

The Principles of Humane Experimental Technique

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CHAPTER 3

THE ECOLOGY OF EXPERIMENTAL ANIMALS

We may infer that our domestic animals were originally chosen... because they were useful...

The rat and mouse... have been transported by man to many parts of the world...

The Latest Developments¹

The L.A.B. surveys of 1952 was, as we have said, the first major contribution to the monitoring of experimental biology. However, apart for the other activities of the bureau, the whole situation is undergoing a rapid transformation. By the time this book is in print, much more will already be known of the ecology of experimental animals. The year 1952 itself saw the formation in the U.S.A. of an "Institute of Animal Resources", and organizations of this sort have begun to spring up thick and fast in other countries, culminating, at the beginning of 1957, in the formation of an International Committee on Laboratory Animals (ICLA--Lane-Petter 1957b, 1958).

This new body (of which Lane-Petter himself is honorary secretary-treasurer) operates under the auspices of the International Union of Biological Sciences and the Council for International Organization of Medical Sciences, with the assistance of UNESCO. Its formation was preceded by the appointment of an international committee by the first of these organizations, after a resolution adopted at a meeting in Rome in April, 1955, and by a request from UNESCO itself for information about the production and use of laboratory animals in various countries, as part of the cell biology program recommended by the C.I.O.M.S. in December of the same year. The new committee, which will absorb both these activities, dates from a meeting summoned by UNESCO in December 1956.

The objectives and plans of this new committee cover most aspects of laboratory animal logistics--and practically all these aspects have their humane implications. It may be premature to expect as much immediate attention to problems of experimental technique as is certainly going to be bestowed on problems of supply (including

transport). But the formation of ICLA may be regarded in general as a seven-league stride forwards.

Its very first activity, naturally, is to be a "survey of existing resources", on the lines of the bureau's first survey, but on a grander and international scale. In 1957, surveys have already been arranged in the Benelux countries, France, India, Italy, Japan, Scandanavia including Finland and Iceland, Switzerland, the U.K., and the U.S.A. These surveys naturally concerned the situation in 1956. Further surveys are planned for 1958. All will be published.

The British survey is complete and will soon be analyzed. As in 1953, Lane-Petter has given some preliminary results (1957a), as follows:

"The general increase in total numbers of animals used is as forecast, the percentage increase in numbers of all species for the four-year period 1952-6 being 32 percent. Mice have increased their predominance to 70 percent of the total, showing a four-year increase of 34 percent. Rabbits and rats account for about the same proportions as in 1952, chickens and amphibia show a considerable proportionate increase, and other species a smaller increase. Guinea pigs have lost ground relatively and absolutely, the 1956 figure being 10 percent less than the 1952, and the proportion of the falling from 11.4 percent to 8 percent.

"The great importance of the mouse is thus emphasized even more strongly. The reduction in guinea pigs bears tribute on the one hand to the success of the anti-tuberculosis campaign among man and among cattle, and on the other hand to the improved quality of laboratory guinea pigs, especially from accredited breeders. The rise in the number of amphibia used is due largely to their increasing popularity for pregnancy diagnosis, in which they are tending to displace mice and rabbits."

We shall consider some of these changes in the next chapter. Shifts are certainly occurring, though it seems unlikely at present that any of the major generalizations we have noted have yet ceased to apply. But who can tell what changes may be introduced in the next decade or so as a result of the surveys themselves?

1 This section and the remainder of the book are again by both authors.