



~ COLORFUL ~

# MUTATION SENSATION

*A rare and wonderful genetic event resulted in a filly who may well return roan to the Morgan breed.*

By Laura Hornick Behning

**F**or color enthusiasts in our breed, hope springs eternal when we hear people say they know of a roan Morgan. Many times we've pricked up our ears and investigated, only to discover that the subject horse's "roan" is due to a sprinkling of roan hairs caused by the as-yet unidentified roany, sabino-like white pattern that is not uncommonly seen in certain lines in the Morgan breed. Or, somewhat less commonly, by rabicano, a white pattern marked by roan hairs concentrated in the flanks and at the top of the tail. In contrast to these two patterns, the true dark headed roan has white hairs mixed with its base color on the body only; the points and the head remain

dark. It is a dominant gene, which generally means a roan must have a roan parent. Roan died out in the Morgan breed late in the last century, but a recent rare genetic mutation in a very special Australian Morgan may change all that.

There were two color lines for true roan in the Morgan breed in the 20th century. The first of these were descendants of the 1940 chestnut roan mare Torchy (Mansfield x Daisy Of Willowmoor). Torchy's dam was a bay roan whose roan gene came from her dam, the Morab, Queen (registered as chestnut roan); the color source is uncertain beyond that point. Torchy was described by longtime Morgan owner and breeder Martha Von Redlich as "registered

---

**ABOVE:** Watching Moonshadows (Mt Tawonga King x Mt Tawonga Sophia), 2018 bay roan filly.



### WATCHING MOONSHADOWS

**TOP LEFT:** pictured at two weeks old (photo by Noni Martin). **TOP RIGHT:** This picture was part of Moonshadows' entry in the 2019 ANMS Conformation Awards, judged by Denny Emerson, where Moonshadows was Champion Young Morgan.

as a chestnut, but I knew her and she was a red roan, strawberry roan, if you like." Martha's eyewitness account is backed up by the August 1954 issue of *The Morgan Horse* magazine, which did double duty as the Grand National program for that year. Torchy is listed as a roan in the entries for the show. Torchy's full sister, Upwey Cassandra, was also a roan. She had two foals, neither registered as roan. Torchy had five offspring, and at least two of them are verifiable as roans from photos. They are the registered as chestnut mare Double J Pepper, listed in the same 1954 Grand National program as a roan, and Double J Crusader, also registered as chestnut, but clearly in photos a classic dark headed roan. Both were by Orcland Leader (who coincidentally is a probable source of many roany, "high white" Morgans). Pepper was the dam of

Double J Step Aside, a gelding who also looks in photos to be roan; and Double J Apollo, who was the sire of the last known surviving roan mare, Viv Lamae (out of Carlyle La Mae), bred by Judy Nason and foaled in 1985. Unfortunately, Viv Lamae left no offspring.

The second 20th century line of roan Morgans comes down to us from the 1945 chestnut roan Brunk-bred mare, Rosemont (Lamont x De Ann). It is a mystery where Rosemont's roan gene came from. There is the possibility that either Lamont or De Ann were barely expressed true roans, but they are from a very prolific family and had so many offspring that one would think that true roan would have shown up elsewhere. While a sprinkling of roan hairs (commonly called "ticking") is common in Brunk-bred horses from Jubilee King and Liza Jane breeding, the Rosemont



### WATCHING MOONSHADOWS' SIRE AND DAM

**LEFT TO RIGHT:** The sire of Watching Moonshadows, Mt Tawonga King (Marvelous Encore x Lizotte Lil Bridget), 1996 black stallion, with owner Noni Martin at the 2004 Australian National Morgan Show (ANMS), where he went Supreme In-Hand (the highest accolade), something he achieved four times out of five times shown. Progeny of Mt Tawonga King have taken Supreme in various categories at ANMS 15 times, an extraordinary testament; Mt Tawonga Sophia (Wawayanda Watch Out x Aura Dell Misty), 2000 bay mare, dam of Watching Moonshadows.

family seems to be the only true roan family of this breeding. Rosemont produced three foals: the 1960 stallion Sonfield Roany (by Sonfield), who sounds roan by his name but was not registered as such; the 1963 gelding Rosemont's Red by Easter Vermont (by Red Vermont) who is clearly a dark-headed true roan in his pictures; and her last foal, the 1964 chestnut roan mare Doll-Rose, also by Easter Vermont. Doll-Rose was the dam of the late Caduceus Herod, a blue roan foaled in 1987, who was a very successful dressage horse for owner Barbara Putnam. Unfortunately, he was gelded before his breeder, Lowell Hughes, realized he was a roan.

