

*O. soror* Macq., was reared at Oxford, from *Panicum crus-galli*, in October, 1884, and also from the stems of *Poa pratensis*, at Lafayette, in June, 1887.

*Oscinis carbonaria* Loew., was reared from young wheat plants at Oxford, September, 1884, and from wheat plants at Lafayette, in August, 1886, and again in August, 1888, and in July, 1890, among these last there being also specimens of *O. umbrosa* Loew.

FAMILY AGROMYZIDÆ.

*Leucopis nigricornis* Egger. Reared from larvæ preying upon *Siphonophora avenæ*, at Vincennes, June 26, 1889, the adults issuing in July, 1889. This is an imported species, as it occurs all over the United States, and has been reared from *Pemphigus* in France.

*Ceratomyza dorsalis* Loew. Reared from larvæ mining in the leaves of timothy, at Lafayette, in 1888, and also from larvæ mining in the leaf sheaths of wheat.

*Agromyza cneiventris* Fall. Reared from larvæ burrowing in the stems of white clover, *Trifolium repens*. See Report Commissioner of Agriculture, U. S., 1886, p. 582.

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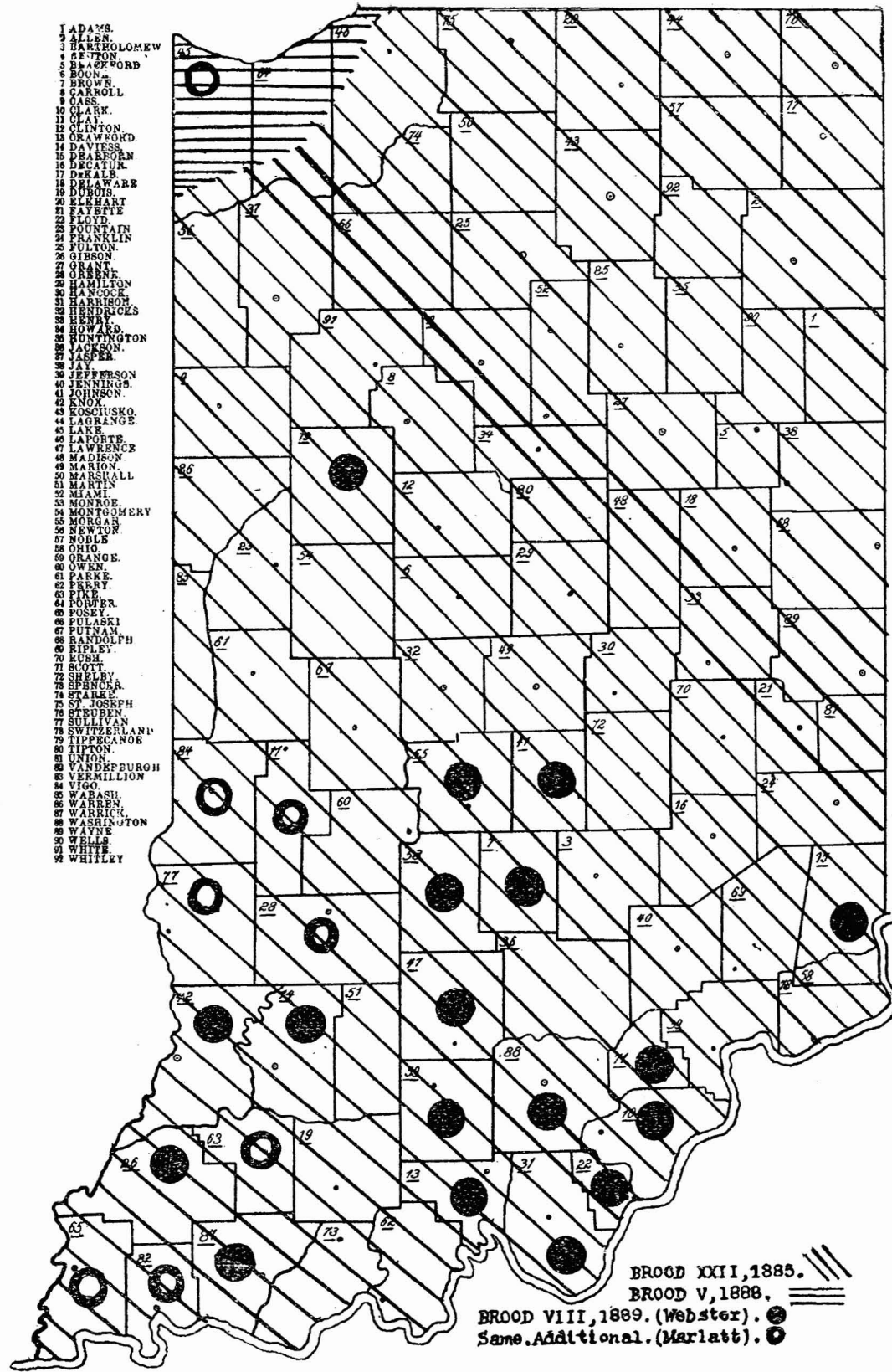
DISTRIBUTION OF BROODS XXII, V AND VIII, OF CICADA SEPTENDECIM, IN INDIANA. BY F. M. WEBSTER.

