

“Dark Phase Pearl?” Rat

Facebook

Q Can you possibly tell me what variety of rat this is? It’s a friend of mine’s rat, and he is calling it a “dark phase Pearl,” and I really don’t think it is. I am thinking maybe a low grade silver? Any help would be appreciated! He’s got a well seen white spot on his head and a white underbelly.

A If shown in an AFRMA show, he would be a Silver Mink or Silver Lilac Berkshire, depending on the shade of the gray (looks like he is molting in the photo). I’ve seen what could be called a “dark-phase Pearl” (looks like what is described by the N.F.R.S. breeders), but when bred, didn’t produce Pearl so they would be Silver Mink/Silver Lilac.

I get Silver Mink in my Pearl/Mink/Cinnamon Pearl litters and they usually start out with lots of silvering, then lose their silvering over time to where they end up looking like plain Mink.

The way to tell if it is genetically a Silver Mink or dark phase Pearl is by breeding it. If bred with a Mink or Cinnamon and no Pearl or Cinnamon Pearls are produced, then he is a Silver Mink, not Pearl. If he keeps his silvering into adulthood, then he would be a Silver Lilac. For show purposes, that color would be classed as a Silver Mink/Silver Lilac as we don’t have standards for dark-phase Pearl.

Also, remember there are different gray-brown genes that operate the same in producing other colors and look similar to each other.

“Color Typing: Dark Phase Pearl?” Rat

Hannah Gordon, GC Rattery, OK

Q I wonder if someone from AFRMA might be able to help confirm a color type I believe I have. Mouse (his name) seems to be a dark phase pearl. I am including some pictures of him as well as his pedigree.

His mother was sold to me as a baby, cited as a Russian Blue. However, I now believe she is actually Mink. Mouse’s father was an actual Russian Blue.

Mom’s side lists 4 generations including her, all listed by the breeder as simply Blue, with two Blacks. Dad’s side lists 2 generations including him, all listed by the other breeder as Blue as well.

Mom’s half-sister has supposedly produced a number of Pearls, and



“Mouse” as a baby. Photo from Hannah Gordon.



“Mouse” in his younger days. He has progressively darkened as he ages. Photo from Hannah Gordon.

Mouse has produced a litter of appearing to be light and dark phase Pearls (as well as Russian Blue and Mink) when bred to his mother.

If you cannot tell by the pictures, what can I do to know for sure? I would much prefer to present my animals accurately to new homes than think I have something I don’t. I am located in Tulsa, OK, and both of his



“Mouse” today at 1½. Photo from Hannah Gordon.

parents were bred here in Oklahoma.

I sincerely appreciate any help I can get with this!!

A We have gotten several questions the last few years regarding this same type of rat color—some referring to it as “recessive Pearl,” others “Dark Phase Pearl.” I believe what they really are now after working with local breeders and seeing them in person, is they are Silver Lilac, *not* Pearls. I have bred both Silver Lilacs and English Pearl for many years and can tell you they are not the same.

The Silver Lilacs (F3 litter) I had came out of the first Lilac (I found the original Lilac, a male “Hershey,” in a pet shop in 1978

in Riverside, CA www.afirma.org/images/lilachersheyxcslbcr.jpg; he also brought in the P.E. gene along with the silvering), and when two Silver Lilacs were bred together, I only got Silver Lilac. When breeding Lilac to Lilac I got both Lilac and Silver Lilac. Silver Lilac bred as a recessive just like the Lilac and would be produced in litters out of non-Lilac colors, i.e. two Black parents producing a litter of Black, Lilac, Silver Lilac. After I got the colors Lilac and Silver Lilac established, they were sold to other breeders.

We did not have any “blue” (Blue or Russian Blue) colors back in those days, but I could see how they might be called “blue.” In the early days of the rat fancy in England (1900s), there were rats called “Blue” that were more than likely Mink www.afirma.org/historyratstds.htm. Mink is more gray-brown where Russian Blue is more slate blue (like the color of the cats, mice, rabbits, dogs, etc.), not brown. Mink and Lilac look brown next to a proper Blue or Russian Blue.

We did have one breeder at the time theorize they were a “chocolate/brown” gene. In November 1983 we imported real Chocolates from the N.F.R.S. in England and what we had were not the chocolate gene as they do not look the same. We also brought in the English Mink/Silver Mink at the same time. To compound the problem, Lilac can be bred to be too brown and look “chocolatey” or almost like Cocoa. I’ve seen some really brown Lilacs over the years and unfortunately with the pet breeders putting everything into their rats, it’s difficult to sort out what they are genetically that is causing them to be so brown. Both Lilac and Mink can vary widely in color from being brownish to too dark.

