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THE INDIAN SPECIES OF *ACMOPOLYNEMA* WITH NOTES ON *ACANTHOMYMAR* (HYMENOPTERA : CHALCIDOIDEA : MYMARIDAE)

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ABSTRACT. Notes are given on the Indian species of *Acmopolynema*. Eight species are recognized, of which two are described as new. *A. dravida* is synonymized under *A. maculatum*. The genera *Grangeriella* and *Neonarayanella* are synonymized with *Acmopolynema*. A key to the Indian species of the genus based on females is given. Brief notes are given on *Acanthomymar*.

Keywords: Taxonomy, Chalcidoidea, Mymaridae, *Acmopolynema, Acanthomymar,* India, new species.

Introduction

This paper is third in a series dealing with the Indian genera of the *Polynema*-group (see Hayat & Anis, 1999a, b). It treats the well-known genus, *Acmopolynema* Ogloblin which is predominant in the Neotropical Region (See Fidalgo, 1989). The available material indicates that it is rather poorly represented in the Indian fauna, though this may just be a reflection on the lack of effort to collect these beautiful 'fairy-flies'.

Measurements: The relative measurements given here are taken directly from the divisions of the linear scale of an eye piece micrometer. These are not converted into millimeters, but one division of the linear scale of the micrometer from measurements made from slide mounted parts is equal to 0.0079 mm, and for those taken from carded specimens is equal to 0.025 mm.

The following abbreviations are used: BMNH - The Natural History Museum, London; IARI - Division of Entomology, Indian Agricultural Research Institute, New Delhi.

Genus *Acmopolynema* Ogloblin

Acmopolynema Ogloblin, 1946: 277. Type species: *Stichothrix bifasciatipennis* Girault, by original designation.

Grangeriella Soyka, 1956: 17. Type species: *Grangeriella indochinensis* Soyka, by monotypy and original designation. **Syn. nov.**

Neonarayanella Husain & Farooqi, 1996: 83. Type species: *Maidliella orientalis* Narayanan, Subba Rao & Kaur, by monotypy and original designation. **Syn. nov.**

Revisions: Schauff, 1981: 444-460; Nearctic species. Fidalgo, 1989: 3-67; Neotropical species.

This well-known genus is now represented in the Indian fauna by 8 species, including the two species described in this paper. The genus is distinguished from *Polynema* Haliday mainly by the relatively longer distal veins (=marginal plus stigmal veins); variously modified discal setae, called tor-

mae; and the propodeum with a V-shaped keel, except in one atypical species described here. We provide here brief comments on some Indian species which belong to *bifasciatipennis* group of species, and describe two species as new, one of which on material earlier misidentified by Hayat (1992). A key for identification of the Indian species of the genus is also given. We also take this opportunity to place two generic names in synonymy with *Acmopolynema.*

Grangeriella: Although we have not seen the type of *indochinensis,* the type species of this genus, the original description leaves no doubt of its being a synonym of *Acmopolynema,* and the type species from Saigon (Thanh-pho Ho Chi Minh) appears to be very close to the Indian species, *bimaculatum* Subba Rao and *himalum,* sp. nov. Hence the above synonymy. *Acmopolynema indochinense* (Soyka) is a **new combination** from *Grangeriella.* The name *Granguriella* on page 17 of Soyka's paper is clearly a lapsus for *Grangeriella* as the genus was named for Herrn Granger and the name was spelt several times in that same paper as *Grangeriella.*

Neonarayanella: Hayat (1992) showed that *Maidliella orientalis* (the type species of *Neonarayanella*) belonged in *Acmopolynema.* The authors appear to have overlooked recent publications on this genus.

Key to Indian species of *Acmopolynema,* females

1. Fore wing with one or two small infuscated patches in apical third (Figs. 3,7,11); discal setae in middle third just distad of venation, transparent and fine; scape at least 2.0x as long as broad with ventral margin convex/rounded (Figs. 1,8,10), and F1 at most slightly longer than pedicel. (Body, excluding petiole, dark brown to nearly black) 2
--. Fore wing not with one or two small infuscated patches in apical third, either with one large patch in apical third or with infuscation in middle third, or more usually both (Figs. 21-25), discal setae dark and thick; scape subrectangular to trapezoid, less than 2.0x as long as broad, and with ventral margin straight to very slightly concave (Figs. 16-20); F1 usually rather distinctly longer than pedicel 4
2. Fore wing with one small infuscated patch in apical third adjacent to anterior margin (Fig. 3), the line of setae just distad of venation nearer posterior margin of wing than anterior margin; notaular grooves sulciform (Fig. 4); propodeum without a keel....1. *unimaculatum,* sp. nov.
--. Fore wing with two small infuscated patches in apical third, the patch adjacent to posterior margin smaller and faint (Fig. 7), the line of setae just distad of venation nearer anterior margin of wing than posterior margin; notaular grooves normal, narrow; propodeum, as usual for the genus, with a V-shaped keel (Fig. 6) 3
3. Fore wing in apical third sparsely though evenly setose, without a distinct bare area (Fig. 11); scape about 2.5x as long as broad (Fig. 10); ovipositor nearly 2.0x as long as mid tibia and slightly exserted at apex .....2. *himalum,* sp. nov.

--. Fore wing in apical third sparsely setose and with a distinct bare area just anterior to the smaller infuscated patch (Fig. 7); scape about 2.0x as long as broad (Fig. 8); ovipositor about 1.6x as long as mid tibia and not exserted at apex.....3. *bimaculatum* Subba Rao

4. Fore wing disc densely setose in distal half, the setae not arranged in curved setal tracts, and disc with an infuscation in middle bearing darker setae/tormae (Subba Rao & Hayat, 1983: Fig. 58); F6 nearly as dark as clava..... 4. *incognitum* (Narayanan et al.)

--. Fore wing disc sparsely or densely setose, but with at least 2, usually 3, distinct, curved setal tracts; disc with one large infuscated patch in apical third and usually also infuscate in middle (Figs. 21,22); F6 not concolorous with clava 5

5. Fore wing without infuscation in middle, but with a nearly circular infuscated patch in apical third (Subba Rao, 1989; Fig. 3); body, except pronotum, petiole and last two terga of gaster, dark brown..... .....5. *malabaricum* Subba Rao

--. Fore wing with infuscation in middle and with an infuscated patch in apical third (Figs. 22,23); body more or less completely golden to pale orange to brownish yellow 6

6. Fore wing disc in apical third with 4 curved setal tracts (Fig. 21); pronotum (dorsal) strongly bell-shaped, its mid-dorsal length more than 0.5x length of visible part of mid lobe of mesoscutum (Fig. 26); hind coxa relatively long, more than 3.0x as long as broad .... 6. *nixoni* Subba Rao

--. Fore wing disc in apical third with 3 curved setal tracts (Figs. 22-25); mid-dorsal length of pronotum less than 0.5x length of mid lobe (Figs. 27,28, 32); hind coxa relatively robust, less than 3.0x as long as broad.....7

7. Apical infuscated patch of fore wing narrow/ subrectangular, with the apical hyaline area broader than width of the patch (Figs. 24,25). .....7. *orientale* (Narayanan et al.)

