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THE MORE IMPORTANT RECORDS FOR MARCH

During the first week in February the eggs of the lesser migratory grasshopper began hatching in California, and by the middle of March 70 percent of the eggs in unshaded fields had hatched.

Mormon crickets were observed to be hatching in the foothills of Utah, in the middle of March.

Early spring surveys in Oklahoma, Kansas, and Iowa indicate that winter mortality of chinch bug is comparatively low.

An outbreak of the greenbug is under way in central Oklahoma.

Fuller's rose beetle was reported as doing commercial damage in raspberry plantings in parts of California.

In New York the codling moth has passed the winter thus far with very low mortality. In the Yakima district, in Washington State, about 20 percent of the larvae had pupated by March 21.

Winter mortality of the plum curculio in the Fort Valley section of Georgia was unusually low. This insect is leaving hibernation late this spring, synchronizing with the late blooming of peach. The first adult was taken on March 17.

The green citrus aphid is becoming numerous in southern and central Florida.

Large numbers of pepper weevils have passed the winter successfully in Los Angeles and Orange Counties, Calif.

Winter survival of the Nantucket pine shoot moth in parts of Virginia is high.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

Utah. G. F. Knowlton and H. F. Thornley (March 15): A few nymphs, Hippiscus corallipes Hald., are present and $\frac{1}{2}$ inch long. (March 17): Nymphs of H. corallipes are from $\frac{1}{2}$ to $\frac{2}{3}$ inch long at Lofgreen and Government Creek in Tooele County.

California. C. C. Wilson (March 20): The first generation of Melanoplus mexicanus Sauss. began hatching about February 5 in alfalfa fields consisting of sparse and short plants, and on March 12 hatching was approximately 70 percent complete in unshaded fields. The stage of development ranged from the first to the fourth instar, with 87 percent in the second and third instars. Although hatching was incomplete, the population density ranged from 180 to 450 per square yard and damage was observed in several fields.

MORMON CRICKET (Anabrus simplex Hald.)

Utah. H. F. Thornley (March 13): A few have hatched just west of Lookout Pass, in Tooele County. Snow still partially covers some egg beds in Tooele, Juab, and Utah Counties.

G. F. Knowlton and H. F. Thornley (March 15): Mormon crickets hatching in the foothills south of Elberta in Utah County. (March 17): Eggs just beginning to hatch at Government Creek foothills, in Tooele County.

CUTWORMS (Phalaenidae)

Georgia. T. L. Bissell (March 29): Numerous cutworms found during month in fields of dead grass, leaves, and some green weeds, the most common one being Peridroma margaritosa Haw., which is about full grown.

Kansas. H. R. Bryson (March 27): Agrotis orthogonia Morr. reported as more abundant than usual at Atwood, in western Kansas. E. G. Kelly reports that they are abundant generally in the western counties of the State.

Oklahoma. F. A. Fenton (March 25): Serious damage to alfalfa by Chorizagrotis auxiliaris Grote reported from Tillman County.

Texas. R. K. Fletcher (March 21): Cutworms have done considerable damage to spinach and onions in Dimmit and Zavala Counties this spring.

Idaho. H. C. Manis (March 22): Some damage is being done by cutworms in commercial turnip fields in the vicinity of Parma.

Utah. E. H. Gibson (March 11): Cutworms exceptionally numerous in fields and gardens in and around Ephraim, in central Utah. Too early for much damage. (Determined by C. Heinrich who says it is possible that this is C. auxiliaris var. agrestis Grt.).

G. F. Knowlton (March 26): Cutworms apparent in some places around Logan.

STRAWBERRY FRUITWORM (Cnephasia longana Haw.)

Oregon. D. C. Mote (March 17): Omnivorous leaf tier, in the third instar, mining in leaves of some common weeds in the Willamette Valley.

AN ARCTIID (Estigmene sp.)

Georgia. T. L. Bissell (March 29): Some black caterpillars, probably Estigmene, half grown, were found during the month in fields of dead grass, leaves, and some green weeds.

WIREWORMS (Elateridae)

Iowa. H. E. Jaques (March): Reported from Dallas and Union Counties.

California. R. E. Campbell (March 18): Specimens of Limonius canus Lec. were submitted by C. S. Morley, who reported that adults were feeding on new grape shoots in the Arvin district. Three or four beetles were found feeding on the same shoot, and in many cases the terminal bud was destroyed. (Det. by M. C. Lane.)

WHITE GRUBS (Phyllophaga spp.)

Mississippi. F. A. Smith (March 29): Numerous in soil in the Senatobia area.

Iowa. H. E. Jaques (March): Present in Warren, Dallas, and Union Counties.

Texas. H. J. Reinhard (March 4): Twelve males and 7 females of P. calceata Lec. found in Galveston County. (March 15): One male and 2 females of P. rubiginosa Lec. noticed at light in Brazos County. These are both first-seasonal-activity records.

Utah. G. F. Knowlton (March 26): White grubs causing serious injury to lawns in one section of Salt Lake City. Several lawns in one block were heavily damaged, so that grass rolls back readily where roots have been eaten off.

SAY'S STINKBUG (Chlorochroa sayi Stal)

North Dakota. J. A. Munro (March): Overwintered adults picked up at random by D. Lawrence from bare flax stubble and cornfields at New England, Hettinger County, shortly following the season's lowest temperatures of -23° F. on February 26, showed approximately 60-percent mortality. One lot collected in an adjoining field of trashy summer-fallow ground showed only 15-percent mortality. Examination of adult females during first week of March revealed only slight egg development.

CEREAL AND FORAGE - CROP INSECTS

WHEAT AND OTHER SMALL GRAINS

CHINCH BUGS (Blissus leucopterus Say)

- Iowa. C. J. Drake (March 20): Preliminary results of spring survey now in progress indicate possibility of moderate to large-scale outbreaks this summer. Exceptionally large numbers went into winter quarters last fall and from the scattered reports available it seems fairly certain that a very large number survived the winter in the south-western and western-central parts of the State.
- Kansas. H. R. Bryson (March 21): Hibernating in large numbers in the eastern third of the State. Examination of bunchgrass at Manhattan indicated mortality approximating 8 percent.
- Oklahoma. R. G. Dahms (March 24): Examination of 50 1/5-square foot samples of bunchgrass collected in 25 different points in Comanche County in March showed a total of 7,145 live and 60 dead chinch bugs, or a mortality of only 0.83 percent, the lowest percentage of winter mortality in both bunchgrass and sorghum stubble for any time in the last 5 years.
- C. F. Stiles (March 31): The hurried survey through the north-eastern section of the State during the week ended March 29 showed that chinch bugs were still in hibernation in bunchgrass; however, the number seems to be slightly reduced from what it was last fall. No bugs were found in small grain. The weather is still cold, with temperatures below freezing on March 29.

