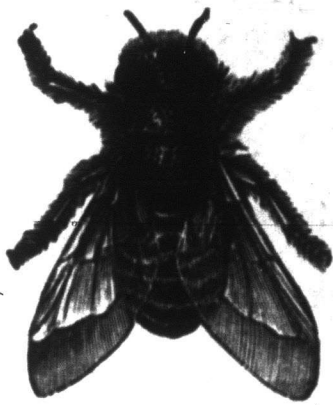


FERNDALE SCHOOL.

No. X.—THE SHEEP BOT-FLY. (*Oestrus Ovis*. Linn.)

TEACHER. Here we have the Sheep Bot-Fly drawn magnified about three times its length and breadth. Let us examine our specimen under a lens and it will appear just as large. What is its general appearance?



SCHOLAR. Hairy, and of a dirty ash color.

T. Its thorax—

S. Has four small black lines and black dots.

T. The abdomen—

S. Is specked with yellowish marks.

T. Is it of the same shape in each specimen?

S. No; it is tapering in some specimens—the female, I suppose.

T. Correct. Have you seen them molest the sheep?

S. Yes. They fly about their noses, and the sheep shake their heads, hold their noses down to the ground, and try to run away from them, and sometimes stamp their forefeet.

ANOTHER S. I have seen the sheep stand in a little circle with their noses all together in the centre, so that the fly couldn't get near them. And sometimes tar is put on their noses to help in keeping the fly away.

T. Very well observed. I shall now give you the history of the fly. Its only work is to place its eggs, of which it may produce over 300, or the young larvæ (as the eggs have been found to be hatched in its body) on the nostril of the sheep. The larvæ move up the nostril, holding on to its tender lining with the minute hook with which their head is furnished. They remain in the upper cavities of the nose until next summer, causing by their irritation an abundant flow of mucous and purulent matter, on which they feed. The sheep becomes weaker, loses its appetite, and often dies. When these grubs are very numerous, the struggle for food will cause some of them to enter the brain through natural openings in the bony partition between it and the nasal chamber.

S. I have seen people blow lime or a little hellebore into the sheep's nostrils to cause them to sneeze; and sometimes the grubs would be blown out.

ANOTHER S. I have seen them inject salt water and a weak solution of carbolic acid in water for the same purpose. But do they ever come out of their own accord?

T. Yes. When they reach maturity, say in June, they may descend the nostrils, fall to the ground, and in twenty-four hours change into the pupa state, with a small hard black case. In six or seven weeks it pushes off the little cap on the end of its pupa case or cocoon, and comes out as the perfect fly.

AMONG THE CONSTELLATIONS.

No. VI.—CANIS MAJOR, ETC.

A sky full of silent suns.

—Richter.

In the southern sky, lower than Orion and farther to the east, is the constellation of the Greater Dog. In its head shines the brightest fixed star in the heavens, Sirius, sometimes called the Dog Star. Hence the name of our Dog Days. This name had its origin in Egypt. Camille Flammarion thus accounts for it: "The overflowing of the Nile was always preceded by an etesian wind, which, blowing from north to south about the time of the passage of the sun beneath the stars of the Crab, drove the mists to the south, and accumulated them over the mountainous country whence the Nile takes its source, causing abundant rains, and hence the flood. The greatest importance attached to the foretelling the time of this event in Egypt where no signs of the distant cause of this flooding was ever visible, so that the people might be ready with their provisions and their places of security. The moon was of no use for this purpose, but the stars were, for the inundation commenced when the sun was in the stars of the Lion. At this time the stars of the Crab just appeared in the morning, but with them at some distance from the ecliptic, the bright star Sirius also rose. The morning rising of this star was a sure precursor of the inundation. It seemed to them to be the warning star, by whose first appearance they were to be ready to move to safer spots, and thus acted for each family the part of a faithful dog, whence they gave it the name of the Dog, or Monitor, in Egyptian *Anubis*, in Phœnician *Hannobeach*, and it is still the Dog Star—*Caniculus*—and its rising commences our *dog days*. The intimate connection between the rising of this star and the rising of the Nile led people also to call it the Nile Star, or simply the Nile; in Egyptian and Hebrew, *Sihon*; in Greek, *Sothis*; in Latin, *Sirius*."

Our *dog days*, however, do not coincide exactly with the time when Sirius commences to be visible in the morning in this latitude. Near the equator Sirius rises with the sun about the first of July; further north, later. In the latitude of the Atlantic Provinces of Canada, in August.