1. Dormant.—In cool retreats where suitable shelter and protection may be found; here flies may truly hibernate.

2. *Periodically active*.—In premises where an increased temperature produces activity in the fly which would otherwise be inactive and dormant.

3. Permanently active.—The gradation between the former state, and this would be governed by temperature and the presence of food. Permanently active flies have been found by myself and other observers in every month of the winter season from November to March. I have dissected such flies from December to March and found them capable of reproduction in many instances. Such flies are found in warm bakehouses, kitchens, restaurants and stables. Jepson (1909) used such flies for breeding experiments in February.

4. In the immature stages.—The previous states, Nos. 1 to 3, are based on actual observations. That in northerly latitudes *M*. domestica may be found in the developmental stages (egg, larva or pupa) is a statement that has only, so far as I know, a theoretical and experimental basis. It should be possible, one would think, to find *M*. domestica breeding in permanently warm places, such as stables where larval food is present. In many stables, however, the temperatures are very variable, and this fact would lengthen the different stages very considerably. Personally, I have so far failed to discover evidence of *M*. domestica breeding under natural conditions during the winter months in the latitur'ses of Ottawa (Canada) and England, but observations indicate the possibility of such an occurrence in the presence of suitable conditions.

In the light of the evidence at present available, I think we are still justified in regarding the dormant and periodically active states during the overwintering period as the usual occurrence in northerly latitudes. But there is no doubt that where circumstances render state No. 3 possible, it contributes very materially to an increase in the number of available and active flies early in the spring. I have always held the same view as that suggested by Copeman and Austen (1914): "That the relative lateness of the season at which house-flies annually become abundant may be due to the smallness of the number of individuals that, in an active condition, survive the winter in houses or other buildings." This