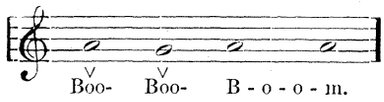
month of April, when the sun rises clear and the air is crisp and frosty, go out upon the suburbs of a prairie town, away from the usual noises of the village, and listen. In a few seconds, if you can recognize the sound, you will hear, above everything else, the male birds go "boom, boom, boom." This is not a sharp, shrill cry, but a round, full, detonating cannon-like sound, which may be heard at long distances. It comprises three clear, distinct musical notes, corresponding with the "do, si, do" of the diatonic scale. The first two are quarter notes, and the last is drawn out to a full note, and even a prolongation of that. Probably some idea of it could be had from this representation:



This "booming" may be heard every spring along in March and April, and sometimes till May on clear frosty mornings about sunrise and for an hour or two afterwards; and for that reason I have sometimes from my own fancy called them "sun worshippers." It is worth an hour's walk to go out and see these birds when engaged in their booming orizons. As I have heard thousands of them booming at one time along in the forties and fifties, and have cautiously crept up to within a few yards of them when they were in plain view, let me try and describe them if possible.

The males have two neck tufts of feathers, two or three inches long, one behind each ear, and ordinarily they lie down close to the neck. Also on the sides of the neck and extending about two-thirds of the length of it, are two bare patches of skin capable of being inflated with air until they show out on either side as large as a small orange, and are nearly the color of an orange. Now, the proceeding is something like this: The bird stands unconcernedly among his companions for a minute or so, and then suddenly he spreads his tail to its fullest extent like a fan; his wings are spread and thrust down to the ground similar to a turkey gobbler's action; he walks around and about, rubbing his wing feathers upon the ground, his feet go patting alternately so rapidly you cannot count the motions, his head and neck thrust forward horizontally, the two tufts of feathers are erected like two great horns the bare skins on the sides of the neck are inflated and then comes "boom, boom, b—o—o—m." This is repeated every few minutes for one or two hours in the morning, when no more is heard until near sundown in the evening.

A SILK-SPINNING CAVE LARVA.

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In the Bulletin of the Essex Institute, Vol. XIII., 1891, I described a singular larva from Mammoth Cave, which was compared with larvæ of the Dipterous genera Sciara and Chironomous, to which it bears some resemblance. Since this larva was discovered a lookout has been kept for other specimens in hope of learning something of the adult, but thus far no additional examples have been seen. My search has been rewarded, however, by the discovery of a second larva, very different from the first but in its way almost as strange. Evidently it is a related insect. I take it to be the young of some cave-inhabiting fly.

Large examples measure 12.5 millimetres in length by 1 millimetre in greatest diameter. The body is composed of twelve somites behind the head, very distinct from each other and gradually increasing in diameter from the first to the seventh, after which they remain constant to the twelfth, which is only about one-half the length of the preceding somite and not more than one-fourth its size. The head is very small, and is enclosed in a smooth and shining crust of a pale yellowish brown color. The body terminates in a double finger-like clasping organ.

On a visit to a small cave near Lexington, Kentucky, some months ago my eye was caught by a glistening thread on the limestone forming the side wall of the cavity, about four feet from the floor. Thinking it was the trail left by a spider, I began to follow it carefully, expecting by this means to come upon the insect. Instead of a spider this larva was found,—a translucent slender thing which might easily have been overlooked even when one was engaged in following the thread upon which it lived. A touch was sufficient to put it in motion, then a touch at the opposite extremity would cause it to move backward with equal address. But nothing would induce it to leave the thread, and I have since learned that the heat from a burning candle applied to its body and destroying its life leaves it clinging to this fragile object. Not even spiders show such tenacity in retaining possession of their egg-cases, or webs, when in danger, and I infer that the welfare of this larva is intimately associated in some way with the silken path it makes along the face of the rocks. The thread is always occupied by a single individual, and may be a foot or more in length. I have found no examples nearer the floor than three feet.

The larva clings to its thread by means of pads provided with very minute chitinous asperities. One such pad occurs at the anterior ventral margin of the second, and another in the same position on the third, somite. These form rather large transverse rounded folds of the skin, covered posteriorly with dark denticles in numerous short series. The fourth somite lacks the pad, but on the ventral side and anterior margin of each of the succeeding divisions is a pad of another form, these being broader but not extending so far up the sides. When creeping an undulatory motion passes along the body, the pads dragging it forward, the posterior appendage apparently aiding by seizing the thread.

The details of structure have not been thoroughly worked out. In a general way the head is like that of the larva described in the Bulletin in 1891, but the large ocellus-like smooth areas of the Mammoth Cave larva are not present in this, although I find smaller oval areas surrounded by black rims and accompanied by pigment spots, which appear to represent these structures. The mouth parts are much like those of larval Sciara. The palpi which project from the under side of the head spring from the maxillæ. In very young examples I can make out large ducts which convey a secretion of some kind (doubtless the material of which the silken fiber is composed) to the under side of the head. No outward trace of respiratory organs is apparent. Four dark-brown Malpighian tubules can be seen, through the body-wall, opening independently into the intestine.

On the dorsal middle line near the anterior margin of each of the somites 8 and 9 is a turret-shaped prominence, the nature of which I have not determined. The top is sometimes a trifle impressed as if there were an opening to a gland beneath the skin. They can not be stigmatal prominences, for these are always paired. A study of sections may yield an explanation of them.

The habit of living upon the side walls of the cave is probably a means of avoiding enemies. Few of the predaceous cave species would find the larvæ there. The only available food would seem to be occasional tallow drippings and the molds growing on them.

Silk spinning is not general among Dipterous larvæ, but the cave species is not peculiar in this regard. I suspect that the Mammoth Cave larva produces a thread also. Among ordinary Diptera the clover midge (*Cecidomyia trifolii*) occurs to me at this moment as an example of species which produce material in the nature of silk. It envelops itself in a rather tough papery cocoon when ready for pupation.

A VERY bright comet has suddenly appeared in the western sky, and is attracting attention from the unexpected manner in which it has presented itself. The object from present accounts was first seen on the 8th inst., by persons living in Utah and Wyoming. It is very bright, about of the second or third magnitude, and has a tail that has been reported to be from five to twelve degrees in length. The comet is moving very rapidly to the east, and the only orbit at hand, at present, indicates that it is now passing away from the earth and will diminish very rapidly in brightness.