labium extends rearward only to the middle of the prothorax, its median lobe is broadly rounded and cleft only to the level of the base of the lateral lobes. Each lateral lobe is 3-cleft at the apex into two outer,

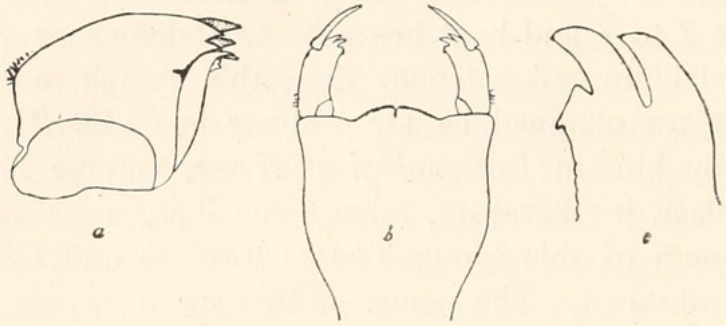

Fig. 2. Mouth parts: *a*, mandible; *b*, end of labium from within; *c*, more enlarged tip of lateral lobe of labium.

incurved subacute teeth, and one inner obliquely truncate and scarcely falcate tooth.

At each side of the pronotum is the usual pair of projecting lateral angles, the rear one being slightly larger; the legs are brown with yellowish tarsi, the femora bare, strongly longitudinally carinate and the tibiae similar, very weakly carinate. Wing tips extend posteriorly to abdominal segment 6. There are high, erect dorsal hooks on segments 2 to 9. Gills on 2 to 7 decurved and twisted at the tip, three-jointed, the basal joint bearing very short filaments along one side. There are no lateral spines.

The lateral gills are wanting. The mid-dorsal gill is of extraordinary form, inflated, heavily chitinized, pedicellate at base and compressed at apex, where it is bifurcated and slightly carinate beneath, where it bears a strong sharp tooth at each end of the inflated portion. There is also a pair of thorn-like processes projecting laterally from the middle of this portion.

A single ♀ specimen from Enañas del Pichis, Peru (east slope of the Andes), July 4, 1920.

Keys to the Syrphid Genus Sphegina Meigen (Dip.).

By J. R. Malloch, U. S. Biological Survey, Washington, D. C.

The genus *Sphegina* is most closely related to *Neoascia* Williston and is separable from it by the conspicuously concave face, the sloping instead of erect outer cross-vein, lack of distinct hairs on upper half of sternopleura (except in one or two species, and in these they are very inconspicuous), much shorter third antennal segment, and the presence of a more or

less complete impressed curved line extending from humerus on each side to the transverse median impression.

The species vary much in color but in structure they are quite constant. No use has previously been made of the armature of the fifth sternite of the males in systematic papers though its shape has been mentioned, and previous authors have omitted any mention of the curved thoracic depression.

Nothing is known of the larval habits of the genus; the adults occur on various flowers.

Key to Males.

1. Hind tibia with a distinct elevated chitinized beaklike projection at apex on ventral surface which is either acutely pointed or compressed from each side; apical abdominal sternite without minute spinules, only fine hairs present.....2
—Hind tibia either transverse at apex on ventral side or with a short apically rounded scooplike production.....4
2. Small species, about 5 mm. in length; black and yellow in color, the apical process on hind tibia beaklike and slightly curved; hind trochanters without minute black setulae.....**flavomaculata** Malloch.
—Large species, 8-9 mm. in length.....3
3. Reddish species; hind femora unicolorous rufous; hind tibia with the apical process rounded at tip and compressed from each side; hind trochanters without black setulae,
armatipes Malloch var. **rufa** Malloch.
—Black species with yellow markings; hind femora largely black; hind tibia with the apical process beaklike, slightly curved, not compressed from both sides; hind trochanters with some black setulae.....**armatipes** Malloch.
4. Scutellum transverse at apex, the two long setulose hairs separated by more than half the basal width of scutellum; hairs at apices of fourth and fifth abdominal sternites strong, but no short stout spinules present, fifth produced lobuliform at posterior angle on left side.....**occidentalis** Malloch.
—Scutellum regularly rounded posteriorly, the setulose marginal hairs if only two in number separated by much less than half the basal width of scutellum.....5
5. At least the fifth sternite with some short setulae or spinules apically 6
—No short spinules on fifth sternite, only fine hairs present.....11
6. Both fourth and fifth sternites with some short spinules apically..7
—Only the fifth sternite with short spinules apically.....9
7. Fifth abdominal sternite almost transverse at apex, not noticeably produced in the form of a rounded lobe at left posterior angle; the

greater part of center of disc of both fifth and fourth sternites with short stubby spines; hind tibia produced scooplike at apex on ventral side.....**keeniana** Williston.

—Fifth abdominal sternite with a central concavity in posterior margin, the left posterior angle drawn out into a rounded lobe; hind tibia transverse at apex on ventral side.....8

8. Black spinules of fourth sternite conspicuous, stubby, extending well on to disc; fifth tergite with a large rounded lobe; fourth tergite without long hairs on posterior lateral angles.....**lobata** Loew.

—Black spinules on fourth sternite very sparse and fine, confined to extreme margin of haired part; fifth tergite with a small rounded lobe; fourth tergite with long soft hairs on each posterior lateral angle.....**punctata** Cole.

9. Spinules of fifth sternite black and stubby, many fine hairs laterad of them on the two rounded slightly elevated areas. .**rufiventris** Loew.

—Spinules of fifth sternite reddish, elongated on the two rounded elevations laterad of the median line.....10

10. Fifth sternite with a very large rounded lobe on left side at posterior angle which is not heavily chitinized and is separated from remainder of segment by a depression, the hairs long and not very strong; outer crossvein and fourth vein beyond bend at apex infuscated.....**petiolata** Coquillett.

