

DESCRIPTIONS OF NEW SPECIES OF THE GENERA  
*SINOPHTHALMUS* AND *SCAPTOMYZA* (INSECTA :  
DIPTERA : DROSOPHILIDAE) FROM  
CHANDIGARH, INDIA.

By

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(With 3 text-figures)

INTRODUCTION

Since Bezzi (Sturtevant, 1921) who was the first to report *Drosophila* species (*Drosophila repleta*) from Calcutta, India, there have been only occasional reports on the Indian Drosophilidae till 1964. In 1964, a project "Drosophilid Survey of India" was initiated by the Panjab University, Chandigarh consequently, Parshad and Paika (1964) gave the chronology of the recording of a few species of the Indian Drosophilidae described so far and also reported eleven species of the subgenus *Sophophora* Sturtevant. Besides the above, Parshad and Duggal (1966) reported twenty species ; Gupta (1969) reported one species ; Gupta and Ray-Chaudhury (1970) recorded eight species and Gupta (1970) recorded five species. Judging from the reports on the Indian Drosophilidae, it seems that the knowledge of the Indian species recorded so far is quite meagre. Therefore the present author started collecting the wild species of the Indian Drosophilidae and has published four papers viz., Parshad and Singh (1972) recorded nine species from South Andamans ; Singh (1972a) recorded eight species belonging to *Drosophila*, Singh (1972b) described five new species of the subgenus *Drosophila* and Singh (1972c) described six new species of the subgenus *Paradrosophila*. The present communication in the series contains the descriptions of three new species of the genera *Sinophthalmus* and *Scaptomyza*.

MATERIAL AND METHODS

All the three species, which constitute the material for the present investigations, were collected from Chandigarh (India).. The collection and the treatment of the flies for various taxonomical studies were carried out in the same way as described by Parshad and Paika (1964). The types of the new species have been placed in the Panjab University Zoology Museum, Chandigarh.

Genus *Sinophthalmus* Coquillett, 1904

*Sinophthalmus* Coquillett, 1904. *Proc. ent. Soc. Wash.*, 6 : 191 ; Sturtevant, 1921. *Carnegie. Inst. Publs.*, 301 : 54.

1. *Sinophthalmus creberii* n. sp.

(Text-fig. 1)

*Description of imago**Male imago*

*External characters.*—Arista plumose with numerous minute dorsal and ventral branches, terminal fork indiscernable; antenna brownish yellow, third segment brownish yellow, broad and large. Front over  $1/4$  the greatest width of head, wider above, dark brown, periorbits yellow. Orb<sub>1</sub> equal to Orb<sub>3</sub>, Orb<sub>2</sub> very well developed about  $3/4$  of either, Orb<sub>1</sub> near to verticals than to Orb<sub>3</sub>, Orb<sub>2</sub> posterior to Orb<sub>3</sub>, Orb<sub>3</sub> outside Orb<sub>2</sub>. Or<sub>2</sub> absent, vibrissa very prominent. Carina extremely short, only within the limits of antenna, narrow and slightly raised, yellow; face and clypeus yellow. Palpus club-shaped, pale with a large bristle at the tip and a few more bristles along the entire length. Cheeks pale, with two prominent bristles, one on the outer and the other on the inner side near the clypeus, their greatest width  $1/9$  the greatest diameter of eye. Eyes deep red; ocelli brownish yellow, ocellars divergent.

Acrostichal hairs in ten irregular rows; prescutellars very well developed, more than  $1/2$  the size of posterior dorsocentrals, anterior dorsocentrals small about  $1/3$  the posterior dorsocentrals, anterior scutellars divergent arising from the mid-lateral side of the scutellum, not as usual from the anterior proximity, posterior scutellars crossed at the very apex. Mesonotum and scutellum dark brown, all the bristles on the mesonotum arise from a dark tan spot. Humeral one. Pleura brownish yellow, bare, with a broad light black stripe across it, middle sternopleurals absent. Sterno-index 1.0.