We now know that U.K. Mink is different genetically than what we have here (“Minks and Pearls” by Toyah Leitch <http://ratvarieties.com/type/minks-and-pearls/>). A breeding in England around 2000 of two “gray” rats (one English and one from U.S.A. via Europe) produced only Black babies proving they are two different genes that just happened to look the same and operate the same, i.e. breeding to Agouti makes Cinnamon or combining with Pearl to make Pearl. We also may have more than one “gray-brown” gene here in the U.S. that looks and acts like Mink (“Rat coat colors...Our Observations,” by Debbi J. Needham www.skyclyde.com/Brownrats.html). So, English rats are the Mink gene and American ones the Lilac/American Mink/Mock Mink gene. Lilac is what they were named with the first one that was found in 1978 and then standardized with this name.

To make things more interesting, the gray/mink rats in Australia are a totally different gene from any others, so there are at least three different “gray-brown/mink” genes that all look/operate the same but are not the same genetically (“New World Downunders” by Connie Perez <http://dreammtnfarm.com/rattery/Aussieinfo.htm> and “Australian Cinnamon: ‘Aussie Cinnamon’” by Morgan Christianson <http://dreammtnfarm.com/rattery/aussiecinn.htm>). Whew! Then add in the real chocolate gene and you have a lot of “brown” genes out there.

English Pearl on the other hand is dominant and needs Mink (or Lilac) to show. You can have a normal colored rat be Pearl but not show if it is only carrying Mink as I have had, and breeding to another Mink carrier then produces Pearl which could make you think Pearl is recessive. When breeding English Pearl, you get Pearl and Silver Mink/Mink in every litter, either by breeding two Pearls together or a Pearl with a Mink. If you have two English Mink out of Pearl and breed together and get Mink and Pearl, then



Three 11-day-old Pearl babies with left (L) good color, middle smidge darker, and right (R) dark. Rats owned and bred by Karen Robbins. Photo ©2013 Karen Robbins.



A Mink vs. a Pearl 18-day-old babies. Rats owned and bred by Karen Robbins. Photo ©2011 Karen Robbins.



Mink vs. Silver Mink babies 4 weeks 4 days old. Silver Lilac babies are similar to the Silver Mink. Rats owned and bred by Karen Robbins. Photo ©2013 Karen Robbins.

one or both parents are considered dark-phase Pearl as two Minks bred together equals all Mink. In my breedings of English Silver Mink to English Silver Mink, I got only Silver Mink (just like breeding Silver Lilac), or Silver Mink and Mink.

Another difference is Silver Lilac has silvered hairs where



Pearl vs. Silver Mink babies 4 weeks 4 days old. Silver Lilac babies are similar to the Silver Mink. Rats owned and bred by Karen Robbins. Photo ©2013 Karen Robbins.

Pearl has the hairs tipped in gray (Mink). If you have Russian Blue in your lines, you could get Russian Dove Pearl/Russian Pearl (Pearl + Mink/Lilac + Russian Blue). These will look like Pearl but will have brownish tips instead of gray (they look like a washed out Pearl). Pearl are an off white/dirty white color as babies where Silver Lilac are gray with silvering (like your photo of Mouse as a baby). Pearl will not molt into progressively darker colors as they age like the Silver Lilac can. Also, Silver Lilac/Lilac will be patchy in color a lot and are always hard to show as adults (English Mink can have the same problem). Both Lilac and Mink can tend to have brown patches when molting which usually gets worse with age. The Silver Lilacs I had would keep their silvering throughout life where the English Silver Minks out of English Pearl I have now will lose any silvering they have as



A 6-month-old molting dark Pearl female owned and bred by Karen Robbins. Photo ©2011 Karen Robbins.

young adults and you can't tell them apart from plain Mink after that. I've also never seen them with as much silvering as babies as the ones in your photos. The many years I bred Silver Lilac (and Lilac), I never had them as light as some of the photos I've seen, but then I wasn't selecting for more and more silvering, and most of these light ones end up darkening/less silvering like yours as they age. I could see where someone not breeding to show Standards, might be selecting for more and more silvering, as they are pretty with more silvering.

Colorwise, the English Mink standard reads: "To be an even mid-grey brown, devoid of dinginess, silvering or patches and having a distinct bluish sheen." These are more gray where Lilac



A 10-week-4-day-old molting Silver Mink male changing into what will look like a plain Mink, owned and bred by Karen Robbins. Photo ©2011 Karen Robbins.