GREEN BUG (Toxoptera graminum Rond.)

- South Carolina. W. C. Nettles (March 22): Early-planted winter oats and wheat in eastern half of State considerably infested and damaged by spring grain aphid.
- Oklahoma. C. F. Stiles (March 31): This pest has been reported within the last 48 hours from the following counties: Pottawatomie, Jefferson, Logan, Canadian, Kay, and Washington, scattered throughout the middle third of the State from north to south. The infestation seems to be limited mostly to barley. Plans are under way to make a hurried survey during the next few days to determine the extent of the infestation.

CORN

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

- Virginia. H. G. Walker (March 27): Very heavy carry-over of larvae in Princess Anne County. No pupae or prepupae were found in over 100 larvae examined on March 24.

CORN EAR WORM (Heliothis armigera Hbn.)

Florida. J. R. Watson (March 27): Injuring gladiolus by mining the blossom stalk.

Idaho. P. H. Shirck (March 10): Twenty-seven pupae, of which 25 were dead, were located in Parma, Canyon County, by digging in corn rows in several fields severely infested in 1940.

SEED CORN BEETLE (Agonoderus lecontei Chaud.)

Iowa. H. E. Jaques (March): Abundant in Cedar County, in the eastern part of the State, and reported from Floyd County, in the northern part.

ALFALFA

ALFALFA WEEVIL (Hypera postica Cyll.)

Utah. F. V. Lieberman (March 24): Eggs present in growing alfalfa stems of Millard County (central), the third week of March, a month before the usual appearance.

Nevada. G. G. Schweis (February 25): Larvae found on plants today, the earliest date ever recorded for finding larvae in western Nevada.

California. A. E. Michelbacher (March 26): Has caused damage only in a very localized area in the northwestern part of the San Joaquin Valley. In several fields the feeding has been heavy but damage has not been serious. Infestation over the valley is light, much less than a year ago. Number of larvae collected on March 25 in the infested area ranged from 0 to 2,547 per 100 sweeps; as compared with 1 to 55 per 100 sweeps collected in the San Francisco Bay survey made on March 20. Parasitization by Bathyplectes curculionis Thos. of last-instar weevil larvae, determined by rearing out the parasites from larvae collected on March 14, amounted to about 40 percent in the San Joaquin Valley, as compared with 92 percent in the San Francisco Bay area. At Pleasanton, on March 20, 4 fields were surveyed without a single weevil being taken.

ALFALFA CATERPILLAR (Colias eurytheme Bdv.)

South Carolina. F. Sherman (March 22): Clover butterflies (Colias sp.) in flight in small numbers at Clemson since mid-March.

California. A. E. Michelbacher (March 26): Larvae of C. eurytheme very scarce in San Joaquin Valley on March 25. In most of the fields none were collected.

PEA APHID (Macrosiphum pisi Kltb.)

Oregon. K. W. Gray (March 17): Found attacking peas and vetches in the Willamette Valley. Few winged migrants found. Usually these occur late in April. Syrphid eggs present earlier than usual and about 2 weeks ahead of normal season.

TARNISHED PLANT BUGS (Lygus spp.)

Utah. G. F. Knowlton (March 21): L. elisus Van D. and L. elisus hesperus Knight now emerging from hibernation in northern Utah alfalfa fields and gardens.

VETCH

GARDEN SLUG (Agriolimax agrestis L.)

Oregon. B. G. Thompson (March 17): Still doing considerable damage in the Willamette Valley, especially to clover planted in February, 30,000 acres of crimson clover and hairy vetch being so severely damaged that it was necessary to plough up the fields and plant to other crops.

HOP LOOPER (Hyoena humuli Harr.)

Alabama. J. M. Robinson (February 28): Reported active on vetch.

F R U I T I N S E C T S

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata F.)

Georgia. O. I. Snapp (March 17): Adults have begun to appear from hibernation at Fort Valley, several having been jarred from peach trees today.

Texas. W. S. McGregor (March 15): Many adults found feeding on blossoms of plums and peaches in Brazos County.

FULLER'S ROSE WEEVIL (Pantomorus godmani Crotch)

California. G. Kido (March 27): Found doing considerable damage to commercial raspberry plantings in the Mountain View district. Counts made showed that 96 percent were in the larval stage and the remainder in the pupal stage.

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Mississippi. N. L. Douglass (March 29): Several peach-tree infestations reported from Grenada and Tallahatchie Counties.

A BUTTERFLY (Polygonia interrogationis F.)

Georgia. T. L. Bissell (March 25): A plum tree in blossom is attracting several butterflies of this species.

SAN JOSE SCALE (Aspidiotus perniciosus Const.)

Michigan. R. Hutson (March 26): Very little scale apparent in the fruit-growing districts, despite continued search.

Mississippi. C. Lyle (March 29): Reported causing much injury to untreated trees in the Grenada area. Also present in Lauderdale and Pike Counties, according to N. L. Douglass.

Oklahoma. F. A. Fenton (March 25): Present at Soper, Choctaw County, in the southeastern part of the State.

WHITE PEACH SCALE (Aulacaspis pentagona Targ.)

Georgia. O. I. Snapp (March 19): Light infestation in several peach orchards at Fort Valley, in central Georgia.

Alabama. J. M. Robinson (February 18): Reported on kudzu in Autauga County.

Louisiana. C. O. Eddy (March 1): Specimens found on plum tree at Clarks. (Det. by H. Morrison.)

SCURFY SCALE (Chionaspis furfura Fitch)

Pennsylvania. H. M. Steiner (March 28): Generally prevalent in Adams County in many old apple orchards, with occasional limbs heavily encrusted. Most of the old scales on young twigs are filled with eggs. In 1940 few of the old scales covered eggs.

Michigan. R. Hutson (March 26): Small amount in vicinity of Bangor, in southwestern Michigan.

THRIPS (Frankliniella spp.)

California. S. F. Bailey (March 22): Very scarce on plums and peaches.

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

New York. D. W. Hamilton (March 27): Mortality of overwintered larvae at Poughkeepsie is very low. Larvae overwintering under paper bands on tree trunks were examined March 26 and less than 12 percent were dead. Minimum winter temperature for Poughkeepsie was -12° F. Temperatures were below zero on five different nights. Dutchess County temperatures ranged at least 10° below those recorded for Poughkeepsie.

