

## THE HISTORY OF THE MA FAMILY

The MA family was first sighted and photographed on March 26, 1975. It appeared to be a small family, and therefore it should have been a simple group to work out, but it never was. There were six members present that first day including two adult females. It was not until six months later that I saw them again and got better photographs of them. Over the next six months and actually up until 1978 I struggled to figure out who belonged to the MA family. The problem was that the MAs were closely bonded to the WAs led by the matriarch Wendy. These two families seemed to be constantly interchanging members. Eventually I decided that there were three adult females in the MA family and I named them Mariana, Mabel and Marcia. Mariana was definitely the matriarch, acting as the leader and defender of the group. I estimated that she was born in 1945. Mabel was the next oldest, but considerably younger than Mariana—I thought she was born around 1957; and Marcia was the youngest, just a teenager, born around 1960.



*Mariana leading the combined MA and WA Families*

In 1975 there was only one young calf in the family and this was a male belonging to Mariana. Just the tiny tips of his tusks were showing in November 1975, which indicated that he was about two years old and thus born in 1973. There was also a juvenile male, 10-12 years old, who was thought to be Mariana's older son. He was given the number M118. Another slightly older male was sometimes with the family and sometimes not. It was

difficult to say if he was definitely a member of the family. He was called M88.

To complicate matters there were sometimes one or two other juveniles with the MAs. To this day I do not know if one of the young juvenile females was a true member who died before I knew her properly or a member of another family. One young female turned out to be Winnie of the WAs. Some of the other youngsters who associated with the MA family belonged to three other families that formed a bond group with the MAs. I eventually discovered that the MAs were members of the largest bond group in the Amboseli population. Bond groups consist of families that appear to have a special relationship with one another. They spend more time with each other than with any other families in the population, and when they meet they greet with a particular ceremony, and when they are together they move together in a coordinated way. In total there were five families in this bond group: the MAs, WAs, VAs, LAs and CAs. The various members of these families were the source of my confusion over sorting out what originally seemed a small, neat family of six.

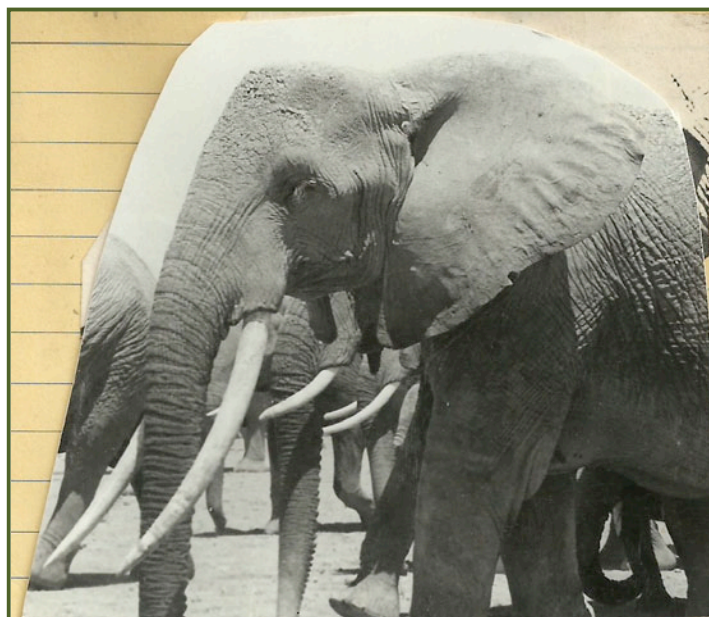
At one point I was so sure that one juvenile female belonged to the MAs that I named her Mattie. Gradually I realized that I had made a mistake and that she was really a member of the VAs. When someone new came to work on the project they always asked me why there was an elephant named Mattie in the VA family when all the other members have names beginning with 'V'. (Years later, when Mattie was radio-collared we re-named her Vicky so her family membership would be clear to everyone.)

On February 27, 1976 I found Mabel with a new calf, a male. He was only a few days old and still stiff and wobbly. With her were M88 and one of the mystery juvenile females. A few weeks later all the MAs were back together along with the WAs. At that point the family looked like this:

Mariana	Adult female about 31 years old
Mwangi	Male calf born in 1973
Mabel	Adult female about 19 years old
Calf'76	Male
Marcia	Young adult female about 16 years old
M118	Young male about 12 years old
M88	Young male about 13 years old

The rains failed in 1976 and as a result there was a terrible drought in Amboseli. Many elephants died that year particularly young ones. Mabel's little calf died when he was about seven months old. By this age calves have to supplement their milk diet with vegetation, but there simply wasn't anything that the small calves could eat. More than half the calves born that year died.

Fortunately good rains fell at the very end of the year and continued into 1977. During the next three years Amboseli had higher than average rainfall and the elephants did very well. The MA family flourished and grew. As far as they were concerned all was well in their world except for one day in July 1977 when someone tried to shoot Mariana. From their point of view it was an aggressive act. From the point of view of the humans on the Amboseli project, we were just trying to learn more about the elephants.



