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Identification Atlas of the Vespidae (Hymenoptera, Aculeata) of the northeastern Nearctic region

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Matthias Buck, Stephen A. Marshall, and David K.B. Cheung

Department of Environmental Biology, University of Guelph, Guelph, Ontario, Canada N1G 2W1

Ancistrocerus Wesmael

This genus has a primarily Holarctic distribution. Previous authors recognised 20 species in the Nearctic region ([Krombein 1979](#), [Rodríguez-Palafox 1996](#), [Buck *et al.* 2006](#)). The taxonomy of the genus is difficult, with some species still undescribed and others currently inappropriately treated at the subspecies level. We recognise 14 species from the northeast.

References. – [Bequaert, 1944a](#) (revision of Nearctic species, key); [Gusenleitner, 1995](#) (key to *A. parietum*-group).

3. Key to northeastern Nearctic *Ancistrocerus* species

1.	Sternum 2 with median longitudinal furrow behind transverse basal groove (Fig. 3.1)	2
-	Sternum 2 lacking median longitudinal furrow	3
2.	Pronotum with transverse carina (Fig. 3.2), except medially. Male: vertex with low, impunctate median swelling just behind level of hind ocelli. Female: scutellum and metasoma beyond segment 2 black (Fig. 3.34 ; tergum 2 rarely with an evanescent apical fascia)	<i>A. unifasciatus</i> (de Saussure)
-	Pronotum without transverse carina (at most subcarinate near humeral angle). Male: vertex without impunctate median swelling. Female: scutellum with a pair of yellow spots, terga 1–3 fasciate (as in Fig. 3.36 ; fascia of tergum 2 always broad; tergum 3 rarely black)	<i>A. campestris</i> (de Saussure)
3.	Propodeum with ventrolateral ridges very prominent, about as high as ocellus diameter (Figs 3.3–4). Male flagellomere XI short, length along outer surface only about 1/3 length of flagellomere IX along outer surface (Fig. 3.5)	4
-	Propodeum with ventrolateral ridges, if present, low. Male flagellomere XI normal, length along outer surface at least half length of flagellomere IX along outer surface (e.g., Fig. 3.16)	5
4.	Propodeum with posterior and ventrolateral surfaces shining, impunctate (Fig. 3.3). Wings moderately infuscated in both sexes; female scutellum with a pair of yellow spots, at least terga 1–4 fasciate (Fig. 3.37)	<i>A. antilope</i> (Panzer)
-	Propodeum with posterior and ventrolateral surfaces dull, micropunctate (Fig. 3.4). Female: wings strongly infuscated; scutellum and metasoma beyond segment 3 black (Fig. 3.38)	<i>A. spinolae</i> (de Saussure)
5.	Sternum 2 behind transverse basal groove slightly concave in profile (Fig. 3.6)	6
-	Sternum 2 behind transverse groove convex in profile (e.g., Fig. 3.7)	7
6.	Transverse carina of tergum 1 with deep V-shaped medial incision (Fig. 3.8). Metanotum usually black (Fig. 3.39), sometimes with evanescent yellow spots	<i>A. parietum</i> (L.)
-	Transverse carina of tergum 1 at most with small median incision (Fig. 3.9). Metanotum with broad transverse yellow band (Fig. 3.40), sometimes missing or interrupted medially in male	<i>A. gazella</i> (Panzer)
7.	Costal scale (i.e., ventral projection at very base of costa) with convex outline in posterior view and acute edge in lateral view (Fig. 3.10). Female: cephalic foveae usually* fused or contiguous, usually* at most separated by a narrow septum (Fig. 3.12); propodeum usually with pale markings (e.g., Fig. 3.7)	8
* except in <i>A. lutonidus</i> where the foveae are well separated (corrected: 19/03/08).		

