

Spill

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LIBERATIONS OF PARASITES OF THE EUROPEAN CORN BORER

IN THE UNITED STATES IN 1937

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The 1937 program for colonization of parasites of the European corn borer was conducted essentially as were those of the preceding 3 years. Adult parasites were reared from domestically collected host larvae or from similar material imported from Europe. All adult parasites emerged at the Moorestown, N. J., laboratory and were taken from there directly to the field or were shipped in iced containers by rail to other laboratories for release in adjacent infested regions. A total of 21,470 adults were released during the season, which (see Insect Pest Survey Bull. v. 16, no. 9, Sup., Dec. 20, 1936) brings the grand total of corn borer parasites released in the United States to date to over 5,660,000. A summary of the 1937 releases of the various parasites is given by States, counties, and townships in table 1.

Inareolata punctoria Roman.--Emphasis was again placed on the further distribution of the ichneumonid I. punctoria over the previously uncolonized infested area. A 1937 release of this species was made in Northampton County, Va., where it had been previously released in 1936, as the borer was reported to be rapidly increasing in that locality and it was thought that the parasite did not have a satisfactory chance of establishment in 1936, because of the unusual and severe drought of that year. In all, 16 releases of this larval parasite were made in as many counties located in 7 States. The number of adults released in 1937 was 8,827, bringing the total number to 138,577 released since the beginning of the corn borer parasite work. At the close of the 1937 season this parasite had been released in practically all counties known to have sufficient corn borer infestation to justify such releases. Liberations of this species were made in the eastern area from Chittenden County, in northern Vermont, to and including Northampton County, on the Eastern Shore of Virginia.

^{1/} D. W. Jones, W. G. Bradley, E. W. Beck, E. D. Burgess, and K. D. Arbuthnot assisted with the releases of the parasites over the infested area.

Similar releases were made in the western area from Huron County, in the "thumb" district of Michigan, southward to Darke and Miami Counties in Ohio and as far west as Steuben and Allen Counties, Ind. The parasite was also released in the heavily infested counties along the south shores of Lakes Ontario and Erie, in western New York. Map 1 shows all counties in which this parasite was released. During the 1937 season, a total of 1,257 adults of I. punctoria were shipped to Canada for release there.

