LABORATORY EXERCISE 24:
Reproductive System

You are to dissect an adult *Gromphadorhina*, *Periplaneta* or *Blaberus* in the usual manner, from the dorsal side; only the abdomen needs to be opened. Decide beforehand whether your roach is a male or a female, then see if you were right. In either sex, the reproductive organs are located beside and somewhat beneath the digestive system, in the posterior third (or three-quarters in the case of gravid females) of the abdominal cavity. Carefully remove any fat body, tracheae, and digestive organs, leaving the reproductive system intact. Then make a drawing (**Drawing #45**) of the entire system, either *in situ* or removed from the body cavity. When you have finished, make a second drawing (**Drawing #46**) of a specimen of the opposite sex, using the dissection of another student.

Male System:

The large mushroom-shaped sperm reservoir (vesicula seminalis or **seminal vesicle**), consisting of several sac-like structures in a clump on either side of the abdomen toward its tip, will readily be seen amidst the more filamentous and numerous "tentacles" of the large **accessory gland**. The **testes** are considerably smaller; they are whitish-grey and located in the fourth or fifth abdominal segment. Just before joining the sperm reservoir, the **vas deferens** (sperm tube leading from the testis on either side of the body) comes in contact with the ventral abdominal wall, to which it is held by a small trachea. The common **gonoduct** is short and enlarged to form an ejaculatory duct in the male. Make your drawing simple and schematic, labeling the parts as in Imms, figures 44 and 45, Romoser, figures 8-1, or Gillott, figure 19.4.

Female System:

The **ovaries** and **accessory glands** (a mass of fine tubules in the posterior part of the abdomen) can be seen readily after the hindgut has been removed. The **spermatheca** or sperm storage chamber (Imms, figure 42, Romoser, figure 8-6, or Gillott, figure 19.1, is concealed by the accessory gland, but may be seen by parting the "spaghetti." The common **oviduct** or "uterus" may be greatly expanded by the presence of the cigar-shaped egg case or **ootheca** characteristic of cockroaches that are gravid; in such specimens, it may nearly fill the abdominal cavity, usually in a ventral position. Make your drawing schematic as before, labeling parts as in the figures already cited.