--. Apical infuscated patch of fore wing large, oval to nearly circular, with apical hyaline area narrower than width of the patch (Figs. 22,23). .....8. *maculatum* Subba Rao

1. *Acmopolynema unimaculatum*, sp. nov. (Fig. 1-4)

Female: Length, approx. 1.0 mm. Body dark brown; petiole pale yellow, about basal half of scape brown, rest of scape yellowish, pedicel and funicle pale yellow-brown becoming brownish distally, clava dark brown; wings hyaline, fore wing with an infuscated, roundish spot in distal fourth in anterior half of disc (Fig. 3); legs with all coxae and hind femur dark brown; fore and mid femora and all tibiae brown to light brown, the tibiae with whitish bases and apices; tarsal segments 1-3 white, 4th segment light brown.

Structural details as in figures 1-4.

Relative measurements (slide; holotype): Head frontal length, 22.5, width, 28.5; torulus-transverse trabecular distance, 3.75; torulus-mouth margin distance, 14; distance between toruli, 11; frontovertex width at level of toruli, 19; mouth fossa width, 10.5; eye length, 14; malar space length, 9. Radicle + scape length, 10; pedicel length, 6.5; F 1-6 lengths: 7.5, 14, 13, 11.5, 9, 6; clava length, 18; thorax length, 47; pronotum median length, 6; mesoscutum length, 16, width 24; scutellar length, 16, width, 16; propodeum length, 7. Fore wing length, 113, width, 28; length of marginal fringe, 19. Hind wing length, 101, width, 3; length of marginal fringe, 15. Mid tibia length, 35; mid basitarsus length, 22, hind tibia length, 43; hind basitarsus length, 24.5. Petiole length, about 14. Gaster length, 55; T1 length, 24; ovipositor length, 60.5; third valvula length, 27.

Male: Unknown.

Holotype: ♀ (dissected and mounted on slide under 4 coverslips), INDIA: Kerala: Palghat: Walayar Forest, 4.iii.1993 (S.I. Kazmi) Holotype deposited in BMNH.

Host: Unknown.

Distribution: India: Kerala.

Comments: The above species is placed in *Acmopolynema* with considerable hesitation. It differs from other species of *Acmopolynema* in the different arrangement of discal setae just distad of venation (compare Fig. 3 with figs. 11,21) and the absence of a 'V' shaped ridge on the propodeum. In the above two characters it agrees with *Chaetomymar*, but the latter genus has more numerous and longer spine-like, blunt-tipped or tricuspid setae on the pronotum, the axillar setae very long, reaching to or nearly to the base of the propodeum, scutellar sensilla located in posterior third or so of the scutellum, and scape without cross striations. This species may also appear close to *Acanthomymar* (as illustrated by Subba Rao, 1970; Figs. 30,31, but see notes given elsewhere in this paper), but differs in having cross striations on the scape; and a pair of fine (not blunt-tipped) setae on propodeum. The new species differs from all the three genera in the presence of sulciform, broad notaular grooves.

2. *Acmopolynema himalum*, sp. nov. (Figs. 10-13)

[*Acmopolynema bimaculata* Subba Rao: Hayat, 1992: 84. Misidentification].

Female: Length approx. 1.00 mm. Body and legs dark brown except as follows: whitish to pale yellow: petiole; apex of fore femur, basal third (except knee) and apex of mid tibia, distal half of hind coxa, basal half (except knee) and apex of hind tibia, tarsal segments 1-3 of all legs; fore tibia pale brown with base and apex whitish; antenna with radicle, basal half of scape, dorsal margin of pedicel, F2, F3 and clava dark brown; rest pale yellow to pale brown; wings hyaline, fore wing distally with two infuscated patches, discal setae in about middle half transparent, setae in distal fourth dark brown (Fig. 11).

Structural details as in figures 10-13.

Relative measurements (slide; holotype): Head frontal length, 25.5, width, about 33; frontovertex width at toruli, 18; mouth fossa width, 12.5; toruli-transverse trabecular distance, 5; toruli-mouth margin distance, 14; eye length, 16; malar space length, 9. Radicle + scape length, 11.5; pedicel length, 6; lengths: F1, 6.5; F2, 9.5; F3; 9.5; F4, 7.5; F5, 7; F6, 6; funicle length, 48; clava length. 19. Fore wing length, 113, width, 30.5; marginal fringe length, 21. Hind wing length, 100, width, 3.25; marginal fringe length, 13. Mid tibia length, 33; mid basitarsus length, 20; hind tibia length, 39; hind basitarsus length, 20. Petiole length, 14. Gaster length (from apex of petiole), 61, total length, 65; TI length (from apex of petiole), 30; ovipositor length, 65; third valvula length, 29.

Male: Unknown.

Holotype: ♀ (dissected and partly dismembered, and mounted on a slide under a single coverslip), INDIA: Uttar Pradesh: Mussoorie, 12. iv. 1978 (M. Verma). Holotype deposited in BMNH.

Host: Unknown.

Distribution: India: Uttar Pradesh.

Comments: A. himalum, sp. nov. is very close to *bimaculatum* Subba Rao, but differs from that species mainly by the characters given in the key. Also the hind coxae, compared to those of *bimaculatum* are rather sparsely setose but the setae are silvery white as in that species.

Note: As the head and thorax are partly pressed due to pressure of the coverslip the measurements of the head are not very accurate, and those of thorax are not given.

3. *Acmopolynema bimaculatum* Subba Rao (Figs. 5-9)

Acmopolynema bimaculata Subba Rao, 1989: 158. Holotype ♀, India: Kerala: Periyar Animal Sanctuary (BMNH).

We refer to this species a female detailed below. This specimen was compared with the paratype of *bimaculatum*. Also what appears to be the male of this species is recorded and briefly described. Although this species was described in considerable details, we briefly describe it here and provide relative measurements of various body parts.

Female: Body length, 0.07 mm, as given by Subba Rao (1989) appears to be a typographical error for 0.7 mm.

