

學名 *Dincolonus formosanus* Mats.

昆蟲學上の地位、姬蜂科。Thoms. Ins. Jap. Suppl., IV, p. 239, pl. LV, f. 24, ♂ (non ♀), N. 997 (1912)

體は淡黄褐、點刻及び淡黄褐の短毛多し。觸角は暗褐(柄節は黄褐)。中胸背に少しく濃色の三縱條を裝ふ。稜狀部は三稜形をなして突出す。翅は半透明、暗褐を帯び、基部の三分の一、縁紋並に其の周圍は黄褐、脈は暗褐。腹部の接合部は甚だしく縊れ、第三節の後縁及び以下の四節は黒藍色、縦皺及び點刻多し。脚は淡黄褐、後肢は暗褐、但し基節の基部及び轉節は黄褐。體長六分、其の形普通のアゲハヒメバチに酷似す。

分布——臺灣(恒春、埔里社)。

(339) アコウヒメバチ 續千蟲四。二四〇頁 (N. 998) (第十八圖(25) (♀))

學名 *Atanyjoppa akonis* Mats.

昆蟲學上の地位、姬蜂科。Thoms. Ins. Jap. Suppl., IV, p. 240, pl. LV, f. 25, ♀, N. 998 (1912)

體は淡黄褐。觸角は紡錘狀にして、黄褐、中央は黄白、末端は暗褐。大腿の末端は黒褐。頭部には點刻少なしと雖も、胸部には多し。稜狀部は隆起し、其の兩側には縦隆あり。後胸背に於ける網狀の隆起は判然せず。翅は稍や透明、黄色を帯び、脈及び縁紋は淡黄褐。腹部は胸部より細く、尾端の三節は黒色、但し第五節基部の兩側は黄色、第六及び第七節の末端は灰白。産卵管は尾端の二節と同長。脚は淡黄褐、後肢に於ける腿節及び脛節の末端は黒色、同三跗節の各末端並に末端の二節は暗褐。體長五分。此は臺灣地方に産すれども稀なり。

分布——臺灣(獼猴)。

(340) ヲキナハチビヒメバチ 續千蟲四。二四一頁 (N. 999) (第十八圖(26) (♀))

學名 *Dicelolus diminutus* Mats.

昆蟲學上の地位、姬蜂科。Thoms. Ins. Jap. Suppl., IV, p. 241, pl. LV, f. 26, ♀, N. 999 (1912)

體は黒色。點刻及び灰白の短毛多し。觸角は暗褐、中央は黄白、基部にある各五節の末端は黄褐。翅底鱗は暗褐。稜狀部は黄色。後胸背にある網目狀の隆起は判然す。翅は半透明、少しく暗色を帯び、脈及び縁紋は暗褐。腹部は赤黄、第四及び第五の兩節は黒色、第五節の後縁紋及び尾端の二節は灰白。脚は黄褐、基節及び轉節は淡色、後肢に於ける腿節の末端、脛節及び跗節(各節の基部は黄褐)は暗褐。體長二分二厘。此は沖繩に産す。黒岩恒氏の採集に係るものなり。

分布——沖繩。

(341) ヲヒワケヒメバチ 續千蟲四。二四二頁 (N. 1000) (第十八圖(27) (♀))

學名 *Proclitellum oiwanensis* Mats.

昆蟲學上の地位、姬蜂科。Thoms. Ins. Jap. Suppl., IV, p. 242, pl. LV, f. 27, ♀, N. 1000 (1912)

體は黒色、點刻及び褐色の短毛多し。頭頂に於ける複眼の内側及び稜狀部は黄色。兩鬚及び觸角は暗褐、後者中央の前面は黄白。額片の前縁は少しく褐色を帯ぶ。稜狀部は少しく隆起し、其の前方は凹陥す。後胸背にある網目様の隆起は餘り判然せず、兩側にある突起は低し。翅は半透明、暗色を帯び、光線の工合にて少しく紫色を現はし、脈は黒褐、縁紋は黄褐。第一腹節は暗褐、其の後縁、第二及び第三腹節(前後兩縁は狭く暗褐)は赤褐、



尾端の四節は黒色にして、少しく藍色を帯び、第二節の凹陥は稍や三角形をなす。脚は黒褐、前肢脛節及び跗節の外側は黄色、中肢の脛節及び跗節は暗褐、距は黄褐、爪は暗褐。體長七分五厘。此は信州地方に産すれども、其の數餘り多からざるが如し。

分布——本州（信州追分）。

(342) アシマダラホソヒメバチ 續千蟲四。二四三頁 (N. Suppl. 1) (第十八圖 (28) (♀))

學名 *Aerogonia varipes* Mats.

昆蟲學上の地位、姬蜂科。Thous. Ins. Jap. Suppl., IV, p. 243, pl. IV, f. 28, ♀, N. Suppl. 1 (1912)

體は黒色、微小の點刻あれども、餘り判然せず、黄褐の短毛多し。觸角は暗褐、各節の基部及び下面は黄褐。兩鬚は黄色。翅底鱗は暗黄。中胸背の中央は少しく凹陥し、後胸背は稍や滑澤にして、隆起を缺き、卵形をなす。翅は半透明、少しく灰黄を帯び、縁紋及び脈は黄褐。腹部は細長にして、第一節の基部に二縦隆を裝ひ、後縁は凹陥し、之れに縮皺多く、第二及び第二節の中央は少しく凹陥し、第二節の凹陥には縦皺を裝ひ、各節の接合部は多少緊縮す。脚は赤黄、後肢は黒色、轉節、腿節の兩端、脛節(末端及び基部に近き一紋は黒色)及び跗節(各節の末端は暗褐)は黄色、腿節は何れも膨大す。體長三分五厘。此は京都地方に産す。鈴木元次郎氏の採集に係るものなり。

分布——本州（京都）。

(343) シロツマヒメバチ 續千蟲四。二四四頁 (N. Suppl. 2) (第十八圖 (29) (♂))

學名 *Chaenoryptus tarsalis* Mats.

昆蟲學上の地位、姬蜂科。Thous. Ins. Jap. Suppl., IV, p. 244, pl. IV, f. 29, ♂, (non ♀), N. Suppl. 2 (1912)

體は黒色、粗大の點刻を具へ、灰白の短毛多し。前頭、額片、上唇、大腮(末端は暗褐)、兩鬚、頰の一紋、觸角の末端に近き一部(約五節)、前胸背の前縁、稜状部の中央及び各腹節の後縁は黄色。觸角は長くして、體長を越へ、中胸背には粗大の點刻を粗布し、割合に太き縦皺あり。後胸背は粗糙にして、縮刻多く、基部に近く弓状をなせる一横隆を裝ふ。翅は半透明、少しく暗黄色を帯び、縁紋及び脈は暗褐。腹部は細長く、第一節の兩側に細き縦溝あり、第二節の基部に近き兩側に卵形の小黄紋を具へ、第三節基部の兩側にも亦、黄紋を裝ふ。産卵管は短かけれども、太し。脚細長く、前肢は黄褐(腿節の中央は暗褐)、中肢の兩肢は黒色、基節の末端(中肢の基節は下面も黄色)、第二轉節、腿節及び脛節の基部(但し中肢の脛節及び跗節は黄褐)は淡黄褐、後肢にありては第一跗節の末端、第二、第三、第四及び第五跗節の基部は黄白、距の末端及び爪は赤褐。體長四分二厘。此は京都に産すれども稀なり。

分布——本州（京都）。

(344) ツヤアカハラヒメバチ 續千蟲四。二四六頁 (N. Suppl. 3) (第十八圖 (30) (♀))

學名 *Heteroschinus pedestris* Mats.

日本千蟲圖解



昆蟲學上の地位、姬蜂科。Thous. Ins. Jap. Suppl., IV, p. 246, pl. LV, f. 30, ♀ (N. Suppl. 3)  
(1912)

體は黒色、腹部は甚だしく光澤を帯び、小形の點刻を粗布し、灰白の短毛多し。觸角及び大腮(末端は暗褐)は赤褐。兩鬚は黄色。翅底鱗は暗褐。稜状部は低き三稜形を呈し、其の前方は深き卵形をなして凹陷す。後胸背の中央に二個の縦隆ありて、其の間室の下半に横皺多し。翅は半透明、少しく暗黄を帯び、脈は黄褐、前縁及び後縁は暗褐。腹部は黒色、第一節の後縁(細く)、第二及び第三節は赤褐、腹柄は第二節より長く、尾節(腹面)の後縁及び脚は黄褐。後肢の腿節及び脛節の兩端は暗褐を帯び、距は黄色。體長三分五厘。此は京都地方に産す。

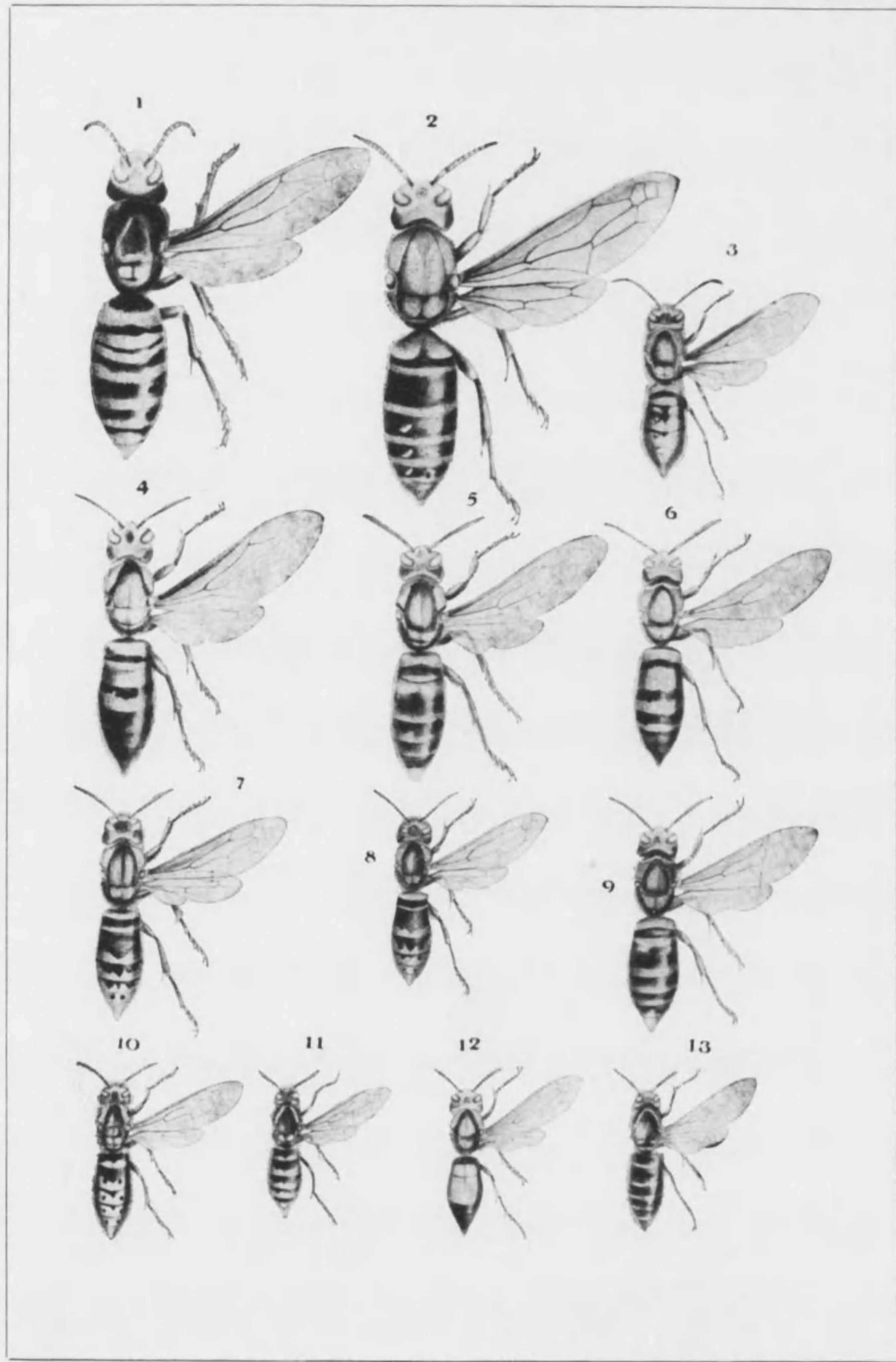
分布——本州(京都)。

増訂 日本千蟲圖解 (第二卷) 終  
(膜翅目之部)

PLATE I.

第一圖





第 一 圖 (PLATE I.)

		Page
1.	<i>Vespa mandarina</i> Sm. (♀)      スズメバチ	1
2.	<i>Vespa magnifica</i> Sm. subsp. <i>sonani</i> Mats. (♀)	
	タイワンオホスズメバチ	1
3.	<i>Vespa auraria</i> Sm. (♀)      キイロスズメバチ	2
4.	<i>Vespa ducalis</i> Sm. (♀)      ヒメスズメバチ	2
5.	<i>Vespa magnifica</i> Sm. subsp. <i>sonani</i> Mats. (♀)	
	タイワンオホスズメバチ	1
6.	<i>Vespa flavofasciata</i> Cam. (♀)      キヲビスズメバチ	2
7.	<i>Vespa crabro</i> L. subsp. <i>crabroniformis</i> Sm. (♀)	
	モンズズメバチ	3
8.	<i>Vespa crabro</i> L. subsp. <i>crabroniformis</i> Sm. (♀)	
	モンズズメバチ	3
9.	<i>Vespa parallela</i> André (♀)      コガタモンズズメバチ	4
10.	<i>Vespa mongolica</i> André (♀)      ヒメモンズズメバチ	5
11.	<i>Vespa rufa</i> L. subsp. <i>sibirica</i> André (♀)      オホクロスズメバチ	5
12.	<i>Vespa formosana</i> Sonan (♀)      ツマグロスズメバチ	6
13.	<i>Vespa japonica</i> Sauss. (♀)      クロスズメバチ	6



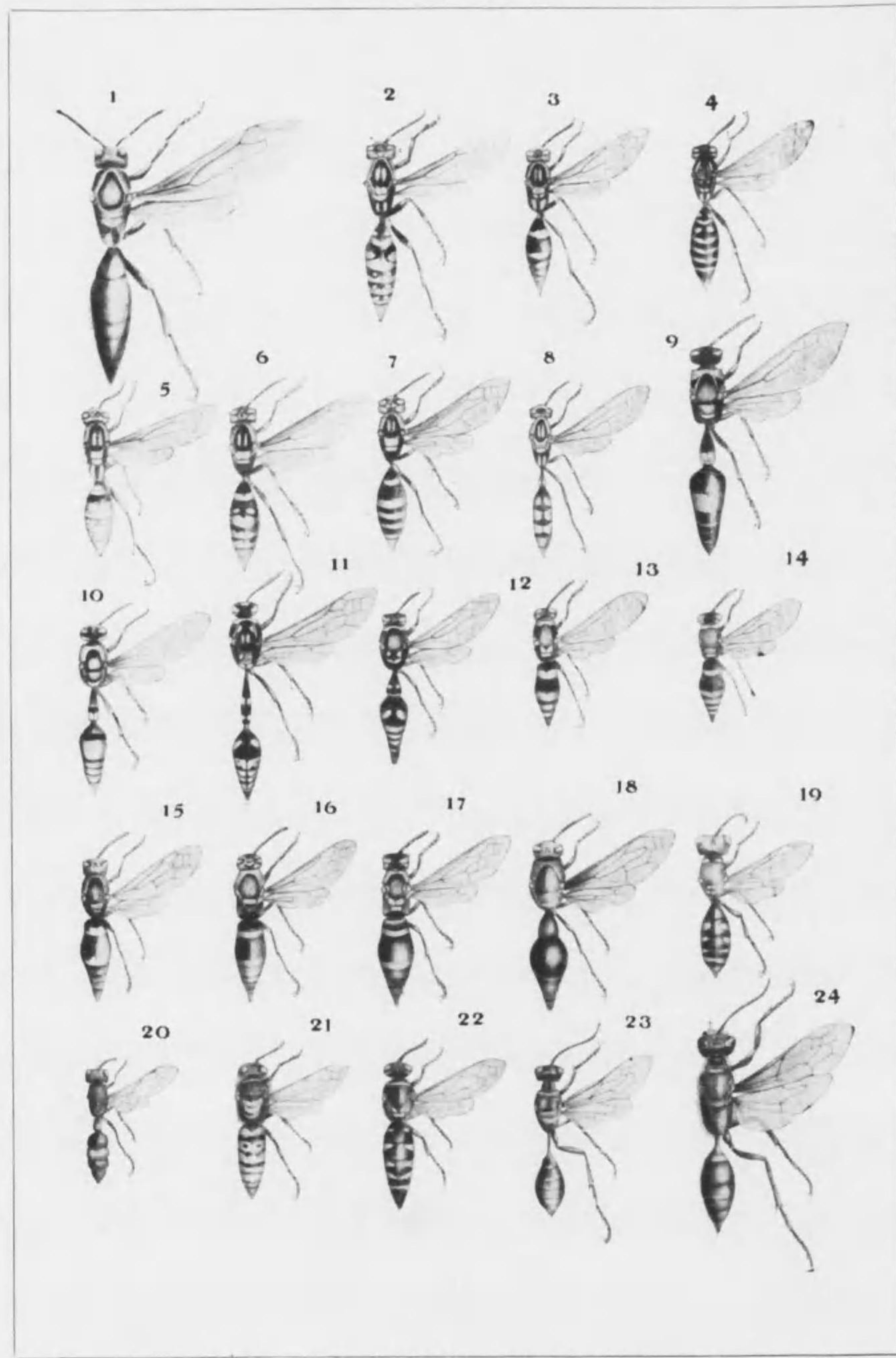
PLATE II.

第

二

圖





第 二 圖 (PLATE II.)

	Page
1. <i>Polistes confusus</i> Sm. (♀)	トビイロアシナガバチ 7
2. <i>Polistes hebraeus</i> F.	アシナガバチ 7
3. <i>Polistes yokohamae</i> Rad. (♀)	コアシナガバチ 8
4. <i>Polistes gallicus</i> L. (♀)	コフトモンアシナガバチ 8
5. <i>Polistes yayeyamae</i> Mats. (♀)	ヤエヤマアシナガバチ 9
6. <i>Polistes erythrocerus</i> Cam. (♀)	ヒメアシナガバチ 9
7. <i>Polistes mandarinus</i> Sauss. (♀)	キボシアシナガバチ 10
8. <i>Polybia orientalis</i> Sm. (♀)	ホソアシナガバチ 10
9. <i>Eumenes japonica</i> Sauss. (♀)	スズバチ 11
10. <i>Eumenes esuriens</i> F. (♀)	クロスチスズバチ 11
11. <i>Eumenes arcuata</i> F. (♀)	ハラナガスズバチ 12
12. <i>Eumenes pomiformis</i> L. (♀)	トツクリバチ 12
13. <i>Odynerus flavolineatus</i> Sm. (♀)	キスチドロバチ 13
14. <i>Odynerus mikado</i> Kirsch. (♀)	ミカドドロバチ 13
15. <i>Rhynchium flavomarginatum</i> Sm. (♀)	クロバネドロバチ 14
16. <i>Rhynchium haemorrhoidale</i> F. (♀)	シリアカドロバチ 14
17. <i>Rhynchium mandarinum</i> Sauss. (♀)	フトフタヲビドロバチ 15
18. <i>Monotezumia indica</i> Sauss. (♀)	クロドロバチ 15
19. <i>Crabro sapporensis</i> Mats. (♀)	オホギングチバチ 16
20. <i>Cerceris unifasciata</i> Sm. (♀)	ツチスガリ 16
21. <i>Bembix nipponica</i> Sm. (♀)	ハナダカバチ 17
22. <i>Sphex pectoralis</i> Sm. (♀)	キアシハナダカバチ 17
23. <i>Sphex nigripes</i> Sm. (♀)	ツツアナバチ 18
24. <i>Sphex umbrosus</i> Christ. (♀)	クロアナバチ 18



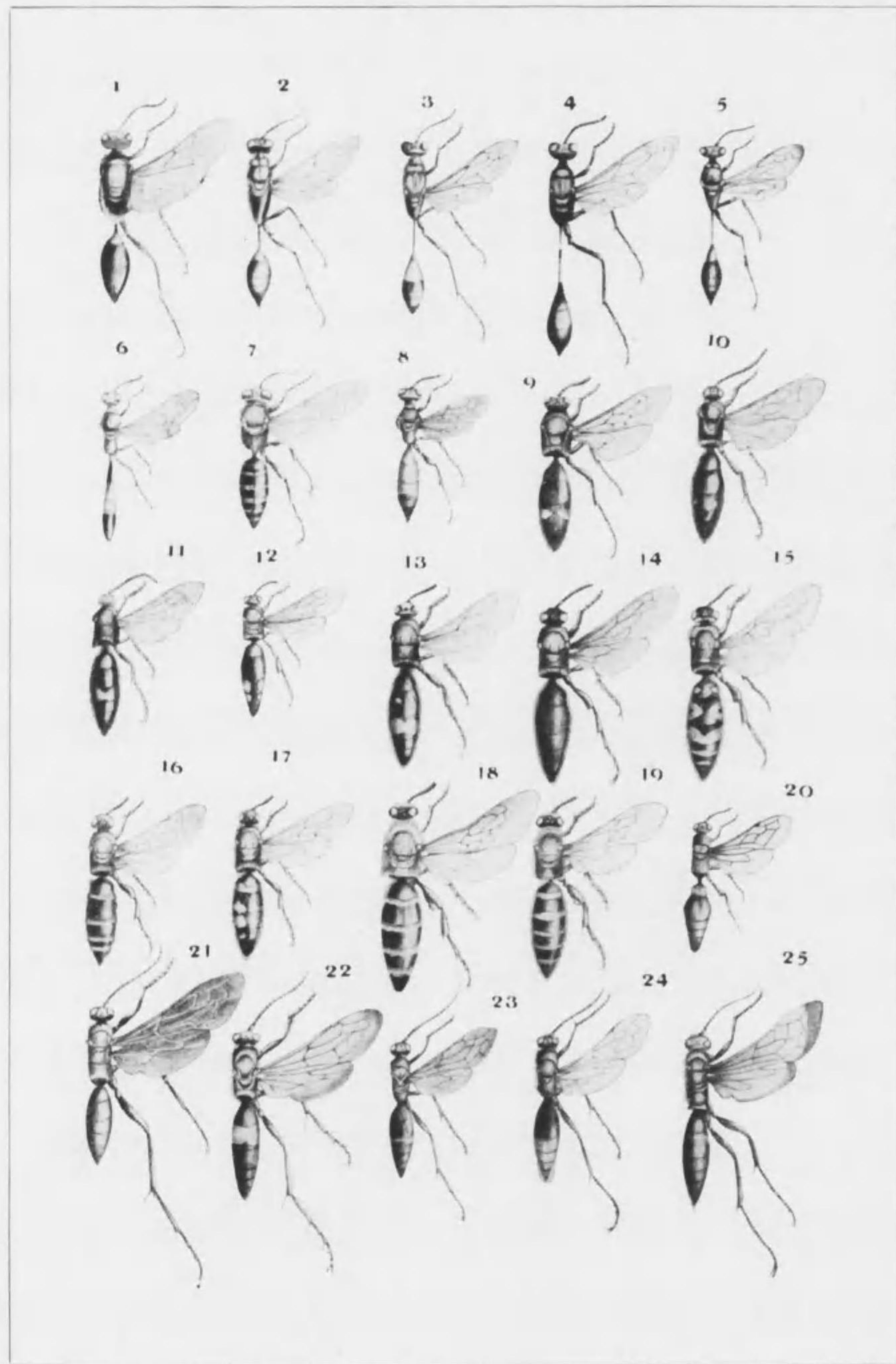
PLATE III.

第

三

圖





第 三 圖 (PLATE III.)

		Page
1.	<i>Sphex aurulentus</i> F. (♀)	19
2.	<i>Sceliphron violaceum</i> F. (♀)	19
3.	<i>Ammophila infesta</i> Sm. (♀)	20
4.	<i>Ammophila atripes</i> Sm. (♀)	20
5.	<i>Sceliphron madraspatanum</i> F. (♀)	21
6.	<i>Trypoxylon obsonator</i> Sm. (♀)	21
7.	<i>Tachytes saundersi</i> Sm. (♀)	22
8.	<i>Larra amplipennis</i> Sm. (♀)	22
9.	<i>Scolia fasciata</i> Sm. (♀)	23
10.	<i>Scolia fasciata</i> Sm. (♂)	23
11.	<i>Scolia oculata</i> Mats. (♂)	23
12.	<i>Scolia 4-pustulata</i> F. (♀)	24
13.	<i>Scolia hopponis</i> Mats. (♀)	24
14.	<i>Scolia carbonaria</i> Sauss. (♀)	25
15.	<i>Elis ocellata</i> Mats. (♀)	25
16.	<i>Elis annulata</i> F. (♀)	26
17.	<i>Elis japonica</i> Sm. (♀)	26
18.	<i>Elis grossa</i> F. (♀)	27
19.	<i>Elis aurulenta</i> Sm. (♀)	28
20.	<i>Tiphia fuscipennis</i> Sm. (♀)	28
21.	<i>Macromeris violacea</i> F. (♀)	28
22.	<i>Pompilus atrocissimus</i> D. T. (♀)	29
23.	<i>Pompilus fallaciosus</i> Mats. (♀)	29
24.	<i>Pompilus analis</i> F. (♀)	30
25.	<i>Pompilus unifasciatus</i> Sm. (♀)	31



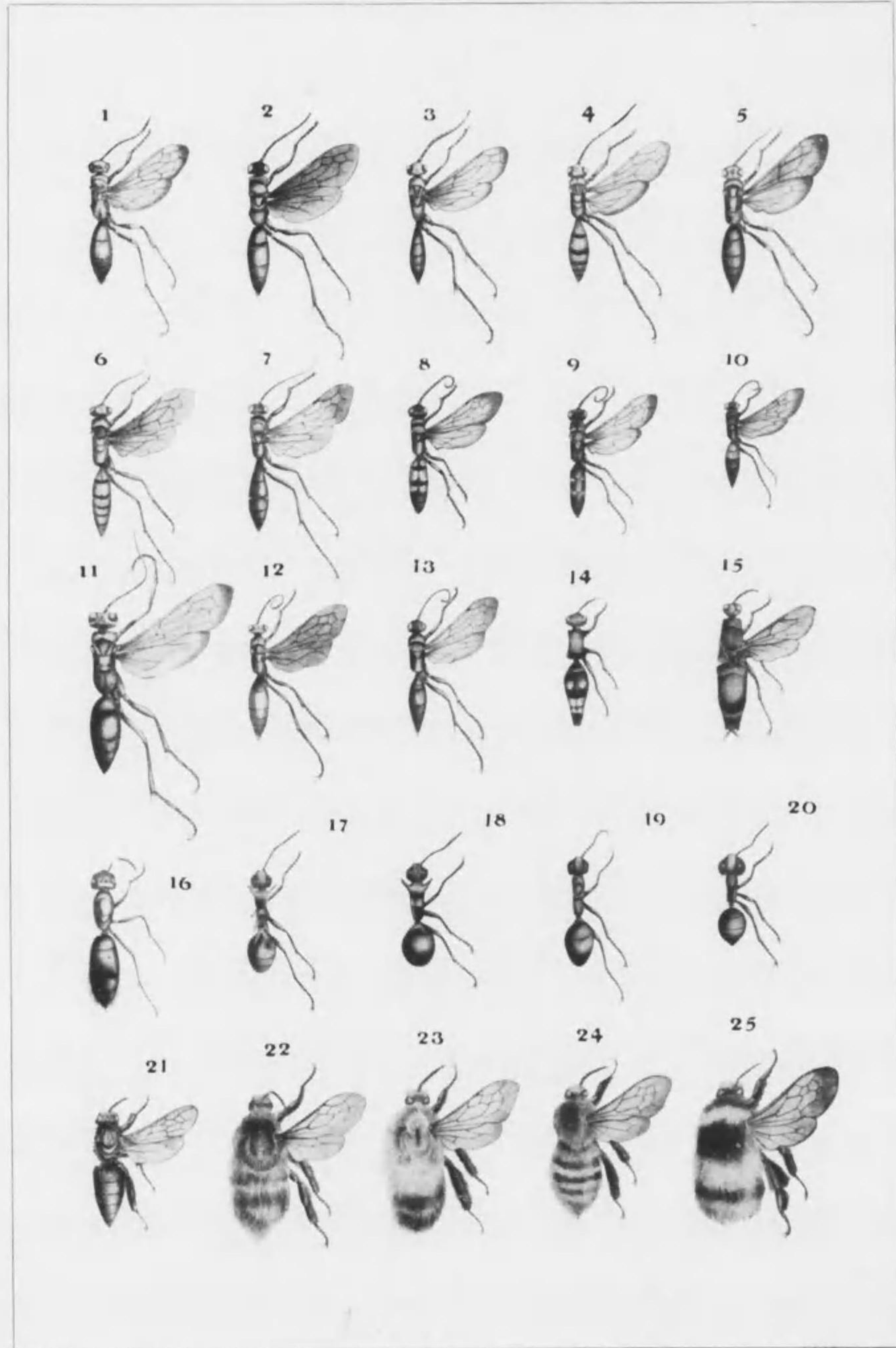
PLATE IV.

第

四

圖





第 四 圖 (PLATE IV.)

		Page
1.	<i>Pompilus unifasciatus</i> Sm. (♂)	キヲビベツカフ 31
2.	<i>Pompilus ignobilis</i> Sauss. (♀)	ヲキナハルリベツカフ 31
3.	<i>Pompilus abdominalis</i> Mats. (♀)	ハラグロベツカフ 32
4.	<i>Salius fenestratus</i> Sm. (♂)	ヲキナハベツカフ 32
5.	<i>Pompilus bioculatus</i> Bingh. (♀)	モンベツカフ 33
6.	<i>Salius terauchii</i> Mats. (♀)	テラウチベツカフ 33
7.	<i>Salius internalis</i> Mats. (♀)	キズネベツカフ 34
8.	<i>Pompilus propinquus</i> Sm. (♀)	ムツボシベツカフ 35
9.	<i>Pompilus arrogans</i> Sm. (♀)	オホシロフベツカフ 35
10.	<i>Pompilus reflexus</i> Sm. (♀)	アカボシベツカフ 36
11.	<i>Salius flavus</i> Sm. (♀)	ベツカフバチ 36
12.	<i>Salius sinensis</i> Sm. (♀)	クロバベツカフ 36
13.	<i>Salius irritabilis</i> Sm. (♀)	クロベツカフ 37
14.	<i>Mutilla formosana</i> Mats. (♀)	タイワンアリバチ 37
15.	<i>Stilbum cyanurum</i> Först. subsp. <i>amethystinum</i> F. (♀)	オホセイボウ 38
16.	<i>Camponotus ligniperdus</i> L. (♀)	オホアリ 39
17.	<i>Polyrhachis lamellidens</i> Sm. (♀)	トゲアリ 39
18.	<i>Polyrhachis tyrannicus</i> Sm. (♀)	ハヒイロトゲアリ 39
19.	<i>Formica rufa</i> L. (♀)	アカアリ 40
20.	<i>Lasius fuscus</i> L. (♀)	クロクマアリ 41
21.	<i>Apis indica</i> F. subsp. <i>japonica</i> Rads. (♀)	ミツバチ 42
22.	<i>Bombus tersatus</i> Sm. (♀)	キイロマルハナバチ 42
23.	<i>Bombus diversus</i> Sm. (♀)	トラマルハナバチ 42
24.	<i>Bombus equestris</i> F. (♀)	ウスイロマルハナバチ 43
25.	<i>Bombus sapporensis</i> Rohw. (♀)	オオマルハナバチ 43



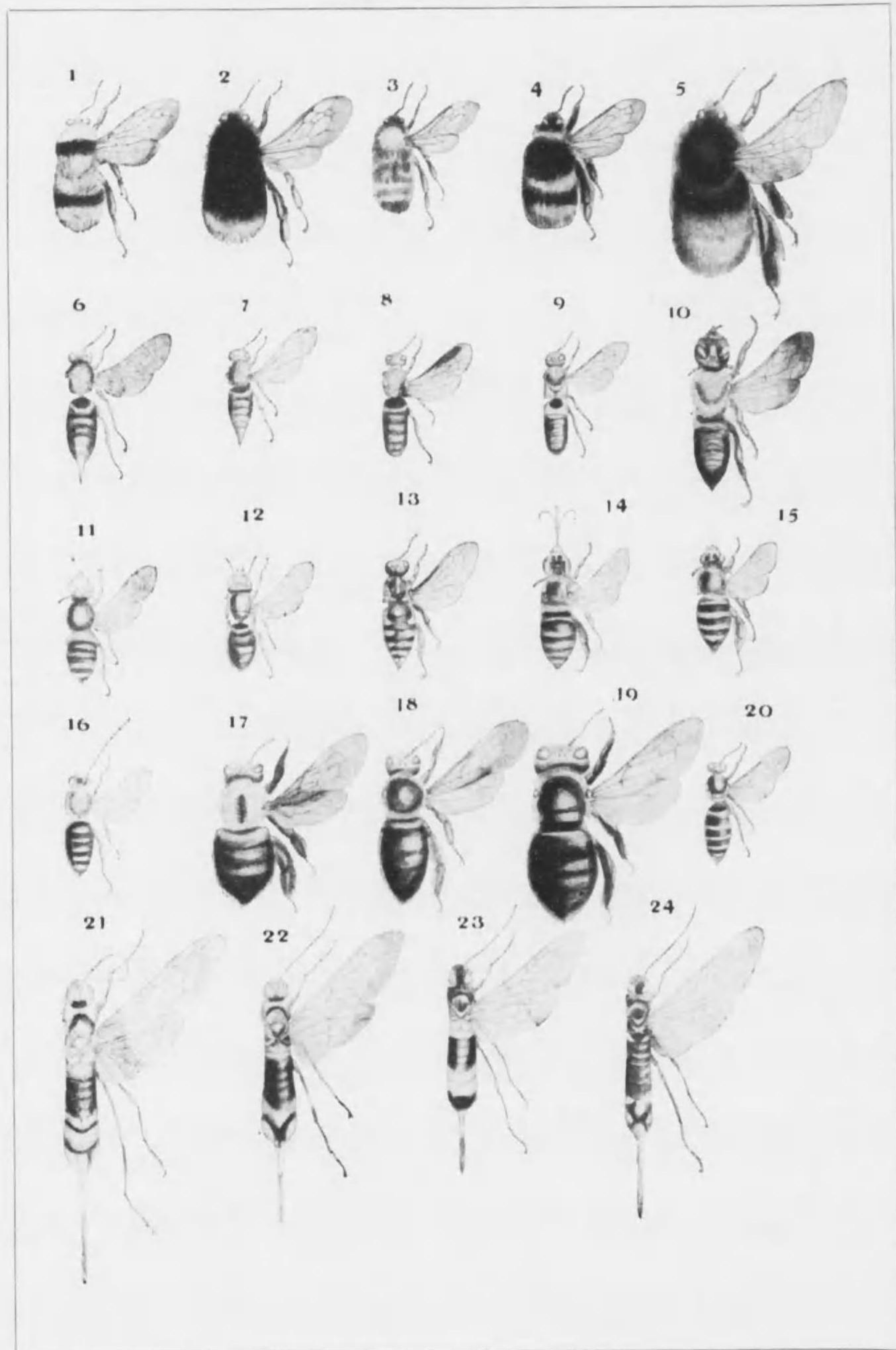
PLATE V.

