



THE INSECT RECORD FOR OKLAHOMA, 1937

F. A. Fenton, *Stillwater, Oklahoma*

THE MORE IMPORTANT INSECT PESTS

Grasshoppers were again the most serious insect pest. Approximately the same parts of the State were involved as in 1936 but the heaviest infested areas shifted to the more western counties, particularly those in the northwest. *Melanoplus differentialis* Thos. was again the most widespread and injurious and was associated with *M. bivittatus* Say., and *M. mexicanus* Saus. The latter species developed a second generation which was also observed in other states. *Dissostera longipennis* Thos. was much more abundant in 1937 than in 1936 and extended its range from Texas and Cimarron Counties to Beaver, Blaine, Canadian, Custer, Dewey, Greer, Harmon, Harper and Woodward Counties.

Alfalfa was defoliated by an unusually severe infestation of the garden webworm, *Loxostege stivalis* Guen., in September. The larvae skeletonized the leaves and occurred in such numbers that migration from

alfalfa fields and patches of careless weeds was necessary for the caterpillars to complete their development on other crops. Many reports were received of the worms crawling up the sides of houses and stripping gardens.

The June beetle, *Phyllophaga lanceolata* (Say), the larvae of which feed on the roots of wheat, was unusually common in many parts of the State, indicating possible widespread injury to the present wheat crop.

Cotton insects were at a rather low ebb except the boll worm, *Heliothis obsoleta* Fab., abundant in the late summer and the fleahopper, *Psallus seriatus* Reut., present in many fields.

The true army worm, *Cirphis unipuncta* Haworth, developed a spectacular outbreak in a wide belt of territory across the State from Tillman County on the Texas border to the Kansas line. It was present from May to early June, then suddenly disappeared. The worms developed in enormous numbers in wheat and grasses and migrated from grassy orchards and woodlands to adjacent row crops such as sorghum and corn. Little barley, *Hordeum pusillum* Nutt., was a common breeding ground for this pest.

This outbreak was followed by the development in enormous numbers of a predacious ground beetle, *Calosoma lugubre* Lec. This beetle had preyed upon the army worm and both larvae and adults were observed commonly in fields feeding on the caterpillars.

The variegated cutworm, *Lycophotia margaritosa saucia* Hubn., occurred in large numbers at the same time the army worm was prevalent. It was found chiefly in alfalfa fields and caused considerable damage by migrating to cotton. It was also commonly found on a number of weeds.

The green bug, *Toxoptera graminum* Rond., was present in wheat fields in widely scattered localities throughout the wheat belt of the State. An incipient outbreak in Caddo, Kiowa, Comanche, Tillman and Cotton Counties in April did not develop probably because of the presence of parasites and warm weather.

The same warm dry weather that checked the green bug was apparently favorable for a wheat mite, tentatively identified by E. A. McGregor as *Tetranychina tritici* Ewing. This pest multiplied rapidly and threatened to become a serious limiting factor when general rains checked it.

The walnut datana, *Datana integerrima* Grote and Rob., developed two generations, pecans and walnuts being defoliated twice during the year. This was the third successive year that this species had been present in outbreak numbers.

The flat-headed apple tree borer, *Chrysobothris femorata* (Oliv.), was the cause of widespread killing of many shade trees which had been devitalized by the drouth. Next to correspondence on termites, this was the most commonly mentioned insect for which control recommendations were given.

More letters were received requesting information on termite control than for any other insect. In most cases buildings were being damaged, but injury was reported to trees and chrysanthemums.

The sycamore prominent, *Misogada unicolor* Pack., caused defoliation of sycamores in the early fall over much of the State.

Much excitement and newspaper comment was caused by a large robber fly, *Deromyia dispar* Coq., that was observed preying upon the red harvester ant. In some cases, the flies were so numerous as to stop the ants from working. The flies usually remained in a resting position on the ground facing the nest but at a distance of about a yard or so away from the entrance hole. When ready to feed, the fly made a short flight to a spot near the hole, then almost at once pounced upon an ant and withdrew to the outside boundary of the nest.

