Tabby Cat Stripes, Blotches Tied To Specific Gene In Feline DNA Study

By MALCOLM RITTER 09/20/12 02:52 PM ET EDT

NEW YORK -- How does a tabby cat earn its stripes? With the right DNA.

Scientists say they've found the gene that sets the common tabby pattern – stripes or blotches.

It's one of several genes that collaborate to create the distinctive design of a cat's coat, and it's the first of the pattern genes to be identified.

Cats with narrow stripes, the so-called "mackerel" pattern, have a working copy of the gene. But if a mutation turns the gene off, the cat ends up with the blotchy "classic" pattern, researchers reported online Thursday in the journal Science.

It's called "classic" because "cat lovers really like the blotched pattern," said one of the authors, Greg Barsh. He works at both Stanford University and the HudsonAlpha Institute of Biotechnology in Huntsville, Ala.
The research team, which included scientists from the National Cancer Institute, examined DNA from wild cats in California to identify the gene.

They also found that a mutation in the same gene produces the blotches and stripes of the rare "king" cheetah, rather than the spots most cheetahs have.

**Leslie Lyons**, a cat geneticist who studies coat color traits at the University of California, Davis, but didn't participate in the new work, agreed that the research has identified the tabby's stripes-versus-blotsches gene. She noted that mysteries remain, like just what genetic machinery gives a tabby spots.

"The cat has not revealed all its mysteries yet," she said.

HUFFPOST SUPER USER
hoofus42
28 Fans
10 minutes ago (1:49 AM)
I have two long-hair Brown Tabby purebreds—one Maine Coon and one Wegie. Only way I can tell them apart from a distance is that the Maine Coon is a Classic tabby and the Wegie is a Mackerel. Other than that, if it weren't for the 'striping', I'd swear they were Clones, LOL!
hoofus42: I have two long-hair Brown Tabby purebreds--one Maine Coon and http://www.huffingtonpost.com/social/hoofus42/tabby-cat-stripes-blotsches-gene-feline-dna_n_1901143_189958156.html
History | Permalink | Share it

RyanBurke
Devout follower of Zeus, the One True God.
220 Fans
2 hours ago (12:16 AM)
I heard tabby cats get one stripe for every man they kill.
RyanBurke: I heard tabby cats get one stripe for every man
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rosemaree124
63 Fans
2 hours ago (12:07 AM)
A big AWWWWWWWWWWWWWWWWWWWWWW for those sweet little kittens, and their "baby blue" eyes, but as for that big bug picture below it,

bethknows: So much in love with the kitties!! My sweet tortie-tabby, Frisco, will be 20 years old in less than 3 months! She has been my most wonderful companion for the 18 years I have had her and I am sooooo glad we rescued her when she was in the Humane Society in 1995 (they told us she was 2 at that time). She is sweet and warm and loving and always listens. I raised three children and as time went by, she was sometimes the only 'person' in the house I could talk to - most precious to me!!

Anne in Florida: I have 3 cats, they are all brothers. Henry is a Mackerel tabby. Simon is half classic tabby, 1/4 calico, 1/4 white. George is black with white feet, white chest and 1 white ear. There mother was black with white feet and chest. The father is not known. Henry is so big, and his head and body is so different than the other two. They don't look related. But they are, I was there. My brother has the other 2 in the litter. Kiwi is the smallest, she is light brown with white feet and chest and the tip of her tail. And Ruby is mostly calico, she has 2 reddish feet. They all look different. It's awesome. Henry stands alone in sheer size. But he was first born. I love cats they have extra specialness about them.

barbbberg: Just a thought....a litter can have more than one father. barbbberg: Just a thought....a litter can have more than one father.

Anne in Florida: I have always thought that.. it would explain Henry. Thanks, for knowing that. :)

Anne in Florida: I have always thought that.. it would explain Henry. Thanks, for knowing
I had a most beautiful gray striped tabby named Sunshine. The most gentle and loving cat ever. She had been beaten and we got her at a rescue shelter. She looked just like the little cats you see on pictures in a hammock. She always listened when I told her what happened at work. I really miss her. She was 18 when she passed.

Oh, I forgot another thing Alex (one of the two later tabbies) would do. We would come home from work and find his bed down in the entry way (it was a split level house). We just figured one of the kids was pushing it down there but they denied it.

