

indirect descendants, the author has indicated several principal stems (not primitive forms). In respect to the North-stem and the South-stem in the groups occurring in the Holarctic region, he lays down the following hypotheses :

The two North stems developed, during a colder period, in what is now a warmer region of Africa. Later they separated, the smaller part going southward, seeking the cooler climate, the main body being meanwhile forced farther and farther to the north, returning later (split into North American and Eurasiatic branches) to the south. The home of the two so-called South-stems may be in the warmer part of America. Then follows a phenomenon analogous to the above, with the difference that here two equally great migrations took place, the forerunners of the *cuprascens* group going northwards, those of the *nivea-ritsemæ* group southwards. Both reached the Arctic or Antarctic land connections. The species of the *elegans-trisignata* group are then the posterity of the south-bound Arctic Eurasiatic branch, the *helmsi-dunedinensisætigera* group perhaps coming from the north-bound Antarctic Australasian branch. In spite, however, of these statements, neither the Arctic nor the Antarctic regions have produced indigenous Cicindelæ, their influence on the great influxes being only that of paths of a passing emigration. The true home of all the *Cicindela* stems is in the tropics or the subtropics.

NOTES ON *TÆNIORHYNCHUS SQUAMIGER*, COQ.

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Prof. Smith, of New Jersey, records *Tæniorhynchus (Culex) squamiger*, Coq., as being a strictly fresh-water form in that State, and it will be interesting to know that so far as my experience goes during the past season, it is exclusively a salt-marsh mosquito in the San Francisco Bay region of California. It may be possible that we have two different forms, but in a quantity of material which I have just examined they appear to agree in all essential particulars, both as regards larva and adult, with the descriptions given in Prof. Smith's report. There is one character, however, in the larva that is quite at variance, and that is the tracheal gills. In my specimens they are very short, in no case as long as the width of the 9th segment, while in Prof. Smith's report they are given as longer than the length of the segment, for the New Jersey *squamiger*. At any rate, if they are not the same mosquito, I believe my specimens are the

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