

**LUCILIA MACELLARIA INFESTING MAN.****By FRED. HUMBERT, M. D., F. C. S.**

ALTON, ILL., October 7, 1882.

I send you herewith a gag or screw fly?, as known here; they are in alcohol or alive in a green bottle; some of the maggots are also in alcohol. I wish you would hand this species to your entomologist for a minute examination and its proper name, as I cannot find a full description of this insect and its habits in any books in my possession. The following is part of an essay penned in 1876 but not published, which, with the history of this fly, will explain itself:

A farmer's wife, thirty-five years of age, was attacked on Monday, September 27, 1875, with a headache and a flushed face. She staid at work, expecting a malarial chill, an affection prevailing at that time in the neighborhood. From this time the pains in the region of the frontal cavity at the base of the nose and below the eye, extending to the right ear, increased. At times the pain was more severe than at others, but it never entirely left. This pain was described as preventing hearing and breathing, and so exeruciating that at intervals, day and night, her cries could be heard at a great distance from the house. Tuesday evening blood mucus began to run from the right nostril, which was somewhat swollen, the swelling extending on Tuesday over the whole right side of the face. On this day, the fifth of the complaint, four large maggots dropped out of the right nostril. When I was first called to the patient, Monday, October 4, only the right lip and nostril were swollen, the aerid discharge having somewhat blistered the lips below. After each discharge the maggot dropped from the nostril, until the twelfth day, one hundred and forty or more maggots having escaped. The majority of the maggots were three-fourths of an inch in length, there being only a few which seemed a line or two shorter; they were of a yellow hue, conical shape, and having attached to one end two horn-like hooks. The patient recovered fully.

Monday, September 18, 1882, I saw a patient, in the same neighborhood as the first, suffering from the same malady. At that time two hundred and eighty maggots had been discharged, and at the close of the illness over three hundred. There was a swelling on each side of the nose, with a small opening to each. I lanced these openings and more maggots came out.

In the Indian Territory the so-called screw-fly laid its eggs in the nose of man. In 1847 I heard of several deaths of men and children in Texas, near Dallas. The gad-fly was common in the American Bottom forty years ago. It laid its eggs in the noses of cattle and in the ears of horses and deer, but never in the human nose. The fly that I send is about four times as large as the common fly. Head a dark, glisten-

ing green; a bronze face, very lively in appearance. Is it the same that they called in Texas or Indian Territory the screw-fly, or is it the gad fly seeking a new field?

The patient of 1875 is now alive and well. The second case occurred two years ago near Collinsville, in this county, and proved fatal. The third patient, above named, is getting well. The fourth is reported from Georgia; the patient died.

The first case which I had under my charge was the first which ever occurred here. The eggs must have been deposited in the nose several days before the fifth, the day the maggots dropped out. On the eleventh day all were discharged. I seenred live maggots at that time, September 18, 1882. I put soil in an open-mouthed vial and dropped the maggots on it; they crawled in the ground in about five minutes. I covered the opening with white damastis and hoped that the next year the fly would come out of the ground. But on October 6, or the twentieth day, the vial had fourteen living flies. So, reckoning from six days before the pain commenced for the laying of the eggs, to the twelfth day, when the maggot discharged, making eighteen days, and to this adding the twenty days during which the grubs were in the ground, we have thirty-eight days from the time the fly laid the egg until a new generation of flies is produced from them.

You may think I have dwelt too long on these cases, but if you had to stand at the bed and had seen the suffering and despair of the patients and found that the worms were eating them up, you would not think so.

Respectfully,

FRED. HUMBERT, M. D., F. C. S.

P. S.—All these cases occurred in the month of September.

#### REPORT BY C. V. RILEY.

SMITHSONIAN INSTITUTION,

*Washington, D. C., November 9, 1882.*

SIR: The insect referred to in the accompanying communication from Dr. Fred. Humbert, of Alton, Ill., is the *Lucilia macellaria* of Fabricius, the injuries of which to different animals are well known in the South and West, where the larva is called the "screw worm." I have repeatedly endeavored to obtain the true parent of this worm, and have published items in reference to it in the American Entomologist, 1880, pp. 21, 203, and 275. Dr. Humbert's communication is most interesting, but the specimens yet more so, as the flies he forwards are the first that have positively been bred from the larvae known as "screw worms," and they confirm the above determination of the species. The larvae agree with others which I have from Texas, taken from the root of the ear of a hog which had been bitten by a dog. In De Bow's Industrial Resources

of the Southern States, vol. i, is an account of its occurrence in remarkable numbers in the Southern States in 1834.

It is an interesting fact concerning this insect that it also occurs in the Eastern and Middle States, but that in these States we rarely hear of its injuries to man or to domestic animals.

Carbolic soap is considered an excellent preventive in the Southwest, and, according to Prof. J. Parish Stelle, who made the experiment for me in 1880, pyrethrum blown upon the sores will induce the worms to issue forth and leave them.

Respectfully,

C. V. RILEY,  
*Curator of Insects.*

Prof. SPENCER F. BAIRD,  
*Secretary, Smithsonian Institution.*

#### FISH MORTALITY IN THE GULF OF MEXICO.

By S. T. WALKER.

[Letter to Prof. S. F. Baird.]

Knowing your interest in everything connected with fish, &c., I take the liberty of giving you all the facts I have been able to collect in reference to the late mortality among the fishes in Tampa Bay and adjoining coasts. Had I known before I began my cruise of the extent of this mortality and splendid opportunities afforded of collecting specimens of strange and perhaps unknown species, I might have gone better prepared for collecting specimens, but I had only heard a few vague rumors, and I was little prepared for anything further than a collection of facts in regard to the matter.

On leaving Clear Water, November 20, I sailed south through Boca Ceiga Bay, and encountered the first dead fish floating on the water near Bird Key, a little southeast of Pass A'Trilla. These were mullet, and as we progressed to the south and east I began to encounter toad-fish, eels, puff-fish and cow-fish, in immense numbers, and, on attempting to land on the extreme point of Point Pinellas for the night, I was driven to my boat by the stench of thousands of rotting fish upon the beach. The next morning I went ashore and found the dead fish drifted ashore in countless numbers. The eels appeared most numerous, followed by puff-fish, cow-fish, sailor's choice, and small fish of every shape and variety. After these followed groupers, mangrove snappers, jew-fish, gar-pike, spade-fish, sting-rays, and sharks. Other varieties, unknown to me, were mixed among these, together with vast numbers of catfish. I saw very few mullet here.

At Gadsden Point about the same species appeared, while at Tampa I saw but few dead fish, and they were principally gars and catfish. From Tampa I proceeded to the mouth of the Little Manatee to obtain