FRUIT AND NUT INSECTS

- Aegeria cztiosa* Say, peach tree borer.
Blackwell, Feb. 1; Claremore, June 24; Nicoma, June 14; Oklahoma City, Jan. 8; Roosevelt, July 1.
- Agrilus ruficollis* Fab., red-necked cane borer.
Very abundant in eastern part of State on dewberries and young-berries.
- Ants.**
Ravia on grape, May 15; Sand Springs on strawberry, Apr. 19.
- Carpocapsa pomonella* Linn., codling moth.
Very abundant in some orchards, infestation spotted.
- Catocola viduata* Guen., alligator worm.
Common on pecans throughout State.
- Datana integerrima* Grote and Rob., walnut datana.
Defoliated walnuts and pecans generally throughout State. Anadarko, Sept. 17; Barnsdall, Sept. 22; Bristow, July 1; Muskogee, July 7, 10; Tulsa, July 29.
- Eriosoma lanigerum* (Haus.), woolly apple aphid.
Jay, Mar. 3.
- Erythroneura comes* (Say), grape leafhopper.
Grove, May 12.
- Hysteronera setariae* (Thos.), rusty plum aphid.
Oilton, May 13.
- Miso gada unicolor* Pack., sycamore prominent.
Defoliated sycamores generally throughout State in late September.
- Tetranychus telarius* Linn., red spider.
Selling (apple), Apr. 26.

HOUSEHOLD INSECTS

- Ants**
Edmond, June 16; Oklahoma City, June 16; Heavener (in well), Sept. 2; Okmulgee, Aug. 17; Pawhuska, July 14.
- Centipedes**
Tulsa, Apr. 17.
- Cimex lectularius* Linn., bed bug.
Blanchard, Jan. 25.
- Cockroaches**
Clinton, June 2, July 29; Guthrie, Aug. 6; Lawton, June 19; Muskogee, Apr. 7, Aug. 11; Yukon, May 15.
- Fleas**
Bethany, June 16; Britton, June 10; El Reno, May 7; Guthrie, July 8; Ponca City, June 18; Sayre, June 24.
- Leptisma saccharina* Linn., silverfish.
Enid, Sept. 3; Harrah, Aug. 21; Hunter, Aug. 5; McAlester, July 20; Oklahoma City, Sept. 25.
- Pogonomyrmex barbatus* var. *molefactens* Emery, red harvester ant.
Addington, Sept. 4; Chickasha, Apr. 7; Oklahoma City, May 23, June 7; Ponca City, Mar. 10, Sept. 21; Thomas, July 8; Tulsa, Aug. 24; Vici, Aug. 24; Wagoner, Sept. 21.
- Scorpions**
Shawnee, Mar. 10.
- Termites**
Ada, May 11, June 4; Altus, May 7; Atoka, Feb. 2; Bartlesville, Apr. 24, July 26; Bethany, Sept. 9; Blackwell, Sept. 13; Blanchard, Aug. 28; Broken Arrow, May 1, 13; Caldwell, Feb. 5; Chattanooga, Oct. 12; Chickasha, Sept. 8; Cushing, Apr. 22; Eldorado, Jan 13; El Reno, May 2;

Enid, July 1; Guthrie, June 15; Hennessey, Apr. 12; Holdenville, Apr. 30; Hominy, May 25; Kaw City, May 19; Lamont, Mar. 3; Lawton, Apr. 28, 30; Meeker, Aug. 4; Nardin, Mar. 11, Sept. 22; Norman, June 14; Oklahoma City, Feb. 2, May 8, 14, June 7, 17; Perry, Sept. 22; Ponca City, June 28, Sept. 28; Sentinel, Aug. 13; Shawnee, Jan. 7, July 9; Three Sands, Sept. 10; Tulsa, Feb. 11, Apr. 19; Wewoka, July 16; Hoakum, Oct. 13.