*Mabel's ID photo*

What happened was that we decided to put radio-collars on three females and one male to determine their movements through both wet and dry seasons. In order to put a collar on an elephant the animal has to be shot with a dart containing an immobilizing drug. We successfully darted and collared Maggie of the MB family from the western part of the Park and Isis of the IBs from the east and wanted a female from the south-central part. We chose Mariana. We made two mistakes: one, we darted her from my Land-Rover and two, we either did not put enough drug in the dart or the whole dose did not go in. In any case, the dart hit Mariana who took off running. After 15 minutes she started to get sleepy, but she never went down. We stayed with her all afternoon and eventually the effects of the drug wore off. The dart remained in her rump for several days before falling out and left a sore, swollen area.

Mariana recovered physically but psychologically we caused some damage. The problem was that elephants truly never forget (except when they go out completely from the drug) and from that day on she distrusted my Land-Rover and me and moved away or shook her head at me every time I tried to get close to her. I felt very guilty. That Land-Rover came to a sad end in 1984 when a tree fell on it. Mariana was still wary of it up till then, which was seven years later! She had a more positive attitude towards the new Land-Rover purchased in 1985.

During 1977 and 1978 only seven calves were born to the population, but there was a real baby boom in 1979 with over 50 calves born. Mariana was the first in her family to have a calf that year. Her daughter, later named

Marigold, was born in November, and in December Marcia had a son, who was eventually called Mick. I think Mabel must have had a pregnancy that was not completed or gave birth to a calf that died before it was registered, but we do not have any evidence, except that she gave birth two years later in December 1981. If she had lost a calf in 1979, with a 22-month gestation period it would be likely that she would give birth in 1981. The calf born in December of that year was her son Mischa.



*After many years Mariana forgave us and was totally relaxed around our vehicles*

Conditions continued to be good for the Amboseli elephants and many of them had short calving intervals. The females who gave birth in 1979 gave birth again in 1983. Marcia had another son in February 1983 and Mariana had another daughter, Mulberry, in March. In the meantime, both M88 and M118 left the family to become independent. Males generally leave at the average age of 14.

Females, on the other hand, stay in the family for the rest of their lives. By the end of 1983 the family numbered eight.

<b>Individual</b>	<b>Sex</b>	<b>Year of Birth (known or estimated)</b>
Mariana	F	1945
Mulberry	F	3-83
Marigold	F	11-79
Mabel	F	1957
Mischa	M	12-81
Marcia	F	1960
MAC83	M	2-83
Mick	M	12-79

In 1984 there was another serious drought and again many elephants died. That year Marcia and both of her calves died. Mick died of natural causes due to the harshness of the drought. We suspect Marcia was speared by the

Maasai who were packed into the Park with their cattle and were in direct conflict and competition with the elephants. Her '83 calf died because it was orphaned. During that difficult year Mwangi also went independent, probably because he didn't have any males his own age to play and spar with.

The drought finally broke and conditions improved in 1985. Mabel gave birth to a female calf in May, but this calf did not survive. Mabel was pregnant with this calf all during 1984 and perhaps her nutrition was not adequate to produce a healthy calf. She did not waste time, however, and conceived again in August 1985. Her calf, a female, was born in June 1987 and was named Marjorie. Mariana gave birth to a son that year. He was eventually named Maxwell.

Keeping to the average calving interval of four years, Mariana and Mabel gave birth to calves again in 1991. This time Mabel had a son and Mariana had a daughter. Sadly, in the meantime, the MA family's independent males did not fare well. M88 died in 1987 and Mwangi died in 1989 both of unknown causes. The family itself was thriving. Mariana had four calves and Mabel three. In 1991 the family composition was as follows:

<b><i>Individual</i></b>	<b><i>Sex</i></b>	<b><i>Year of Birth (known or estimated)</i></b>
Mariana	F	1945
Marion	F	10-91
Maxwell	M	7-87
Mulberry	F	3-83
Marigold	F	11-79
Mabel	F	1957
Michael	M	5-91
Marjorie	F	6-87
Mischa	M	12-81

Over the next few years the MAs and WAs started changing their ranging patterns, spending much more of their time out of the Park across the dry lake bed to the northwest of Amboseli. There they liked to feed on the small acacias known as "wait-a-bit" thorn trees. In fact, by 1996 they were spending so much time there that we hardly saw them in the Park any longer.

With only two females giving birth in the family, there was a long gap before the next round of births. It wasn't until 1996 that Mariana and Mabel gave birth again. Mariana had another daughter in February and Mabel had a son in March. Sadly two years later in 1998 this calf died shortly after Mabel herself became ill and died. The loss of Mabel left Mariana on her own as the only

large adult female in the family. Mariana's two mature female daughters, Marigold, who was 17 and Mulberry, who was 13, were still dependent on their mother for leadership.

The MAs had always had a close relationship with the WAs. Now that relationship was even stronger. The two families were always together and we wondered if they had permanently merged. The leader of the WAs, Willa, was Mariana's closest adult companion.