... and the same rat as above at 13 months of age with no silvering, owned by Mayumi Anderson. Photo ©2012 Karen Robbins.

are supposed to be a more pastel gray-brown-dove color: "Color is a medium dove gray, evenly mixed with brown, not too dark." The Silver Lilacs are to be: "Color to be dove gray with a blueish sheen. Coat is evenly ticked with silver white hairs throughout." where Silver Mink is: "To be an even mid gray-brown devoid of dinginess or patches and having a distinct blueish sheen. The coat should contain equal numbers of silvered and non-silvered hairs. Each silvered hair to have as much of its length white as possible – a colored tip to be allowed. Silvering to give an overall sparkling appearance." So, you can see they are similar but different with the Mink being a darker color and Lilacs are lighter. For show classes though, it depends on shade as to which class they would be shown in irregardless of genetics, so if your rat was more "Mink" in color plus the Silvering, then he would be shown as Silver Mink rather than Silver Lilac; however, genetic Silver Mink are normally shown only as kittens/just past kitten age where genetic Silver Lilac can be shown throughout life. The picture of the Silver Mink on the Standards page is a kitten www.afrma.org/ratsilvr.htm#silmlink as they have the silvering where an adult wouldn't; the Silver Lilac above it is an adult rat since they keep the silvering. When we were in England in 2004, I did see some Minks that were a perfect shade of Lilac and would have shown well here as that color.

When we imported the English rats for the first time in November 1983, the Mink and Lilac looked so similar it was assumed they were the same genetically since they operated the same in making other colors—Mink was just selected to be darker where we were selecting the Lilacs to be lighter. I only did one breeding between a Silver Lilac and an English Cinnamon Pearl in 1988 and got only Agouti and Black kids (12 total), no gray rats or Cinnamon as would be expected. Prior to that in 1987 I had gotten a



Rats and Mice Around the World

Malta Rodent Society (MRS)



About The MRS

The Malta Rodent Society was formed in 2014 by Arnold Sciberras and is a non-profit national club. Anyone that has an interest in rodents can be a member.

The main purpose of MRS is to promote and encourage the breeding and exhibition of all types of rodents in the Maltese Islands.

We also educate the public on their positive qualities as companion animals and provide information on their proper care.

Competition shows will be held as soon as a committee will be formed. These shows will be very similar to cat, rabbit, or dog shows. Judges evaluate the animals based on official standards for each type of rodent.

We also have Pet Shows in conjunction with our regular shows that are dedicated to pets only with fun classes for rodents regardless of their physical qualities. The club will have information booths set up at several events that will be held.

The MRS is for those to share their passion with individuals of similar interest.

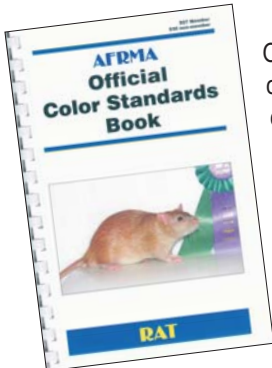
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Lilac Capped from another breeder and bred to one of my Lilacs and got only Black and PEW (13 total). I don't have details on the background of the other breeder's rat so don't know if there was English in them giving them the Mink gene, but obviously they were not the same Lilacs. However, I/we didn't know enough about rat genetics at the time to say "Wait, why are there no gray rats?" I never did any more breedings of the two colors after that, rather just continued breeding the "American" rats and "English" rats separately to keep the lines pure. When I did breed Silver Lilac with Cinnamon from Lilac, I got Silver Lilac and Cinnamon, where when I bred Lilac x Cinnamon, I got Lilac and Silver Lilac, or Cinnamon and Silver Lilac depending on litter size.

One question I was asked many, many years ago on how to tell the two colors apart and what to call them—Mink vs. Lilac—my reply was if it is pure English, then it is Mink, if not English, then Lilac.

Last year when I finally saw these "recessive Pearl/dark-phase Pearl" in person, I recognized them as Silver Lilac, same as what I had produced and bred during 1979 to 1990, so it is nice to see this color survived all these years.

So, it is my belief that the rats being called "recessive Pearl/dark-phase Pearl" and are not English rats, are in reality Silver Lilac, that is why they have the changes in color over time starting light then darkening, and produce light kids that look like "Pearl" but darken to "Mink/Silver Mink/dark-phase Pearl" type colors and would appear to be "recessive."

Regarding the "pedigree/color" info you got on the background of your rat, with so many pet breeders not getting their animals checked in person, it is easy to misidentify colors based on what a color looks like on a monitor, so what colors are listed as on the background info of a rat are many times wrong www.afirma.org/snm_pedigrees.htm. I've seen many rats that on a monitor look like one thing, but then when I see them in person, I find out they aren't that color at all.

Send in your questions, comments, articles, etc., related to colors, markings, or coats to the Editor or e-mail editor@afirma.org.

World Travelers



"Black Rat" drawing by Sheryl Leisure.

An international team of scientists has identified 6 distinct lineages of the Black Rat (*Rattus rattus*). These originated in India, East Asia, the Himalayas, Thailand, the Mekong Delta, and Indonesia. The Indian lineage is the one that spread to the Middle-East, then later to Europe, Africa, the Americas, and Australia. This spread corresponds to the ancient routes of human migration.

Article "Globetrotting Black Rat Genes Reveal Spread Of Humans And Diseases" on ScienceDaily www.sciencedaily.com/releases/2008/02/080201093354.htm.

Send in your amusing story, short tale, news note, or other item of interest to the Editor or e-mail editor@afirma.org.