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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 *Sinophtalmus* 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 *Sinophtalmus* Coquillett, 1904

Sinophtalmus 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 indiscernible; 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. Orb₁ equal to Orb₃, Orb₂ very well developed about $3/4$ of either, Orb₁ near to verticals than to Orb₃, Orb₂ posterior to Orb₃, Orb₃ outside Orb₂. Or₂ 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.

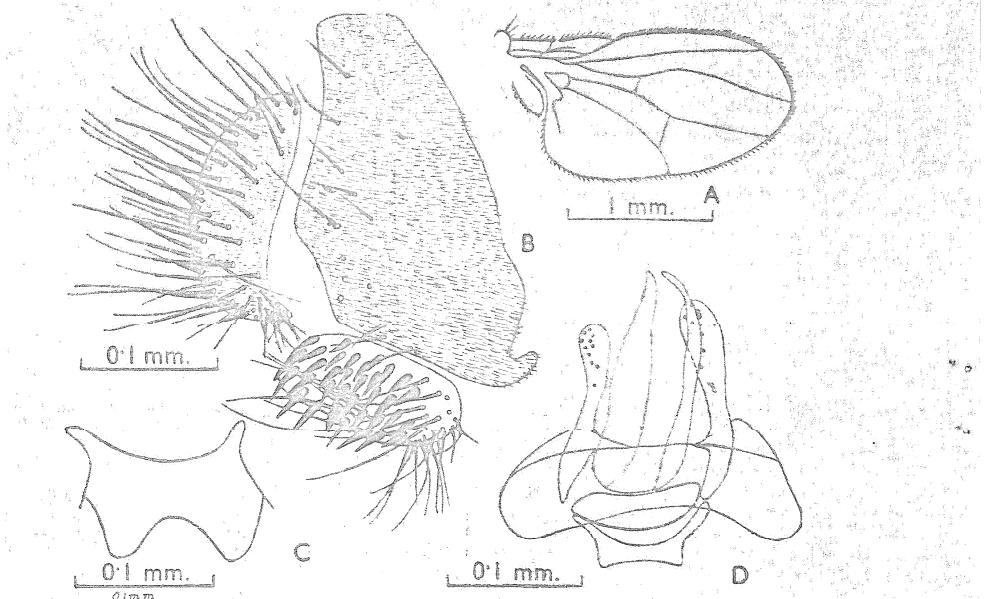
Legs pale. Preapicals on all the three tibiae, apicals only on the middle tibia. Abdomen yellow, each tergite with uninterrupted light black broad caudal band.

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. periphalllic 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 antero-posteriorly,

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-verticale 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 4.5 ; 3. Carina large ; 4. Aerostichals 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 Publ., 4920 : 165 ; Wheeler, 1952. Univ. Texas Publ., 5204 : 194 ; Okada, 1956. Syst. St. Drosophilidae Allied Fam. Japan : 67.

2. *Scaptomyza cristata* n. sp.

(Text-fig. 2)

Prob. Syn. of *D. (Scaptodrosophila) silvatico-hecate* Gupta et

Description of imago

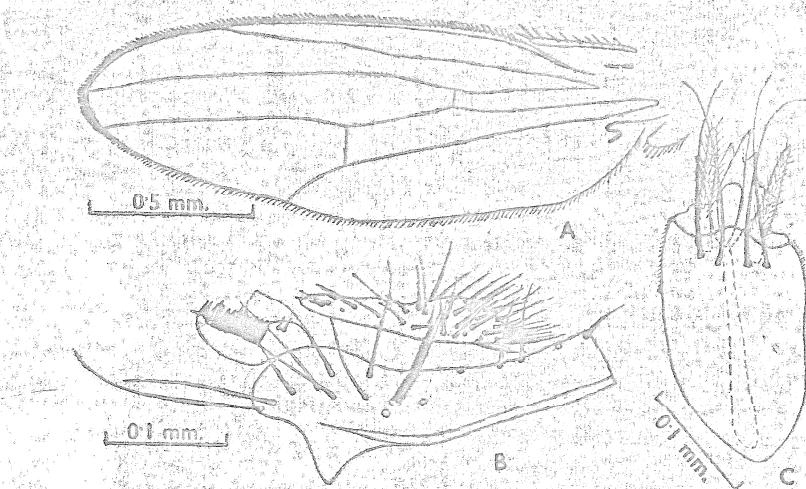
Ray Chaudhuri, 1970 (1970)

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. Orb₁ and Orb₃ almost equal, Orb₂ $\frac{1}{2}$ of either. Orb₂ $\frac{1}{2}$ 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 dorsocentral 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. Numerals 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, periphallie organs; C, phallic organs.

