DISTRIBUTION AND HOST PLANTS OF SPECIES BELONGING TO GENUS NOMIA (HALICTIDAE, HYMENOPTERA) IN EGYPT.

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Abstract

In a survey carried out during 1987/88 and 1988 /89 in 21 localities in 14 governorates from Alexandria north to Luxor South, six species belonging to the genus *Nomia* i.e. *Nomia edentata* Mor., *N. inermis* Mor., *N. innesi* Grib., *N. magrettii* Grib., *N. rifiventris* Spin., and *N.rufiventris* var. *albicincta* Luc., were recorded visiting 21 plant species belonging to families Leguminosae, Umbilliferae, Labiatae, Geraniaceae, Cruciferae, Compositae, Tamariaceae and Malvaceae plant families. The surveyed species were most abundant in Ismailia, Giza and Qalubiya governorates. Their activity covered all months of the year except November, and they were most abundant during March , April and December.

INTRODUCTION

Many species of wild bees are active pollinating agents for various crops. Nomia bees, in particular, are considered the most important of these bees due to the fact the they have special external apparatus for pollen collecting which maximizes their efficiency in the pollination process.

In Egypt, many authors surveyed and studied the seasonal activity, occrrence and distribution of certain species belonging to different families of wild bees including Nomiad bees (Wafa et al., 1959, Mazeed et al., 1968, Selim et al., 1970, Moustafa, 1973 and Abu Zeid, 1980).

The present work was conducted to throw more light on the distribution and activity of the species belonging to genus *Nomia*, family Halictidae, throughout Egypt. The survey covered localities, periods of activity and host plants.

MATERIALS AND METHODS

During the flowering season of plants, covering a wide variety of field crops, vegetables, ornamentals and weeds, weekly samples were taken using a standard sweeping net at a rate of 100 double strokes along the diagonals of an area of about falf feddan in selected regions in the Egyptian governorates form Alexandria to Luxor. Collected insects were killed in cyanide jars and taken to the laboratory for identification and isolating *Nomia* spp.

RESULTS

The surveyed species were most recorded in Giza, Qalubiya, Ismailia and Beni- Suef. Most of them were recorded throughout all the months of the year ex-

Nomia	A BE and 1988 XIII	Host plant	The Seaton	Collection
species	Plant family	Plant species	Locality	month
Nomia edentata Mor.	Leguminosae	Vigna sinensis Endl.	Helwan	February
	Dibris Gira and Q	(Peas)	Kerdasa	February
	Chie loui nom	Trigonella graecum L.	Sohag	February
		(Fenugreek)	Kerdasa	March
		Trifolium alexandrinum	Ismailia	March
	100	L.(Egyptian clover)	Kerdasa	March
for succession	amaga podra	Vigna sinensis Endl.	New Valley	March
hese bees due to	to trestogen	(Lupin)	Kerdasa	March
nixom rtarilly graft	or pollen soller	Vicia faba L.	Helwan	Decembe
		(Bean)	Sohag	December
nal activity, occur	Umbelliferae	Carium carvi Linn.	El-Kanater	from Feb.
Selm et al 1	d et al. 1968	(Caraway)	Giza	till Apri
		Petroselinum sativum	Giza	March
		Hoff.(parsley)	Ismailia	March
the distribution		Anthum graveolens L.	Beni-Suef	March
anoridae, teroug		(Dill)	Ismailia	March