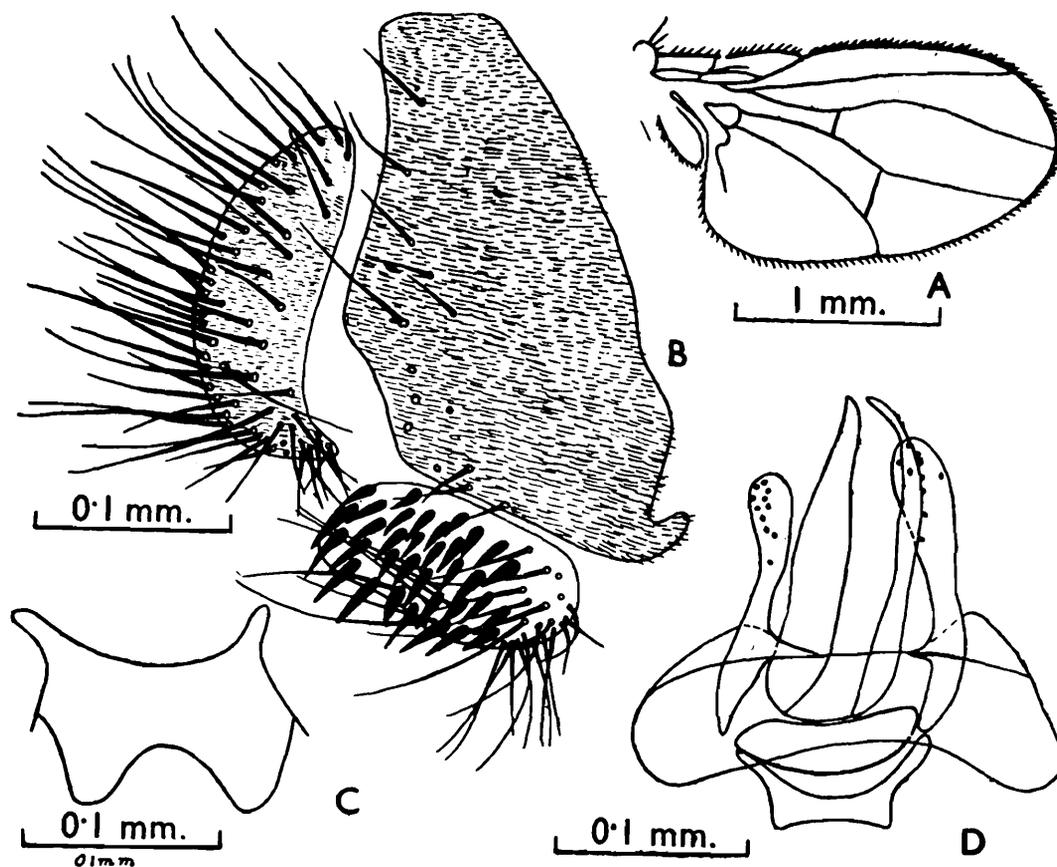
Legs pale. Preapicals on all the three tibiae, apicals only on the middle tibia. Abdomen yellow, each tergite with uninterrupted light black broad caudal band.

Wing (Text-fig. 1A): Clear, costa reaches up to the apex of third longitudinal vein; second basal cell and discal cell not confluent; C-1 bristle absent; C-3 bristles on the basal  $2/3$  the third costal section; C-index about 2.25, 4 V-index about 2.0, 4C-index about 1.33 and 5X-index about 1.00. Halteres balloon-shaped, light pale.

Length of the wing. .2.04 mm.

Length of the body... .2.4 mm.

*Periphallic organs* (Text-fig. 1B).—Genital arch brown, narrow above, broader in the middle, tapers below, the pointed tapering end



Text-fig. 1.—*Sinophthalmus creberii* n. sp. A. wing ; B. peripheral organs ;  
C. decasternum ; D. phallic organs.

curves anteriorly and upwards forming a hook-like structure, medially and caudally concave with fourteen bristles on the caudal end from top to toe, out of these four are on the upper margin, pubescent. Heel and toe not observable. Anal plate roughly crescent-shaped, pubescent, separate from the genital arch and with about fifty three bristles. Clasper single, separate from the genital arch, rectangular, primary teeth large, peg or nail-like, about thirty five arranged irregularly on the entire clasper ; marginal bristles thirteen, long and flexible, arranged on the lower end, fifteen more long and flexible bristles arranged irregularly on the clasper.

*Decasternum* (Text-fig. 1C).—Roughly trapezoidal, with two anterior thin and posterior thick and round horns ; main body lightly and deeply concave at the anterior and posterior sides respectively, lateral sides with a medial projection.

*Phallic organs* (Text-fig. 1D).—Light brown ; aedeagus large, broad, bifid, pointed and curved at the apex. Anterior parameres absent. Posterior parameres roughly club-shaped with a pointed basal branch at 1/3 distad of the base, about eleven sensillae at the apex. Ventral fragma broad laterally and very narrow and concave anteroposteriorly.

Novasternum and submedian spines not observable. Basal apodeme very small, bifid at the base and truncate at the apex. P. I. : 3.00.

*Holotype*.—One male from Chandigarh deposited in the Museum, Department of Zoology, Panjab University, Chandigarh, *vide* registration no. 109/73, dated 12.4.73.