Body as described, chocolate brown to dark brown; petiole white; basal half and dorsal margin of scape, dorsal margin of pedicel, and F1-4 very pale infuscate brown; F5 and 6 white; clava dark brown; fore wing with two distal spots (Fig. 7), setae in about middle half transparent; hind wing very lightly infuscate in distal two-fifths of disc; legs, including coxae, brownish, with white as follows: apex very narrowly of fore femur, base narrowly of fore

tibia, basal two-fifths (except knee) and apex narrowly of mid tibia; basal half (except knee) of hind tibia, tarsal segments 1-3 of all legs.

Structural details as given in the original description and figures and the figures 5-8 given here.

Relative measurements (slide; paratype) some corresponding measurements at same scale from the female recorded here from Kerala are noted in parentheses: Head frontal length, 22, width, 26.5; frontovertex width at toruli, 18.5; torulus-mouth margin distance, 10; torulus-transverse trabecular distance, 5; mouth fossa width, 9; eye length, 15; malar space length, 6. Radicle + scape length, 10.5 (9.5); Pedicel length, 6(5.75); F1-6: 5,8,7,5,4.75, 4.25(4.5, 6.5, 6.5, 4.5, 4.5, 4), clava length, 17(15.5). Thorax (somewhat distorted in paratype), length, 37.5; mesoscutum length, 11, width, 16; scutellum length, 13.5, width, 10.5; propodeum length, 7. Fore wing length, 94, width, 25; marginal fringe length, 19 (84, 22, 19); hind wing length, 84, width, 3; marginal fringe length, 13 (76, 3, 12). Mid tibia length, 27(24); mid basitarsus length, 15(13.5); hind tibia length, 33(31), hind basitarsus length, 17(15). Petiole distorted, not possible to measure length in paratype, (10). Gaster length, 41(38); T1 length (from apex of petiole), 18(20); ovipositor length, 40 (36.5); IIIrd valvula length, 18.5 (17); exserted part of ovipositor, 2(2).

Male: Similar to female; colour about as in female; radicle + scape brownish, pedicel yellow brown; flagellum yellow brown (F1) becoming brownish distally; fore wing hyaline, discal setae dark brown; gaster narrowest at base and gradually expanded to about distal fourth or so and apex broadly rounded.

Relative measurements (thorax pressed under pressure of coverslip, hence cannot be measured accurately): Head frontal: length, 23; width, 28; frontovertex width at toruli, 17.5; torulus-transverse trabecular distance, 4.5; torulus-mouth margin distance, 11; distance between toruli, 10.5; malar space length, 8; eye length, 14. Antenna length (width): radicle + scape, 8(4); pedicel, 5.25 (4.8); F1-11: 10.75 (3.37); 11.75(3); 12.5(3), 12(3.12); 11.5(3.12); 11(3.12); 11.12(3.25); 10.75(3.75); 10.25(3.37); 10(3.37); 10.75(3.12). Fore wing length, 101, width, 31.5; length of marginal fringe, 21. Thorax length, ca, 47; petiole length, about 9. Gaster (apical terga telescoped), 29: TI, 21. Aedeagus length, 19.75; base of phallobase to apex of parameres, 15.25; [mid basitarsus, 17; hind basitarsus, 16.25].

Specimens examined: Type specimen: Paratype female of *Acmopolynema bimaculatum*, with the data as given in the original description (BMNH).

Additional specimens: INDIA: Kerala: Trichur, 1♀, 28.ii.1993 (S.B. Zeya). Karnataka: Mysore: Brindavan gardens, 1♂, 7.ii.1993, (S.B. Zeya).

Host: Unknown.

Distribution: India: Karnataka, Kerala.

Comments: A. bimaculatum is extremely close to *A. himalum,* sp. nov., and the two differ mainly in the characters given in the key. Additionally, the hind coxae in *bimaculatum* are densely setose (pilose) and the setae are silvery white.

4. *Acmopolynema incognitum* (Narayanan, Subba Rao & Kaur)

Maidliella incognita Narayanan, Subba Rao & Kaur, 1960: 889. Holotype ♀, India: Delhi (IARI).

Polynema (Maidliella) incognita (Narayanan et al.): Narayanan & Subba Rao, 1961: 667.

Acmopolynema incognita (Narayanan et al.): Subba Rao & Hayat, 1983: 131, catalogue. Subba Rao & Hayat, 1986: 180, catalogue. Subba Rao, 1989: 154, female, Mudigere, key. Hayat, 1992: 85, female, Aligarh.

This species can be recognized on the basis of the original description and the key characters given here; hence it is not described. Illustrations of the antenna and fore wing were given by Narayanan et al. (1960) and Subba Rao & Hayat (1983).

Host: Unknown.

Distribution: India: Delhi, Karnataka, Uttar Pradesh.

5. *Acmopolynema malabaricum* Subba Rao

Acmopolynema malabarica Subba Rao, 1989: 153. Holotype ♀, India: Kerala: Periyar Animal Sanctuary (BMNH).

This species was described by Subba Rao (1989) in details. It can be distinguished from other Indian species by the body colour and by the absence of infuscation in middle of fore wing (see key).

Host: Unknown.

Distribution: India: Kerala.

6. *Acmopolynema nixoni* Subba Rao (Figs. 16, 21, 26, 29)

Acmopolynema nixoni Subba Rao, 1989: 156. Holotype ♀, India: Karnataka: Mudigere (BMNH).

This species was adequately described by Subba Rao (1989). However, we briefly redescribe it and provide measurements of various body parts. We also note that the body length given by Subba Rao (1.7 mm) may not be correct, as the relative measurements of some body parts of this species are greater than those of *A. dravida,* said to have a body length of 2.1 mm. (compare figures of these two species given in this paper). Also, paratype thorax+petiole + gaster of *nixoni* measures 1.4 mm, whereas those of *dravida,* 1.3 mm.

Female: Body pale yellow; gaster yellow with pale brown infuscation, distal two terga dark; third valvula dark brown; petiole white, antenna pale yellow, clava dark brown; fore wing with infuscated patches as in Fig. 21; legs pale yellow; distal half to two-thirds of mid tibia pale brown; distal two-thirds of hind tibia, and distal half or so of hind femur dark brown; tarsal segments 1-3 white, 4th brown.

Structural details as in figures, 16, 21, 26, 29.