VEGETABLE INSECTS

Anasa tristis De Geer, squash bug.

Drumright, Mar. 20; Maud, May 20; Sand Springs, Apr. 19; Tonkawa, Apr. 28; Tulsa, May 21, Aug. 4.

Aphis gossypii Glov., melon aphid.

Blackwell, May 17; Guthrie, May 20; Ponca City, July 15; Texola, July 24; Tuttle, July 1; Wewoka, July 24.

Blister beetles

Loyal, July 20; Ralston, July 9.

Brevicoryne brassicae Linn., cabbage aphid.

Drumright, May 16; Hendrix, Apr. 17; Locust Grove, Apr. 20.

Cutworms

Choctaw, May 15; Tulsa, Apr. 26.

Diabrotica duodecimpunctata (Fab.), twelve-spotted cucumber beetle.

This species was unusually abundant in the fall of 1937.

Enid, Aug. 21, Oct. 29.

Diabrotica vittata Fab., two-striped cucumber beetle.

Stillwater, Apr. 12; Wynnewood, Apr. 27.

Plant lice (general).

Antlers, June 24; Stillwater, May 14.

Pieris rapae Linn., imported cabbage worm.

Cooper, May 31; Eagle, Apr. 26; Oklahoma City, Apr. 20; Prague, June 4; Tulsa, July 22.

Leptinotarsa decemlineata (Say), Colorado potato beetle.

Wynnewood, Apr. 27.

Sowbugs

Calumet, July 26; Davis, May 29; Sayre, June 3.

Thrips tabaci Lind., onion thrips.

Depew (on tomato), June 11.

TREE AND SHRUB INSECTS

Bagworms

Seminole, July 29.

Cankerworms

Stillwater, elm trees generally infested in June.

Chrysobothris femorata (Oliv.), flat-headed apple tree borer.

Ada, Aug. 21; Carmen, May 8; Cherokee, Apr. 17; Chickasha, Apr. 17; Chilocco, Mar. 16; Crescent, Sept. 2; Driftwood, Apr. 17; Drumright, May 24; Enid, Mar. 17, 29, Aug. 30; Foss, Apr. 17; Garber, Jan. 19; Granite, Feb. 16; Guthrie, Sept. 8; Henryetta, Aug. 10; Kingfisher, May 15, July 29; Meeker, Apr. 9; McAlester, July 20; Muskogee, Sept. 21; Oklahoma City, July 6, 20; Pawhuska, Feb. 16; Ponca City, May 20; Pryor, Mar. 9; Prairie Valley, Apr. 5; Roff, June 26; Sapulpa, Apr. 17; Shawnee, Apr. 2, 19; Stillwater, July 20; Tulsa, Aug. 10, 18; Weleetka, Aug. 11; Wellston, Apr. 30, July 14; Wewoka, Aug. 4; Wynnewood, Apr. 10.

Colopha ulmicola Fitch, cockscomb elm gall.

Cushing, May 21.

- Lecantum corni* Bouche, European fruit lecanium (brown elm scale).
On elm chiefly, Cherokee, Jan. 1; Enid, Jan. 6; Fairfax, May 2, 8; Guthrie, May 12, Sept. 8; Perry, Mar. 25; Ponca City, Feb. 16; Prague, Apr. 30; Shidler, May 4.
- Phloeosinus dentatus*, (Say), cedar bark beetle.
Hydro, May 25.
- Plectrodera scalator* Fab., cottonwood borer.
Holdenville, July 2.
- Saperda calcarata* Say, poplar borer.
El Reno, Mar. 10.
- Termites*
Afton, Apr. 26; Hunter, May 21; Oklahoma City, Mar. 24; Tulsa, Feb. 23.
- Tetranychus telarius* Linn., red spider.
Duncan (on evergreens), May 28.

