

ON A COLLECTION OF GENUS *MELANAGROMYZA*,
HENDEL (AGROMYZIDAE DIPTERA)
FROM NEFA, INDIA

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(With 1 Text-figure)

During the course of faunistic survey of Siang district, NEFA in September-November 1966, the author made a small collection of Agromyzidae, which, on examination, was found to belong to the genus *Melanagromyza*. The genus is represented by four species out of which one viz., *Melanagromyza siangensis* is new to science, and the remaining three, *Melanagromyza atomella* (Malloch), *Melanagromyza metallica* (Thompson), and *Melanagromyza polyphaga* Spencer are new records for NEFA. *Melanagromyza* is the most dominant genus in India, with 21 known species, representing about 50% of the total Agromyzidae known from India so far.

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Abbreviation.—*acr.*, acrostichal bristle; *dc.*, dorsocentral bristle; *ia.*, intra-alar bristle; *np.*, notopleural bristle; *ori*, lower fronto-orbital bristle; *ors.*, upper fronto-orbital bristle; *pa.*, post alar bristle; *sa.*, supra alar bristle.

1. *Melanagromyza atomella* (Malloch)

1914. *Agromyza atomella* Malloch, *Ann. Hist. nat. Mus. Hung.*, 12: 331.

1965. *Melanagromyza atomella*: Tandon, *Agra, Univ. J. Res. (Sci.)*, 14(2): 41.

Material.—1 ♂ and 1 ♀; NEFA: Siang Distt.: Dali camp, 12.x.1966, S. K. Tandon and G. S. Arora Colls.

Remarks.—This species is the smallest of the four species known from this part (1.4-1.6 mm) and belongs to the group with dark squamal fringe and body without metallic sheen. It

is characterised by a fine short bristle on mid tibiae and the costa extending up to vein M_{1+2} .

Distribution.—India : Agra, Kottayam, Siang. Ceylon ; Formosa ; Japan ; Micronesia ; Australia and the Philippines.

2. *Melanagromyza metallica* (Thompson)

1869. *Agromyza metallica* Thompson, *Eugenies Resa* Diptera, Stockholm : 609.

1965. *Melanagromyza metallica* : Tandon, *Agra Univ. J. Res. (Sci)*, 14(2) : 43.

Material.—2 ♀♀, NEFA : Siang Dist. : Lekhabali (Jeep camp), 6.x.1966, S. K. Tandon and G. S. Arora Colls.

Remarks.—This is also a small species (2.2-2.5 mm) and has a white squamal fringe. The mesonotum and abdomen are shining green.

Distribution.—India : Kumli (Kerala) ; Ranchi ; Lekhabali (NEFA). Nepal ; Indonesia ; Philippines ; Congo ; South Africa and Europe.

3. *Melanagromyza polyphaga* Spencer

1961. *Melanagromyza polyphaga* Spencer, *Trans. R. ent. Soc. Lond.*, 113(4) : 75.

