

Polydactyly

If the number of separate reports is anything to judge by, the presence of extra toes on the foot is something that attracts attention. This anomaly has been noted as early as 1868, if not earlier, and on many occasions since that date. The distinguishing feature is, of course, the presence of extra toes, most noticeably on the front feet. There is considerable variation from animal to animal in the number of extra toes and how perfectly formed they may be.

The variation in this respect may range from an enlargement of the inside digit to resemble a thumb to the formation of three apparently well formed extra toes. Making a total of seven toes on one foot! This variation in expression may occur between different feet on the same cat. In fact, the hind feet are never, or rarely, affected unless the front are abnormal. Despite the marked variation, it seems to be rather rare for a genetic polydactylous cat to be normal, as could so well happen with anomalies of this nature. Different cases may vary in this respect, however.

Reviewing the various reports of polydactyly, it is remarkable how many give either direct or indirect evidence of a dominant mode of heredity. This aspect is remarkable since not all of the separate

cases need be due to the same mutant gene. It is possible, of course, for the same gene to have arisen by mutation in different localities, and at different times, and this is an explanation which could account for the similar heredity. However, doubtless it would be wise to remember that other cases of polydactyly might behave somewhat differently. At the moment, only one polydactyly gene is recognized which is symbolized by *Pd*. Those who wish for details of the anatomical aspects of the anomaly should consult the reports of Danforth (1947a,b) and Chapman and Zeiner (1961).