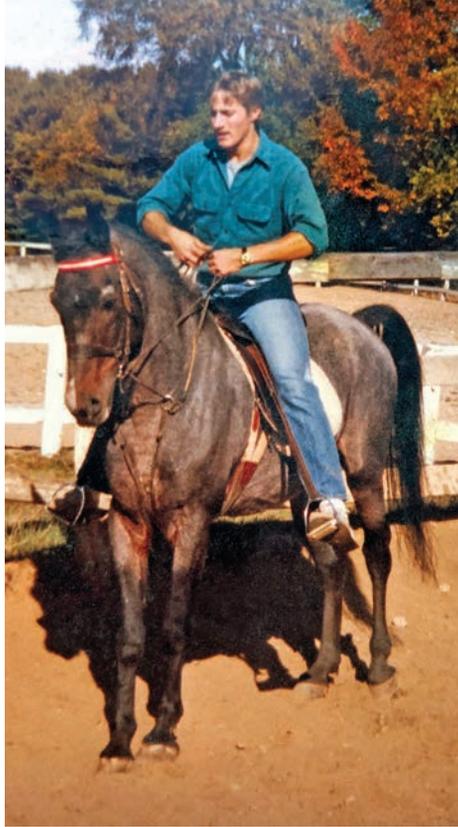
Another interesting roan from the last century is listed in the Registry simply as "Blue Roan Mare," also known as Bluebell or Bonnie Blue. Blue Roan Mare, foaled in 1931, was by Sentiment and out of the bay roan Standardbred mare, Roany, by the chestnut roan Standardbred Baron Review. Of her three registered foals, only one, Skyhawk X-9818 (by Flyhawk) was listed as roan. Volume VI of the Registry lists Skyhawk as "Blue Roan foaled June 18, 1947. Bred by Sam Doak, Paris, Illinois." Unfortunately Skyhawk was gelded, so Blue Roan Mare's color line did not continue on, but she has numerous descendants today through her other two offspring Sentimental (chestnut f. 1936, by Sentiment) who was the dam of the prolific black stallion Shadow Hawk, and Black Jig (black f. 1946, by Flyhawk), a stallion who is behind horses of Rimlo breeding.

Genetically speaking, roan is located on the KIT gene. KIT is notorious for mutating. "Mutation" in this sense has no negative connotation; in fact, all of the colors found in the equine world today are the result of mutations from the original primitive horse color, bay dun. In addition to roan, KIT is also home to more than 20 recently discovered variants of the Dominant White pattern (W20 being the only one found as yet in Morgandom), Sabino, and Tobiano (neither of which are known to occur in Morgans). There are a few documented cases in other breeds of KIT mutations resulting in what are known as "de novo"—or spontaneously occurring—true roans. These horses do not have

a roan parent; their coloring is due to a random mutation in KIT. The New Zealand bred bay Thoroughbred stallion, Catch A Bird, is the most well-known example of this phenomena. Catch A Bird had what looked like white brindling over his body, which is not a typical roan phenotype. Roan is not known to exist in Thoroughbreds, but four of Catch A Bird's foals had the classic look of a dark headed roan. Would it be possible that the same thing could happen in Morgans, potentially bringing roan back to our breed? For many years that has been the hope for fans of the colorful Morgan. Last year, at Caroline Tarr's Belvue Stud in South Australia, it actually happened.

Caroline became interested in the Morgan breed after seeing Margaret Gardiner's famous stallion, Kennebec Count, in harness. "My first Morgan love," Caroline says. "I decided a Morgan might be a great idea to drive when my old mare retired. At that time only a few Morgans had been imported to Australia, so my chance was really low. As luck had it, I then saw an advert for Morgans in Australia. That was how I ended up 600-km away at one of the first Morgan shows in Australia. They were lovely and the people were so friendly. I was hooked." Caroline purchased her first purebred, the two-year-old bay mare Mt Tawonga Sophia (Wawayanda Watch Out x Aura Dell Misty) in 2002. She soon added several other mares to her growing herd and set out to help increase the Morgan population in Australia.

