

INSECTS FROM THE
SANTANA FORMATION,
LOWER CRETACEOUS, OF BRAZIL

Edited by

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CHAPTER 7. ORDER HYMENOPTERA

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ABSTRACT

The discovery of Southern Hemisphere fossils has in many ways revitalized the study of the insect fauna of the Cretaceous. There are, however, only a few localities in Chile, Australia (Queensland, Victoria), and South Africa (McKay and Rayner, 1986); Hymenoptera fossils have been reported only from the Koonwarra fossil bed in Australia (Jell and Duncan, 1986). The Santana Formation of Brazil is the first fossil locality for Cretaceous Hymenoptera in the Southern Hemisphere of the New World. Although only 17 specimens are available for study, this locality has yielded

several interesting finds. For Symphyta, there is the first fossil representative of Syntexinae (Anaxyelidae); this family is represented in the recent fauna by a single Nearctic species. For the parasitic Hymenoptera, there is an ephialtitid that extends the range of this taxon from the Jurassic into the Cretaceous. And for Aculeata, the stinging wasps, there is a tiphiid, that extends the age of this family by about 70 million years, from the Oligocene to the Lower Cretaceous, and the first fossil representative of the Rhopalosomatidae. All are described and named here.

INTRODUCTION

Our understanding of the Hymenoptera from the Cretaceous has expanded dramatically in the past 30 years. In 1973, Evans tabulated the known genera of Aculeata (12) and noted that it seemed incredible that it was only 16 years since the first description of a Cretaceous aculeate wasp (Sharov, 1957). The past 15 years have been even more remarkable. Table 1 lists 45 genera of Cretaceous aculeates, 37 if the tentative synonymy in the Formicidae is followed (Wilson, 1987). The number of described genera of aculeates has more than doubled but, more importantly, the number of family-level taxa has increased from 7 to 14. The figures for the Parasitica and Symphyta are even more dramatic. All but one of the 28 Cretaceous genera of Symphyta have been recorded in the past 25 years and the number of genera of parasitic Hymenoptera has increased from 13 to 65 in the last 30 years. To some extent, this apparent increase in diversity is due to the recognition of paraphyletic taxa and im-

precise generic limits but this does not negate the fact that we now know considerably more about the Hymenoptera fauna of the Cretaceous. Studies of the rich fossil localities of the Transbaikalia region of the U.S.S.R. by Dr. A. P. Rasnitsyn and his collaborators at the Paleontological Institute in Moscow have not only increased our knowledge of Cretaceous Hymenoptera but have also provided an explicit (albeit controversial) outline of the evolution and diversification of Hymenoptera (Rasnitsyn, 1980a; 1988a, but see Carpenter 1986).

Illustrations were prepared after viewing the specimens both under normal and oblique illumination, and with and without wetting using 95 percent ethanol. Solid lines denote actual wing veins and distinct impressions made by veins; broken lines represent extrapolations. Nomenclature for the venation follows Ross (1936), with minor variations. The taxonomic accounts for Symphyta and parasitic Hymenoptera are the primary responsibility of MJS, the Aculeata is the primary responsibility of DCD.

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Dr. A. P. Rasnitsyn (Palaeontological Institute, Moscow) was extremely cooperative in discussing the placement of these fossils

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TABLE 1
Known Cretaceous Hymenoptera. Classification following Rasnitsyn, 1988a.
 (R = sedimentary rock, A = amber) by
 A. Rasnitsyn, Paleontological Institute, Moscow