第

五

圖





第 五 圖 (PLATE V.)

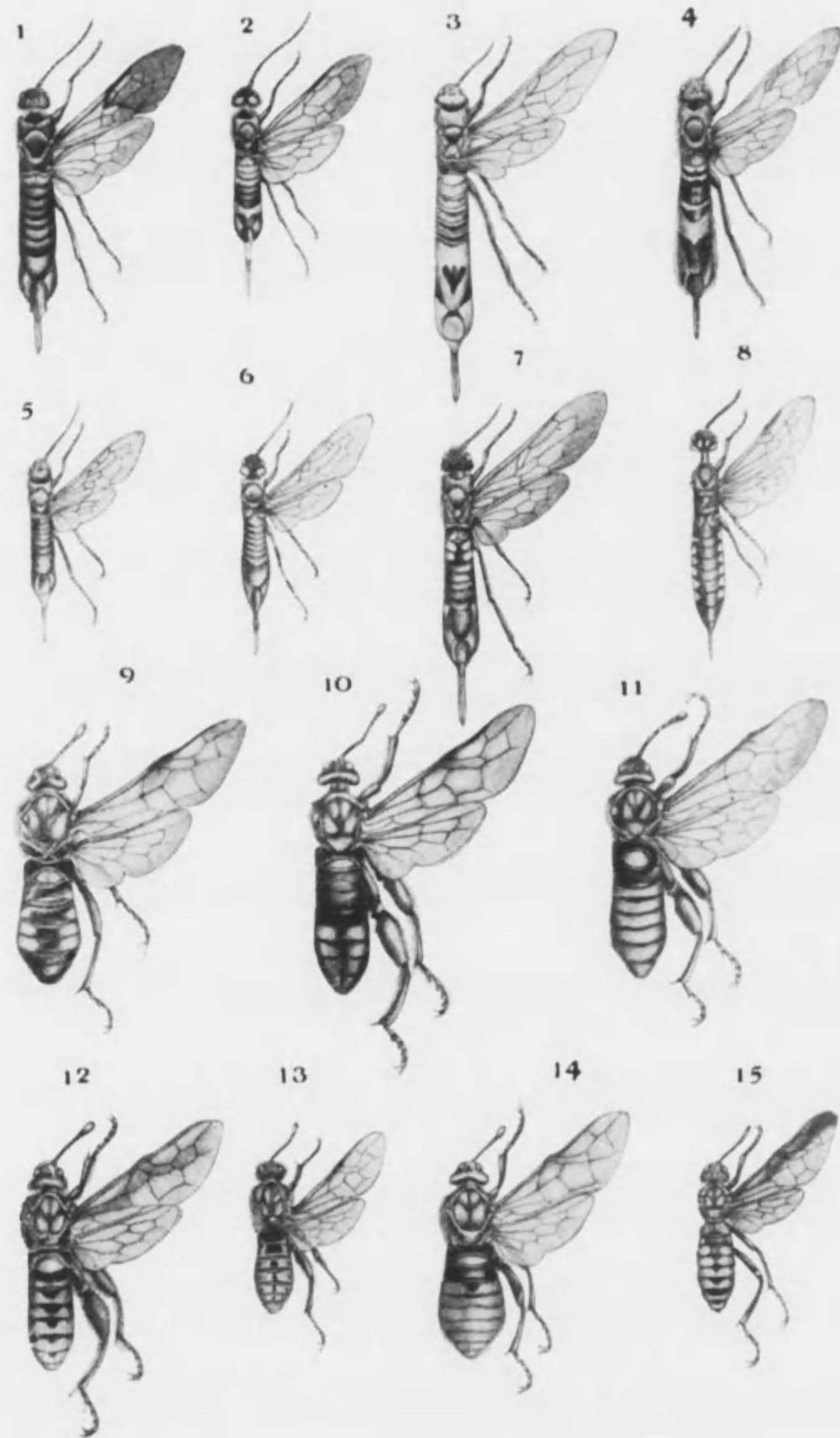
		Page
1.	<i>Bombus speciosus</i> Sm. (♀)	マルハナバチ 44
2.	<i>Bombus ignitus</i> Sm. (♀)	クロマルハナバチ 44
3.	<i>Bombus ardens</i> Sm. (♀)	コマルハナバチ 45
4.	<i>Bombus yoshidae</i> Mats. (♀)	ヨシダマルハナバチ 45
5.	<i>Bombus bicoloratus</i> Macs. (♀)	タイワンマルハナバチ 46
6.	<i>Coelioxys fenestrata</i> Sm. (♀)	トガリハナバチ 46
7.	<i>Coelioxys yanonis</i> Mats. (♀)	ヤノトガリハナバチ 47
8.	<i>Parevaspis basalis</i> Rits. (♀)	ハラアカハナバチ 47
9.	<i>Megachile thoracica</i> Sm. (♀)	ネジロハキリバチ 48
10.	<i>Megachile döderleini</i> Fries. (♀)	オホハキリバチ 48
11.	<i>Lithurgus collaris</i> Sm. (♀)	ピロウドハキリバチ 49
12.	<i>Osmia rufa</i> L. (♀)	アカツノハキリバチ 50
13.	<i>Crocisa histrio</i> F. (♀)	シロホシハナバチ 50
14.	<i>Anthophora florea</i> Sm. (♀)	シロスヂハナバチ 51
15.	<i>Anthophora zonata</i> L. (♀)	アヲスヂハナバチ 52
16.	<i>Eucera difficilis</i> Perz. (♀)	ヒゲナガハナバチ 52
17.	<i>Xylocopa circumvolans</i> Sm. (♀)	クマバチ 53
18.	<i>Xylocopa auripennis</i> Farg. (♀)	タイワンクマバチ 53
19.	<i>Xylocopa ogasawarensis</i> Mats. (♀)	ヲガサハラクマバチ 54
20.	<i>Nomia chalybeata</i> Sm. (♀)	オホアヲスヂハナバチ 55
21.	<i>Sirex matsumurae</i> Rohw. (♀)	マツオホキバチ 55
22.	<i>Sirex japonica</i> Sm. (♀)	マツキバチ 56
23.	<i>Sirex gigas</i> L. (♀)	カラフトキバチ 56
24.	<i>Sirex antennalis</i> Marl. (♀)	クロキバチ 57



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2.	<i>Sirex sinuatus</i> Mats. (♀)	ヒメキバチ 58
3.	<i>Tremex similis</i> Marl. (♀)	ヒラアシキバチ 59
4.	<i>Tremex formosanus</i> Mats. (♀)	タイワンヒラアシキバチ 60
5.	<i>Sirex juvenecus</i> L. (♀)	コルリキバチ 61
6.	<i>Sirex ogumae</i> Mats (♀)	ヒゲジロコキバチ 61
7.	<i>Tremex apicalis</i> Mats. (♀)	クロヒラアシキバチ 62
8.	<i>Xiphydria jezoensis</i> Mats. (♀)	クビナガバチ 62
9.	<i>Cimbex femorata</i> L. subsp. <i>japonica</i> Kby. (♀)	ルリアシフトハバチ 63
10.	<i>Cimbex femorata</i> L. subsp. <i>japonica</i> Kby. (♂)	ルリアシフトハバチ 63
11.	<i>Cimbex femorata</i> L. subsp. <i>silvarum</i> F. (♂)	キイロアシフトハバチ 64
12.	<i>Cimbex carinulata</i> Konow (♂)	スズキアシフトハバチ 64
13.	<i>Agenocimbex jucunda</i> Mocs. (♀)	ホシアシフトハバチ 65
14.	<i>Cimbex femorata</i> L. subsp. <i>silvarum</i> F. (♀)	キイロアシフトハバチ 64
15.	<i>Okamotoionus</i> ( <i>Cimbex</i> ) <i>yorofui</i> Marl. (♀)	ヨウロウアシフトハバチ 66



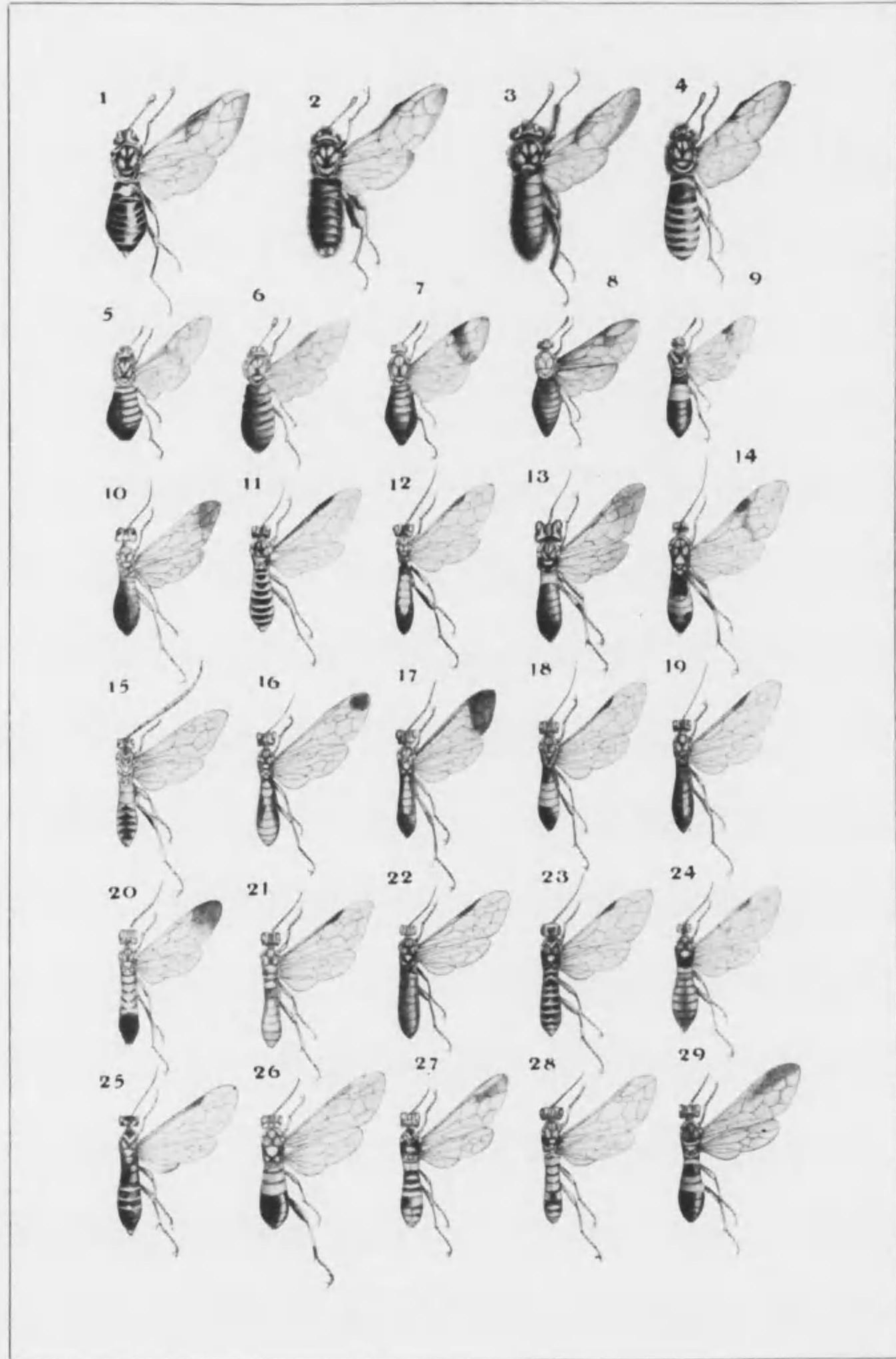
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1. <i>Cimbex femorata</i> L. (♀)	カラフトアシブトハバチ 66
2. <i>Trichiosoma jozankeanum</i> Mats. (♂)	ヒラクチハバチ 67
3. <i>Trichiosoma albopilosum</i> Mats. (♂)	オホヒラクチハバチ 67
4. <i>Clavellaria nitobei</i> Mats. (♀)	ニトベヒラクチハバチ 68
5. <i>Abia lewisii</i> Cam. (♀)	ネジロコンボウハバチ 69
6. <i>Abia bantaizana</i> Mats. (♀)	ルリコンボウハバチ 69
7. <i>Hylotoma (Arge) nigratarsis</i> Sm. (♀)	クロモンチユレンジ 70
8. <i>Hylotoma (Arge) capitiva</i> Sm. (♀)	ムネアカルリハバチ 70
9. <i>Hylotoma (Arge) mali</i> Mats. (♀)	リンゴハバチ 71
10. <i>Tenthredo adusta</i> Motsch. (♀)	ウスツマグロハバチ 71
11. <i>Rhogogastera (Tenthredo) viridis</i> L. (♀)	セグロアヲハバチ 72
12. <i>Tenthredo hilaris</i> Sm. (♀)	ハラナガクロハバチ 72
13. <i>Tenthredo jonoensis</i> Mats. (♀)	ジャウノハバチ 73
14. <i>Tenthredopsis nigripectus</i> Sm. (♀)	クロムネハバチ 74
15. <i>Tenthredopsis platycerus</i> Marl (♀)	ムナグロハバチ 74
16. <i>Tenthredopsis jozanus</i> Mats. (♀)	ヂヤウザンハバチ 75
17. <i>Tenthredopsis hakiensis</i> Mats. (♀)	ハキハバチ 76
18. <i>Tenthredopsis flavomandibulata</i> Mats. (♀)	キグチハバチ 76
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23. <i>Macrophya nigrolineata</i> Mats. (♂)	クロスヂハバチ 79
24. <i>Macrophya sapporensis</i> Mats. (♀)	サツボロハバチ 79
25. <i>Pachyprotarsis pallidiventris</i> Marl. (♀)	コシマハバチ 80
26. <i>Siobla grandis</i> Mats. (♀)	オホコシアカハバチ 81
27. <i>Conospidia umbrosa</i> Mats. (♀)	フトハチガタハバチ 81
28. <i>Conospidia cylindrica</i> Mats (♀)	ハチガタハバチ 82
29. <i>Allantus flavipectus</i> Mats. (♀)	キムネコシボソハバチ 82



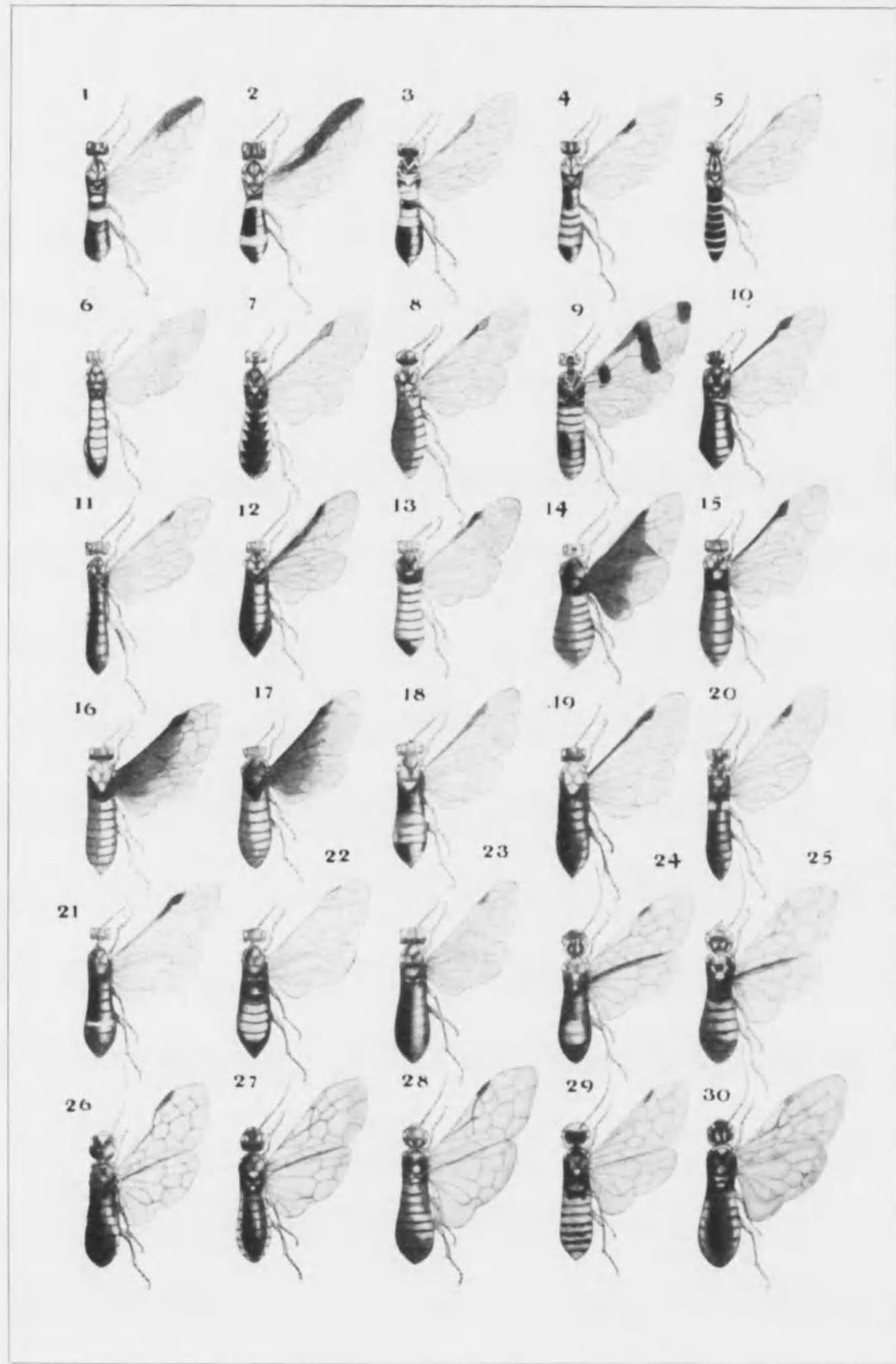
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2. Allantus bicinctus Mats. (♀)	フタヲビハバチ 84
3. Allantus sapporensis Mats. (♀)	ツマセグロハバチ 84
4. Sciopteryx apicalis Mats. (♀)	ツマグロハバチ 85
5. Strongylogaster moiwanus Mats. (♂)	モイハナガハバチ 85
6. Strongylogaster compressus Mats. (♀)	シロハラナガハバチ 86
7. Poecilosoma pallipes Mats. (♀)	ウスキアシハバチ 86
8. Poecilosoma unicolor Mats. (♀)	アメイロハバチ 87
9. Eriocampa guttata Mats. (♀)	モンキハバチ 87
10. Eriocampa albipes Mats. (♀)	シロアシマルハバチ 88
11. Taxonus fulvicornis Mats. (♂)	ツノキクロハバチ 88
12. Phymatocerus aterrimus Klug. (♂)	ヒゲナガクロハバチ 89
13. Monophadnus apicalis Mats. (♀)	ツマグロハラアカハバチ 89
14. Blencampa thoracica Mats. (♀)	クロバアカマルハバチ 90
15. Athalia colibri Christ. subsp. japonica Rohw. (♂)	カブラハバチ 90
16. Athalia colibri Christ. subsp. japonica Rohw. (♀)	カブラハバチ 90
17. Athalia nigrinotum Mats. (♀)	セグロカブラハバチ 91
18. Dolerus jezoensis Mats. (♀)	エヅツマグロハバチ 91
19. Dolerus ephippiatus Sm. (♀)	オホムネアカハバチ 92
20. Dolerus biguttatus Mats. (♂)	フタモンクロハバチ 93
21. Dolerus albicinctus Mats. (♀)	シロヲビクロハバチ 93
22. Dolerus flavopictus Mats. (♀)	モンキクロハバチ 94
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24. Lyda kumamotonis Mats. (♀)	クマモトヒラタハバチ 95
25. Lyda posticalis Mats. (♀)	アトグロヒラタハバチ 95
26. Lyda nigricans Mats. (♀)	クロヒラタハバチ 96
27. Lyda nigricoxae Mats. (♂)	マツヒラタハバチ 96
28. Lyda semiflava Mats. (♀)	ハラグロヒラタハバチ 97
29. Lyda sapporensis Mats. (♂)	ホソヒラタハバチ 97
30. Lyda sachalinensis Mats. (♀)	カラフトヒラタハバチ 98



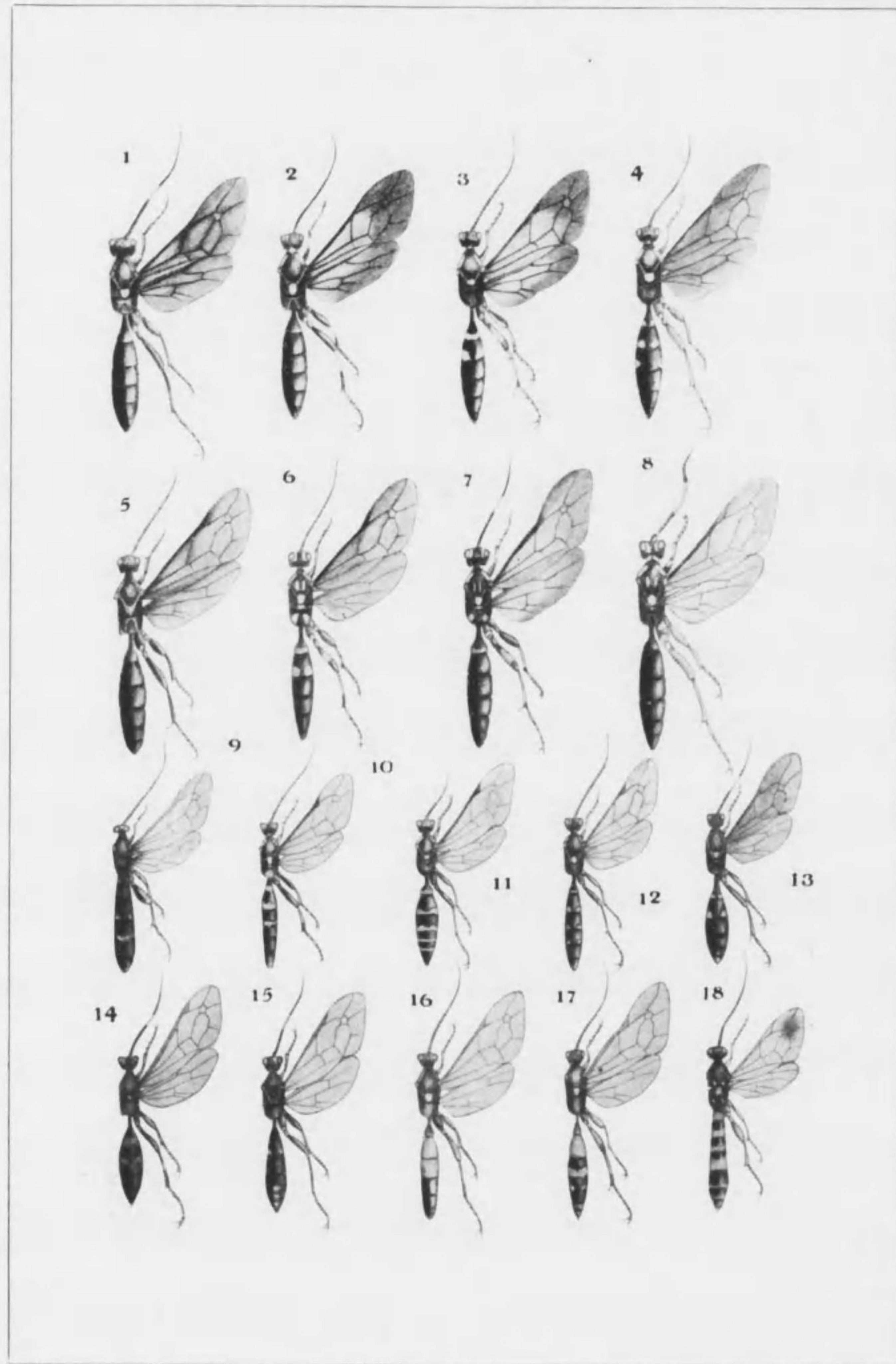
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3.	<i>Protichneumon maculifemoratus</i> Mats. (♂)	アシマダラヒメバチ 100
4.	<i>Ichneumon 6-maculatus</i> Mats. (♂)	ムツボシヒメバチ 101
5.	<i>Protichneumon satanus</i> Kriechb. (♀)	イヨヒメバチ 101
6.	<i>Protichneumon horishanus</i> Mats. (♀)	ホリシヤヒメバチ 102
7.	<i>Protichneumon taichuensis</i> Mats. (♂)	タイチユウヒメバチ 102
8.	<i>Protichneumon nakanensis</i> Mats. (♀)	ナカノヒメバチ 103
9.	<i>Metopius hakiensis</i> Mats. (♂)	ハキヒメバチ 104
10.	<i>Spilichneumon oratorius</i> F. (♂)	シロヲビヒメバチ 105
11.	<i>Ctenichneumon suzukii</i> Mats. (♂)	スズキヒメバチ 105
12.	<i>Coelichneumon 7-guttatus</i> Mats. (♂)	ナナホシヒメバチ 106
13.	<i>Ichneumon 6-maculatus</i> Mats. subsp. <i>angulosus</i> Mats. (♀)	ヒシモンヒメバチ 106
14.	<i>Amblyteles niikunii</i> Mats. (♀)	ニイクニヒメバチ 107
15.	<i>Stenichneumon posticalis</i> Mats. (♀)	トゲクロヒメバチ 109
16.	<i>Ichneumon sapporensis</i> Mats. (♂)	ツマグロホソヒメバチ 110
17.	<i>Ichneumon generosus</i> Sm. (♀)	マダラヒメバチ 110
18.	<i>Metopius rufus</i> Cam. (♀)	カコガハヒメバチ 111



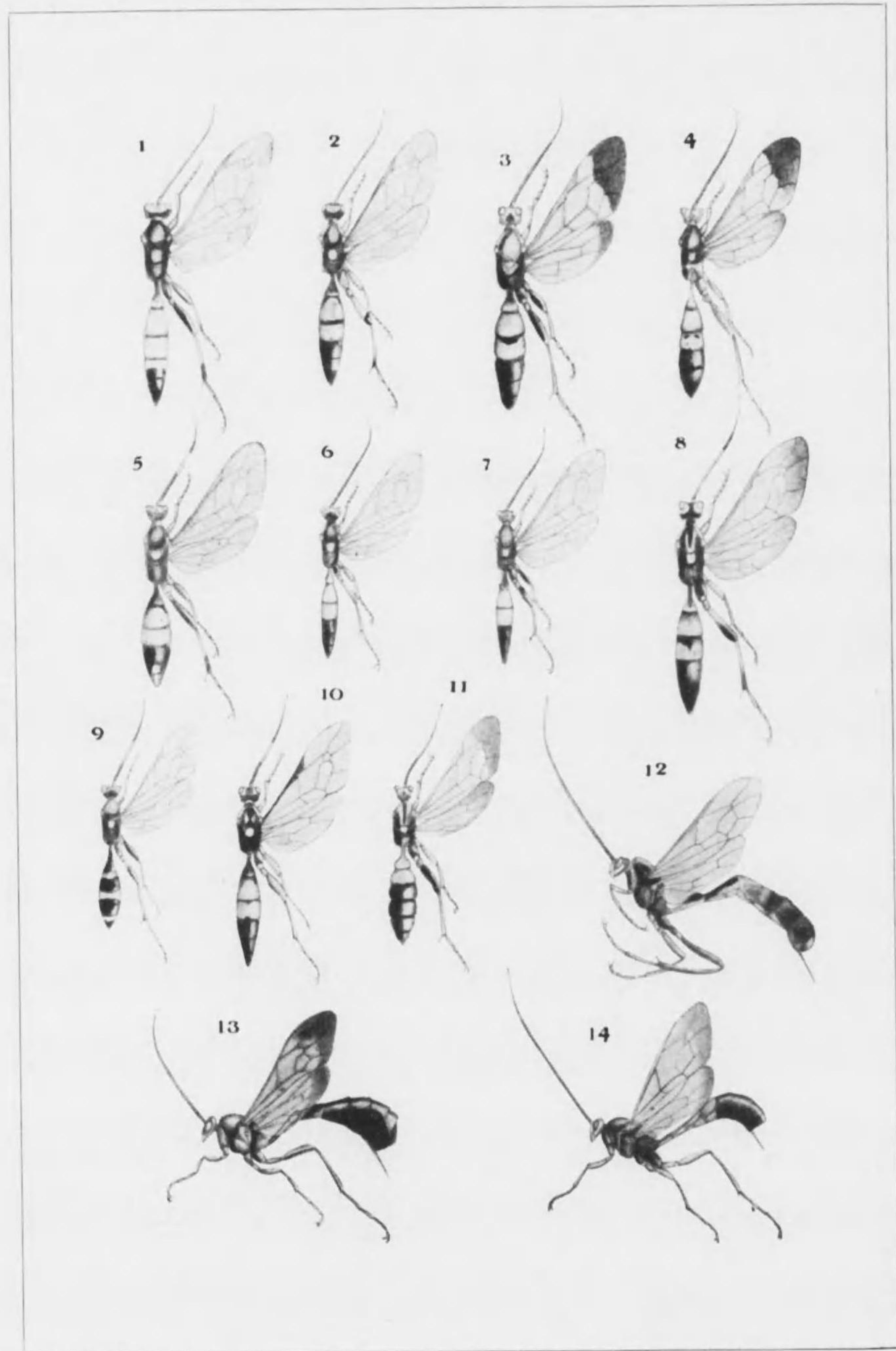
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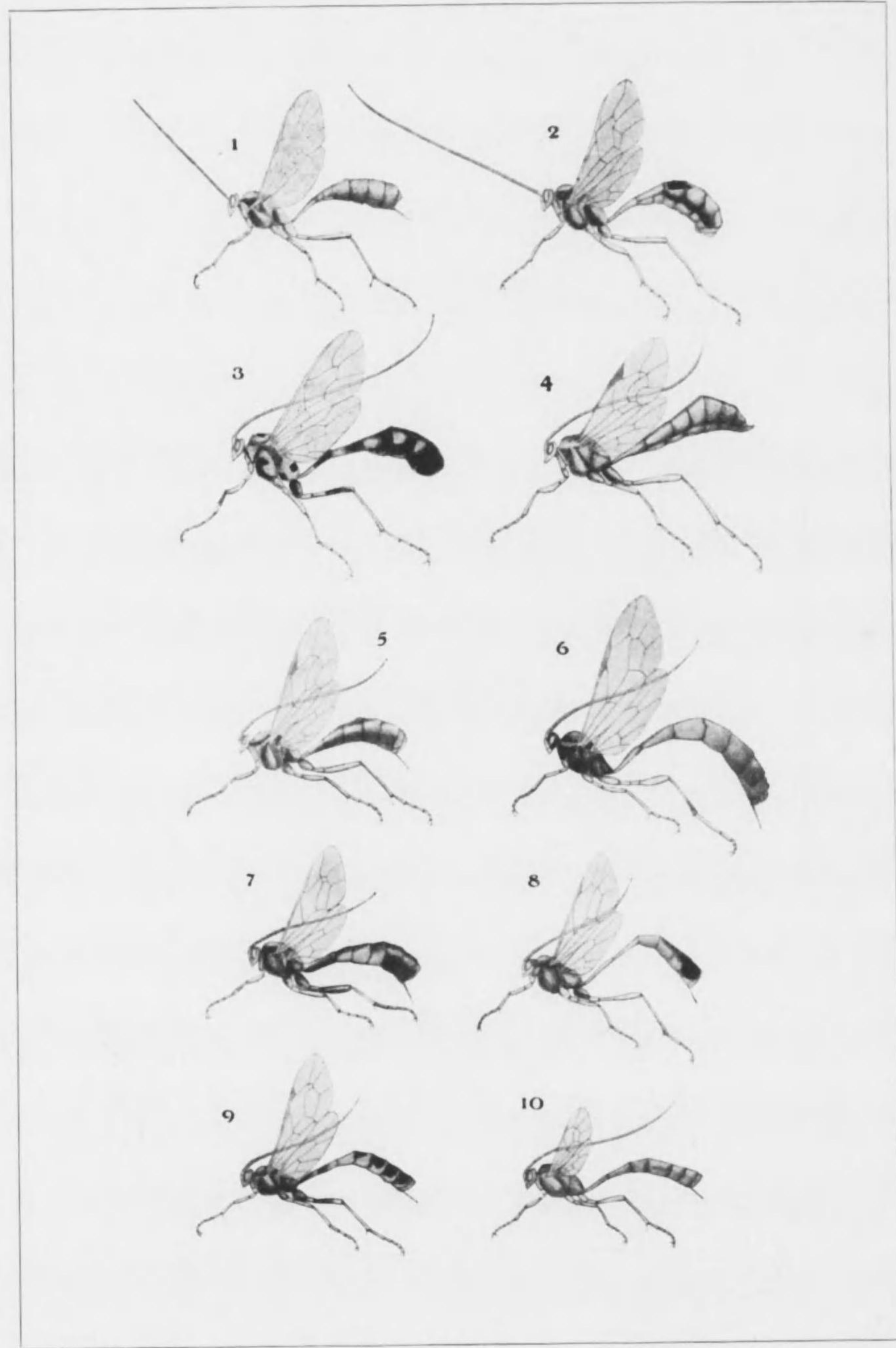
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1. <i>Protichneumon takasagonis</i> Mats. (♂) オホツマグロヒメバチ	111
2. <i>Ichneumon primatorius</i> Först. subsp. <i>grandis</i> Ash. (♂)	
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3. <i>Trogus arrogans</i> Sm. subsp. <i>shirakii</i> Mats. (♀)	
シラキヒメバチ	113
4. <i>Dimaetha tibialis</i> Cam. (♀)	113
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5. <i>Ichneumon primatorius</i> Först. subsp. <i>grandis</i> Ash. (♀)	
エゾオホヒメバチ	112
6. <i>Ichneumon sapporensis</i> Ash. (♀)	101
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7. <i>Amblyteles amatorius</i> Müll. (♂)	114
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8. <i>Trogus exaltatorius</i> Panz. (♀)	114
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9. <i>Amblyteles omori</i> Mats. (♀)	115
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10. <i>Protichneumon moiwanus</i> Mats. (♀)	116
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11. <i>Dinotomus mactator</i> Tosq. (♀)	116
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12. <i>Acanthostoma insidiator</i> Sm. (♀)	117
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14. <i>Opheltes glaucopterus</i> L. subsp. <i>apicalis</i> Mats. (♀)	
ツマグロベツカフヒメバチ	118