All went peacefully for the MAs and in the next two years. Four calves were born in 2000. Mariana once again gave birth to a daughter. Marigold, Mulberry, and Mabel's daughter, Marjorie, also had daughters, almost as if they were trying their best to build up the numbers of females in the family. I was pleased to see that Marjorie was doing so well. Often when a young female's mother has died, she has trouble raising a calf, but she seemed to have no trouble bringing up her daughter who was eventually named Matrix.



*Michael*



*Maxwell*

In the meantime, the sons of Mariana and Mabel left the family to strike out on their own. Mischa and Maxwell left the family at the normal ages of 12-14, but Michael, Mabel's son who was only seven when she died, left at a younger than average age, probably because his mother was no longer there and his male companions had already left. Their independent male, M118, died in 1994.

Unfortunately, tragedy struck again in June 2000, when Mulberry and her new calf died. We don't know what happened but once again we suspected that they were speared when they were outside the Park. Later in the year, during the harsh dry season, Marigold's calf died, but this was not surprising. The first calves of young mothers often don't make it.

Marigold didn't waste any time and was soon pregnant again. She gave birth to a new calf in December 2002. Two years later Marjorie gave birth to her second calf, another daughter, in November 2004, who was named Mollie. There were no more births until February 2006 when Mariana had a male calf. It is interesting that Mariana continued to produce calves. She was estimated to be over 60. Perhaps she was a bit younger but she was certainly no younger than her late 50s and yet she seemed more than capable of producing healthy calves and raising them.

In 2008 three calves were born to the MA family. Marion, Mariana's daughter born in 1991, gave birth to a male calf in February; Marigold had a son in November; and Marjorie gave birth to her third daughter in November. Against all the odds Marjorie has proved to be a successful mother.



*Marjorie with Mollie and Matrix*

Unfortunately, in 2009 everything changed dramatically for Amboseli including for the elephants, other wildlife, people and livestock. The area and much of Kenya experienced the worst drought in living memory. Even the very old Maasai men and women could not remember a worse year. More than 80% of their cattle died. The wildlife suffered as well—83% of the wildebeests, 71% of the zebras, 61% of the buffaloes, and 25% of Amboseli's elephants died.

There simply wasn't enough food for the animals. Although there is always water in Amboseli, fed from Kilimanjaro, but with no rain there was little or no

vegetation. Most of the calves born in 2008 and 2009 died. Even more tragically many of the older females died. All but two of the big adult females over 50 perished. Elephants have six sets of teeth in their lifetime and when the sixth set wears down it is difficult for an old elephant to chew tough vegetation.

Some elephant families lost more members than others. The BB family was particularly hard hit, losing seven adult females. The MA family was far more fortunate with only one death, but that one was very significant. Mariana died in April 2009, but she left a legacy of knowledge that got the rest of her family through the drought. Not a single other member including all three calves born in 2008 died. To give some perspective, of the 151 calves born in 2008 only 41 survived. It is extraordinary that three of those survivors were in the MA family.

In December 2009 the drought finally broke and good rain began to fall in Amboseli starting in January 2010. It took the elephants a few months to recover but they were soon in good condition once again. The females had stopped reproductive activity during the drought year with the result that 22 months later in 2011 only one calf was born up until October. Then a baby boom began. Qumquat was the first to give birth on October 12. From that date until today (February 2) 102 calves have been born! We are expecting even more.



*Marigold is the new matriarch of the MAs*



Marigold has taken over the role of matriarch and appears to be doing an excellent job. She got her family through the remainder of the drought after Mariana died and is now confidently leading them. It is interesting to note that she is not spending all of her time with the WAs, but is once again sometimes moving with the VAs who used to be a close bond group family with the MAs and WAs. The VAs are a big, dominant family led by matriarch Vicky (remember she used to be called Mattie), who at 43 is older than Marigold who is 32. It is a good move on Marigold's part to allow her family to benefit from the wisdom and status of this older matriarch.

So far the MA family has not had any new calves during the current baby boom but that is because they still have surviving calves born in 2008. However, with a four-year calving interval we are expecting several births this year and perhaps some births from the younger females as well. At present the family is made up of the following members:

<b>Individual</b>	<b>Sex</b>	<b>Year of Birth (known or estimated)</b>
<i>Mariana's offspring:</i>		
Marigold	F	11-79
MIG08	M	11-08
Madeline	F	12-02
Marion	F	10-91
Melalot	M	2-08
Magnolia	F	2-96
Mariposa	F	3-00
Mitch	M	2-06
<i>Mabel's offspring:</i>		
Marjorie	F	6-87
MaryJulia	F	11-08
Mollie	F	11-04
Matrix	F	12-00

<b>Independent Males</b>	<b>Birth Date</b>	<b>Male Number</b>	<b>Mother</b>
Mischa	Dec-81	345	Mabel
Maxwell	Jul-87	446	Mariana
Michael	May-91	517	Mabel

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