Taxa	A/R	Source	Reference
Incertae Sedis			
<i>Mesosirex</i> (1 sp.)	R	Hebei, China	Hong 1984a (REVISED POSITION)
" <i>Paroryssus</i> " (1 sp.) (misident.)	R	Hebei, China	Lin 1976 (REVISED POSITION)
SUBORDER SIRICINA (SYMPHYTA)			
Incertae Sedis			
<i>Sinanxyela</i> (1 sp.)	R	Inner Mongolia, China	Hong 1982b (REVISED POSITION)
XYELOMORPHA			
Xyelidae			
<i>Eoxyela</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1965, 1969
<i>Spathoxyela</i> (2 spp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1965, 1969 Krassilov & Rasnitsyn 1982
<i>Xyela</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1965
<i>Angaridyela</i> (3 spp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1968, 1969
<i>Baissoxyela</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1969
<i>Gigantoxyela</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1969
<i>Chaetoxyla</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1969
<i>Ceroxyela</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1969
<i>Xyelites</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1969
<i>Uroxyela</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1969
<i>Anthoxyela</i> (2 spp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1977 Krassilov & Rasnitsyn 1982
TENTHREDINOMORPHA			
Xyelotomidae			
<i>Undatoma</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1977
<i>Protenthredo</i> (1 sp.)	R	Inner Mongolia, China	Hong 1982a (REVISED POSITION)
? <i>Protenthredo</i> (1 sp.)	R	Inner Mongolia, China	Hong 1982a (REVISED POSITION)
Tenthredinidae			
<i>Palaeathalia</i> (1 sp.)	R	Shandong, China	Zhang 1985
Tenthredinoidea Incertae Sedis			
<i>Vitimilarya</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1969
? <i>Nematus</i> (1 sp.)	R	Schlan, Bohemia	Handlirsch 1908
SIRICOMORPHA			
Praesiricidae			
<i>Praesirex</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1968, 1983a
<i>Xyelydotes</i> (1 sp.)	R	Mongolia	Rasnitsyn 1983a
Sepulcidae			
<i>Ghilarella</i> (1 sp.)	R	Mongolia	Rasnitsyn 1988b
<i>Trematothorax</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1988b
<i>Thoracotrema</i> (2 spp.)	R	Magadan, U.S.S.R.; Mongolia	Rasnitsyn 1988b
? " <i>Euryxyela</i> " (1 sp.) (nom. preocc.)	R	Hebei, China	Hong 1984a (REVISED POSITION)
Cephidae			
<i>Mesocephus</i> (2 spp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1968, 1969
	R	Mongolia	Rasnitsyn 1988b

TABLE 1—(Continued)

Taxa	A/R	Source	Reference
Anaxyelidae			
<i>Prosyntexis</i> (1 sp.)	R	Ceará, Brazil	this study
<i>Dolichostigma</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1968, 1969
<i>Kempendaja</i> (1 sp.)	R	Yakutsk, Siberia, U.S.S.R.	Rasnitsyn 1968, 1969
Siricidae			
<i>Sinosirex</i> (1 sp.)	R	Hebei, China	Hong 1975
SUBORDER VESPINA (APOCRITA)			
Incertae Sedis			
<i>Cephenopsis</i> (1 sp.)	R	Hebei, China	Hong 1984a (REVISED POSITION)
<i>Longhuaia</i> (1 sp.)	R	Hebei, China	Hong 1984a (REVISED POSITION)
<i>Polychorella</i> (1 sp.)	R	Shandong, China	Zhang 1985 (REVISED POSITION)
<i>Mesomutilla</i> (1 sp.)	R	Shandong, China	Zhang 1985 (REVISED POSITION)
Family indet.	R	Lérida, Spain	Whalley & Jarzembowski 1985
	R	West Mongolia	Rasnitsyn 1986b
ORUSSOMORPHA			
Orussidae			
<i>Mesorussus</i> (1 sp.)	A	Taymyr, Siberia	Rasnitsyn 1977
EPHIALTITOMORPHA			
Ephialtitidae			
<i>Ephialtites</i> (1 sp.)	R	Lérida, Spain	Meunier 1903 Whalley & Jarzembowski 1985
<i>Karataus</i> (1 sp.)	R	Ceará, Brazil	this study
EVANIOMORPHA			
Megalyridae			
<i>Cleistogaster</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975
<i>Neocleistogaster</i> (3 spp.)	R	West Mongolia	Rasnitsyn 1986b
<i>Cretodinapsis</i> (1 sp.)	R	Transcaucasian, U.S.S.R.	Rasnitsyn 1977
<i>Stemmogaster</i> (1 sp.)	R	Shandong, China	Zhang 1985
Trigonalidae			
<i>Darbigonalus</i> (1 sp.)	R	West Mongolia	Rasnitsyn 1986b
<i>Cretogonalys</i> (1 sp.)	R	Taymyr, U.S.S.R.	Rasnitsyn 1977
<i>Ichneumonomima</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975, 1980b
Maimetshidae			
<i>Maimetsha</i> (1 sp.)	A	Taymyr, Siberia	Rasnitsyn 1975
Stigmaphronidae			
<i>Stigmaphron</i> (1 sp.)	A	Taymyr, Siberia	Kozlov 1975
<i>Elasmomorpha</i> (1 sp.)	A	Taymyr, Siberia	Kozlov 1975
<i>Hippocoon</i> (1 sp.)	A	Taymyr, Siberia	Kozlov 1975
<i>Allocotidus</i> (1 sp.)	A	Kuk Inlet, Alaska	Muesebeck 1963 Kozlov 1975
Megaspilidae			
<i>Prolagynodes</i> (1 sp.)	A	Taymyr, Siberia	Alekseev & Rasnitsyn 1981
? <i>Lygocerus</i> (1 sp.)	A	Cedar Lake, Canada	Brues 1937
<i>Conostigmus</i> (2 spp.)	A	Cedar Lake, Canada	Brues 1937
	A	Taymyr, Siberia	Alekseev & Rasnitsyn 1981
Praeaulacidae			
<i>Cretocleistogaster</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975, 1988a
<i>Westratia</i> (1 sp.)	R	Australia	Jell & Duncan 1986 (REVISED POSITION)