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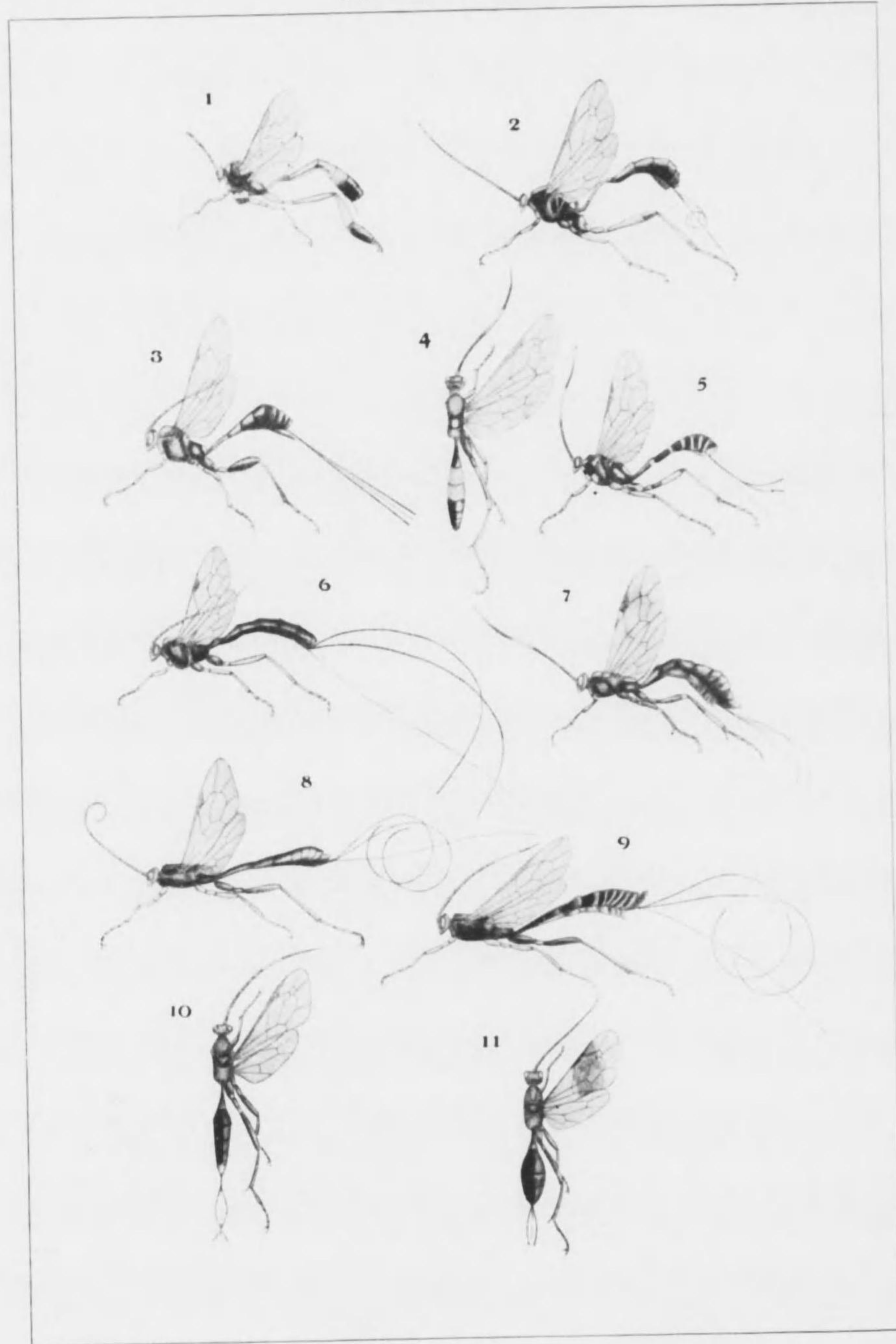
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1.	<i>Ophion luteus</i> L. (♀)	オホアメバチ 118
2.	<i>Dicamptus nigropictus</i> Mats. (♀)	モンクロアメバチ 119
3.	<i>Henicospilus semiopacus</i> Mats. (♀)	スキモンアメバチ 119
4.	<i>Paniscus ocellaris</i> Thoms. (♂)	アメバチ 120
5.	<i>Paniscus ocellaris</i> Thoms. (♀)	アメバチ 120
6.	<i>Schizoloma amictum</i> F. (♀)	カラフトコンボウアメバチ 120
7.	<i>Campoplex matsumurae</i> Uch. (♀)	ヨコヒラヒメバチ 121
8.	<i>Aphanistes jozankeanus</i> Mats. (♀)	ヂヤウザンコンボウアメバチ 121
9.	<i>Coleocentrus exitator</i> Pod. (♀)	ツマグロヒラタヒメバチ 122
10.	<i>Agrypon suzukii</i> Mats. (♀)	スズキコバネアメバチ 123



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第十二圖 (PLATE XII.)

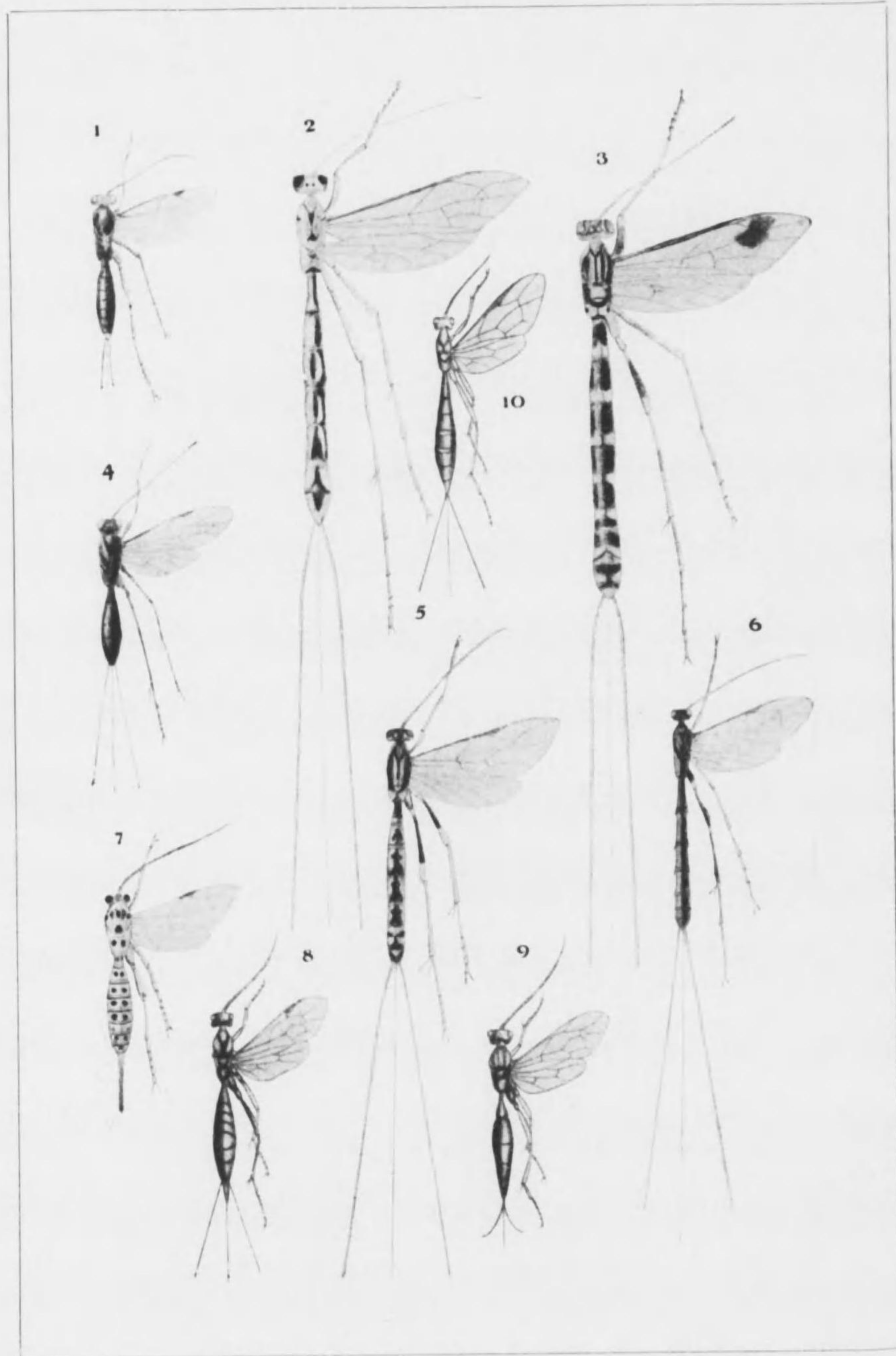
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1.	<i>Eurypterna arakawae</i> Mats. (♀) アラカハコマユバチ	123
2.	<i>Acroricnus ambulator</i> Sm. (♀) キアシヲナガヒメバチ	123
3.	<i>Arotes moiwanus</i> Mats. (♀) モイハケンヲナガバチ	124
4.	<i>Exetastes ichneumoniformis</i> Grav. (♀) ヒゲナガヒメバチ	125
5.	<i>Lactolus shinshanus</i> Mats. (♀) シンシヤツヤヒメバチ	125
6.	<i>Glypta glypta</i> Ash. (♀) コヲナガバチ	126
7.	<i>Xylonomus sepulcralis</i> Holmgr. (♀) モイハマルヅヲナガバチ	127
8.	<i>Xylonomus jezoensis</i> Mats. subsp. <i>lineatus</i> Mats. (♀)	
	ホソマルヅヲナガバチ	128
9.	<i>Xylonomus jezoensis</i> Mats. (♀) オホマルヅヲナガバチ	127
10.	<i>Mesostenus tarsalis</i> Mats. (♀) コクロヲナガヒメバチ	128
11.	<i>Cryptus suzukii</i> Mats. (♀) ホシクロヲナガバチ	129



PLATE XIII.

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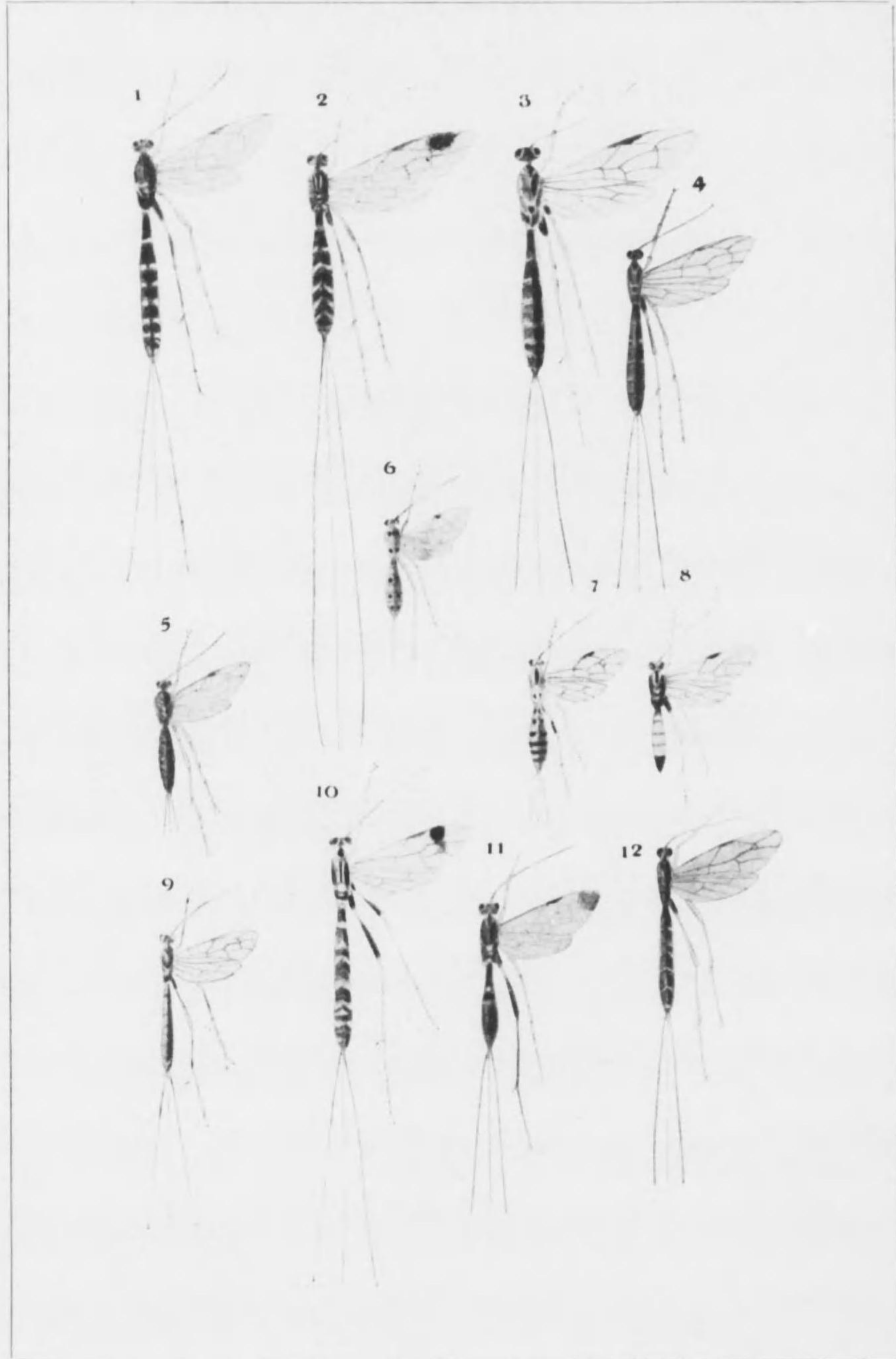
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1.	<i>Pimpla pluto</i> Ash. (♀) クハゴヒラタヒメバチ	129
2.	<i>Thalessa superba</i> Schrank (♀) オホアメイロヲナガバチ	130
3.	<i>Thalessa japonica</i> Ash. (♀) オホホシヲナガバチ	131
4.	<i>Ecthrus rufipes</i> Uch. (♀) クロヲナガバチ	131
5.	<i>Thalessa citraria</i> Oliv (♀) エゾヲナガバチ	132
6.	<i>Epithialtes manifestator</i> L. (♀) フシヲナガバチ	133
7.	<i>Xanthopimpla japonica</i> Krieg. (♀) キイロフシヒメバチ	133
8.	<i>Coleocentrus chibisanii</i> Mats. (♀) カラフトコンボウヲナガバチ	134
9.	<i>Cryptus tarsoleucus</i> Grav. (♀) カラフトオホキアシヒメバチ	134
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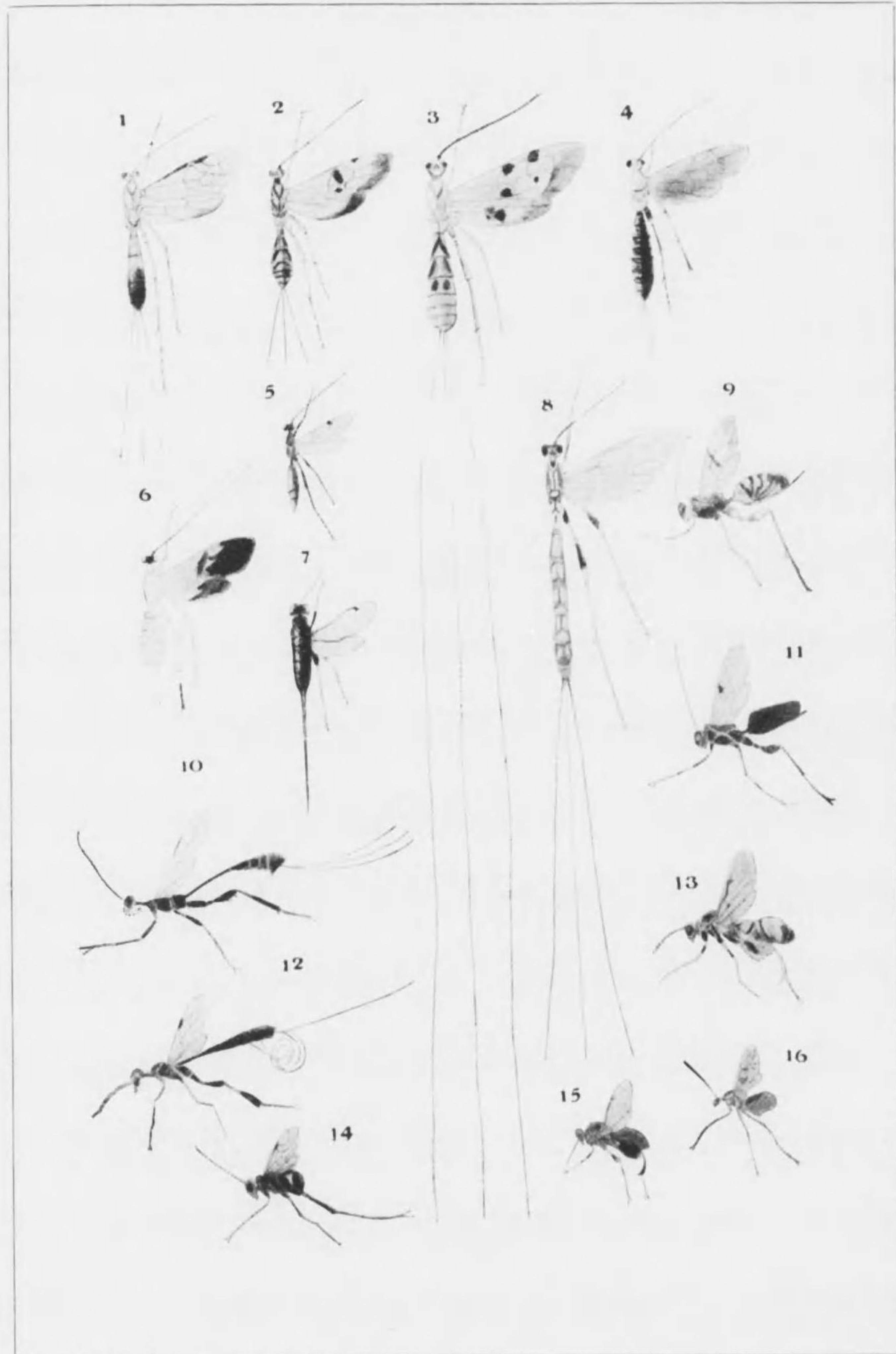
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1.	<i>Rhyssa persuasoria</i> L. (♀)	ヂャウザンヲナガバチ 135
2.	<i>Epirhyssa japonica</i> Cam. (♀)	ヒメモンキヲナガバチ 136
3.	<i>Coleocentrus exitator</i> Pod. (♀)	ツマグロヒラタヒメバチ 122
4.	<i>Epirhyssa moiwana</i> Mats. (♀)	モイハヲナガバチ 137
5.	<i>Pimpla insignator</i> F. (♀)	キアシフシヲナガバチ 137
6.	<i>Xanthopimpla punctata</i> F. (♀)	ミツモンキフシヒメバチ 138
7.	<i>Theronia atalantae</i> Pod. (♀)	エゾシロヒラタヒメバチ 138
8.	<i>Banchus falcatorius</i> F. (♂)	カラフトカタモンヒメバチ 139
9.	<i>Rhyssa approximator</i> F. subsp. <i>furanna</i> Mats. (♀)	フランヲナガバチ 140
10.	<i>Thalessa japonica</i> Ash. (♀)	オホホシヲナガバチ 131
11.	<i>Phaenolobus apicalis</i> Mats. (♀)	ツマグロヲナガバチ 140
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第 十 五 圖 (PLATE XV.)

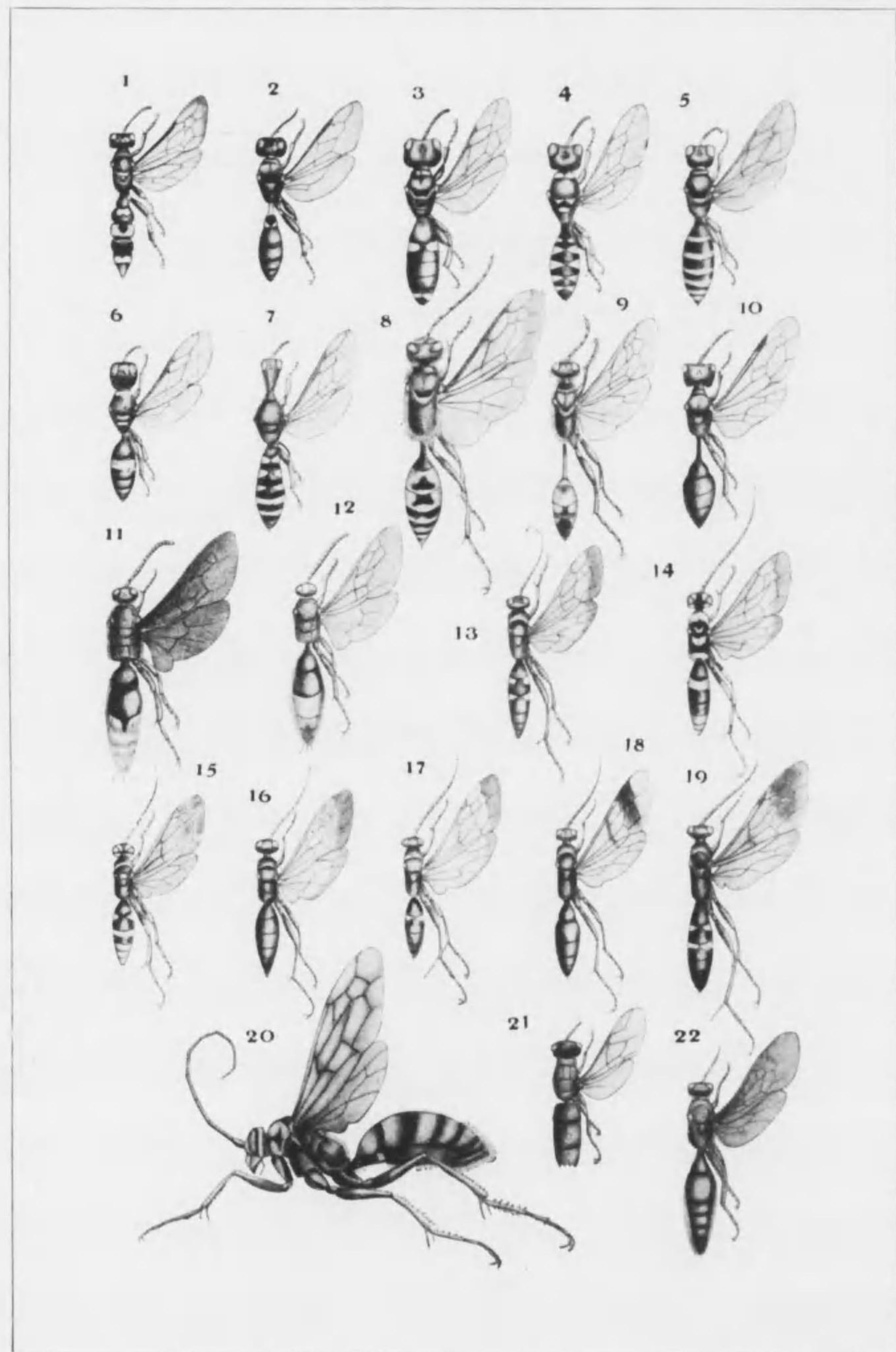
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1.	<i>Brulléia shibuensis</i> Mats. シブヲナガコマユバチ	141
2.	<i>Iphiaulax horishana</i> Mats. (♀) ホリシヤベツカフコマユバチ	142
3.	<i>Euurobracon penetrator</i> Sm. (♀) ウマノヲバチ	143
4.	<i>Hemipimpla rugosa</i> deGeer (♀) セアカフシヲナガバチ	143
5.	<i>Hemipimpla suzukii</i> Mats. (♀) オホタマゴバチ	144
6.	<i>Iphiaulax garampiana</i> Mats. (♀) ガランビツマグロコマユバチ	145
7.	<i>Thecasoma longicauda</i> Mats. (♀) ヲナゴバチ	145
8.	<i>Rhyssa citraria</i> Oliv. subsp. otanegawana Mats. (♀)	
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9.	<i>Ibalia japonica</i> Mats. (♀) ヒラタフシバチ	147
10.	<i>Stephanus cinctus</i> Mats. (♀) ツノヤセバチ	147
11.	<i>Ibalia picea</i> Mats. (♀) クロヒラタフシバチ	148
12.	<i>Gastruption japonicum</i> Cam. (♀) コンボウヤセバチ	149
13.	<i>Leucaspis okinawensis</i> Mats. (♀) ヲキナハシリアゲコバチ	149
14.	<i>Evania brachystyla</i> Schlett. (♀) マルガタヤセバチ	150
15.	<i>Chalcis jezoensis</i> Mats. (♀) エゾアシブトコバチ	151
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第十六圖 (PLATE XVI.)

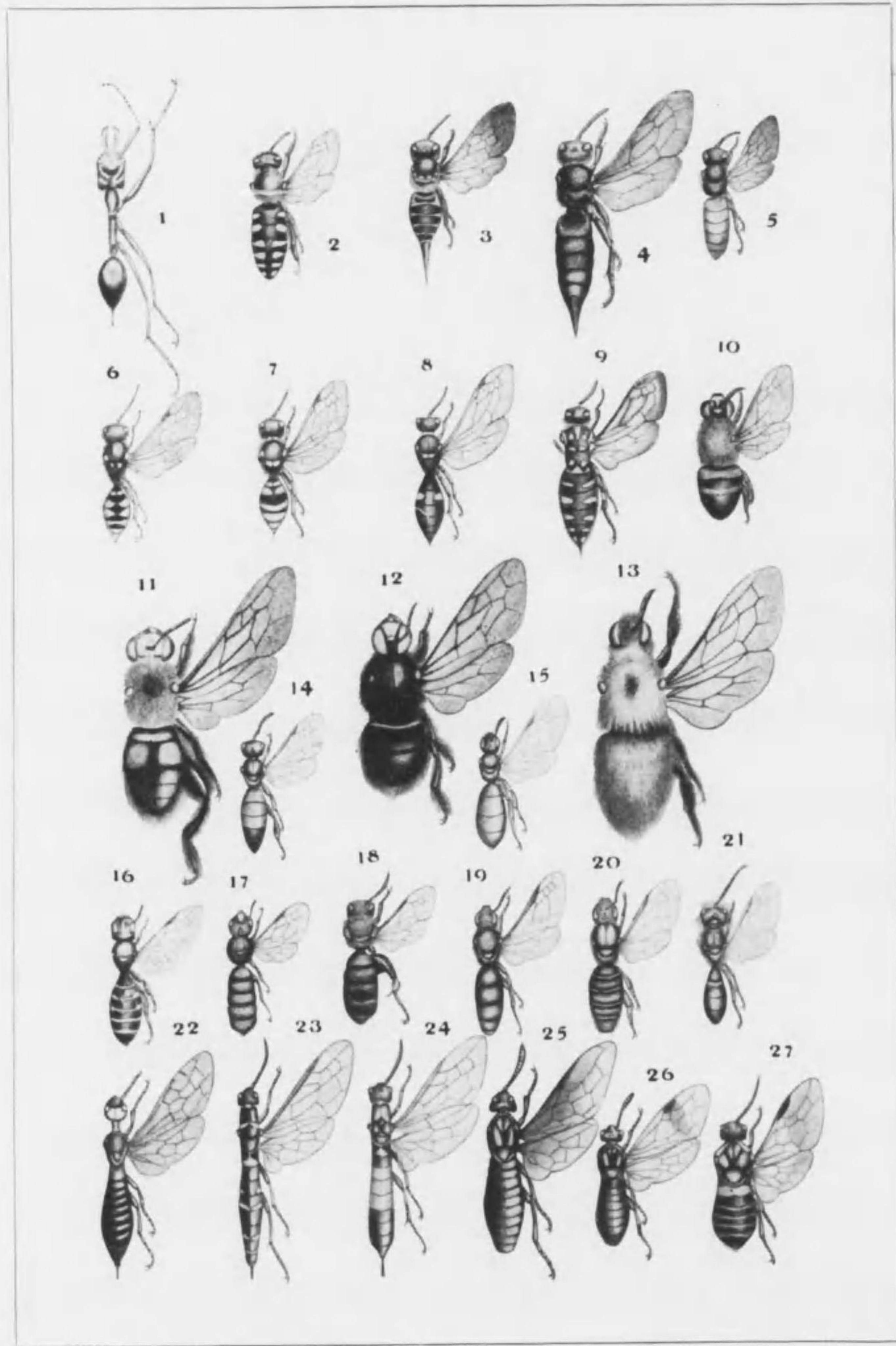
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1.	<i>Cerceris interruptus</i> Mats. (♀)	マルモンツチスガリ 152
2.	<i>Crabro suzukii</i> Mats. (♀)	スズキギングチバチ 152
3.	<i>Crabro jozankeanus</i> Mats. (♀)	チャウザンギングチバチ 153
4.	<i>Crabro aurarius</i> Mats. (♀)	ギングチバチ 154
5.	<i>Crabro nitobei</i> Mats. (♀)	ニトベギングチバチ 154
6.	<i>Crabro collaris</i> Mats. (♀)	クビワギングチバチ 155
7.	<i>Crabro sapporensis</i> Mats. (♂)	オホギングチバチ 156
8.	<i>Sphex rugosus</i> Mats. (♀)	オホハラアカアナバチ 156
9.	<i>Sphex platynotus</i> Mats. (♀)	ハラアカアナバチ 157
10.	<i>Pemphredon japonicum</i> Mats. (♀)	オホホソゴシアナバチ 158
11.	<i>Liacos flavopicta</i> Sm. (♀)	ツマキツチバチ 158
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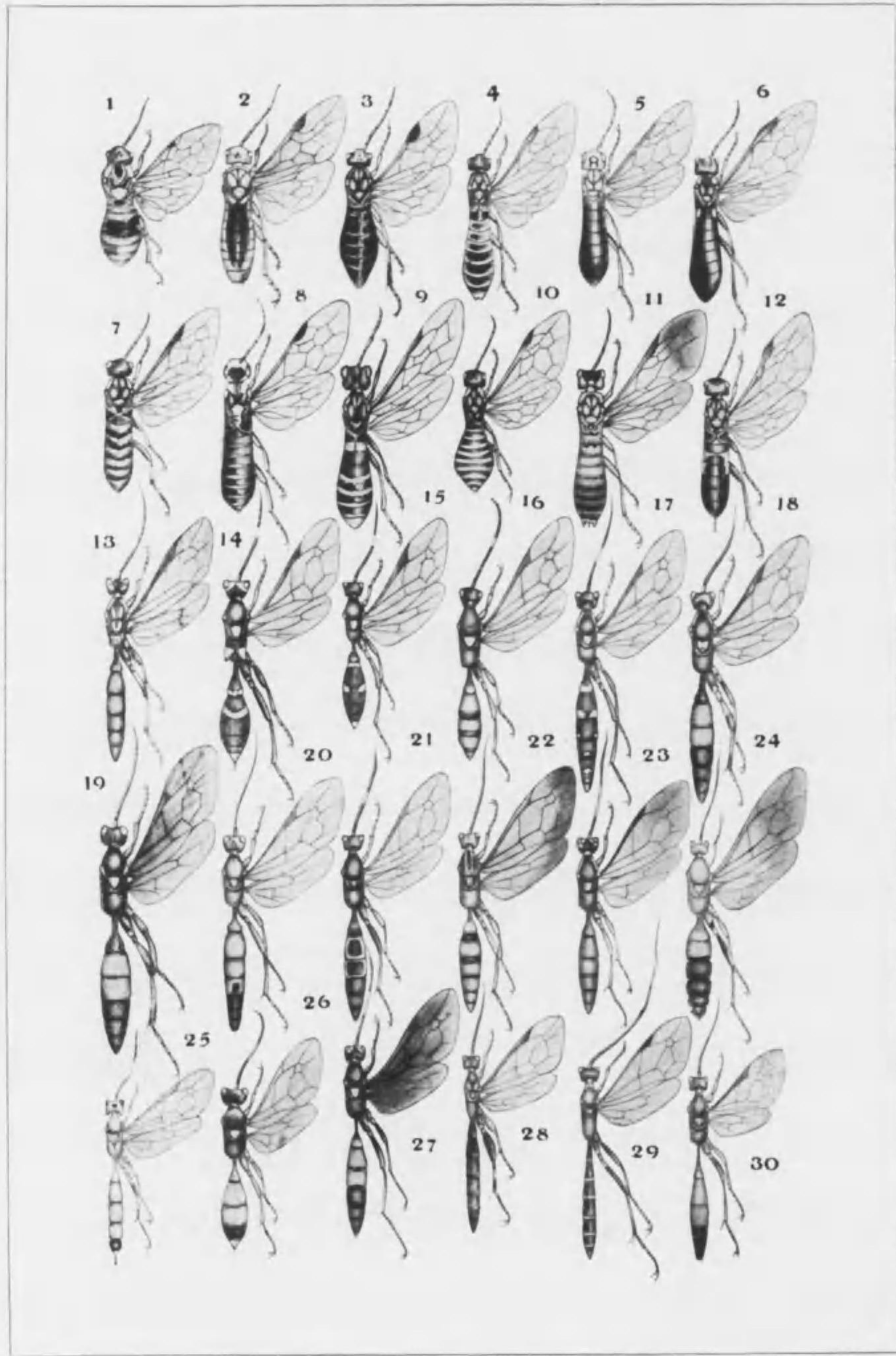
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## New Genera and Species of Hymenoptera described in the Thousand Insects of Japan.