Sophia's first foal for Caroline was the majestic black stallion, Watching Royalty (f. 2004 by Mt Tawonga King), who has become a very popular show and breeding stallion for owner Beccara Lloyd. Sophia produced two more foals, the palomino mare Ladyhawke Cruisin (by PT Cruiser) in 2007 and the dark chestnut mare Black Ruby Of Belvue (by Mt Tawonga King) in 2015, but was having trouble holding on to her pregnancies. Caroline was able to successfully breed her again in 2017 to Mt Tawonga King, and anxiously awaited the arrival of what she knew would probably be Sophia's last foal. "With a few weeks to go Sophia seemed to



### HISTORICAL ROANS

**CLOCKWISE FROM TOP LEFT:** Torchy (Mansfield x Daisy Of Willowmoor), 1940 chestnut roan mare, shown with her then-owner Clarence F. Atwood of Hartland, Vermont; Double J Apollo (Virlendon x Double J Pepper), 1965 brown roan (registered as brown) stallion, David Sproul, up (courtesy of Judy Nason); Double J Pepper (Orcland Leader x Torchy), 1953 chestnut roan mare, James Smith up, pictured at the 1960 Eastern National show; Double J Step Aside (Sunnyknoll's Showbiz x Double J Pepper), 1966 bay roan gelding, with Buffy Wright up; Viv Lamae (Double J Apollo x Carlyle Lamae), a 1985 bay roan mare (courtesy of Judy Nason).

lose her udder,” Caroline recalls. “No other signs of trouble, just no real udder development. I presumed she would bag up later and foal late as she had previously, so on her due date I put her in with her daughter Ladyhawke and her six-week-old foal. The next morning when I looked out the window, I saw an extra foal!”

Caroline hurried out to check on her new addition. “She was up and walking around and regularly sucking,” Caroline continues. “I thought Sophia must have *some* udder there, although I was surprised. Then I sat down, fed Sophia, and the foal got closer. She was a funny seeming bay. In fact, she seemed to have a lot of white ticking, a white patch on her wither and a coon tail. I was completely gob smacked. This was not expected.”

While Caroline puzzled over her newborn’s coloring, some of her friends dropped by, and they noticed the filly was nursing a lot but not acting like she was full. “When Eva [Hornung] arrived she just said get the vet quick, she is in trouble,” Caroline says. As it turned out, Sophia was producing only a dribble of milk. “Over the next few days that funny looking foal was given three drenches. She fought everyone and refused the idea of a bottle too. Eventually as she had received no colostrum, she was drenched with IGG—one expensive foal. But I would have done it for any foal and this one was a lovely filly. I didn’t regret saving her, and with the extreme heat of that week I am sure that we did save her.”

The strikingly colored youngster was named Watching Moonshadows—after her grandsire Wawayanda Watch Out and Caroline’s old roan Appaloosa driving mare, Moonshadows. “It seemed appropriate she looked more like my old roan Appy every day, well in color anyway! And Moonshadows was born just after a full moon—a special moon with full lunar eclipse or red moon. That is where the idea of moon shadow being part of her name came from. It was a special name, as my old mare is a lot to live up to,” Caroline says.

“And so, Watching Moonshadows came into my life. Her color was weird and looked so much like a roan that I joked about her parentage. I sent off her hair samples early to be sure she was what I thought she was, although there wasn’t much chance of her being another stallion’s foal. The only nearby stallion was palomino and Sophia foaled right on her due date. I also asked for some color tests, as her characteristics were strongly roan.” Moonshadow’s parentage testing came back that indeed she was the daughter of Mt Tawonga King and Mt. Tawonga Sophia. Color testing was negative for Sabino1, but was positive for one copy of W20, one of the 20-plus Dominant White KIT mutations that is thought to be a white “booster.”

The test results for roan were, not surprisingly, negative. It is believed that there are multiple, breed-specific, unique roan muta-

## COLORFUL ≈ MUTATION SENSATION

tions, similar to what happens with most of the Dominant White mutations. The current roan test identifies markers specific to certain breeds, like the Quarter Horse and Paint, while Morgans would (and apparently do) have their own unique roan mutation(s).

Caroline posted pictures of Moonshadows to Facebook, where the filly quickly created quite a following for herself. Excited Morgan color enthusiasts speculated on the almost miraculous possibility of roan returning to the breed, and no one could deny that this was a quality filly—whatever her color. Moonshadows has been the topic of much discussion on all-breed equine color genetics groups as well, which turns out to be an interesting way to promote the breed! Many wondered if lightning could strike twice, producing yet another roan in the Morgan breed. “Mutations in the KIT gene causing dominant white or roan markings will continue to happen,” says Dr. Kao Castle of Practical Horse Genetics in New South Wales, where Moonshadow’s DNA is on file for further study. “When we are lucky, they happen in a strong, healthy and well-bred horse. This gives breeders the chance to add beautiful new colors or patterns to their favorite breed. We hope to be able to do some research on various roans—including Moonshadow’s roan—at some point. The best proof that this is a new roan would be if she has roan foals when she gets old enough. Fingers crossed!”