Missouri. L. Haseman (April 1): This insect has come through in perfect condition; and a heavy first brood infestation is expected.

Washington. M. A. Yothers and F. W. Carlson (March 21): About 20 percent of the larvae have pupated in the apple orchards at Yakima. Season is a few days earlier than last year.

EASTERN TENT CATERPILLAR (Malacosoma americana F.)

Florida. S. O. Hill (March 23): First colony observed feeding on wild crab apple in the vicinity of Monticello, in the northern part of the State.

Oklahoma. F. A. Fenton (March 25): Just hatching at Millerton, in the extreme southeastern part of the State.

FRUIT TREE LEAF ROLLER (Cacoccia argyrosyla Walk.)

Illinois. W. P. Flint (March 22): Egg masses found more abundant than last year in Adams, Pike, and Brown Counties, in western Illinois. In woodland areas they are so abundant that partial defoliation is sure to occur if weather is favorable to the young caterpillars.

PISTOL CASEBEARER (Coleophora malivorella Riley)

Pennsylvania. H. M. Steiner (March 28): Moderately abundant in approximately 1,500 acres of apple orchard in Adams County, southeastern Pennsylvania.

A TENTIFORM LEAF MINER (Gracilardiidae)

Pennsylvania. H. M. Steiner (March 28): Tentiform leaf miner pupae very abundant in fallen leaves on ground beneath trees in several Adams County apple orchards.

APHIDS (Aphidae)

Pennsylvania. H. M. Steiner (March 28): Eggs of apple aphids are more numerous in Adams County orchards than in recent years. A few newly hatched apple grain aphids (Rhopalosiphum prunifoliae Fitch) were observed on March 24, but little hatching has occurred.

Michigan. R. Hutson (March 26): Aphid eggs very numerous in apple orchards throughout the State.

Idaho. H. C. Manis (March 22): Green apple aphid (A. pomi) abundant again, especially in untreated orchards.

Oregon. B. G. Thompson (March 17): Rosy apple aphids (Anuraphis rosae Baker) beginning to appear in early apples in the Willamette Valley.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Pennsylvania. H. M. Steiner (March 28): Populations vary greatly within Adams County apple, peach, and cherry orchards, the eggs being most numerous in blocks interplanted with two of the fruits. Eggs scarce on trees that dropped their leaves before mid-October of the previous year.

Michigan. R. Hutson (March 26): Extremely numerous in all sections of the State.

PEACH

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Georgia. O. I. Snapp (March 19): Mortality of adults in hibernation at Fort Valley was unusually low last winter, but this was expected, as temperatures no lower than 20° F. were recorded during the winter. Of 938 field-reared adults placed in Bermuda grass and oak leaves for hibernation, 485, or 51.7 percent, survived the winter of 1940-41, and of 435 insectary-reared adults placed in the same kind of hibernating materials, 296, or 68 percent, survived the winter. Although plum and peach trees were jarred daily since March 3, the first adult was not taken by jarring until March 17. Adults do not appear from hibernation in numbers until the mean temperature has been above 60° F. for several successive days, and no such period of warm weather has occurred. They are late leaving hibernation but the peach trees are also late in blooming.

Texas. W. S. McGregor (March 21): Three adults jarred from 12 plum trees in Brazos County.

PEACH BORER (Conopia exitiosa Say)

Mississippi. C. Lyle (March 29): Reported injuring peach trees in Lawrence County.

Nevada. G. G. Schweis (March 5): Borers, Conopia sp., found infesting peach trees in Reno in February.

PEACH TWIG BORER (Anarsia lineatella Zell.)

California. S. F. Bailey (March 22): Emerged about a week ahead of last year and some larvae are already mature, which indicates an early brood the latter part of April.

GREY PEACH APHID (Myzus persicae Sulz.)

Idaho. H. C. Manis (March 22): Abundant, especially in untreated orchards.

TERRAPIN SCALE (Lecanium nigrofasciatum Perg.)

Pennsylvania. H. M. Steiner (March 28): Few heavy infestations, but scales are common in many peach orchards in Adams County.

PEAR

PEAR THRIPS (Taeniothrips inconsequens Uzel)

Oregon. S. C. Jones (March 3): First emergence found in opening Italian prune buds at Salem, Keizar Bottom District, on March 3.

California. S. F. Bailey (March 22): Emergence is lightest in 10-year record. Little or no bud damage occurred on either pears or prunes in the major deciduous-fruit-growing counties.

CHERRY

BLACK CHERRY APHID (Myzus cerasi F.)

Idaho. H. C. Manis (March 22): Abundant, especially in untreated orchards.

PLUM

LEAF CRUMPLER (Mineola indigenella Zell.)

Idaho. H. C. Manis (March 22): Larvae heavily infesting prune orchards in Gem and Canyon Counties. Most orchards examined have light infestations.

CURRANT

GOOSEBERRY BORER (Xylocrius agassizi Lec.)

Oregon. J. Schuh (March 10): Specimens found in currant roots at Oregon City.

PECAN

HICKORY SHUCK WORM (Laspeyresia caryana Fitch)

Florida. S. O. Hill (March 12): First adult emerged from caged material at Monticello on March 12.

GIANT APHID (Longistigma caryae Harr.)

Mississippi. C. Lyle (February 20): Specimens taken from pecan in Harrison County.

Maryland. E. P. Felt (March 31): Eggs extremely abundant on pin oak at Bethesda.

CITRUS

GREEN CITRUS APHID (Aphis spiraeicola Patch)

Florida. J. R. Watson (March 27): Becoming numerous in southern and central parts of the Citrus Belt. The Chinese ladybeetle (Leis dimidiata quinquedecimspilota Hope), which for many years has done such effective work in keeping down this aphid in Orange County, is very scarce, probably due to the scarcity of aphids during the dry fall.

PURPLE SCALE (Lepidosaphes beckii Newm.)

Florida. J. R. Watson (March 27): More abundant than during average years.

FLORIDA RED SCALE (Chrysomphalus aonidum L.)

Florida. J. R. Watson (March 27): More abundant than during average years.

HEMISPHERICAL SCALE (Saissetia hemisphaerica Targ.)

Texas. R. K. Fletcher (March 11): Found on palm in Anderson County.

A SPIDER (Tetranychus sp.)