HagA		Cruciferae	Eruca sativa Mill	Nahia	February
IrrgA		Nex	(Rocket)	Montaza	June
line#		Kor	Raphanus sativus L.	Abu-Rawash	March
IngA		eM .	(Raddish)		
March		Compositae	Matricaria chamomilla	Beni - Suef	March
Marich		1-13	L. (Wormwood)		
emil		Ke	Flowers	Suez	March
dimaged.		ioQ	Vicia faba L.	Ismailia	March
Decembe		Hall	(Beans)	Helwan	April
Decemb		shi Ja	Grasses	Kom-Oshem	April
N. inerm	nis Mor.	Legumimosae	Trigonella graecum L.	Sohag	January
March			(Fenugreek)	Kerdasa	February
Manch		1-13	Canum carre Linn	Magadla	February
Marich		181	Vigna catjang Endl.	New Valley	February
dannie		lort i	(Peas)	Kerdasa	February
March		Siz	(Amee)	Helwan	February
hage		r13	Vigna sinensis Endl.	New Valley	March
Maril		EM .	(Lupin)	Mansoura	March
March		ivia i	Trigonella graecum L. (Fenugreek)	W.Natrun	March
the yeat		Car	Trifolium alexandrinum	Kerdasa	March
padotoO			L. (Egyptian clover)	Ismailia	June
			Vicia faba L.	Helwan	Decembe
demana C		Hell Hell Hell	(Beans)	Sohag	Decembe
Decembe		initial and the same of the sa	(zhana)		2000
etroposti.		Umblliferae	Anethum graveolens L.	Helwan	February
March		gA	(Dill)	Luxor	March
dayala		163	Pimpinella anisum L.	El-Kanater	March
		Dell	(Anise)		
hrgA		a0	Ammi Visnaga Lam.	El-Kanater	March
IngA		Heil	(Ammee)		Till
lings		w B	Petroselinum sativum	Ismailia	May
March		mA.	Hoff. (Parsley)		March
detail		Net	P. anisum (Anise)	Giza	
Cateber		Kor	Flowers	Abu- Rawash	April

February	Nahia	iferae Eruca sativa Mill	Helwan	April
anul.	Montaza	(Rocket)	New Valley	April
March	Abu-Rawasin	Ranhanus sativus	Kom Oshem	April
100		(Reddish)	Magadla	April
		(neubon)	i lagadia	Арги
N. innesi	Grib. Leguminosae	Trifolium alexandrinum L.	Ismailia	March
		(Egyptian clover)	El-Kanater	March
March	Suez	Flowers	Kerdasa	June
March	Ismailia	Vicia faba L.	Qena	December
lingA	Helwan	(Beans)	Helwan	December
lingA	Kom-Osham	Grasses	Shohag	December
	Umbelliferae	Anethum graveolens L.	Mansoriah	February
January	garto2	(Dill)	Helwan	March
Fabrusts	Kerdasa	(Fenugreet)	Luxor	March
esanda3	Magadia	Carium carvi Linn.	El-Kanater	March
February	vallsV weV	(Caraway)	Ismailia	March
ersunde =	Kerdasa	Ammi visnaga Lam.	Helwan	March
riunde-i	newlaH	(Amee)	Giza	March
March	New Valley	C. carvi (Caraway)	El-Kanater	April
March	Managoria	(rigu.)	Manoriah	April
rimaM	Labiatae	Thymus vulgaris L.	El-Kanater	March
		(Thyme)		
Marich	anom Kentasa	Mentha viridis H.	Giza	July till
Jane	sliemei ((Mint)		October
Decempe	Helwan	Vicia faba L.		
Decemen	Tamaricaceae	Tamarix articulata Vahl.	Helwan	December
		(Tamarix)	Ismailia	December
Februar	st. Helwan	tesa Anethum gravecki	Sohag	December
March	Luxor	Flowers (IIIO)	Abu-	March
March	retans X-13	Pimpinella anisum	Rawash	March
		(Anise)	Dakhla	
March	El-Kanater	Ammi Visnaga Lan	Oasis	April
INT		(Ammea)	Helwan	April
May	um Ismaila	Petroselinum sati	Burg El-	April
March		Grass	Arab	March
	Giza	P. anisum (Anise)	New Valley	March
Ling & le	Abu- Rayasi	Flowers	Kom-Oshem	October

