

which he has endeavoured to show that the sound is caused by the rushing out of the air from a small cavity within the head near the base of the short tongue, through a small orifice furnished with strong muscles.

Several instances of insect monstrosities have been described during the past year, varying in the extent of their malformation. These have occurred in *Acronycta leporina* (Bond, in Trans. Ent. Soc. 1872, p. x), in *Spilosoma sordida* (by Guenée, noticed in ditto, p. xxvi.), in the veins of the wings of various *Lepidoptera* (by the Rev. R. P. Murray, in ditto, p. xxxiii.), and in the antennæ of *Hydroporus* (by Lawson, in the Entom. M. Mag. viii. p. 289). A curious observation on the development of dark varieties of *Tephrosia crepuscularia* has been recorded by Mr. J. T. Llewelyn, in the Entom. Monthly Mag. (vol. viii. p. 272).

A remarkable memoir, with the title 'Ueber Polygamie und anderweitige Geschlechtsverhältnisse bei Orthopteren,' appears in the Zool. & Bot. Ver., Vienna, 1871. The observations are made upon *Gryllus campestris*, between a pair of which he observed eight acts of copulation, extending from the 10th May to the 11th June, and *Pezotettix pedestris*, in which he observed one male in successive copulation with four females.

Several instances have lately been brought to our notice in which two male insects were simultaneously found *in copulâ* with a single female (Dale, in Ent. M. Mag. ix. 46, and Müller, in ditto, ix. 120).

#### GEOGRAPHICAL DISTRIBUTION OF INSECTS.

The geographical distribution of insects is a subject of very wide extent, and has attracted our attention at several of our meetings during the past year. On this head I may refer concisely to Mr. Bates's remarks on the *Carabidæ* of Northern Asia (Trans. Ent. Soc. p. viii.), to those of Mr. Smith on the *Hymenoptera* of Japan (ib., p. xx.), and to those of Mr. Wollaston on the local distribution of species of *Coleoptera* (in the Ent. M. M., July, 1872, p. 32). I may also here refer to the account of a remarkable flight of *Cynthia Cardui* given in the last-named work (vol. ix. p. 149). The singular appearance of great numbers of specimens of *Vanessa Antiopa* during the last season has been alluded to in all our publications, and has caused considerable discussion; whilst, on the other hand, two remarkable instances of the sudden