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Hymenoptera collections from Qatar, the United Arab Emirates and Oman

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Summary

J. N. B. BROWN, I. L. HAMER and C. G. ROCHE made important collections of Hymenoptera (Sphecoidea and Apoidea) in Qatar, the United Arab Emirates and Oman between 1979 and 1993. An annotated list of their collecting stations is provided in order to facilitate future use of their material.

Zusammenfassung

In den Jahren zwischen 1979 und 1993 haben J. N. B. BROWN, I. L. HAMER und C. G. ROCHE in Katar, den Vereinigten Arabischen Emiraten und in Oman bedeutende Hymenopteren-Kollektionen (Sphecoidea und Apoidea) zusammengetragen. Hier werden Angaben zu den Fundplätzen und dem Sammlungsverbleib kommentiert, um die künftige Auswertung ihres Materials zu erleichtern.

Key words

Persian Gulf – biodiversity – collectors – deposition of collections

Introduction

Extensive collections of, chiefly, aculeate Hymenoptera, were made in Qatar, in the United Arab Emirates and in Oman by the late J. N. B. BROWN, by I. L. HAMER and by C. G. ROCHE while resident in the Gulf. These collections, which comprise some thousands of specimens, constitute a unique and important source of material for work on the regional Sphecoidea and Apoidea. Since they either have been, or it is intended that ultimately they should be, deposited in institutional collections (material held by the present author in the Division of Entomology, University of Kansas, Lawrence), it would appear desirable to facilitate their future use by amplifying the labelling of the specimens. The material as a whole is unusually well prepared and in very clean condition. The Apoidea in these collections have for the greater part been determined and recorded by the present author, but a considerable proportion of the species represented is as yet either undescribed or unpublished. Apart from the above three collectors, the late K. M. G. GUICHARD made small collections on short visits to Oman and Saudi Arabia, while E. A. SUGDEN made collections, including trap-nest collections, at Dubai in 1984 and 1985. No complete listing of GUICHARD's localities has been obtainable; his Apoidea are for the greater part in London. SUGDEN's Apoidea, including Megachilidae determined by the present author, are in the University of California collection at Davis.

J. N. B. BROWN

JOHN (but always known as 'Bish') BROWN collected in UAE and Oman between 1981 and 1992. His collection is dispersed, being distributed between the HAMER and ROCHE collections, with some duplicates in the present author's collection. DATHE (2000: 169) described the remarkable hylaeid, *Hylaeus emir*, from an unique male collected by BROWN at Jabāl Ḥafit in UAE.

I. L. HAMER

IAN HAMER collected in the Gulf States between 1981 and 1993. His personal collection has been deposited in the Natural History Museum, London; duplicates of his Sphecoidea are in ROCHE; duplicates of his Apoidea, and some material awaiting publication, are held by the present author. New bees collected by HAMER included two *Systropha* (BAKER, 1996) and remarkable *Chalicodoma* and Ammobatini, the latter including a minute cleptoparasite of *Nomioides*, *Hameria nearchus* (BAKER, *in press*, and see MICHENER, 2000: 643, under *Parammobatodes* POPOV, 1931).

C. G. ROCHE

GILES ROCHE collected in the Gulf States between 1979 and 1982. His personal collection is temporarily housed in the Maidstone Museum, Kent; duplicates of his Apoidea, and some material awaiting publication, are held by the present author. ROCHE's Sphecoidea will ultimately be deposited in the California Academy of Sciences collection, his Apoidea in the Oxford University Museum of Natural History, Oxford. All specimens collected or received by ROCHE were serially numbered and a catalogue is maintained by him. New bees collected by ROCHE included *Pseudapis stenotarsus* (BAKER, 2002).

List of Localities

The list given below covers all places in Qatar, the UAE and Oman where collections are known to have been made, but may not be exhaustive, especially for localities visited by BROWN. For localities visited by HAMER and by ROCHE, the list is based on information provided by them, supplemented by the evidence of pin labels observed by the present author; for BROWN, the list rests primarily on the evidence of pin labels.

The first column gives place-names as they appear on pin labels. The great majority of these will not be found in maps at atlas scales, and many neither in larger scale maps nor in standard gazetteers. The names used by the collectors were largely derived from road signs or other local sources, such as oil companies' maps, and may not represent rigorous transcriptions, following any generally recognized system, from the Arabic. In the few instances where the original Arabic spelling has been ascertained, this has been given, transcribed in accordance with the BGN/PCGN system, in square brackets, following the label spelling.