Wing (Text-fig. 2A) : Clear; C-1 bristles two, equal; C-3 bristles on basal 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..... 2.12 mm.

Length of the body..... 2.35 mm.

Periphallie 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. 11173 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; Or₂ 1/2 of vibrissa; humerals two; acrostichal hairs in four rows; wings hyaline, cross vein clear; G-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.

~~Entirely different from *monticola* (as stated)~~

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

Scaptomyza crisifata n. sp.

1. Antenna black; third segment black
2. Palpus grey with few short bristles
3. Periorbits silvery white
4. Front black
5. Carina raised, a white streak running through the entire length of it
6. Cheeks dark brown; 1/4 the greatest diameter of eye

Scaptomyza monticola

- Antenna dark brown; third segment yellow
- Palpus yellow with one prominent bristle at the tip
- Periorbits black
- Front orange brown
- Carina low, short and black
- Cheeks yellow; 1/7 the greatest diameter of eye

Scaptomyza cristata n. sp.

7. Mesonotum grey; five silvery white longitudinal stripes pass through it
8. Scutellum grey, with one median and two dorsolateral silvery white stripes
9. Prescutellars present
10. Anterior scutellars divergent
11. Sterno-index 0.85
12. Legs black with yellow ting preapicals on the first and third tibiae, apicals only on the second
13. Wing indices: C — index 1.33
4V — index 2.9
4C — index 2.18
5X — index 1.6
- C-3 bristles on the basal
2/3 the third costal section
14. Genital arch wheatish brown; two hairs on the clasper
15. Marginal bristles four on the clasper
16. Anal plate elliptical, with thirty six hairs
17. Aedeagus pale, transparent; no medioventral process
18. Anterior parameres with a pointed tip and numerous sensillae
19. Posterior parameres well developed and have two lateral and three distal pointed projections
20. Novasternum with a small round median projection with two pairs of black, stout, and exceedingly long Submedian spines

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

Scaptomyza monticola

- | | |
|--|-----------------------------|
| Mesonotum silvery grey; three longitudinal black stripes passing through it | <i>Scaptomyza monticola</i> |
| Scutellum grey, silvery, with a median longitudinal black stripe | |
| Absent | |
| Anterior scutellars convergent | |
| Sterno-index 0.6 | |
| Legs yellow; preapicals on all the three tibiae, apicals on the middle | |
| 3.3
1.5
0.7
1.8 | |
| 1/4 the third costal section | |
| Genital arch brownish black; no hairs on the clasper | |
| No marginal bristles | |
| Anal plate elongate, with seventy hairs | |
| Aedeagus pale brown; subapically there is a medioventral process | |
| Anterior parameres have round tip and have no sensillae | |
| Posterior parameres absent | |
| Novasternum without such projection; with one pair of slender submedian spines | |

D. (*Scaptodrosophilidae*) 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 outerside of second segment dull silvery white and transparent. Front over $4/15$ the width of head, front longer than broad, of equal width above and below and brownish yellow. Orb₁ and Orb₂ almost equal, Orb₂ much shorter than either Orb₁ or Orb₃. Orb₃ 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 $1/15$ 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. Humerals two, equal. Pleura bare, brownish yellow with a faint black longitudinal stripe across it. Sterno-index 0.85.

