## THE CANADIAN ENTOMOLOGIST

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others entire, all the bands reaching the lateral margins in front or the second and third bands narrowly separated from the sides. First segment, posterior border of the following segments and the lateral margins, shining. Band on second segment situated near the middle, the inner ends of the spots rounded. the outer ends produced forwards to the base of the segment. Bands on third and fourth segments narrowly separated from base of segment, more or less distinctly concave on either side of the middle and correspondingly convex on their posterior border, rather broadly emarginate in the middle of posterior border. Broad apex of fourth segment, large, transverse basal triangles on the base of the fifth and posterior border of fifth segment reddish yellow, the black band on the fifth segment sometimes greatly reduced. Pile black; yellow on the first segment, basal two thirds of the second and on the yellow bands on the third and fourth segments, wholly black on the lateral margins beyond the middle of the second segment. Venter yellow, the second to fourth sternites with broad, incomplete brown bands, the pile vellow on the first three sternites, black and appressed on the apical sternites and on the dark band on the third.

*Male*. Frontal triangle yellow, black haired; vertical triangle black; occipital pile whitish, a few black occipital cilia. Base of femora broadly black, the posterior pair black on basal two thirds. Abdominal bands wider and more undulate.

Holotype.-9, Vernon, B. C., June 30, 1928, (E. P. Venables), No. 2902 in the Canadian National Collection, Ottawa.

Allotype.— 3, Vernon, Sept. 16, 1928 (Venables).

Paratypes.—3 9, Vernon, Sept. 10, 1928 and 9, Oct. 3, 1928, (Venables). Paratypes in American Museum of Natural History.

This species has been confused with *nitens* Zett. and *wiedmanni* Johns. but is more closely related to *medius* Jones and *meadii* Jones.

## OBITUARY

## HARRISON GRAY DYAR.

On the 21st of January death claimed a man who tor several years was the acknowledged authority on mosquito taxonomy in the Western Hemisphere and who, since the publication of his famous treatise on larval classification in 1895, had been one of the world's outstanding Lepidopterists. Dr. Dyar had been in failing health for some time but the end came suddenly and up to within three days of his death he was actively at work and nearly every day was to be found at his desk in the National Museum. He was a rapid and tireless worker and in the thirty odd years of his entomological career described hundreds of species and genera and revised several families and genera groups of the Lepidoptera. Especially noteworthy are his papers on the "Life Histories" of the North American Limacodidae, his revision of the genus Acronycta (in collaboration with John B. Smith, 1898), and his detailed descriptions of larvae in nearly all the macro and several of the micro families. His most imposing monument is the Monograph of the "Mosquitoes of North and Central America and the West Indies" (1912) in which he collaborated with L. O. Howard and the late

47

Frederic Knab and his own later revisionary treatise on "The Mosquitoes of the Americas"; but he probably will be remembered with most respect as the pioneer of larval classification and the one who in the great order Lepidoptera has pointed the way to a sound classification based upon a coordination of larval and adult characters.

Dr. Dyar was born in New York City Feb. 14, 1866. He graduated from the Massachusetts Institute of Technology in 1889, took his master's degree at Columbia in 1894 and his doctor's degree from the same university in '95. He was Assistant Bacteriologist of the college of Physicians and Surgeons of Columbia University from 1895 to 1897; and from 1897 until his death he held the honorary position of Custodian of Lepidoptera at the U. S. National Museum at Washington. In 1924 he was commissioned as a Captain in the Sanitary Department of the Officers Reserve Corps because of his contributions to the knowledge of American Mosquitoes. He was editor of the Journal of the New York Entomological Society from 1904 to 1907 and of the Proceedings of the Entomological Society of Washington from 1909 to 1912. From 1913 to 1926 he published and edited Insecutor Inscitiae Menstruus, a journal of entomology of his own founding. Throughout his career he was a prolific contributor to entomogical journals. His death closed a busy life. CARL HEINRICH.

## BOOK REVIEW

The Principles of Systematic Entomology. By Gordon F. Ferris. 169 pp. 11 fig. Stanford University Publications, Biological Sciences, Vol. V. No. 3, 1928.

This volume attempts to supply the need for a book which considers the principles upon which systematic entomology is based and the methods by which these principles may be practised. It is primarily a discussion of the fundamental principles and philosophical background of the subject and a frankly critical survey of the existing conditions in systematic entomology. It includes a general, but not detailed, discussion of methods.

The author begins with a review of the contributions, philosophical and practical, of systematic science. He then discusses the scope of systematic biology and holds, that not the description or naming of species, but the interpreting of facts so revealed is the ultimate function of the subject. He states that the subject "is in its broad implications essentially synonymous with the study of organic evolution." He holds that the segregation of species and their minor divisions is the first step in all systematic work, and for its accomplishment the systematist should employ any available means. Definitions of species, criteria for segregating species, and categories less than species are discussed and the author maintains that no valid final conclusions can be based on preserved material alone. He believes that the greater part of systematic work must be based on morphology which is essentially synonymous with systematics and that every body structure must be considered. He emphasizes the limitations of pinned specimens as objects for careful study and the value of the microscopic slide method of mounting material. To obtain a fixed basis for systematic work, it is necessary that all data

LXI.