TABLE 1—(Continued)

Taxa	A/R	Source	Reference
Gasteruptionidae			
<i>Manlaya</i> (9 spp.)	R	South-East & West Mongolia	Rasnitsyn 1980b, 1986b
<i>Kotujella</i> (1 sp.)	A	Taymyr, Siberia	Rasnitsyn 1975, 1980b
<i>Baissa</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975, 1980b
Cretevanidae			
<i>Cretevania</i> (3 spp.)	A	Taymyr, Siberia	Rasnitsyn 1975
Genus indet.	R	Wealden Beds, England	Jarzewski 1984
PROCTOTRUPOMORPHA			
Mesoserphidae			
<i>Mesoserphus</i> (1 sp.)	R	West Mongolia	Rasnitsyn 1986b
Genus indet.	R	Ceará, Brazil	this study
Heloridae			
<i>Gurvanhelorus</i> (1 sp.)	R	West Mongolia	Rasnitsyn 1986b
Pelecinidae			
<i>Iscopinus</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Kozlov 1974
Proctotrupidae			
<i>Gurvanotrupes</i> (1 sp.)	R	West Mongolia	Rasnitsyn 1986b
<i>Protoprocto</i> (1 sp.)	R	Ceará, Brazil	this study
<i>Oligoneuroides</i> (1 sp.)	R	Shandong, China	Zhang 1985
			(REVISED POSITION)
Genus indet.	R	Australia	Jell & Duncan 1986
Austroniidae			
<i>Trupochalcis</i> (1 sp.)	A	Taymyr, Siberia	Kozlov 1975
Diapriidae			
<i>Cretacoformica</i> (1 sp.)	R	Australia	Jell & Duncan 1986
			(REVISED POSITION)
Ismarinae indet.	A	France	Schlüter 1978
Scelionidae			
<i>Baryconus</i> (1 sp.)	A	Cedar Lake, Canada	Brues 1937
<i>Proteroscelio</i> (1 sp.)	A	Cedar Lake, Canada	Brues 1937
<i>Cenomanoscelio</i> (1 sp.)	A	Besonnais, France	Schlüter 1978
Genus indet.	A	France	Schlüter 1978
Serphitidae			
<i>Microserphites</i> (1 sp.)	A	Taymyr, Siberia	Kozlov & Rasnitsyn 1979
<i>Aposerphites</i> (1 sp.)	A	Taymyr, Siberia	Kozlov & Rasnitsyn 1979
<i>Serphites</i> (2 spp.)	A	Cedar Lake, Canada	Brues 1937
	A	Taymyr, Siberia	Kozlov & Rasnitsyn 1979
Archaeocynipidae			
<i>Archaeocynips</i> (2 spp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn & Kovalev 1988
<i>Dahurocynips</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn & Kovalev 1988
Cynipidae			
<i>Protimaspis</i> (1 sp.)	A	Cedar Lake, Canada	Kinsey 1937
Mymaromatidae			
<i>Palaeomymar</i> (3 spp.)	A	Taymyr, Siberia	Kozlov & Rasnitsyn 1979
<i>Archaeromma</i> (2 spp.)	A	Cedar Lake, Canada	Brues 1937
	A	Medicine Hat, Canada	Yoshimoto 1975
<i>Galloromma</i> (1 sp.)	A	Besonnais, France	Schlüter 1978
Mymaridae			
<i>Triadomerus</i> (1 sp.)	A	Cedar Lake, Canada	Yoshimoto 1975
<i>Carpenteriana</i> (1 sp.)	A	Cedar Lake, Canada	Yoshimoto 1975
<i>Protooctonus</i> (1 sp.)	A	Cedar Lake, Canada	Yoshimoto 1975
<i>Macalpinia</i> (1 sp.)	A	Medicine Hat, Canada	Yoshimoto 1975
Tetracampidae			
<i>Baeomorpha</i> (4 spp.)	A	Cedar Lake, Canada	Brues 1937
	A	Medicine Hat, Canada	Yoshimoto 1975

