CROSSES WITH SIAMESE CATS

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(With One Plate.)

Introduction.

Many years ago Bateson (1909) drew attention to Siamese Cats, recommending these peculiar animals as subjects for genetical investigations. Bateson supposed them to represent an analogue to the well-known Himalayan rabbits. From private communication with Mr Bateson I learned that Miss Durham and Mr Backhouse had gathered some evidence about the genetics of Siamese cats, but I have not heard of any further experiments, and, as far as I know, nothing was published.

After having worked on Siamese and other cats for some years I happened to show the short records of my results to Mr Bateson, who encouraged me to publish them, meagre as they are. Their incompleteness is chiefly due to the fact, that Siamese cats are rather exacting animals. They do not like being out of doors, they cannot be kept in pens and will not thrive without the company of man. They need the cosiness and warmth of a human dwelling and must be treated as pet animals. The females are shy and mating is often difficult. Further: the greater part of my cats are the offspring from a cross between white Persian and Siamese. The white Persians are perhaps still more difficult to breed than the Siamese. The weakness of these cats is very striking and their females are utterly bad mothers: they often eat their kittens at birth or starve them to death a few days after, being wearied of their nursing duties.

These difficulties and the high costs of the experiment may account for the small number of individuals (56 cats) upon which the following report is based.

Description of Materials.

The two Siamese cats used in my experiments, No. 2 (male) and No. 19 (female), descend both from one pair of animals imported from Bangkok by a Dutch fancier about ten years ago. The strain has always been kept pure and no variability has ever been noticed except slight differences in the intensity of the pigmentation. The dark parts of the fur (face, ears, feet, tail) are from darkest chocolate to almost black;
the lighter parts may vary from a pale greyish buff to a smoky fawn colour. The adult males are considerably darker than either the females or the young animals. At birth the kittens are white or nearly white; after ten or twelve days the pigment begins to develop. The iris of the eyes is blue, but not sky-blue as in blue-eyed white cats; in the Siamese eye there is always a shade of milky grey in the blue of the iris. The deeper parts of the eye are pigmentless.

The white Persian female, No. 1, belongs to a strain that during many years was kept by a fancier in my district. It was a very uniform and beautiful strain as far as the long silky fur is considered, but some individuals showed dissimilarity of the eyes, the left eye having a different iris colour (yellow) from the right eye (blue). The female used in my first cross was not affected in this way, both irides being sky-blue. Nearly all the members of this family showed somatic or mental defects (sterility, deafness, dirtiness, inability to withstand the simplest difficulties of a cat’s life). This caused much trouble in the course of my experiments. It is to be well understood, that the white Persians, even those with two blue eyes, are not true albinos, but coloured cats, in which pigmentation has been suppressed but for a very slight trace. Most of them have a little black spot—often only a few black hairs—on the neck, the occiput, or the front; and also in the eyes, iris as well as fundus, some pigment is left.

The tabby male, No. 16, belongs to the most common type of the ordinary house cat in Holland. The type is in this country called “Cyprian.” It is characterized by longitudinal stripes of a yellowish grey on a black coat. On the legs and the tail the stripes run transversely. On the ears and the feet no stripes are visible, but the pigment in those parts is paler than on the back and approaches the colour of the stripes. The pattern is obviously the same as that of so many wild Felidae; it is variable in the details, but the dark ground is always preponderant; the stripes are in all cases narrower than the dark parts between them, in a ratio varying from about 40:100 to 60:100. The intensity of the pigmentation is variable too, and two chief types may be distinguished: a dark type (yellowish grey stripes on pure black) and a pale type (pale bluish grey stripes on dark lead grey). The pale behaves as a unifactorial recessive to the dark and is obviously a dilute form, comparable with the “blue” cats in their relation to the “black” ones.