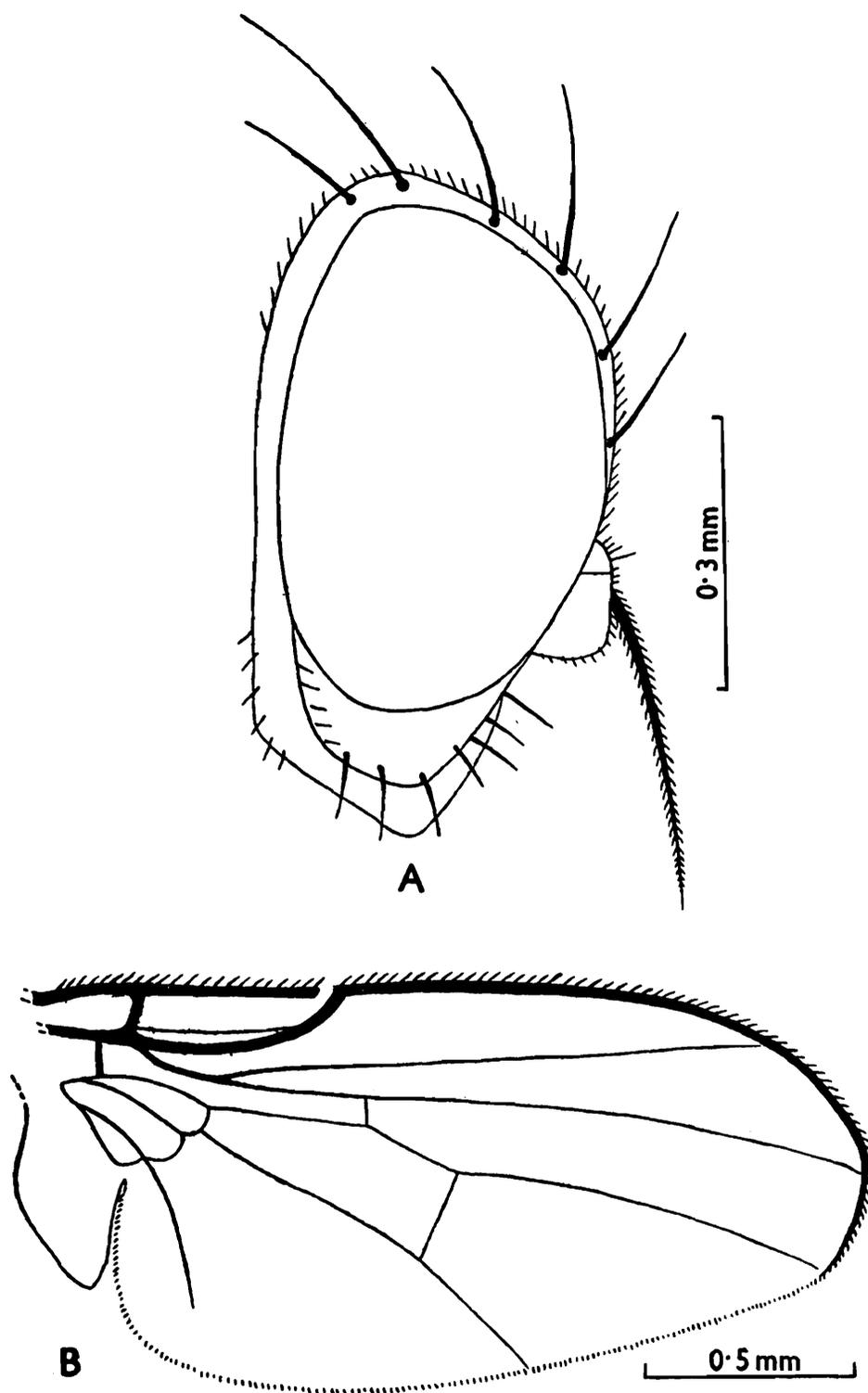
Material.—1 ♂ and 1 ♀, NEFA : Siang : Lekhabali, 7.x.1966, S. K. Tandon and G. S. Arora Colls.

Remarks.—All black species with black squamal fringe, narrow cheeks and weakly pubescent third antennal segment.

4. *Melanagromyza siangensis* sp. n.

Head (fig. a).—Frons twice as long as wide, not projecting in profile, less than the width of eye (1 : 1.3), sides almost parallel and only slightly diverging dorsally ; parafrontals slightly bulged out in profile and about one-fifth as wide as the frontalia ; lunule large, strongly convex dorsally and sparsely pubescent ; ocellar triangle with the dorsal side subequal to the width of frontalia and extending to the base of *ors* ; Fronto-orbital four pairs, two *ors* reclinate and two *ori* proclinate, the former longer than the latter ; cheeks broad about one sixth of the height of eye ; face almost vertical, with narrow carina ; antennal basis noncontiguous, third antennal segment shorter than broad and with sparse white microscopic

pubescence, arista about three times as long as the antenna, hairy.



Text-fig. 1. *Melanagromyza siangensis* sp. n., ♀ Holotype.—a. Head in profile; b.—Wing.

Thorax.—Mesonotum transverse, black; *dc* two, strong, posterior to transverse suture, the first *dc* being one and a half times longer than the second and below the level of *sa*; *acr* in twelve regular rows, extending up to first *dc*; *ia* one, strong and

slightly shorter than first *dc*; *sa* single and strong; *pa* one, strong; *np* two, anterior slightly longer than the posterior; humeral one; presutural one.

Wing.—(fig. b).—about 2.2 times as long as broad; costa reaching M_{1+2} ; Costal ratio of ii, iii, ivth segments 2.2 : 1 : 5; cross vein r-m situated beyond the termination of R_1 in costa and on discal cell beyond the middle, about one third of the length of m-m; ultimate section of R_{4+5} nearly three and a half times as long as penultimate; ultimate section of M_{3+4} in ratio of 1.5 : 1.

Abdomen.—Ovoid with numerous short setae dorsally, marginal setae long.

Colour.—Head black; parafrontals and ocellar triangle moderately shining; lunule dull white; cheeks black; antennae black, arista dark; eyes dark brown with black patches. Mesonotum and scutellum shining black; pleurae black; wings hyaline with pale base and brown veins, calypters with fringe white, halteres with white lines between capitellum and pedicel.

<i>Measurements</i>	<i>Body length</i>	<i>Length of wing</i>
♂	2.33 mm	2.33 mm
♀	2.60 mm	2.27 mm

Type specimens.—All the type specimens are deposited in the National Zoological Collections with the Zoological Survey of India as follows—*Holotype*: One female on pin, INDIA: NEFA: Siang, Tappi, 24.x.1966, S. K. Tandon and G. S. Arora Colls. *Paratype*: One male and two females with the same data as for the Holotype.