Relative measurements (slide, paratype) : Head frontal: length, 31, width, 39; frontovertex width, 22; mouth fossa width, 13; torulus-transverse trabecular distance, 4; torulus diameter, 4.75; torulus-mouth margin distance, 20; distance between toruli, 11.5; malar space length, 12; eye length, 17. Antenna, length; radicle+scape, 12.5; pedicel, 9; F1-6;10, 17, 16, 8.5, 9,8; clava, 30. Thorax length, 71, width, 32; pronotum length, 12; mesoscutum length, 22.5, width, 27.5; scutellum length, 18; propodeum length, 13.5. Fore wing length, 161, width, 46; length of marginal fringe, 16; hind wing length, 136, width, 3.5; length of marginal fringe, 12.5. Length: mid tibia, 55; mid basitarsus, 35; tarsal segments 2-4, 29; hind tibia, 71; hind basitarsus, 40; tarsal segments 2-4, 27. Petiole length, 31. Gaster length, 82; T1 length (from apex of petiole), 33; ovipositor length, 86; IIIrd valvula length,43; exserted part of ovipositor, 9.

Male: Unknown.

Specimens examined: Type specimen: Paratype female with the data as given in the original description (BMNH).

Host: Unknown.

Distribution: India: Karnataka.

Comments: A. nixoni appears to be a distinctive species, differing from the other species (*maculatum, orientale*) by the longer pronotum and presence of 4 setal tracts in the distal third of the fore wing.

7. *Acmopolynema orientale* (Narayanan, Subba Rao & Kaur) (Figs. 14,15, 19,20, 24, 25, 32)

Maidliella orientalis Narayanan, Subba Rao & Kaur, 1960: 88. ♂, ♀. Holotype ♀, India: Delhi (IARI) presumed holotype examined.
Polynema (Maidliella) orientalis (Narayanan et al.): Narayanan & Subba Rao, 1961:667.
Polynema orientalis (Narayanan et al.): Subba Rao & Hayat, 1983: 139.
Acmopolynema orientalis (Narayanan et al.): Hayat, 1992: 85. ♀. Aligarh.
Neonarayanella orientalis (Narayanan et al.): Husain & Farooqi, 1996: 83 [only transfer of the species, not the additional female recorded from Jammu]

Female: Length, 1.97 mm. Body pale testaceous yellow; gaster lightly infuscate yellow-brown; exserted part of ovipositor dark brown; trabeculae on head and antennal clava dark brown; hind femur distally, distal three-quarters of hind tibia, and last tarsal segments of all legs brownish; petiole pallid to white; tarsal segments 1-3 white; fore wing with two infuscated patches (Figs. 24, 25) apart from faint infuscation behind distal veins.

Structural details adequately illustrated in the figures.

Relative measurements (carded specimen): Head, dorsal width, 15.25; frontovertex width at narrowest, 8.25; distance between posterior ocelli, 5.25; distance between posterior ocellus and eye margin, 1.25; distance between a posterior ocellus and anterior ocellus, 2.5; [Vertex sloped from level of posterior ocelli to occipital foramen]; distance from anterior ocellus to transverse

trabecula, 3; head length, 11.5; frons width at toruli, 8.5; head, in profile, length, 9.5; eye length, 7; malar space length, 5. Antenna, length: radicle+scape, 4.5. Pedicel, 3; F1-6: 4.5, 7, 6.5, 3, 3, 2.5. Thorax length, 27, width, 13; pronotum length, 4.5; mesoscutum length, 9.5; scutellum length, 7.5; propodeum length, 5.5. Fore wing length, 63, width, 17.5; length of marginal fringe, 4; width of median infuscate patch, 8; width of distal infuscate patch, 6.5; distance between median and distal patches, 7; distance from distal patch to apex of wing, 9. Petiole length, 9. Gaster length (from apex of petiole), 33.4; T1 length, 15; exserted ovipositor length, 5.5. (From slide): Lengths: mid tibia, 57; mid basitarsus, 41; tarsal segments 2-4, 30; hind tibia, 73; hind basitarsus, 47; tarsal segments 2-4, 29; thorax, 76; petiole, 29; gaster (from apex of petiole), 99; T1, 44; ovipositor, 114; third valvula, 57.

[Measurements from presumed holotype on slide: lengths: Antenna: radicle+scape, 16.5; pedicel, 9; F1-6:13, 23, 21, 9, 10.5, 9; clava 34; mid tibia, 65; mid basitarsus, 47; tarsal segments 2-4, 32; hind tibia, 84.5; hind basitarsus, 58; tarsal segments 2-4, 31; hind coxa length (width), 38 (15); petiole, 38; gaster, from apex of petiole, 120; ovipositor, 129.5; third valvula, 64.5; exserted part of ovipositor, 17].

Male: Recorded and briefly described by Narayanan et al., but the specimen was not found in IARI collection.

Specimens examined: Presumed Holotype with details as noted under comments. Also the two females recorded by Hayat (1992) examined.

Host: Unknown.

Distribution: India: Delhi, Uttar Pradesh.

Comments: Maidliella orientalis: In the IARI (New Delhi) collections, there is a single female mounted on a slide. The slide, as noted by Husain & Farooqi (1996), has only the generic name (now faint) written in ink and no other data. The specimen is laterally mounted and partly crushed, and has become uniformly pale orange brown in colour in the mounting medium. The left side fore wing is missing, but the specimen is otherwise complete. The slide also has a label in T. Husain's handwriting: `♀ Neonarayanella orientalis (Narayanan, Subba Rao & Kaur) det. T. Husain. 15.6.96. Holotype'.

The study of this specimen reveals two things: If this is the holotype, then the original description and figure of the fore wing given by Narayanan et al. (1960) are erroneous, especially in fore wing dimensions and infuscated patches and in the length of the exserted part of the ovipositor (compare Fig. 1 of Narayanan et al., with Fig. 24 given here); and that the description of *Neonarayanella* based on this same specimen is totally wrong in fore wing dimensions and infuscation, dimensions of antennal segments and the length of the exserted part of the ovipositor. The measurements made from this specimen of relative lengths of gaster and the exserted part of the ovipositor are 120 and 17 respectively, whereas Husain & Farooqi state that the exserted part of ovipositor is `about one half length of gaster'. Also the antenna and the fore wing illustrated by Husain & Farooqi (1996: Figs. 1,2) are defi-

nitely not from the IARI specimen, but probably from the female from R.S. Pura, Jammu & Kashmir. This specimen, as the authors note, has the gaster missing, and hence the possibility of the character pertaining to the ovipositor being noted from the R.S. Pura specimen is eliminated.

If the specimen from IARI is the holotype of *M. orientalis* as determined by Husain & Farooqi, then the two specimens recorded by Hayat (1992) from Aligarh are conspecific with that species.