California. R. S. Woglum (March): Eggs abundant in many orchards, even though heavy rains have checked and in some places reduced the spider.

T R U C K - C R O P I N S E C T S

VEGETABLE WEEVIL (Listroderes obliquus Klug)

Florida. F. S. Chamberlin (March 26): Moderately abundant on tobacco-plant beds in Gadsden County.

J. R. Watson (March 27): Larvae received from Panama City and Chipley. It is believed that Panama City is the farthest south that any infestation has been reported.

Mississippi. C. Lyle (March 29): Larvae feeding on cabbage in Winston County on March 7. T. F. McGehee observed damage to turnips in the Gulfport area.

Texas. W. S. McGregor (March 1): Heavy infestation in Milan County where the insect completely defoliated turnips and cabbage.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata F.)

Virginia. H. G. Walker (March 24): Active on warm days throughout the winter at Norfolk.

Georgia. T. L. Bissell (March 29): Female which was caught on February 28 at Experiment and caged out of doors began laying eggs on March 11. Two adults, one in flight, found on March 19. Large number caught on March 24 by sweeping row of dead Bermuda grass which covers small green vetch.

Louisiana. C. O. Eddy (March 29): Adults are numerous.

SEED-CORN MAGGOT (Hylemya cilicrura Rond.)

Virginia. H. G. Walker (March 27): Adults active on warm days during March at Norfolk.

Florida. J. R. Watson (March 27): Reported injuring beans in Alachua and Marion Counties, and cucumbers in Sumter County.

Mississippi. C. Lyle (March 22): Small English-pea plants, evidently injured by the seed-corn maggot, were received from Harrison County.

CABBAGE LOOPER (Autographa brassicae Riley)

Florida. G. M. Hocking (March 14): Specimen picked from peppermint plant growing in a sand culture in the University greenhouse at Gainesville. Started pupating on February 25 and imago emerged on March 10. (Det. by J. F. G. Clarke.)

MOLE CRICKETS (Scapteriscus spp.)

Florida. F. S. Chamberlin (March 17): Less abundant than normal on tobacco-plant beds in Gadsden County.

GARDEN CENTIPEDE (Scutigera immaculata Newp.)

Utah. G. F. Knowlton (March 20): Abundant and causing severe damage in several gardens at Providence.

TOMATO

APHIDS (Aphidae)

Florida. J. R. Watson (March 27): Severe outbreak on tomatoes in Manatee County, the principal species being Macrosiphum solanifolii Ashm., with Myzus persicae Sulz. less numerous.

Utah. G. F. Knowlton (March 21): Aphids reported attacking tomato in experimental greenhouse at Logan.

PEAS

PEA APHID (Macrosiphum pisi Kltb.)

Louisiana. E. H. Floyd and C. O. Eddy (March 29): Common but not abundant.

CABBAGE

APHIDS (Aphiidae)

Virginia. H. G. Walker (March 27): Few cabbage aphids present in old cabbage and kale fields at Norfolk. Very scarce on young cabbage plants carried over the winter for the spring crop.

SPINACH

GREEN PEACH APHID (Myzus persicae Sulz.)

Virginia. H. G. Walker (March 27): Very abundant on spinach in the Norfolk district last November and early in December but were nearly all killed by a fungus disease. Very scarce now.

STRAWBERRY

APHIDS (Aphiidae)

Utah. G. F. Knowlton (March 21): Aphids are attacking strawberries in experimental greenhouse at Logan.

A SPITTLE BUG (Philaenus leucophthalmus L.)

Oregon. R. G. Rosenstiel (March 17): First-stage nymphs feeding freely on strawberries in the Willamette Valley.

A RED SPIDER (Tetranychus sp.)

Virginia. H. G. Walker (March 27): Very scarce in most strawberry fields at Norfolk.

PEPPER

PEPPER WEEVIL (Anthonomus eugenii Cano)

California. J. C. Elnore (March 20): Has survived the winter in larger numbers than usual in Los Angeles and Orange Counties. Adults have been found on black nightshade wherever peppers have been grown. Collections from 20 plants from 10 localities indicated a range of from 0 to 25 weevils, per plant, with an average of 3 per plant.

C O T T O N I N S E C T S

BOLL WEEVIL (Anthonomus grandis Boh.)

Florida. C. S. Rude (March 15): Seventeen active weevils were observed in hibernation cages at McIntosh during the week. Nine were observed in cages in which leaves were used as bedding and 8 in cages where coarse grass was used. (March 22): Nine active weevils were observed in hibernation cages where forest leaves were used as bedding, and 15 active weevils in those where coarse grass was used. (March 29): Active in hibernation cages during the week, notwithstanding cool weather.

Texas. H. S. McGregor (March 4): Jarred from peach tree in Brazos County.

K. P. Ewing et al. (March 28): Observed active in McLennan County in all series of hibernation studies. Greatest number observed in any cage was four.

PINK BOLLWORM (Pectinophora gossypiella Saund.)

Texas. A. J. Chapman (March 15): Examinations completed during the week showed approximately 20-percent mortality in the bolls on the stalks but there was no significant mortality in the bolls on the soil surface.

Mexico. A. J. Chapman (March 29): Examination on March 18 of a sample of open cotton bolls installed on the soil surface last fall at Vado de Cedillas in the lower Juárez Valley revealed that mortality during the winter was 56.18 percent. There were 2.35 larvae per boll at the time the bolls were installed last fall and 1.03 larvae per boll on March 18. A minimum temperature of 16° F. was recorded on January 18.

COTTON FLEA HOPPER (Psallus seriatus Reut.)

Louisiana. I. J. Becnel (March 24): First nymphs emerged from cages.

Texas. K. P. Ewing et al. (March 28): First emergence from cages at Waco recorded on March 22, on which date 38 nymphs emerged from croton plants. From March 22 to 28, inclusive, 3,367 nymphs emerged, 56 being from plants other than croton. R. L. McGarr inspected croton plants near Rockport on March 20 and reported that several nymphs were observed, the largest being in the fourth instar.

TARNISHED PLANT BUG (Lygus pratensis oblineatus Say)

Louisiana. R. C. Gaines et al. (March 8): One specimen collected on field flight screens in Madison Parish during the week, as compared with 19 in 1939 and none in 1940. (March 29): Specimens taken on field flight screens in Madison Parish for week ended March 28 totaled 3, as compared with 2 in 1940 and 1 in 1939.

F O R E S T A N D S H A D E - T R E E I N S E C T S

CANKERWORMS (Geometridae).