-	Costal scale less prominent, its outline straight to weakly convex, its edge more rounded (Fig. 3.11). Female: cephalic foveae separated by horizontal plateau-like area of at least fovea diameter (Fig. 3.13); propodeum entirely black	10
8.	Tergum 2 almost always with a pair of yellow discal spots (Fig. 3.7); tergum 1 with apical fascia on each side extended forward and usually inward (Figs 3.7, 3.41). Pale markings of body bright yellow. Male: middle flagellomeres narrowly and obscurely yellowish beneath. Female: sterna 2–5 with complete apical fasciae (Fig. 3.7); sternum 2 micropubescent throughout; clypeus completely or largely yellow (Fig. C8.4), often with black median spot or with more or less parallel-sided longitudinal stripe in dorsal half (U.S.: ME and WI southward; recorded from Buffalo, NY)	<i>A. lutonidus</i> Bohart
-	Tergum 2 lacking discal spots (small spots present in aberrant females); tergum 1 with apical fascia sometimes more or less extended forward but never inward. Pale markings of body yellow to ivory. Male: flagellum from base to apex with a broad, bright yellow stripe beneath (as in Fig. 3.17). Female: usually only sternum 2, rarely also 3, with complete apical fascia; mid section of sternum 2 without micropubescence; clypeus usually with a pair of dorsal and a pair of ventral pale spots (Fig. C6.6), rarely confluent laterally and ventrally leaving central black mark that is distinctly expanded at apex	9
9.	Body with pale markings bright yellow to ivory. Female: scape with broad pale stripe ventrally, neither interrupted nor narrowed near middle (Fig. 3.14); flagellum yellowish beneath from base to apex; propodeum marked with pale laterally (usually less extensive than in Fig. 3.7), the markings often extending to propodeal dorsum; tergum 6 rarely with pale median spot; metanotum almost always with complete pale band (Fig. 3.42); parategula frequently marked with pale	<i>A. catskill</i> (de Saussure)
-	Body with pale markings ivory (sometimes yellowish on head and scape). Female: scape with pale anterior stripe restricted to basal half (Fig. 3.15), or lacking pale markings; rarely with complete stripe that is interrupted medially or narrowed in distal half; flagellum at most dark reddish below, the basal 1–2 segments sometimes more yellowish; propodeum usually black, rarely with a pair of small ivory spots on and below propodeal angle; tergum 6 with well developed ivory spot (Fig. 3.43); metanotum usually with a pair of ivory spots (Fig. 3.43), rarely with complete ivory band or entirely black; parategula black	<i>Ancistrocerus</i> sp. A
	Note: males of these two species cannot be reliably distinguished.	
10.	Male (seven metasomal segments)	11
-	Female (six metasomal segments)	14
11.	Clypeus with deep apical emargination (Fig. 3.16). Scape with black dorsal mark extending posteriorly onto ventral surface. Pedicel black beneath (Fig. 3.16). [Flagellum black beneath except for apical flagellomeres (Fig. 3.16), rarely obscurely dark reddish. Body with pale markings ivory, rarely bright yellow*. Mesosoma very short and stubby (Fig. 3.18).]	<i>A. waldenii</i> (Viereck)
	* Note: the yellow colour form is newly recorded here from the eastern U.S. (Virginia).	
-	Clypeus with shallow to moderately deep apical emargination (e.g., Fig. 3.17). Scape with black dorsal mark not extending posteriorly onto ventral surface, but scape rarely with black ventral stripe free from dorsal mark. Pedicel almost always yellowish or reddish beneath	12
12	Mesosoma shorter and more stubby (Fig. 3.19). Flagellum usually predominantly black beneath except for apical and sometimes basal flagellomeres (a few specimens with bright yellow body markings have the whole ventral surface of the flagellum more or less yellow). Scutellum often entirely black; metanotum black, rarely with small yellow spots in yellow colour form (in this case spots on scutellum very large and almost confluent medially). Pale markings of body usually ivory or pale yellow (at least on metasoma) except in some specimens from southern part of range. Genitalia as in Fig. 3.33	<i>A. albophaleratus</i> (de Saussure) and sp. B*
	*Note: the male of species B is unrecognised	
-	Mesosoma relatively elongate and slender (Fig. 3.20). Flagellum usually extensively yellow beneath (Fig. 3.17; usually dark in the northern <i>A. albolacteus</i> except terminal segments). Scutellum usually with paired yellow spots; metanotum with a pair of yellow spots or black (pale markings absent in <i>A. albolacteus</i>). Pale markings of body bright yellow (ivory in <i>A. albolacteus</i>). Genitalia as in Fig. 3.32	13
13.	Sternum 2 without appressed micropubescence medially. Flagellum yellow to orange beneath (Fig. 3.17). At least terga 1–5 with apical fascia. Metasoma with pale markings usually bright yellow, rarely pale yellow	<i>A. diabatus</i> (de Saussure)

