

*Aspidoptera falcata*, new species

(Fig. 42A)

*Aspidoptera falcata* is extraordinarily similar to *delatorrei* Wenzel, and, insofar as I have been able to determine, it differs invariably from that species only in its strongly falcate male postgonites. Females of the two species can be identified with some assurance only by association with the males. Females of *delatorrei* more frequently possess six or seven "discal" setae (in addition to the apical macrosetae) than they do four, on the supra-anal plate. The converse is true of females of *falcata*. Often only a single seta is present on each side, especially in *falcata*, and in this respect such specimens resemble *A. phyllostomatis*.

## DESCRIPTION

With the characters of *Aspidoptera delatorrei* Wenzel, including the several longitudinal rows of long setae on upper portion of mesepisternum. FEMALE. Supra-anal plate occasionally with six, sometimes four discal setae, but commonly with only two (a single seta on each side), in addition to the distal macrosetae. MALE. Postgonites strongly falcate, their distal portion bent at right angles to the long axis of the hypandrium.

## MEASUREMENTS

	Males	Females
BL	1.56-1.87	1.46-2.30
TL	0.47-0.53	0.49-0.55
WL	0.28-0.33	0.31-0.34
WW	0.20-0.23	0.22-0.26

TYPE DATA: Holotype male and allotype female ex *Sturnira lilium* (SVP 226), Venezuela, Dto. Federal, 4 km NNW Caracas, Los Venados, 1,559 m, 25-VII-65. PARATYPES (260 males, 258 females, 5 sex undet. ex 310 *Sturnira lilium*)—VENEZUELA. APURE: 27 males, 22 females, and 1 sex undet., 29 km SSW Santo Domingo, Selvas de San Camilo,

Nulita, 24 m, 17-I-2-II-68. BARINAS: 7 males and 10 females, 2 km SW Altamira, Altamira, 611-620 m, 27-XII-67-4-I-68; 2 males and 1 female, 7 km NNE Altamira, Altamira, 1,070 m, 26-XII-67; 7 males and 6 females, Altamira, 794 m, 19-XII-67-9-I-68. BOLÍVAR: 5 males and 7 females, 56 km SE El Dorado, Km 67, El Manaco, 150 m, 16-VI-66; 17 males and 14 females, 59 km SE El Dorado, Km 74, El Manaco, 150 m, 8-25-VI-66; 1 female, 67 km SSE El Dorado, nr. Río Danta, El Manaco, 150 m, 24-VI-66; 7 males and 3 females, 45 km NE Icabarú, Santa Lucia de Surukun, Icabarú, 851 m, 29-IV-2-V-68; 3 males and 3 females, 85 km SSE El Dorado, Km 125, 1,032 m, 9-V-66; 4 males and 6 females, 28 km SE El Manteco, Los Patos, 150 m, 11-IV-66; 1 male and 2 females, 50 km SE El Manteco, Río Supamo, 150 m, 10-IV-66. CARABOBO: 1 male and 1 female, 2 km SE Montalbán, Potrerito, Montalbán, 598 m, 31-X-1-XI-67; 2 females, 3 km SW Montalbán, Hda. La Canada, Montalbán, 618 m, 22-XI-67; 3 males, 4 km NW Montalbán, La Copa, Montalbán, 1,537 m, 28-XI-67; 1 female, 10 km NW Urama, El Central, Urama, 25 m, 15-XI-65. DTO. FEDERAL: 3 males, 1 female, and 1 sex undet., nr. El Limón, 48 km W Caracas, Hda. Carapiche, 398 m, 19-21-VIII-66; 28 males and 36 females, same locality as holotype and allotype, except for 1,400-1,560 m, 30-VI-2-VIII-65. FALCÓN: 1 female, 84 km NW Carora, Cerro Socopito, 1,260 m, 17-V-68; 2 males and 4 females, 80 km NW Carora, Río Socopo, 470-480 m, 21-29-V-68; 21 males and 39 females, 19 km NW Urama, km 40, Urama, 25 m, 13-X-65-6-III-66. GUÁRICO: 1 male, 14 km SE Calabozo, nr. Río Orituco, Estacion Biologicas de los Llanos, 100 m, 21-VIII-68; 1 male, 9 km SE Calabozo, Estacion Biologicas de los Llanos, 100 m, 19-VIII-68; 4 males and 2 females, 10 km NE Altagracia, Hda. Elvira, 630 m, 16-IX-66; 4 males and 2 females, 10 km N Altagracia, Río Orituco, 470 m, 20-IX-66. LARA: 1 male, 10 km N El Tocuyo, Caserio Boro, El Tocuyo, 528 m, 14-VII-68. MIRANDA: 1 male and 1 female, 1 km S Río Chico, 1 m, 25-X-2-XI-66; 3 males and 1 female, Biringo, 60 m, 22-I-68; 2 males, 5 km NNW Guarenas, Curupac, 1,120-1,180 m, 13-14-X-66; 6 males and 3 females, 21 km NW Altagracia, Parque Nac. Guatopo, 630 m, 22-IX-2-X-66. MONAGAS: 2 males and 2 females, 3 km NW Caripe, nr. San Agustín, 1,165-1,275 m, 4-II-VII-67; 1 male and 2 females, 5 km NW Caripe, San Agustín, 1,160-1,170 m, 3-5-VII-67. SUCRE:

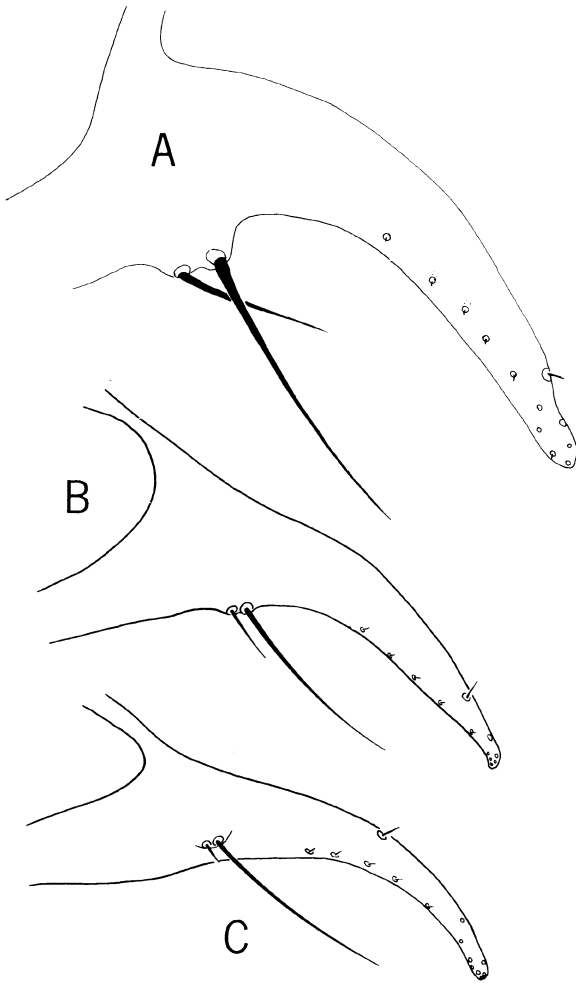


Fig. 42. Male Postgonites: A, *Aspidoptera falcata*, new species (SVP 2184); B, *Aspidoptera delatorrei* Wenzel; C, *Aspidoptera phyllostomatis* (Perty). B-C from Wenzel et al. (1966).

1 male and 1 female, 16 km E Cumaná, 1 m, 7-XII-66; 1 male and 2 females, 21 km E Cumaná, 1-15 m, 14-23-XII-66; 6 males and 2 females, 11 km NE Güiria, Ensenada Cauranta, 75 m, 10-VI-67; 6 males and 1 female, 12 km NE Güiria, Ensenada Cauranta, 90 m, 17-19-VI-67; 5 males and 8 females, 9 km NE Güiria, Ensenada Cauranta, 1-4 m, 4-15-VI-67; 1 female, 26 km ESE Carúpano, Manacal, 175 m, 27-VII-67. T. F. AMAZONAS: 1 female, 56 km NNW Esmeralda, Caño Culebra, Belén, 150 m, 2-II-67; 1 male and 1 female, 56 km NNW Esmeralda, Río Cunucunuma, Belén, 150 m, 2-10-II-67; 14 males and 7 females, 25 km S Pto. Ayacucho, Paria, Pto. Ayacucho, 114 m, 13-IX-6-X-67; 2 males, 28

