they were abundant during the summer. A patch of woods close by harbored many native birds which occasionally strayed into trees near the house. As soon as one of these ventured to alight on a branch, the sparrows would desert the eaves of the house and settle on the tree, and there they would chirp and chatter till the other bird was literally driven away. Robins and flickers were greatly annoyed, but the cat-bird flirted his tail in disdain, and seemed to be the only one which could not be driven away.

As for their insectivorous habits, I have been informed by Mr. Charles Dury that he has dissected forty or fifty of the birds which were shot at different times and places during two years. In none of these, with but a solitary exception, did he find a trace of the remains of an insect. Every one was filled with seeds of one sort or another; and he concluded the insect had been picked up and swallowed by mistake. Still, it would appear that numbers of cicadas were killed, though not eaten by the birds, here as well as in Washington.

As far as the extermination of the sparrow goes, it does not seem a difficult task. Let the laws protecting it be repealed. Let a bounty be offered for every scalp, and free permission to kill whenever and wherever found would tend to rapidly diminish the number of the pests. The increase in number is largely due to the protection afforded by law, and by the sentiment of people. If wolves, bears, and panthers can be exterminated by the means above spoken of, there seems little reason to say that the same result would not follow with the sparrow.

JOS. F. JAMES.

Cincinnati, Nov. 27.

I would like to give some information in regard to the habits of the English sparrows, which I hope will soon be stamped as outlaws, and a price put on their heads, like unto those of all marauders.

They not only drive away our native birds, but are the worst enemies of the fruit-grower and gardener. They are not scavengers, but, on the contrary, by their habits become defilers of human dwellings and water. I will give such facts as came to my notice during many years of observation at my home in Hudson county, N.J., which will substantiate the above assertions.

We had provided numerous boxes for nests for bluebirds and wrens in the trees, and before the introduction of the English sparrows in New York, in 1864, these were invariably occupied by the same family each spring: additional nests were always soon occupied. Any one acquainted with these pretty little singers will understand the peculiar charm they lend to a country home. During the summer-time the grove would be full of thrushes, who would build their nests in the underbrush, and fill the morning and evening air with their melodious song.

Within four years after the introduction of English sparrows, they had found their way to our home, and immediately began harassing the bluebirds, sometimes destroying their nests. As soon as we noticed this, we took the part of our pets the bluebirds, and would fight the sparrows at every point. This was soon noticed by the bluebirds; and it actually happened, that, when hard pressed by the sparrows, they would fly close to the house, to attract our attention to their trouble by plaintive cries. We succeeded in protecting them for a few years; but, with the rapid increase of the sparrows, the bluebirds have left their former abodes, never to return to them except as travellers.

When we noticed that the wrens were harassed in a similar manner, we made the entrance holes to the boxes so small that sparrows could no longer enter. We then found that the sparrows would take turns about sitting on the perch in front of the opening until the old wrens had left, or until the young ones were starved. In two cases we found that old wrens had been kept imprisoned until starved to death by the sparrows preventing their exit. We did all we could to drive them off, — shot them with guns, caught them in traps, destroyed their nests, etc.; but all in vain. They learned to recognize a gun, and, as they always have guards in a flock, a signal from a guard would scatter them to the winds instantly. They could only be caught in traps for but a short time, when again they would become acquainted with them, and avoid them. The best way to drive them away seems to be to destroy their nests without tiring; then they will partly leave. They would fight the brown thrush, and scatter its eggs, whenever opportunity presented itself, and seemed to take particular delight in pulling the nests to pieces to build their own with the *debris*.

In spring they destroy the strawberries, to begin with, and attack every variety of fruit, except currants, gooseberries, and apples. They do not feed on cherries to make their living, like native birds, but merely take a bite of each berry, and destroy it wantonly. When pears are ripe, they will peck large holes in them to drink the juice. They generally appropriate half our vineyard, and cannot be frightened by scarecrows. They invariably keep themselves busy, when not hungry, by picking off young sprouts, especially of fine plants and rose-bushes, but do not spare trees. It seems that they do this merely to keep themselves busy. In addition to the above, they do not destroy worms which build a web, although they probably destroy chrysalides or open cocoons in winter-time, when they can find no other food. We have never seen them destroy worms in summer-time, when other food is abundant.

G. C. HENNING.

Louisville, Ky., Nov. 27.

A new variable.

As an item of interest for your astronomical notes, I send the following: —

I have discovered the star D.M. +27,3890, to be a variable of the η Aquilae type.

A preliminary reduction of the observations so far obtained, from which a light curve has been formed, indicates strongly that the period will not vary much from four and a half days. The approximate limits of fluctuation I find to be from 5.6 to 6.7 mag. The position of the star for 1855.0 is R.A. $20^h\ 45^m\ 19^s.4$; decl. $+27°\ 42'.3$.

The star is likely to prove an interesting one, owing to its short period, there being only three known variables of this type with shorter periods.

The variability and character of the light changes have been confirmed by Mr. S. C. Chandler, jun., of the Harvard college observatory.

EDWIN F. SAWYER.

Cambridgeport, Mass., Nov. 30.