

*S. ornatum* by Leger ('97), and another from a Brazilian ? species by Luta and Splendore ('04 and '08). Lutz ('09) also records the presence of a nemathelminth in Brazilian Simuliidae.

The parasites found in Simuliid larvæ around Boston during 1911 may be summarized as follows:

1. Parasites of the Spring brood of *Simulium*.  
Various Myxosporidia spp. up to 80% mortality.  
Mermis sp. up to 25% mortality.
2. Parasites of the Fall brood of *Simulium*.  
Glugea spp. up to 10% mortality.  
Gregarine sp. up to 50% mortality.

No experiments have been made upon the possibility of transferring these parasites from one species of *Simulium* to another, but so far as can be seen there should be no great difficulty in accomplishing this, for in all cases observed the parasites infected all species of larvæ present at the same time in the streams where the former occurred. There is, however, a seasonal variation of parasitism, for the species taken in the spring were not found in the fall, so that it is probable that only those species of *Simulium* whose life history coincides with parasitised species could be infected with the parasites of the latter.

#### EXPLANATION OF PLATE XV.

Fig. 1. Mermis parasites in situ.

Fig. 2. A, normal histoblasts of mature larva. B, histoblasts of full-grown larva containing Mermis, sp.; r f, respiratory filament histoblast; w, wing histoblast; h, halteres histoblast; l (1, 2, 3), leg histoblasts.

Fig. 3. Glugeid parasite in situ.

Fig. 4. Gregarine in situ.

#### LITERATURE CITED.

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