—Fifth sternite with a small rounded lobe which is as heavily chitinized as the remainder of segment and not separated from it by a depression, the hairs shorter and stronger; veins not infuscated.....**campanulata** Robertson.

11. Hairs on frons erect, conspicuous, the longest as long as the entire antenna; abdomen inconspicuously pedunculate; arista very little longer than antenna, densely pubescent.....**infuscata** Loew.

—Hairs of frons decumbent, short and inconspicuous, the longest not longer than second antennal segment; abdomen conspicuously pedunculate 12

12. Fifth abdominal sternite with a large lobe at right hind angle which is over half as long as the sternite at middle; only the apical segment of tarsi deep black, the subapical one brownish **lobulifera** sp. n.

—Fifth abdominal sternite not distinctly lobed as above.....13

13. Hind tibia with a slight but distinct scooplike production of the ventral surface apically; arista gradually tapered from base and distinctly pubescent; small species, 5-6 mm. in length,
flavimana Malloch.

—Hind tibia not produced as above, transverse at apex; arista swollen on about a fourth of its length from base and nearly bare; larger species, 8 mm. in length.....**californica** Malloch.

Key to Females.

1. Third (fourth) tergite of abdomen distinctly flared apically, fourth with a deep notch in middle of posterior margin; the curved linear

thoracic depression distinct and complete.....**monticola** Malloch.
—Third tergite not flared at apex.....2
2. The curved linear depression of thorax extending from humerus to the transverse median depressed line not distinct except near the latter; third sternite distinctly longer than wide.....3
—The curved linear depression distinct and complete.....5
3. Hind femur with two black bands one just beyond middle and the other at apex; humeri pale yellow; disc of mesonotum black, entirely without vittae; fore and mid tarsi yellow .....**biannulata** Malloch.
—Hind femora yellow, without black annuli; thorax black or yellow, with three or more or less distinct vittae; apical two segments of fore and mid tarsi black or brown.....4
4. Third antennal segment yellow..... **campanulata** Robertson.
—Third antennal segment black or fuscous .....**rufiventris** Loew.
5. Anterior width of frons about one-third of the head width; third sternite distinctly wider at apex than long in middle; inner crossvein not more than two-fifths from base of discal cell; scutellum usually with more than two long setulose marginal hairs, **infuscata** Loew.
—Anterior width of frons much less than one-third of the head width; scutellum with two setulose marginal hairs.....6
6. Scutellum distinctly transverse apically, the two long setulose hairs separated by more than half the width of scutellum; third sternite longer than wide.....7
—Scutellum regularly rounded apically, the two setulose hairs separated by less than one-fourth of the basal width of scutellum....8
7. Hind femur conspicuously compressed on lower half apically, widest part distinctly beyond middle; thorax black, abdomen rufous **occidentalis** Malloch.
—Hind femur very slightly compressed apically, widest part close to middle; thorax and abdomen yellow.....**punctata** Cole.
8. Fifth (fourth visible) tergite with a shallow transverse rounded concavity before apex which causes the tip of the segment to flare upwards very slightly, the hairs on this segment and on fifth sternite long and soft; third sternite wider than long; a robust species, about 8 mm. in length.....**armatipes** Malloch.
—Fifth tergite normal in shape; third sternite longer than wide; smaller species, not over 6 mm. in length.....9
9. Fore and mid tarsi with the apical two segments deep black, **keeniana** Williston.
—Fore and mid tarsi yellow, the apical two segments hardly darker, **flavimana** Malloch.

Sphegina lobulifera sp. n.

♂.—Shining black, antennae, lower half of face and a broad fascia on basal half of third tergite of abdomen yellow. Legs yellow, apical

tarsal segment on all legs deep black, subapical one brownish; apical half of hind femora, a mark on apical half of hind tibiae, and most of basal segment of hind tarsi black. Cross-veins and tips of wings slightly clouded.

Head as in *californica*. None of the abdominal sternites with setulae, the peduncle moderately narrow, as in *lobata*. Hind femora much swollen; hind tibiae transverse at apices. Length, 7 mm.

Type, Plummers Island, Maryland, April 30, 1922, on flowers of *Alliaria officinalis* (H. L. Viereck). Type in U. S. National Museum.

This species has the cross-veins more erect and the lower posterior angle of the first posterior cell less rounded than most species. The inner cross-vein is but little in front of middle of discal cell.

A New North American Genus of Cydnidae (Hem.).

By E. P. Van Duzee, San Francisco, California,* Curator, Department of Entomology, California Academy of Sciences.

PSECTROCEPHALUS new genus

Allied to *Pangaeus* but wanting ocelli, and anterior margin of the head armed with comb-teeth. Ovate, subdepressed, sides nearly parallel. Head broadly rounded before; cheeks approaching at apex of tylus but scarcely forming a notch there; edge strongly reflexed, the depressed submargin armed with alternating spines and bristles; eyes small, closely set against anterior angles of pronotum. Ocelli wanting. Antennae five-jointed; segment II thinner and slightly longer than those following. Rostrum reaching intermediate coxae; segment I attaining base of head, III longest and thickest. Pronotum subquadrate; anterior margin shallowly excavated, flattened and punctate but immarginate, armed with one bristle behind inner angle of each eye; sides ciliate, slenderly but acutely carinate; disk without transverse depression. Scutellum a little longer than wide, apex narrowly rounded; punctate, with base nearly smooth. Corium scarcely exceeding scutellum, quite uniformly and coarsely punctured, its apex broadly, feebly arcuate; costa ciliate nearly to apex, the

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