FLIES OF THE FAMILY CONOPIDAE
FROM EASTERN ASIA

By Sidney Camras

This paper is based mainly on specimens in the U.S. National Museum, particularly the collections of D. C. Graham in Szechwan, and T. D. A. Cockerell in Eastern Siberia. Only a few species of Conopidae have been recorded from Szechwan and Western China, but the material from better collected areas has yielded many important records. It has therefore been deemed worth while to list all the specimens examined.

This study has been especially aided by the interest and courtesy of C. W. Sabrosky, U.S. Department of Agriculture, who, besides arranging the loans of material, provided information on types in the Kröber Collection at the U.S. National Museum. Dr. R. Kano, Tokyo Medical and Dental University, has been most helpful by providing information and copies of Matsumura's works, and also some Japanese Conopidae. Dr. C. H. Curran loaned a small collection of the American Museum of Natural History with some very significant specimens.
Genus *Abrachyglossum* Kröber


*Abrachyglossum cockerelli*, new species

Female: Length 10 mm. (without antenna). Head yellow, dark brownish at ocellar tubercle and anterior half of front. Velvety black frontofacial mark. Antenna dark brown, dark yellow on ventral half of first segment, dark reddish on ventral half of second and third segments. Arista black. First antennal segment three times as long as wide. Second segment two times length of first. Third segment about 1½ times length of first. Proboscis black, shorter than length of head. Occiput yellow behind vertex and below, blackish above at sides.


Abdomen black. Pale yellowish distal margin on first, second, fifth, and sixth segments. Blackish yellow distal margin on third and fourth segments. Yellowish white pollinose band on distal margin of second segment and sides of distal margin of first segment. Faint white pollinose on sixth and seventh segments. Theca triangular, about as long as wide.

Type: Holotype, female, USNM 64475, Kongaus, Siberia, August 1923, Cockerell.

This species is similar to *A. capitatum*, but has black on the femora and lacks the yellow pollinose bands on the third and fourth abdominal segments, although the paler areas preceding these bands are present. The frontofacial mark is very prominent in the new species, a character which has not been mentioned in descriptions of *capitatum*. In six specimens of *capitatum* examined, this mark is absent in three, faint in two, and distinct but not as prominent as in *A. cockerelli* in one.

*Abrachyglossum wui* Ouchi, the only other *Abrachyglossum* described for Asia, is here referred to *Siniconops elegans* (see below).

Genus *Conops* Linné

*Conops* Linné, Systema naturae, ed. 10, p. 604, 1758.

*Conops vesicularis* Linné

*Conops vesicularis* Linné, Fauna Suecica, p. 1903, 1761.

This widely distributed European species has been previously recorded in Asia only from "Siberia."
Material examined: Korea: Suigen, June 3, 1927, T. R. Gardner, 1 female, USNM.

Conops flavipes Linné

Conops flavipes Linné, Fauna Suecica, p. 1904, 1761.

The specimen from Suifu lacks the fourth abdominal tergite, but the fourth sternite is present beneath the third tergite. The Szechwan specimens have the scutellum mainly yellow, but otherwise the males agree with European specimens.

In the female, the yellow band on the third abdominal segment is separated in the center. This suggest Conops licenti Chen, but there are some other differences in the description of licenti.

Conops jovankeanus Matsumura also appears to be very similar, if not the same, as this species.

Material examined: Siberia: Okeanskaya, August 1923, Cockerell, 1 male, author's collection ex USNM; Smolenschina, Aug. 26, 1927, Cockerell, 1 male, USNM. Szechwan: Suifu, alt. 1,000–1,500 ft., June 1–21, 1928, D. C. Graham, 1 male, USNM; near Mupin, alt. 2–8,000 ft., July 1929, D. C. Graham, 1 male, USNM. Manchuria: Yalhenya, Pin-chang Province, July 1–10, 1939, M. I. Nikitin, 1 female, author's collection, ex Steyskal.

Conops thecoides, new species

Male: Length 10 mm. Head yellow. Reddish brown vertical stripe on front, widening above and below, divided by a yellow vertical stripe in the center. Antennal prominence above, and most of the facial grooves and keel black. Cheeks reddish posteriorly. Vertex and adjacent occiput translucent yellow. Vestigial ocellar tubercle present. Side of occiput yellow laterally, blackish centrally. Antenna dark reddish brown, more blackish on third segment and arista. Moderately long process on second aristal segment. Proboscis black, nearly 1½ times as long as head.


Abdomen black, indistinctly yellow pollinose. Orange yellow band on distal margins of first to fourth segments. This band is very narrow on the first segment except at the sides. Sternite
of fifth segment very large and prominent, resembling a female theca. Genitalia dark reddish black.

Type: Holotype, male, USNM 64476, Uen Chuan, Szechwan, Aug. 7–14, 1924, D. C. Graham.

This species belongs to the C. scutellatus group in having the scutellum entirely yellow, and, as in scutellatus, the first abdominal segment has a narrow yellow distal margin. It differs conspicuously from scutellatus by the wing pattern, in addition to the unique fifth sternite.

**Conops nigrifrons** Kröber


Otherwise known only from the type male from Japan. This specimen agrees very well with Kröber’s description, except that the cheeks are entirely yellow.

Material examined: Siberia: Okeanskaya, August 1923, Cockerell, 1 male, USNM.

**Conops quadrifasciatus** DeGeer

*Conops quadrifasciatus* DeGeer, Mémoires pour servir à l’histoire des insectes, vol. 6, p. 104, 1776.