*Allotype*.—One female collected along with the holotype.

*Paratypes*.—One male and one female deposited along with the holotype.

*Other specimens examined*.—Six males and seven females from Chandigarh.

*Remarks*.—Sturtevant (1921) remarked that *Sinophthalmus* Coquillett is somewhat similar to *Drosophila repleta* Wollaston in general appearance, and this may be due to each bristle of the body arising from a dark brown spot. The genus is so far represented by a single species *Sinophthalmus pictus* Coquillett collected from Mexico and California.

Coquillett (1904) established the genus *Sinophthalmus* under the subfamily Geomyzinae. Sturtevant (1921), on the other hand, placed this genus under the subfamily Drosophilinae. He further indicated that the subfamily Geomyzinae can be distinguished by the presence of following characters. Costa once broken, auxiliary vein usually ending in costa and arista seldom plumose. Consequently, *Sinophthalmus* is more close to Drosophilinae than to Geomyzinae.

The present species resembles *Sinophthalmus pictus* in the following diagnostic features :

1. Arista minutely pubescent ;
2. Three orbitals placed high up ;
3. The presence of prescutellars, anterior scutellars and posterior scutellars ;
4. Humeral one ;
5. Post-verticals small ;
6. Vibrissa present ;
7. Dorsocentrals two pairs ;
8. Auxiliary vein rudimentary (Sturtevant, 1921), distinct (Coquillett, 1904) ;
9. Discal and second basal cells separated ;
10. Two pairs of verticals, supra alars, notopleurals, sternopleurals and one pair of ocellars ;
11. Posterior cross vein present ;
12. Anal angle well developed.

It, however, differs from *S. pictus* (Coquillett, 1904) in the absence of the following characters :

1. Second joint of antenna with a rather long bristle on upper side, third segment truncate ;
2. Cheeks  $1/5$  ;
3. Carina large ;
4. Acrostichals four rows ;
5. No preapicals on legs.

The present species does not resemble *Sinophthalmus pictus* except in having the brown spots on the body and the size of the body. The present species possesses ten rows of acrostichal hairs compared to four rows in *S. pictus*. The new species has been named as *Sinophthalmus creberii*.

## Genus *Scaptomyza* Hardy, 1849

*Scaptomyza* Hardy, 1849. *Proc. Berwicksh. Nat. Club.*, 2 : 359 ; Sturtevant, 1921. *Carnegie. Inst. Publs.*, 301 : 63 ; Patterson, 1943. *Univ. Texas Publ.*, 4313 : 41 ; Wheeler, 1949. *Univ. Texas Publs.*, 4920 : 165 ; Wheeler, 1952. *Univ. Texas Publs.*, 5204 : 194 ; Okada, 1956. *Syst. St. Drosophilidae Allied Fam. Japan* : 67.

### 2. *Scaptomyza cristata* n. sp.

(Text-fig. 2)