8. *Acmopolynema maculatum* Subba Rao

(Figs. 17,18,22,23,27,28,30,31)

Acmopolynema maculata Subba Rao, 1989: 155. Holotype ♀, India: Himachal Pradesh: Mandi-Narchowli (BMNH).

Acmopolynema dravida Subba Rao, 1989: 157. Holotype ♀, India: Tamil Nadu: Coimbatore (BMNH). **Syn. nov.**

This species was adequately described by Subba Rao (1989). However, we briefly redescribe it here and give various measurement taken from the paratypes of *maculatum* and *dravida*.

Female: Body largely pale brownish yellow; gaster pale infuscate brownish yellow with TV pale yellow; petiole white; antenna yellowish with dark brown clava; fore wing with infuscated patches as in Figs. 22, 23; legs pale yellow brown, lighter than thoracic dorsum, with brownish in distal half of mid tibia, most of hind coxae, distal three quarter of mid tibia; hind femur dark; last tarsal segment brown; basal part of hind tibia and tarsal segments 1-3 of all legs white.

Structural details as in figures.

Relative measurements (slide; paratype, corresponding measurements from slide mounted paratype of *dravida* are given in parentheses): Head frontal; length, 36(30), width, 46(38.5); frons width at toruli, 26.5(23.5); mouth fossa width, 18(12.5); torulus-transverse trabecular distance, 6.5(5.5); torulus-mouth margin distance, 21(13.5); distance between toruli, 14(12); malar space length, 16(12.5); eye length, 22(18.5); Antenna length: radicle+scape, 15.5(13); pedicel, 9(8.5); F1-6:12(10), 22(16), 19(13.75), 9(6), 9.5(7.5), 9(7); clava, 32(27). Thorax length, 88(67), width, 40(32); pronotum length, 12(8); mesoscutum length, 28(21) width (28); scutellum length, 25(18); width, (20); propodeum length, 17(13). Fore wing length, 184(146), width, 59(47); length of marginal fringe, 15(12); hind wing length, 158(120); width, 5(4); length of marginal fringe, 17(14). Lengths: mid tibia, 58(46.5); mid basitarsus, 40(30); tarsal segments 2-4, 27(24); hind tibia, 71(58); hind basitarsus, 46(34); tarsal segments 2-4, 28(24). Petiole length, ca 30(30). Gaster length, 90(79), [86(76) from apex of petiole]. T1 length (from apex of petiole), 42(ca. 32); ovipositor length, 91(80); third valvula length, 43(40); exserted part of ovipositor, 8(8).

Male: Unknown.

Specimens examined: Type specimens: Female paratypes of *A. maculatum* and *A. dravida* with data as given in the original descriptions (BMNH).

Host: Unknown.

Distribution: India: Himachal Pradesh, Tamil Nadu.

Comments: We consider *dravida* as a synonym of *maculatum*. The differences noted in body and fore wing colour and relative dimensions of various body parts appear to be size dependent; *maculatum* is large in size (paratype: thorax+petiole+gaster measures 1.57 mm. Body length, 2.2 mm as given by Subba Rao) compared to *dravida* (paratype: Thorax+petiole+gaster, 1.3 mm). As noted under *nixoni*, the total body length of *dravida* should be less than that of *nixoni* and not the other way round as given by Subba Rao.

Genus *Acanthomymar* Subba Rao, *incertae sedis*

Acanthomymar Subba Rao, 1970: 667. Type species: *Acanthomymar nigrum* Subba Rao, by monotypy and original designation.

Hayat (1992) commented that this genus may prove to be a synonym of *Chaetomymar* Ogloblin. In order to decide about the generic placement of a specimen (placed here with some hesitation in *Acmopolynema*; see *A. unimaculatum,* sp. nov.) which appears to be much more close to *Acanthomymar*, and also because we noticed discrepancies in the description and the figures given by Subba Rao [Pronotum divided longitudinally, in figure 30 it is clearly shown as entire; axillar setae absent, fig. 30 shows clearly the presence of a long seta on each axilla], we requested for and obtained on loan from the BMNH the holotype. Unfortunately, the mounting medium has blackened and it is now impossible to see even an outline of this holotype. The paratype female, as informed by Dr. J. S. Noyes, is not located in the BM and is probably misplaced. Under these circumstances it is not possible to know the true identity of this genus, but if we take the original figures given by Subba Rao (1970; Figs. 28-32) to be correct, then the only character of possible generic value which separates *Acanthomymar* from *Chaetomymar* is the location of the scutellar circular pits (sensilla): along anterior margin in *Acanthomymar* and in posterior third to fourth in *Chaetomymar*.

Therefore, until further material agreeing in all respects with *Acanthomymar nigrum* is collected, the genus should remain unrecognizable, an *incertae sedis*.