This widely distributed European species has not been previously recorded east of Asia Minor. This specimen has some blackish on the femora, a character occasionally possessed by European individuals.

Material Examined: Siberia: Smolenschina, Aug. 26, 1927, Cockerell, 1 male, USNM.

**Subgenus Asiconops** Chen

*Asiconops* Chen, Notes d’entomologie chinoise, vol. 6, p. 170, 1939.

This subgenus is characterized by having transverse grooves on the front, anterior to the vertex. In a few species the transverse grooves of the front are relatively indistinct. In addition I have found in the female a tooth-shaped process extending from the middle of the posterior margin of the sixth abdominal segment. Most of the species have a frontofacial mark.

This subgenus dominates the Indo-Malayan representatives of the genus *Conops*.

Type: *Conops aureomaculatus* Kröber.

**Conops (Asiconops) kanoi**, new species

Male: Length 15 mm. Front brownish yellow, with longitudinal grooves radiating from the antennal prominence and a few transverse grooves in the middle. Vertex and face yellow; most of face and posterior orbit gold pollinose. Lower third of facial keel dark brown. Occiput black. Antenna dark brown. First segment four times as
long as wide. Second segment nearly twice as long as first. Third segment as long as first. Arista yellow at base of apical segment; process of second segment small. Proboscis 1½ times length of head, reddish on distal half.


Abdomen entirely black. Faintly gold pollinose on sides of first to third segments and indistinct narrow distal margin of fourth and fifth segments. Sixth segment faintly yellowish white pollinose.

Type: Holotype, male (author's collection), Niijima, Tokyo, Japan, Aug. 30, 1953, R. Kano.

This species is related to C. curtulus but is larger and darker, and differs conspicuously by the absence of the distinct abdominal bands.

Conops (Asiconops) curtulus Coquillett


The type is a female according to Sabrosky. The brown punctures on the face and cheeks are at the insertions of small hairs and are more or less distinct in many species of Conops. Conops kuriensis Ouchi is very suggestive of this species.

Material Examined: Japan: Mitsukuri, 1 female paratype, USNM 4000, with second and third antennal segments missing.

Conops (Asiconops) tristis Chen

Conops (A.) tristis Chen, Notes d'entomologie chinoise, vol. 6, p. 180, 1939.

The specimens listed are referred here although they are not as dark as the description of tristis. The face is not largely infuscated in these specimens.

The specimen from Szechwan has more pollen on the abdomen than the one from Foochow, but no pale bands of ground color, except slightly laterally on apex of fourth segment.

Conops (Asiconops) kuliniclus Chen

Conops (A.) kuliniclus Chen, Notes d'entomologie chinoise, vol. 6, p. 180, 1939.

The specimen examined does not have the sixth abdominal segment gold pollinose, but it is rather "worn." The humerus is distinctly rufous, rather than a little reddish as described for kuliniclus.

Material examined: Szechwan: Near Mupin, 2–8,000 ft., July 1929, D. C. Graham, 1 female, USNM.

Conops (Asiconops) chinensis, new species

Male: Length 17 mm. Front and vertical swelling dark rufous. Sides of vertex and adjacent front blackish brown. Frontofacial mark velvety black. Upper part of antennal prominence black. Face yellow, gold pollinose except for antennal prominence. Black at junction of facial and oral keel. Occiput dark reddish, partly blackish centrally. Yellow pollinose posterior orbit extending across back of vertex. Antenna dark reddish to black, rufous on proximal half of third segment. First segment four times as long as wide. Second segment nearly two times length of first. Third segment as long as first. Second segment of arista without definite process. Third segment of arista nearly three times length of first and second combined. Proboscis black, reddish on distal ventral half, about 1½ times length of head.

Thorax black, faintly yellow pollinose including a pleural stripe. More distinct yellow pollinose areas medial to the humeri anterior to the transverse suture, above base of wings, anterior to scutellum, upper half of postnotum, and on the metapleura. Reddish on humeri, calli, and tip of scutellum. Anterior coxae mainly rufous, posterior mainly black. Trochanters rufous. Anterior femur mainly rufous; middle femur blackish dorsally and on basal half; posterior femur black on basal two thirds. Tibiae rufous, blackish basally. Tarsi black, rufous on first segment, especially on posterior tarsus. Pulvilli and claws, except black tips, yellow. Wings faint yellowish brown hyaline, brown between first and third vein and vena spuria, and along fifth vein. Costal and basal cells yellow. Calypters yellow. Halteres yellow, blackish on club and base.

Abdomen black, very narrow reddish margin on third, fourth, and fifth segments and on the genitalia. Gold pollinose distal margins on all segments, the sixth nearly entirely gold pollinose.


This species is related to what I have identified as C. tristis, but the front is predominantly rufous, and the humeri, calli, and apex of scutellum are rufous. It agrees with tristis in having an entirely
dark abdmen. It is also apparently related to *C. hwangi* and *C. opimus*, but these species have a partially reddish abdomen.

**Conops (Asiconops) grahami**, new species


Thorax black, humeri and most of scutellum rufous. Thorax faintly yellow pollinose, more distinct medial to the humeri, on the metanotum, and on the metapleura. Indistinct pollinose pleural stripe. Coxae mostly black, anterior coxa partly reddish and gold pollinose. Middle and posterior coxae white pollinose. Femora and tibiae entirely rufous. Tarsi and tips of claws black. Remainder of claws and pulvilli yellow. Wings brownish yellow hyaline with brown pattern between first and third veins and vena spuria, and along the fifth vein. Calypters yellow. Halteres yellow, dark reddish brown at base.