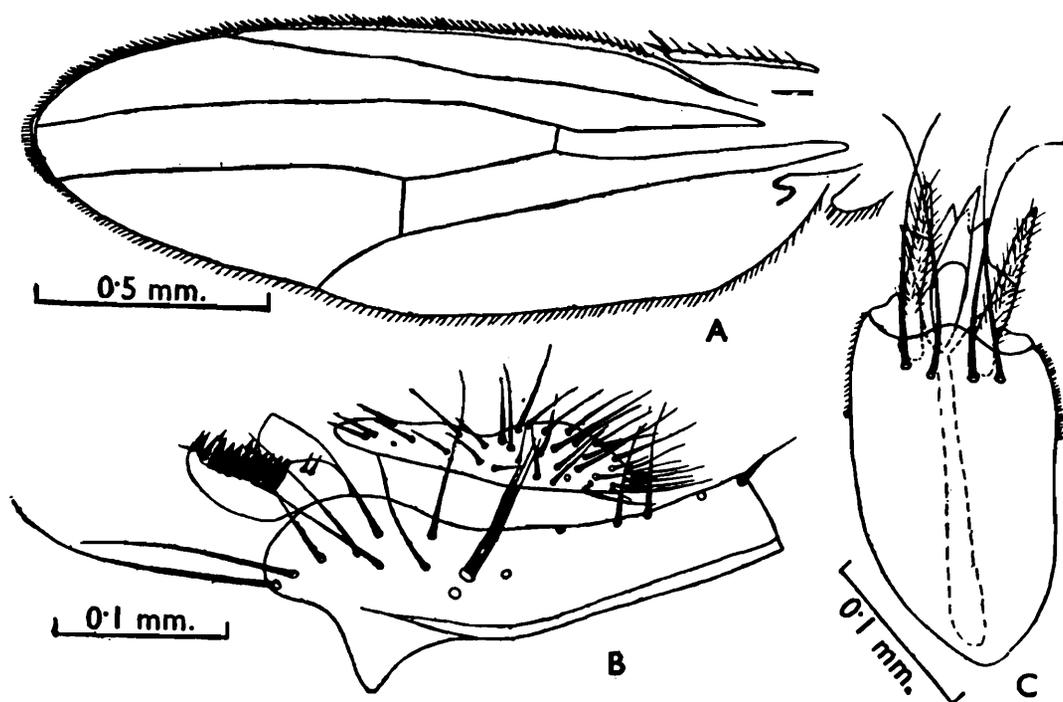
#### *Description of imago*

##### *Male imago*

*External characters.*—Arista with three branches above and one below, in addition to the terminal fork ; antenna black, with a white speck on the first and second segment. Front over  $\frac{1}{3}$  the width of head, black with silvery white stripes, almost squarish. Orb<sub>1</sub> and Orb<sub>3</sub> almost equal, Orb<sub>2</sub>  $\frac{1}{2}$  of either. Or<sub>2</sub>  $\frac{1}{2}$  of vibrissa. Carina raised, narrow above broader below, a white streak running in the middle of it ; face black with two dorsomedian white specks ; clypeus black. Palpus grey, club-shaped, with a few short bristles. Cheeks dark brown, their greatest width about  $\frac{1}{4}$  the greatest diameter of eye. Eyes maroon, a white streak runs along the orbit ; ocelli shining dark grey.

Acrostichal hairs in four regular rows ; prescutellars present, anterior scutellars divergent, posterior scutellars convergent and crossed in the middle. Mesonotum and scutellum black, mesonotum with five white stripes ; one dorso-central continues behind on the scutellum, two dorso-medials running forward on the front and unite below the ocelli and traverse the carina as a single stripe and two dorso-laterals running anteriorly along the orbit and posteriorly along the lateral sides of scutellum. Three more stripes on each pleura. Humerals two, equal. Pleura light black, bare, with a muddy-white stripe across it. Sterno-index 0.85.

Legs black with yellow tinge. Preapicals on the first and third tibiae, apicals only on the second tibia. Sex-comb absent. Abdomen black.



Text-fig. 2.—*Scaptomyza cristata* n. sp. A. wing ; B. periphallallic organs ; C. phallic organs.

Wing (Text-fig. 2A) : Clear ; C-1 bristles two, equal ; C-3 bristles on basal  $\frac{2}{3}$  the third costal section ; C-index about 1.33, 4 V-index about 2.9, 4C-index about 2.18 and 5X-index about 1.6. Halteres light yellowish grey.

Length of the wing. .212 mm.

Length of the body. .235 mm.

*Periphallallic organs* (Text-fig. 2B).—Genital arch wheatish brown, narrow above concave on the anterior lower margin with about twelve bristles, five arranged along the upper posterior margin. Heel distinct and pointed. Toe round, pointed downwards and inwards. Anal plate elliptical, notched in the middle and with about thirty six long bristles. Clasper single, comb-shaped, large, primary teeth twelve arranged concavely, four small marginal bristles, two small bristles on the clasper.

*Phallic organs* (Text-fig. 2C).—Wheatish brown in general. Aedeagus transparent rod-like, slender and pointed distally. Anterior parameres large and rod-like with numerous sensillae. Posterior parameres large, contiguous at the base, apparently fused distally, with two large lateral pointed projections at the meson and three small pointed projections at the distal end, lateral margins folded ventrally to form a sheath for the aedeagus. Ventral fragma almost rectangular, round anteriorly. Basal apodeme expands gradually from

base towards the distal end, about one and a half the size of aedeagus. Novasternum prominent, with a small round median projection, two pairs of exceedingly long submedian spines. P. I. : 0.6.

*Holotype*.—One male from Chandigarh deposited in the Museum, Department of Zoology, Panjab University, Chandigarh *vide* registration No. 111/73 dated 12.4.73.

*Paratype*.—Two males deposited along with the holotype.

*Relationship*.—This species belongs to the genus *Scaptomyza* because of the following characters :

Acrostichal hairs in four rows ; occiput more convex than in *Drosophila* ; thorax, abdomen and wings more slender ; prescutellars never present (Sturtevant, 1921 ; Patterson, 1943).

However, the present species differs from other species of the genus in having well developed prescutellars.