Ohio. T. H. Parks (March 25): Males of cankerworms first seen in flight on March 20. Wingless females of the fall species (Alsophila ponc-
taria Harr.) were emerging and laying eggs on elm twigs on March 22.

N. F. Howard (March 20): Male cankerworm moths emerging and in flight in the Olentangy River Valley today. Wingless female moths are emerging and crawling up the trunks of trees at Columbus and being caught in tanglefoot bands where present.

Indiana. P. T. Ulman (March 29): Bands on elm trees and others showed very light emergence of Paleacrita vernata Peck. on March 3. Medium heavy flight on March 19, 20, and 25.

Illinois. W. P. Flint (March 22): Observations of tanglefoot bands at points in north-central Illinois show that adult cankerworms began going up trees as early as February 3. More or less continuous emergence every warm evening for the last month. Heavy infestation expected.

Kansas. H. R. Bryson (March 27): A few spring and fall cankerworm moths came to bands at Manhattan on February 7 but have been emerging very slowly since. P. vernata began emerging about March 1.

Missouri. L. Haseman (April 1): Emergence of P. vernata in the open in central Missouri reached a peak during last 10 days of March, and tanglefoot bands are now covered with male and female moths. Considerable numbers are still emerging.

Texas. R. K. Fletcher (March 8): First-instar P. vernata found feeding on plum and elm at McLennon County on March 8.

GYPSEY MOTH (Porthetria dispar L.)

Vermont. H. L. Bailey (March 22): Egg masses abundant and generally distributed in Connecticut River Valley towns, southeastern Vermont, from and including Springfield to Massachusetts line. Particularly abundant in Rockingham.

A TUSSOCK MOTH (Hemerocampa definita Pack.)

Vermont. H. L. Bailey (March 22): Egg masses more numerous than usual on trees in Newbury, Bradford, and other towns in eastern Vermont.

A TENT CATERPILLAR (Malacosoma sp.)

Oregon. B. G. Thompson (March 15): Hatching about 3 weeks early in the Willanette Valley. Small larvae and nests observed on March 15.

SCALE INSECTS (Coccidae)

Oklahoma. F. A. Fenton (March 25): Specimens of Chionaspis americana Johns. were received from Hennessey, northwest of the central part of the State, and specimens of Aspidiotus ancylus Putn. from Bennington, in the south-eastern part.

Mississippi. C. Lyle (March): Specimens of A. lataniae Sign. and Lecanium nigrofasciatum Perg. were received from Harrison County, where they were taken from huckleberry on March 10 and 29, respectively.

Idaho. A. L. Gibson (March 23): A scale insect, probably Lepidosaphes ulmi L., was observed on willow on the east side of Pend Oreille Lake, Bonner County. This species is responsible for heavy loss in willow brush and ceanothus on burned and cut-over land in Kootenai County near Coeur d'Alene in recent years.

SAWFLIES (Xyela spp.)

Virginia. L. A. Hetrick (March 20): Adults of several species of sawflies abundant on catkins of alder in New Kent County. Larvae probably develop in staminate cones of pines.

ASH

BANDED ASH BORER (Neoclytus carrea Say)

Nebraska. H. D. Tate (March 12): Specimens received from Furnas County.

CARPENTER WORM (Prionoxystus robiniae Peck)

Nebraska. H. D. Tate (March 14): Specimen sent in from Harlan County.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

Massachusetts. A. I. Bourne (March 24): Numerous complaints of hibernating beetles received during the winter, indicate a heavy and general infestation over the State.

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus Marsh.)

Massachusetts. C. L. Griswold (March 25): Very low population reported for eastern Massachusetts, an area where the Dutch elm disease is not yet known to occur. Five days were spent in scouting for in-

fested material, examining fallen elm trees and hangers of type usually favorable for attack. Living material was found in only 2 trees at Lexington. In early 1940 a similar, but more intense, search was made in the same area, and very little was found, although the beetle has been known to exist in this general region since before 1909.

LARCH

LARCH CASEBELLARER (Coleophora laricella Hbn.)

Connecticut. E. P. Felt (March 31): Moderately abundant on larches at Stamford.

LINDEN

AN APHID (Myzocallis tiliae L.)

New York. E. P. Felt (March 31): Eggs abundant on lindens in the Bronx area of New York City.

OAK

PUBESCENT OAK KERMES (Kermes pubescens Boque)

Connecticut. E. P. Felt (March 31): Apparently increasing in abundance since a badly infested tree was noted at Stamford.

KNOTTY OAK GALL (Andricus punctatus Bass.)

Massachusetts. E. P. Felt (March 31): The knotty or gouty oak gall was found extremely abundant on a red oak in the Cape Cod area.

PINE

NANTUCKET PINE SHOOT MOTH (Rhyacionia frustrana Comst.)

Virginia. L. A. Hetrick (March 21): First field emergence of adults noted in King and Queen County on March 21. Winter survival of pupae in infested pine shoots has been much greater than last winter.

Georgia. T. L. Bissell (March 19): Numerous pupae, presumably R. frustrana, found in branch tips of young pine.

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

Connecticut. E. P. Felt (March 31): Becoming somewhat more prevalent in southwestern part of the State and adjacent areas.

PITCH TWIG MOTH (Petrova constockiana Fern.)

New York. E. P. Felt (March 31): Injury moderately abundant in the Bronx, New York City.

DEODAR WEEVIL (Pissodes nemorensis Gern.)

West Virginia. F. Waldo Craig (February 25): Seriously damaging large red pine trees in an 8- to 12-year-old plantation in Mingo County, chiefly from the ground line to 6 - 12 inches above, and almost entirely in the inner bark and cambium layer of the tree. (Det. by L. L. Buchanan.)

RED TURPENTINE BEETLE (Dendroctonus valens Lec.)

Massachusetts. E. P. Felt (March 31): Continues to be an important pest of pines in the Cape Cod area.

PALES WEEVIL (Hyllobius pales Hbst.)

Delaware. E. P. Felt (March 31): Caused somewhat serious injury to small pines in the Wilmington area.

A PINE WEEVIL (Scythropus ferrugineus Casey)

Oregon. R. L. Post (March 15): Abundant in a small area in the vicinity of Peoria, in the Willamette Valley. Adults are making their typical, broadly serrate feeding injuries on yellow pine needles, especially on young trees.

WHITE PINE APHID (Pinara strobi Fitch)

New York. E. P. Felt (March 31): Eggs extremely abundant on red pine at Harriman, Orange County.

PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

Connecticut. E. P. Felt (March 31): Somewhat abundant on pines at Stamford.

SPRUCE

EASTERN SPRUCE GALL APHID (Adelges abietis L.)

Connecticut. E. P. Felt (March 31): Abundant on individual trees in southwestern part of State.

INSECTS AFFECTING GREENHOUSE
AND ORNAMENTAL PLANTS

A TORTRICID (Platynota stultana Wlsm.)

California. G. Kido (March 15): Approximately 75 percent found in the larval stage according to counts made on greenhouse carnations in the Hayward district. Few adults caught and mature ovaries found in the females.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

South Carolina. W. C. Nettles (March 22): Present in numbers in at least two eastern localities.

OLEANDER SCALE (Aspidiotus hederæ Vallot).

Mississippi. C. Lyle (March 29): Reported as infesting potted plants in Panola County.

Nebraska. H. D. Tate (March 13): Infested leaf received from Dixon County.

A SCALE INSECT (Parlatoria theae Ckll.)

North Carolina. J. O. Rowell (February 28): Specimens collected from an unidentified ornamental plant at Reidsville. (Det. H. Morrison.)

GREENHOUSE LEAF TIER (Phlyctaenia rubigalis Guen.)

New York. P. Gane (February 8): Specimen of moth found in greenhouse on snapdragon at North Tonawanda. (Det. by C. Heinrich.)

WHITE FLIES (Aleurodidae)

Utah. G. F. Knowlton (March 21): Several flowering plants damaged in a greenhouse at Logan.

ARBORVITAE

AN APHID (Cinara tujafilina Del G.).

Virginia. C. R. Willey (March 17): Very abundant on Chinese arborvitae, especially the compact types, in the Richmond area.

Mississippi. C. Lyle (March 29): Reported feeding on arborvitae in Lowndes, Monroe, and Noxubee Counties.

Arkansas. W. J. Baerg (March 31): Heavy infestation on arborvitae at Fayetteville.

Oklahoma. F. A. Fenton (March 25): Very common throughout the State early in the year. Unusually severe infestation.

R. G. Dahms (March 24): Reported very abundant in the vicinity of Lawton.

AZALEA

AZALEA SCALE (Eriococcus azaleae Comst.)

Mississippi. M. L. Grimes (March 29): Reported injuring azalea plants in Clarke County.

ROXWOOD

BOXWOOD LEAF MINER (Monarthropalpus buxi Laboulb.)

Connecticut. E. P. Felt (March 31): Locally abundant on ornamental box at Stamford.

CAMELLIA

RED SPIDER (Tetranychus sp.)

Mississippi. G. L. Bond (March 29): Heavy infestations on camellia observed in coast counties. Rather unusual for this time of year.

CAMELLIA SCALE (Lepidosaphes camelliae Hoko)

Mississippi. C. Lyle (March 19): Specimens of infested camellia leaves received from Harrison County. Fairly abundant along Gulf coast, according to observations of T. F. McGehee.

TEA SCALE (Fiorinia theae Green)

Mississippi. C. Lyle (March 29): Specimens of infested camellia received from Harrison County on March 19. G. L. Bond reported rapid development along the Gulf coast during recent weeks.

A SCALE (Lecaniodiaspis sp.)

Alabama. J. M. Robinson (March 1): Reported as active on camellia at Montgomery.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Delaware. L. A. Stearns (February 24): Infested material received from Ocean View, Sussex County.

Alabama. J. M. Robinson (March 11): Reported as active on ornamental shrub at Montgomery.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips simplex Morison)

Florida. J. R. Watson (March 27): Heavily infesting gladiolus in southwestern counties. Appeared in large numbers about first of January.

PHLOX

PHLOX PLANT BUG (Lopidea davisii Kngt.)

West Virginia. F. Waldo Craig (February 25): Collected from phlox in Parkersburg, where growers report them quite general. (Det. by H. G. Barber.)

ROSE

THRIPS (Thysanoptera)

Louisiana. E. H. Floyd (March 29): Abundant on roses.

I N S E C T S A T T A C K I N G M A N A N D
D O M E S T I C A N I M A L S

MAN

BEDBUG (Cimex lectularius L.)

Delaware. J. M. Amos (March 25): Two infestations in poultry houses reported in Sussex County, southern Delaware.

Iowa. C. J. Drake (March 20): Reported from Muscatine and Emmetsburg.

Nebraska. H. D. Tate (March 11): Reported from Morrill County.

Utah. G. F. Knowlton (March): Annoying in homes at Logan and Providence.

Oregon. J. Davis (March 10): Reported from Estacada.

SANDFLIES (Culicoides sp.)

South Carolina. W. C. Nettles (March 22): Troublesome in eastern section of the State during the winter.

DOG FLEA (Ctenocephalides canis Bouche)

Nevada. G. G. Schweis (March 5): Overran a house in Reno in February.

FLEAS (Siphonaptera)

Oregon. R. L. Post and J. Davis (March): Numerous in barn and house at Lebanon on March 8. Reported in new home at Oswego on March 11. Abundant in all stages in a dog's bed at Corvallis on March 7.

A GNAT (Chaoborus sp.)

California. A. W. Lindquist (March 3): Larval population in bottom mud at Nice approximately 40 percent greater than during February 1940.

TROPICAL RAT MITE (Liponyssus bacoti Hirst)

Delaware. J. M. Amos (March 3): Infestation reported from Wyoming. Tenants had been bothered with mites since first of year. Several hundred mites were found. The occupant of the house said that the mites were fewer at this time than immediately after the treatment for rats, which had been completed about a week before the inspection was made.

WOOD TICKS (Ixodidae)

Idaho. A. L. Gibson (March): Noted as quite abundant in southern Bonner County on March 8 and 23. Unusually active for this time of year.

BLACK WIDOW SPIDER (Latrodectus mactans F.)

Mississippi. C. Lyle (March 21): Live adult female sent from Amite County.

CATTLE

STABLEFLY (Stomoxys calcitrans L.)

Florida. W. E. Dove (February 28): Adults continued to emerge in cages on peanut litter in Florida throughout the winter.

CATTLE GRUBS (Hypoderma spp.)

Oklahoma. J. M. Maxwell (March 29): First heel fly activity observed about March 15 near Lawton. No report from southeastern part of State where flies ordinarily occur earlier. Between 15,000 and 20,000 head of cattle were treated. Ox warble (H. lineatum De Vill) abundant throughout the State during winter.

