When a *Onchocerca* of these species is allowed to engorge itself (which usually requires from 3 to 5 minutes) upon a suitable infected individual, the microfilariae, from some dozen up to several hundred are practically always found in the gut of the fly shortly after it has fed. The microfilariae in the gut which are not digested or otherwise killed, pass from the gut shortly afterwards to other parts of the fly, particularly to other parts of the abdomen and to the thoracic muscles, where they may be found in the tissues in numbers from one or two to several hundred, from 24 to 48 hours after the infective meal of the fly. The microfilariae observed in the abdomen of the fly are actively motile and exhibit frequently more marked activity than they do in the sections of the skin. They measure usually from 200 to 300 μ in length and from 5 to 8 μ in breadth. The conditions which the microfilariae find in the thoracic muscles evidently cause marked changes in their development. At first they usually increase slightly in length. However, within a few days, varying probably somewhat according to temperature, they become very much broader, from 22 to 25 μ in breadth or even wider, but without corresponding or great increase in length. Indeed some of the forms appear shorter. At this stage the broader forms show very decided changes in the caudal appendage which is no longer tapering, but has become transformed into a short pointed tail.

Definite indications of the development of the alimentary tract are also visible which has become developed into two distinct sections following a rudimentary esophagus. Two caudal papillae can also be distinguished in some. These forms, which correspond roughly to those that have been described in the development of *Filaria bancrofti* in the mosquito as