It resembles with *S. monticola* Okada in the following characters :

Body blackish grey ; arista with six branches ; ocellar triangle black ; Or<sub>2</sub> 1/2 of vibrissa ; humerals two ; acrostichal hairs in four rows ; wings hyaline, cross vein clear ; C-1 bristles two ; abdominal tergites almost entirely black, with grey pollinosity ; anal plate separate from the genital arch ; anterior parameres large ; ventral fragma longer than broad.

However, the present species can be easily distinguished from *Scaptomyza monticola* on account of the following well defined differences :

| <i>Scaptomyza cristata</i> n. sp.  | <i>Scaptomyza monticola</i>                         |
|--|---|
| 1. Antenna black ; third segment black                                   | Antenna dark brown ; third segment yellow           |
| 2. Palpus grey with few short bristles                                   | Palpus yellow with one prominent bristle at the tip |
| 3. Periorbits silvery white  | Periorbits black                                    |
| 4. Front black   | Front orange brown                                  |
| 5. Carina raised, a white streak running through the entire length of it | Carina low, short and black                         |
| 6. Cheeks dark brown ; 1/4 the greatest diameter of eye                  | Cheeks yellow ; 1/7 the greatest diameter of eye    |

*Scaptomyza cristata* n. sp.*Scaptomyza monticola*

- |   |   |
|---|---|
| 7. Mesonotum grey ; five silvery white longitudinal stripes pass through it   | Mesonotum silvery grey ; three longitudinal black stripes passing through it    |
| 8. Scutellum grey, with one median and two dorsolateral silvery white stripes   | Scutellum grey, silvery, with a median longitudinal black stripe                |
| 9. Prescutellars present  | Absent  |
| 10. Anterior scutellars divergent   | Anterior scutellars convergent  |
| 11. Sterno-index 0.85   | Sterno-index 0.6  |
| 12. Legs black with yellow ting preapicals on the first and third tibiae, apicals only on the second                        | Legs yellow ; preapicals on all the three tibiae, apicals on the middle         |
| 13. Wing indices : C —index 1.33<br>4V —index 2.9<br>4C —index 2.18<br>5X —index 1.6  | 3.3<br>1.5<br>0.7<br>1.8  |
| C-3 bristles on the basal<br>2/3 the third costal section   | 1/4 the third costal section  |
| 14. Genital arch wheatish brown ; two hairs on the clasper  | Genital arch brownish black ; no hairs on the clasper                           |
| 15. Marginal bristles four on the clasper   | No marginal bristles  |
| 16. Anal plate elliptical, with thirty six hairs  | Anal plate elongate, with seventy hairs   |
| 17. Aedeagus pale, transparent ; no medioventral process  | Aedeagus pale brown ; subapically there is a medioventral process               |
| 18. Anterior parameres with a pointed tip and numerous sensillae  | Anterior parameres have round tip and have no sensillae                         |
| 19. Posterior parameres well developed and have two lateral and three distal pointed projections                            | Posterior parameres absent  |
| 20. Novasternum with a small round median projection ; with two pairs of black, stout and exceedingly long Submedian spines | Novasternum without such projection ; with one pair of slender submedian spines |

On the resemblance of the clasper to a comb the present species has been named *Scaptomyza cristata*.

3. *Scaptomyza plumata* n. sp.  
(Text-fig. 3)

*Description of imagines*

*Male imago*

*External characters.*—Arista with four branches above and two below, in addition to the terminal fork; antenna light brown, third segment and outside of second segment dull silvery white and transparent. Front over  $\frac{4}{15}$  the width of head, front longer than broad, of equal width above and below and brownish yellow. Orb<sub>1</sub>, and Orb<sub>3</sub> almost equal, Orb<sub>2</sub> much shorter than either Orb<sub>1</sub> or Orb<sub>3</sub>. Or<sub>2</sub> much shorter or absent. Carina flat, narrow above broader below; face silvery white with a brown dot in the middle; clypeus whitish yellow. Palpus club-shaped, creamy white with few short bristles. Cheeks pale yellow, their greatest width about  $\frac{1}{15}$  the greatest diameter of eye. Eyes brilliant red; ocelli shining dark brown.

Acrostichal hairs in four regular rows; prescutellars present, anterior scutellars convergent, posterior scutellars crossed at the distal end, not upright. Mesonotum and scutellum blackish brown. Mesonotum with one dorsomedian and two dorso-lateral silvery white stripes. Two dorso-lateral stripes anteriorly continue on the frons along the entire length of the orbit, posteriorly they run along the lateral side of the scutellum, a silvery white dot on the posterior extremity of the scutellum. Humeralis two, equal. Pleura bare, brownish yellow with a faint black longitudinal stripe across it. Sterno-index 0.85.