TABLE 1—(Continued)

Taxa	A/R	Source	Reference
<i>Distylopus</i> (1 sp.)	A	Cedar Lake, Canada	Yoshimoto 1975
<i>Boucekytus</i> (1 sp.)	A	Cedar Lake, Canada	Yoshimoto 1975
Trichogrammatidae			
<i>Enneagmus</i> (1 sp.)	A	Cedar Lake, Canada	Yoshimoto 1975
ICHNEUMONOMORPHA			
Praeichneumonidae			
<i>Praeichneumon</i> (1 sp.)	R	Mongolia	Rasnitsyn 1983b
Eoichneumonidae			
<i>Eoichneumon</i> (1 sp.)	R	Australia	Jell & Duncan 1986
			Rasnitsyn & Sharkey 1988
<i>Baissobracon</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn & Sharkey 1988
<i>Cretobraconus</i> (7 spp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn & Sharkey 1988
<i>Archobraconus</i> (6 spp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn & Sharkey 1988
Ichneumonidae			
<i>Tanychorella</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975
<i>Tanychora</i> (2 spp.)	R	Transbaikalia, U.S.S.R.; Central Mongolia	Townes 1973a
<i>Catachora</i> (1 sp.)	A	Taymyr, Siberia	Townes 1973b
<i>Urotrophon</i> (1 sp.)	A	Taymyr, Siberia	Townes 1973b
<i>Eubaeus</i> (1 sp.)	A	Taymyr, Siberia	Townes 1973b
Genus indet.	R	Lérída, Spain	Whalley & Jarzembowski 1985
Braconidae			
<i>Eobraconus</i> (1 sp.)	R	Mongolia	Rasnitsyn 1983b, 1985
<i>Diospilus</i> (1 sp.)	A	Cedar Lake, Canada	Brues 1937
<i>Pygostolus</i> (1 sp.)	A	Cedar Lake, Canada	Brues 1937
<i>Neoblacus</i> (1 sp.)	A	Cedar Lake, Canada	Brues 1937
VESPOMORPHA (ACULEATA)			
CHRYSIDOIDEA			
Dryinidae			
<i>Baissobius</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975, 1980a
<i>Cretodryinus</i> (1 sp.)	A	Taymyr, Siberia	Ponomarenko 1975
<i>Laberius</i> (1 sp.)	A	Taymyr, USSR	Ponomarenko 1981
<i>Richardsidryinus</i> (1 sp.)	A	Medicine Hat, Canada	Ponomarenko 1981
			Olmi 1984
<i>Avodryinus</i> (1 sp.)	A	Medicine Hat, Canada	Ponomarenko 1981
? Bethyridae			
<i>Cretabythus</i> (1 sp.)	A	Taymyr, Siberia	Evans 1973
			Rasnitsyn 1988a
Bethyridae			
<i>Archaeopyris</i> (1 sp.)	A	Taymyr, Siberia	Evans 1973
<i>Celonophamia</i> (1 sp.)	A	Taymyr, Siberia	Evans 1973
Chrysididae			
<i>Procleptes</i> (1 sp.)	A	Cedar Lake, Canada	Evans 1969
<i>Hypocleptes</i> (1 sp.)	A	Taymyr, Siberia	Evans 1973
<i>Protamisega</i> (1 sp.)	A	Taymyr, Siberia	Evans 1973
APOIDEA			
? Baissodidae			
<i>Baissodes</i> (2 spp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975
? <i>Baissodes</i> (1 sp.)	R	West Mongolia	Rasnitsyn 1986b
<i>Oryctobaissodes</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975
<i>Trichobaissodes</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975, 1977
<i>Vitimosphe</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975
Genus indet.	R	Wealden Beds, England	Jarzembowski 1984