When Moonshadows was six months old, Caroline asked her friend Eva Hornung to work with the filly. “I found a filly I was strongly drawn to, and she to me,” Eva says. “I have never been interested in color for its own sake. Physically, sound conformation and type are preeminent for me as a breeder. I didn’t think about owning Moonshadows, just felt really happy for Caroline that such a lovely filly was emerging with so unique a contribution to make, and out of some of my favorite bloodlines in Australia for their soundness, beauty, and brains.”

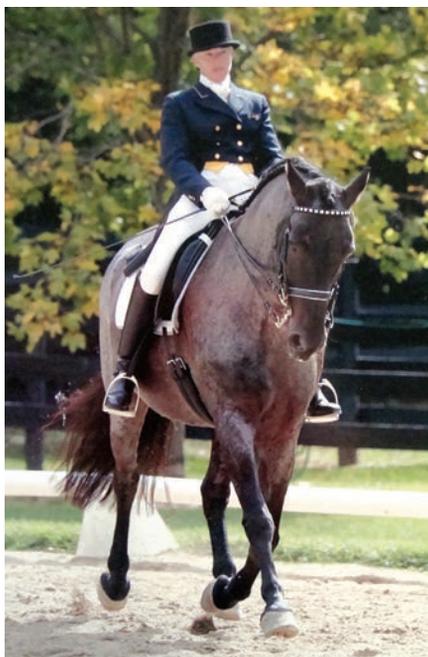
Because Caroline’s horse time is limited—she is sole caregiver for her 75-year-old husband who has Parkinson’s Disease—she decided to part with Moonshadows. “I knew this special filly should be promoted,” Caroline says, “I had several offers from lovely people in the United States, and locally Eva Hornung asked if she could purchase Moonshadows. I took the offer very seriously. My heart won—Eva lives down the road and I am sure she will love and look after my special girl.”

Eva has been a serious student of the Morgan breed for more

than a decade. She and her 18-year-old son Rafael reside with 14 Morgans on their 61-acre farm, Wildu Mandaawi, which is also home to a veterinary practice that Eva manages in addition to assisting as an equine nurse. Eva is best known in Australia as a novelist. She is also an artist (she is the creator of three of the perpetual trophies awarded at each Australian National Morgan Show) and an intellectual (she has a masters and PhD in literature and is now working towards one in Equine Science). Rounding out a very full resume, Eva recently became the Pure-Bred Registrar for the Morgan Horse Association of Australia.

The future looks bright for the breed’s only living roan representative, who is now a coming two-year-old. “She looks as though she will be 15-15.1hh full grown, and impressive,” Eva says. “She has clean strong legs, excellent bone, and loves learning. To my delight, she won Champion Young Morgan, judged by Denny Emerson, in our 2019 Conformation Awards, which is judged on a set of five conformation photos.” What an honor for this unique youngster and undoubtedly the first of many more accolades to come.

Eva plans to start Moonshadows under saddle when she is four, and eventually, of course, breed her. “Her lines are so prevalent in Australia that my instinct is to source outcrosses, and I am exploring that now,” Eva says. “I visited the United States last year and studied many stallions that interest me, and have a few options in Australia as well. Moonshadows is bred in the purple and shows it, and I expect her foals to be very good to exceptional. However, I will not be breeding on with one that by unlikely chance shows a serious flaw. It would be sad indeed for roan to return through so exceptional a carrier as Moonshadows if I did any different. If I get a great colt that is also roan, he will be collected, hopefully frozen, and made available worldwide, and I will feel as though I have done my duty by Moonshadows’ unique gift to Morgans.” Caroline echoes this sentiment, one that is emphatically shared by the filly’s global fan club. “Hopefully we will get little ‘moonbeams’ in the future—with her lovely roan coloring.” ■



### HISTORICAL ROANS

**TOPT TO BOTTOM:** The chestnut roan mare Doll-Rose (Easter Vermont x Rosemont), foaled in 1964. She had four offspring, of which only Caduceus Herod was known to have inherited her roan gene (courtesy of Joanne Curtis); Caduceus Herod, by Wyoming Flyhawk, was foaled in 1987 and was Doll-Rose’s last foal. A striking blue roan owned and ridden by Barbara Putnam, he won many awards in dressage through Prix St. Georges (courtesy of Barbara Putnam).

*The author wishes to thank Lewella Tembreull and Dr. Kao Castle for their assistance with this article. For more information on Catch A Bird and his spontaneous roan mutation, visit [www.whitehorseproductions.com/tbcolor\\_roan.html](http://www.whitehorseproductions.com/tbcolor_roan.html)*