### *Polistes yayeyamae* Mats. (Pl. II, Fig. 5, ♀)

*Polistes yayeyamae* Mats., Thous. Ins. Jap. Suppl., III, p. 106, pl. XXXIX, f. 5, ♀, N. 673 (1911).

♀. Body yellowish brown, the mesonotum black, the metanotum and the first abdominal segment yellow. Antennae in the middle above, a broad bar at the apex between the eyes black. Mesonotum black, with 4 yellowish longitudinal stripes, 2 of which on the sides are short; the scutellar suture and a middle groove of the metanotum black. Wings pale yellowish brown, subhyaline, the costal vein black, at the outer margin grayish.

A spot at the base and a narrow band in the middle of the first abdominal segment black, the second segment at the anterior margin dark brown, with a short longitudinal bar in the middle, the 3rd, 4th and 5th segments at the anterior margin with each 2 semicircular blackish rings, a spot of the coxa, the trochanter, the base of the femur as well as the tibia except the apex dark brown.

Length—13-24 mm.; exp.: 34-45 mm.

Hab.—Okinawa (Yayeyama).

It resembles somewhat *P. hebraeus* F.

### *Crabro sapporensis* Mats. (Pl. II, Fig. 19, ♀)

*Crabro sapporensis* Mats., Thous. Ins. Jap. Suppl., III, p. 111, pl. XXXIX, f. 19, ♀ N. 687 (1911).

♀. Body black, the mandible, the scapus, 2 spots of the pronotum,



2 spots on each side of the scutellum, 2 spots to each abdominal segment (except the first) and the marking of the legs yellow. Head very large, quadrate, in the middle between the eyes with a longitudinal deep furrow, the clypeus with short silvery pubescence, the mandible at the base and apex black. Tegulae reddish brown. Wings subhyaline, pale yellowish brown, the veins deeper in colour. Mesonotum at the anterior half transversely and at the posterior half longitudinally striated; scutellum anteriorly, sparsely punctured, posteriorly fine striated; the median segment irregularly, longitudinally strong striated, some one being reticulated. Abdomen smooth, shining, subpetiolate, the first segment on each side at the base with 4 longitudinal carinae, the following segments on each side with a yellow spot, the 4th of which nearly becomes a band. Legs mostly black, at the tip of the femur (except the anterior), the tibia (except a brown spot of the anterior) and the tarsus (except the last segment) yellow.

♂. Much smaller, the marking of the abdomen, and the legs reddish yellow.

Length—15-20 mm.; exp.: 24-30 mm.

Hab.—Hokkaido (not rare).

It resembles somewhat European *C. tibialis* F.

***Scolia oculata* Mats. (Pl. III, Fig. 11, ♂)**

*Discolia oculata* Mats., Thous. Ins. Jap. Suppl., III, p. 123, pl. XL, f. 11, ♂, N. 702 (1911).

It differs from *S. fasciata* F. as follows:

1. Head much smaller, no yellowish spot between the eyes; vertex sparsely punctured.
2. Mesonotum sparsely punctured, the longitudinal furrows broader and deeper, on the sides densely covered with long black hairs.
3. Abdomen more fine and densely punctured, the 3rd segment on the side with a yellowish ocellate or lunate spot (black

pupillated), being densely covered with dark hairs. Third abdominal segment at the hind margin with a broad, in the middle anteriorly with an excavated yellowish band, often in the middle interrupted with grayish hairs.

4. Tibia and tarsus with long black spines.

Length—15-20 mm.; exp.: 30-40 mm.

Hab.—Hokkaido, Honshu, Formosa.

***Scolia hopponis* Mats. (Pl. III, Fig. 13, ♀)**

*Discolia hopponis* Mats., Thous. Ins. Jap. Suppl., III, p. 124, pl. XL, f. 13, ♀, N. 704 (1911).

♀. Black, covered with reddish yellow hairs; abdomen iridescent, with a purple and bluish brilliancy. Head above the antennae entirely orange-yellow, only the hind part black, almost impunctate; clypeus in the middle convex, impunctate; the 2nd and 3rd antennal segments at the apices reddish brown; the palpi yellowish. Thorax sparsely punctured, at the disk impunctate, the longitudinal grooves broad and deep. Wings yellowish brown, at the costal margin with short golden pubescence. Abdomen in the middle sparsely punctured, the 2nd and 3rd segments on each side with an orange-yellowish spot, the latter spot being very large and nearly conjoined in the middle. Tibial and tarsal spines, the spurs and claws reddish yellow.

Length—22 mm.; exp.: 39 mm.

Hab.—Formosa (Hoppo).

It stands in the position near *S. oculata* Mats.

***Elis ocellata* Mats. (Pl. III, Fig. 15, ♀)**

*Elis (Scolia) ocellata* Mats., Thous. Ins. Jap. Suppl., III, p. 125, pl. XL, f. 15, ♀, N. 706 (1911).

It differs from *E. japonica* Sm. as follows:

1. Body much larger; ♂ 15-25 mm.; exp.: 28-42 mm.
2. ♀. Occiput smooth, behind the eyes with each a transverse



yellow spot; clypeus in the middle not produced and broadly rounded.

3. Pronotum on the sides and the postscutellum in the middle yellow, the tegulae brown, the metanotum on the sides toothed.
4. Abdomen more thickly punctured, the first and 2nd abdominal spots widely separated, the 3rd and 4th building a band, in a certain individual the 3rd band finely separated in the middle, the 3rd in the middle somewhat broader and not waved as in *japonica* Sm.
5. Tibial and tarsal spines reddish yellow.
6. In the male the yellowish marking nearly the same, but the abdominal bands broader; antennae much robuster.

Hab.—Honshu (Maiko, Takasago).

**Pompilus fallaciosus Mats. (Pl. III, Fig. 23, ♂)**

*Pompilus fallaciosus* Mats., Thous. Ins. Jap. Suppl., III, p. 130, pl. XL, f. 23, ♂, N. 714 (1911).

It differs from *P. atrocissimus* D. T. as follows:

1. Body much larger: ♂ 21-27 mm.; exp.: 42-51 mm.
2. On the inner side of the eyes with a wedge-shaped yellowish spot, behind the eyes the occiput reddish brown.
3. Anterior margin of the clypeus straight, not emarginated as in *atrocissimus*; labrum at the margin and the mandible at the base reddish brown.
4. Wings fuscous, somewhat paler than *atrocissimus*, the outer margin dark, at the base not hyaline.
5. Third abdominal segment at the anterior margin with a yellowish band, posteriorly emarginated in the middle.

Hab.—Hokkaido, Honshu.

**Pompilus abdominalis Mats. (Pl. IV, Fig. 3, ♀)**

*Pompilus abdominalis* Mats., Thous. Ins. Jap. Suppl., III, p. 132, pl. XLI, f. 3, ♀, N. 719 (1911).

♀. Body ferruginous yellow, densely covered with short recumbent hairs; abdomen dark brown, at the apex yellowish brown. Mandible at the apex dark brown, the fore-head below the antennae paler, the pronotum at the hind margin paler, the mesonotum on each side with a longitudinal brown stripe. Wing subhyaline, ferruginous yellow, narrowly fuscous at the apex. Mesonotum in the middle and the tarsal joints each at the base fuscous.

Length—17 mm.; exp.: 32 mm.

Hab.—Okinawa (Yayeyama).

**Salius terauchii Mats. (Pl. IV, Fig. 6, ♀)**

*Salius terauchii* Mats., Thous. Ins. Jap. Suppl., III, p. 135, pl. XLI, f. 6, ♀, N. 721 (1911).

It differs from *S. fenestratus* Sm. as follows:

1. ♂. Body smaller: 14-15 mm.; exp.: 28-32 mm.
2. Head slenderer, not paler in colour, the mandible at the apex pale fuscous, at the vertex with no fuscous spot.
3. Antennae shorter, broader, not fuscous at the apex and rather paler.
4. Mesonotal stripes dark brown and distinct.
5. Each abdominal segment at the posterior margin pale brown, the first segment at the anterior margin dark brown.
6. Legs much shorter.
7. Wings at the margin very faintly infuscated.

Hab.—Formosa (Gyochi near Horisha, collected by Mr. M. Terauchi).

**Salius internalis Mats. (Pl. IV, Fig. 7, ♀)**

*Salius internalis* Mats., Thous. Ins. Jap. Suppl., III, p. 136, pl. XLI, f. 7, ♀, N. 722. (1911).

♀. Fuscous, along the inner side of the eyes with a pale yellowish spot, the clypeus somewhat convex, with short yellowish hairs; mandible near the apex reddish brown; antennae on the



underside pale yellowish brown; maxillary palpi at the apex of the basal joint pale yellow. Tegulae brown, at the margin paler. Wings hyaline, tinged with pale yellow, the veins dark brown, fuscous at the apex. Abdomen pruinose, at the apex reddish brown, on the sides of the 2nd and 3rd segments at the bases with each a pale yellowish spot, that of the 2nd segment being very small. Legs fuscous brown, the tibia and tarsus with short reddish spines, the anterior femur and the tibia on the inner sides pale yellowish brown.

Length—20 mm.; exp.: 36 mm.

Hab.—Tokyo (Nakano).

**Mutilla formosana Mats. (Pl. Fig. 14, ♀)**

*Mutilla formosana* Mats., Thous. Ins. Jap. Suppl., III, p. 140, pl. XLI, f. 14, ♀, N. 729 (1911).

It differs from *M. interrupta* Oliv. as follows:

1. ♀. The base and apex of the antenna as well as the base of the mandible not red, the latter in the middle being reddish brown.
2. Legs and abdomen beneath black and not rufo-fuscous as in *interrupta*.
3. Abdominal spots with pale yellowish silky pile.
4. Head broader than the thorax.

Length—8-12 mm.

1. ♀. Wings fuscous, in a certain light indigo-blue, at the base not hyaline, but somewhat paler.
2. Metanotum strongly reticulated, no central carina at the base.
3. Pubescence of the body pale yellowish, with a silky luster.
4. Abdominal segments each at the hind margin with yellowish brown pile, that of the pygidium mostly dark brown.

Length—13 mm.; exp.: 20 mm.

Hab.—Formosa (common).

**Bombus yoshidae Mats. (Pl. V, Fig. 4, ♀)**

*Bombus yoshidae* Mats., Thous. Ins. Jap. Suppl., IV, p. 2, pl. XLII, f. 4, ♀, N. 744 (1912).

♀. It differs from *B. ignitus* Sm. as follows:

1. Body much larger.
2. Pronotum with some grayish hairs.
3. Anterior two thirds of the second abdominal segment with a yellowish band of long hairs.
4. The fourth and fifth segments of the abdomen with long much paler hairs.

Length—27, 7 mm.

Hab.—Honshu (Yonezawa, collected by Mr. S. Yoshida).

**Coelioxys yanonis Mats. (Pl. V, Fig. 7, ♀)**

*Coelioxys yanonis* Mats., Thous. Ins. Jap. Suppl., IV, p. 5, pl. XLII, f. 7, ♀, N. 747 (1912).

♀. Black. Face covered with golden yellowish hairs; clypeus and vertex dark brown. Thorax roughly punctured, on each side of the scutellum with a hook-like projection, curving somewhat downwardly. Anterior border of the mesopleura covered with short yellowish hairs; the posterior border of the metathorax on the side also covered with soft yellowish hairs. Abdomen sparsely punctured, on the hind border of the each segment with short yellowish pubescence; pygidium in the middle with a longitudinal impression. Mesonotum in the middle with some short grayish hairs, the calcars and claws yellowish brown.

Length—12-15 mm.

Hab.—Honshu, Kiushu; at first collected by Mr. S. Yano at Jono.

**Xylocopa ogasawarensis Mats. (Pl. V, Fig. 19, ♀)**

*Xylocopa ogasawarensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 13, pl. XLII, f. 19, ♀, N. 759 (1912).



♀. Dark brown. Head densely, on the cheeks and vertex sparsely punctured. Frons covered with brown hairs. Labrum in the middle with a long conical projection. Mandible with 2 longitudinal furrows, of which the inner one is broad and sparsely punctured. Rostrum dark brown, at the apex reddish brown. Thorax in the middle impunctured and shining, on the sides and at the anterior border with fuscous hairs. Tegulae dark brown. Wings subhyaline, dark brown, with an indigo-blue reflection; veins deeper in colour. Abdomen somewhat broader than the thorax, each segment gradually increases the number of punctures towards the apex; pygidium in the middle at the hind border with a longitudinal furrow, on the side with long, densely covered brilliant reddish brown hairs. Each ventral segment at the hind border reddish brown, fine punctured; pygidium in the middle with a longitudinal keel. Metasternum shining, scarcely punctured. Legs covered with long reddish brown hairs; claws yellow, fulvous at the base.

Length—29 mm.

Hab.—Ogasawara-jima (Bonin Islands).

**Sirex nitobei Mats. (Pl. VI, Fig. 1, ♀)**

*Sirex nitobei* Mats., Thous. Ins. Jap. Suppl., IV, p. 17, pl. XLVIII, f. 1, ♀, N. 765 (1912).

♀. Dark indigo-blue. Head closely fine punctured, with short grayish hairs. Mandibles black, with 3 teeth, strongly punctured. Antennae black, 2 or 3 basal joints dark blue. Prothorax rough, strongly punctured and granulated. Meso- and Metanotum fine punctured. Wings hyaline, at the outer half dusky; veins dark brown, at the costa of the fore-wing dark. Abdomen except the first and last segments steel-blue, the basal segment strongly punctured and grayish pubescent; pygidium smooth, at the apices of the femur and tibia yellowish brown.

♂. Colour nearly the same with the female, but the basal half of the antenna, the legs and the apical two thirds of the abdomen

yellowish brown; 2 apical ventral segments indigo-blue, the posterior tibiae and metatarsi black.

Length—♂ 23-27 mm.; ♀ 28 mm.; ovipositor-14 mm.

Hab.—Honshu (Aomori, collected by Mr. I. Nitobe).

**Sirex sinuatus Mats. (Pl. VI, Fig. 2, ♀)**

*Sirex sinuatus* Mats. Thous., Ins. Jap. Suupl., IV, p. 18, pl. XLIII, f. 2, ♀, N. 766 (1912).

It differs from *S. japonicus* Sm. in the following points:

1. Body much smaller. Length: 20 mm.; ovip.: 18 mm.
2. Mesonotum much deeper and closely punctured.
3. Wings pale yellowish brown, no shade of dark brown at the apices; pterostigma dark brown.
4. First 4 abdominal segments yellow, the first and 4th having some brown markings; the 5th, 6th and 7th mostly black, the anterior half of the 8th yellow, the posterior half black, the latter on the anterior border with a triangular yellowish mark.
5. Posterior tibia on its apex not dark coloured as in *S. japonicus* Sm.

Hab.—Honshu (rare).

**Tremex formosanus Mats. (Pl. VII, Fig. 4, ♀)**

*Tremex formosanus* Mats., Thous. Ins. Jap. Suppl., IV, p. 21, pl. XLIII, f. 4, ♀, N. 768 (1912).

♀. Black. Head closely and fine punctured, the fore-head and the side of the mouth with long yellowish hairs. Antennae black, on their extreme apices yellowish brown. Pronotum yellow, almost impunctured, being sparsely granulated. Meso- and metanotum fine punctured and granulated, covered with yellowish hairs; below the scutellum with 2 yellowish spots. Wings subhyaline, with a pale brownish shade, a spot in the middle of the anterior wing pale brown,



the outer margin of the both wings dusky, at the base of the wing dark. Abdomen black, a broad band of the 2nd and 3rd segments, a side-spot of each of the 4th, 5th and 6th, the anterior margin of the 7th and the anterior half of the 8th and 9th segments on each side covered with soft yellowish hairs; pygidium strongly granulose, with a purple reflection, the caudal appendix short, on its base with some spines. Venter fuscous, the ovipositor brownish. Legs dark brown, the tibiae, and the metatarsi except the apices fulvous.

Length—33 mm.; ovipositor: 20 mm.

Hab.—Formosa (not rare).

**Tremex apicalis Mats. (Pl. VII, Fig. 7, ♀)**

*Tremex apicalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 23, pl. XLIII, f. 7, ♀, N. 771 (1912).

♀. Black, covered with soft fuscous hairs. Head closely fine punctured, on the occiput remotely punctured. Antennae black, 8 or 9 apical joints white. Pronotum coarsely punctured, the meso- and metanotum finer punctured than on the pronotum; mesonotum with a longitudinal furrow. Wings hyaline, with a yellowish tinge, the apical one third being fuscous. Abdomen narrow, with a indigo-blue flash; each segment, except the first and last, on each side with a white spot, the spots of the 2nd, 3rd and 8th being larger than the others; the 9th segment on the sides strongly punctured. Caudal appendix short, on the sides strongly punctured. Ovipositor dark brown, on the apex and at the base yellowish brown. Each ventral segment in the middle white. Legs black, the tibia and metatarsus except the apices, as well as the 5th joint white; claws yellowish white. ♂. Totally black.

Length—21–33 mm.; ovipositor: 19 mm.

Hab.—Hokkaido (Sapporo), the larva bores in the stem of *Abies sachalinensis*.

**Trichosoma jozankeanum Mats. (Pl. VII, Fig. 2, ♂)**

*Trichosoma jozankeana* Mats., Thous. Ins. Jap. Suppl., IV, p. 30, pl. XLIII, f. 2, ♂, N. 779 (1912).

♂. Body black, with a greenish shade, covered with soft grayish hairs. Antennae dark brown, in the middle yellowish brown. Head remotely fine punctured, the space between the antennae covered with soft dark hairs; ocelli reddish brown; labrum semi-oval, large, remotely punctured; mandibles long, black, on the apices piceous. Thorax much more and larger punctured than on the head. Wings subhyaline, with a yellowish shade, the pterostigma and the outer margin dark brown. Abdomen oblong, 2 genital appendages yellowish, the venter smooth, shining, each segment on its hind margin reddish yellow. Legs dark indigo-blue, the tibiae and tarsi yellowish, the claws on their apices somewhat brownish.

Length—19 mm.

Hab.—Hokkaido (Sapporo, Jozankei).

**Trichosoma albopilosum Mats. (Pl. VII, Fig. 3, ♂)**

*Trichosoma albopilosum* Mats., Thous. Ins. Jap. Suppl., p. 31, pl. XLIV, f. 3, N. 780 (1912).

♂. It differs from the fore-going species in the following points:

1. Body much larger, covered with white grayish hairs. Length: 25 mm.
2. Clypeus and labrum pale yellow, the latter disk-shaped, on the base being somewhat constricted; mandibles dark brown, at the base fulvous.
3. Wings much narrower, the outer margin and the first cubital cell slightly infuscated.
4. The venter yellowish brown, the last segment large and nearly round, with short dark hairs.
5. Legs black, with a shade of indigo-blue, the trochanter and tarsi yellowish brown, the tibiae being fuscous.

Hab.—Honshu (Tokyo, rare).

**Clavellaria nitobei Mats. (Pl. VII, Fig. 4, ♀)**

*Clavellaria nitobei* Mats., Thous. Ins. Jap. Suppl., IV, p. 34, pl. XLIV, f. 4, ♀, N. 781 (1912).



♀. Black, head and thorax covered with long grayish hairs. Antennae dark brown, their clavate apices yellowish brown. Head impunctured, covered with gray and fuscous hairs. Clypeus and labrum pale yellow, shining, impunctured, the latter somewhat larger than the former and of a roundish form, mandibles castaneous brown. Wings subhyaline, with a yellowish shade; pterostigma and veins fuscous brown, the basal veins paler; the first cubital cell and the outer margin somewhat infuscated. Abdomen oblong, with some short brown hairs, except the 2nd, each segment on its hind margin yellowish white. Venter dark brown, each segment on its hind margin and the last segment yellowish brown. Legs black, the trochanter, tibiae and tarsi yellow.

Length—22 mm.

Hab.—Honshu (Aomori); the larva feeds on the apple-tree.

***Abia bantaizana* Mats. (Pl. VII, Fig. 6, ♀)**

*Abia bantaizana* Mats., Thous. Ins. Jap. Suppl., IV, p. 34, pl. XLIV, f. 6, ♀, N. 783 (1912).

♀. Dark indigo-blue, with black hairs. Antennae black. Eyes yellowish brown. Thorax closely fine punctured. Wings subhyaline, with a yellowish brown shade. Pterostigma dark brown, the veins mostly yellowish brown, in the middle the veins somewhat infuscated. Abdomen oblong, closely fine punctured, each segment constricted on its juncture, especially on the first and 2nd segments being conspicuous; the last segment covered with short grayish hairs. Venter dark brown. Legs black, the claws and spurs yellowish brown.

Length—14 mm.

Hab.—Honshu (Bantaizan); collected by Mr. M. Suzuki.

***Hylotoma (Arge) mali* Mats. (Pl. VII, Fig. 9, ♀)**

*Hylotoma (Arge) mali* Mats., Thous. Ins. Jap. Suppl., IV, p. 36, pl. XLIV, f. 9, ♀, N. 786 (1912).

♀. Black, covered with short grayish white hairs. Antennae yellowish brown, 2 basal joints black. Labial palpi fulvous. Mandibles on their apices reddish brown. Head remotely fine punctured. Thorax shining, very fine punctured, but not distinct. Wings subhyaline, with a yellowish tinge; stigma and veins on the outer one third fulvous; below the stigma with a dark spot. Abdomen shining, with a greenish flash, the 3rd and 4th segments yellowish white. Legs black, with a greenish reflection; tibiae except the apices yellowish white; spurs fulvous, the claws reddish brown.

Length—8-10 mm.

Hab.—Hokkaido (Sapporo); the larva feeds on the apple-tree.

***Tenthredo jonoensis* Mats. (Pl. VII, Fig. 13, ♀)**

*Tenthredo jonoensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 38, pl. XLIV, f. 13, ♀, N. 790 (1912).

♀. Black, with an indigo-blue reflection, covered with short grayish hairs. Head large, broader than the thorax, shining, remotely fine punctured; vertex somewhat excavated. Clypeus, labrum and mandibles yellowish white, the apices of the latter dark brown; L-shaped spot behind the eye, the hind margin of the prothorax, the tegulae, the scutellum, the hind margin of the metanotum and a spot of the mesopleura as well as the first abdominal segment ivory white. The 3rd antennal joint much longer than the 4th. Thorax closely fine punctured. Wings subhyaline, with a yellowish flash; sparsely covered with short black hairs; stigma and costa yellowish brown, the outer one third of the wing fuscous, with an indigo-blue reflection, the veins dark brown. Abdomen slender, broader at the 6th and 7th segments, the first segment in the middle fuscous. Legs yellowish white, the coxae at the basis, the femora and tibiae on their apices black, each tarsal joint on its apex somewhat fuscous, the claws yellowish brown.

Length—17 mm.

Hab.—Kiushu (Jono).



***Tenthredo jozanus* Mats. (Pl. VII, Fig. 16, ♀)**

*Tenthredo jozanus* Mats., Thous. Ins. Jap. Suppl., IV, p. 41, pl. XLIV, f. 16, ♀, N. 793 (1912).

♀. Black, with short grayish hairs. Antennae, palpi, clypeus, labrum, the hind margin of the pronotum, the tegulae, the scutellum, the postscutellum and the legs yellow. Mandibles on their apices yellowish brown. Antennae slender, the 2nd, 3rd and 4th joints on each outer side with a longitudinal dark line. Head fine punctured and somewhat wrinkled, shining. Thorax fine punctured, between the scutellum and postscutellum with a triangular spot and the concolorous 2 points. Wings hyaline, with a yellowish flash, the costa and stigma yellow, the veins dark brown, at the apex with an oval-shaped dark spot. Abdomen castaneous brown, on the sides and at the venter yellowish brown. Coxae and femora on each outer side with a longitudinal dark brownish line. Tarsi yellowish white, the claws on the apices yellowish brown.

Length—12 mm.

Hab.—Hokkaido (Sapporo, rare).

***Tenthredopsis hakiensis* Mats. (Pl. VII, Fig. 17, ♀)**

*Tenthredopsis hakiensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 42, pl. XLIV, f. 17, ♀, N. 794 (1912).

♀. Yellowish brown. Antennae except the basis dark brown. Head on its vertex dark brown, shining, with large shallow punctures. Clypeus, labrum and mandibles yellowish white, the latter on their apices dark brown. Pronotum on its hind margin in a transverse row with 4 brownish spots; mesonotum fine punctured, with 4 large brownish spots. Scutellum pyramidally elevated. Wings hyaline, with a yellowish flash, the costa dark brown, the stigma yellow, the outer margin broadly black, with a bluish reflection, the veins being dark brown. Abdomen dark brown, with a bluish luster, the 3rd, 4th and 5th segments each in the middle and at the venter yellowish. Sternum

and pleurae dark, with large rough punctures, the mesonotum on each side with an acute spine. Legs yellow, the hind coxae, the apices of the hind femora and the larger parts of the hind tibiae dark brown, the claws at the apices yellowish brown.

Length—18, 5 mm.

Hab.—Kiusiu (Kumamoto, Haki).

***Tenthredopsis flavomandibulata* Mats. (Pl. VII, Fig. 18, ♀)**

*Tenthredopsis flavomandibulata* Mats., Thous. Ins. Jap. Suppl., IV, p. 43, pl. XLIV, f. 18, ♀, N. 795 (1912).

♀. Body black. Clypeus, labrum and mandibles yellow, the latter at the apices being somewhat fuscous. Antennae black, the basal part of the 3rd segment being dark brown. Head roughly punctured. Meso- and metanotum closely fine punctured. Wings subhyaline, with a yellowish brown shade, the stigma and veins dark brown. Abdomen cylindrical, the 3rd, 4th and 5th segments above yellowish brown, on the sides dark brown; 1-5 ventral segments each in the middle yellowish brown. Metapleurae on each side with a yellowish spot. Legs dark brown, the femora at the basis, the tibiae and tarsi yellowish brown.

Length—13 mm.

Hab.—Honshu (Tokyo).

***Tenthredopsis abdominalis* Mats. (Pl. VII, Fig. 19, ♀)**

*Tenthredopsis abdominalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 44, pl. XLIV, f. 19, ♀, N. 796 (1912).

♀. Body black. Mandibles at the basis white, in the middle fuscous, at the apices yellowish brown. Clypeus with a white patch on each side. Head roughly punctured. Pro-, meso- and metanotum very fine punctured, behind the scutellum on each side with a grayish white spot. Wings hyaline, with a yellowish flash; stigma and veins dark brown. Abdomen dark indigo-blue, the apices of the anterior



femora, the front-side of the anterior tibiae and the first tarsal segment yellowish white. Claws at the apices and the spurs yellowish brown.

Length—14 mm.

Hab.—Hokkaido (Sapporo).

***Tenthredopsis basalis* Mats. (Pl. VII, Fig. 21, ♂)**

*Tenthredopsis basalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 46, pl. XLIV, f. 21, ♂, N. 798 (1912).

♂. Body above black, underside yellow. Clypeus, labrum, palpi and mandibles pale yellow, the latter at the apices being dark brown. Antennae above dark brown, on the underside yellowish brown, the first joint being yellow. Pronotum on its hind margin, the tegulae, the scutellum, the postscutellum and the hind margin of the metanotum yellow. Wings hyaline, with a yellowish shade, the stigma and veins dark brown. Abdomen cylindrical, in its middle somewhat narrowed, 2 basal segments shining black, the first segment on each side dark brown; the remaining segments yellowish brown. Legs yellow, the hind femora above dark brown.

Length—11 mm.

Hab.—Honshu (Kyoto, collected by Mr. M. Suzuki).

***Macrophya nigrolineata* Mats. (Pl. VII, Fig. 23, ♂)**

*Macrophya nigrolineata* Mats., Thous. Ins. Jap. Suppl., IV, p. 48, pl. XLIV, f. 23, ♂, N. 800 (1912).

♂. Body pale yellow. A crown-shaped spot of the vertex, a side-spot of the pronotum, 3 large spots of the mesonotum, the metanotum and each band of the abdominal segments black. Antennae above black, on the underside pale yellow. Scutellum and postscutellum with narrow hind margin pale yellow. Wings subhyaline, strongly iridescent, the stigma and the veins dark brown. Each abdominal segment of the female on its hind margin pale yellow, in the male each segment at the middle with a triangular pale

yellowish spot. Legs pale yellow, the hind femora on each outside with a longitudinal black line, the same tibiae at the basal two thirds and the apices as well as the tarsi (except the base of each joint, which is grayish white) dark brown.

Length—♀ 10 mm; ♂ 8 mm.

Hab.—Hokkaido (Sapporo, rare).

***Macrophya sapporensis* Mats. (Pl. VII, Fig. 24, ♀)**

*Macrophya sapporensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 49, pl. XLIV, f. 24, ♀, N. 801 (1912).

♀. Body black. The inner sides of the eyes, the hind margin of the head, the clypeus, the labrum, the hind margin of the pronotum at the sides, the tegulae, the scutellum, 2 spots of the metanotum, the first abdominal segment as well as the pygidium at the apex yellow. Antennae yellowish brown, 1-4 joints above dark brown. Head and notum similarly punctured. Wings hyaline, with a yellowish shade; veins and stigma dark brown, at the costa yellowish. Abdomen yellowish brown, oblong, the first 3 segments at the basis dark brown. Meso- and metapleurae with each a yellowish white spot. Legs yellow, the coxae black, on each outer side with a white spot; the femora on each inner side with a longitudinal dark stripe; the apices of the tibiae dark brown.

Length—19 mm.

Hab.—Hokkaido (Sapporo).

***Siobla grandis* Mats. (Pl. VII, Fig. 26, ♀)**

*Siobla grandis* Mats., Thous. Ins. Jap. Suppl., IV, p. 51, pl. XLIV, f. 26, ♀, N. 803 (1912).

♀. Body dark brown. Antennae, clypeus, labrum, mandibles, a spot on the occiput, the genae, the hind margin of the pronotum, the scutellum, the larger part of the metanotum and the first 3 segments of the abdomen yellowish brown. Antennae short, at the extreme



apices fuscous. Head and thorax strongly punctured and granulated. Scutellum pyramidally elevated. Wings subhyaline, with a yellowish brown shade; veins fuscous, the stigma yellowish brown. Abdomen broad, the first segment at the base with a tooth-like elevation, the hind margin of the 3rd and the following segments dark brown. Venter pale yellowish brown. Legs yellowish brown; the coxal spots and a femoral stripe of each of the anterior and middle legs, the hind coxae except the apices, the hind femora except the basis as well as the tips of the hind tibiae black, mesopleurae strongly granulated.

Length—15 mm.

Hab.—Hokkaido (Sapporo).

**Conospidia umbrosa Mats. (Pl. VII, Fig. 27, ♀)**

*Conospidia umbrosa* Mats., Thous. Ins. Jap. Suppl., IV, p. 52, pl. XLIV, f. 27, ♀, N. 804 (1912).

♀. Body dark brown. Head pale yellow, vertex black, the frontal parts of the ocelli and the middle part of the occiput pale yellow. Antennae dark brown, the first 3 segments somewhat paler in the colour. Mandibles yellow, the apical half yellowish brown, at the extreme apex fuscous. Head impunctured. Thorax very fine punctured. Pronotum on its hind margin yellow; the mesonotal furrows, the tegulae, the sides of the scutellum and the postscutellum yellow. Wings subhyaline, with a yellowish shade; veins fuscous, the stigma yellowish brown, below the stigma with a fulvous stripe which reaches the outer margin. Abdomen narrow at the base, the 5th and 6th segments broad, the first and 2nd at the sides, the 3rd at the hind margin, the 4th at the sides, a spot of each of the 6th, 7th and 8th as well as the pygidium yellow. Pro-, meso- and metapleurae on each side with a yellowish spot, the middle spot being the largest. Legs yellowish brown, 2 stripes of the coxae, a longitudinal stripe of each femur dark brown, the tarsi being yellow.

Length—15 mm.

Hab.—Hokkaido (Sapporo).

**Conospidia cylindrica Mats. (Pl. VII, Fig. 28, ♀)**

*Conospidia cylindrica* Mats., Thous. Ins. Jap. Suppl., IV, p. 53, pl. XLIV, f. 28, ♀, N. 805 (1912).

♀. Body yellowish brown, on the underside yellow. Anterior half of the head yellow, between the antennae with a longitudinal yellowish brown stripe. Antennae yellowish brown, the basal segment being paler in colour. Pronotum on its hind margin, 4 oblique stripes along the mesonotal furrow, the scutellum, the larger part of the metanotum, as well as the first abdominal segment pale yellow. Thorax sparsely fine punctured. Wings subhyaline, with a yellowish shade; veins fuscous, the costa and stigma yellowish brown. Abdomen yellow, narrow, the 7th segment being the broadest; the sides of each segment, as well as the 5th and 6th segments yellowish brown. Legs yellow, a broad coxal and a narrow femoral as well as a tibial stripe black.

Length—14 mm.

Hab.—Honshu (Kyoto).

**Allanthus flavipectus Mats. (Pl. VII, Fig. 29, ♀)**

*Allanthus flavipectus* Mats., Thous. Ins. Jap. Suppl., IV, p. 54, pl. XLIV, f. 29, ♀, N. 806 (1912).

