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Cover: This false-color map of the moon's western limb and part of the far side is based on images recorded by the Galileo spacecraft in December 1990. Green and yellow indicate an abundance of iron and magnesium. Multi-wavelength images taken by Galileo, combined with newly resurrected pictures taken by Mariner 10 in 1973, are helping astronomers decipher the chemical composition of the moon's far side. (Photo: NASA/JPL/Galileo imaging team)

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Science Service, a nonprofit corporation founded in 1921, gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of disadvantaged groups. Through its Youth Program it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the *Directory of Student Science Training Programs for Precollege Students*.

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Letters

Cats, dogs and deafness

The researchers dealing with Waardenburg's syndrome, a form of genetic human deafness ("Hearing Gene," SN: 5/2/91, p.296), are looking at the wrong cat breed for a model. There are no documented cases of deafness in blue-eyed Turkish Vans, a white-bodied cat with color on the head and tail. It is genetically a colored cat with large white spots. They should be looking at cats that have the dominant white masking gene, which is not specific to one breed.

No matter what color the cat is genetically, the white masking gene creates a white cat, commonly in association with blue or "odd" eyes (one blue, one amber) and sometimes with deafness. This gene may be found in the Turkish Angora, Oriental Shorthair and Persian breeds, to name a few.

The blue-eyed kitten of our breeding on your cover, Pairodocs Harlequin Dancer, and her amber-eyed sister, Pairodocs Keiko of Vans-

delMar, can hear the click of a manual can-opener from the next room.

*Deborah Childs Hayes
Pairodocs Turkish Vans
Tijeras, N.M.*

Cat breeders seem to disagree over whether Turkish Vans carry a gene for deafness. My information came from Jack Reark of South Miami, Fla., who claims to have been the first breeder to bring the Turkish Van to the United States. In the February 1987 CAT WORLD, he and Barbara Reark wrote that "occasional deaf animals, in both recent imports and many generation pedigreed Vans," have been observed. However, he says that none of his cats or their offspring are deaf.

— C. Ezzell

Dog breeders recognize the "hearing gene" responsible for Waardenburg's syndrome: It is the same gene that produces the coat color pattern called "merle" in collies, Shetland sheepdogs, Australian shepherds, Welsh

corgis and border collies; "dapple" in dachshunds; and "harlequin" in great Danes. The gene produces a "tie-dyed" color pattern, with splotches of dark color on a dilute base. The blue merle is gray with black spots, while the harlequin is white with black or gray patches. One or both eyes may be blue, or the irises may have blue areas.

The heterozygous state normally does not produce visual or aural deficiencies, but homozygous merles and harlequins lack almost all pigmentation and are frequently deaf and/or blind. They may be microphthalmic, or the eyes may be totally absent. If eyes are present, they are blue.

Anecdotally, collie trainers report a lack of attention and focus in blue merles. They seem to be less trainable than their nondilute littermates and are frequently described as "spacey" or silly.

*Eileen Mason
Halcyon Days Collies
Penrose, N.C.*

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