It was my good fortune, while located at Lafayette, Indiana, during the years 1884-90, as a special agent of the United States Department of Agriculture, Division of Entomology, to have an opportunity of studying the distribution of these three broods of the periodical cicada.

On consulting the accompanying map and explanation thereto, it will be observed that Brood XXII, 1885, covers the entire State, except a small area around the lower extremity of Lake Michigan. This strip of country is much narrower at the Michigan line than it is at the Illinois line, including as it does only the extreme northwest corner of Laporte county, the dividing line between this and Brood V being, here, between the village of Otis and the city of Laporte, crossing the line of Porter county about Wanatah, and passing across Lake county, in the vicinity of Orchard Grove.

This is the strongest of all the broods in Indiana and covers by far the greatest area. Its next recurrence will be in 1902.

Brood V covers only the area over which Brood XXII did not occur and does not, so far as I was able to learn, overlap that brood. It covers a



small portion of Laporte county and the greater portion of Porter and Lake counties, and will reappear next in 1905.

Brood VIII is almost entirely confined to the southern counties and was really very abundant in 1889 only in Harrison county. I have indicated by a dot on the map the localities where I know from personal knowledge the insect occurred, to which localities Mr. C. L. Marlatt, in Bull. 14, N. S., U. S. Dept. Agr., Div. Ent., has added others which I have indicated by a ○. The occurrence in Tippecanoe county was at Lafayette, a single female having been found by one of the sons of Dr. E. Test of Purdue University. This is the weakest in point of numbers of the three broods, and will in time become totally extinct, largely, at least, owing to the attacks of the English Sparrow, *Passer domesticus*. It will next appear in 1906.

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SOME INSECTS BELONGING TO THE GENUS *ISOSOMA*, REARED OR CAPTURED, IN INDIANA. BY F. M. WEBSTER.

*Isosoma grande* Riley. This was reared from wheat at Oxford and Lafayette, and was the first proof secured of the presence of a dimorphism, and alternation of generations in *Isosoma tritici*, as it was then known, the latter being now known as *minutum*, the wingless spring and winter generation; and the former as the winged, summer generation, the one having been bred from the eggs of the other by myself.

*Isosoma captivum* Howard. Captured from *Poa pratensis* at Lafayette. Type.

*Isosoma maculatum* Howard. Captured with the preceding. Type.

*Isosoma tritici* Fitch. Reared at Lafayette and elsewhere, and collected on grass at Lafayette.

*Eurytomocharis eragrostoidis* Howard. Reared at Lafayette from the stems of *Eragrostis poaeoides*. Type.

For descriptions of these species, as well as illustrations of them, see Bulletin No. 2, Technical Series, Division of Entomology, U. S. Dept. Agr., by Dr. L. O. Howard.

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LAKE COUNTY CROW ROOSTS. BY T. H. BALL.

[Abstract.]

The main roosting places in these later years, so far as ascertained, are two. One is five miles south of Crown Point, in a pine grove covering an area of about four acres on a large farm well out, in what was once