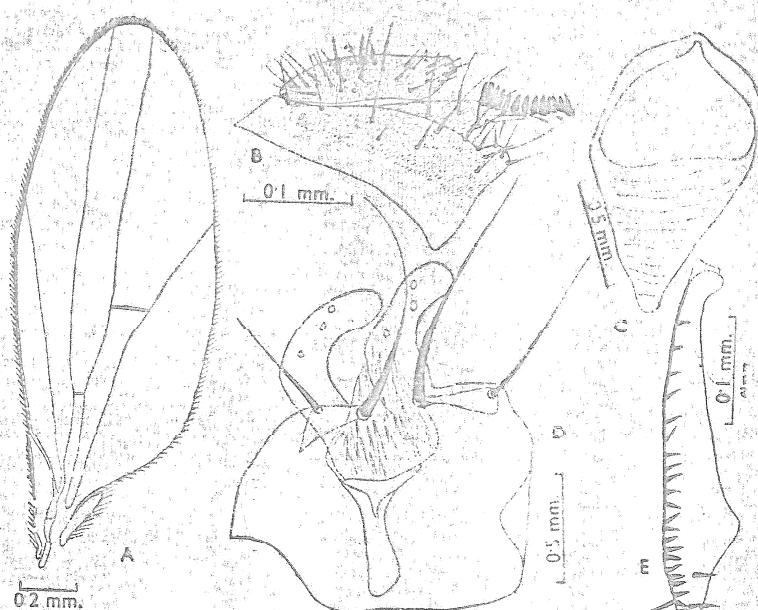
Legs pale. Preapicals on all the three tibiae, apicals on the first two. Sex-comb absent. Abdomen light black, sometimes black bands discernible.

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

Periphallic organs (Text-fig. 3B).—Genital arch dark wheatish brown, narrow above with about thirteen bristles, two arranged along the upper posterior margin. Neel 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. periphallie 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

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. 410/73, 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.

I. Body blackish yellow.

Scaptomyza monticola

Body blackish grey.

Scaptomyza plinata n. sp.

2. Third segment of antenna silvery white, transparent
3. Palpus creamy white, with few short bristles
4. Ocellar triangle brown
5. Periorbits silvery white
6. Checks $1/15$ the greatest diameter of eye
7. Orb_2 much shorter than either Orb_1 or Orb_3
8. Or_2 much shorter
9. Mesonotum with three silvery white stripes
10. Scutellum with two silvery white stripes and a silvery white dot at the posterior tip.
11. Prescutellars present
12. Sterno-index 0.85
13. Apicals on the first and second tibiae
14. Wing indices : C—index 1.75
4 V—index 2.71
4 C—index 1.71
5 X—index 2.00
15. C-1 bristle one
16. C-3 bristles on the basal $\frac{1}{3}$ the third costal section
17. Abdomen light black
18. Genital arch dark wheatush brown, with eighteen bristles, two at the upper posterior margin, five on the clasper
19. Clasper with thirteen concavely arranged teeth, no stout bristles

Scaptomyza monticola

- Third segment yellow
- Palpus yellow, with one bristle
- Ocellar triangle black
- Periorbits black
- $1/7$ the greatest diameter of eye
- Orb_2 $1/3$ the Orb_3
- Or_2 $1/2$ of the vibrissa
- Three black stripes
- Scutellum with a median black stripe
- Prescutellars absent
- Sterno-index 0.6
- Apical only on the middle tibia
- 3.3
1.5
0.7
1.8
- Two
- $1/4$ the third section
- Abdomen exceedingly black
- Genital arch brownish black, upper posterior margin with five bristles, lower portion with five hairs
- With twelve concavely arranged teeth, several stout bristles below

Scaptomyza plumata n. sp.

20. Marginal bristles eight
21. Anal plate oblong, with about twenty eight bristles
22. Aedeagus compact, plumose and pale
23. Anterior parameres with three sensillae
24. Ventral fragma quadrangular
25. Novasternum not discernible, with two pairs of sub-median spines, inner pair dark and larger, outer comparatively lighter and small

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

Scaptomyza plumata n. sp.

1. Antenna light brown, third segment silvery white, transparent
2. Arista with eight branches, four dorsal, two ventral, excluding the fork
3. Palpus creamy white
4. Ocellar triangle dark brown
5. Front brownish yellow
6. Carina flat, no white streak
7. Cheeks pale yellow, $1/15$ the greatest diameter of eye
8. Orb_2 much shorter than Orb_1 and Orb_3
9. Orb_2 much shorter than vibrissa
10. Mesonotum with three silvery white stripes

Scaptomyza monticola

- No such bristles
- Anal plate elongate, with seventy bristles
- Aedeagus pale brown, subapically with a medioventral process

No sensillae

ventral fragma longer than broad

Novasternum dark brown, with a pair of slender sub-median spines

Scaptomyza cristata n. sp.

Antenna black, third segment black

Arista with six branches, three dorsal, one ventral, excluding the terminal fork

Palpus grey

Ocellar triangle black

Front black

Carina raised, a white streak running in the middle of it

Dark brown, $1/4$ the greatest diameter of eye

Orb_2 $1/2$ of Orb_3

Orb_2 $1/2$ of the vibrissa

With five such stripes

Scaptomyza plumata n. sp.