FIELD CROP INSECTS

- Alabama argillacea* Hubn., cotton leafworm.
Not serious, infestation spotted with stripping confined to localized fields in bottoms.
- Anthonomus grandis* Boh., boll weevil.
Less abundant than usual over much of the State except McCurtain County and parts of Choctaw where severe damage was caused to late cotton in some fields near the river bottoms.
- Blissus leucopterus* (Say), chinch bug.
Afton, June 2; Bixby, July 8; Chelsea, June 16; Claremore, May 8; Coalgate, July 24; Haskell, July 1; Jennings, June 17; Okemah, June 10; Pawhuska, June 11; Ralston, June 18; Stroud, June 12; Vinita, June 26, 30.
- Brucophagus funebris* How., alfalfa seed chalcid.
Clinton, Sept. 10; Cordell, July 17; Sentinel, July 22.
- Cirphis unipuncta*, (Haw.), army worm.
Apache, May 25; Grandfield, May 15; Keystone, May 18; Medford, May 17; Ramona, May 23; Verden, Aug. 10.
- Dissostera longipennis*, Thos., long-winged plains grasshopper.
Predominating species in the panhandle counties and in Harper County.
- Heliothis obsoleta*, Fab., corn earworm.
More abundant than since 1934. Caused considerable damage to cotton bolls and grain sorghum buds.
- Hylemyia cilicrura* Rond., seed corn maggot.
Okmulgee, Apr. 13.
- Hypera punctata* (Fab.), clover leafweevil.
Infesting alfalfa, Shawnee, June 4.
- Loxostege similalis* Guen, garden webworm.
In outbreak numbers in alfalfa fields and careless weed patches in September. More abundant than in many years.
- Lycophotia margaritosa saucia* Hubn., variegated cutworm.
Okmulgee, May 24.
- Melanoplus differentialis* Thos., (differential grasshopper.)
Again the most prevalent species of injurious grasshoppers. Not so abundant as in 1936.
- Melanoplus bivittatus* Say, two-striped grasshopper.
Locally abundant, usually much smaller numbers than the above.
- Melanoplus mexicanus* Saus., lesser migratory grasshopper.
Common in alfalfa fields. A second generation was developed with heavy egg deposition in the fall of 1937.

- Nysius ericae* Schill., false chinch bug.
Grandfield, July 9; Sayre, July 12.
- Phyllophaga lanceolata* (Say), wheat white grub.
Blaine County, Jan. 4; Medford, Sept. 20; Alfalfa County, November.
- Phyllophaga* spp. White grub.
Madill, July 9.
- Plutella maculiformis* Curtis.
Generally distributed in wheat fields throughout the State.
- Psallus seriatus* Reut., cotton fleahopper.
Caused considerable damage. Cordell, July 21.
- Tetranychina tritici* Ewing, wheat mite.
Unusually abundant throughout wheat belt.
- Toxoptera graminum* Rond., green bug.
Billings, Jan. 6; Lawton, Apr. 6.

POULTRY INSECTS

- Argas miniatus* (Koch.), fowl tick.
Indianoma, July 17; Yukon, July 27.
- Echidnophaga gallinaceae* (West.), sticktight flea.
Garber, Sept. 17; Wanett, Aug. 28.

MISCELLANEOUS

- Erebis odora* Linn., giant noctuid.
Medford, Aug. 27.
- Calosoma lugubre* Lec., ground beetle.
Exceedingly abundant following army worm outbreak.
- Deromyia dispar* Coq., a robber fly.
General in eastern part of State; considerable newspaper publicity as an enemy of the red harvester ant.
- Megarhyssa lunator* (Fab.), horntail borer parasite.
Sulphur, Sept. 28.
- Galleria mellonella* Linn., wax moth.
Catoosa, Sept. 1; Tahlequah, Aug. 18.
- Spectus spectosus* (Drury), cicada killer.
Sayre, Aug. 17.