♀. Body yellow. Head above, the antennae except the scapi, the mesonotum, the 2nd, 5th, 6th, 7th and 8th abdominal segments black. Mandibles at the apices dark brown; scutellum yellow, in the middle black. The larger part of the metanotum yellow, the postscutellum black. Wings subhyaline, with a yellowish brown shade, the veins and a broad stripe at the costa beyond the stigma fuscous, the stigma yellowish brown. The first, except the anterior margin, the 3rd and 4th abdominal segments yellow, the 2nd with a narrow yellowish band near the hind margin; the apical 4 segments with a purple reflection. Mesosternum with an irregular dark marking. Legs yellow, the femora (except the anterior legs) and tibiae above with each a longitudinal dark brown line.



Length—12 mm.

Hab.—Kiusu (Kumamoto).

**Allanthus nigripectus Mats. (Pl. VIII, Fig. 1, ♀)**

*Allanthus nigripectus* Mats., Thous. Ins. Jap. Suppl., IV, p. 55, pl. XLV, f. 1, ♀, N. 807 (1912).

♀. Body above dark brown, on the underside black. Clypeus, labrum, mandibles except the apices, the scapi, the propleurae, a side-mark of the scutellum, the hind margin of the meso- and metanotum narrowly, a spot of the first abdominal segment as well as the 3rd yellow. The inner margin of the eyes, a side-mark of the occiput, the hind margin of the pronotum, the tegulae and the scutellum yellowish brown. Wings subhyaline, with a yellowish brown shade; the veins and the broad costal stripe beyond the stigma fuscous, the latter being yellowish brown. Abdomen dark brown, with a purple reflection, the apical 2 segments grayish yellow. Legs yellow, the coxae and trochanter black, the anterior and middle femora with each 2 longitudinal black stripes, the same tibia with one black stripe, the hind femora black. It resembles much the fore-going species, but being easily distinguished by the black sternum.

Length—14 mm.

Hab.—Hokkaido (Sapporo).

**Allanthus bicinctus Mats. (Pl. Fig. 2, ♀)**

*Allanthus bicinctus* Mats., Thous. Ins. Jap. Suppl., IV, p. 56, pl. XLV, f. 2, ♀, N. 808 (1912).

♀. Body black, with short grayish hairs. Antennae and mandibles dark brown, the latter at the basis yellowish. The hind margin of the pronotum, the tegulae (in the middle fuscous), a side-mark of the metapleurae and the first and 5th abdominal bands yellow. Thorax strongly punctured; the scutellum smooth, pyramidally elevated. Wings subhyaline, with a yellowish brown shade, at the

costa with a broad longitudinal fuscous stripe, at the apex reflecting a purple colour; the stigma yellowish brown, the veins fuscous. Abdomen smooth, shining, with a purple reflection. Legs yellowish brown, the coxae, trochanter and femora largely dark brown; the anterior and middle femora above and the posterior femora at the apices yellowish brown, the tibia above somewhat fuscous.

Length—14 mm.

Hab.—Honshu (Hakone).

**Allanthus sapporensis Mats. (Pl. VIII, Fig. 3, ♀)**

*Allanthus sapporensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 58, pl. XLV, f. 3, ♀, N. 809 (1912).

♀. Body pale yellow. Vertex, occiput, antennae except the scapi, 3 spots of the mesonotum (two hind spots being united together), the markings of the 2nd, 5th, 6th and 7th abdominal segments black. Legs pale yellow, the middle and posterior femora, the tibiae and tarsi with each a longitudinal black stripe. Length 11 mm.

Hab.—Hokkaido (Sapporo, rare).

**Sciopteryx apicalis Mats. (Pl. VIII, Fig. 4, ♀)**

*Sciopteryx apicalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 58, pl. XLV, f. 4, ♀, N. 810 (1912).

♀. Body black, with short grayish hairs. Labrum, mandibles and palpi yellowish brown. Head sparsely large punctured. The punctuation of the thorax shallow and indistinct. Metanotum with 2 yellowish spots. Wings hyaline, the veins yellowish brown, the costa, the stigma and the middle vein dark brown. Abdomen reddish brown, the first 2 as well as the last segments dark brown, the basal 2 segments being coarsely punctured. Legs black, the basal parts of the middle and posterior tibiae yellow, the anterior legs largely yellow, the basal parts of the femora, the trochanter and coxae being black.



Length—11 mm.

Hab.—Hokkaido (Sapporo).

**Strongylogaster moiwanus Mats. (Pl. VIII, Fig. 5, ♂)**

*Strongylogaster moiwanus* Mats., Thous. Ins. Jap. Suppl., IV, p. 59, pl. XLV, f. 5, ♂, N. 811 (1912).

♂. Body black, the labrum and mandible brown, the palpi grayish yellow. Head fine punctured. The posterior margin of the pronotum and tegulae yellow, 2 spots of the metanotum white. Wings hyaline, with a slight yellowish tinge; veins and stigma dark brown, the costal margin and the base yellowish. Abdomen dark brown, each hind margin, except the first, yellowish brown, the 3rd and 4th being the broadest. Legs black, the tips of the femora, the basis of the tibiae as well as the posterior metatarsi white, the anterior and posterior tibiae as well as the tarsi grayish yellow.

Length—9 mm.

Hab.—Hokkaido (Sapporo).

**Strongylogaster compressus Mats. (Pl. VIII, Fig. 6, ♀)**

*Strongylogaster compressus* Mats., Thous. Ins. Jap. Suppl., IV, p. 60, pl. XLV, f. 6, ♀, N. 812 (1912).

♀. Body black, clypeus, labrum, mandibles, palpi, the hind margins of the pro-, meso- and metanotum, 2 spots of the metanotum and the tegulae white. Head and thorax impunctured. Wings hyaline, with a slight yellowish shade; veins dark brown, the stigma grayish white. Abdomen yellowish white, on each side with a dark stripe, at the apical half strongly compressed. Legs yellowish white.

Length—8 mm.

Hab.—Hokkaido (Sapporo).

**Poecilosoma pallipes Mats. (Pl. VIII, Fig. 7, ♀)**

*Poecilosoma pallipes* Mats., Thous. Ins. Jap. Suppl., IV, p. 61, pl. XLV, f. 7, ♀, N. 813 (1912).

♀. Body black; 2 spots of the vertex, the inner margin of the eyes, the basis of the scapi, a spot between the scapi, the anterior margin of the clypeus, the labrum, the mandibles except the brown apices, the cheeks, a spot on the occiput, the hind margin of the pronotum, the tegulae, 2 converging stripes along the metanotal furrows, 2 longitudinal lines at the hind part of the mesonotum, a spot of the mesopleura, a triangular spot and the hind margin of each abdominal segment, the venter and the legs yellow. Wings nearly hyaline, the veins and the stigma fulvous, the middle veins being fuscous. Abdomen flat, oblong, shining, the yellowish part of the hind margin of each abdominal segment being interrupted. Ventral segments on each side, the coxae at the basis, the hind coxae at the apices and the upper parts of the tibiae fuscous.

Length—8 mm.

Hab.—Hokkaido (Sapporo).

**Poecilosoma unicolor Mats. (Pl. VIII, Fig. 8, ♀)**

*Poecilosoma unicolor* Mats., Thous. Ins. Jap. Suppl., IV, p. 62, pl. XLV, f. 8, ♀, N. 814 (1912).

♀. Body yellowish brown. The 2nd, 3rd and 4th antennal joints above fuscous. Wings hyaline, with a yellowish tinge; stigma and veins yellowish brown, a spot near the stigma fuscous, the costal and radial veins somewhat fuscous; costa with grayish hairs. Legs yellowish brown, the hind femora long, exceeding the pygidium.

Length—10 mm.

Hab.—Honshu (Kyoto).

**Eriocampa guttata Mats. (Pl. VIII, Fig. 9, ♀)**

*Eriocampa guttata* Mats., Thous. Ins. Jap. Suppl., IV, p. 63, pl. XLV, f. 9, ♀, N. 815 (1912).

♀. Body yellowish brown. The apices of the mandibles reddish brown. Ocelli dark brown, 3 spots of the mesonotum, the scutellum



and a lateral spot of the latter black; metanotum castaneous brown, the side-keels yellowish brown. Wings hyaline, at the basis and the costal margins yellowish; a spot at the base, a band across the stigma and a spot at the apex fuscous; stigma at the inner half black, at the outer half yellowish, the hind margin in the middle fuscous. Mesosternum fuscous. The first abdominal segment at the anterior and posterior margins fuscous, the 4th, 5th and 6th black, the 4th in the middle yellow. Legs yellowish, the claws yellowish brown.

Length—11 mm.

Hab.—Hokkaido (Sapporo).

**Eriocampa albipes Mats. (Pl. VIII, Fig. 10, ♀)**

*Eriocampa albipes* Mats. Thous. Ins. Jap. Suppl., IV, p. 64, pl. XLV, f. 10, ♀, N. 816 (1912).

♀. Body black, shining, with short grayish hairs. Mandibles at the apices yellowish brown. Head coarsely punctured. Mesonotum nearly impunctured; scutellum and metanotum coarsely punctured. Wings hyaline, the veins dark brown, the costal vein and the stigma black. Abdomen flat, broadest at the 4th segment. Legs black, the tibiae and tarsi mostly grayish white, the former on both ends, the latter at the apex of each joint fuscous.

Length—6 mm.

Hab.—Hokkaido (Sapporo).

**Taxonus fulvicornis Mats. (Pl. VIII, Fig. 11, ♂)**

*Taxonus fulvicornis* Mats. Thous. Ins. Jap. Suppl., IV, p. 65, pl. XLV, f. 11, ♂, N. 817 (1912).

♂. Body black, with short grayish hairs. Antennae fulvous, the 2 basal and 3 apical joints fuscous. Head and thorax coarsely punctured; 2 spots behind the scutellum grayish white. Wings subhyaline, with a yellowish tinge. Veins dark brown, at the costa and the inner margin of the stigma yellow, the stigma being black.

Abdomen narrow and flat, at the sides with short grayish hairs. Legs black, the larger parts of the anterior legs, the basis of the middle femora, the middle tibiae, the tarsi and the hind trochanter pale yellowish brown; the anterior femora at the basis, the trochanter and coxae fuscous.

Length—12 mm.

Hab.—Honshu (Kyoto).

**Monophadnus apicalis Mats. (Pl. VIII, Fig. 13, ♀)**

*Monophadnus apicalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 66, pl. XLV, f. 13, ♀, N. 819 (1912).

♀. Body black, with short grayish hairs. Mandibles at the apices, the palpi yellowish brown. Head and thorax shining, almost impunctured, 2 spindle-shaped spots behind the scutellum grayish white. Wings hyaline, with a fuscous shade; veins yellowish brown, the middle and the costal veins as well as the stigma dark brown. Abdomen except the first and the last 3 segments bright yellow. Legs pale yellow, the basis of the femora, the trochanter as well as the coxae fuscous.

Length—5 mm.

Hab.—Hokkaido (Sapporo).

**Blenocampa thoracica Mats. (Pl. VIII, Fig. 14, ♀)**

*Blenocampa thoracica* Mats., Thous. Ins. Jap. Suppl., IV, p. 69, pl. XLV, f. 14, ♀, N. 820 (1912).

♀. Body yellowish brown. The ocellar region as well as the meso- and metanotum fuscous. Antennae black, the scapi yellowish brown. Labrum and the apices of the mandibles fuscous. Wings hyaline, the larger basal part opaque, fuscous; the costal margin and the stigma black. Abdomen oblong, broadest at the 5th segment. Legs yellowish brown, the tips of the tibiae and tarsal joints fuscous.

Length—9 mm.

Hab.—Honshu (Kyoto).



**Athalia nigrinotum Mats. (Pl. VIII, Fig. 17, ♀)**

*Athalia nigrinotum* Mats., Thous. Ins. Jap. Suppl., IV, p. 69, pl. XLV, f. 17, ♀, N. 822 (1912).

It differs from *A. colibri* Christ in the following points:

1. Clypeus, labrum and mandibles black, the latter at the apices being reddish brown.
2. Vertex with some longitudinal wrinkles.
3. Meso- and metanotum dark brown, with some strong longitudinal wrinkles.
4. The first abdominal segment in the middle fuscous.
5. Tibiae and tarsi fuscous, the first tarsal joints of the whole legs at the basis, as well as the 2nd and 3rd joints of the anterior legs at the basis yellowish.

Length—7 mm.

Hab.—Honshu, Kiushu, Okinawa.

**Dolerus jesoensis Mats. (Pl. VIII, Fig. 18, ♀)**

*Dolerus jesoensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 70, pl. XLV, f. 18, ♀, N. 823 (1912).

♀. Body black, with short grayish white hairs. Antennae slenderer towards the apices. Head coarsely punctured. Pro- and mesonotum reddish brown, the middle part of the latter and the scutellum fuscous. Wings hyaline, iridescent, with a slight fulvous shade; veins brown, the middle veins, the costa and stigma black. Abdomen at the base and apex shining black; the 2nd segment at the hind margin, the 3rd, 4th and 5th orange-yellow. Legs black; the anterior femur at the apical half, the same tibia at the basal half, the middle femur at the apex and the same tibia at the base very narrowly yellowish brown.

Length—8 mm.

Hab.—Hokkaido (Sapporo, not rare).

**Dolerus biguttatus Mats. (Pl. VIII, Fig. 20, ♂)**

*Dolerus biguttatus* Mats., Thous. Ins. Jap. Suppl., IV, p. 71, pl. XLV, f. 20, ♂, N. 825 (1912).

♂. Body black, with short fuscous hairs. Antennae above with a dark longitudinal line which reaches the 5th joint. The inner sides of the eyes, a transverse mark behind the eyes, a spot between the antennae, the sides of the clypeus, the labrum, the basis of the mandibles, the posterior margin of the pronotum, the tegulae, 2 spots of the first abdominal segment and the legs largely yellow. Head fine punctured; the thorax finer punctured than on the head, 2 metanotal spots grayish. Wings hyaline, with a slight yellowish tinge; veins and stigma fulvous. Abdomen narrow, the 2nd, 4th and 5th segments on each side with a fulvous spot. Coxae, trochanter, the upper part of the femora, the apices of the posterior femora, both ends of the same tibiae as well as the posterior metatarsi black.

Length—8 mm.

Hab.—Hokkaido (Sapporo, not rare).

**Dolerus albicinctus Mats. (Pl. VIII, Fig. 21, ♀)**

*Dolerus albicinctus* Mats., Thous. Ins. Jap. Suppl., IV, p. 72, pl. XLV, f. 21, ♀, N. 826 (1912).

♀. Body black, with short fuscous hairs. Mandibles at the apices and the palpi fuscous. Head and thorax very fine punctured, 2 spots of the metanotum grayish white. Wings hyaline, with a yellowish shade, the veins and the stigma fuscous. The first abdominal segment in the middle and the 5th at the anterior margin grayish white. Legs black, the apices of the 2 anterior femora, the same tibiae and tarsi as well as the hind trochanter yellowish white, the hind tibiae and tarsi fulvous.

Length—8 mm.

Hab.—Hokkaido (Sapporo).



**Dolerus flavopictus Mats. (Pl. VIII, Fig. 22, ♀)**

*Dolerus flavopictus* Mats., Thous. Ins. Jap. Suppt., IV, p. 73, pl. XLV, f. 22, ♀, N. 827 (1912).

♀. Body black, with a greenish shade, covered with short fulvous hairs. The anterior margin of the clypeus, the labrum and the mandibles yellow, the latter at the apices dark brown. Antennae fulvous, the basal 3 segments fuscous, the 4th-7th segments above with each a fuscous line. Head coarsely punctured. Thorax very fine punctured; metanotum with 2 grayish white spots. Wings hyaline, with a grayish tinge, the veins and the stigma grayish white. Abdomen in the middle fulvous, this mark extending from the 2nd to the 5th segment; venter in the middle also fulvous. Legs yellow, the coxae and trochanter black, the apices of the former being yellowish.

Length—6 mm.

Hab.—Hokkaido (Sapporo).

**Lyda kumamotonis Mats. (Pl. VIII, Fig. 24, ♀)**

*Lyda kumamotonis* Mats., Thous. Ins. Jap. Suppl., IV, p. 75, pl. XLV, f. 24, ♀, N. 829 (1912).

♀. Body black, The periphery of the ocelli, a triangular spot at the inner side of the eye, a curved line behind the fore-going spot, 2 spots of the occiput, the anterior margin of the labrum, the mandibles, the palpi, the hind margin of the pronotum, the tegulae, the scutellum, 3 spots of the metanotum, a large central mark of the abdomen, the hind margin of each ventral segment as well as the legs yellow. The middle parts of the mandibles fuscous, at the apices yellowish brown. Wings hyaline, with a yellowish shade; veins and stigma fuscous, the inner side of the latter yellow. Abdomen oval, flat. Coxae black, the apices somewhat yellowish, the tarsal ends somewhat brownish.

Length—12 mm.

Hab.—Kiushu (Kumamoto).

**Lyda posticalis Mats. (Pl. VIII, Fig. 25, ♀)**

*Lyda posticalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 79, pl. XLV, f. 25, ♀, N. 830 (1912).

♀. Body black. Two spots just behind the ocelli, a triangular spot at the anterior margin of the eye, a narrow line behind the fore-going spot, the cheeks, 2 spots of the occiput, the anterior margin of the labrum and a middle spot of the same, the palpi, the hind margin of the pronotum, the tegulae, 3 spots of the mesonotum, the scutellum and 2 spots on each side, 3 spots of the metanotum, the gula and the middle and posterior pleurae yellow. Mandibles at the apices fulvous. Head large punctured. Thorax sparsely large punctured. Wings hyaline, with a fulvous tinge, the veins and the stigma yellowish brown. Abdomen and legs fulvous. Venter yellow, the last segment dark brown. Coxae black, on the underside with a narrow yellowish line, the trochanter and femora above black.

Length—13 mm.

Hab.—Honshu (Tokyo, rare).

**Lyda nigricans Mats. (Pl. VIII, Fig. 26, ♀)**

*Lyda nigricans* Mats., Thous. Ins. Jap. Suppl., IV, p. 77, pl. XLV, f. 26, ♀, N. 831 (1912).

♀. Body black, with short grayish hairs. A large spot on the fore-head, which becomes narrower between the antennae, 2 basal segments of the antennae, the mandibles, the palpi as well as the tegulae yellow. Mandibles at the apices fuscous. The 3rd antennal joint on the underside fulvous. Vertex closely large and occiput sparsely fine punctured. Mesonotum at the sides sparsely large punctured. Wings hyaline, with a fulvous shade; veins and stigma dark brown, the inner side of the latter with a small cloudy spot. Each ventral segment at the hind margin fulvous. Legs pale yellow, the coxae except the apices, and a basal spot of each femur black.

Length—18 mm.



Hab.—Hokkaido (Sapporo, rare).

**Lyda nigricoxae Mats. (Pl. VIII, Fig. 27, ♂)**

*Lyda nigricoxae* Mats., Thous. Ins. Jap. Suppl., IV, p. 78, pl. XLV, f. 27, ♂, N. 832 (1912).

♂. Body black, with short fulvous hairs. A spot of the inner margin of the eye, a central spot of the labrum, the antennae, the mandibles, the palpi, a side-spot of the pronotum, the tegulae, 2 small spots of the anterior part of the mesonotum, the scutellum, 3 spots of the metanotum, the sides and the genital appendices of the abdomen, the hind margin of each ventral segment and the legs yellow. Mandibles at the apices fuscous. Head coarsely punctured. Wings subhyaline, the veins and the stigma fuscous. The first abdominal segment on its bare region and the 2nd segment in the middle grayish white. Coxae and trochanter largely black.

Length—10, 5 mm.

Hab.—Hokkaido, Honshu; the larva feeds on the pine-leaves.

**Lyda semiflava Mats. (Pl. VIII, Fig. 28, ♀)**

*Lyda semiflava* Mats., Thous. Ins. Jap. Suppl., IV, p. 79, pl. XLV, f. 28, ♀, N. 833 (1912).

♀. Body black, with short fulvous hairs. A spot before the eye, 2 spots of the occiput, the hind margin of the occiput at the sides, the posterior margin of the pronotum, 2 spots of the mesonotum, the scutellum and postscutellum yellow. Mandibles, palpi, abdomen above, the sides of the venter as well as the legs fulvous. Antennae pale yellow, the basal 2 segments and the apical one fourth fuscous. Head large punctured. Thorax shining, less sparsely punctured than on the head. Wings hyaline, with a slight yellowish tinge, the veins and the stigma fuscous, the anterior margin yellowish. Coxae, trochanter and femora (except the apices) black.

Length—12 mm.

Hab.—Hokkaido (Sapporo).

**Lyda sapporensis Mats. (Pl. VIII, Fig. 29, ♂)**

*Lyda sapporensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 80, pl. XLV, f. 29, ♂, N. 834 (1912).

♂. Body black, with short fulvous hairs. Antennae, fore-head (including clypeus and labrum), mandibles, cheeks, a side-spot of the occiput, the sides of the pronotum as well as the sides of the posterior margin, the tegulae, the scutellum, the postscutellum, the larger parts of the abdomen and legs yellow. Antennae on their upper parts fulvous. Mandibles at the apices fuscous. Head coarsely punctured, on the occiput with 2 reddish brown spots. Thorax shining, sparsely fine punctured. Wings hyaline, with a yellowish tinge; veins and stigma dark brown, the former at the basal half yellowish, the latter on the inner side yellow. Abdomen narrow, flat, the 1st, 2nd and 3rd on each anterior margin, a spot on each side of the 4th–8th segments, the 6th–8th on each anterior margin black; venter yellow, on each side with a row of black spots. Coxae at their basis black.

Length—10, 5 mm.

Hab.—Hokkaido (Sapporo).

**Protichneumon maculifemoratus Mats. (Pl. IX, Fig. 3, ♂)**

*Ichneumon (Hoplismenus) maculifemoratus* Mats., Thous. Ins. Jap. Suppl., IV, p. 83, pl. XLVI, f. 3, ♂, N. 838 (1912).

♂. Body black. Antennae fuscous. Fore-head including the clypeus, the inner side of the eye, the frontal part of the scapus, the hind margin of the pronotum at the side, a spot in the middle of the tegula, the wing-basis, a spot just below the fore-going spot, the scutellum, 3 spots of the metanotum, the hind margin of the first abdominal segment, a side-spot at the posterior margin of the 2nd segment, the frontal parts of the anterior and middle coxae as well as the trochanter, the larger parts of the tibiae and tarsi (except the apices), 2 spots of the middle femur on the hind part and the basal half of the hind femur yellow. Clypeus at the sides somewhat



excavated and infuscated. Head remotely and thorax fine punctured. Wings subhyaline, fuscous, in the middle somewhat light coloured, with a purple reflection. Abdomen closely punctured, the 2nd segment at the base with 12-13 fine longitudinal furrows. Coxae on the outer sides with pale yellowish spots.

Length—24 mm.

Hab.—Hokkaido (Sapporo, Jozankei).

**Ichneumon 6-maculatus Mats. (Pl. IX, Fig. 4, ♂)**

Ichneumon (Hoplismenus) 6-maculatus Mats., Thous. Ins. Jap. Suppl., IV, p. 84 pl. XLVI, f. 4, ♂, N. 839 (1912).

♂. Body black, with short fulvous hairs. A spot in the middle of the antennae, the inner margin of the eye, a spot on each side of the clypeus, the posterior margin of the pronotum on each side, a spot of the tegula, a spot just below the latter, the scutellum, a spot at the posterior margin of the first abdominal segment on each side, the tibiae and tarsi yellow. Mandibles reddish brown, the palpi and antennae fuscous. Head and thorax closely fine punctured, being sparse on the vertex. Metanotum reticulated, on each side with a spine. Wings subhyaline; fore wings fuscous, with a purple reflection, the hind wings paler. Legs black, the larger parts of the femora yellowish brown, the anterior and middle femora on the underside being somewhat infuscated; the hind tibiae at the apices and the larger parts of the tarsi fuscous.

Length—24 mm.

Hab.—Kiushu (Kumamoto).

**Protichneumon horishanus Mats. (Pl. IX, Fig. 6, ♂)**

Ichneumon (Hoplismenus) horishanus Mats., Thous. Ins. Jap. Suppl., IV, p. 87, pl. XLVI, f. 6, ♂, N. 841 (1912).

♂. Black, with short fulvous and fuscous hairs. Two spots of the clypeus, the inner sides of the eyes, a spot below each scapus,

which is united with the inner line of the eye, the middle parts of the antennae, the palpi, the posterior margin of the pronotum on each side, 2 short longitudinal lines on the mesonotum, the tegulae, a spot just below the tegula, the scutellum, the postscutellum, 2 spots of the metanotum, the hind margin of the first abdominal segment, a spot on each side of the 2nd segment at the hind margin and a large spot of the mesopleura yellow. Head and thorax closely fine punctured. Wings subhyaline, fuscous, with an indigo-reflection. Legs black, the coxae at the apices, the trochanter, a middle spot of the middle femur, the middle part of the hind femur, the larger part of the tibia (except both ends) as well as the first 2 tarsal segments (except the apices) yellow, the 3rd tarsal joint of the hind leg in the middle also yellow.

Length—24 mm.

Hab.—Formosa (Horisha).

**Protichneumon taichuensis Mats. (Pl. IX, Fig. 7, ♂)**

Ichneumon (Hoplismenus) taichuensis Mats., Thous. Ins. Jap. Suppl., IV, p. 88, pl. XLVI, f. 7, ♂, N. 842 (1912).

♂. Black, with short fulvous hairs. The inner sides of the eyes, the fore-head, the clypeus, the labrum, the mandibles, the cheeks, the palpi, the middle part of the antenna above, the underside of the scapus, a transverse line of the collum, the hind margin of the pronotum on each side, 2 minute spots of the tegula, a spot just below the tegula, 2 minute spots on each lower end of the longitudinal furrows, the scutellum, a minute spot on each side of the latter, the postscutellum, a large spot of the mesopleura, as well as the hind margin of the first abdominal segment yellow. Head except the vertex, and the thorax closely fine punctured. Wings subhyaline, the basal half yellow, the outer half fuscous; stigma and veins dark brown; the veins in the middle here and there grayish white. Legs black, a spot on the underside of each anterior and posterior coxa, a spot on the upperside of each posterior coxa, the upper part of the anterior and middle tibia, the middle part of each hind femur, the tibiae and



tarsi yellow; a longitudinal line on the underside of each anterior and posterior tibia, the hind tibiae and the whole tarsi at each apex fuscous.

Length—27 mm.

Hab.—Formosa (Taichu).

**Protichneumon nakanensis Mats. (Pl. IX, Fig. 8, ♀)**

*Ichneumon nakanensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 90, pl. XLVI, f. 8, ♀, N. 843 (1912).

♀. Black, with short fulvous hairs. The inner sides of the eyes, a large triangular spot on each side of the fore-head, a side-spot of the clypeus, the labrum, the mandibles, the cheeks, the palpi, the middle part of the antennae, a transverse line of the collum, the hind margin of the pronotum on each side, a spot of the tegula, a spot just below the tegula, 2 longitudinal bars of the mesonotum, the scutellum, a large spot of the mesopleura and the larger part of the legs yellow. Mandibles at the apices reddish brown. Thorax fine, but on the disk of the mesonotum sparsely punctured. Wings subhyaline, with a yellowish tinge, the outer margin somewhat infuscated, the veins being fuscous. The 2nd abdominal segment above at the base with many longitudinal wrinkles. The underside of each anterior femur, a spot near the apex of each middle femur, the basal margin of middle coxa and the larger part of the hind coxa dark brown, the hind coxa above with a yellowish spot.

Length—33 mm.

Hab.—Honshu, Korea, Amur.

**Metopius hakiensis Mats. (Pl. IX, Fig. 9, ♂)**

*Metopius hakiensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 90, pl. XLVI, f. 9, ♂, N. 844 (1912).

♂. Black, with fulvous hairs. Fore-head, clypeus, mandibles at their basis, the palpi, the underside of the scapus, a large spot of

the mesopleura, 2 spots of the first abdominal segment, a side-spot at the hind margin of the 3rd segment as well as the hind margin of the 4th segment yellow. Fore-head large, pentagonal, somewhat excavated. Abdomen very coarsely large punctured. Scutellum on each side with a strong keel. Metanotum strongly reticulated. Wings nearly hyaline, with a fulvous tinge, the veins dark brown, the 2nd cubital cell nearly of a rhombic form. Legs yellow, each coxa except an underside-spot, and the middle part of each femur black, the tibiae and tarsi on each back, as well as the apices of the latter fuscous.

Length—19, 5 mm.

Hab.—Kiushu (Kumamoto).

**Ctenichneumon suzukii Mats. (Pl. IX, Fig. 11, ♂)**

*Ichneumon suzukii* Mats., Thous. Ins. Jap. Suppl., IV, p. 93, pl. XLVI, f. 11, ♂, N. 846 (1912)

♂. Black, with short yellowish white hairs. The inner sides of the eyes, the fore-head on the sides, the clypeus, the palpi, the underside of the scapus, the hind margin of the pronotum on each side, the tegulae, a longitudinal bar just below the tegula, the scutellum, the postscutellum as well as the hind margin of each abdominal segment yellow. Antennae reddish brown. Head and thorax closely fine punctured, the punctuation of the occiput being much finer. Metanotum closely punctured and reticulated, the areola with some transverse wrinkles. Wings subhyaline, infuscated, the veins and the stigma dark brown. The first abdominal segment near its hind margin with 4 longitudinal keels, of which the lateral ones being shorter, the marginal mark on the sides incised, the bands of the 2nd and 3rd segments broad, in the middle being semicircularly incised. Legs black, a spot of the coxa, the apices of the femora, the larger part of the tibiae and tarsi yellow, the apices of the hind tibiae being fuscous.

Length—15 mm.

Hab.—Honshu (Kyoto).



**Coelichneumon 7-guttatus Mats. (Pl. IX, Fig. 12, ♂)**

*Ichneumon 7-guttatus* Mats., Thous. Ins. Jap. Suppl., IV, p. 94, pl. XLVI, f. 12, ♂, N. 847 (1912).

♂. Black, with short fulvous hairs. Both narrow margins of the eyes, the side-spot of the fore-head and clypeus, the labrum, a spot of each mandible, the palpi, the underside of the scapus, the narrow margin at the base of the pronotum on each side, a spot of the tegula, a longitudinal bar just below the tegula, the scutellum, the postscutellum, the first abdominal segment at the hind margin as well as 2 spots at the hind margin of each of the 2nd, 3rd and 4th segments yellow. Antennae dark brown. Head and thorax moderately punctured. Mesonotum strongly reticulated, with many transverse wrinkles. Wings subhyaline, infuscated, the veins and the stigma dark brown. The first abdominal segment at the hind margin, the 2nd at the anterior margin on each side somewhat excavated. Legs black, a spot of the anterior and middle coxa, the larger parts of the same tibiae and tarsi, the fore-parts of the anterior femora, the apices of the middle femora as well as the basal parts of the posterior tibiae yellow; the anterior and middle tibiae at the outer sides with each a fuscous stripe, the apices of the middle tarsi and the whole hind tarsi dark brown.

Length—19, 5 mm.

Hab.—Hokkaido (Sapporo).

**Ichneumon angulosus Mats. (Pl. IX, Fig. 13, ♀)**

*Matsumurais angulosus* Mats., Thous. Ins. Jap. Suppl., IV, p. 95, pl. XLVI, f. 13, ♀, N. 848 (1912).

♀. Black, with short fulvous hairs. Palpi and the middle part of the antenna fulvous. A spot of the tegula, a longitudinal bar just below the tegula, the scutellum, a spot on each side of the first and 2nd abdominal segments at the hind margin, each minute spot of the apical 3 segments yellow. Wings subhyaline, slightly infuscated, the

veins dark brown, the stigma yellowish brown. Mesonotum strongly reticulated, the areola with longitudinal wrinkles. The spot of the 1st abdominal segment small, those of the 2nd segment much larger and of a triangular form, the latter segment at the hind margin being reddish brown. Legs dark brown, the larger part of the anterior femora, the tibiae and tarsi of the anterior and middle legs, the apices of the middle femora as well as the middle part of the hind tibia yellowish brown.

Length—15 mm.

Hab.—Hokkaido (Sapporo).

**Amblyteles niikunii Mats. (Pl. IX, Fig. 14, ♀)**

*Eurylabus niikunii* Mats., Thous. Ins. Jap. Suppl., IV, p. 96, pl. XLVI, f. 14, ♀, N. 849 (1912).

♀. Black, with short fulvous hairs. The inner margins of the eyes, the middle parts of the antennae, the scutellum, the basal part of the 2nd abdominal segment, a basal spot on each side of the 3rd segment, as well as the basal parts of the tibiae yellow. Labrum, palpi, tegulae, trochanter and tarsi reddish brown. Mesonotum strongly reticulated, on each side with a tooth-like projection. Wings subhyaline, with a dark brownish shade, the veins fuscous, the stigma, the costa and the submarginal vein yellowish brown. The 1st abdominal segment at the base with many transverse wrinkles, the basal mark of the 2nd segment in the middle narrow. Legs black, the hind femur at the apex with a tooth-like projection.

Length—15 mm.

Hab.—Honshu (Iwashiro, collected by Mr. Niikuni).

**Stenichneumon posticalis Mats. (Pl. IX, Fig. 15, ♀)**

*Ichneumon posticalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 97, pl. XLVI, f. 15, ♀, N. 850 (1912).

♀. Black, with short pale yellowish hairs, being coarsely fine



punctured. The apices of the mandibles and the palpi reddish brown, the middle parts of the antennae and a longitudinal bar at the inner side of the eye yellowish white; the apical parts of the antennae dark brown. Metanotum coarsely punctured, strongly reticulated, on each side with a small tooth-like projection. Wings subhyaline, slightly infuscated, the veins fuscous, the stigma yellowish brown. The 1st and 2nd abdominal segments on each side at the hind margin with a small yellowish white spot, the 4th-7th segments at each hind margin with a yellowish white spot, the former 3 being of an elliptical form; each segment at the hind margin in the middle reddish brown. Legs black, the apices of the anterior and posterior femora on the frontal parts and the larger parts of the same tibiae and tarsi (the outer side being fuscous) yellow, the tibiae and tarsi of the hind legs reddish brown; claws yellowish brown.

Length—15 mm.

Hab.—Hokkaido (Sapporo, not rare).