11. Scutellum blackish brown, with two lateral silvery white stripes and a silvery white speck at the tip.

12. Anterior scutellars convergent

13. Preapicals on all the three tibiae; apicals on the first two

14. Wing indices :

C—index	1.75
4 V—index	2.71
4 C—index	1.71
5 X—index	2.00

C-1 bristle one

C-3 bristles on the basal
1/2 the third costal section

15. Halteres pale

16. Abdomen light black

17. Genital arch with eighteen bristles, two at upper posterior margin, five on the clasper

18. Clasper with thirteen concavely arranged teeth, with eight marginal bristles

19. Anal plate oblong, with about twenty eight bristles

20. Aedeagus pale, compact and plumose

21. Anterior parameres with distal tip rounded, with three sensillae

22. Posterior parameres absent

23. Ventral fragma quadrangular

Scaptomyza cristata n. sp.

With three silvery white streaks, two lateral and one median

Divergent

Preapicals only on the first and third tibiae; apicals on the second tibia only

1.33

2.9

2.18

1.6

C-1 bristles two

On 2/3 of the third costal section

Halteres yellowish-grey

Abdomen exceedingly black

With twelve bristles; five at upper posterior margin, two on the clasper

Clasper with twelve concavely arranged teeth, with four small marginal bristles

Anal plate elliptical, with about thirty six bristles

Aedeagus light pale, slender, pointed at the tip, transparent

With distal tip pointed, with numerous sensillae

Very well developed, contiguous at the base, apparently fused distally, with two lateral and three median pointed projections

Longer than broad, rectangular

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

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

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

ACKNOWLEDGEMENTS

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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.

REFERENCES

- COQUILLETT, D. W. 1904. New North American Diptera. *Proc. ent. Soc. Wash.*, 6 : 166-192.
- GUPTA, J. P. 1969. A new species of *Drosophila* Fallen (Insecta : Diptera : Drosophilidae) from India. *Proc. zool. Soc., Calcutta*, 22 : 53-61.
- GUPTA, J. P. 1970. Description of a new species of *Phorticella*, *Zaprionus* (Drosophilidae) from India. *Proc. Indian natn. Sci. Acad.*, 36 ; 62-70.
- GUPTA, J. P. and RAY-CHAUDHURY, S. P. 1970. The genus *Drosophila* (Diptera : Drosophilidae) in Andaman and Nicobar Islands, India. *Orient. Ins.*, 4 (2) : 169-175.
- OKADA, T. 1956. *Systematic study of Drosophilidae and Allied Families of Japan* (Tokyo : Gihodo Co., Ltd.).
- PARSHAD, R. and PAIKA, L. J. 1964. Drosophilid survey of India. II. Taxonomy and Cytology of the subgenus *Sephophora* (*Drosophila*). *Res. Bull. Panjab Univ.*, 15 : 225-252.
- PARSHAD, R. and DUGGAL, K. K. 1966. Drosophilid survey of India. III. The Drosophilidae of Kashmir Valley. *Res. Bull. Panjab Univ.*, 17 : 277-290.
- PARSHAD, R. and SINGH, A. 1972. Drosophilid survey of India. IV. The Drosophilidae of South Andamans. *Res. Bull. Panjab Univ.*, 22 : 387-398.
- PATTERSON, J. T. 1943. The Drosophilidae of the Southwest. *Univ. Texas Publ.*, 4313 : 7-216.
- SINGH, A. 1972a. Drosophilid survey of India. V. The Drosophilidae of Ootacamund. *Res. Bull. Panjab Univ.* (In press).

- SINGH, A. 1972b. Descriptions of five new species of the subgenus *Drosophila* (*Drosophila* : Drosophilidae : Diptera : Insecta) from India. *Res. Bull. Panjab Univ.* (In press).
- SINGH, A. 1972c. Description of the six new species of the subgenus *Paradrosophila* (*Drosophila* : Drosophilidae : Diptera : Insecta) from India. *Zool. Anz.* (In press).
- STURTEVANT, A. H. 1921. The North American species of *Drosophila*. *Carnegie Inst. Publs.*, 301 : 1-150.
- WHEELER, M. R. 1952. The Drosophilidae of the Nearctic region, exclusive of the genus *Drosophila*. *Univ. Texas Publs.* 5204 : 162-218.