Abdomen black with distinct wide gold pollinose band on distal part of each segment. Sixth segment mostly gold pollinose. Second segment with the gold pollen forming a triangle on each side. Sixth segment rufous except for black spot at base on dorsum. Genitalia partly black, partly rufous.

Type: Holotype, male, USNM 64477, Uen Chuan Shien, Suifu, Szechwan, Aug. 7–14, 1924, D. C. Graham.

The ptlinum and lower front are inflated, but the specimen is not otherwise teneral.

This species seems related to *C. hwangi* but has very distinct pollinose abdominal bands. The pollen covering the frontofacial mark is a character not noted as yet in any other species.

**Conops (Asiconops) opimus** Coquillett


The specimen from Japan has a black frontofacial mark as does the type according to Sabrosky. The type is also a female.

The specimen from Kuliang is more rufous and thus varies toward *C. rufifrons* of Amboina. The specimens from China referred to *rufifrons* by Ouchi may be this form.

*Conops izuoshimensis* Ouchi, based on a male, is close to this species if not identical. However the wing veins are described as pale yellowish for *izuoshimensis*. *Conops flavonervosus* Kröber also has
yellow wing veins and is closely related, but has the abdomen mainly reddish.

Material examined: Japan: K. Miyushi, 1 female, USNM (arranged as opimus, no type label, slightly grease stained). Fukien: Kuliang, 1925, H. A. Jaynes, 1 female, USNM.

**Conops (Asiconops) rufomaculatus Kröber**


The specimen examined has the dorsum of the thorax black, except for the humeri, sides, and scutellum. The first antennal segment is dark yellow, although the species was described as having the antenna black, third segment dark red brown.

I do not find any significant differences between this species and descriptions of *aureomaculatus* (=pieli).

Material examined: Formosa: Kagi, 1 female cotype, Kröber collection No. 24283, USNM.

**Conops (Asiconops) szechwanensis, new species**


Thorax black, faintly yellowish pollinose more distinct medially to the humeri, on the metanotum, and on the metapleura. No definite pleural stripe. Humeri and apical margin of scutellum rufous. Coxae black, yellowish white pollinose. Trochanters black. Femora mainly black, partly rufous. Posterior femur rufous only at narrow base and apical ventral third. Tibiae rufous. Tarsi and tips of claws black, remainder of claws and pulvilli yellow. Wings dark yellowish hyaline with darker pattern between first vein and third vein and vena spuria, and along the fifth vein. Wing pattern yellowish at base, blackish apically. Halteres bright yellow, dark reddish brown at base.

Abdomen mainly black, reddish on posterior margin of second to fifth segments, sides of third and sixth segments, and most of the seventh segment. Theca black, as long as wide. Genitalia black.

Male: Length 14 mm. Similar to the female. Rufous frontofacial mark more distinct. Process on second segment of arista longer. Gold pollen on second segment of abdomen more extensive laterally.

This species is similar to C. rufomaculatus and C. aureomaculatus, but is darker with the femora being mainly black.

**Conops (Asiconops) thecus, new species**

Female: Length 14½ mm. Front dark reddish brown with distinct darker reddish brown frontofacial mark. Vertex more yellowish. Face and grooves yellow, gold pollinose except for antennal prominence. Black mark at junction of facia and oral keel. Occiput mainly black, dark reddish yellow laterally. Posterior orbit gold pollinose. First antennal segment rufous, four times as long as wide. Second segment less than twice the length of first, dark reddish black. Third segment as long as first, dark reddish basally. Arista black, process of second segment indistinct. Proboscis black, yellowish in the middle, about 1½ times length of head.


Abdomen mainly black, rufous on apex of second to fifth segments, apical half of sixth, and nearly entire seventh segment. This color on the sides of the second segment extending basally. Yellow pollinose on apical margin of first segment, sides of second segment, most of sixth and seventh segments, and indistinctly on the theca. Theca black, very large, twice as long as wide. Genitalia shiny black, partly reddish.

Type: Holotype, female, USNM 64479, Suifu, Szechwan, D. C. Graham.

This species is related to C. opimus, but has a rufous frontofacial mark and yet is darker in general coloration. Superficially it resembles C. grahami very much, but differs in the size of the theca and in the color of wing, scutellum, calli, trochanters, and other structures.

**Conops (Asiconops) rufigaster, new species**

Male: Length 15 mm. Front entirely deep black. Vertex dark reddish in middle. Velvety black frontofacial mark. Face yellow,
gold pollinose except for antennal prominence, black at junction of facial and oral keel and on adjacent facial grooves. Occiput black. Yellow pollinose postorbitals extending across back of occiput. Antenna entirely black, faintly reddish on ventral part of first and third segments. First segment four times as long as wide. Second segment nearly two times as long as first. Third segment as long as first. Process of second aristal segment indefinite. Proboscis black, over 1½ times length of head.


Abdomen entirely rufous except for black basal half of first segment and parts of the genitalia. Irregular and indefinite blackish area on third to fifth segments. White pollinose on distal half of first segment. Faintly yellow pollinose on apical part of sixth segment.

Type: Holotype, male, USNM 64480, Biliran Island, Philippines, Baker.

This species is related to some of the species of the C. nubeculosus group, having the abdomen almost entirely rufous. However, the antennae are mainly black.