Texas. E. W. Laake (March 1): Survey of 227 dairy cows at Dallas on February 15 showed that 70.9 percent of the animals were uninfested. Most of the animals had scars on backs from which grubs had recently dropped; 28.6 percent had from 1 to 5 grubs each; and 0.4 percent had from 6 to 10 grubs. All grubs were extracted and found to be third instar, most of them being near maturity.

E. C. Cushing (March 11): Heel flies were active in the vicinity of Menard during the first half of February.

Utah. G. F. Knowlton (March 21): Infesting several milk cows at Farmington.

CATTLE BITING-LOUSE (Bovicola bovis L.)

Mississippi. C. Lyle (March 29): Specimens received from Franklin County on February 23. Reported on cattle from Lauderdale and Neshoba Counties. (Det. by E. W. Stafford.)

A BITING LOUSE (Trichodectes scalaris Nitz.)

Oklahoma. J. M. Maxwell (March 29): Abundant throughout State and causing considerable annoyance to cattle.

LONG-NOSED CATTLE LOUSE (Linognathus vituli L.)

Oklahoma. J. M. Maxwell (March 29): Abundant and extremely troublesome in localized areas throughout the State.

SOUTHERN BUFFALO GNAT (Eusimulium pecuarum Riley)

Mississippi. F. A. Smith (March 19): Observed in small numbers in Coahoma and Quitman Counties.

SHEEP

SHEEP TICK (Melophagus ovinus L.)

Oklahoma. J. M. Maxwell (March 29): Light to abundant in certain localities.

Oregon. D. C. Mote (March 9): Reported attacking karakul sheep at Tillamook.

BLACK BLOWFLY (Phormia regina Meig.)

Utah. G. F. Knowlton (March 21): Adults active at Logan.

SHEEP BITING-LOUSE (Trichodectes ovis L.)

Oklahoma. J. M. Maxwell (March 29): Causing considerable damage to sheep throughout the State.

MISCELLANEOUS ANIMALS

A SUCKING LOUSE (Linognathus setosus Olfers)

Pennsylvania. E. J. Udine (March 8): Heavily infested dog at Carlisle.

CHIMNEY SWIFT BUG (Cinexopsis nyctalis List.)

Illinois. E. A. Back (December 6): Specimens received from Marshall. Seemed to come from a fireplace. (December 27): Specimens received from Muscatine.

HOUSEHOLD AND STORED-PRODUCTS INSECTS

TERMITES (Isoptera)

Delaware. J. M. Anos (March 21): First swarm reported at Newark.

Georgia. T. L. Bissell (March): Winged forms observed in dwelling houses on March 17 and 26.

Mississippi. C. Lyle (March 29): Reported during month from Bolivar, Copiah, Forrest, Hinds, Jones, Lee, Monroe, and Wilkinson Counties. N. L. Douglass reported them from Grenada, Montgomery, and Tallahatchie Counties.

Missouri. L. Haseman (April 1): Number of termite colonies swarmed out in March.

A. C. Burrill (March 3): Reticulitermes flavipes Koll. found swarming in basement at Jefferson City.

Kansas. H. R. Bryson (March 20): Flight occurred at Manhattan, later than usual owing to cool weather.

Utah. G. F. Knowlton (March 12): Floors and timbers severely damaged in a large home at Providence.

Nevada. G. G. Schweis (March 5): Reported from Reno and Fernley during February.

Oregon. D. C. Mote (March): R. hesperus Banks found on March 13 at Baker in wood from basement foundation. On March 10 termites reported doing much damage to foundation and floors of a residence built 30 years ago at Cottage Grove.

ANTS (Formicidae)

Virginia. H. G. Walker (March 27): Ants, which appear to be Tetramorium caespitum L., swarming from foundation of a house at Norfolk on March 24.

Georgia. T. L. Bissell (March 29): Colony of Monomorium pharaonis L., with queen, found in an unused glass condenser in a laboratory at Experiment Station on January 29. Ants, which appear to be Solenopsis xyloni McCook, have been destructive in a greenhouse, eating the bark from a young hibiscus plant and also the squares from cotton.

Mississippi. C. Lyle (March 29): Ants reported as annoying in homes in Bolivar and Clay Counties. Specimens of M. pharaonis sent from Harrison County on March 19.

Nebraska. H. D. Tate (February 25): Specimens of Camponotus herculeanus pennsylvanicus Deg. received from Butler County.

Kansas. H. R. Bryson (March 21): Ants in basements of houses reported as common, one report coming from Lyndon and several from Manhattan. Heavy flights of winged ants encountered by R. C. Smith on a motor trip to Bala.

POWDER-POST BEETLES (Lyctus spp.)

New Jersey. E. A. Back (January 26): Specimens of L. planicollis Lec. from mahogany-veneered bookcase in Teaneck received on January 26. (Det. by W. S. Fisher.)

South Carolina. F. Sherman and W. C. Nettles (March 22): Numerous reports of powder-post beetles infesting floors and sleepers underneath received from eastern half of State, especially Charleston.

Mississippi. N. L. Douglass (March 29): Observed injuring walls of a house in Grenada County.

Iowa. C. J. Drake (March 20): Found in large numbers in a house at Clinton. Many of the larger timbers had been badly damaged.

Oregon. J. Davis (February 21): L. brunneus Steph. found in oak floor at Astoria which had been laid 1 month. (Det. by W. J. Chamberlin.)

TAN BARK BORER (Phymatodes variabilis L.)

Massachusetts. A. I. Bourne (March 24): Specimens collected in dwelling house, presumably emerging from stovewood.

RED SPIDERS (Tetranychus spp.)

Nevada. G. G. Schweis (March 5): Caused considerable annoyance to householders during February, owing to little mortality because of mild winter.

MILLIPEDS (Diplopoda)

Oregon. J. Davis (February 21): Found eating wood in a comparatively new house located on river bank in Bend.

BOXELDER BUG (Leptocoris trivittatus Say)

Nebraska. H. D. Tate (March 17): Reported from Dodge, Butler, Antelope, and Madison Counties during the period February 20 to March 15.

Kansas. H. R. Bryson (March 21): Reported as causing annoyance near residences at Manhattan, and as more numerous than usual from Natoma, Eldorado, and Washington Counties.

Utah. G. F. Knowlton (March 7): Numerous reports received recently from Logan, Salt Lake City, and Murray. (March 8): Annoying at Willard and Brigham. (March 18): Causing much annoyance in homes and offices at Salt Lake, Brigham, Ogden, and Logan.