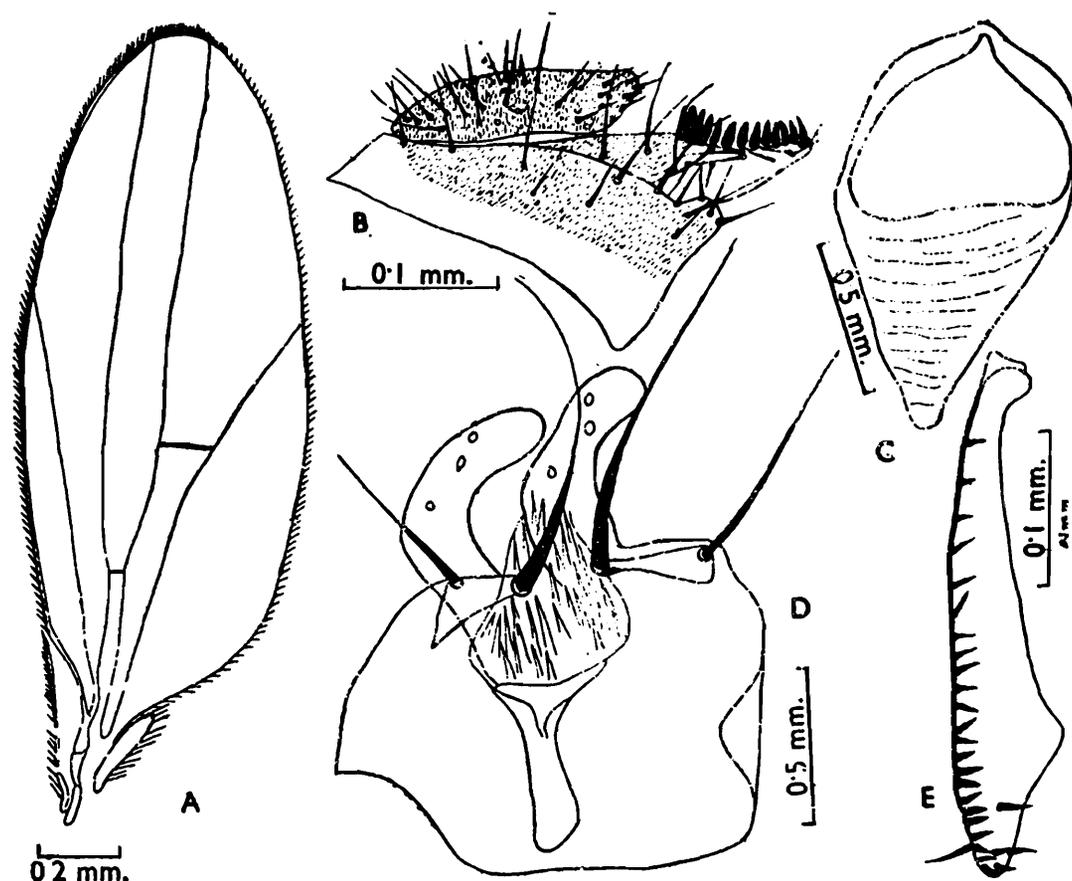
Legs pale. Preapicals on all the three tibiae, apicals on the first two. Sex-comb absent. Abdomen light black, sometimes black bands discernible.

Wing (Text-fig. 3A): Clear; C-1 bristle one; C-3 bristles on basal  $\frac{1}{2}$  the third costal section; C-index about 1.75, 4V-index about 2.71, 4C-index about 1.71 and 5X-index about 2.0. Halteres pale.

Length of the wing ..... 1.85 mm

Length of the body ..... 2.00 mm

*Periphallidic organs* (Text-fig. 3B).—Genital arch dark wheatish brown, narrow above with about thirteen bristles, two arranged along the upper posterior margin. Heel distinct and pointed. Toe round. Anal plate oblong, separate from the genital arch and with about twenty eight long bristles. Clasper single, large; primary teeth thirteen arranged concavely on the clasper, marginal bristles eight.



Text-fig. 3.—*Scaptomyza plumata* n. sp. A. wing ; B. periphallic organs ; C. decasternum ; D. phallic organs ; E. egg-guides.

*Decasternum* (Text-fig. 3C).—Triangular with two posterior lateral processes which bend forward and downwards to form a circular ring.