*Conops (Asiconops) nubeculosus* Bigot


The specimen from Malaya lacks a dorsal stripe as in the variety *indicus*, but has the wing entirely dark as in the variety *bigoti* (=ornatus). The specimen from the Philippines has three dark dorsal stripes and the tibia is white pollinose as in variety *bigoti*, but the wing is normally patterned.

Material examined: Malaya: Kepong, Selangor, August 1949, 1 male, author's collection ex USNM. Philippines: La Carlota, central Negros Occidental, Sept. 13, 1930, F. P. Goseca, 1 male, USNM.

*Conops nigriventris* Brunetti


This species has previously been known only from the description of two males from Assam.
The specimen examined has a slight elevation within a very slightly depressed area on the vertex. Such a change occurs in a few other species of Conops (s.s.), and represents a vestigial ocellar tubercle. Kröber in adding to the description of the type (Ann. Mag. Nat. Hist. ser. 11, vol. 5, p. 229, 1940), states that there is a distinct ocellar swelling (= tubercle) with two ocelli, and because of the spindle shaped abdomen, considers this species to be closely related to C. nigripes. However, this female shows that it is not at all related to nigripes, which belongs to Siniconops. The female has a small triangular theca with tip slightly hooked. The robust spindle shape of the abdomen is also entirely different from the long cylindrical abdomen of the female of nigripes.

This species is very distinctive structurally by having robust bristles on the sides of the dorsum of the thorax, and on the sterno-pleura. There is also a prominence of fine bristles on the dorsum of the thorax and on the abdomen.


**Genus Siniconops** Chen

*Siniconops* Chen, Notes d'entomologie chinoise, vol. 6, p. 197, 1939.

Similar to *Conops*, but having an ocellar tubercle, usually with two ocelli; and usually with a vertical swelling. The third and fourth abdominal segments are enlarged in both sexes so that the male abdomen is spindle shaped, and the female abdomen is elongated and cylindrical. The fifth, sixth, and seventh segments are relatively small in the female, but the theca is proportionately large and tooth-shaped.

**Type**: *Siniconops elegans* Chen.

I am using the term vertical swelling (i.e., swelling of the vertex) after Kröber, instead of ocellar vesicle as used by Séguy and Chen. Since ocellar vesicle is apt to be confused with ocellar swelling which Kröber and I have used for the ocellar tubercle, it is best to drop both of these terms. The ocellar tubercle is the small swelling within the ocelli (if present), at the anterior angle of the vertical swelling. The vertical swelling may be triangular and distinct from the vertex, or it may coincide with the vertex.

In addition to the species recorded here, *Physocconops microvalvus* Kröber belongs to this genus, although the base of the abdomen is relatively narrow.

**Siniconops maculifrons** (Kröber)


The frontofacial mark is weak, but present in the specimen from Manchuria. It is absent in the specimen from Siberia.
Material examined: Manchuria: Yalhenya, Pin-chang Province, Aug. 7–12, 1939, M. I. Nitkin, 1 female, author’s collection ex Steyskal. Siberia: Kongaus, August 1923, Cockerell, 1 female, USNM.

_Siniconops elegans_ Chen

*Siniconops elegans* Chen, Notes d’entomologie chinoise, vol. 6, p. 198, 1939.


The males of this species differ from the males of the other species examined by having the apical abdominal segment more elongated dorsally, and more pointed (see illustration of *wui* Ouchi, ibid., pl. 17).


_Siniconops curtirostris_ (Kröber)


*Conops curtirostris* Kröber; Ann. Mag. Nat. Hist., ser. 11, vol. 5, p. 219, 233, 1940 (previously misidentified as *celebensis*).

This species is very close to *S. elegans*, but the front is almost entirely black, and the abdomen has less yellow.

Material examined: Sikkim, 1 female, USNM, labeled *celebensis* Kröber, determined 1914 (=cotype *Conops curtirostris*).

_Siniconops nigripes_ (Kröber)


Similar to *S. elegans* but paler, wing more diffusely yellowish, and humeri and scutellum rufous.

Material examined: Formosa, Sauter, 5 males and 5 females, author’s collection ex Hungarian Mus.

_Siniconops species_

The specimen examined is badly crushed and not suitable as the basis of a new species. Superficially it is very similar to *S. nigripes*, but the wing is less yellowish and the general coloration averages darker. The genitalia are mainly black, and the third antennal segment is proportionately longer. The junction between the subcostal and first vein (sc-r) is distal to the anterior crossvein (r-m).

Material examined: Szechwan: Near Mupin, 2–8,000 ft., June 28, 1929, D. C. Graham, 1 male, USNM.

_Siniconops splendens_, new species

Male: Length 16 mm. Front dark reddish, surrounded by velvety black. Vertex dark reddish and shiny. Ocellar tubercle blackish with
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two distinct yellow ocelli. Face dark reddish yellow at anterior orbit and in facial grooves. Posterior cheeks and median band in facial grooves velvety black. Occiput dark yellow with narrow velvety black posterior orbit and stripes from sides of vertex to neck. Antenna black, rufous on medioventral surface. First segment about two times as long as wide. Second segment three times as long as first. Third segment a little longer than first. Process on second segment of arista small. Third segment of arista three times as long as first and second combined. Proboscis as long as head, black, rufous basally.


Abdomen dull black on first and third segments. reddish and then golden yellow on apical margin of second segment, apical half of third segment, and almost all of fourth segment. Fifth and sixth segments and genitalia entirely golden yellow. Narrow reddish distal margin on first segment.

