually began to split with Jill going off with her daughters and their calves. She eventually formed her own family consisting of 10 individuals: Jill and her calves plus her three mature daughters, Judith, Josephine and Jordan and their calves. They became the JA2s. The original JA family remained with 13 members. After the split the two families consisted of the following:

Individual	Sex	Month-Year of Birth Known or Estimated
JA		
Joyce	F	1941
JOY06	M	5-06
Jackson	M	9-00
Jamila	F	4-90
JAM06	F	6-06
Jolene (Jezebel's)	F	12-76
Jeremy	M	1-03
Jean	F	9-98
Jody (Joan's)	F	11-79
JOD07	M	2-07
Jetta	F	12-99
Juninho (Janet's)	F	2-02
JA2		
Jill	F	1964
Jen	F	2-06
Japoota	F	12-01
Jafar	M	4-90
Jordan	F	4-94
Josephine	F	5-90
Julia	F	3-03
Judith	F	7-85
JUH06	M	1-06
Jamal	M	4-98

Only one calf was born in the two families in 2008. Jolene gave birth to a male in December. In 2009 both Josephine and Jamila gave birth in March. That year turned out to be the worst drought in living memory in the Amboseli area and the JAs and JA2s were not spared. It was devastating for both the JAs and JA2s because their matriarchs, Joyce and Jill, died, almost certainly killed by poachers. They died early in the drought and neither had been looking gaunt from lack of food so they did not die of starvation. Joyce had very large tusks for a female. In other ways the two families were luckier than some. Joyce and Jill were the only adult females that died. So many other families lost their matriarchs as well other adults.



Jamila's miracle '09 calf who survived the drought: her babysitter Jetta and mother Jamila stay close

In the JAs Joyce and Jamila's '06 calves died. In the JA2s Josephine's '03 and '09 calves died as well as Jill's '06. Miraculously Jamila's '09 female calf survived the drought; Jolene's December '08 male almost made it though the drought but succumbed in March 2010 just after the rains finally came.

Since that time no more births or deaths have occurred in the two families. Although there was considerable poaching pressure in 2009 and 2010 when

they left the Park and especially if they crossed the border into Tanzania, tremendous effort by the Kenya Wildlife Service, Big Life Foundation and our own organization, ATE, has made it difficult for poachers to operate in the ecosystem today. However, with the price of ivory rising every day and the demand from China increasing, we have to remain very vigilant.

For now the JAs and JA2s are living peaceful lives. Jolene, who is 35 years old, is the matriarch of the JAs and Judith, who is only 26, is the matriarch of the JA2s. The rains were not good during 2011, but there was a lot of vegetation left over from 2010. If adequate rain comes in November the elephants will be fine.

Many JA & JA2 males have grown up and are out in the world of independent bulls:

Individual	Birth Date	Number	Mother
Jerome	Jan-69	254	Jezebel
Jasper	Jan-71	256	Jessica
Joshua	Jan-79	318	Joyce
James	Apr-79	317	Jessica
Jethro	Nov-81	358	Jill
Jocelyn	Dec-82	363	Jezebel
Jonathan	Jun-83	381	Joyce
Jupiter	Mar-95	593	Jody

Starting in December 2011 we are expecting an amazing baby boom among the elephants. Because so many of the calves born in 2008 and 2009 died and most of the females stopped reproductive activity during the drought, the females all came into season or estrous more or less in synchrony once the rains came and they got back into condition. In the JA and JA2 families we are expecting the following to give birth late this year or during next year: Jolene, Jody, Jetta, Judith, Josephine and Jordan. We are all looking forward to these new lives in Amboseli.

Cynthia Moss
Amboseli National Park
August 2011