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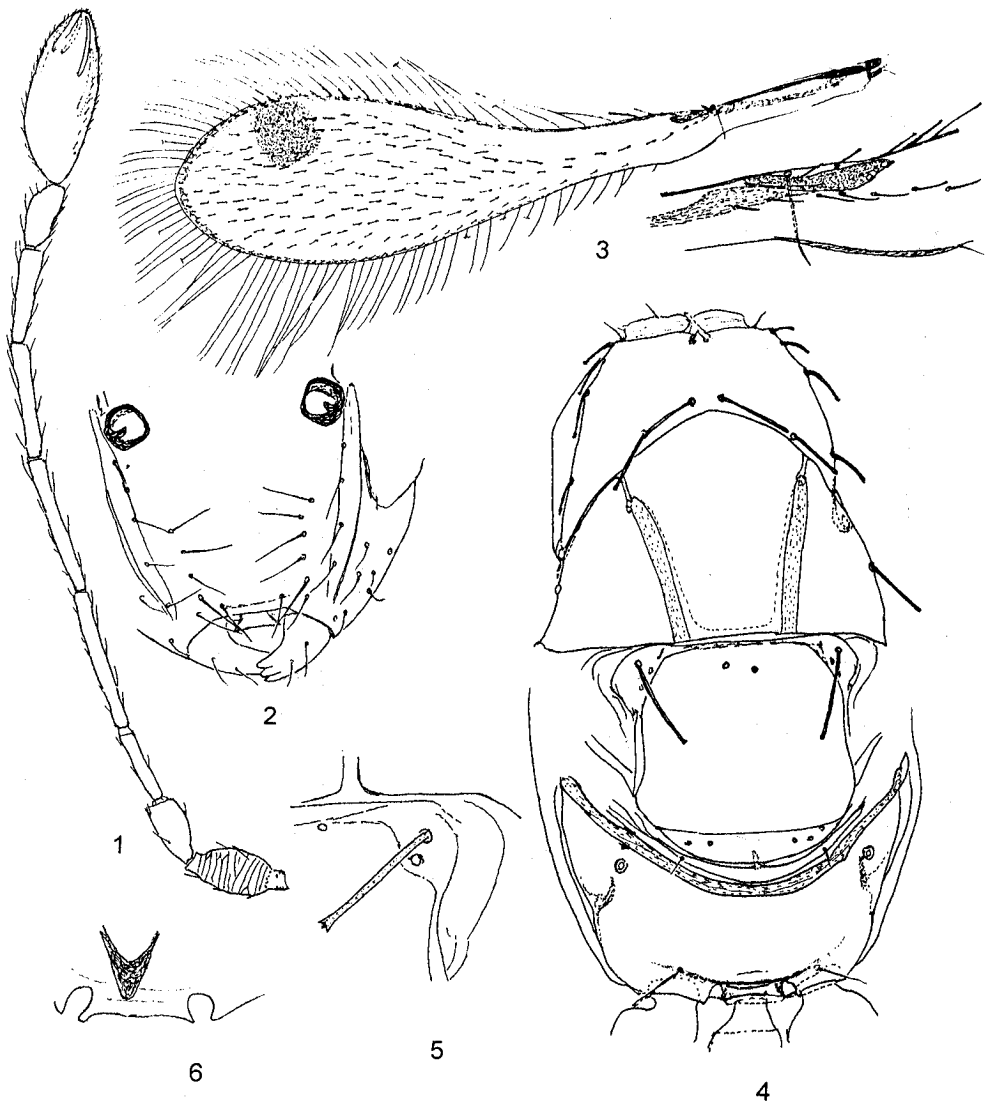
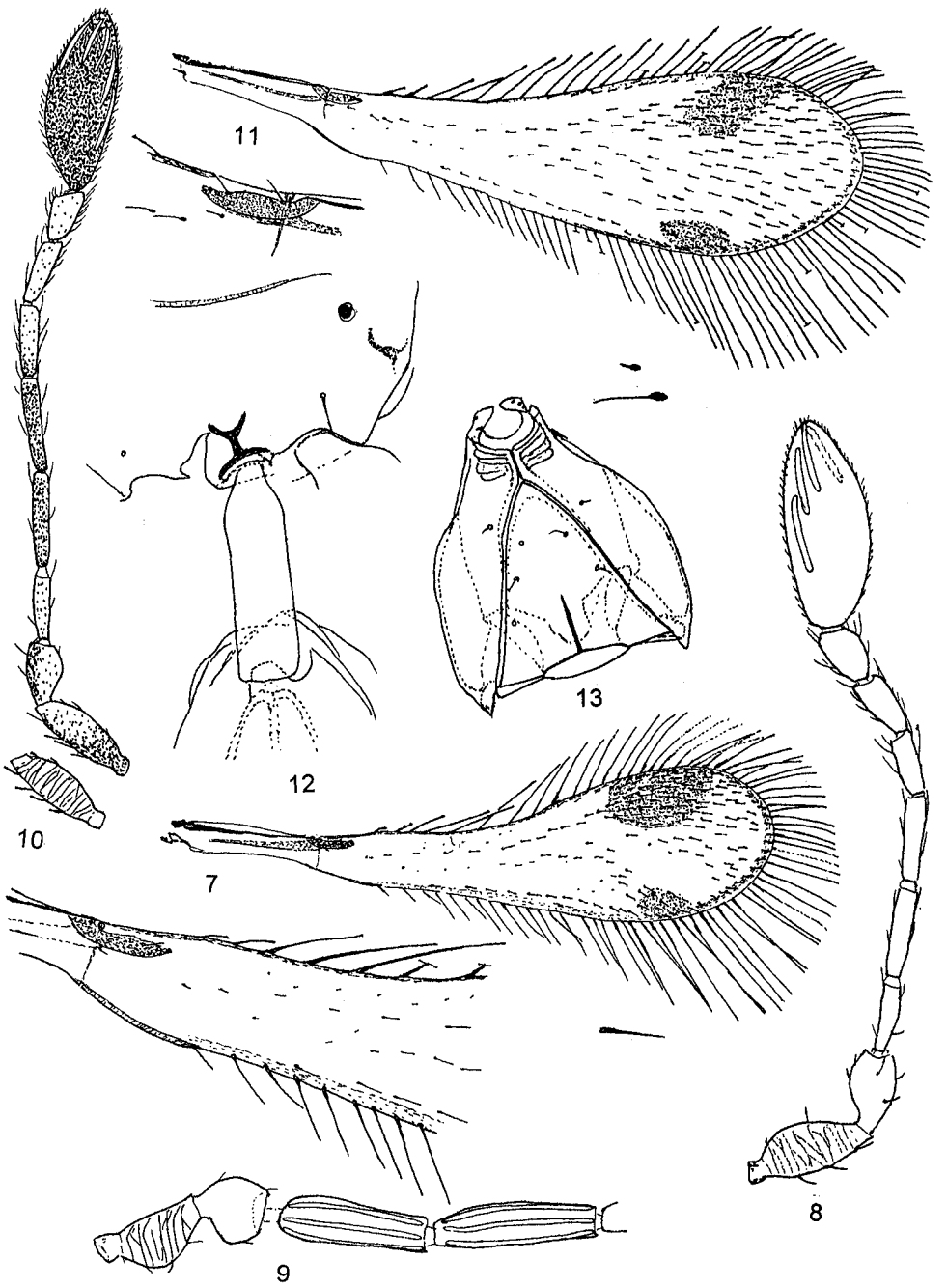
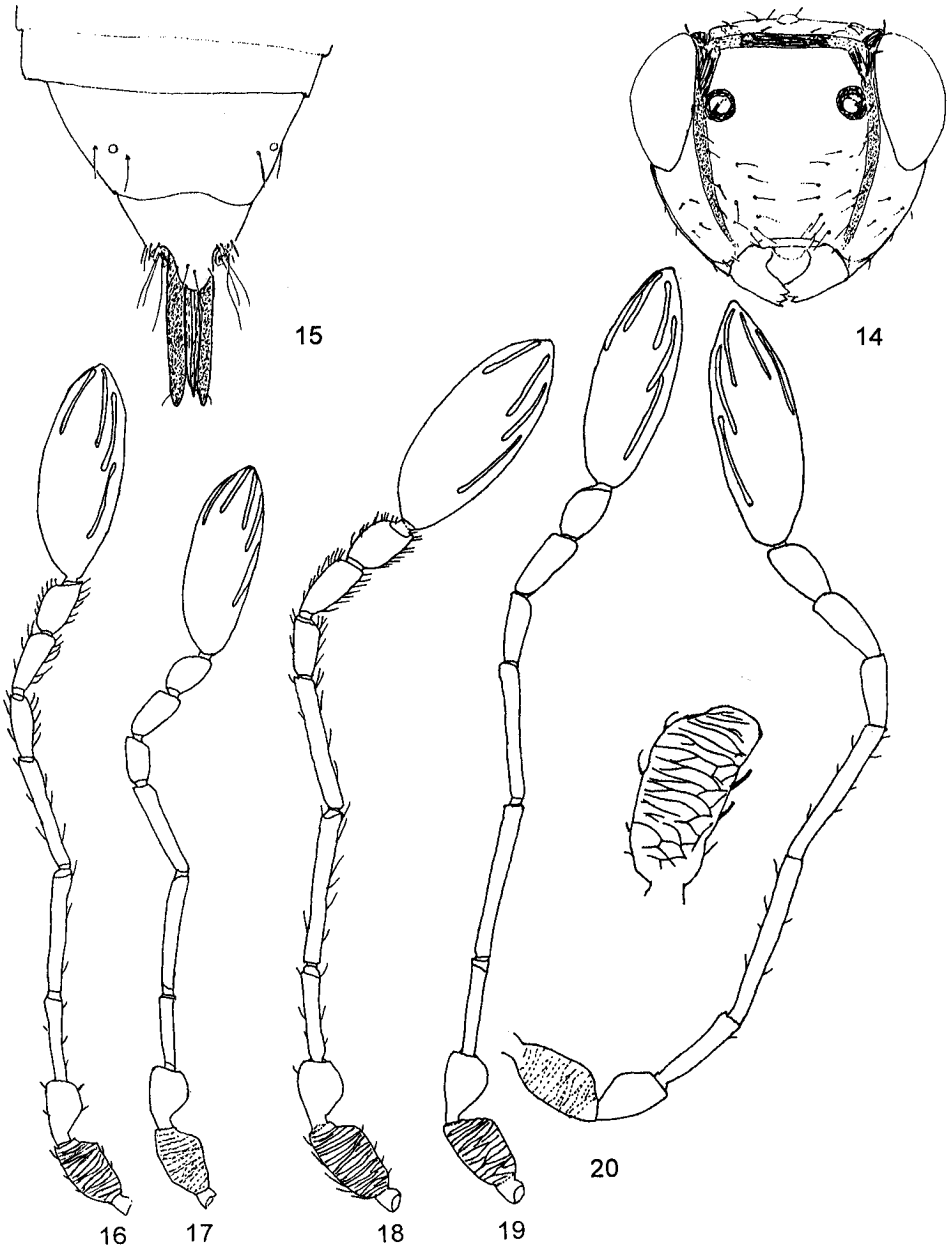