km S Pto. Ayacucho, Guayabal, Pto. Ayacucho, 135 m, 7-X-67; 3 males, 30 km S Pto. Ayacucho, Coromoto, Pto. Ayacucho, 126 m, 8-9-X-67; 4 males and 4 females, 32 km S Pto. Ayacucho, Raya, Pto. Ayacucho, 135 m, 6-7-IX-67; 10 males and 7 females, 163 km ESE Pto. Ayacucho, Río Manapiare, San Juan, 155 m, 6-24-VII-67. TRUJILLO: 2 males and 8 females, 19 km N Valera, nr. Agua Viva, Valera, 164 m, 3-IX-7-X-65; 1 male and 2 females, 23 km N Valera, nr. Agua Viva, Valera, 164 m, 17-IX-65; 1 male and 4 females, 25 km NW Valera, nr. Agua Santa, Valera, 90 m, 15-VIII-18-X-65. YARACUY: 5 males and 6 females, 10 km NW Urama, El Central, Urama, 25 m, 8-14-III-66; 1 female, 11 km NW Urama, El Central, Urama, 25 m, 14-III-66. ZULIA: 7 males and 5 females, 39 km WNW Encontrados, El Rosario, 37 m, 31-III-1-IV-68; 5 males, 7 females, and 1 sex undet., 42 km WNW Encontrados, El Rosario, 24 m, 3-5-III-68; 22 males, 16 females, and 2 sex undet., 60 km WNW Encontrados, Boca del Río de Oro, El Rosario, 73 m, 17-20-III-68; 1 female, 19 km WSW Machiques, Novito, 1,135 m, 5-V-68.

OTHER VENEZUELAN SURVEY MATERIAL EXAMINED (130 males, 115 females, and 1 sex undet.)

APURE: 1 male ex 1 *Carollia perspicillata*, 1 female ex *Sturnira ludovici*, 29 km SSW Santo Domingo, Selvas de San Camilo, Nulita, 24 m, 17-I-2-II-68.

BARINAS: 5 males and 10 females ex *Sturnira ludovici*, 2 km SW Altamira, Altamira, 611-620 m, 26-XII-67-3-I-68; 2 males and 1 female, same host, Altamira, 794 m, 21-XII-67-10-I-68.

BOLÍVAR: 1 male ex 1 *Artibeus cinereus*, 59 km SE El Dorado, Km 74, El Manaco, 150 m, 25-VI-66; 6 males ex *Sturnira tildae*, 45 km NE Icabarú, Santa Lucía de Surukun, Icabarú, 851 m, 30-IV-2-V-68; 3 males and 3 females, same host, 85 km SSE El Dorado, Km 125, 1,032-1,165 m, 9-23-V-66.

CARABOBO: 1 female ex *Sturnira ludovici*, 13.5 km NE Montalbán, La Voluntad, Montalbán, 1,007 m, 2-XI-67; 1 male, same host, 2 km SE Montalbán, Potrerito, Montalbán, 598 m, 31-X-67; 4 males and 3 females, same host, 4 km NW Montalbán, La Copa, Montalbán, 1,537 m, 29-XI-67.

DTO. FEDERAL: 1 male ex 1 *Vampyrops umbratus*, 5 km NW Caracas, nr. Clavelitos, Boca Tigre Valley, 1,394 m, 27-VIII-65; 1 female ex 1 *Sphaeronycteris toxophyllum*, 2 males ex

*Sturnira ludovici*, 4 km NNW Caracas, Los Venados, 1,400-1,507 m, 23-VII-2-VIII-65; 1 male, same host, nr. El Limón, 48 km W Caracas, Hda. Carapiche, 398 m, 20-VIII-66.

GUARICO: 6 males and 9 females ex *Sturnira ludovici*, 10 km NE Altigracia, Hda. Elvira, 630 m, 16-IX-66.