**Protichneumon takasagoensis Mats. (Pl. X, Fig. 1, ♂)**

*Ichneumon* (*Matsumurais*) *takasagoensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 101, pl. XLVII, f. 1, ♂, N. 854 (1912).

♂. Black, coarsely large punctured, with short fuscous hairs. Fore-head, clypeus, labrum, a spot of the mandibles, the palpi and a front-spot of the scapus yellow. Antennae fuscous. Scutellum sparsely large punctured, with a fulvous spot in the middle. Metanotum strongly punctured. Wings subhyaline, with a fuscous yellow tinge, reflecting a purple reflection, the veins and the stigma fuscous. The 1st segment of the abdomen at the hind margin, the 2nd, 3rd and 4th (except the hind margin of the last) yellowish brown. Legs black, the anterior coxae and trochanter at the apices and the tarsi yellowish; tibiae and the middle tarsi yellowish brown, the hind tibiae at the apices dark, the hind tarsi fuscous, a spot of each middle and posterior trochanter yellowish.

Length—23 mm.

Hab.—Honshu (Harima).

**Trogus arrogans Sm. subsp. shirakii Mats. (Pl. X, Fig. 3, ♀)**

*Trogus shirakii* Mats., Thous. Ins. Jap. Suppl., IV, p. 103, pl. XLVII, f. 3, ♀, N. 856 (1912).

♀. Dark brown, with short fulvous hairs. Head except the hind margin of the eye as well as the occiput dark brown, the basal two thirds of the antennae, the pro- and mesonotum, the tegulae, the postscutellum, the hind halves of the first and 2nd abdominal segments, the hind margin of each ventral segment as well as the connexivum yellowish brown. Antennae at the apices and a spot of the scapus fuscous. Scutellum pyramidally sharp pointed. Metanotum coarsely punctured, with irregular ridges, but not reticulated. Wings subhyaline, yellowish brown, at the apices fuscous, the veins and the stigma fulvous. Legs dark brown, the apices of the trochanter, the femora, except those of the hind legs, the tibiae and tarsi yellowish brown, the posterior half of the middle femur fuscous.

Length—40-45 mm.

Hab.—Honshu; perhaps one of the largest *Ichneumon*-species in Japan.

**Amblyteles omori Mats. (Pl. X, Fig. 9, ♀)**

*Eurylabus omori* Mats., Thous. Ins. Jap. Suppl., IV, p. 107, pl. XLVII, f. 9, ♀, N. 861 (1912).

♀. It differs from *A. niikunii* Mats. in the following points:

1. Body somewhat larger and broader.
2. Metanotum much more coarsely punctured.
3. The 3rd and 4th abdominal segments on each hind margin with a yellowish band, of which the band of the 4th is much narrower.
4. Tibiae and tarsi yellowish brown, the hind tibiae at the apex being fuscous.



Length—16 mm.

Hab.—Honshu (Morioka, collected by Prof. J. Omori).

**Protichneumon moiwanus Mats. (Pl. X, Fig. 10, ♀)**

*Ichneumon moiwanus* Mats., Thous. Ins. Jap. Suppl., IV, p. 108, pl. XLVII, f. 10, ♀, N. 862 (1912).

♀. Black, closely large punctured, with short fulvous hairs. The inner sides of the eyes, a spot of the cheek, a side-spot of the clypeus, the labrum, the middle parts of the antennae, the hind margin of the pronotum on each side, a longitudinal bar just below the tegula, 2 longitudinal spots in the middle of the mesonotum, the scutellum as well as a large spot of the mesopleura yellow. The 2nd and 3rd abdominal segments above and underside as well as the large part of the legs yellowish brown. Metanotum somewhat reticulated. Wings subhyaline, fulvous, the veins and the stigma dark brown. The 2nd and 3rd abdominal segments at the basis fuscous, the hind margin of the latter also fuscous. The 4th ventral segment in the middle yellowish brown. Coxae fuscous, with yellowish spots, the trochanter yellow, the underside of the latter with each a brownish spot.

Length—24 mm.

Hab.—Hokkaido (Sapporo, Jozankei).

**Opheltes glaucopterus L. subsp. apicalis Mats. (Pl. X, Fig. 14, ♀)**

*Astiphromma apicalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 111, pl. XLVII, f. 14, ♀, N. 866 (1912).

♀. Black, very fine punctured, with short fuscous hairs. Head, except the vertex, the antennae, the tegulae, a longitudinal bar just below the latter, the scutellum, the first 3 abdominal segments and the ovipositor, as well as the legs yellowish brown. Mandibles at the apices and the vertex fuscous. Scutellum somewhat elevated. Metanotum coarsely wrinkled, with a tooth-like projection on each side. Wings subhyaline, with a fulvous tinge, the veins and the stigma

fulvous, some of the former being fuscous. Abdomen strongly compressed, clavate, the last 3 segments black. Coxae dark brown, their apices yellowish brown.

Length—24 mm.

Hab.—Saghalien, Hokkaido, Honshu, Kiushu.

**Dicamptus nigropictus Mats. (Pl. XI, Fig. 2, ♀)**

*Ophion nigropictus* Mats., Thous. Ins. Jap. Suppl., IV, p. 113, pl. XLVIII, f. 2, ♀, N. 868 (1912).

♀. It differs from *O. pungens* Sm. in the following points:

1. Body much larger.
2. Mesonotum paler, with no longitudinal yellowish stripe.
3. Metanotal ridges not distinct.
4. The 3rd, 4th and 5th abdominal segments on its back with each a fuscous spot, the spot of the 3rd segment being larger and more distinct.
5. Claws yellowish brown, at the apices somewhat infuscated, the pectination longer.

Length—30 mm.

Hab.—Honshu, Okinawa, Korea.

**Henicospilus semiopacus Mats. (Pl. XI, Fig. 3, ♀)**

*Ophion semiopacus* Mats., Thous. Ins. Jap. Suppl., IV, p. 114, pl. XLVIII, f. 3, ♀, N. 869 (1912).

♀. Fulvous. Antennae longer than the body. The apices of the mandibles fuscous. Occiput on each side with a fuscous spot. Propleurae, 3 stripes of the mesonotum, the middle one extending from the anterior margin to the middle, and 2 side-stripes abbreviated on the frontal part, a spot in the middle of each meso- and metapleura, a spot of the metanotum as well as the apical halves of the first and 2nd abdominal segments black; 3-7 abdominal segments fuscous, the 3rd and 5th at the basis fulvous, a spot of the 4th at the base grayish



white. Wings subhyaline, the veins fuscous, the stigma and the costal margin fulvous, the former in the middle somewhat fuscous. Legs fulvous, the hind coxae black, the larger part of the same femur and the apices of the claws fuscous.

Length—21 mm.

Hab.—Formosa (Gyochi).

**Campoplex matsumurae Uch. (Pl. XI, Fig. 7, ♀)**

*Mesochorus japonicus* Mats., Thous. Ins. Jap. Suppl., p. 117, pl. XLVIII, f. 7, ♀, N. 873 (1912).

♀. Black, large and closely punctured, with short grayish hairs. Mandibles except the basis, and the palpi yellow. Tegulae yellowish brown. Wings subhyaline, yellowish brown, the first segment piceous, the 2nd, 3rd and 4th on each back and the apical 3 segments except the venter dark brown, the 5th at the anterior and posterior margins being reddish brown. Legs yellow, the coxae, except the apical portion of the anterior pair, the middle and posterior trochanter as well as the posterior femora fuscous; the middle femora at the basis, both ends of the posterior tibiae as well as the larger part of the middle and posterior tarsi yellowish brown.

Length—18 mm.

Hab.—Hokkaido (Sapporo); common.

**Aphanistes jozankeanus Mats. (Pl. XI, Fig. 8, ♀)**

*Habronyx jozankeanus* Mats., Thous. Ins. Jap. Suppl., IV, p. 118, pl. XLVIII, f. 8, ♀, N. 874 (1912).

♀. Black, with short yellowish white hairs. Antennae fulvous, the scapi yellow, the 2nd and 3rd joints on each back fuscous. A small spot on each side of the vertex, the fore-head, the clypeus, the labrum, the mandibles (except the brown apices), the cheeks and the larger part of the legs yellow. Pronotum at the hind margin on the side, the tegulae, the apical portion of the metanotum as well as the

larger part of the abdomen fulvous. Metanotum coarsely punctured and fine reticulated. Wings subhyaline, with a fulvous tinge, the veins fuscous, the stigma fulvous. The 2nd, 5th and 6th abdominal segments on each back fuscous; ovipositor yellow and long. Hind legs except the tarsi fulvous, the same coxae and the apical part of the tibiae fuscous.

Length—15 mm.

Hab.—Hokkaido (Sapporo).

It resembles much *Schizoloma amictum* F., but smaller, the cheeks being yellowish.

**Agrypon suzukii Mats. (Pl. XI, Fig. 18, ♀)**

*Anomalon suzukii* Mats., Thous. Ins. Jap. Suppl., IV, p. 120, pl. XLVIII, f. 18, ♀, N. 876 (1912).

♀. Pale yellowish brown, with short pale fulvous hairs. Fore-head, clypeus, labrum, mandibles (except the apices), scutellum and sternum yellow. Vertex and a broad longitudinal stripe of the mesonotum fuscous. Wings subhyaline, with a fulvous tinge, the veins and the stigma yellowish brown. Ovipositor long, somewhat shorter than the pygidium. Legs pale yellowish brown, the tarsi at the apices somewhat infuscated.

Length—15 mm.

Hab.—Honshu (Kyoto, collected by Mr. M. Suzuki).

**Eurypterna arakawae Mats. (Pl. XII, Fig. 1, ♀)**

*Eurypterna arakawae* Mats., Thous. Ins. Jap. Suppl., IV, p. 121, pl. XLIX, f. 1, ♀, N. 877 (1912).

♀. Black shining. Clypeus, labrum, Mandibles, palpi, scapi, a triangular spot on each side of the pronotum, the scutellum (except the middle), the postscutellum and a large spot of each mesopleura yellow. Sternum, abdomen and the larger part of the legs yellowish brown, the hind tibiae being somewhat castaneous and the same tarsi



yellowish brown. Wings subhyaline, with a fulvous tinge, the veins fuscous, the stigma fulvous. Abdomen at the apex pitchy black.

Length—12 mm.

Hab.—Hokkaido (Sapporo, Jozankei).

It resembles much *E. crenieri* Rom. from Europe, but much larger.

**Arotes moiwanus Mats. (Pl. XII, Fig. 3, ♀)**

*Phaenolobus* (*Acoenites*) *moiwanus* Mats., Thous. Ins. Jap. Suppl., IV, p. 123, pl. XLIX, f. 3, ♀, N. 879 (1912).

♀. Black, with short yellowish white hairs. The inner sides of the eyes, the sides of the clypeus, the labrum, the tegulae, a spot just below the tegula, the scutellum, the postscutellum, 2 spots of the metanotum at the hind margin, the hind margin of each abdominal segment and the trochanter of the middle legs yellow. Mandibles in the middle, the undersides of the antennae, the palpi, 2 anterior legs as well as the trochanter and the basis of the tibiae of the hind legs yellowish brown. Vertex and pronotum remotely fine punctured. Metanotum coarsely punctured and reticulated. Wings nearly hyaline, with a slight fulvous tinge, the veins and stigma fuscous, the costal part of both wings and the inner part of the stigma fulvous. The last segment very long, acute, and of a dark brown colour.

Length—16, 5 mm.; ovipositor: 18 mm.

Hab.—Hokkaido (Sapporo).

**Lactolus shinshanus Mats. (Pl. XII, Fig. 5, ♀)**

*Mesostenus* *shinshanus* Mats., Thous. Ins. Jap. Suppl., IV, p. 125, pl. XLIX, f. 5, ♀, N. 881 (1912).

♀. Body black, shining. The middle parts of the antennae (8th-14th joints) white. The inner margin of the eyes, the fore-head, the clypeus except the base, the labrum except the apical middle part, the mandibles, the palpi, the humeris, the tegulae (except the hind part), a spot just below the tegula, the scutellum, 2 spots just below the

latter, 2 spots of the metanotum, 2 side-spots of the same, 2 spots of each mesopleura, each hind margin of the abdominal segment as well as the venter yellow. Metanotum with many transverse wrinkles, covered with fine white hairs. Wings subhyaline, with a slight fulvous tinge, the veins and the stigma fuscous, the 2nd cubital cell very small and of a rectangular form. Legs yellowish brown, the anterior and middle coxae as well as the trochanter pale yellowish, the hind coxae yellow, with large fuscous patch, the apical parts of the same femur and tibia as well as both ends of the tarsus fuscous.

Length—17 mm.

Hab.—Formosa (Shinsha).

**Xylonomus jezoensis Mats. (Pl. XII, Fig. 9, ♀)**

*Xylonomus jezoensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 129, pl. XLIX, f. 9, ♀, N. 885 (1912).

♀. Black, with a short fulvous hairs and coarse punctures. Three or 4 joints of the antennae near the apex yellowish white. Palpi, tegulae, the anterior and middle legs as well as the abdomen on the ventral side pale yellowish brown. Head nearly globular, at the vertex impunctured. Scutellum somewhat elevated, just on its front elliptically excavated. Metanotum fine reticulated, on each side with one tooth-like projection. Wings nearly hyaline, with a yellowish tinge, the veins and the stigma fuscous, the latter on the inner side and at the hind margin yellowish brown. Abdomen about twice as long as the head and thorax together, the first and 2nd segments on each hind margin in the middle yellowish brown, the 3rd-7th segments on each hind margin narrowly yellowish white; ovipositor longer than the abdomen. Hind legs fuscous, the coxae and trochanter at the apices yellowish brown, the tibiae and tarsi dark brown.

Length—24 mm.

Hab.—Hokkaido (Sapporo).

It resembles much the fore-going species, but much larger.



**Xylonomus lineatus Mats. (Pl. XII, Fig. 8, ♀)**

*Xylonomus lineatus* Mats., Thous. Ins., Jap. Suppl., IV, p. 128, pl. XLIX, f. 8, ♀, N. 884 (1912).

♀. Black, narrow. Head nearly globular, shining. Wings subhyaline, fulvous, the veins and the stigma yellowish brown. Abdomen much longer than the head and thorax together, the 6th-8th segments on each hind margin narrowly grayish white. The anterior and middle legs reddish yellow, the posterior pair fuscous, the coxae being black and the 2nd trochanter yellowish brown.

Length—18 mm.; ovipositor: 21 mm.

Hab.—Hokkaido (Sapporo).

**Mesostenus tarsalis Mats. (Pl. XII, Fig. 10, ♀)**

*Acrorienus tarsalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 130, pl. XLIX, f. 10, ♀, N. 886 (1912).

♀. Black, sparsely punctured. The middle parts of the antennae, the postscutellum and the abdominal apex yellowish white. Antennae about so long as the body, at the apices castaneous. Metanotum coarsely punctured, with soft short white hairs, decorating 2 transverse keels, being not reticulated. Wings nearly hyaline, with a slight grayish tinge, the veins and the stigma fuscous, the latter on the inner side with a yellowish brown point. The 2nd cubital cell pentagonal, on the outside somewhat open. Abdomen narrow, the 2nd segment triangular; ovipositor somewhat shorter than the abdomen. Legs black, the anterior and middle femora on both ends and larger parts of the same tibiae and tarsi as well as the posterior femur at the base yellowish brown; each tarsal segment of the anterior and middle legs pale yellowish brown, the 2nd, 3rd and 4th tarsal joints of the hind legs (except each apex) yellowish white.

Length—11 mm.

Hab.—Honshu (Kyoto).

**Cryptus suzukii Mats. (Pl. XII, Fig. 11, ♀)**

*Hemiteles suzukii* Mats., Thous. Ins. Jap. Suppl., IV, p. 131, pl. XLIX, f. 11, ♀, N. 887 (1912).

♀. Black, fine punctured and wrinkled. Antennae narrow, each segment at the base narrowly reddish brown. Scutellum elevated, the metanotum reticulated, the areola triangular, on each side with a tooth-like projection. Wings nearly hyaline, the veins and the stigma fuscous, in the middle with a large fuscous patch. Abdomen somewhat longer than the head and thorax together, the apical segment with a small grayish white patch; ovipositor short, but longer than the half length of the abdomen. Legs black, the anterior and middle tibiae as well as the tarsi dark brown, each femoral apex narrowly reddish brown, the 2nd, 3rd and 4th tarsal segments of the hind legs yellowish white.

Length—11 mm.

Hab.—Hokkaido, Honshu, Shikoku, Kiushu.

**Epirhyssa moiwana Mats. (Pl. XV, Fig. 4, ♀)**

*Epirhyssa moiwana* Mats., Thous. Ins. Jap. Suppl., IV, p. 143, pl. LI, f. 4, ♀, N. 901 (1912).

♀. Black, shining, with short fulvous hairs. Both sides of the eyes, the clypeus, the labrum, the palpi, the hind margin of the pronotum at the sides, the tegulae, a spot below the tegulae, a spot on each propleura, 2 longitudinal bars on the mesonotum, the scutellum, 2 spots above the latter, 2 points of the postscutellum, 2 spots of the postscutellum, 2 spots of the metanotum, the abdominal spots as well as the larger parts of the legs yellow. Antennae yellowish brown. Mesonotum coarsely and transversely wrinkled. Wings nearly hyaline, with a slight fulvous tinge, the veins fuscous, the stigma fulvous, near the apex with a small smoky spot. Abdomen clavate, near the hind margin of each segment with a yellow band, of which the 3rd-6th bands in the middle being interrupted. The middle and hind coxae, the



trochanter and the middle part of the femora fuscous, the hind coxa on the upper surface with a yellowish spot, the tarsi grayish yellow.

Length—16, 5 mm.; ovipositor: 19, 5 mm.

Hab.—Hokkaido (Sapporo, not rare).

**Rhyssa approximator F. subsp. furanna Mats. (Pl. XV, Fig. 9, ♀)**

*Rhyssa furanna* Mats., Thous. Ins. Jap. Suppl., IV, p. 147, pl. LI, f. 9, ♀, N. 906 (1912).

♀. Black. The inner sides of the eyes yellow (in the middle interrupted). Antennae fuscous, on the outer side fulvous. Mesonotum transversely, strongly wrinkled. Tegulae and a spot just below the tegula yellow. Scutellum and postscutellum with the side-ridges together grayish yellow. Wings nearly hyaline, with a slight fulvous tinge, the veins and the stigma fuscous, the latter on the inner side with a fulvous point. Areolet small and of a triangular form and stalked. Abdomen shining, castaneous brown, the hind margin of each segment grayish yellow. Ovipositor longer than the body. Legs yellow, the middle coxae and the hind tibiae as well as the tarsi fulvous, the hind coxae black.

Length—18 mm.; ovipositor: 21 mm.

Hab.—Hokkaido (Furano near Kamikawa).

In the form it resembles much the fore-going *R. moiwana* Mats.

**Phaenolobus apicalis Mats. (Pl. XV, Fig. 11, ♀)**

*Chorischizus apicalis* Mats., Thous. Ins. Jap. Suppl., p. 149, pl. LI, f. 11, ♀, N. 908 (1912).

♀. Black, with short fulvous hairs. The inner sides of the eyes, the clypeus, the labrum, the mandibles, the palpi, a large spot on each side of the cheeks, the scapi, the middle parts of the femora, the tegulae, a spot just below the tegula, the scutellum, the postscutellum, the hind part of the metanotum, the 1st and 2nd abdominal segments on each hind margin, the anterior and middle legs, the hind trochanter

as well as the same tarsi yellow. Head large, about the same breadth with the thorax, sparsely large punctured. Thorax closely fine punctured, the mesonotum in the middle somewhat excavated. Scutellum roundly elevated. Metanotum reticulated. Wings hyaline, with a slight fulvous tinge, the veins and the stigma as well as the large apical spot fuscous. Abdomen small, the last ventral segment fulvous, long and pointed; ovipositor long, somewhat shorter than the body, fuscous, at the apical half fulvous. Hind legs long, the coxae, the femora and the tibiae largely fuscous.

Length—16, 5 mm.; ovipositor: 13, 5 mm.

Hab.—Hokkaido (Sapporo).

**Rhyssa approximator F. subsp. dubiosa Mats. (Pl. XV, Fig. 12, ♀)**

*Rhyssa dubiosa* Mats., Thous. Ins. Jap. Suppl., IV, p. 150, pl. LI, f. 12, ♀, N. 909 (1912).

♀. Much resembles subsp. *furanna* Mats., but differs in the following points:

1. Scutellum entirely black, the metanotum at the hind margin on each side with a yellowish spot.
2. Wings somewhat deeper yellowish coloured, the areolet larger and of a triangular form, being not stalked, the discocubital vein without ramellus.
3. Abdominal segment on each hind margin narrowly yellowish white, the last ventral segment larger, and with a barbed hook-like projection.
4. The middle coxae yellow, at the basis below somewhat fuscous.

Length—16, 5 mm.; ovipositor: 21 mm.

Hab.—Hokkaido (Sapporo).

**Brulléia shibuensis Mats. (Pl. XVI, Fig. 1, ♀)**

*Doryctes shibuensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 151, pl. LII, f. 1, ♀, N. 910 (1912).



♀. Yellowish brown. Antennae fuscous, 2 basal joints yellowish brown, the middle part (about 8 joints) pale yellow. Mandibles at the apices fuscous. Head sparsely fine and thorax closely punctured; mesonotum in the middle somewhat elliptically excavated; metanotum irregularly strong wrinkled. Wings nearly hyaline, with a fulvous tinge, the costa, the costal vein as well as the stigma fuscous, the veins yellowish brown. Abdomen longer than the head and thorax taken together, the first segment coarsely wrinkled and punctured, the following segments glabrous, shining, the 2nd at the hind margin and the following segments black. Legs yellowish brown, the tibiae at the apices somewhat brownish.

Length—19-24 mm.; ovipositor: 27-36 mm.

Hab.—Honshu (Tokyo, Shinshu).

***Iphiaulax horishana* Mats. (Pl. XVI, Fig. 2, ♀)**

*Iphiaulax horishana* Mats., Thous. Ins. Jap. Suppl., IV, p. 152, pl. LII, f. 2, ♀, N. 911 (1912).

♀. Yellowish brown, shining, with long fulvous hairs. Antennae fuscous, somewhat shorter than the fore-wings. Head small, seen from the underside somewhat triangular, the mandibles at the apices fuscous, the mouth open. Mesonotum glabrous, the parapsidial furrows indistinct. Scutellum somewhat elevated. Wings subhyaline, with a fulvous tinge; 2 middle spots of the fore-wings fuscous, the outer side of the stigma as well as the outer margin of both wings fuscous, the veins fulvous. Abdomen spindle-shaped, somewhat depressed, the 3rd being the broadest. Legs fulvous, the tarsi at the apices fuscous.

Length—16, 5 mm.; ovipositor: 13, 5 mm.

Hab.—Formosa (Horisha).

***Iphiaulax garampiana* Mats. (Pl. XV, Fig. 6, ♀)**

*Glyptomorpha garampiana* Mats., Thous. Ins. Jap. Suppl., IV, p. 156, pl. LII, f. 6, ♀, N. 915 (1912).

♀. Yellowish brown, glabrous, with long fulvous hairs. Antennae black, longer than the body, tapered towards the apex, the scapi very large, occiput and a large triangular spot of the vertex pitchy black. The apices of the mandibles fuscous. Mesonotum in the middle flat, the scutellum elevated. Wings at the basal halves subhyaline, and of a yellowish brown colour, while the apical halves opaque and of a black colour; the stigma pale yellowish brown, below the stigma with 2 small subhyaline grayish spots. Abdomen oblong, somewhat spindle-shaped, the 2nd and 3rd segments rugose, longitudinally, strongly wrinkled; ovipositor black. Legs yellowish brown, the tarsal apices and empodii fuscous.

Length—13, 5 mm.; ovipositor: 4, 5 mm.

Hab.—Formosa (Koshun).

***Proctotrupes suzukii* Mats. (Pl. XV, Fig. 5, ♀)**

*Proctotrupes suzukii* Mats., Thous. Ins. Jap. Suppl., IV, p. 155, pl. LII, f. 5, ♀, N. 914 (1912).

♀. Black, sparsely very fine punctured. Antennae somewhat longer than the body. Palpi and mandibles (except the apices) dark brown. Mesonotum with short fulvous hairs. Tegulae yellowish brown. Metanotum rugose, irregularly very fine reticulated. Wings subhyaline, with a slight grayish yellow tinge, the stigma fuscous, the veins fulvous. Abdomen shining, impunctured, the first segment at the sides, at the base and at the hind margin as well as at the venter reddish brown. Legs black, the apex of each joint, the basal parts of the tibiae as well as the tarsi reddish brown.

Length—7, 5 mm.

Hab.—Honshu (Kyoto).

This species much resembles *P. japonica* Ash., but much larger.

***Thecasoma longicauda* Mats. (Pl. XV, Fig. 7, ♀)**

*Thecasoma longicauda* Mats., Thous. Ins. Jap. Suppl., IV, p. 157, pl. LII, f. 7, ♀, N. 916 (1912).



♀. Metallic golden green, shining, with large punctures and short grayish hairs. Antennae black, the scapi grayish. Mandibles, labrum and palpi fuscous, mesonotum, scutellum and abdomen with a bluish tinge. Wings subhyaline with a slight grayish shade, the marginal vein and the radius fuscous, the remaining veins indistinct. Abdomen so long as the head and thorax together; ovipositor black, the first and 2nd segments each at the base bluish. Legs golden green, the trochanter, the tips of the femora, the tibiae as well as the tarsi yellowish brown.

Length—9 mm.; ovipositor: 16, 5 mm.

Hab.—Formosa (Kanshirei).

**Thecasoma n. g. (1. c., p. 159)**

Antennae inserted just above the clypeus, 12 jointed, with 2 ring-joints, scapi long, flagellum somewhat clavate. Clypeus not produced, in the middle semicircularly incised. The apical joints of the palpi large, hatchet-shaped, those of the maxillary palpi being very long. Head and thorax large punctured. Wings subhyaline, the marginal vein normal, much longer than the radius, the latter at the tip being somewhat fork-like enlarged. The hind-wing with a long, in the middle somewhat incurved marginal vein. Abdomen 3-segmented, above flat, in the cross-section somewhat triangular, the 3rd segment towards the apex keeled. Ovipositor very long, composed of 4 segments, of which the first is broad, in the middle and at the sides longitudinally keeled, the 3rd the longest, while the 4th being the shortest. Legs narrow, not thickened, the posterior tibiae at the apices with each 2 short spurs. The rest just like that of *Decatomothorax* Ash. This is easily distinguishable from *Decatomothorax* by the presence of the long, broad ovipositor.

**Rhyssa citraria Oliv. subsp. otanegawana Mats. (Pl. XV, Fig. 8, ♀)**

*Rhyssa otanegawana* Mats., Thous. Ins. Jap. Suppl., IV, p. 159, pl. LII, f. 8, ♀, N. 917 (1912).

♀. Pitchy black. Fore-head, clypeus, labrum, the hind parts of the eyes, the cheeks, the hind margin of the pronotum at the sides, the tegulae, a spot just below the tegula, a longitudinal stripe on each side of the mesosternum, 2 spots on the anterior part of the mesonotum, 4 longitudinal stripes in the middle, the scutellum, the postscutellum, and a large spot on each side of the metanotum fulvous. Antennae long, fuscous, at the basal part below fulvous. Scutellum and metanotum with soft, long, pale yellowish white hairs. Wings hyaline, with a slight fulvous tinge; the veins pitchy black, the costa and stigma fulvous. Abdomen shining, the larger part of the first and 2nd segments, an oblong spot on each side of the 3rd-7th segments, each spot being on its inner side nearly semicircularly incised, fulvous. Legs pale yellowish brown, the anterior coxae and the middle parts of the same femora dark brown, the middle and posterior coxae as well as the larger parts of the femora (except the apices) dark brown, a basal spot of the hind and a lateral spot of the middle coxa being yellowish.

Length—25, 5 mm.; ovipositor: 45 mm.

Hab.—Hokkaido (Sapporo).

**Ibalia japonica Mats. (Pl. XV, Fig. 9, ♀)**

*Ibalia japonica* Mats., Thous. Ins. Jap. Suppl., IV, p. 161, pl. LII, f. 9, ♀, N. 918 (1912).

♀. Pitchy black; cheeks, the inner sides of the eyes, the scutellum (except a longitudinal middle line), the side-spots of the metanotum and the larger part of the abdomen yellow. Antennae dark brown, the middle part fulvous. Head irregularly strongly wrinkled. Pro- and mesonotum transversely, strongly wrinkled. Scutellum much elevated, coarsely wrinkled, in the middle black and widely grooved. Wings subhyaline, grayish white, the costa with a slight yellowish tinge, the veins fuscous, a large middle spot and the outer margin dark. Abdomen with 5 fuscous bands, of which the first 3 at the basis are united, the 4th at the back dilated, the 5th nearly straight



and runs longitudinally on the sides, the apex largely fuscous. Legs yellow, the coxae except the apices, the basal parts of the hind femora, the larger parts of the same tibiae as well as the claws dark brown.

Length—15 mm.; ovipositor: 3 mm.

Hab.—Hokkaido (Sapporo).

**Stephanus cinctus Mats. (Pl. XVI, fig. 10, ♀)**

*Stephanus cinctus* Mats., Thous. Ins. Jap. Suppl., IV, p. 162, pl. LII, f. 10, ♀ N. 919 (1912).

♀. Dark brown, very closely wrinkled and large punctured, with long grayish hairs. On the vertex with 5 short horn-like projections, 2 of which are on each side and one is in the middle: the hind part of the eyes glabrous and of a reddish brown colour. Mandibles at the apices dark brown. The middle part of the scutellum glabrous, on the metanotum with very large punctures. Wings subhyaline, with a slight fulvous tinge, the stigma and the veins dark brown, the first abdominal segment larger than the following segments together, near the apex at the venter with a large triangular projection; ovipositor somewhat longer than the body, near the tip with a yellowish white portion. Legs reddish brown, the hind legs fuscous, the coxae strongly wrinkled, each femur beneath with a row of teeth, 2 of which are very large, the trochanter yellowish brown, with long grayish white hairs.

Length—16, 5 mm.; ovipositor: 18 mm.

Hab.—Okinawa (Riukiu).

**Leucaspis okinawensis Mats. (Pl. XVI, Fig. 13, ♀)**

*Leucaspis okinawensis* Mats., Thous. Ins. Jap. Suppl. IV, p. 164, pl. LII, f. 13, ♀ N. 922 (1912).

♀. Yellowish brown, with short golden hairs and punctures. Head and antennae black. Scapi beneath fulvous. The anterior and posterior margins of the pronotum as well as the tegulae yellow;

mesonotum fuscous, its sides and a large quadrate mark at the hind margin as well as the scutellum fulvous, a quadrate mark in the middle of the hind margin and the scutellum in its middle fuscous; metanotum in the middle and on the sides at the anterior margin fulvous. Wings subhyaline, with a slight fulvous tinge, the anterior margin infuscated, the marginal veins fuscous, radial veins fulvous. Abdomen oval, the first segment above in the middle with a longitudinal low keel, the 2nd segment fuscous and constricted, the 3rd and 4th at the sides as well as the apical segments fuscous, the 4th at the anterior margin fuscous, at the hind margin yellow. The ovipositor nearly reaches the anterior margin of the 4th segment. Legs yellowish brown, the larger part of the coxae except the apices dark brown, the anterior and middle femora at the basis castaneous brown, the hind femora much enlarged, in the middle with a broad oblique fuscous band, beneath with long fuscous spines.

Length—12 mm.

Hab.—Okinawa (Riukiu).

**Chalcis jezoensis Mats. (Pl. XVI, Fig. 15, ♀)**

*Chalcis jezoensis* Mats., Thous. Ins. Jap. Suppl. IV, p. 166, pl. LII, f. 15, ♀ N. 924 (1922)

♀. Much resembles *C. euploae* West., but differs from it in the following points:

1. The anterior tibiae black, on both ends and above yellow, while in *euploae* entirely yellow, only in the middle beneath with a fuscous spot; the anterior and middle femora at the apices narrowly yellow, while in *euploae* the yellowish parts occupies nearly the apical one third of the femora.
2. The posterior femora at the apices narrowly fulvous, while in *euploae* in a much larger dimension yellow; the hind tibiae above pale yellow, beneath and at the basis black.

Length—7. 2 mm.

Hab.—Hokkaido (Sapporo).



***Cerceris interruptus* Mats. (Pl. XVII, Fig. 1, ♀)**

*Cerceris interruptus* Mats., Thous. Ins. Jap. Suppl. IV, p. 168, pl. LIII, f. 1, ♀, N. 926 (1912).

♀. Black, with large punctures. Fore-head, clypeus, labrum (at the anterior margin black), mandibles (at the apices fuscous), the undersides of the scapi, the tegulae (at the margin fuscous), the postscutellum, a transverse spot on the anterior margin of the 1st abdominal segment, the 3rd (in the middle anteriorly, semicircularly incised), the 5th (in the middle anteriorly, triangularly incised) and a narrow band at the 3rd ventral segment in the middle as well as the larger part of the legs citron-yellow. Antenna fuscous, on the underside pale fulvous. Wings subhyaline, with a slight grayish tinge, the outer margin somewhat infuscated, the veins and the stigma fulvous, the costal veins fuscous. Ventral band of the 3rd segment in the middle with a black spot. The upper surfaces of the trochanter and femora, the coxae as well as the tips of the posterior tibiae on the innersides black, the hind tarsi fuscous.

Length—13, 5 mm.

Hab.—Honshu (Kyoto, collected by M. Suzuki).

***Crabro suzukii* Mats. (Pl. XVII, Fig. 2, ♀)**

*Crabro suzukii* Mats., Thous. Ins. Jap. Suppl. IV, p. 169, pl. LIII, f. 2, ♀, N. 927 (1912).