*Phallic organs* (Text-fig. 3D).—Pale in general. Aedeagus compact, plumose and pale. Anterior parameres pale, large, curved in the middle, tip round with three sensillae in a row. Posterior parameres absent. Novasternum indistinct, fused with the ventral fragma, with two pairs of submedian spines ; the inner pair large, black, exceedingly elongated ; the outer pair at the lateral margins comparatively smaller and slender than the inner pair. Ventral fragma quadrangular, antero-lateral margins concave and pale. Basal apodeme yellow shorter than the ventral fragma. P.I. : 1.22.

#### *Female imago*

*External characters*.—Resembles male in all its details except little lighter body colour.

|                          |             |
|--------------------------|-------------|
| Length of the wing ..... | 1.94 mm     |
| Length of the body ..... | ... 2.07 mm |

SINGH : *The Genera Sinophthalmus and Scaptomyza*

*Egg-guides* (Text-fig. 3E).—Lobe pale-yellow, narrow at the base, round at the apex, a bulge at 1/3 distad of the apex, with twenty five stout pointed marginal and two discal teeth. The subterminal hair present between the fifth and sixth teeth. Fifteen teeth at the upper margin are pale, pointed and long, eight at the base are short and dark brown. There is a gap between the ultimate and the penultimate tooth.

*Holotype*.—One male from Chandigarh deposited in the Museum, Department of Zoology, Panjab University, Chandigarh *vide* Registration No. 110/73, dated 12.4.73.

*Paratypes*.—One male and one female deposited along with the holotype.

*Other specimens examined*.—One male and seven females collected along the holotype and paratype.

*Relationship*.—Like *Scaptomyza cristata* n. sp. the present species also differs from the other members of the genus described so far, in having well-developed prescutellar bristles.

The present species resembles *S. paravittata* of *vittata* species-group (Wheeler, 1952) only in possessing some longitudinal stripes. In general it compares favourably with *montana* species-group (Wheeler, 1952) in the following features : Blackish or yellowish species ; four acrostichal rows ; long apical scutellars ; two humerals ; no wing spot. However, it does not resemble with any of the species of the *montana* species-group.

Okada (1956) reported five species of *Scaptomyza*. *S. graminum* Fallen, *S. apicalis* Hardy, *S. unipunctum* Zetterstedt, *S. disticha* Duda and *S. monticola* Okada from South East Asia. Of all the species of the genus so far known the present species is more close to *S. monticola*. Superficially it resembles *S. monticola* in the following features :

Front brownish yellow ; carina flat and short ; cheeks pale yellow ; humerals two ; acrostichal hairs in four rows ; anterior scutellars convergent ; preapicals on all the three tibiae ; wings hyaline, cross vein clear ; halteres pale ; anal plate separate ; anterior parameres large, tip round ; posterior parameres absent.

It, however, differs from *S. monticola* as follows :

*Scaptomyza plumata* n. sp.

*Scaptomyza monticola*

1. Body blackish yellow

Body blackish grey

| <i>Scaptomyza plumata</i> n. sp.   | <i>Scaptomyza monticola</i>   |
|--|---|
| 2. Third segment of antenna silvery white, transparent   | Third segment yellow  |
| 3. Palpus creamy white, with few short bristles  | Palpus yellow, with one bristle   |
| 4. Ocellar triangle brown  | Ocellar triangle black  |
| 5. Periorbits silvery white  | Periorbits black  |
| 6. Cheeks $\frac{1}{15}$ the greatest diameter of eye  | $\frac{1}{7}$ the greatest diameter of eye  |
| 7. $Orb_2$ much shorter than either $Orb_1$ or $Orb_3$   | $Orb_2$ $\frac{1}{3}$ the $Orb_3$   |
| 8. $Or_2$ much shorter   | $Or_2$ $\frac{1}{2}$ of the vibrissa  |
| 9. Mesonotum with three silvery white stripes  | Three black stripes   |
| 10. Scutellum with two silvery white stripes and a silvery white dot at the posterior tip.                           | Scutellum with a median black stripe  |
| 11. Prescutellars present  | Prescutellars absent  |
| 12. Sterno-index 0.85  | Sterno-index 0.6  |
| 13. Apicals on the first and second tibiae   | Apical only on the middle tibia   |
| 14. Wing indices :<br>C—index 1.75<br>4 V—index 2.71<br>4 C—index 1.71<br>5 X—index 2.00                             | 3.3<br>1.5<br>0.7<br>1.8  |
| 15. C-1 bristle one  | Two   |
| 16. C-3 bristles on the basal $\frac{1}{2}$ the third costal section   | $\frac{1}{4}$ the third section   |
| 17. Abdomen light black  | Abdomen exceedingly black   |
| 18. Genital arch dark wheatish brown, with eighteen bristles, two at the upper posterior margin, five on the clasper | Genital arch brownish black, upper posterior margin with five bristles, lower portion with five hairs |
| 19. Clasper with thirteen concavely arranged teeth, no stout bristles  | With twelve concavely arranged teeth, several stout bristles below                                    |