Type: Holotype, male, USNM 64481, Yachow, Szechwan, Aug. 16, 1928, D. C. Graham.

Related to nigripes, but very distinct by having the black areas velvety, and the apical half of the abdomen mainly orange and gold pollinose.

Siniconops grandens, new species

Male: Length 20.5 mm. Front and vertex yellow, slightly darker near back of antennal prominence and anterior to vertex. Vertical swelling and part of ocellar tubercle darker. Small velvety black frontofacial mark. Face yellow, cheeks blackish. Junction of facial and oral keel dark reddish. Posterior orbit and upper occiput yellow, remainder of occiput black. Antenna black, partly reddish on third antennal segment. First antennal segment two times as long as greatest width. Second segment three times as long as first. Third segment slightly longer than first. Process of second segment of arista is small but distinct. Third aristal segment short, hardly longer than first and second combined. Proboscis as long as head, black.

Abdomen black on first segment, midline and anterior margin of second segment, most of third segment, sides of remaining segments and on the genitalia. Golden yellow pollinose on distal margin of first to third segments, sides of second segment, and most of remaining segments.

Type: Holotype, male, USNM 64482, Yachow, Szechwan, 2,200–5,000 ft., Aug. 21–25, 1930, D.C. Graham.

This very distinctive species is related to S. maculifrons, and S. philippinensis in having the second abdominal segment yellow with a black midline.

**Siniconops philippinensis** (Kröber)


The front of the specimen examined is predominantly black, although basically the front is yellow with a large black area in the center and velvety black laterally and dorsally. The black at the lower lateral margin forms a distinct frontofacial mark. These differences from the description of the type (male) are within the variation seen in *Siniconops nigripes* and *Siniconops microvalvus* (formerly placed in *Physococonops*).

Material examined: Philippines, Mount Makiling, Luzon Island, Baker, 1 female, USNM.

**Genus Archiconops Kröber**


*Archiconops erythrocephalus* (Fabricius)


The specimen from Siam is more shiny and violaceous than the specimens from China and Japan. The specimens from China have a
variable amount of hyaline at the base of the wing, but not as much as the Japanese specimen. This variation is seen in the closely related Archiconops morosus, and it seems best at present to unite erythrocephalus and niponensis. Conops nigricans Matsumura also appears to be this species.


Genus Physocephala Schiner


Physocephala rufrons, new species

Female: Length 17 mm. Front and vertex dark rufous, blackish above antenna extending on each side in a line to upper part of face. Face and lateral margin of front yellow. Upper half of keel black. Cheeks brown. Occiput black, lower half of posterior orbit rufous. Antenna predominantly dark reddish brown, brighter ventrally and medially. First segment two times as long as wide. Second segment over 2½ times length of first. Third segment two times length of first. Arista black. Process of second segment of arista very long, as long as distal segment. Proboscis black, nearly two times length of head.


Abdomen reddish. First segment black except for sides. Second segment with a pair of large black marks on basal half. Dorsum of third segment mainly black. Basal half of fourth and fifth segments black. Paired marks at base of sixth and seventh segments black. Genitalia shiny black. Theca folded under abdomen.

Type: Holotype, female, USNM 64483, Ningyuenfu, Szechwan, 6,000–10,800 ft., July 24–26, 1928, D. C. Graham.

This species belongs to the P. vittata group, but has the front rufous.
Physocephala ammophiliformis Kröber


There is a variable amount of yellow on the lower lateral part of the front, so that the specimen from Mount Omei approaches having a black "T" pattern on the front. Another specimen is more reddish, with some black at the base of the hind femur, but no black ring.

Compared with a male and female of P. gigas from Java, which Kröber thinks may be synonymous, gigas differs by having barely a trace of reddish brown on the second abdominal segment. Also the legs are darker, but a black ring is distinguishable near the base of the hind femur, and the pedicle of the abdomen is more slender in gigas.

Material examined: Szechwan: Shin Kai Si Mount Omei, 3–5,000 ft., July–August 1923, D. C. Graham, 1 male, USNM; Kuanshien, 3,000 ft., Apr. 5–May 8, 1930, D. C. Graham, 2 males, USNM and author’s collection.

Physocephala nigra (DeGeer)

Conops nigra DeGeer, Memoires pour servir à l’histoire des insectes, vol. 6, p. 105, 1776.

The abdomen of the specimen examined is grease stained so that the pollinose bands are not distinct. This species has not previously been recorded east of Turkestan.

Material examined: Manchuria: Tsingtao, July 1938, Weymarn, D. G. Hall collection, 1 female, USNM.

Physocephala obscura Kröber


The first four specimens listed agree with the original description but are smaller, 12–15 mm. The cotype agrees with the description of the female, but may represent another species. It is more robust, yellow pollinose, and more extensively rufous; and most of the front is reddish, not forming a midline.

Material examined: Siberia: Kongaus, August 1923, Cockerell, 2 males, USNM and author’s collection; Okeanskaya, August 1923, Cockerell, 2 males, USNM and author’s collection; "Wladiwastock," 1 male, cotype, USNM.

Physocephala chrysorrhoea (Meigen)

Conops chrysorrhoea Meigen, Systematische Beschreibung der bekannten Europäischen zweiflügeligen Insekten, vol. 4, p. 128, 1824.

The specimen examined belongs to the variety P. truncata; but the related new species described below, from the same locality, has the wing of the typical form.
Material examined: Hopeh: Chao Yang, July 13, 1921, A. P. Jacot, 1 female, USNM.