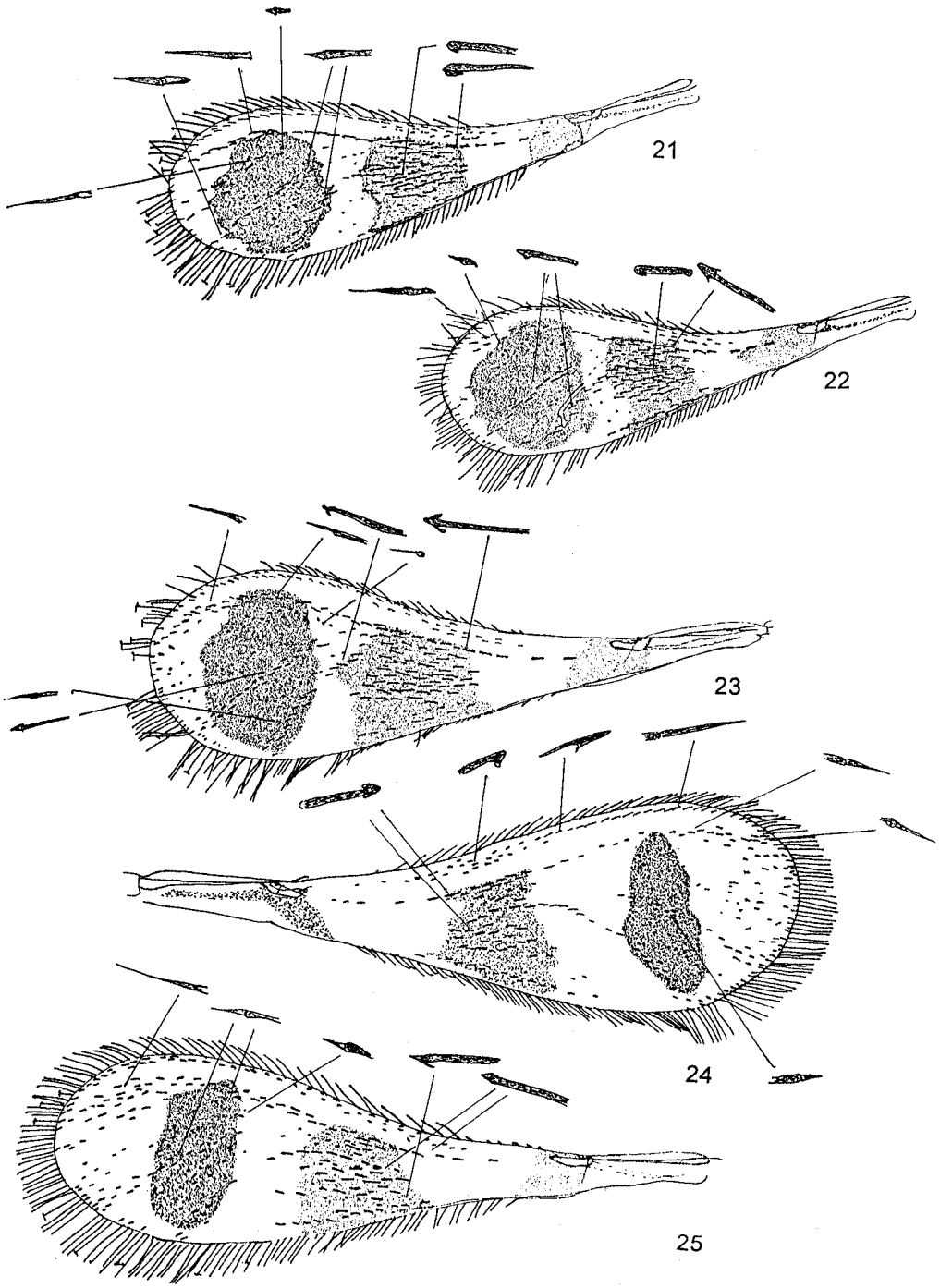
Figs. 1-6. (1-4) *Acmopolynema unimaculatum,* sp. nov. Female, holotype: 1, antenna; 2, part of head, facial region; 3, fore wing with part of veins enlarged; 4, thorax, dorsal. (5,6) *Acmopolynema bimaculatum* Subba Rao, female, paratype: 5, axilla showing seta; 6, part of propodeum showing the 'V' shaped carina.