♀. Black, very fine punctured. Mandibles (at the apices fuscous), scapi (the upper part fuscous), episternum, the basal part of the first abdominal segment and a curved longitudinal stripe on each side of the same segment, 2 small spots of the 5th segment, and the pygidium above grayish white. Fore head and cheeks with short silvery hairs, the tegulae testaceous. A heart-shaped part in the middle of the metanotum glabrous, in the middle with a deep longitudinal furrow, at the sides with long silvery hairs. Wings subhyaline, with a slight grayish tinge, the veins and the stigma dark brown. Abdominal

segments on each hind margin narrowly testaceous, at the apex with short fulvous hairs. Legs black, the apices of the coxae, the trochanter (above somewhat infuscated), the frontal part of the tibiae (except the hind tibiae) as well as the metatarsi white; the hind tibiae on the frontal part with 2 grayish white spots, the tarsi yellowish brown.

Length—10, 5 mm.

Hab.—Honshu (Kyoto).

***Crabro (Anothyreus) jozankeanus* Mats. (Pl. XVII, Fig. 3, ♀)**

*Crabro (Anothyreus) jozankeanus* Mats., Thous. Ins. Jap. Suppl., IV, p. 170, pl. LIII, f. 3, ♀, N. 928 (1912).

♀. Black, closely fine punctured. Clypeus and labrum with short silvery hairs, the labrum at the anterior margin mingling long golden hairs. Scapi orange-yellow, at the inner sides fuscous. The inner margin of the eyes longitudinally furrowed, the frontal part of the ocelli with large and small punctures. Mandibles black, at the apices and at the basis reddish brown, the palpi fulvous. Cheeks with short fulvous hairs. Mesonotum and scutellum longitudinally wrinkled. The frontal part of the mesonotal furrow with about 5 cross-ridges, and on the sides irregularly wrinkled. Wings subhyaline, with a slight fulvous tinge, the costa, the veins and the stigma fulvous. Abdomen shining, the 2nd and 5th on each side with an oblong transverse spot, the pygidium abruptly narrowed and in the middle longitudinally grooved, with strong fulvous hairs. Legs black, the apex of each segment and the hind tibiae dark brown, the hind tibiae on the outsides granulated, on the inner sides pale greenish yellow; tarsi and spurs fulvous, the apical joints of the tarsi fuscous.

Length—16, 5 mm.

Hab.—Hokkaido (Sapporo, Jozankei).

***Crabro (Anothyreus) aurarius* Mats. (Pl. XVII, Fig. 4, ♀)**

*Crabro (Anothyreus) aurarius* Mats., Thous. Ins. Jap. Suppl., IV, p. 171, pl. LIII, f. 4, ♀, N. 929 (1912).



♀. Black, closely very fine punctured. The inner sides of the eyes the fore-head and clypeus with short golden hairs, cheeks with silvery hairs. Mandibles yellow, both ends fuscous, the palpi yellowish brown. Scapi, pronotum, each transverse band of the scutellum and postscutellum as well as the abdominal spots orange-yellow. Tegulae testaceous, at the anterior margin with a yellow spot. Metanotum in the middle with a deep longitudinal furrow, at the sides obliquely very fine wrinkled, with long grayish white hairs. Wings subhyaline, with a grayish tinge, the costa, the veins and the stigma testaceous. Abdomen on each segment at the sides with each a transverse yellowish spot, the spots of the 2nd-5th segments on the outer sides being broad and pointed towards the inner sides; pygidium towards the apex abruptly narrow, in the middle longitudinally grooved. Legs black, the narrow apices of the trochanter, the apices or apical spots of the femora, the tibiae and larger parts of the tarsi orange-yellow, the inner sides and the apices of the tibiae black, the apical and 3 following joints dark brown.

Length—15 mm.

Hab.—Hokkaido (Sapporo).

**Crabro (Ceratocolus) nitobei Mats. (Pl. XVII, Fig. 5, ♀)**

Crabro (Ceratocolus) nitobei Mats., Thous. Ins. Jap. Suppl., IV, p. 173, pl. LIII, f. 5, ♀, N. 930 (1912).

♀. Dark brown. Clypeus, labrum and the inner sides of the eyes with dense short silvery hairs. Antennae castaneous brown, on the undersides fulvous, the scapi yellow. Head very fine punctured. Pronotum at the anterior and posterior margins somewhat transversely ridged. Mesonotum much larger punctured than on the head, somewhat transversely fine wrinkled, in the middle with a low longitudinal keel. Tegulae fulvous. Scutellum longitudinally wrinkled. Metanotum irregularly net-like wrinkled. Wings subhyaline, infuscated, with a purple reflection, the veins and the stigma fuscous. Abdomen oblong, each segment at the hind margin and at the sides fulvous. Legs

fulvous, the coxae, a longitudinal mark at the outer sides of the anterior tibiae, the inner sides of the middle and posterior femora fuscous.

Length—16 mm.

Hab.—Honshu (Aomori); collected by I. Nitobe.

**Crabro (Thyreus) collaris Mats. (Pl. XVII, Fig. 6, ♀)**

Crabro (Thyreus) collaris Mats., Thous. Ins. Jap. Suppl., IV, p. 174, pl. LIII, f. 6, ♀, N. 931 (1912).

♀. Black, closely fine punctured. Clypeus and labrum with short silvery hairs which, if seen from the front, are black. The apices of the mandibles reddish brown. Antennae dark brown, the scapi and pedicels yellow. The inner sides of the eyes with each a short longitudinal groove. Pronotum, except the hind margin, the postscutellum and a band in the middle of the 2nd abdominal segment yellow. Metanotum and scutellum with oblong punctures, at the anterior and posterior margins of the former longitudinally wrinkled. Metanotum irregularly net-like wrinkled. Wings subhyaline, with a fulvous tinge, the veins and the stigma fulvous. Abdomen at the hind margin and the pygidium at the apex fulvous, on the underside with short silvery hairs. Legs black, the tarsi and 2 anterior tibiae yellow, the hind tibiae fuscous, on both ends reddish yellow, the tarsi being somewhat infuscated.

Length—9 mm.

Hab.—Hokkaido (Sapporo).

**Crabro (Thyreus) sapporensis Mats. (Pl. XVII, Fig. 7, ♂)**

Crabro (Thyreus) sapporensis Mats., Thous. Ins. Jap. Suppl., IV, p. 175, pl. LIII, f. 7, ♂, N. 932 (1912).

♀. Black, with long grayish white hairs. Clypeus and the inner sides of the eyes with short silvery hairs. The apices of the mandibles and tongue yellowish brown, the palpi fuscous. Antennae fuscous, the scapi (the inner sides fuscous) and 4 or 5 joints of the flagellum (above



fuscous) yellow. Head closely fine punctured. Pronotum near the middle transversely, broadly grooved. Tegulae yellowish brown. Metanotum coarsely punctured and wrinkled, metanotum very closely wrinkled. Wings subhyaline, with a fulvous tinge, the veins and the stigma fulvous. Abdomen long, the 1st and 2nd abdominal segments in the middle on each side with a yellowish spot, each side of the 3rd and the anterior margins of the 4th and 5th, as well as the small spot on each side of the 6th segment greenish yellow; the 1st segment at the hind margin somewhat constricted and glabrous. Legs yellow, the coxae, the basal parts of the trochanter, a spot of the anterior femur at the outer side, the frontal part of the middle femur and the upper parts of the same tibiae, the frontal and hind sides of the hind tibiae as well as the femora black, the middle and posterior tarsi (except the basis) fuscous.

Length—11 mm.

Hab.—Hokkaido (Sapporo).

***Sphex rugosus* Mats. (Pl. XVII, Fig. 8, ♀)**

*Sphex rugosus* Mats., Thous. Ins. Jap. Suppl., IV, p. 176, pl. LIII, f. 8, ♀, N. 933 (1912).

♀. Black, with short grayish white hairs; frons in a certain light silvery. Each joint of the palpi at the apex reddish brown, the apex of the proboscis yellowish brown. Pronotum with thick, short silvery hairs; mesonotum fine punctured, transversely fine wrinkled; metanotum transversely rough wrinkled, in the middle with 2 transverse ridges. Wings hyaline, with a slight yellowish flash, at the apex infuscated, the veins and the stigma fuscous. Abdomen oval, the 2nd segment at the anterior and posterior margin (the latter in the middle fuscous), the following segments at each sides and at the hind margin (the side-spots of the 3rd segment being the largest and of a reddish brown colour), the pygidium as well as the venter yellowish brown. Legs black, the femora sparsely punctured.

Length—24 mm.

Hab.—Formosa (Horisha, Koshun).

***Sphex platynotus* Mats. (Pl. XVII, Fig. 9, ♀)**

*Sphex platynotus* Mats., Thous. Ins. Jap. Suppl., 10, p. 177, pl. LIII, f. 9, ♀, N. 934 (1912).

♀. Black, with long grayish white hairs. The inner sides of the eyes, the fore-head, the clypeus, the cheeks, the pronotum and the pleurae with short silvery hairs. The apices of the mandibles dark brown. Vertex and pronotum sparsely punctured, the mesonotum at the sides closely and in the middle sparsely punctured; metanotum flat, in the middle longitudinally somewhat excavated, and transversely fine wrinkled. Wings hyaline, with a slight yellowish shade, in a certain light reflecting purple, the veins and the stigma black, the veins near the outer margin being fulvous. Abdomen reddish brown, the first and 3rd segments each at the anterior margin, a triangular spot of the 4th segment, the larger parts of the 5th and 6th segments (on the sides and the hind margin narrowly reddish brown) fuscous. Legs black, with black, white and yellowish bristles, the anterior femora with long silvery hairs, the same tarsi at the outer sides with long, strong, black bristles; the claws reddish brown.

Length—12 mm.

Hab.—Okinawa (Riukiu).

***Pemphredon japonicum* Mats. (Pl. XVII, Fig. 10, ♀)**

*Pemphredon japonicum* Mats., Thous. Ins. Jap. Suppl., IV, p. 179, pl. LIII, f. 10, ♀, N. 935 (1912).

♀. Black, closely fine punctured, with long white and grayish white hairs. Clypeus glabrous, with few punctures, the fore-head somewhat excavated, longitudinally very fine wrinkled, the vertex sparsely fine punctured. Mesonotum on the anterior part transversely and on the hind part longitudinally wrinkled, on each side the



wrinkles being somewhat whirl-like arranged, scutellum and metanotum longitudinally wrinkled, the latter in the middle with a semicircular transverse ridge. Wings hyaline, with a fulvous tinge, the veins and the stigma fuscous. Legs black, the claws and spurs being reddish brown.

Length—12, 6 mm.

Hab.—Honshu (Kyoto).

***Discolia watanabei* Mats. (Pl. XVII, Fig. 12, ♀)**

*Discolia watanabei* Mats., Thous. Ins. Jap. Suppl., IV, p. 180, pl. LIII, f. 12, ♀, N. 937 (1912).

♀. Black, sparsely large punctured, with long fulvous hairs. A large spot of the vertex yellowish brown. The apices of the mandibles reddish brown. The punctures of the mesonotum much less than those on the metanotum. Tegulae castaneous. Wings subhyaline, with a fulvous tinge, the veins fulvous, at the base somewhat deeper in colour. Abdomen black, with a slight indigo-blue reflection, the 3rd and 4th segments as well as a spot of the 5th segment on the sides orange-yellow, with yellowish hairs; the apical 3 segments fuscous, with reddish brown hairs; pygidium flat, disk-like excavated, at the hind margin yellow, with 3 long black spines, of which the middle one being the longest. Legs black, the tarsal tips, the claws and spurs reddish brown.

Length—18 mm.

Hab.—Formosa (Hoppono, collected by K. Watanabe).

***Pompilus sapporensis* Mats. (Pl. XVII, Fig. 13, ♀)**

*Pompilus sapporensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 182, pl. LIII, f. 13, ♀, N. 938 (1912).

♀. Black, with long black and very short downy grayish white hairs. Clypeus sparsely punctured, in a certain light velvety black and in another light silvery white. The middle of each mandible

reddish brown. The inner side at the middle and the hind margin of the eye narrowly yellowish white. The spiracles of the middle and hind thoracic segments yellowish white. Wings subhyaline, with a grayish tinge, at the apices infuscated, the veins and the stigma black. Legs black, the spurs fuscous, the claws reddish brown.

Length—12 mm.

Hab.—Hokkaido (Sapporo).

***Pompilus harimensis* Mats. (Pl. LIII, Fig. 14, ♀)**

*Pompilus harimensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 183, pl. LIII, f. 14, ♀, N. 939 (1912).

♀. Black, the inner sides of the eyes, the clypeus (a basal spot black), a longitudinal spot between the antennae, the apices and the under surface of the scapi, the mandibles (at the apices fuscous), the cheeks, 4 longitudinal stripes of the mesonotum (the middle 2 unite posteriorly), the scutellum (in the middle with a longitudinal narrow line), the side-spots of the postscutellum, the hind margin of the metanotum, the pleural spots, the basal part of the 2nd abdominal segment, as well as the anterior coxae (the frontal part black) yellow. Antennae and clypeus fulvous, the former on the back black. Rostrum shining, fuscous. Metanotum in the middle with a longitudinal shallow groove. Wings subhyaline, with a slight fulvous tinge, at the apices infuscated, the veins and the stigma fulvous, the costal and middle veins being fuscous. The 2nd abdominal segment at the sides and the pygidium fulvous, on the 2nd ventral segment with a broad yellowish white band. Legs fulvous, the coxae, the trochanter as well as the basal parts of the femora black, the middle coxa with a yellowish spot; tarsi yellowish white, the apical 3 joints and the 1st and 2nd joints of the anterior and posterior tarsi at the apices being fuscous.

Length—13 mm.

Hab.—Honshu (Harima).



**Pompilus hopponis Mats. (Pl. XVII, Fig. 15, ♀)**

*Pompilus hopponis* Mats., Thous. Ins. Jap. Suppl., IV, p. 184, pl. LIII, f. 15, ♀, N. 940 (1912).

♀. Dark brown, thickly covered with very short velvety fuscous hairs. Both sides of the eyes, the clypeus (a triangular spot at the base fuscous), the labrum, the mandibles (at the apices fuscous), the palpi, the antennae (the apical 8 joints fuscous), the hind margin of the pronotum, a large quadrate mark at the hind part of the mesonotum, a side-spot at the base of the metanotum, a triangular side-spot at the base of the 2nd abdominal segment, a band of each of the 3rd, 4th and 5th segments at the base (the 4th and 5th bands being in the middle interrupted), 2 triangular spots of the 3rd ventral segment as well as the pygidium yellow. Pro- and metathorax thickly covered with yellowish purple scales. Tegulae and middle veins fuscous. Legs fulvous, the coxae, the trochanter and the basal two thirds of the femora, as well as the apical parts of the tarsal joints and the spurs yellowish.

Length—13, 8 mm.

Hab.—Formosa (Hoppon).

**Pompilus yanonis Mats. (Pl. XVII, Fig. 16, ♀)**

*Pompilus yanonis* Mats., Thous. Ins. Jap. Suppl., IV, p. 185, pl. LIII, f. 16, ♀, N. 941 (1912).

♀. Black. Labrum and mandibles pitchy black, the latter in the middle reddish brown, the tongue fulvous. Vertex just before the ocelli with a narrow longitudinal furrow. Pronotum on the sides pruinose, and in a certain light grayish white. Postscutellum in the middle somewhat excavated. Wings subhyaline, with a grayish shade, the outer margin and the middle of each wing-cell infuscated, the veins dark brown, the stigma, the costa, the costal and middle veins black, in a certain light reflecting dark purple. Abdomen with no

spot, the pygidium with many short fuscous bristles. Legs black, the tarsi and spurs fuscous.

Length—12 mm.

Hab.—Hokkaido, Honshu, Kiushu.

**Pompilus basalis Mats. (Pl. XVII, Fig. 17, ♀)**

*Pompilus basalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 187, pl. LIII, f. 17, ♀, N. 942 (1912).

♀. Black, with long fuscous and short grayish white hairs. Both sides of the eyes, the fore-head, the clypeus and the labrum (the latter 2 in the middle fuscous), the pronotum at the hind margin, 2 spots of the scutellum, a side-spot on each pleura (the middle and posterior pleurae with each a spot at the hind margin), as well as 2 spots of the 2nd abdominal segment yellowish white. Palpi yellow. Antennae fuscous, on the underside fulvous, strongly undulated. Scutellum with a few longitudinal wrinkles. Metanotum covered with long silvery hairs. Wings nearly hyaline, with a slight fulvous shade, the veins and the stigma fulvous, the costa, the costal and middle veins fuscous; in a certain light reflecting purple. The first abdominal segment with long recumbent fuscous and few erect grayish hairs. Legs black, the apices of coxae, the trochanter and the femora, the under surfaces of the anterior tibiae, the basal parts of the posterior tibiae as well as the spurs yellow.

Length—12 mm.

Hab.—Honshu (Kyoto).

**Salius bizonatus Mats. (Pl. XVII, Fig. 19, ♀)**

*Salius bizonatus* Mats., Thous. Ins. Jap. Suppl., IV, p. 188, pl. LIII, f. 19, ♀, N. 944 (1912).

♀. Black, with short fuscous and grayish white hairs. The inner sides of the eyes in the middle yellowish white. Clypeus with long golden hairs. Palpi fuscous, each joint at the apex fulvous.



Antennae fuscous, on the undersides fulvous. Pronotum at the hind margin very narrowly, and the tegulae reddish brown. Wings subhyaline, with a slight fulvous tinge, the apical one third infuscated, in a certain light reflecting purple, the veins and the stigma fuscous. The 2nd, 3rd abdominal and the 3rd ventral segments near the anterior margin with each an interrupted yellowish white band, each segment at the hind margin very narrowly reddish brown. Legs fuscous, the apices of the coxae, the trochanter, the femora, the inner sides of the middle and the posterior as well as the apical halves of the claws fulvous.

Length—19, 5 mm.

Hab.—Honshu (Tokyo).

**Myrmoteras kuroiuae Mats. (Pl. XVIII, Fig. 1, ♀)**

*Myrmoteras kuroiuae* Mats., Thous. Ins. Jap. Suppl., IV, p. 191, pl. LIV, f. 1, ♀, N. 948 (1912).

♀. Reddish brown. Mandibles with 8 small teeth on each inner side, and the apices pointed and curved nearly in right angles. Between the antennae with 2 short longitudinal keels, the vertex obliquely fine wrinkled, behind the eyes on each side with a broad oblique ridge which nearly unites on the occiput, both sides of the ridges broadly furrowed; occiput in the middle with a narrow furrow. Antennae slender, long, the apical joint pointed and fulvous coloured. Thorax transversely fine wrinkled. Nodus large, cone-shaped, the apex curved somewhat backwards. Abdomen shining, the 3rd and 4th segments on each hind margin, the pygidium as well as the sting golden yellow, the latter so long as the last 3 segments together. Legs reddish brown, long, slender, the anterior and posterior spurs large and yellow, the anterior metatarsus at the base slightly curved.

Length—10 mm.

Hab.—Okinawa (Riukiu); collected by K. Kuroiwa.

**Coelioxys seriatopunctatus Mats. (Pl. XVIII, Fig. 3, ♀)**

*Coelioxys seriatopunctatus* Mats., Thous. Ins. Jap. Suppl., IV, p. 193, pl. LIV, f. 3, ♀, N. 950 (1912).

♀. Black, with large punctures. The inner side of the eyes and the middle part of the clypeus longitudinally keeled. Face on the sides densely covered with grayish yellow hairs. Mandibles at the apices reddish brown. Vertex remotely large punctured. Cheeks covered with short grayish white hairs. Tegulae fuscous, in the middle yellowish brown. Scutellum at the base with 2 spots of grayish white scales, at the hind margin on each side with a acute projection. Thorax at the side covered with white hairs. Wings subhyaline, with a fulvous tinge, at the basis nearly hyaline and with a slight yellowish shade. Abdominal segments at each hind margin and the first segment on the sides, as well as the 2nd-5th ventral segments at each side covered with white scaly hairs; pygidium very large, one third on the hind margin with a longitudinal keel. Legs fuscous, femora covered with grayish hairs, the last tarsal joints and the claws fulvous.

Length—14 mm.

Hab.—Formosa (Koshun).

**Coelioxys watanabei Mats. (Pl. XVIII, Fig. 4, ♀)**

*Coelioxys watanabei* Mats., Thous. Ins. Jap. Suppl., IV, p. 194, pl. LIV, f. 4, ♀, N. 951 (1912).

♀. Black. Head covered with long fulvous hairs. Antennae fuscous, the apices reddish brown. Between the antennae with a short longitudinal keel. Rostrum fulvous. Mesonotum very coarsely punctured, in the middle with a longitudinal keel which reaches the tip of the scutellum, on each side with a short indistinct keel; scutellum at the hind margin on each side with a large tooth-like projection. Wings subhyaline, fuscous, with a purple effulgence, the veins and the stigma fulvous. Abdomen remotely punctured, the



punctuation of each segment on the anterior part small, each segment at the sides with grayish white hairs, the pygidium so long as the fore-going 2 segments, at the apex with 3 indistinct longitudinal keels. Legs dark brown, the claws and spurs reddish brown, the spurs of the anterior legs yellowish and forked at the tips; at the tips of the tibiae with a long acute projection.

Length—25 mm.

Hab.—Formosa (Hoppo); collected by K. Watanabe.

**Nomada jezoensis Mats. (Pl. XVIII, Fig. 6, ♀)**

*Nomada jezoensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 196, pl. LIV, f. 6, ♀, N. 953 (1912).

♀. Dark brown, with long yellowish white hairs. Both sides of the eyes anteriorly, the anterior half of the clypeus, the mandibles (at the apices fuscous), the palpi, the scapi on the front, a transverse band of the pronotum, the tegulae, a spot just below the tegula, each band in the middle of the first and 4th abdominal segments, each triangular spot at the basal sides of the 2nd and 3rd segments, the hind margins of the 5th and the apical segments yellow. Antennae fulvous, near the basis interiorly with each a fuscous stripe. Head and thorax rugosely punctured. Wings subhyaline, with a slight fulvous tinge, at the apices narrowly infuscated; veins and stigma fulvous. Abdomen oval, the first band in the middle interrupted, each yellow part of the abdominal segments posteriorly margined with reddish brown, the venter and the legs fulvous, the coxae, the trochanter and femora dark brown, each at the apex being fulvous, the anterior and middle femora fulvous, only at the basis dark brown.

Length—12 mm.

Hab.—Hokkaido (Sapporo); quite common.

**Nomada daimio Mats. (Pl. XVIII, Fig. 7, ♀)**

*Nomada daimio* Mats., Thous. Ins. Jap. Suppl., IV, p. 197, pl. LIV, f. 7, ♀, N. 954 (1912).

♀. Dark brown. The inner sides of the eyes, the clypeus (in the middle with 2 fuscous spots), the labrum, the mandibles (at the apices fuscous), each band at the basis of the 2nd and 3rd abdominal segments as well as the apical 2 segments yellow. Antennae, the outer margins of the eyes, a transverse band of the pronotum, the shoulders, the tegulae, 2 tubercles on the scutellum, a middle band of the first abdomen (in the middle interrupted) and the hind margin of each segment reddish yellow. Wings subhyaline, with a fulvous shade, at the apices somewhat infuscated, the veins and the stigma fulvous, the costal vein being fuscous, the 2nd abdominal segment in the middle at the base with a triangular fuscous spot, the 2nd and 3rd ventral segments reddish brown, the former at the base yellow. Legs fulvous, the femora at the basis, the trochanter, the femora and the tibiae at the inner sides with each a fuscous marking, the spurs yellowish.

Length—12 mm.

Hab.—Hokkaido (Sapporo).

**Nomada okamotonis Mats. (Pl. XVIII, Fig. 8, ♀)**

*Nomada okamotonis* Mats., Thous. Ins. Jap. Suppl., IV, p. 198, pl. LIV, f. 8, ♀, N. 955 (1912).

♀. Black, with large punctures. The inner sides of the eyes, the clypeus, the labrum, the mandibles (at the apices fuscous), the scapi, a transverse bar of the pronotum, the shoulders, the tegulae, a spot of the mesopleura, the scutellum, a spot on each side of the 2nd and 3rd abdominal segments, the hind margin of the 6th segment, the middle of the pygidium as well as a spot on each side of the 3rd, 4th and 5th ventral segments yellow. Rostrum fuscous, the basal part of the maxillary palpi yellowish white. Metanotum nearly impunctured. Wings almost hyaline, with a slight fulvous tinge, the veins and the stigma fulvous. Legs pale yellowish brown, the coxae (the undersurface and a side-spot yellow), the basal parts of the hind femora posteriorly as well as the claws fuscous.



Length—7, 5 mm.

Hab.—Hokkaido (Sapporo).

**Xylocopa formosana Mats. (Pl. XVIII, Fig. 11, ♀)**

*Xylocopa formosana* Mats., Thous. Ins. Jap. Suppl., IV, p. 201, pl. LIV, f. 11, ♀, N. 958 (1912).

♀. Black, with long black hairs. The fore-head, the inner sides of the eyes, the clypeus (the anterior margin black) and a ring-spot on the vertex grayish yellow. Rostrum shining black, at the apex pitchy black, the tongue yellowish brown. Mesonotum in the disk bare, with a few large punctures. Wings subhyaline, fuscous, reflecting a slight purple tinge, the basal parts being paler, the veins black. Abdomen sparsely punctured. Legs black, with long black hairs, the posterior femora at the apices and the same tibiae at the basis with grayish yellow hairs, the last tarsal joint being dark brown.

Length—25 mm.

Hab.—Formosa (Shinchiku).

**Xylocopa flavifrons Mats. (Pl. XVIII, Fig. 12, ♀)**

*Xylocopa flavifrons* Mats., Thous. Ins. Jap. Suppl., IV, p. 202, pl. LIV, f. 12, ♀, N. 959 (1912).

♀. Black, closely large punctured, with long black hairs. A triangular spot of the frons, the clypeus (at the anterior border narrowly black), a small spot at the base of the mandibles as well as the scapus anteriorly yellowish white. Rostrum shining pitchy black. Antennae fuscous, the flagellum anteriorly yellowish brown. Eyes greenish yellow. Mesonotum in the disk bare, impunctured, anteriorly with a longitudinal furrow. Wings subhyaline, dark indigo-blue, the veins black. Abdomen very broad, at the hind margin of each segment narrowly reddish brown. Legs black, the tarsi dark brown, with yellowish brown hairs, the claws fuscous, at the base fulvous.

Length—21 mm.

Hab.—Okinawa (Riukiu); collected by K. Kuroiwa.

**Xylocopa hopponis Mats. (Pl. XVIII, Fig. 13, ♀)**

*Xylocopa hopponis* Mats., Thous. Ins. Jap. Suppl., IV, p. 203, pl. LIV, f. 13, ♀, N. 960 (1912).

♀. Dark brown, densely covered with fulvous hairs. A triangular spot in the middle of the frons, a longitudinal stripe in the middle and a curved transverse spot on each side of the eyes as well as the scapus anteriorly yellowish. Antennae and rostrum fuscous, the underside of the latter and the tongue fulvous. Mesonotum in the middle glabrous, anteriorly with a longitudinal furrow. Wings subhyaline, grayish yellow, the veins fuscous. Abdomen broad, the apical hairs deeper in colour. Legs dark brown, with fulvous hairs, the apical tarsal joints as well as the claws fuscous, the latter at the basis fulvous.

Length—30 mm.

Hab.—Formosa (Hoppo); collected by K. Watanabe.

**Halictus constrictus Mats. (Pl. XVIII, Fig. 17, ♀)**

*Halictus constrictus* Mats., Thous. Ins. Jap. Suppl., IV, p. 205, pl. LIV, f. 17, ♀, N. 964 (1912).

♀. Black, closely fine punctured and densely fulvous pubescent. The anterior part of the clypeus pale yellow. The apices of the mandibles reddish brown. Antennae fuscous. Tegulae fulvous, on the inner sides fuscous. Wings nearly hyaline, with a slight fulvous tinge, the veins and the stigma fulvous, the costal vein being fuscous. Abdomen oblong, closely fine punctured, at the hind margin of each segment narrowly reddish brown, the first and 2nd segments on each hind margin apparently constricted. Legs black, the apices of the femora reddish brown, both ends of the tibiae, the tarsi (except the fuscous apical joints) as well as the spurs pale yellow.



Length—11 mm.

Hab.—Honshu (Harima).

**Melitta macroceps Mats. (Pl. XVIII, Fig. 19, ♀)**

*Melitta macroceps* Mats., Thous. Ins. Jap. Suppl., IV, p. 207, pl. LIV, f. 19, ♀, N. 966 (1912).

♀. Dark brown. Head and thorax with long fulvous hairs. Head large and broad; at the basis of the mandibles below on each side with a long, fuscous, thorn-like projection which at the apex is fulvous, on each outer side with 2 small tubercles. Antennae fuscous, towards the apex paler, at the apex obliquely truncated. The margins of the cheeks on each side triangularly projected. Pronotum on both margins transversely ridged. Mesonotum closely fine punctured, with 3 longitudinal furrows, of which the middle one being longer. Tegulae fulvous. Wings nearly hyaline, with a slight grayish tinge, the veins and the stigma fulvous. Abdomen oval, the first segment narrow and subpetiolate, each dorsal and ventral segment on its hind margin fulvous. Legs fuscous, the apices of the femora, the tarsi, the spurs and claws fulvous.

Length—9 mm.

Hab.—Hokkaido (Sapporo).

**Sphecodes pallidulus Mats. (Pl. XVIII, Fig. 21, ♀)**

*Sphecodes pallidulus* Mats., Thous. Ins. Jap. Suppl., IV, p. 209, pl. LIV, f. 21, ♀, N. 968 (1912).

♀. Black, with a slight greenish tinge, closely fine punctured and short grayish yellow pubescent. Clypeus at the anterior margin narrowly and the larger apical parts of the mandibles reddish brown. The space between the antennae slightly elevated, the clypeus sparsely fine punctured. Mesonotum with 3 longitudinal narrow furrows, on the disk sparsely punctured. Tegulae fulvous. Postscutellum yellowish pubescent. Metanotum irregularly, longitudinally wrinkled, at the hind

margin broadly truncated, on the sides slightly ridged, in the middle with a short longitudinal furrow. Wings almost hyaline, with a slight fulvous tinge, the veins and the stigma fulvous, the costal vein being fuscous. Abdomen reddish yellow, a spot on each side of the 3rd and 4th segments (at the anterior margin) and the 5th segment on the sides fuscous, the pygidium with grayish white hairs, in the middle with a longitudinal ridge. Legs fuscous, the tarsi fulvous, the spurs pale yellow.

Length—7 mm.

Hab.—Kiushu (Kumamoto).

**Xiphydria ruficeps Mats. (Pl. XVIII, Fig. 22, ♀)**

*Xiphydria ruficeps* Mats., Thous. Ins. Jap. Suppl., IV, p. 210, pl. LIV, f. 22, ♀, N. 969 (1912).

♀. Shining black, rugosely wrinkled. Head, except the front, reddish yellow, the fore-head very strong wrinkled, the space between the antennae elevated. Clypeus and the middle parts of the mandibles reddish brown, the mandibles being fuscous. Labial palpi fuscous, at each base grayish white. Mesonotum with 3 longitudinal furrows, of which the side-ones are broader. Tegulae brown. Metanotum in the middle bilobed, at the inner side glabrous, the postscutellum at the apex narrowly incised. Scutellum at the sides sparsely fine punctured. Wings subhyaline, fuscous, with an indigo-reflection, at the apices somewhat paler, the veins and the stigma black. Abdomen long, the first segment in the middle bilobed, the 2nd, 3rd and 4th segments each at the anterior margin deeply constricted, the first 4 segments at each hind margin narrowly reddish brown, on the sides with short fulvous hairs, the ovipositor at the apex reddish brown. Legs black, the claws and spurs reddish brown.

Length—18 mm.

Hab.—Hokkaido (Sapporo).



**Cephus subrufa Mats. (Pl. XVIII, Fig. 24, ♀)**

*Cephus subrufa* Mats., Thous. Ins. Jap. Suppl., IV, p. 212, pl. LIV, f. 24, ♀, N. 971 (1912).

♀. Black, very short grayish pubescent, and closely very fine punctured. The inner sides of the eyes and the mandibles (both ends fuscous) yellow. Palpi fulvous. Scutellum sparsely punctured, the metanotum glabrous, the bare portion fulvous. Wings almost hyaline, slightly fulvous, in a certain light reflecting purple, the veins and the stigma fuscous. Abdomen black, the 2nd, 3rd, 4th segments as well as the anterior margin of the 5th segment reddish yellow; ovipositor somewhat longer than the last 2 segments together. Legs black, the apices of the anterior femora, the same tibiae and tarsi as well as both the ends of the middle tibiae fulvous, the hind femora at the basis yellow, the spurs and claws fulvous.

Length—18 mm.

Hab.—Honshu (Harima).

**Hylotoma (Arge) flavipennis Mats. (Pl. XVIII, Fig. 25, ♀)**

*Hylotoma (Arge) flavipennis* Mats., Thous. Ins. Jap. Suppl., IV, p. 213, pl. LIV, f. 25, ♀, N. 972 (1912).

♀. Dark indigo-blue, with short fulvous hairs. Antennae black, the scapi indigo-blue. Fore-head closely very fine, cheeks and occiput sparsely punctured. The apices of the mandibles and the palpi fuscous. Eyes grayish. Mesonotum anteriorly and the scutellum at the base with a broad longitudinal furrow; thorax almost impunctured. Wings subhyaline, bright fulvous, at the basis narrowly blue, the veins (blue at the base) and the stigma fulvous. Abdomen large, in the middle somewhat deeper in colour, at the base of each segment narrowly constricted, at the apex of the pygidium narrowly light fulvous; the abdomen in a certain light at the ventral sides reflecting a golden lustre. Legs blue, the spurs black, the claws yellowish brown, an oval appendage at the apex of each tarsal joint fulvous.

Length—18 mm.

Hab.—Formosa (Gyochi, near Horisha).

**Hylotoma (Arge) suzukii Mats. (Pl. XVIII, Fig. 26, ♀)**

*Hylotoma (Arge) suzukii* Mats., Thous. Ins. Jap. Suppl., IV, p. 214, pl. LIV, f. 26, ♀, N. 973 (1912).

