A Bibliography of the Mosquito Taxonomic Publications of G. M. Giles, S. P. James, and W. G. Liston*

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In a previous article we presented a bibliography of the mosquito publications of Fred V. Theobald with the statement that he was the first individual to work extensively with the systematics of the world mosquito fauna. It was further stated that his excursion into the study of mosquito systematics in 1899 was an immediate outcome of the slightly earlier confirmation of the transmission of human disease by mosquitoes. This discovery also initiated mosquito taxonomic studies on the part of several other individuals and the present article presents a bibliography of the mosquito taxonomic publications of three of them.

George Michael James Giles, Lieutenant-Colonel (1853-1916) and physician in the Indian Medical Service initiated work with mosquitoes by publishing in 1899 a description of the species experimented with by Major Ronald Ross in his Indian investigations on malaria. Giles went on from that important effort to issue a total of 18 papers on mosquitoes. His handbook of gnats or mosquitoes, first issued in 1900 and in a second edition in 1902, was his most important contribution.

Giles, G. M. J.

- 1899. A description of the Culicidae employed by Major R. Ross, I.M.S. in his investigations on malaria. J. trop. Med. 2:62-65, illus.
- 1900. Description of two species of Anopheles from West Africa. Liverpool School Trop. Med. – Mem. 2, Addendum I., pp. 49-51.
- _____. A handbook of the gnats or mosquitoes giving the anatomy and life history of the Culicidae. viii + 374 pp., illus. London.
- 1901. A plea for the collective investigation of Indian Culicidae, with suggestions as to moot points for enquiry, and a prodromus of species known to the author. J. Bombay Soc. 13:592-610, pls. A, B.
- _____. Description of four new species of Anopheles from India. Ent. Mag. 37:196-198.
- . Notes on Indian mosquitoes. J. trop. Med. 4:159-162.

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- 1902. A handbook of the gnats or mosquitoes giving the anatomy and life history of the Culicidae, together with descriptions of all species noticed up to the present date. 2nd edition, rewritten and enlarged. xi + 530 pp., illus. London.
- 1903. On pre-pupal changes in the larvae of the Culicidae. J. trop. Med. 6:185-187, illus.
- 1904. Notes on some collections of mosquitoes, etc., received from the Philippine Islands and Angola. J. trop. Med. 7:365-369, illus.
- A revision of the Anophelinae, being a first supplement to the second edition of "A handbook of the gnats or mosquitoes." 47 pp., illus. London.
- Notes on some collections of mosquitoes received from abroad. J. trop. Med. 7:381-384, illus.
- Cold weather mosquito notes from the United provinces Northwest India. J. trop. Med. 7:1-2, 22-23, 49-52, illus.
- Cold weather mosquito notes from India. Malaria in Umritzar and its causes. J. trop. Med. 7:83-86, 104-108, 120-123, 133-138, 149-152, illus.
- 1905. Mouth-parts of biting flies preliminary note. J. trop. Med. 8:363-364.
- 1906. A handbook of the gnats or mosquitoes giving the anatomy and life history of the Culicidae together with descriptions of all species noticed up to the present date. 2nd ed. [1902] rewritten and enlarged; [bound with] A revision of the Anophelinae, being a first supplement to the second edition of "A handbook of the gnats or mosquitoes" [1904]. xi + 530 pp., illus., + 47 pp., illus. New York.
- _____. Mosquito notes. I.— Note on a small collection of mosquitoes from Barhain in Northern Arabia (shores of Persian Gulf). J. trop. Med. 9:130-132, illus.
- 1907. The classification of mosquitoes. J. trop. Med. 10:355.

270

Vol. 5(4) 1973

Born 17 years later than Giles, Sydney Price James, Lieutenant-Colonel (1870-1946) was also an officer in the Indian Medical Service. Although his period of service briefly overlapped that of Giles (James entered the I.M.S. in 1896 and Giles retired in 1901), we find little mention in James' writings of either personal or professional relationships with Giles. Fifteen references by James dealing with mosquito taxonomy were located by us and are listed here. The last of these papers was published in 1934. Retiring from the Indian Medical Service in 1918, he went on to complete a long and distinguished career in several aspects of tropical medicine but to our knowledge did not publish again on mosquito taxonomy.