TABLE 1—(Continued)

Taxa	A/R	Source	Reference
Sphecidae			
<i>Archisphex</i> (1 sp.)	R	Tunbridge, England	Evans 1969
<i>Cretosphex</i> (3 spp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975
	R	Ceará, Brazil	this study
<i>Angarosphex</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975
? <i>Angarosphex</i> (1 sp.)	R	West Mongolia	Rasnitsyn 1986b
<i>Lisponema</i> (1 sp.)	A	Cedar Lake, Canada	Evans 1969
<i>Pittoecus</i> (1 sp.)	A	Taymyr, Siberia	Evans 1973
<i>Gallosphex</i> (1 sp.)	A	Beonnais, France	Schlüter 1978
<i>Mataeosphex</i> (1 sp.)	R	Shandong, China	Zhang 1985
			(REVISED POSITION)
<i>Shandongodes</i> (2 spp.)	R	Shandong, China	Zhang 1985
			(REVISED POSITION)
? <i>Palaeapis</i> (1 sp.)	R	Shandong, China	Hong 1984b
			(REVISED POSITION)
Genus indet.	R	Wealden Beds, England	Jarzembowski 1984
Apidae			
<i>Trigona</i> (1 sp.)	A	New Jersey, U.S.A.	Michener & Grimaldi 1988a, b
? <i>Celliforma</i> (2 spp.)	R	Utah, USA; Uruguay	Zeuner & Manning 1976
POMPILOIDEA			
Pompilidae			
<i>Pompilopterus</i> (1 sp.)	R	Transbaikalia, U.S.S.R.	Rasnitsyn 1975
Rhopalosomatidae			
<i>Mesorhopalosoma</i> (1 sp.)	R	Ceará, Brazil	this study
SCOLIOIDEA			
Tiphiidae			
<i>Architiphia</i> (1 sp.)	R	Ceará, Brazil	this study
Mutillidae			
? <i>Cretavus</i> (1 sp.)	R	Siberia	Sharov 1957
			Rasnitsyn 1980a
Falsiformicidae			
<i>Falsiformica</i> (1 sp.)	A	Taymyr, Siberia	Rasnitsyn 1975
<i>Taimyrisphex</i> (1 sp.)	A	Taymyr, Siberia	Evans 1973
			Rasnitsyn 1980a
FORMICOIDEA^a			
Armaniidae			
<i>Armania</i> (1 sp.)	R	Magadan, U.S.S.R.	Dlussky 1983
			Dlussky & Fedoseeva 1988
<i>Pseudoarmania</i> (2 spp.)	R	Magadan, U.S.S.R.	Dlussky 1983
			Dlussky & Fedoseeva 1988
<i>Armaniella</i> (1 sp.)	R	Magadan, U.S.S.R.	Dlussky 1983
			Dlussky & Fedoseeva 1988
<i>Archaeopone</i> (2 spp.)	R	Southern Kazakstan	Dlussky 1975, 1983
<i>Poneropterus</i> (1 sp.)	R	Magadan, U.S.S.R.	Dlussky 1983
			Dlussky & Fedoseeva 1988
<i>Dolichomyrma</i> (2 spp.)	R	Southern Kazakstan	Dlussky 1975, 1983
			Dlussky & Fedoseeva 1988
? <i>Cretopone</i> (1 sp.)	R	Southern Kazakstan	Dlussky 1975, 1983
			Dlussky & Fedoseeva 1988
? <i>Petropone</i> (1 sp.)	R	Southern Kazakstan	Dlussky 1975, 1983
			Dlussky & Fedoseeva 1988