| <i>Scaptomyza plumata</i> n. sp.  | <i>Scaptomyza monticola</i>                                      |
|---|--|
| 20. Marginal bristles eight   | No such bristles   |
| 21. Anal plate oblong, with about twenty eight bristles   | Anal plate elongate, with seventy bristles                       |
| 22. Aedeagus, compact, plumose and pale,  | Aedeagus pale brown, subapically with a medioventral process     |
| 23. Anterior parameres with three sensillae   | No sensillae   |
| 24. Ventral fragma quadrangular   | Ventral fragma longer than broad                                 |
| 25. Novasternum not discernible, with two pairs of sub-median spines, inner pair dark and larger, outer comparatively lighter and small | Novasternum dark brown, with a pair of slender sub-median spines |

Further, this species can be easily distinguished from *Scaptomyza cristata* because of the following differences :

| <i>Scaptomyza plumata</i> n. sp.  | <i>Scaptomyza cristata</i> n. sp.  |
|---|--|
| 1. Antenna light brown, third segment silvery white, transparent            | Antenna black, third segment black   |
| 2. Arista with eight branches, four dorsal, two ventral, excluding the fork | Arista with six branches, three dorsal, one ventral, excluding the terminal fork |
| 3. Palpus creamy white  | Palpus grey  |
| 4. Ocellar triangle dark brown  | Ocellar triangle black   |
| 5. Front brownish yellow  | Front black  |
| 6. Carina flat, no white streak   | Carina raised, a white streak running in the middle of it                        |
| 7. Cheeks pale yellow, 1/15 the greatest diameter of eye                    | Dark brown, 1/4 the greatest diameter of eye                                     |
| 8. Orb <sub>2</sub> much shorter than Orb <sub>1</sub> and Orb <sub>3</sub> | Orb <sub>2</sub> 1/2 of Orb <sub>3</sub>   |
| 9 Or <sub>2</sub> much shorter than vibrissa                                | Or <sub>2</sub> 1/2 of the vibrissa  |
| 10. Mesonotum with three silvery white stripes                              | With five such stripes   |

*Scaptomyza plumata* n. sp.*Scaptomyza cristata* n. sp.

- |   |   |
|---|---|
| 11. Scutellum blackish brown, with two lateral silvery white stripes and a silvery white speck at the tip | With three silvery white streaks, two lateral and one median  |
| 12. Anterior scutellars convergent  | Divergent   |
| 13. Preapicals on all the three tibiae ; apicals on the first two   | Preapicals only on the first and third tibiae ; apicals on the second tibia only  |
| 14. Wing indices :  |   |
| C—index 1.75  | 1.33  |
| 4 V—index 2.71  | 2.9   |
| 4 C—index 1.71  | 2.18  |
| 5 X—index 2.00  | 1.6   |
| C-1 bristle one   | C-1 bristles two  |
| C-3 bristles on the basal 1/2 the third costal section  | On 2/3 of the third costal section  |
| 15. Halteres pale   | Halteres yellowish-grey   |
| 16. Abdomen light black   | Abdomen exceedingly black   |
| 17. Genital arch with eighteen bristles, two at upper posterior margin, five on the clasper               | With twelve bristles ; five at upper posterior margin, two on the clasper   |
| 18. Clasper with thirteen concavely arranged teeth with eight marginal bristles                           | Clasper with twelve concavely arranged teeth, with four small marginal bristles   |
| 19. Anal plate oblong, with about twenty eight bristles   | Anal plate elliptical, with about thirty six bristles   |
| 20. Aedeagus pale, compact and plumose  | Aedeagus light pale, slender, pointed at the tip, transparent   |
| 21. Anterior parameres with distal tip rounded, with three sensillae                                      | With distal tip pointed, with numerous sensillae  |
| 22. Posterior parameres absent  | Very well developed, contiguous at the base, apparently fused distally, with two lateral and three median pointed projections |
| 23. Ventral fragma quadrangular   | Longer than broad, rectangular  |

*Scaptomyza plumata* n. sp.*Scaptomyza cristata* n. sp.

24. Novasternum with two pairs of sub-medial spines ; the inner pair large and stout, the outer pair slender and comparatively smaller
- Novasternum with two pairs of large stout black sub-medial spines

From the fact that the aedeagus in this is plumose, it has been named as *S. plumata*.

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## SUMMARY

A new oriental representative of the genus *Sinophthalmus* and two new species of the genus *Scaptomyza* are described from India.

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