

blossoming time, as squares of from 5.5 to 6.0 millimeters diameter easily produce adult weevils except under unfavorable weather conditions. Although Lightning Express 15-23 was the only Upland variety tried, it is not probable that other standard Upland varieties would show sufficient differences in the pre-bloom period as measured to be of importance in weevil control operations. Earliness has been one of the aims of most cotton breeders for years, therefore, considerable uniformity is to be expected in this regard. Some of the Sea-Island strains, however, possibly would have a pre-blossom weevil breeding period sufficiently long to permit first generation weevils to begin to hatch several days before first blossoming.

Most growers do not realize that first generation weevils can begin hatching so early. In fact, ordinarily they do not hatch that early in sufficient numbers to cause damage, as generally a large percentage of the eggs first laid never produce weevils, because many of the immature stages are killed by the hot sunshine prior to the time the cotton is large enough to furnish sufficient protective shade. On the contrary, if rainy weather predominates from the time infested squares begin to fall, and no hot sunny weather occurs, first generation weevils begin to hatch in an infested field by the time blossoms appear, or very shortly afterward. In this case they may easily become numerous enough to puncture many of the young bolls within three weeks after the first blossoms occur.

NOTES ON UTAH COLEOPTERA

GEO. F. KNOWLTON

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***Stenocorus vestitus* Hald.**

Logan, August 13, 1921 (G. E. King).

***Leptacmaeops subpilosa* (Lec.)**

Bountiful, 1929 (Pack); Cache Junction, June 3, 1912 (Hagan); Logan, July 4, 1909 (Titus); Logan Canyon.

***Acmaeops longicornis* Lec.**

Maryvale, June 25, 1906.

***Leptura chrysocoma* Kby.**

Logan, July 30, 1904.

***Typocerus velutina* (Oliv.)**

Logan, July 27, 1928 (Pack).

Rosalia funebris Mots.

Lewiston.

Callidium pseudotsuga Fisher

Logan, May 16, 1921 (G. E. King).

Phymatodes dimidiatus (Kby.)

Logan, June 28, 1904.

Oxoplus jocosus Horn

Fort Duchesne, August 13, 1926 (W. Sorenson); Mt. Pleasant, August 20, 1929 (Pack).

Crossidius pulchellus Lec.

Blacksmith Fork Canyon, August 17, 1929 (Knowlton).

Crossilius discoideus (Say)

Logan, August 21, 1927 (Knowlton) and Sept. 11, 1907.

Hyperplatys maculata Hald.

On cherry tree at Provo Bench, June 26, 1921 (G. E. King).

Pogonocherus parvulus Lec.

Logan, July 30, 1904.

Saperda populnea (L.)

Salinas, California, April 26, 1908 (Ball).

Saperda concolor Lec.

Logan, June 19, 1923 (Knowlton); reared from poplar, April 11, 1920 (G. E. King).

Mecas bicallosa Martin

Pleasant Grove, June 21, 1929 (Pack).

Tetraopes femoratus Lec.

Logan, July 3, 1923 (Knowlton). Also collected at Stanrod, Idaho, August 13, 1929 (Knowlton).

Family CHRYSOMELIDAE

Donacia pusilla Say

Hyde Park, May 16, 1929 (Knowlton).

Griburius montezuma (Suffr.)

Bellevue, 1919.

Chrysochus cobaltinus Lec.

Hooper, September 1929 (Knowlton); St. George, 1919.

Zygogramma exclamationis (Fab.)

Salt Lake City, 1924; St. George, 1919.

Lina scripta (Fab.)

Watson, July 1927 (Pack).

Monoxia consputa (Lec.)

Ephraim, October 9, 1907 (Ball); on beets at Brigham, 1925 (Knowlton).

Diabrotica 12-punctata var. **tennella** Lec.

St. George, 1923 (Hawley).

Disonycha quinquevittata (Say)

On rose at Spring Hollow, Logan Canyon, August 1925 (Knowlton).

Epitrix subcrinita Lec.

Common on beets at Logan, July 27, 1929 (Knowlton); Marysvale, June 29, 1906 (Ball); Sigurd, March 3, 1928 (Knowlton); Sutherland, March 4, 1928 (Knowlton).

Systema taeniata (Say)

Common on Sugar-beets at Hyrum, September 2, 1926 (Knowlton); Lehi, July 23, 1907 (Titus); Mendon, July 16, 1907 (Titus); North Ogden, June 7, 1929 (Knowlton); Wellsville, June 1929 (Knowlton).

Psylliodes punctulata Melsh.

Common on sugar-beets at Amalga, May 27, 1924 (Knowlton); Delta, July 12, 1926 (Knowlton); Lehi, July 23, 1927 (Knowlton); Lewiston, June 24, 1924 (Knowlton); Logan, June 20, 1907; also collected at Whitney, Idaho, August 1, 1907.

Chelymorpha cassidea (Fab.)

Logan, June 18, 1923 (Knowlton).

Family MYLABRIDAE

Mylabris pisorum (L.)

Logan, September 1923 (Knowlton); Ogden, March 28, 1923 (Knowlton), Providence, April 1, 1929 (Pack).

Mylabris obtectus Say

On beans, Tooele, 1916.

(To be continued)

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