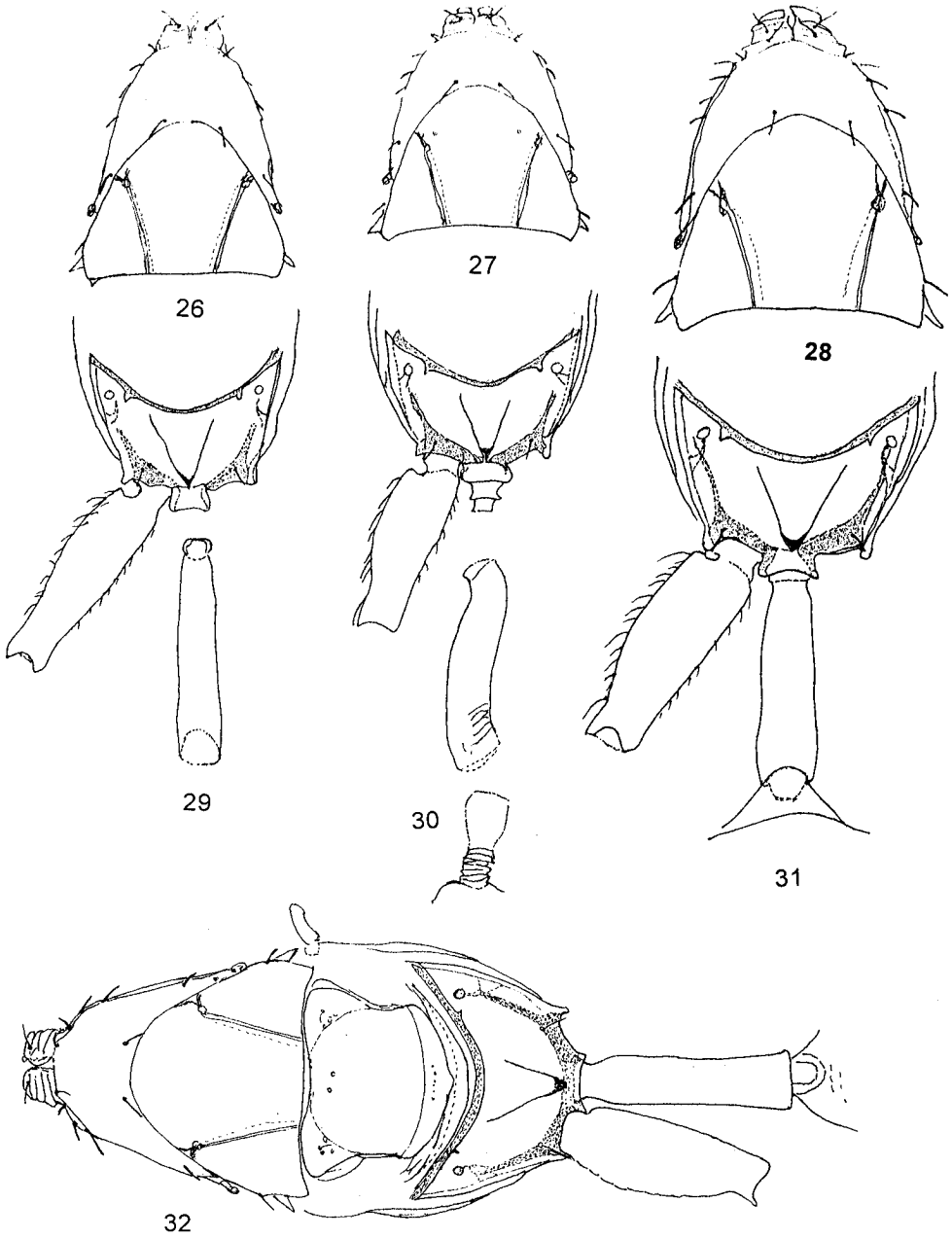
Figs. 7-13. (7-9) *Acmopolynema bimaculatum* Subba Rao; 7, fore wing, with basal part enlarged, female; 8, antenna, female; 9, scape, pedicel, F1 and F2, male. (10-13) *Acmopolynema himalum,* sp. nov., female, holotype: 10, antenna, with inner surface of scape of left antenna; 11, fore wing, with distal veins enlarged; 12, part of propodeum, petiole and base of gaster; 13, propleura and prosternum.



Figs. 14-20. (14,15) *Acmopolynema orientale* (Narayanan, Subba Rao and Kaur), Aligarh specimen, female: 14, head, frontal; 15, apex of gaster. (16-20) Antennae, female: 16, *Acmopolynema nixoni* Subba Rao, left inner aspect, paratype; 17, *A. dravida* Subba Rao, right outer aspect, paratype; 18, *A. maculatum* Subba Rao, left inner aspect, paratype; 19,20. *A. orientale* (Narayanan, Subba Rao & Kaur), female: 19, left inner aspect, Aligarh specimen; 20, left outer aspect, presumed holotype, with inner aspect of right scape enlarged.



Figs. 21-25 Fore wings, female: 21, *Acmopolynema nixoni* Subba Rao, paratype; 22, *A. dravida* Subba Rao, paratype; 23, *A. maculatum* Subba Rao, paratype; 24, *A. orientale* (Narayanan, Subba Rao & Kaur), presumed holotype; 25, *A. orientale*, Aligarh specimen.



Figs. 26-32. (26-28) Pronotum and mesoscutum, female, paratypes: 26, *Acmopolynema nixoni* Subba Rao; 27, *A. dravida* Subba Rao; 28, *A. maculatum* Subba Rao. (29-31) propodeum, petiole and left hind coxa, paratypes: 29, *A. nixoni*; 30; *A. dravida*; 31, *A. maculatum*; 32, *A. orientale*, thorax, petiole and hind coxa, Aligarh specimen.