

Genus LIBELLULA.

A. PLATETRUM.

- Sp. 1. *depressa* = *Libellula depressa*.
 2. *conspurcata* = *Libellula fulva*.

B. LEPTETRUM.

3. *quadrinaculata* = *Libellula quadrinaculata*.
 4. *prænubila* = *Libellula quadrinaculata* var. *prænubila*.

C. ORTHETRUM.

5. *bimaculata* = *Libellula fulva*, ♀, and teneral ♂.
 6. *cancellata* = *Orthetrum cancellatum*.
 7. *cærulescens* = *Orthetrum cærulescens*.

D. SYMPETRUM.

8. *Scotica* = *Sympetrum scoticum*.
 9. *pallidistigma* = Generally considered to be immature *S. scoticum*; but the size, pale legs, and the long pterostigma seem rather to point to *S. striolatum*.
 10. *rufostigma* = *Sympetrum sanguineum*.
 11. *angustipennis* = probably immature *S. sanguineum*.
 12. *vulgata* = *Sympetrum striolatum*.
 13. *basalis* = apparently immature *S. sanguineum*.
 14. *flaveola* = *Sympetrum flaveolum*.

ON A SMALL COLLECTION OF BEES FROM JUAREZ, MEXICO.

By T. D. A. COCKERELL, M.M.Agr.Exp.Sta.

ON Oct. 6th, 1899, I had the opportunity of spending a little while at Juarez, in the State of Chihuahua, and of collecting there the bees enumerated below. The species marked with an asterisk had not previously been reported from Mexico.

* (1.) *Halictus pectoraloides*, Ckll., one female, at flowers of *Aster (Leucosyris) spinosus*.

* (2.) *Perdita sphæralceæ*, Ckll., one female, at flowers of *Sphæralcea fendleri lobata*.†

* (3.) *P. heliotropii*, Ckll.; see Entom., 1900, p. 63.

(4.) *P. albipennis* var. *helianthi*, Ckll., one female, at flowers of *Helianthus annuus*.

* (5.) *Andrena pulchella*, Rob., one female, at flowers of *Helianthus annuus*.

(6.) *Melissodes agilis*, Cress., one male, two females, at flowers of *Helianthus annuus*.

† This is *Sphæralcea lobata*, Wooton, Bull. Torrey Bot. Club, xxv. 1898, p. 306. At Mesilla Park, N.M., it varies into a form having leaves exactly as in the type of *S. fendleri*, Gray, of which it may be considered a subspecies. The plant is new to the flora of Mexico.

* (7.) *M. tristis*, Ckll., one male, at flowers of *Ipomœa mexicana*.

* (8.) *Anthophora vallarum*, Ckll., one male, two females, at flowers of *Ipomœa mexicana*.

(9.) *Megachile occidentalis*, Fox, one male, at flowers of *Helianthus annuus*.

(10.) *Xylocopa arizonensis*, Cress., one female, at flowers of *Ipomœa mexicana*. Instead of entering the corolla, it cut a slit on the outside, near the base.

MOSQUITOS AND MALARIA.

By GUY A. K. MARSHALL, F.Z.S.

As the above subject hardly appears to have received the attention it merits in British entomological journals, it was a pleasure to read Mr. G. W. Kirkaldy's all too short *résumé* of the views of Celli and Grassi on the question in the 'Entomologist' for April, 1900. The facts and contentions set forth in this *résumé* would seem to leave but little doubt that mosquitos of the genus *Anopheles* are the sole carriers of malarial contagion, and that they themselves can, in turn, only acquire the parasites from malarial man. Yet the fact remains that in a malarious country like Mashonaland, where probably three-fourths of the inhabitants have had a practical experience of the disease, the theory is regarded with a considerable amount of scepticism, not merely by laymen, but also by the majority of medical men. While personally I do not share this scepticism, I can yet appreciate the difficulties which stand in the way of the acceptance of the theory in its present form, when tested by experience in a malarial country; and therefore it may be useful to draw attention to these counter-arguments, in the hope that they may be satisfactorily explained away.

If we accept the proposition that malaria can only exist in the presence of two factors, *viz.* malarial man and *Anopheles*, then we are logically bound to accept the conclusion that, if a man, or party of men, free from malarial poison, should penetrate from a healthy area into an unhealthy, but uninhabited, region, it would be impossible for them to contract fever, however much they might be bitten by mosquitos; further, it follows that all uninhabited regions, even of comparatively small size (seeing that the range of individual specimens of *Anopheles* is apparently very limited in extent), must be entirely devoid of malaria, even though they may be full of swamps, and teem with mosquitos.

Such conclusions certainly do not appear to be borne out by experience. It would doubtless be difficult to find many areas in