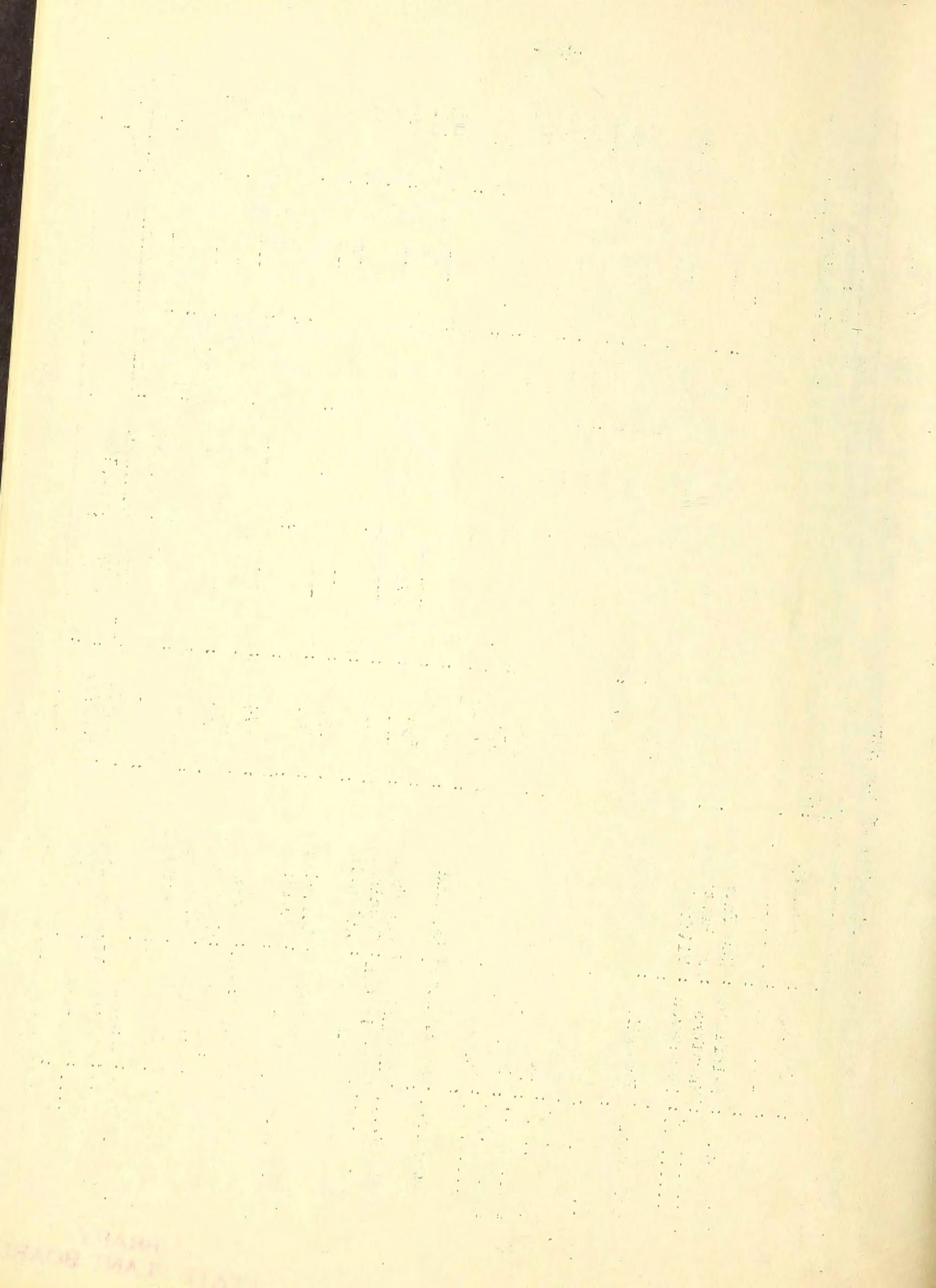
Chelonus annulipes Wesm.--Test releases of the braconid C. annulipes, a parasite which attacks the egg stage of the corn borer and emerges from the fourth-instar larva, were made at two points in Connecticut, one point in New Jersey, and two in Virginia. The releases of C. annulipes in substantial numbers in Virginia were made possible by a supply of this parasite received from the Canadian Department of Agriculture, through the courtesy of the Dominion Parasite Laboratory located at Belleville, Ontario. Adults received from Canada were laboratory reared. The other parasites released emerged from material imported from Italy. Releases in Connecticut and New Jersey were synchronized with the presence in the field of first-generation eggs and in Virginia with eggs of the second generation of the borer. A total of 10,305 adult parasites of this species were liberated at the 5 locations.

Lydella stabulans var. grisescens R. Desv.--This tachinid parasite had been colonized practically throughout the infested area prior to 1937. However, during this season a colony, consisting of 1,987 adults, was liberated at New Fairfield, in Fairfield County, Conn., where corn borer infestation had recently increased sufficiently to justify a release. A small release of this parasite was also made in New Jersey. A total of 4,319 adults were shipped to the Dominion Parasite Laboratory at Belleville, Ontario, for release in that area. Over 400 L. grisescens, of which half were mated females, were shipped by air express to the Bureau laboratory at Presidio, Tex., for testing on the pink bollworm (Pectinophora gossypiella Saund.).

Other parasites.--A small number of adults of the larval parasite Bassus agilis Cress. and of Labrorychus prismaticus Nort., which emerge from the host in the pupal stage, were obtained. These native parasites were released in New Jersey, as shown in table 1.

Table 1.--Liberations of parasites of the European corn borer in the United States in 1937

State	County	Township	Parasite species released					Total
			Inareolata: punctoria	Lydella grisea	Chelonus annulipes	Bassus agilis	Labrorhynchus prismaticus	
Connecticut...	Fairfield	New Fairfield	---	1,987	---	---	---	1,987
Do.....	Hartford	E. Hartford	---	---	593	---	---	593
Do.....	New Haven	Milford	---	---	590	---	---	590
Massachusetts.	Franklin	Bernardston	575	---	---	---	---	575
Michigan.....	Genesee	Genesee	599	---	---	---	---	599
Do.....	Huron	Sebewaing	558	---	---	---	---	558
Do.....	Lapeer	Goodland	499	---	---	---	---	499
Do.....	Livingston	Conway	394	---	---	---	---	394
Do.....	Washtenaw	Agusta	600	---	---	---	---	600
Do.....	Wayne	Livonia	573	---	---	---	---	573
New Hampshire.	Rockingham	Raymond	593	---	---	---	---	593
New Jersey....	Atlantic	Egg Harbor	593	---	---	---	---	593
Do.....	Burlington	Woodland	---	270	---	20	61	351
Do.....	Monmouth	Atlantic	---	---	450	---	---	450
Ohio.....	Sandusky	Ballville	474	---	---	---	---	474
Do.....	Williams	Madison	600	---	---	---	---	600
Vermont.....	Chittenden	Essex	575	---	---	---	---	575
Do.....	Rutland	Poultney	599	---	---	---	---	599
Do.....	Windham	Jamaica	557	---	---	---	---	557
Do.....	Windsor	Bridgewater	548	---	---	---	---	548
Virginia.....	Accomac	Lee	---	---	8,061	---	---	8,061
Do.....	Northampton	Franktown	490	---	611	---	---	1,101
Total.....	---	---	8,827	2,257	10,305	20	61	21,470