The second column gives geographical coordinates for the localities. Those for his own and BROWN's localities were for the most part supplied by I. L. HAMER; others were in part derived from a copy (annotated by HAMER with the numbers of his collecting sites) of the 1:500,000 United Arab Emirates map compiled and drawn by the Survey and Cartography Division of the British Petroleum Co Ltd (September 1975 revised August 1982), in part from other sources including the *Microsoft™* Encarta World Atlas (1988 Edition). It will be noted that in some instances two sets of coordinates are given for one named locality: localities known by the collectors under the same name, while in the same general area, may not be strictly identical. Eastings are given first.

The third column indicates the names of those who made collections at the site in question (B = BROWN; H = HAMER [followed by his site number, or, if not numbered on map, a known date of visit]; R = ROCHE). Comments on localities, given immediately following these indications, were, unless otherwise noted, supplied by ROCHE.

QATAR		
Al Khor [Al Khawr]	51°30' 25°41'	R. 'Town on east coast north of Doha.'
Al Khor district	- -	R. 'I collected in a farm a few miles north of Al Khor on the east coast.'
Al Shahaniyeh [Ash Shaḥaniyah]	51°14' 25°22'	R. 'A water-well area in the centre of Qatar about 30km WNW of Doha. It is quite extensive and well irrigated, planted with various vegetable crops as well as natural scrub plants, <i>Acacia</i> , <i>Mimosa</i> , heliotrope etc. It also houses half the herd of Arabian oryx formed by the late Sheikh Jassin bin Hamad al Thani, the largest herd in the world.'
Al Sinnah	? ?	R. 'Small village to north of Al Shahaniyeh.' 'A group of three small planted areas about 45km northwest of Doha. [An adventitious plant community had developed] around irrigated <i>Mimosa</i> . It did not last long; it seemed as though the irrigation was discontinued.'
Doha [Ad Dawḥah]	51°36' 25°15'	R. 'This refers to gardens of private houses in the capital.'
Umm al Shahkut	? ?	R. 'A farm north-west of Al Khor.'
Umm Ghain	? ?	R. 'A farm north-west of Al Khor.'

UAE		
Abu Dhabi [Abū Z̄abi]	54°22' 24°29'	B, H36
Abu Dhabi (SF)	- -	R. 'Abu Dhabi sewage farm. Plenty of water and vegetation.'
Abu Dhabi (BE)	- -	R. 'The grounds of the British Embassy in Abu Dhabi city. ... one of the few pieces of ground on Abu Dhabi which has remained undisturbed for years. Tamarisks and <i>Zygophyllum</i> sp. were the most attractive plants.'

Abu Dhabi	- -	R. 'Abu Dhabi without a detailed place in brackets refers to roadside collecting on heliotrope and <i>Zygo-phyl-lum</i> with the occasional acacia tree.'
Abu Samra	55°24' 24°12'	B
Adam: see Bid'al'Ajam		
Adhan: see Idhn		
Al Ain [Al-'Ain]	55°44' 24°15'	H24
Al Ain (I'con)	- -	H [Grounds of Intercontinental Hotel]
Al Ain road	- -	B
Al Awir / Mileiha	between 55°33' 25°12' & 55°54' 25°12'	H(1 v 1987). 'Sand dunes'
Al Babha	? ?	R. 'A large plantation on the road towards Liwa [the Liwa depression] to the southwest of Abu Dhabi. The plantation was mostly of <i>Mimosa</i> and <i>Acacia</i> with the usual <i>Zygophyllum</i> and heliotrope.' 'Between Habshān and Medinat Zaid.'
Al Futaisi I. (or Futaisi)	54°20' 24°22'	H37, R. 'An island to the southwest of Abu Dhabi. Mainly scrub with acacias.'
'Al Hayl (or Hayl) [Ḥayl]	56°14' 25°04'	H13
Al Markhaniyah (or Markheniya), nr. Al Ain [Al 'Ayn]	55°36' 24°12'	B, H23, R. 'A large plantation area which I only discovered near the end of my stay in UAE. Until it got flooded in the rains of February 1982, it was a very interesting place. Most of my collecting was done on <i>Zygophyllum</i> and heliotrope (as usual). It is only 15km from Al Saad (and from Al Ain) but it seemed to have a quite different and wider fauna.'
Al Saad	55°28' 24°12'	H22, R. 'A roadside locality about 25km west of Al Ain. <i>Acacia</i> , <i>Zygophyllum</i> and heliotrope irrigated and further enriched by Baluchi lorry drivers who stopped at a Coca Cola stall across the road.' 'Abu Dhabi – A'in road 100 km E of junction with Dubai – Tarif road.'
Asimah (or Wadi Asimah near Tayidah)	56°06' 25°25'	H8, R