MIRANDA: 4 males and 2 females ex *Sturnira ludovici*, Birongo, 60 m, 22-I-68; 6 males and 6 females, same host, 5 km NNW Guarenas, Curupao, 1,160 m, 5-13-X-66; 15 males and 10 females, same host, 21 km NW Altigracia, Parque Nac. Guatopo, 630 m, 22-24-IX-66; 1 female, same host, 5 km NNE Caracas, nr. Hotel Humboldt, Pico Ávila, 2,124 m, 12-IX-65.

MONAGAS: 1 male and 1 female ex *Sturnira ludovici*, 3 km NW Caripe, nr. San Agustín, 1,345 m, 11-VII-67.

SUCRE: 1 female ex *Sturnira tildae*, 12 km NE Güiría, Ensenada Cauranta, 90 m, 17-VI-67; 1 female ex *Artibeus jamaicensis*, 21 km E Cumaná, 1 m, 10-XII-66.

T. F. AMAZONAS: 1 female ex *Artibeus jamaicensis*, 1 male ex 1 *Phyllostomus hastatus*, 163 km ESE Pto. Ayacucho, Río Manapiare, San Juan, 155 m, 24-27-VII-67; 1 male and 1 female ex 2 *Artibeus fuliginosus*, 29 males and 28 females ex *Sturnira tildae*, 56 km NNW Esmeralda, Río Cunucunuma, Belén, 150-155 m, 1-I-2-II-67; 27 males and 25 females, same host, 56 km NNW Esmeralda, Caño Culebra, Belén, 150 m, 2-3-II-67; 5 males and 3 females, same host, 84 km SSE Esmeralda, Boca Mavaca, 138 m, 6-III-67; 1 male, same host, 106 km SW Esmeralda, Brazo Casiquiare, Capibara, 130 m, 29-V-67; 7 males, 4 females, and 1 sex undet., same host, 108 km SSE Esmeralda, Río Mavaca, 140 m, 14-IV-67; 1 female, same host, Río Orinoco, Tamatama, 135 m, 30-IV-67.

YARACUY: 1 female ex 1 *Uroderma bilobatum*, 10 km NW Urama, El Central, Urama, 25 m, 14-III-66.

#### HOST ASSOCIATIONS

Of 755 specimens of *Aspidoptera falcata* collected by the survey teams, 520 (69 percent) were from 310 *Sturnira lilium*, 143 (19 percent) were from 61 *Sturnira tildae*, 92 (12 percent) were from 54 *Sturnira ludovici*, and 8 (1 percent) were from 8 bats of 6 other species.

Of interest is the fact that *A. falcata* was collected from *S. lilium* at each of the three localities in Zulia at which *A. delatorrei* was taken, but not from the same individual bats.

#### REMARKS

I have restricted the type series of *Aspidoptera falcata* to specimens taken from *Sturnira*

*lilium*, although specimens were commonly taken from *S. ludovici* and *S. tildae*.

The regular occurrence of *A. falcata* on three of the six species of *Sturnira* that were collected in Venezuela is interesting when compared with the host distribution of the closely related *delatorrei* in Central America (Wenzel et al., 1966). The type series of *delatorrei*, though small, were all taken from *Sturnira lilium parvidens* in Panama, Guatemala, and Mexico. None were taken from *S. ludovici*, although 50 percent of the 89 Panamanian specimens of this host that were examined for parasites were positive for Streblidae. However, *Trichobius brennani* Wenzel—a species that was not collected in Venezuela—was taken from almost 19 percent of those Panamanian specimens of *ludovici* that were parasitized by streblids. The absence of *brennani* in Venezuela is certainly not an “artifact of collecting,” since 342 specimens of *ludovici* were examined for parasites, and more than 40 percent of these were positive for Streblidae. Interestingly, in Venezuela no specimens of *Aspidoptera* were taken from *Sturnira erythromos*, *S. bogotensis*, or *S. bidens*. Instead, these hosts were parasitized by a species of *Trichobius*—*Sturnira erythromos* and *S. bogotensis* by *Trichobius petersoni* n. sp. and *S. bidens* by *T. hispidus* n. sp. It should be noted that species of *Megistopoda* were taken from all of these hosts excepting *S. bidens*. The failure to retrieve a *Megistopoda* species from *S. bidens* may be due to inadequate sampling, since only 16 specimens of this bat were collected and 14 examined for parasites.