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Singh, B.K. and Y.N. Dwivedi. Banaras Hindu University, Varanasi, India. Report on spontaneous occurrence of mosaics in *D. rajasekari* Reddy & Krishnamurthy.

and *D. funebris* (Spencer 1927; Timofeeff-Ressovsky 1928). According to Sturtevant and Beadle in the insects hormonal control of sex and secondary sex characters apparently does not occur, but instead these are controlled by intracellular factors. This is shown in a very simple way in individuals in which part of the body is XX in constitution and the remainder XY or XO. Such individuals, known as gynandromorphs, are mosaic for sex characters. They result in two ways: (1) by elimination from one daughter cell at an early cleavage of one of the two X chromosomes (Morgan and Bridges), or (2) from double nucleus eggs (Doncaster). In the former, all descendants of the cell with a single X chromosome are genetically male while those from the sister XX cell are female. A double-nucleus egg may or may not give rise to a gynandromorph, depending on whether the two nuclei are fertilized by like (X and X or Y and Y) or different (X and Y) sperms. Regardless of origin, gynandromorphs in *Drosophila* usually show autonomy of development with regard to sex characters, i.e., each part develops (with few exceptions) according to its own genetic constitution and without regard to the genetic constitution of adjacent or associated tissues.

It was Morgan (1914) who reported for the first time the spontaneously arising gynandromorph in *D. melanogaster*. Subsequently, there have been a few reports on gynandromorphs in other species of *Drosophila* also, such as in *D. simulans* (Sturtevant 1921), *D. virilis* (Weinstein 1922)

Recently extensive collections were carried out for *Drosophilid* fauna in the vicinity of Punjim (Goa) which yielded a large number of flies representing several species of the genus *Drosophila*. They are *D. bipectinata*, *D. malerkotliana*, *D. jambulina*, *D. rajasekari*, *D. nasuta*, *D. orissaensis*, *D. eugracilis* and *D. meijerei*.

*D. rajasekari* is an indigenous species which seems to be quite common in certain parts of the Indian subcontinent. The male individual of the species can be easily distinguished from the female in having completely black terminal tergites, apical black patch on wings, metatarsal sex-comb of prothoracic legs. Altogether 50 flies represented this species during the collection. Of these flies, one was found to show the characteristics of a gynandromorph, with half of the body showing male and the other half female characters, especially with respect to wing patch and sex comb. However, this fly was found to be a female with respect to its external genitalia and the abdominal banding pattern (Fig. 1).



Fig. 1

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