Badayah	56°21' 25°27'	B.
Bid' al' Ajam (Adam)	55°15' 24°11'	R. 'A village on the Abu Dhabi – Al Ain road. An area of trees by the road.' '72km E of junction with Dubai – Tarif road.'
Bithnah	56°14' 25°10'	H12
Das (island) [Dās]	52°52' 25°09'	H39
Dibba [Dabā]	56°15' 25°37'	H3, R
Dhaid (or Al Dhaid) [Adh Dhayd]	55°53' 25°17'	R. 'Similar to Mileiha' [q.v.]. 'A town in the east of the country.'
Dhaid-Mileiha road	? ?	R. 'A farm which proved quite useful collecting at the edges of the crops.'
Dibayah (Zubayah)	54°08' 24°19'	B.
Diqdaqa (Digdaga) [Diqdaqah]	55°59' 25°40'	B, R. 'Rough scrub about 20km S of Ras al Khaimah.' 'Wayside collecting near the village.'
Dubai [Dubayy]	55°18' 25°15'	H33
Falaj al Mualla	55°44' 25°21'	B.
Fagsha	56°11' 25°08'	H. [Species-rich site, as noted by the collector].
Ghayl-Munay	ca. 56°04' 25°24'	B.
Ghosam	56°09' 25°35'	H5
Hatta	- -	R. 'A wadi in the foothills near the Omani border SW of Fujeirah. [Al Fujayrah] There are gardens there but I collected only outside them. The fauna tended to be markedly different from that of the lowlands.' [Many of the bees collected at Hatta were, in fact, not collected elsewhere, bearing out the collector's comment.] 'Town with a spring which caused a lot of vegetation.'
Hatta	56°09' 24°48'	B, H18
Hatta-Madam road	? ?	R. 'Scrub, roadside collecting area. Not particularly fruitful.'
Hili [Hilli]	55°48' 24°18'	H25
Huwailat [Howaylat]	56°11' 24°52'	H17

Idhn Dibba [= Idhn to Dibba]	from 56°01' 25°27' to 56°15' 25°36'	B. 'Idhn is a small village 25 miles south of Ras al Khaimah. The BP map spells it as Adhan' [ILH]. Cf. Uyay-nah.
Jebal Ali [Jabal 'Alī]	55°06' 25°02'	H34
Jebal Dhana [Az Zannah]	52°39' 24°10'	H38
Jabal Hafit [Jabāl Ḥafit]	55°46' 24°06'	B.
Jebel Qatar	55°55' 24°21'	H(6 xi 1987)
Khatt [Al Khaṭṭ]	56°01' 25°37'	B.
Khor Fakkan [Khawr Fakkān]	56°20' 25°21'	B, H11, R
Khor Kalba (or Kalba) [Khawr Kalbah]	56°21' 25°02'	B, H14
Leyahlia	? ?	R. 'A new plantation area east of the Liwa road. Not fruitful.'
Liwa (oases) [Al Jiwā]	from ca. 53°35' 23°05' to ca. 54°02' 23°05'	H4
Madam (Al Madam)	55°48' 24°59'	B, H19
Masafī [Masāfī]	56°08' 25°18'	R. 'A wadi area with water and lush vegetation.'
Mileiha	? ?	R. ' <i>Calotropis procera</i> by the roadside about 20km south of Dhaid.' [<i>Calotropis procera</i> Ait., ASCLEPIA-DACEAE, French cotton.]
Munai [Munay'i]	56°13' 24°55'	H16
Rifaa	55°46' 25°44'	
Ras al Gharab	54°30' 24°37'	B. 'E of Sadiyat I.'
Remah	55°19' 24°11'	H (10 iv 1988)
Sadiyat I.	54°24' 24°32'	B.
Sha'am	56°06' 26°03'	
Shweib	55°50' 24°47'	H20
Shweib-Madam road	ca. 55°40' 4°55'	B, R. 'This was a collecting site by the roadside mainly on <i>Calotropis</i> bushes in flower. The road is between Al Ain and Hatta, perhaps 50km north of Al Ain. I found it a very profitable place.'