Then, we were watching TV one night and his bed was at the top of the stairs in its usual place. My wife whispered to me, "Look at Alex". There he was pushing his bed toward the stairs and just as it began to slide down he jumped in and rode the bed down the stairs. We laughed for a long time about that. The only thing he hadn't figured out yet was how to get the bed back to the top to ride it down again!

The orange tabby we had when I was a kid would shake his front paws like they do when their nose touches something cold, every time you gently "pinched" his ear lobes. Note, I said gently. It wasn't really pinching. More like touching.

He also would do the bird chatter thing if you said his name (Caesar) to him while he was sleeping. He wouldn't wake up, though.

Two later orange tabbies I had would not eat table scraps. They only liked cat food. And they would not drink water from a bowl. They would wait in the bathtub for somebody to come along and turn the tap.
on a trickle and let the water hit the top of their heads, roll around to their chin, and then lick it off. Those two cats were NOT related in any way!

BobbsDobb: OK, I have a few cat stories. The orange tabby

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scottt456
71 Fans
2 hours ago (11:35 PM)
I'd give my cat fresh bottled water only to find her hanging at the end of the driveway drinking from a puddle after a rainstorm.

scottt456: I'd give my cat fresh bottled water only to find

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flxdcatbruce
Oooh..Jimmy crack corn and I don't care..

158 Fans
4 hours ago (10:15 PM)
Those two kittens in the picture......they really need to be in my hands, I love 'em.

flxdcatbruce: Those two kittens in the picture......they really need to be

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HUFFPOST SUPER USER
paulthamec
Proud to have served this great nation..

288 Fans
4 hours ago (10:08 PM)
I don't care what they look like Cats Rule!!!!!
paulthamec: I don't care what they look like Cats Rule!!!!!

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Adria Retos
5 Fans
4 hours ago ( 9:49 PM)
If you look at the forehead of your tabby, you will be able to discern the letter "M." Folklore says that a tabby curled upon the Baby Jesus to keep Him warm. In gratitude Mary gave each tabby the letter "M" which represents Her name. I don't know how true this is but nevertheless it's a beautiful thought.

Adria_Retos: If you look at the forehead of your tabby, you

Adria_Retos: Ya never know!

flxdcatbruce: Not to sure if that would be true, but it is a really cool story!

Adria Retos: It's a nice story for a change... I think that all of us are so tired of hearing/reading about all the horrible other things that go on. It seems that it's just getting worse. Be well and blessed. >^..^
trishamine
212 Fans
4 hours ago (9:34 PM)
Oh and I have 5 cats...they are a lot of work, but I love them. And I find it hard to pick which color I prefer...they are all so beautiful, My black & white little guy looks a lot like my avitar, same sweet little face, I should have named him cuddles, but I didn't...he's always in my lap.

trishamine: Oh and I have 5 cats...they are a lot of

If I saw a bug that big, you might be able to hear me scream all the way to the other side of the world. That thing would give me a heart attack....ugh. Spiders too...I don't like them at all either.

trishamine: If I saw a bug that big, you might be

I like the bigger bugs...I can see where they are. They don't sneak up on me. I don't get the experience of bigger bugs staring up at me from my dinner plate because I didn't see them in my pasta bag, flour etc when I started to cook.

kanatka: I like the bigger bugs...I can see where they are.

Baryl
Morning people cheerfully slapped
59 Fans
18 minutes ago (1:41 AM)
If that big bug was in my house, I'd move and leave all my stuff!!!
Baryl: If that big bug was in my house, I'd move
southern mema
17 Fans
5 hours ago ( 9:12 PM)
I am a cat lover, no matter what color they are. I have a pure white, his brother is gray n white, brown tabby, black tabby, orange tabby, black n whites, calico, and mixed colors. To me they are my best little friends. Feed them, water them and they are under your feet waiting to be picked up and loved. Best feet warmers in the winter time, too.

southern_mema: I am a cat lover, no matter what color they

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prank52
5 Fans
5 hours ago ( 8:49 PM)
Bailey is a tabbie/tortie. Her basic pattern is the tabbie mackerel, in the colors of a calico (black/reddish-brown/white); but, along her spine the colors blur into a tortoiseshell pattern. She is considered a tabbie rather than a calico because her colors are not in splotches, but a much smaller pattern.