- Stephens, J. W. W., S. R. Christophers, and S. P. James 1901. Note on the occurrence of Anopheles funestus and Anopheles costalis in India. Indian med. Gaz. 36:361.
- James, S. P.
 - 1902. Malaria in India. Sci. Mem. India (n.s.) No. 2, 106 pp. Calcutta.
 - 1903 (1904). First report of the anti-malarial operations at Mian Mir, 1901-1903. Sci. Mem. India (n.s.) No. 6, 53 pp. Calcutta.
- James, S. P. and W. G. Liston
 - 1904. A monograph of the Anopheles mosquitoes of India. vi + 132 pp., xv uncolored + xv colored pls. Calcutta.
- James, S. P.
 - 1910. A new arrangement of the Indian Anophelinae. Records Indian Museum, Calcutta 4:95-109.
 - . Notes on mosquitoes. Paludism (Simla) 1:33-38.
- James, S. P. and W. G. Liston
 - 1911. A monograph of the anopheline mosquitoes of India, 2nd edition. 128 pp., 17 uncolored pls. + 15 colored pls. Calcutta.
- James, S. P.
 - 1911. Notes on mosquitoes. I.— The Indian Anophelinae. Paludism (Simla) 2:52-63.
 - _____.* P. nursei and P. nigrofasciatus (Pyretophorus). Paludism (Simla) 3:64.

Brunetti, E. and S. P. James

1911. Contributions to the fauna of Yunnan based on collections made by J. Coggin Brown. Part V. Bibionidae, Mycetophilidae and Anophelinae. Records Indian Museum, Calcutta 6:31. James, S. P. and A. T. Stanton 1912. Revision of the names of Malayan anophelines. Paludism (Simla) 5:59-63.
James, S. P. 1922. Exhibit of eggs of culicine mosquitoes found in England. Trans. R. Soc. trop. Med. Hyg. 16:267-269, illus.
1923. Eggs of *Finlaya geniculata* and of other English mosquitoes illuminated with the aid of Lieberkuhn reflector. Trans. R. Soc. trop. Med. Hyg. 17:8-9.
Edwards, F. W. and S. P. James 1925.* British mosquitoes and their control. British Mus. Nat. Hist. Econ. Ser. No. 4, 28 pp.

James, S. P.

1934. On present status of knowledge on the subspecies of Anopheles maculipennis (in discussion). Trans. R. Soc. trop. Med. Hyg. 28:132.

A third member of the Indian Medical Service is also included here, William Glen Liston, Lieutenant-Colonel (1873-1950). Liston was another member of that extraordinary group of British medical officers who were serving in India at the turn of the century and who so quickly moved to elucidate the mosquito species linked with the transmission of malaria. In collaboration with James, he made important contributions to the knowledge of anopheline taxonomy, biology and control, as well as to the vectorship capabilities of the Indian species.

- Liston, W. G. 1901. The distribution of Anopheles in Ellichpur Cantonment. Indian med. Gaz. 36:129-132, illus.
 - ____. A year's experience of the habits of Anopheles in Ellichpur. Indian med. Gaz. 36:361-366, 441-443, 2 pls.

James, S. P. and W. G. Liston 1904. A monograph of the Anopheles mosquitoes of India. vi + 132 pp., xv uncolored + xv colored pls. Calcutta.

Liston, W. G. 1908. The present epidemic of malaria in the Port of Bombay: a description of the mosquito which is carrying this disease, with some remarks on preventive measures. J. Bombay nat. Hist. Soc. 18:872-881, 4 pls.

James, S. P. and W. G. Liston 1911. A monograph of the anopheline mosquitoes of India, 2nd edition. 128 pp., 17 uncolored + 15 colored pls. Calcutta. We gratefully acknowledge the invaluable assistance of Margaret A. Sugg and other members of the Interlibrary Loan Center at North Carolina State University in gathering information for this paper. We are also indebted to Dr. Peter Mattingly for calling our attention to the James' bibliography.

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