Sila / J. Dhana [coast road between]	between 52°30' 24°07' & 51°09' 24°36'	B.
Site 1 (or Al Ain road Site 1)	ca 54°50' 24°13'	B. [? well no. 1 of BP map at 54°42'E 24°14'N]
Suleimat [As Sulaymāt] flyover	55°36' 24°11'	B.
Suweihan (or Sweihan road) [Ṭawī Suweihan]	55°19' 24°29'	B, H21, R. 'A small area of mixed flowering plants and <i>Zygophyllum</i> about 40km east of Abu Dhabi.'
Towean / Dibba	between 56°02' 25°33' & 56°15' 25°37'	H(22 iv 1988)
Umm al Nar (or Umm an Nar)	54°29' 24°26'	B.
Uyaynah (or Wadi Uyaynah) [Al Uyaynah]	56°09' 25°31'	H6, R. 'A steep road leading down to Dibba on the coast from Masafi. Water running down the road and fairly lush vegetation on either side.'
Uyaynah (or Wadi Uyaynah)	56°10' 25°28'	B.
Wadi Bih (or Bih) [Wādī Bih]	56°06' 25°47'	B, H1
Wadi Fey (or Fay)	56°11' 25°37'	H4, R. 'A wadi over the hills at the back of Dibba. Less lush than Wadi Uyaynah.'
Wadi Huwaylat [Huwaylāt]	56°10' 24°53'	B.
Wadi Sifuni	56°00' 25°12'	B.
Wadi Sidr [Wādī Sidr]	56°07' 25°27'	H7
Worayah	56°16' 25°23'	H9
Wahlah [Wahlah]	56°17' 24°56'	H15
Zibara	54°40' 24°38'	H35
Zubarah	56°20' 25°16'	H10

OMAN

Roche noted of his localities: 'Whilst technically in the Oman, none of the localities at which I collected were as far as the frontier posts which are often 20 or more kilometres inside'.

Abool [A'bal]	56°03' 24°25'	H28. 'In Oman, technically, although reachable from UAE without crossing border posts' [ILH].
Ain Razat	53°59' 16°56'	H(9 iv 1985). 'Near Salalah' [ILH].
Al Hamra [Al Ḥamrā']	57°12' 23°04'	H(14 iv 1985)
Al Khaṣab	56°15' 26°14'	H. 'I collected in the Khaṣab region on one expedition' [ILH]. [Extreme north of Oman, on Strait of Hormuz.]
Al Madha	56°15' 25°16'	
Al Qabil	55°49' 23°56'	H(15 iv 1985) [S of Ḥafit in UAE]
Buraimi [Al Buraymī]	55°45' 24°15'	R 'Oasis town adjoining Al Ain in UAE.'
Jabal Hawrah [Jabal Hawrah]	55°53' 24°20'	H26
Madabah (or Mad-hab-bah) [Maḍabbah]	56°09' 24°05'	H31, R. 'A wadi beyond Buraimi with running water. Plenty of vegetation.'
Madabah	56°07' 24°05'	B.
Mahdah [Maḥḍah]	55°58' 24°24'	B, H27
Musah [Masah]	56°04' 24°22'	H29
Rayy	56°07' 24°39'	H(17 iv 1987)
Rustaq	57°25' 23°26'	H (18 iv 1985). 'WSW of Muscat' [ILH].
Sayh Huwayyah (or S Huwayyah or Sih Huwayyah) [Shuwayyah]	55°52' 24°19'	H (16/18 iv 1987), R. 'A horseshoe-shaped area, surrounded on three sides by hills, east of Buraimi. Mixed scrub vegetation, largely <i>Acacia</i> and <i>Prosopis</i> trees with ground covering of flowers, after rain.' 'Known as Fossil Valley from the abundance of fossils, mainly bivalves. It is about 15km by road from Al Ain in UAE.' [Bees taken here included several species not taken by the collectors elsewhere, including <i>Clavinomia</i> .]

Wadi Agran	56°10' 24°03'	H32
Wadi Fayd, nr Hatta	? ?	R. 'A wadi beyond Hatta with running water and attendant vegetation.'
Wadi Jizi (also Jizzi, Gizi)	56°10' 24°12'	H30. 'In Oman, technically, although reachable from UAE without crossing border posts' [ILH].
Wadi Khabb	56°15' 25°46'	B, H2. 'Wadi Khabb Shamsi / Wadi Bih was a frequent collecting route' [ILH].
Wadi Khabb (or Kabb)	56°15' 25°40'	B. [These coordinates are to approximate mid-point of Wadi.]

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