-	Sternum 2 behind basal groove evenly covered in appressed micropubescence. Middle flagellomeres usually black, rarely somewhat reddish beneath. Usually only terga 1–4 with apical fascia. Metasoma with pale markings ivory, rarely yellow	<i>A. albolacteus</i> Bequaert
	Note: <i>A. albolacteus</i> is tentatively recognised as a good species.	
14.	Mesosoma more elongate, posterior part of scutum and scutellum conspicuously flattened and in one plane (Figs 3.23, 3.25). Pale markings of body usually bright yellow, ivory in some boreal specimens	15
-	Mesosoma shorter and more stubby, posterior part of scutum with shorter flattened area and scutellum slightly convex (Figs 3.21–22, 3.24). Pale markings of body usually ivory or pale yellow except in some specimens from southern part of range	16
15.	Pale markings of body bright yellow. Clypeus always at least with a pair of dorsal spots (often confluent with ventral pair). Sternum 4 with yellow markings. Tergum 5 almost always with yellow apical fascia. Scutellum with a pair of yellow spots (Fig. 3.23)	<i>A. adiabatus</i> (de Saussure)
-	Pale markings of body ivory to pale yellow. Clypeus usually black, sometimes with a pair of pale ventral spots. Sternum 4 and tergum 5 without pale markings. Scutellum usually black, rarely with a pair of small pale spots	<i>A. albolacteus</i> Bequaert
	Note: <i>A. albolacteus</i> is tentatively recognised as a good species.	
16.	Tergum 6 with ivory spot* (Fig. 3.45), sternum 5 with apicolateral spots. Scape completely black (Fig. 3.28). Metanotum with short, horizontal, more or less flat anterior area in front of vertical posterior area (Fig. 3.26). Upper ridge of propodeum usually absent or poorly developed, propodeal dorsum rugose laterally but usually without distinct small areolae (Fig. 3.26). Pale markings of body ivory**	<i>A. waldenii</i> (Viereck)
	Notes. * Rarely absent according to Bequaert (1944a). ** The yellow colour form has not yet been found in females (cf. couplet 10).	
-	Tergum 6 and sternum 5 completely black***. Scape almost always at least posteroventrally or ventrodistally with brown, ivory or yellow stripe or spot (Fig. 3.29). Metanotum more rounded, less abruptly declivous posteriorly (Fig. 3.27). Upper ridge of propodeum usually well defined; propodeal dorsum laterally with coarse, areolate sculpture (Fig. 3.27). Pale markings of body sometimes bright yellow in specimens from southern part of range	17
	Note. *** Tergum 6 exceptionally with pale spot but then scape extensively marked with ivory or yellow.	
17.	Mid and hind tibia with well-developed (rarely small) pale spot, the spot embracing dorsalmost area of tibia (Fig. 3.31); tibiae in yellow colour form largely yellow. Terga 1–4 or 5 with apical fasciae (Figs 3.47–48); sternum 3 usually with complete or interrupted apical fascia but at least with small pale spot(s) near middle. Scutellum with a pair of pale spots* (Figs 3.47–48). Scape usually predominantly black with brown markings ventrally (Fig. 3.29) (but yellow stripe always present in yellow colour form)	<i>A. albophaleratus</i> (de Saussure)
	Note. * Scutellar spots sometimes absent in specimens from AB, BC.	
-	Mid and hind tibia black, rarely in part suffused with amber**; pale spots, if present, small and restricted to anterior surface (also in the yellow colour form), not attaining dorsalmost area of tibia (Fig. 3.30). Terga 1–2 or 3 with apical fasciae*** (Fig. 3.44), sometimes interrupted on tergum 3; sternum 3 with pale apicolateral spots only, rarely completely black. Scutellum black (Fig. 3.44). Scape usually with yellow to dirty yellow stripe beneath, at least distally	<i>Ancistrocerus</i> sp. B
	Notes. ** Tibiae of specimens from NT, YT, AK frequently extensively suffused with amber. *** Some specimens from AB, SK, BC with apical fascia on tergum 4.	

Metasoma of *Ancistrocerus* species



B3.34 *A. unifasciatus*, female



B3.35 *A. unifasciatus*, male



B3.36 *A. campestris*, male



B3.37 *A. antilope*, female



B3.38 *A. spinolae*, female



B3.39 *A. parietum*, female



B3.40 *A. gazella*, female



B3.41 *A. lutonidus*, female



B3.42 *A. catskill*, female



B3.43 *Ancistrocerus* sp. A, female



B3.44 *Ancistrocerus* sp. B, female



B3.45 *A. waldenii*, female



B3.46 *A. waldenii*, male



B3.47 *A. albophaleratus*, female



B3.48 *A. albophaleratus*, female



B3.49 *A. diabatus*, female



B3.50 *A. diabatus*, male



B3.51 *A. albolacteus*, female



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