absent. Ventral fragma oblong. Phallosomal index about 2.2.

DESCRIPTION OF THE FEMALE IMAGO: Similar to male except in the slightly larger size and absence of a dense tuft of short hairs on the metatarsus of first leg.

Egg guide: Lobe yellowish, narrow apically, with about 14 marginal and 3 discal teeth and a long subterminal hair. Basal isthmus narrow.

MATERIAL: Holotype: Male; Poona (India); July 1969 (Vaidya & Godbole). Deposited with the Department of Zoology, University of Poona, Poona 7 (India).

Paratypes: 8 males, 5 females collected together with holotype. 4 males deposited with Prof. T. Okada, Department of Biology, Tokyo Metropolitan University, Tokyo (Japan).

HABITAT: The flies were collected on decomposing leaves in garden by sweeping with net. They appear only in the rainy season and are difficult to rear in the laboratory.

RELATIONSHIP: The cuneiform bristles on the second and the third tarsi confirm the generic position and the femoral tubercles of the foreleg show that it belongs to subgenus Zaprionus. The only other species of genus Zaprionus reported from India is Z. indiana (Gupta, 1970), which however, belongs to subgenus Phorticella.

Acknowledgement: The authors are grateful to Prof. Dr. T. Okada of the Tokyo Metropolitan University for confirming the identification and for checking the description.

Godbole, N.N., R.M. Kothari and V.G. Vaidya. University of Poona, Poona, India. Study of free amino acids in eggs of five species of Drosophila.

Our knowledge of the free amino acids occurring in eggs of Drosophila seems to be limited to species melanogaster only (Chen et al. 1967). It was therefore intended to undertake similar studies on some other species of Drosophila. For this comparative work, the following species were selected: D. ananassae, D. jambulina, D. malerkotliana, D. melanogaster and D. nasuta.

The cultures of the above species were maintained at 22 ± 1°C on the standard agar-cornmeal medium. Paper chromatographic technique was employed for the separation and identification of the free amino acids in the eggs.

For this purpose, freshly laid eggs of a particular species were collected and were washed with glass distilled water. About ten eggs were directly spotted on Whatman No. 1 paper (36 X 5 cm) by crushing them on it with a blunt glass rod. Two such chromatograms were run separately in glacial acetic acid : n-butanol : water (1:4:5) phase and phenol : water (8:2) phase for 4-6 h at 22°C by ascending chromatographic method. The chambers were saturated with respective phases prior to the chromatographic runs. The chromatograms were dried in air after which they were developed by spraying with 0.5% ninhydrin in acetone in order to detect the free amino acids. Rf values for the spots thus developed were calculated. The amino acids were identified by comparison of the obtained Rf values with the standard values for authentic samples. The findings were confirmed by two dimensional paper chromatography using glacial acetic acid : n-butanol : water (1:4:5) and phenol : water (8:2) phases. Similar procedure was adopted for the eggs of all the five species.

The amino acids identified in the five species of Drosophila are presented in Table 1. Methionine sulfone and serine are found to be present exclusively in D. malerkotliana. α-alanine and glutamine are present in all the species studied except D. nasuta, in which these

Table 1. Free amino acids in the eggs of five species of Drosophila.

Amino acid	D. ananassae	D. jambulina	D. malerkotliana	D. melanogaster	D. nasuta
α-alanine	+	+	+	+	-
β-alanine	-	-	-	-	+
Aspartic acid	-	+	+	+	-
Cysteine	+	+	-	+	+
Cysteic acid	+	-	+	+	-
Cystine	+	+	+	-	+
Glutamic acid	-	-	-	-	+
Glutamine	+	+	+	+	-
Methionine sulfone	-	-	+	-	-
Serine	-	-	+	-	-
Taurine	-	-	+	-	+

two amino acids seem to be replaced by β-alanine and glutamic acid respectively.

It is reported by Chen et al. (1967) that in the eggs of D. melanogaster glutamic acid, α-alanine, glycine and aspartic acid are highly concentrated. In the present studies however, it is interesting to note that glycine is not detected either in D. melanogaster or in any other species studied. This may be due to very low concentration of this amino acid in freshly laid eggs. Chen et al. (1967) have further indicated the probable presence of methionine sulfoxide in the fertilized eggs of D. melanogaster. However in the present studies methionine sulfoxide is not detected in any of the species.

Reference: Chen, P.S., F. Hanimann and H. Briegel 1967, Rev. Suisse Zool. 74:570.

Godbole, N.N. and V.G. Vaidya. University of Poona, India. A quantitative survey of Drosophilidae from Poona (India).

A survey of Drosophilidae was undertaken in Poona and neighbouring areas in the wet season, viz. from 15th of June to 15th of October in the year 1969. This survey was carried out in order to determine the composition of the drosophilid population in this season.

Poona (lat. 18°13' N and long. 73°51' E) is located at the confluence of the rivers Mula and Mutha in the shadows of the mountain ranges of the Western Ghats. It is surrounded by low hills and is at a height of 564 m from the mean sea level. It is about 105 km from the Arabian Sea. The average annual rainfall is about 62.5 cm.

Table 1. Numerical data on different species collected

Species	Total number collected	Percentage
D. biarmipes	51	1.75
D. takahashii	112	3.85
D. melanogaster	356	12.23
D. ananassae	1141	39.21
D. malerkotliana	192	6.60
D. kikkawai	114	3.92
D. jambulina	218	7.49
D. nasuta	305	10.48
D. repleta	221	7.60
D. paratriangulata	73	2.51
Zaprionus paravittiger sp. nov.	127	4.36

Flies were collected from fermenting fruits, garbage and vegetation by sweeping with net. Banana baits were also used. A total number of 2910 flies were collected, comprising eleven species as shown in Table 1.

Stoddard, A.E. University of Pittsburgh Pennsylvania. Interaction between two dominant bristle mutants.

A series of experiments has been undertaken to characterize the highly variable expression of a dominant bristle mutant, Ocellarless (Oce; 1-5.7) in D. melanogaster, and to gain information as to its mode of action during development. As a part of the study, Oce was crossed to another mutant, Hairy-wing-49c, which appears, at least superficially, to have an effect opposite to that of Oce. The F_1 females from these crosses showed an unexpected phenotype - a differential interaction on the head bristle sites as compared with thoracic sites.

Fahmy and Fahmy described Ocellarless (DIS 32:72, 1958) as being responsible for the absence of ocellar macrochaetae, plus the occasional absence of other macrochaetae, especially the postverticals and scutellars. In the current studies, populations of Oce/Oce females are seen to have approximately 90% of ocellar and postvertical macrochaetae missing and 10-40% of anterior dorsocentrals also absent. In Oce/+ flies, 60-80% of the ocellars and 90-95% of the postverticals are missing, but very few flies lack any dorsocentrals. Hairy-wing-49c (Hw^{49c}; 1-0.0), notable for its strong dominant manifestations, causes flies to differentiate extra