*Physcephala theca*, new species

Female: Length 10 mm. Front, face, and cheeks yellow; blackish on apex of vertex, at base of antenna, and in the middle of facial grooves. Vertex translucent dark yellow. Occiput black. Posterior orbit white pollinose above, yellow pollinose below. Antenna dark reddish brown, blackish above. First segment three times as long as wide. Second segment three times length of first. Third segment nearly one and one half times length of first. Process of proximal segment of arista moderate, nearly as long as apical segment of arista. Proboscis blackish, reddish in the middle, nearly two times length of head.


Abdomen mainly black, rufous at junction of second and third segments. Dark reddish at base of seventh segment and on the theca. Gold pollinose at distal margin of first to fifth segments and diffusely on parts of sixth and seventh segments. Theca very large, twice as long as wide. Posterior black serrate area slightly longer than wide, rufous proximally.

Male: 9 mm. Similar to the female, but front entirely black. Abdomen grease stained, rufous on most of second and third segments and at apical half of sixth segment.

Types: Holotype, female, USNM 64484, Chao Yang, Hopeh, July 9, 1921, A. P. Jacot. Allotype, Chao Yang, Hopeh, July 20, 1921, A. P. Jacot, author’s collection ex USNM.

This species is very close to *P. chrysorhoea* differing by the very large theca. There are no good characters for distinguishing the male. *P. vaginalis* of Southern Europe, differs by having the theca light reddish brown, and the wing pattern extending only to the third vein.
Physocephala pusilla (Meigen)

Conops pusilla Meigen, Systematische Beschreibung der bekannten Europäischen zweiflügeligen Insekten, vol. 4, p. 131, 1824.

The second specimen listed is questionably referred here because it is very dark and there is a trace of an apical spot on the wing. However it is too small and slender for P. sinensis.

Material examined: Shantung: Tsinan, May 27, 1922, A. P. Jacot, 1 female, USNM. Hopeh: Chao Yang; Aug. 10, 1923, A. P. Jacot, 1 female, author’s collection ex USNM.

Physocephala melana, new species

Female: Length 8 mm. Front and vertex dark yellowish. Black.ish in middle of front, and at groove at anterior margin of vertex. Face and cheeks yellow. Upper two thirds of facial groove and keel black. Occiput black, paler below. Posterior orbit white pollinose. Antenna dark reddish yellow, blacker dorsally. First segment two and one half times as long as wide. Second antennal segment three times length of first. Third segment one and one half times length of first. Process on proximal segment of arista moderate, as long as apical segment of arista. Proboscis dark, reddish in middle, nearly two times length of head.


Abdomen short and robust, mainly black. Narrow dark reddish areas at junction of second and third segments and apical margins of third to sixth segments. Faint white pollinose in part, with gold pollinose areas on apical margin of third to sixth segments. Theca shorter than wide.

Type: Holotype, female, USNM 64485, Trang Bom, 30 miles northwest of Saigon, Cochin China, Aug. 8, 1932, M. Poilane.

This species is very close to P. limbipennis in coloration, but structurally it is quite distinct. The abdomen is relatively short and robust, and the theca is very short and wide. This short wide abdomen is one of the characters of Pseudophysocephala, but the head in this species is normal.

Physocephala sinensis Kröber


This species does not have any specific color character to distinguish it from P. pusilla, as the apical spot on the wing is not always
present. However, this series is larger and more robust, and the abdomen is more club shaped, so that the specimens are readily separable from pusilla.

Material examined: Szechwan: Suifu, 1,000-1,500 ft., June 1-21, 1928, July 1929, D. C. Graham, 1 with abdomen missing, 1 male, USNM and author’s collection; Suifu to Hongya, 1,000-1,450 ft., June 15-21, 1929, D. C. Graham, 1 male, 1 female, USNM; Chungking, 1-2,000 ft., May 6-27, 1930, D. C. Graham, 1 male, author’s collection ex USNM; Yao-Gi, 4-8,000 ft., July 3, 1929, D. C. Graham, 1 male, author’s collection ex USNM. Hupeh: Hsiang Shan, 1 female, USNM. Chekiang: Hangchow, June 27, 1927, July 15, 1927, C. Y. Wong, 2 females, USNM and author’s collection. Kiangsu: Penniu, Aug. 15, 1925, C. Y. Wong, 1 male, USNM. Hopeh: Peking, August 1921, 1 male, Amer. Mus. Nat. Hist.

**Physocephala bipartita** (Doleschall)


This species has previously been recorded from Java, Sumatra, Philippines, Molluccas, and Celebes.

Material examined: Malaya: 16 miles north of Kuala Lumpur, Selangor, Malaya, March 1949, R. Traub, B. Insoll, 1 female, USNM.

**Physocephala elongata**, new species

Male: Length 9½ mm. Vertex, front, and face dark yellow. Blackish in middle at junction of vertex and front. Black on front forming an indistinct midline. Black above base of antenna extending indistinctly to upper part of face. Large black mark in middle of facial grooves including that part of the keel. Occiput yellowish black, paler below. Postorbitals yellowish white pollinose. Antenna nearly blackish on ventral and medial surfaces. First segment four times as long as wide. Second segment nearly 2½ times the length of first. Third segment nearly 1½ times length of first. Arista with elongated process on proximal segment as long as distal segment. Proboscis mainly yellowish, 2½ times length of head. Head nearly twice as high as long. Shiny triangular area at posterior margin of eye large and prominent.

