are separated from *S. bullata* by the character of the cheek vestiture and the notum of the first genital segment which is composed of one piece, as are the abdominal nota, and not divided into two lips. In addition, the female of *S. dalmatina* has one complete row of cilia behind the eyes instead of two.

In a discussion following the description of Sarcophaga cooleyi R. Parker (Can. Ent., vol. 46, pp. 417–423, Dec., 1914), known at present only from Montana, Wyoming and Utah, it was suggested that this species and S. bullata were close relatives. The genital segments of the females are very similar; those of cooleyi are interesting in that they show (at the sides) parts of a distinct fifth abdominal (sixth morphological) segment with its spiracles.

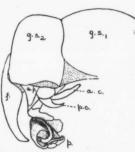


Fig. 19. Sarcophaga bullata n. sp., genital segments of male.

Among my material are several reared specimens of *S. bullata* which have light rather than dark palpi. The parts of the penis may be less compact and separated to a greater extent than figured in the drawing.

Felt (1913, see bibliography) described the larval and pupal stages from specimens reared on the head of a dead calf. From larviposition to adult was found to take from thirty-four to thirty-six days (Aug. 12 to Sept. 15 to 17). Dr. Felt very kindly sent

me six females from the specimens reared, which are unquestionably S. bullata. Metz (Station for Experimental Evolution, Cold Spring Harbor, Long Island), during the summer of 1914 reared this species on meat in several experiments. Undoubtedly it breeds in carrion. I also have records of its capture on cow dung, and at Springfield, Mass., captured it on human excrement. One specimen in the Massachusetts Agricultural College collection is labelled as caught flying around the "burrows of Cryptorhynchus lapathi (Linnæus)." A female received from C. H. Richardson was captured on cow dung. Specimens have also been reared from eggs. (To be continued)

Mailed October 13, 1916