

Results

For the statistical analysis 2 values were obtained for each (R) fly, estimating the percentage after an observation in the light, with the emitter in the light and the emitter in the dark. The difference between these values was calculated with a "paired" Student "t", for the population selected, the original population and the wild population.

Also, the selected population was compared with the original and the wild populations, with a "t" for independent groups, taking for this purpose the difference value between the 2 values above mentioned (percentage of observations in the light, with the emitter in the light, minus percentage of observations in the light with the emitter in the dark). The significance level was fixed as .05. The results are presented in Tables 1 to 5. In the case of Tables 2 and 3, the probability was based on 2 tails, because the highest value was not the one expected (emitter in the light), but the opposite one (emitter in the dark).

As it was expected, there was a significant difference in the selected population but not in the original and wild populations. Additionally, there were significant differences among the selected and the original and the wild populations, as above mentioned, means to say, more observations in the light (population selected) when the emitter was in the light.

Conclusions

Based on the results obtained, it would seem that there is the possibility that, by means of a guided selection through 50 generations, a population of *Drosophila melanogaster* may be obtained, whose individuals feature an anomalous communication, which it is understood has not been by means of sight, sound, smell, chemical or vibratory reception. The possibility of a communication by means of some form of electromagnetic energy should be investigated.

References: Ashburner, M., and T.R.F. Wright (editors). 1978, *The Genetics and Biology of Drosophila*. Volume 2a and 2b, Academic Press, New York;



List of Drosophilid species so far described and recorded from Kumaon region, India.

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Genus	Subgenus	Species
<i>Amiota</i> Loew		
	<i>Phortica</i> Schiner	<i>bandes</i> Singh and Neigi, 1992 <i>biprotusa</i> Chen and Toda, 1998 New record (this paper)
<i>Dettopsomyia</i> Lamb		<i>nigrovittata</i> (Malloch, 1924c) New record (this paper)
<i>Drosophila</i> Fallén		
	<i>Dorsilopha</i> Sturtevant	<i>busckii</i> Coquillett, 1901
	<i>Drosophila</i> Fallén Str.	<i>analspinai</i> Singh and Neigi, 1995 <i>bageshwarensis</i> Singh and Dash, 1999 (in press) <i>bishti</i> Singh and Negi, 1995 <i>bizonata</i> Kikkawa and Peng, 1938, new record (this paper) <i>elongata</i> Singh and Dash, 1999 (in press)

- hexaspina* Singh and Dash, 1999 (in press)
immigrans Sturtevant, 1921
khansuensis Singh and Dash, 1999 (in press)
lacertosa Okada, 1956
nainitalensis Singh and Bhatt, 1988
nasuta Lamb, 1914
paharpaniensis Singh and Dash, 1999 (in press)
painai Singh and Negi, 1995
paramarginata Singh and Dash, 1999 (in press)
parazonata Dwivedi and Gupta, 1980
paunai Singh and Neigi, 1989
repleta Wollaston, 1858
serrata Singh and Dash, 1999 (in press)
sulfuriger Duda, 1923
surangensis Singh and Dash, 1999 (in press)
trizonata Okada, 1966
- Sophophora* Sturtevant
- bifasciata* Pomini, 1940
jambulina Parshad and Paika, 1964
kikkawai Burla, 1954
malerkotliana malerkotliana Parshad and Paika, 1964
melanogaster Meigen, 1930
neobaimai Singh and Dash, 1998
neokhaoyana Singh and Dash, 1998
nepalensis Okada, 1955
punjabiensis Parshad and Paika, 1964
saraswati Singh and Dash, 1998
suzukii indicus Parshad and Paika, 1964
takahashii Sturtevant, 1927
- Gitona* Meigen
- Hirtodrosophila* Duda
- Leucophenga* Mik
- distigma* Meigen, 1830
hexaspina sp. nov. (this paper)
quadrivittata Okada, 1956, new record (this paper)
albiceps de Meijere, 1914, new record (this paper)
angulata Singh and Dash, 1999 (in press)
angusta Okada, 1956
bellula (Bergroth, 1894)
guttiventris (de Meijere, 1908) sym. Ref. Bock, 1979, Anst. J. Zool. Suppl. Ser. 71:25.
chaubattiaensis sp. nov. (this paper)
clubiata Singh and Dash, 1999 (in press)
kumaonensis sp. nov. (this paper)
nainae sp. nov. (this paper)
neointerrupta sp. nov. (this paper)
neolacteusa Singh and Bhatt, 1988
okhalkandensis Singh and Dash, 1999 (in press)
omata Wheeler, 1959, new record (this paper)
quadripunctata (de Meijere, 1908) new record (this paper)
singhi sp. nov. (this paper)
subpollinosa (de Meijere, 1914)
- Lissocephala* Malloch
- Paraleucophenga* Hendel
- Scaptomyza* Hardy
- parasiatica* Takada and Momma, 1975
neojavanaii Singh and Negi, 1992
todayi sp. nov. (this paper)
- Scaptodrosophila* Duda
- elmoi* Takada, 1970
himalayana Takada, 1970
quadruangulata Singh and Dash 1993
actinia Okada, 1991 new record (this paper)
chandraprabhiana Gupta and Ray-Chaudhuri, 1970