A BEETLE (Mezium americanum Cast.)

Massachusetts. A. I. Bourne (March 24): Specimens found near water pipes and around sinks of a dwelling.

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus L.)

Utah. G. F. Knowlton (March 21): Adult specimen found active inside a home at Providence.

DRUG STORE WEEVIL (Stegobium paniceum L.)

California. E. A. Back (March 13): Specimens found infesting books in a library at San Diego.

GERMAN COCKROACH (Blatella germanica L.)

Mississippi. C. Lyle (March 5): Specimens received from Marshall County. Reported from Grenada, Montgomery, and Yalobusha Counties by N. L. Douglass.

Utah. G. F. Knowlton (March): Infesting a home at Logan on March 7, and a store and home at Farmington on March 14.

AMERICAN COCKROACH (Periplaneta americana L.)

Utah. G. F. Knowlton (March 21): Infesting a restaurant at Ogden.

HOUSE CRICKET (Gryllus domesticus L.)

Pennsylvania. E. A. Back (February 14): Reported as abundant on city dump of York Haven last summer and fall, and beginning to invade houses. (February 24): Specimens reported troublesome in a number of residences, getting into hampers of soiled clothing and ruining garments, especially those made of rayon.

Virginia. E. A. Back (January 28): Partially grown specimens received on January 28 from house in Arlington where they were abundant last summer and fall.

CARPET BEETLES (Anthrenus spp.)

- New York. E. A. Back (March 28): Specimens of A. vorax Wtrh. received from Yonkers on February 12, being progeny of culture sent in 1939 from Washington, D. C., by insecticide firm for use in laboratory for testing mothproofing solutions.
- Pennsylvania. E. A. Back (March 26): A. verbasci L. reported from Pittsburgh.
- Ohio. E. A. Back (February 7): Adult of A. scrophulariae L. reported from Cleveland.
- Michigan. E. A. Back (October 13, 1940): Larvae of A. verbasci reported from Detroit.
- California. E. A. Back (February 27): Adults of A. verbasci received from San Carlos.

BLACK CARPET BEETLE (Attagenus piceus Oliv.)

- Pennsylvania. E. A. Back (February 18): Specimens received from thrown silk cones in textile mill in Bethlehem.
- District of Columbia. E. A. Back (March 10): Found badly infesting cracks of parquet flooring in apartment house completed about 3 years ago in Washington.
- Nebraska. H. D. Tate (March 12): Specimens found in an overstuffed sofa in Cedar County.

CLOTHES MOTHS (Tineola spp.)

- District of Columbia. E. A. Back (March 26): Tineola biselliella Hun. found badly infesting cattle-hair insulation on pipes of air-conditioning units in large apartment house completed about 2 years ago.
- Utah. G. F. Knowlton (March 15): Clothes moths have seriously damaged overstuffed furniture coverings, drapes, wool clothing, and stored blankets, and are attacking edges of rugs in a home left closed for several months.

LARDER BEETLES (Dermostes spp.)

- New York. E. A. Back (March 28): D. lardarius L. causing considerable trouble in apartment house late in fall and winter, originating in improperly kept incinerator, according to report of January 31; larvae of D. vulpinus F. taken in abundance from fur pelts on February 6; adults of D. caninus Germ. received on February 18 from apartment house at Long Island, apparently originating in an incinerator.
- Florida. W. E. Dove (October 19): Adults of D. cadaverinus F. found at Panama City. (Det. by H. S. Barber.)

Missouri. E. A. Back (March 28): Specimens of adults and larvae of D. cadaverinus received from two apartments in St. Louis. Few larvae seen but from 8 to 10 adults collected each day.

Utah. G. F. Knowlton (March 8): Larder beetles, D. lardarius causing annoyance and attacking food in a home at Brigham. (March 10): Dermestid larvae are attacking high-grade salted, packaged peanuts at Logan. (March 14): Dermestids attacking prepared cereals in a home cupboard at Smithfield. (March 21): Dermestids found in botanical material at Logan. Caused light injury to student insect collection stored in a school building.

CIGARETTE BEETLE (Lasioderma serricorne F.)

Florida. E. A. Back (March 28): Larvae found causing damage to book bindings in library in Orlando. (Det. by E. A. Back.)

Alabama. J. M. Robinson (March 11): Reported damaging visors of caps at Selma.

BROWN SPIDER BEETLE (Ptinus brunneus Duft.)

Utah. G. F. Knowlton (March 7): Seriously infesting 15 sacks of flour at Heber.

STORED GRAIN INSECTS (Coleoptera)

Illinois. W. P. Flint (March 22): Surviving the winter of 1940-41 in shelled corn are granary weevil, flat grain beetle, foreign grain beetle, fungus beetles (several species), cadelle, Indian-meal moth, Tribolium sp. (greatly reduced), and rice weevil (apparently killed).

Mississippi. C. Lyle (February 19): Specimens of Carponhilus dinidiatus F., Laemophloeus minutus Oliv., and Tribolium castaneum Hbst. found among cottonseed from Pike County.

Iowa. C. J. Drake (March 20): Stored-grain insects are abundant, about 20 species found breeding in shelled corn in the State.

H. E. Jaques (March): T. confusum Duv. moderately abundant in Tama County.

North Dakota. J. A. Munro (March): Laemophloeus minutus Oliv. found in 23 out of 43 samples of grain received from various sections of the State since November 1, 1940. Granary weevil ranked second and mites third.

Nebraska. H. D. Tate (February 26): Specimens of T. confusum were taken from a flour bin in Howard County,

Kansas. H. R. Bryson (March 27): The Australian grain borer (Rhizoperla dominica F.) was reported abundant and doing considerable damage to stored wheat in the western part of the State.

Utah. G. F. Knowlton (March 11): Oryzaophilus surinamensis L. causing much annoyance in flour bin and around sink in a home at Lehi.

California. P. Simmons (March 13): Light infestation of R. dominica found in wheat middlings chiefly infested with Tribolium sp. First occurrence noted in Fresno. (Det. by W. S. Fisher.)

INDIAN-MEAL MOTH (Plodia interpunctella Hbn.)

Iowa. H. E. Jaques (March): Light infestation in Tama County.

Utah. J. S. Stanford and G. F. Knowlton (March 12): Seriously attacking dried sweet corn in a home at Logan. (Det. by F. C. Harnston.)

A BEETLE (Henoticus sp.)

California. P. Simmons (February): Small beetles infesting dried apples in a packing plant at Oakland. (Det. by W. S. Fisher.)

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