TABLE 1—(Continued)

Taxa	A/R	Source	Reference
Sphecomyrmidae			
<i>Sphecomyrma</i> (2 spp.)	A	New Jersey, U.S.A.	Wilson et al. 1967
	A	Medicine Hat, Canada	Wilson 1985
<i>Cretomyrma</i> (2 spp.)	A	Taymyr, Siberia	Dlussky 1975, 1987
			Dlussky & Fedoseeva 1988
<i>Palaeomyrmex</i> (1 sp.)	A	Taymyr, Siberia	Dlussky 1975, 1987
			Dlussky & Fedoseeva 1988
? <i>Baikuris</i> (2 spp.)	A	Taymyr, Siberia	Dlussky 1987
			Dlussky & Fedoseeva 1988
VESPOIDEA			
Vespidae			
<i>Curiosivespa</i> (2 spp.)	R	Southern Kazakstan	Rasnitsyn 1975

^a See Wilson, 1987, for alternative classification and tentative synonymy.

during his brief visit to Ottawa in 1988. He also assisted in assembling the literature. A longer collaboration that would have enabled him to coauthor this contribution would have improved it in many ways; he is responsible for much that is right with the paper. The authors assume full responsibility for any shortcomings. This paper also benefited from the careful study and subsequent drawings executed by Patricia Stephens (Royal Ontario Museum). David Rudkin and Alan McColl (Royal Ontario Museum) assisted with the photographic plates. Assistance with the manuscript was provided by Roslyn Darling and Julie Thomson-Delaney. Comments provided by J. M. Carpenter and A. S. Menke were useful in illustrating some of the difficulties in trying to incorporate fossils into classifications derived mainly from extant species.

TAXONOMIC ACCOUNTS
SUBORDER SYMPHYTA

FAMILY ANAXYELIDAE:
SUBFAMILY SYNTEXINAE

Prosyntexis Sharkey, new genus

ETYMOLOGY: The generic name reflects the close relationship to *Syntexis*.

DIAGNOSIS: 1r-m crossvein of forewing absent; 2R1 cell of forewing wider basally than apically; RS + M of forewing reaching 1m-

cu crossvein; 3R1 cell closed; 1M cell long and four-sided; cu-a crossvein only slightly postfurcal.

TYPE SPECIES: *Prosyntexis gouleti* Sharkey, new species.

DISCUSSION: This genus is remarkably close to *Syntexis* which is known from one extant Nearctic species, *Syntexis libocedrii* Rohwer. One synapomorphic character state of the two genera is the shape of the 2R1 cell of the forewing which is wider basally than apically. *Prosyntexis* can be distinguished from *Syntexis* in the following characters: 3R1 cell of forewing closed, M and Cu of forewing reaching wing margin, 1M cell long and four-sided instead of five-sided.

Prosyntexis gouleti Sharkey, new species
Figure 1

ETYMOLOGY: Named after Henri Goulet in recognition of his research on the systematics of Symphyta.

TYPE MATERIAL: Holotype female; AMNH 43270 (dorsal aspect; body except forewings in poor condition).

DESCRIPTION: Length 12.8 mm. Forewing length 10.0 mm; costal cell relatively narrow and apparently widening apically; 1Cu about half length of 1M; M + Cu and 1Cu veins almost forming a straight line; 3r-m and apex of stigma equidistant from wing base. Ovipositor length about 1.7 mm.