♀. Greenish black, with short grayish hairs and a few very fine punctures. Antennae fulvous, 2 basal joints being black. Fore-head in the middle with a longitudinal y-shaped ridge, the mandibles at the apices and the palpi fulvous. Mesonotum anteriorly with a longitudinal short furrow. Wings subhyaline, with a slight grayish tinge, the veins and the stigma fuscous, below the stigma with a broad smoky band. Abdomen black, the first 3 segments dark yellow, 2 apical segments with a blue reflection, the pygidium at the hind margin very narrowly fulvous. Legs black, the anterior femora at the apices, the same tibiae and tarsi fulvous, the basal halves of the middle and posterior tibiae as well as the spurs white, the claws fulvous.

Length—8 mm.

Hab.—Honshu (Kyoto); collected by M. Suzuki.

**Lophyrus hakonensis Mats. (Pl. XVIII, Fig. 27, ♀)**

*Lophyrus hakonensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 215, pl. LIV, f. 27, ♀, N. 974 (1912).

♀. Black, closely large punctured and grayish short pubescent. The basal part of the antennae, the labrum, the palpi, the shoulders, the tegulae, the first abdominal segment as well as each following segment at the anterior and posterior margins narrowly yellowish white. Antennae and mandibles fulvous, the latter at the basis fuscous, and near the basis with each a small white spot. Occiput and the larger part of the scutellum castaneous brown. Wings almost hyaline, with a slight fulvous tinge, the veins and the stigma fuscous, the latter on the outside fulvous. The yellowish bands of the abdomen



increase the breadth towards the apex. Legs fuscous, the larger parts of the trochanter, the apices of the femora, the tibiae, the tarsi and the claws yellowish white, the apices of the claws and the spurs fulvous.

Length—10 mm.

Hab.—Honshu (Hakone).

**Lophyrus pini L. subsp. nigripectus Mats. (Pl. XIX, Fig. 1, ♀)**

*Lophyrus pini* L. var. *nigripectus* Mats., Thous. Ins. Jap. Suppl., IV, p. 216, pl. LV, f. 1, ♀, N. 975 (1912).

♀. Differs from the typical specimens in the following points:—

1. Antennae at the basis castaneus brown.
2. Mesonotum dark fuscous.
3. Legs fulvous, the hind legs dark brown.

Length—7 mm.

Hab.—Honshu (Kyoto).

**Nematus dorsalis Mats. (Pl. XIX, Fig. 2, ♀)**

*Nematus dorsalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 217, pl. IV, f. 2, ♀, 76 N. 9(1912).

♀. Fulvous, the ocellar region, the basal 2 joints and a longitudinal line of the antenna, a spot on the scutellum, the metanotum, the mesosternum and the larger part of the abdomen, except the sides and the apex, black, the latter in a certain light reflecting an indigo-blue tinge, the apices of the mandibles fuscous. Thorax closely fine punctured. Wings at the basal halves subhyaline, fulvous, at the apical halves almost hyaline, with a slight yellowish tinge, the stigma fulvous, at the base fuscous, the veins dark brown. Abdomen at the apex with 2 long slender appendages. Legs fulvous, the larger parts of the hind coxae fuscous.

Length—10, 8 mm.

Hab.—Honshu (Harima, rare).

**Holconeme flavipes Mats. (Pl. XXIII, Fig. 3, ♀)**

*Holconeme flavipes* Mats., Thous. Ins. Jap. Suppl., IV, p. 218, pl. LV, f. 3, ♀, N. 977 (1912).

♀. Black, closely fine punctured. Mandible fulvous, at the base with a fuscous spot. Palpi grayish white. Antennae black, at the basis somewhat fuscous. Wings almost hyaline, with a slight fulvous tinge, the veins and the stigma fuscous, the costa, the costal and middle veins fulvous. Abdomen broadest in the middle, the ovipositor fulvous. Legs pale fulvous, the hind tibiae (except the apices) and the same tarsi dark fuscous, the claws and spurs pale yellow.

Length—10 mm.

Hab.—Hokkaido (Sapporo); rare.

**Strongylogaster annularis Mats. (Pl. XIX, Fig. 4, ♀)**

*Strongylogaster annularis* Mats., Thous. Ins. Jap. Suppl., IV, p. 219, pl. IV, f. 4, ♀, N. 978 (1912).

♀. Black, with very fine grayish hairs and very fine punctures, the punctures at the sides of the occiput being larger and sparse. Mandibles at the apices reddish brown, the palpi grayish, at the basis somewhat fuscous. Antennae black, towards the apices narrow. Wings hyaline, the fore-wings with a slight fulvous tinge, veins fuscous, the costal vein and the stigma being fulvous. Abdomen fulvous, at the base black, each segment, except the first, at the hind margin yellowish, the venter pale fulvous, at the sides and towards the apex with some fuscous spots. Legs yellow, the coxae, the trochanter and the basal parts of the femora fuscous.

Length—10 mm.

Hab.—Hokkaido (Sapporo); rare.

**Tenthredo takedae Mats. (Pl. XIX, Fig. 5, ♀)**

*Tenthredo takedae* Mats., Thous. Ins. Jap. Suppl., IV, p. 220, pl. LV, f. 5, ♀, N. 979 (1912).



♀. Yellowish green, with short black hairs and very fine punctures. Antennae (the undersides and the apices of the scapi yellowish green), H-shaped mark in the middle of the vertex, 2 oblique each other converging lines between the antennae, the furrows of the mesonotum, the posterior region of the scutellum as well as a longitudinal line on each leg black. The apices of the mandibles fuscous. Wings hyaline, the veins fuscous, the costa and stigma being pale yellowish. Abdomen unspotted, at the base of the 2nd segment very narrowly black. Legs yellowish green, with short black hairs; the femora and tibiae with each a longitudinal black line, the spurs and claws at the apices narrowly reddish brown.

Length—10, 5 mm.

Hab.—Honshu (Mt. Hakuba in the Province of Shinano, collected by Dr. K. Takeda).

**Macrophya mitsuhashii Mats. (Pl. XIX, Fig. 6, ♀)**

*Macrophya mitsuhashii* Mats., Thous. Ins. Jap. Suppl. IV, p. 221, pl. LV, f. 6, ♀, N. 980 (1912).

♀. Black. Clypeus, labrum, mandibles (at the apices fuscous), shoulders and a spot on each side of the first abdominal segment yellow. Antennae black, at the apices fuscous. Palpi dark yellow. Head sparsely and thorax closely fine punctured. Wings almost hyaline, with a slight fulvous tinge, the costal area being fulvous; veins and stigma fuscous, the brachial and humeral veins fulvous. Abdomen somewhat shining, the 6th segment the broadest. Legs fuscous, the apices and the inner sides of the femora, the tibiae (the apices fuscous) and the larger parts of the tarsi fulvous, the anterior tarsi being paler.

Length—12 mm.

Hab.—Hokkaido (Sapporo); collected by Mr. S. Mitsuhashi.

**Macrophya flavoventralis Mats. (Pl. XIX, Fig. 8, ♂)**

*Macrophya flavoventralis* Mats., Thous. Ins. Jap. Suppl., IV, p. 223, pl. LV, f. 8, ♂, N. 981 (1912).

♂. Black, closely fine punctured. Fore-head, cheeks, a transverse spot on each side of the occiput, the mandibles (at the apices fuscous), the palpi, the undersides of the antennae, the shoulders, 2 spots on the anterior part of the mesonotum, the tegulae, the scutellum, a spot just before the scutellum, the postscutellum, a middle spot of the metanotum, the underside of the body as well as the legs yellow. Wings almost hyaline, with a very slight fulvous tinge, the veins and the stigma fuscous. Abdomen flat, at each hind margin narrowly white, the caudal appendages dark gray. A longitudinal stripe of each of the femora, tibiae and tarsi black, the spurs pale yellow, the hind spurs at the apices fuscous.

Length—7, 5 mm.

Hab.—Hokkaido (Sapporo, rare).

**Allantus longipennis Mats. (Pl. XIX, Fig. 9, ♀)**

*Allantus longipennis* Mats., Thous. Ins. Jap. Suppl., IV, p. 224, pl. LV, f. 9, N. 983 (1912).

♀. Black. Head rugosely wrinkled, the thorax closely fine punctured. The inner sides of eyes, the clypeus, the labrum and the bases of the antennae yellow. Antennae fuscous, the basal 3 joints and the mandibles (the apices fuscous) reddish brown, the palpi dark yellow, the maxillary palpi on both ends fuscous. The lower parts of the cheeks, a transverse spot on each side of the occiput, the hind margin of the pronotum and the tegulae (in the middle fuscous) yellowish brown. Scutellum sharp pyramidally elevated. Wings almost hyaline, with a slight fulvous tinge, the longitudinal veins fuscous, the cross-veins and the stigma fulvous. A spot on each side of the metanotum, the first abdominal segment except the base, the hind margin of the 3rd segment at the sides, the 4th-7th segments on each



hind margin, the 8th and 9th largely as well as the hind margin of each ventral segment yellow. Legs fuscous, the apical parts of the coxae, a spot of each coxa (the hind coxa wholly yellow), the apices of the femora, the tibiae, the tarsi, the spurs as well as the claws fulvous, the spurs at the apices being fuscous.

Length—15 mm.

Hab.—Hokkaido (Sapporo); quite rare.

**Selandria japonica Mats. (Pl. XIX, Fig. 10, ♀)**

*Selandria japonica* Mats., Thous. Ins. Jap. Suppl., IV, p. 225, pl. LV, f. 10, ♀, N. 984 (1912).

♀. Black, with very short grayish hairs and very fine punctures. The apices of the mandibles reddish brown, the palpi, the pronotum on the sides, the tegulae, 2 spots of the metanotum, the hind margin of each dorsal and ventral segment pale yellowish brown. Mesonotum shining, nearly impunctured, on the frontal part very fine wrinkled. Wings nearly hyaline, with a slight fulvous tinge, the veins and the stigma dark brown. Abdomen fuscous, the 5th segment the broadest. Legs yellowish white, the coxae at the basis, the larger parts of the trochanter, the femora (except the apices), the tips of the tibiae as well as the tarsi fuscous.

Length—7, 5 mm.

Hab.—Hokkaido (Sapporo).

**Allantus moiwasanus Mats. (Pl. XIX, Fig. 11, ♀)**

*Allantus moiwasanus* Mats., Thous. Ins. Jap. Suppl., IV, p. 226, pl. IV, f. 11, ♀, N. 985 (1912).

♀. Yellowish brown, with pale yellowish hairs. Vertex black. Clypeus, labrum and palpi pale yellow, the apices of the mandibles fuscous. Mesonotum closely fine punctured. Pronotum on the sides, the tegulae, the scutellum and the postscutellum pale yellow, the scutellum being somewhat elevated. Wings subhyaline, with a slight

fulvous tinge, on the apical one third fuscous, the veins dark brown, the costa and stigma fulvous. Abdomen towards the apex somewhat broader, the first segment at the anterior and posterior margins narrowly black, the pygidium at the apex on each side with a leaf-like appendage. Legs fulvous, the claws at the apices fuscous.

Length—13, 5 mm.

Hab.—Hokkaido (Sapporo).

**Macrophya fujisana Mats. (Pl. XIX, Fig. 13, ♀)**

*Macrophya fujisana* Mats., Thous. Ins. Jap. Suppl., IV, p. 227, pl. LV, f. 12, ♀, N. 986 (1912).

♀. Black, in a certain light reflecting dark indigo-blue, with short grayish hairs and very fine punctures. Labrum white, the maxillary palpi fulvous, the labial palpi fuscous. Antennae fuscous, the 3rd joint at the apex, the 4th and the basal part of the 5th yellowish white. Tegulae fuscous. Wings hyaline, with a very slight yellowish tinge, the veins and the stigma fuscous, the latter being somewhat paler; the lanceolate cell with no cross-vein. Abdomen in the middle paler, the 3rd and 4th segments on the sides and the basis grayish white. Ovipositor long. Legs dark brown, the tibiae, the tarsi, the spurs and the tips of the femora of the anterior legs pale fulvous, the middle femora at the apices somewhat paler.

Length—12 mm.

Hab.—Honshu (Mt. Fuji).

**Coelichneumon bivittatus Mats. (Pl. XIX, Fig. 13, ♂)**

*Ichneumon bivittatus* Mats., Thous. Ins. Jap. Suppl., IV, p. 228, pl. LV, f. 13, ♂, N. 987 (1912).

♂. Black, with short grayish hairs and a few punctures. The circumference of the eyes, the fore-head, the mandibles (both ends fuscous), the palpi, the hind margin of the pronotum, the tegulae, a spot just below the tegulae, 2 narrow longitudinal lines of the meso-



notum, 2 longitudinal marks of the scutellum as well as a large spot on each side of the pro- and mesopleurae yellowish white. Wings subhyaline, with a very slight fulvous tinge, at the outer margin somewhat infuscated; veins and stigma fuscous. Abdomen flat, the 3rd, 4th and 5th in the middle longitudinally aciculated, the same segments on each hind margin narrowly reddish brown. Legs pale yellow; the anterior and middle legs on the outsides and the tips of the same femora fuscous; the hind legs yellow, the coxae, the trochanter, except the middle, as well as the apices of the femora and tibiae of the hind legs fuscous.

Length—19, 5 mm.

Hab.—Honshu (Kyoto); collected by Mr. M. Suzuki.

**Ichneumon yoshidae Mats. (Pl. XIX, Fig. 19, ♂)**

Ichneumon (Matsumurais) yoshidae Mats., Thous. Ins. Jap. Suppl., IV, p. 234, pl. LV, f. 19, ♂ (non ♀), N. 992 (1912).

♂. Dark brown, with short fulvous hairs and close punctures. Fore-head (a spot just on the front of the antenna and the anterior margin of the clypeus fuscous), the tegulae as well as the scutellum dusky yellow. Antennae fuscous. The reticulation of the metanotum sharp, the areolet with some transverse wrinkles. Wings subhyaline, with a dark fulvous tinge, in a certain light reflecting a slight indigo-blue; the larger parts of the veins fuscous, the stigma and the outer veins fulvous. Abdomen in the middle broad, the first segment longitudinally wrinkled, the 2nd and 3rd segments reddish brown, the gastrocoeli of the 2nd segment with 3 or 4 transverse wrinkles. Legs pale fulvous, the coxae as well as the apices of the femora and the tibiae of the middle and posterior legs fuscous, the hind tarsi dark fulvous.

Length—33 mm.

Hab.—Hokkaido (Sapporo, Jozankei, Kuccharo, Teshio), Honshu (Aomori).

**Cobunus pallidiolus Mats. (Pl. XIX, Fig. 20, ♀)**

Ichneumon pallidiolus Mats., Thous. Ins. Jap. Suppl., IV, p. 235, pl. LV, f. 20, ♀, N. 993 (1912).

♀. Pale fulvous, with short pale yellowish hairs and very fine dense punctures. The apices of the mandibles fuscous. Palpi pale yellow. Antennae dark brown, at the basis paler. Scutellum elevated, on the sides keeled. Wings subhyaline, pale fulvous, the veins and the stigma fulvous. Abdomen a little slenderer than the thorax, a spot on the 6th segment and the following segments dark indigo-blue. Legs pale fulvous.

Length—16, 5 mm.

Hab.—Hokkaido (Sapporo), Honshu (Tokyo).

**Protichneumon dispar Pod. subsp. ventralis Mats.**

(Pl. XIX, Fig. 21, ♀)

Ichneumon ventralis Mats., Thous. Ins. Jap. Suppl., IV, p. 236, pl. LV, f. 21, ♀, N. 994 (1912).

♀. Dark brown, with short fulvous hairs and fine dense punctures. Both sides of the eyes narrowly, the clypeus, the labrum, the mandibles (at the apices fuscous), the palpi, the middle parts of the antennae, the shoulders, the 2nd and 3rd abdominal segments each on hind margin and the sides as well as the venter, except the basal and the apical 2 segments, yellow. Frons and antennae fuscous. Scutellum elevated, its punctuation somewhat larger than that of the mesonotum. Wings subhyaline, with a fulvous tinge, at the apices narrowly infuscated, the veins and the stigma fulvous, the costal and middle veins somewhat fuscous. Gastrocoeli of the 2nd abdominal segment triangular and of a yellowish colour, the last 4 segments with a slight indigo shade. Legs yellowish, the coxae and the hind femora dark brown, the middle femora on the innersides and the hind tibiae at the apices somewhat infuscated.

Length—16, 5 mm.

Hab.—Hokkaido (Sapporo).



**Protichneumon yayeyamensis Mats. (Pl. XIX, Fig. 22, ♀)**

*Anisopygus yayeyamensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 237, pl. LV, f. 22, ♀, N. 995 (1912).

♀. Fulvous, with dense punctures and short fulvous hairs. Antennae on their apical halves, 3 broad longitudinal stripes (the middle one short) of the mesonotum, the first abdominal segment on the hind half at the sides as well as the basal parts of the 2nd, 3rd and 4th segments fuscous. Scutellum roundly elevated, at the base on both sides short keeled. Areola of the metanotum distinct, but the reticulation on the sides indistinct. Wings subhyaline, with a fulvous tinge, at the apices infuscated, the veins fuscous, the veins of the outer margin and the stigma fulvous. Gastrocoeli of the 2nd abdominal segment oblong. Legs fulvous, the coxae and trochanter of the middle and posterior legs fuscous, the claws at the apices infuscated.

Length—18 mm.

Hab.—Okinawa (Yayeyama).

**Coelichneumon hopponis Mats. (Pl. XIX, Fig. 23, ♀)**

*Ichneumon hopponis* Mats., Thous. Ins. Jap. Suppl., IV, p. 238, pl. LV, f. 23, ♀, N. 996 (1912).

♀. Black, closely punctured and fine fulvous pubescent. Head yellow, a triangular spot of the fore-head, a middle spot of the clypeus, the vertex and the occiput black, the mandibles castaneous brown, at the basis yellow. Antennae fuscous, in the middle yellow. Palpi, the hind margin of the pronotum, a short longitudinal bar just below the tegula as well as the scutellum yellow. Metanotum distinctly reticulated and closely punctured. Wings subhyaline, with a dark fulvous tinge, the veins and the stigma black. Abdomen narrower than the thorax, the 2nd segment at the base longitudinally strong wrinkled, the gastrocoeli narrow, the ovipositor so long as the pygidium. Legs pale fulvous, the anterior and middle coxae pale yellow, the anterior

margin being fuscous, the hind coxae fuscous, on the outside with a yellowish spot.

Length—18 mm.

Hab.—Formosa (Hoppo).

**Dinotomus formosanus Mats. (Pl. XIX, Fig. 24, ♂)**

*Psilomastax formosanus* Mats., Thous. Ins. Jap. Suppl., IV, p. 239, pl. LV, f. 24, ♂ (non ♀), N. 997 (1912).

♂. Pale fulvous, with fine punctures and short pale fulvous hairs. Antennae fuscous, the scapi being fulvous. Mesonotum with 3 longitudinal, somewhat deeper coloured stripes. Scutellum pyramidally elevated. Wings subhyaline, infuscated, at the basal one third fulvous, the veins fuscous, the stigma and its environment fulvous. Abdominal segments strong constricted at each juncture, the 3rd segment at the hind margin and the following 4 segments dark indigo-blue, longitudinally strong wrinkled and punctured. Legs pale fulvous, the hind legs fuscous, the basal parts of coxae and trochanter being fulvous.

Length—18 mm.

Hab.—Formosa (Koshun, Horisha).

**Atanyjoppa akonis Mats. (Pl. XIX, Fig. 25, ♀)**

*Exephanes akonis* Mats., Thous. Ins. Jap. Suppl., IV, p. 240 pl. LV, f. 25, ♀, N. 998 (1912).

♀. Pale fulvous. Antennae spindle-shaped, fulvous, in the middle yellowish white, at the apical one third fuscous. Mandibles at the apices dark brown. Head sparsely fine and thorax closely punctured. Scutellum much elevated at the basis, distinctly keeled. Metanotum indistinctly reticulated. Wings nearly hyaline, with a slight fulvous tinge, the veins and the stigma pale fulvous. Abdomen narrower than the thorax, the apical 3 segments black, the 5th at the base on the sides fulvous, the 6th and 7th on each hind margin with a grayish



white spot. Ovipositor so long as the apical 2 segments. Legs pale fulvous, the hind femora and tibiae at the apices and the apical 2 joints fuscous.

Length—15 mm.

Hab.—Formosa (Ako).

**Dicaelotus diminutus Mats. (Pl. XIX, Fig. 26, ♀)**

*Ichneumon diminutus* Mats., Thous. Ins. Jap. Suppl., IV, p. 241, pl. LV, f. 26, ♀, N. 999 (1912).

♀. Black, with fine punctures and short grayish white hairs. Antennae fuscous, the middle parts pale yellow, each apex of the basal 5 joints narrowly fulvous. Tegulae fuscous, the scutellum yellow, the metanotal reticulation distinct. Wings subhyaline, with a dark fulvous tinge, the veins and the stigma fuscous. Abdomen reddish yellow, the 4th and 5th segments black, the 5th at the apex and the following 2 segments grayish white. Legs fulvous, the coxae and trochanter paler, the apices of the femora, the tibiae as well as the tarsi (each joint at the base narrowly fulvous) of the hind legs fuscous.

Length—6, 6 mm.

Hab.—Okinawa (collected by Mr. K. Kuroiwa).

**Protichneumon oiwakensis Mats. (Pl. XIX, Fig. 27, ♀)**

*Ichneumon oiwakensis* Mats., Thous. Ins. Jap. Suppl., IV, p. 242, pl. LV, f. 27, ♀, N. 1000 (1912).

♀. Black, with fine punctures and short brown hairs. The innersides of the eyes at the vertex and the scutellum yellow. Palpi and antennae fuscous, the latter in the middle on the front yellowish white. Clypeus at the anterior margin brown. Scutellum somewhat elevated, on the front transversely deep excavated. Metanotum on the sides indistinctly reticulated, the side-projection low. Wings subhyaline, fuscous, in a certain light with a slight indigo reflection,

the veins dark brown, the stigma fulvous. Abdomen reddish brown, the 1st segment except the hind margin and the last 4 segments dark brown, the latter with an indigo reflection, the 3rd segment on the anterior and posterior margins narrowly infuscated. Legs dark brown, the anterior tibiae and tarsi on the innersides fulvous, the middle tibiae and tarsi fuscous, the spurs fulvous, the claws fuscous.

Length—22, 5 mm.

Hab.—Honshu (Oiwake).

**Acrogonia varipes Mats. (Pl. XIX, Fig. 28, ♀)**

*Acrogonia varipes* Mats., Thous. Ins. Jap. Suppl. IV, p. 243, pl. LV, f. 28, ♀, Annex, N. 1 (1912).

♀. Black, sparsely very fine punctured and short fulvous pubescent. Antennae fuscous, the undersides and the basal part of each joint fulvous. Tegulae dusky yellow. Mesonotum in the middle somewhat excavated, the metanotum oval, glabrous, impunctured. Wings subhyaline, with a slight fulvous tinge, the stigma and the veins fulvous. Abdomen narrow, constricted at each juncture, the first segment at the base with 2 longitudinal keels, near the hind margin with a broad transverse depression which is longitudinally fine aciculated, the 2nd and 3rd segments each in the middle somewhat depressed, the former being fine aciculated. Legs reddish yellow, the hind legs black, the trochanter, both ends of the femora, the tibiae (the apex and a spot near the base black) and the tarsi (the apex of each joint fuscous) yellow.

Length—10, 5 mm.

Hab.—Honshu (Kyoto).

**Caenocryptus tarsalis Mats. (Pl. XIX, Fig. 29, ♂)**

*Ischnojoppa tarsalis* Mats., Thous. Ins. Jap. Suppl., IV, p. 245, pl. XIX, f. 29, ♂ (non. ♀), Annex, N. 2 (1912).

♂. Black, with large punctures and short grayish white hairs.



Fore-head, clypeus, labrum, mandibles (at the apices fuscous), palpi, a spot of the cheek, about 5 joints of the antennae near the apex, the anterior margin of the pronotum, a spot of the scutellum as well as each hind margin of the abdominal segments yellow. Antennae slender, somewhat longer than the body. Mesonotum longitudinally wrinkled and sparsely large punctured. Tegulae fuscous, at the anterior margins pale yellow, the metanotum rugosely wrinkled, near the base with a transverse curved ridge. Wings subhyaline, with a slight dusky yellow tinge, the stigma and the veins fuscous. Abdomen narrow, the 1st segment on each side with a longitudinal furrow, the 2nd near the base on each side with a small oval yellowish spot, at the base of the 3rd on each side also with a small yellowish spot. Ovipositor short and robust. Legs slender and long, the anterior legs fulvous, the femora in the middle being fuscous, the middle and hind legs black, the apices of the coxae (the middle coxae on the undersides yellow), the 2nd trochanter, the basis of the femora and tibiae (the middle tibiae and tarsi largely fulvous) pale fulvous; the hind tarsi yellowish white, the metatarsus, except the apex, and the 5th joint, except the base, black; the spurs at the apices and the claws reddish brown.

Length—12, 8 mm.

Hab.—Honshu (Kyoto).

**Heteroschnus pedestris Mats. (Pl. XIX, Fig. 30, ♀)**

*Heteroschnus pedestris* Mats., Thous. Ins. Jap. Suppl., IV, p. 246, pl. LV, f. 30, ♀, Annex, N. 3 (1912).

♀. Black, abdomen smooth and shining. Head and thorax sparsely punctured and short grayish white pubescent. Antennae and mandibles (the latter at the apices fuscous) reddish brown, the palpi yellow. Tegulae fuscous, the scutellum somewhat pyramidally elevated, on its front with a deep oval depression. Metanotum in the middle with 2 longitudinal ridges, its lower part with many transverse

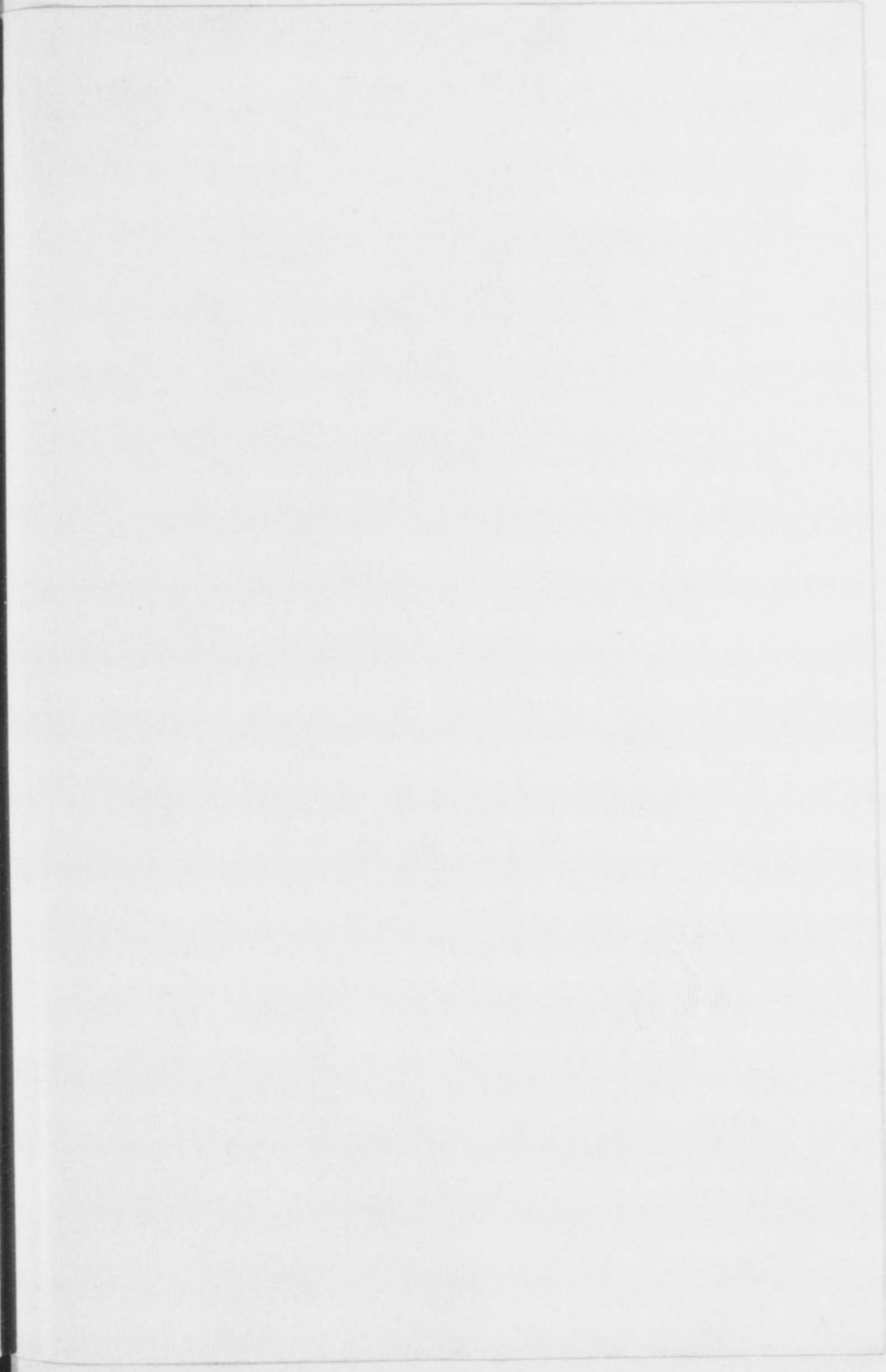
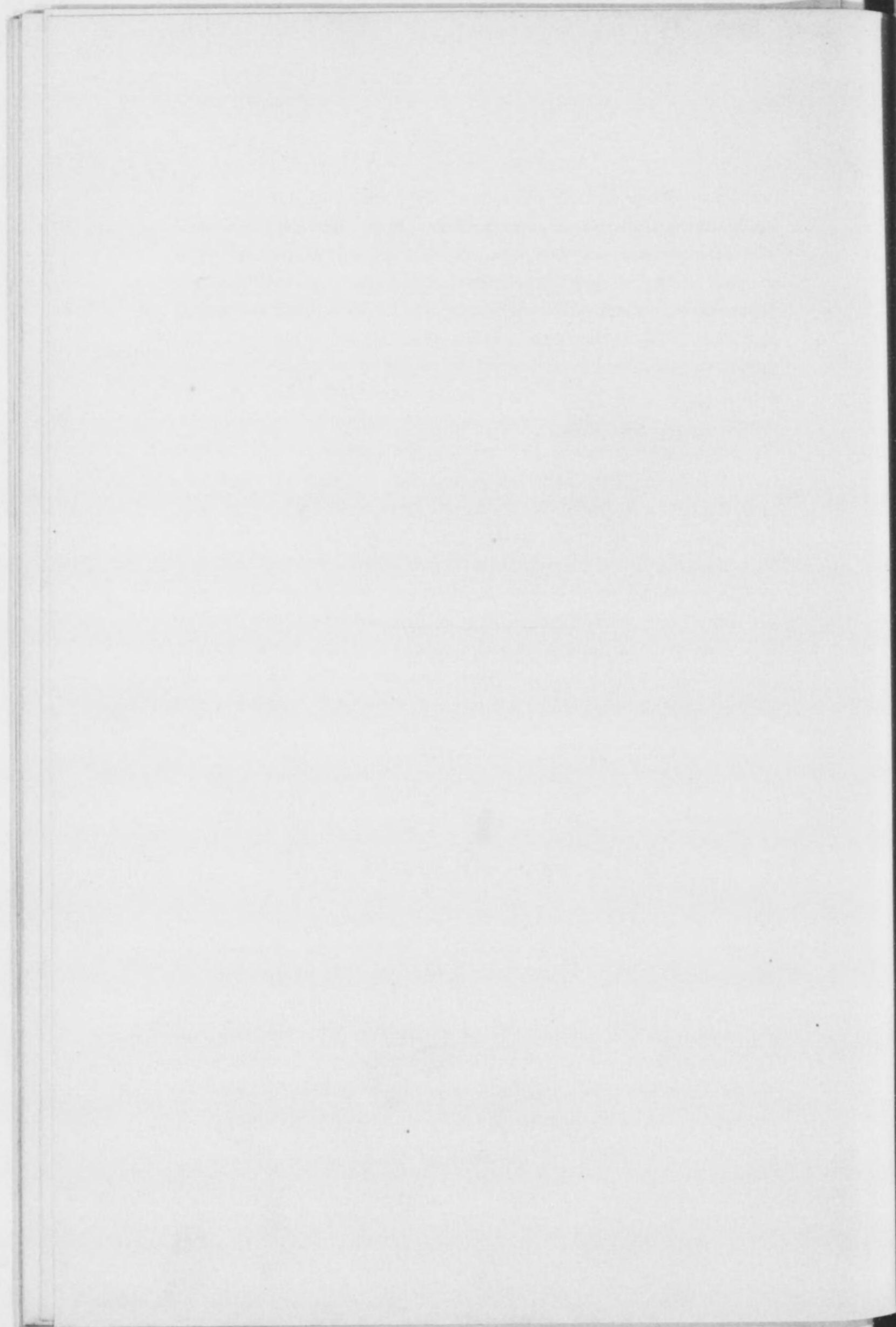
wrinkles. Wings subhyaline, with a slight dusky yellow tinge, the veins fulvous, the costal vein and the stigma fuscous. The first abdominal segment at the apex, the 2nd as well as the 3rd bright reddish brown, the first segment distinctly longer than the 2nd, the last ventral segment at the margin fulvous. Legs fulvous, the femora and both ends of the tibiae of the hind legs fuscous, the spurs yellow.

Length—10, 5 mm.

Hab.—Honshu (Kyoto).









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農理學博士 松村松年 著

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第七卷	第六卷	第五卷	第四卷	第三卷	第二卷	第一卷
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### 好 評 書

本書は増訂日本千蟲圖解の外篇とも云ふべきもので、昆蟲の農作物に及ぼす利害關係を詳説し、特に日本に於ける害蟲並に害蟲の繁殖を制裁する益蟲約三百餘種につき一々寫眞圖版を掲げてその形狀、色彩、習性及び被害植物を解説し、更に害蟲の驅除豫防法を徹底的に記述したるものである。著者多年の實地研究に基く應用昆蟲學通論として、一般農學に携はる専門家の參考書たるは勿論、中等並びに専門諸學校の教科書としても亦絶好の書、他日刊行の豫定たる「林昆蟲學」と共に日本害蟲研究書の双璧をなすものである。



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