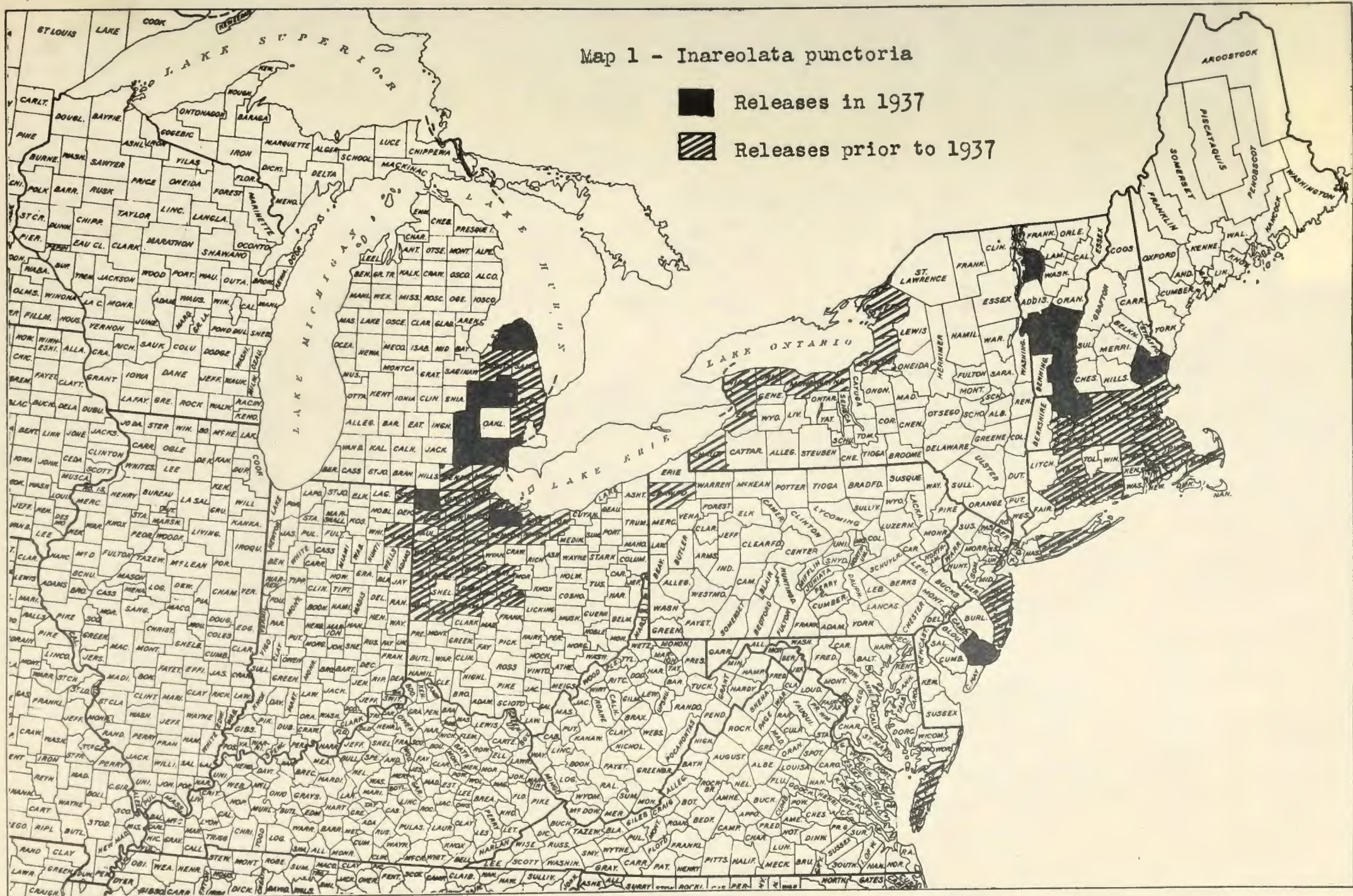
Map 1 - Inareolata punctoria



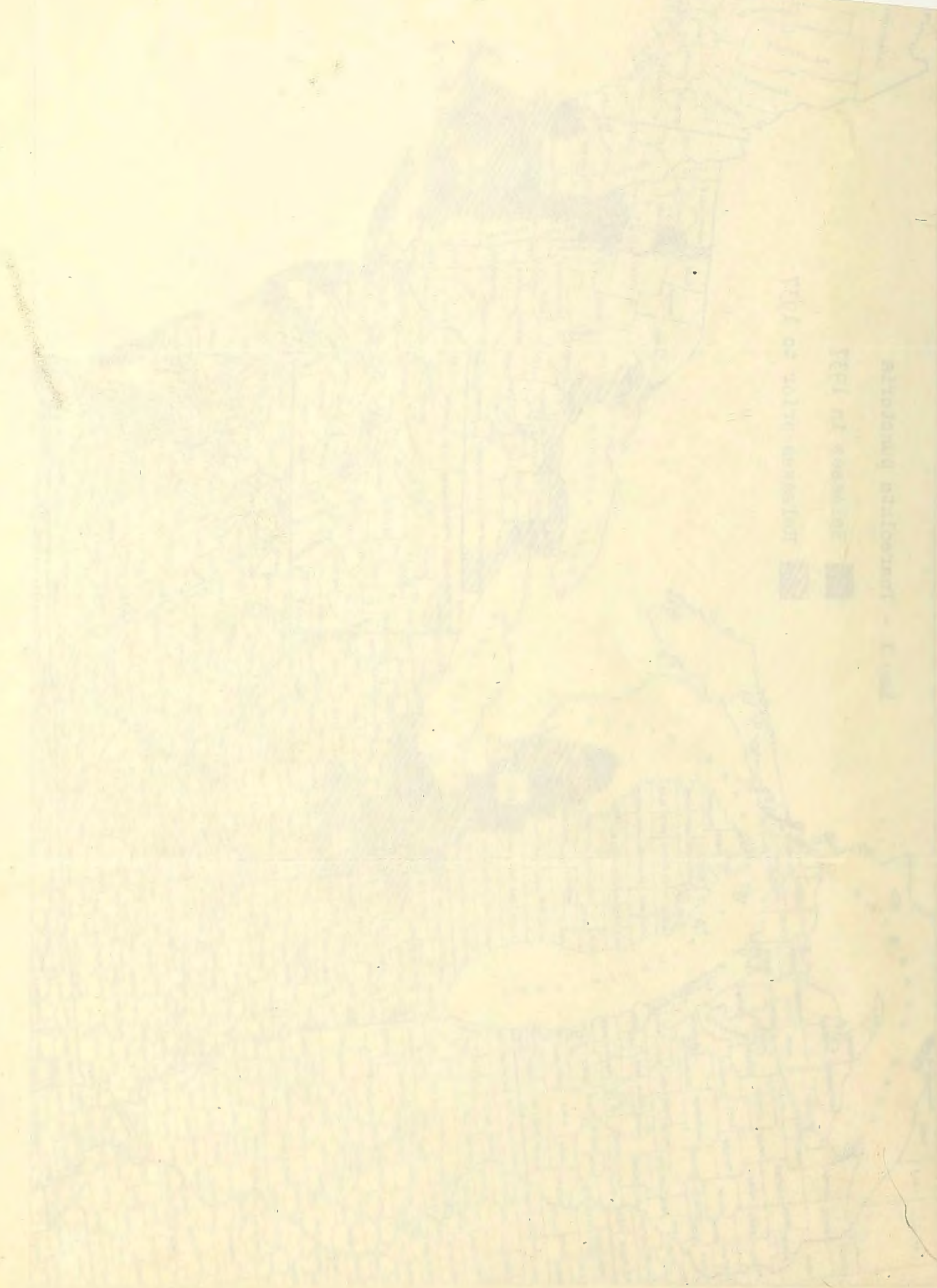
Releases in 1937



Releases prior to 1937



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