Affinities.—This species comes nearer to *Melanagromyza alternata* Spencer, but is readily distinguishable by the frons being narrower than the width of eye, deeper jowls, ocellar triangle extending up to the base of *ors* and by the ratio of vein M_{3+4} . The only other entirely black species with white squamal fringe known in Oriental region, is *Melanagromyza surdasi* Tandon but the present species is somewhat larger.

KEY TO THE INDIAN SPECIES OF THE GENUS MELANGROMYZA

1. Squamal fringe pale, whitish	...	...	...	2
— Squamal fringe dark, black or brown	...	...	...	12
2. Mesonotum predominantly black, at most with faint metallic tinge	...	...	...	3

— Mesonotum distinctly greenish-coppery or bluish tinge	... ..	...	6
3. Mesonotum and abdomen entirely shining black		...	4
— Abdomen greenish-coppery	... ..	<i>Sojae</i> (Zehntner)	
4. Large species, wing length (2.6 mm-3.0 mm)		...	5
— Small species, wing length 1.9 mm	... ..	<i>surdasi</i> Tandon	
5. Frons wider than eye, cheeks narrow, one twelfth the height of eye	... ..	<i>alternata</i> Spencer	
— Frons narrower than eye, cheeks broad, one sixth the height of eye	... ..	<i>siangensis</i> Tandon	
6. Very large green species, wing length 3.2 mm; arista conspicuously plumose	... ..	<i>indica</i> Tandon	
— Small species	... ..	...	7
7. Ocellar triangle greatly enlarged	... ..	...	8
— Ocellar triangle acute at apex; mesonotum blackish green	... ..	<i>chalcosoma</i> Spencer	
— Ocellar triangle obtuse at apex; mesonotum distinctly green	... ..	<i>obtusa</i> (Malloch)	
9. Lunule conspicuously high and narrow, costri- cated by broadened orbits; mesonotum blackish-green	... ..	<i>hibisci</i> (Spencer)	
— Lunule lower, approximately in the form of a semicircle	... ..	...	10
10. Eyes entirely bare in male, small species, wing length (1.9 to 2.3 mm)	... ..	<i>albisquama</i> (Malloch)	
— Eyes in female without distinct patch of hairs		...	11
11. Arista apparently bare	... ..	<i>gerverivora</i> Spencer	
— Arista distinctly pubescent	... ..	<i>metallica</i> (Thompson)	
12. Frons not appreciably projecting above eyes in profile	... ..	...	13
— Frons conspicuously projecting	... ..	<i>nigrisquama</i> (Malloch)	

- | | | | | |
|-----|---|----------------------|-----|----|
| 13. | Costa extending only to vein R_5 | ... | ... | 14 |
| — | Costa distinctly extending to vein M_{1+2} | ... | ... | 15 |
| 14. | Last and penultimate section of vein m_4 equal | <i>coffae</i> | | |
| | | (Koningsberger) | | |
| — | Last segment of vein m_4 distinctly shorter than
the penultimate | <i>theae</i> | | |
| | | (Green) | | |
| 15. | Ocellar triangle long and narrow, shining
black, small shining black species | <i>phaseoli</i> | | |
| | | (Tryon) | | |
| — | Ocellar triangle shorter | ... | ... | 15 |
| 16. | Mesonotum and abdomen with greenish, cop-
pery or purplish sheen | ... | ... | 17 |
| — | Mesonotum and abdomen entirely shining or
matt black | ... | ... | 18 |
| 17. | Mesonotum and abdomen with greenish sheen,
small species, wing length 2.17 mm | <i>limboi</i> | | |
| | | (Tandon) | | |
| — | Mesonotum and abdomen with purplish sheen,
large species, wing length 2.33 mm. | <i>assamensis</i> | | |
| | | (Tandon) | | |
| 18. | Orbital setulae all reclinate | ... | ... | 19 |
| — | Orbital setulae reclinate in front, distinctly
proclinate at rear | <i>beckeri</i> | | |
| | | Hendel | | |
| 19. | Mid tibiae with bristles | ... | ... | 20 |
| — | Mid tibiae without any differentiated bristles | <i>dolichi</i> | | |
| | | Sehgal | | |
| 20. | Mid tibiae with fine short bristles, minute
species, wing length (1.4-1.6 mm), puparium
yellow | <i>atomella</i> | | |
| | | (Malloch) | | |
| — | Mid tibiae with one strong bristle, large
species | ... | ... | 21 |
| 21. | Cheeks narrow, one-tenth height of eye,
puparium black | <i>polyphaga</i> | | |
| | | Spencer | | |
| — | Cheeks broad one-fifth to one-sixth height of
eye | <i>centrosematis</i> | | |
| | | de Meijere | | |