Thorax dull black. Humeri and parts of pleura dark yellow. Yellow white pollinose pleural stripe, and pollinose area medial to humeri and on postnotum. Coxae reddish black, white pollinose. Legs dark yellow. Blackish above on femora, forming an indistinct subbasal ring. Tarsi darker. Pulvilli and claws, except black tips, dark yellow. Wing with dark pattern from costa to third vein extending to apex. Basal half of first posterior cell dark, remainder
abruptly hyaline. Dark margin along sixth vein. Calypters dark yellowish brown. Halteres bright yellow, blackish at base.


This species is very close to *P. bipartita* in coloration, the differences being mainly structural. The abdomen is relatively long and slender and the head is relatively short (flattened), with a large triangular polished area on the posterior margin of the eye. The head characters are that of *Pseudophysocephala*, and Kröber did include one species with an elongated (instead of short) abdomen. However, the new species *Physocephala melana* is an intergrade, and there are species with a rounded head but large triangular eye area; so that at present I do not believe that *Pseudophysocephala* can be maintained.

*Physocyphala pielina* Chen

*Physocyphala pielina* Chen, Notes d'entomologie chinoise, vol. 6, p. 190, 1939.

The specimen examined agrees with the description, but is more brownish, less blackish; and the first basal cell is more hyaline.

Material examined: Fukien: Foochow, May 1924, C. R. Kellogg, 1 female, USNM.

*Physocyphala aterrima* Kröber


The specimen examined agrees very well with the original description, although the pollinose pleural stripe is relatively indistinct. Size: 12 mm.

This species has been previously recorded only from Sikkim and Chekiang, China.


*Genus Myopa* Fabricius

*Myopa* Fabricius, Systema entomologiae . . ., p. 798, 1775.

*Myopa picta* Panzer


Kröber incorrectly describes the third antennal segment as being about as long as the second. However, his illustrations show the
correct proportion. The other differences given by Ouchi for chusanensis fall into the range of variation. European specimens average darker and more distinctively colored, but the differences do not warrant a separate name.

Material examined: Shantung: Tsinan, Apr. 7, 1928, Apr. 8, 1930, A. P. Jacot, 2 males, author’s collection and USNM. Kiangsu, Soochow, 1 male, USNM. Szechwan, Kuanshien, 3,000 ft., Apr. 5 to May 8, 1930, D. C. Graham, 1 male, USNM; Szechwan, D. C. Graham, 1 male, USNM. Chekiang; Hangchow, Apr. 10, 1926, T. P. Chao, 1 male, author’s collection and USNM.

**Myopa buccata (Linne)**

*Conops buccata* Linne, Fauna Suecica, p. 1905, 1761.


In describing *sinensis*, Chen apparently misinterpreted Kröber’s use of the term “wulst.” *Myopa buccata* does not have any spots on the face, but does have some on the occipital swelling behind the face. As in the previous species, European specimens average darker with more contrast between light and dark areas.

Material examined: Shantung: Tsinan, Mar. 18 to Apr. 25, 1922, 1931, A. P. Jacot, 7 males, 1 female, USNM and author’s collection. Szechwan: Kuanshien, 3,000 ft., Apr. 5–May 8, 1930, D. C. Graham, 1 male, USNM; no locality, D. C. Graham, 1 female, USNM. Chekiang: Hangchow, Mar. 20, 1930, 1 female, USNM; Hangchow, Mar. 27–Apr. 24, 1926, T. P. Chao, 3 males, USNM and author’s collection.

**Myopa curtirostris Kröber**


This species has previously been known only from the type female from Amur.

Material Examined: Manchuria: Tsingtao, July 1938, Weymarn, D. G. Hall collection, 1 female, USNM.

**Myopa fasciata Meigen**

*Myopa fasciata* Meigen, Klassifikazion und Beschreibung ..., vol. 1, p. 286, 1804.

Material examined: Manchuria: Tsingtao, July 1938, Weymarn, D. G. Hall collection, 3 females, USNM and author’s collection.

**Myopa testacea (Linne)**


Genus Melanosoma Robineau-Desvoidy


Melanosoma pallipes (Wiedemann)

Myopa pallipes Wiedemann, in Meigen, Systematische Beschreibung der bekannten Europäischen zweiflügeligen Insekten, vol. 4, p. 149, 1824.

This species has been previously known from Europe to Central Asia.

Material examined: Shantung: Tsinan, Apr. 18, 1922, A. P. Jacot, 1 male, USNM.

Genus Sicus Scopoli

Sicus Scopoli, Entomologia carniolica . . ., p. 369, 1763.

Sicus abdominalis Kröber


This species differs from S. ferrugineus by having a shorter and wider abdomen, and by having a larger distinct theca in the female. I feel certain that Kröber's type is a specimen having the abdomen flexed so that difference of the theca from ferrugineus is not apparent.

The illustrations by Ouchi (Journ. Shanghai Sci. Inst., sec. 3, vol. 4 (1939), p. 211, 1940) show the differences between this and the other species. This species is shown as S. fusenensis var. a and var. b. The difference between variety a and b is simply that in variety a the abdomen is extended, and in variety b the abdomen is flexed.

In this species, when viewed from above, the second abdominal segment is as long or somewhat longer than wide, and the third abdominal segment is wider than long. In ferrugineus, the second abdominal segment is much longer than wide, and the third abdominal segment is as long or longer than wide. In the female sex the abdomen is even more elongated in ferrugineus, and the differences between the two species are greater.

The series from Szechwan differs from the specimens from Siberia and Manchuria by averaging smaller, and by being paler and more pollinose. Also the latter have a pair of curved black marks on the second abdominal segment. These black marks, however, are present or absent in my series of ferrugineus from Europe, which includes a very dark male with the femora predominantly blackish.

Occemyia ogumae Matsumura (Thousand insects of Japan, Additamenta 2, p. 273, 1916) may be this species. The illustration shows the black marks on the second abdominal segment.

Material examined: Szechwan: Suifu, D. C. Graham, 3 males, 1 female, USNM and author's collection; Suifu, 1,000-1,500 ft., June
1-21, 1928, D. C. Graham, 1 male, USNM; Muping, 4,000-7,000 ft.,
July 1929, D. C. Graham, 1 male, author’s collection ex USNM;
O-Er, 26 miles north of Li Fan, 9,000 ft., 1933, D. C. Graham, 1 male,
USNM; Wei Chow, 65 miles northwest of Chengtu, 9,000-12,500 ft.,
Aug. 15-21, 1933, D. C. Graham, 1 male, USNM. China-Tibet
border: Yu-Long-Gong, 14,000 ft., Aug. 14, 1930, D. C.
Graham, 1 female, USNM.
Manchuria: Kaolingtze, July 15, 1941,
V. N. Alin, 1 female, author’s collection.
Siberia: Kongaus, August 1923,
Cockerell, 1 male, USNM; Kudia R., Amagu, July 1923, Cockerell,
1 male, author’s collection ex USNM.

_Sicus nigricans_ Kröber

*Sicus ferrugineus* var. _nigricans_ Kröber, Ann. Mag. Nat. Hist., ser. 11, vol. 4,
p. 370, 1939.

This species is similar to _S. abdominalis_ in the shape of the abdomen,
but differs in being predominantly dark, particularly on the dorsum
of the thorax and second abdominal segment. While it might be
considered a dark form of _abdominalis_, there are no intermediates in
this series, and both occur at Kongaus.

Occemyia nishitapensis Matsumura (Thousand insects of Japan,
Additamenta 2, p. 272, 1916) may be this species.

Material examined: Siberia: Kongaus, August 1923, Cockerell,
2 females, USNM. Japan: Tsuruga, June 29, Cockerell, 1 male,
USNM; Senjogahara, Nikko, Aug. 9, 1953, R. Kano, 2 females,
author’s collection.

_Sicus fusenensis_ Ouchi

1940.

This species is otherwise known only from the type female from
Northern Korea. It is very similar to _S. ferrugineus_, and although
the abdomen is not quite as elongated as _ferrugineus_, the third ab-
dominal segment is much longer than wide.

The male is unknown, but will probably prove to be very similar
to, if not indistinguishable from the male of _ferrugineus_. I have not
seen any specimens of _ferrugineus_ from Asia, and it is possible that
such records may belong to _fusenensis_.

Material examined: China-Tibet border: Yu-Long-Gong, 14,000
ft., Aug. 14, 1930, D. C. Graham, 2 females, USNM and author’s
collection.

**Genus Thecophora** Rondani

Thecophora atra (Fabricius)


Each of the specimens examined differ from each other and from the typical European form. However additional material would be necessary to decide if any of these should be named.

The specimen from Siberia has more yellow on the anterior femora than the typical form, but this condition is matched by one or two specimens of a series from Cyprus in my collection.

The specimen from Yangchow has the pollen yellowish gray and the femora mainly yellowish and thus approaches T. sauteri of Formosa. However, it is paler than sauteri having the antennae and front mainly yellowish, and the wings are also yellowish. One of the two cotype males of sauteri sent by USNM for comparison has the abdominal pollen more grayish than yellowish.

The specimen from Szechwan has all of the femora almost entirely yellow, and the antennae are mainly yellowish.

This species has not been previously recorded from Siberia.


Thecophora philippinensis, new species


Thorax black, with faint white pollinose areas leaving three indistinct black lines on dorsum. Legs black, basal two-fifths of posterior femur yellow. Base of tibiae, basal tarsi, pulvilli, and claws except black tips yellow. Wings hyaline. Calypters brownish. Halteres bright yellow, blackish at base.

Abdomen black, relatively distinct grayish yellow pollinose distal band on second, third, fourth, and fifth segments. Sixth segment indistinctly grayish yellow pollinose. Fifth sternite very prominent, resembling a theca.

Variation (in paratype): Length 4½ mm. No black on cheeks. Antennal proportions 1:3:2. Each of distal segments of proboscis about equal to length of head. Theca less prominent (abdomen flexed).

This species is related to *T. atra*, but is distinguished by the yellowish gray pollinose bands giving the abdomen an annulate appearance. The head is also characteristically dark, and although the legs are mainly black, the basal two-fifths of the hind femur is yellow.

*Thecophora simillima* (de Meijere) (Bijdr. tot de Dierkunde, vol. 18, afl. 17, p. 103, 1904) of Java, is described as similar to *T. atra*, but the white pollinose abdominal bands are very narrow and limited, and the second and third antennal segments are equal.

**Genus Dalmannia Robineau-Desvoidy**


*Dalmannia affinis* Chen

*Dalmannia affinis* Chen, Notes d'entomologie chinoise, vol. 6, p. 228, 1939.

Previously known only from the type series, 2 males and 2 females from Kiangsu.

Material examined: Shantung: Tsinan, Apr. 8, 1922, A. P. Jacot, 2 females, USNM and author’s collection.