N. magrett	i Grib.	Leguminosae	Trigonella graecum L.	Sohag	February
		Sohag	(Fenugreek)	Kerdasa	March
			Vigna sinensis Endl.	New Valley	March
	19	Seni-S	(Lupin)	Sohag	March
		Ismaili	Trifolium alexandrinum L.	Kerdasa	March
		El-Kans	(Egyptian clovr)		
		e Mill. Giza	Vicia faba L.	Helwan	December
		El-Kan	(Beans)	Sohag	December
		ilismail		Kerdasa	December
		Umbelliferae	Anethum graveolens L.	Ismailia	January
			(Dill)	Beni-Suef	March
			Pimpinella anisum L.	El-Kanater	Feb. till
		Dakhta	(Anise)	Giza	April
		D- mox	Coriandrum sativum L.	Giza	March
		nawleid	(Coriander)	El- Kanater	April
Inga		beceM		Luxor	December
Haga		Labiatae	Mentha viridis H.	Giza	July till
March		Helwar	(Mint)	Ismailia	October
high		Tamaricaceae	Flowers	Abu-Rawash	March
Decem		Bismal	(Tamacix)	Helwan	March
ENBOSCI				Dakhla Oasis	April
Februs		V well	nosae Vigna catjano Engl	Burg El-Arab	April
sunda 3		sawisti	(pess)	Kom Oshem	April
March		Sonad	Trigonella araceur	Magadla	April
Manch		an broad	Tamarix articulata	Sohag	December
March		listant leavest	Vahl. (Tamarix)	Ismailia	December
77-71-97		0	L (Egyptism clove	Helwan	December
N. rufiventr	is Spin.	Leguminsoae	Trigonella graecum L.	kerdasa	February
aA Ilis	•	Giza	(Fenugreek)		
elove M		diamel len	Trifolium alexandrinum	Ismailia	March
HARRIN			L. (Egyptian clover)		
March 1970			Vigna sinensis Endl.	New Valley	March
Маген		mille Beni B	(Lupin)		March
How In		200	(herosamon)M)	shoag	March

Februari		L Solvag	Vicia faba L.	Helwan	December
March		Kerdas	(Beans)	Sohag	December
March		New Y	Vigna sinensis Endl		
March		Umbelliferae	Anethum graveolens L.	Beni-Suef	February
March		num L. Kerdas	(Dill)	Ismailia	March
			(Egyptian clovr)	El-Kanater	March
December		Helwar	Faeniculum vulgare Mill.	Giza	March
Dacember		Sohag	(Fennel) (2006)	El-Kanater	April
December		Kerdes		Ismailia	April
January		Labiatae	Thymus vulgaris L.	Giza	March
March			(Thyme)	Giza	March
Feb. till		El-Kan	Pimpinella anisum		
HingA		Tamaricaceae	Flowers (seinA)	Dakhla Oasis	March
March		n L Giza	Corrandrum sativus	Kom -Oshem	April
lingA		X -13	(Corlander)	Helwan	April
Ducember		Luxoi		Magadla	April
July till		Giza	Mentha viridis H.	Abu-Rawash	April
October		Ismai	Grass (triiM)	Helwan	March
				New Valley	April
March		l-udA	Tamarix articulata Vahl.		December
N.rufive	ntris	Helws	(Tamarix)	Ismailia	December
Var.albicino	ta Luc.	Dakhi	Variable (1) (All and All and		Documber
ImgA		Leguminosae	Vigna catjang Endl.	New Valley	February
April		Komil	(peas)	Helwan	February
ImpA		Maga	Trigonella graceum L.	Sohag	March
December		Sohaç	(Fenugreek)	Kerdasa	March
December		Ismai	Trifolium alexandrinum	Ismailia	March
December	n	Helwi	L. (Egyptian clover)		
February	88	Umbellifera	Carium carvi Linn.	El - Kanater	February
		*	(Caraway)	Giza	till April
March	si	num Ismai	Anethum graveolens L.	Ismailia	March
		(1)	(Dill)	El - Kanater	March
March 1	/alley	Wall	Vigna sinensis End		
March	Sa	Compositae	Matricaria chamomilla	Beni - Suef	March
March		georia	L. (Wormwood)	Suez	March

(inull	Flowers	Ismailia Suez Helwan	Mach Mach Mach
	ميد الحديد عبد العزيز الذاقع	Kom - Oshem Nobaria New Valley Helwan	Mach April April
والصياد المالية	لاية النباتات – مركز البسون الز		May

cept November, and were most recorded during March. The following is the summary of the data obtained arranged according to Nomia species, plant families, plant species, localities and collection months.

These results reveal the presence of the following six species: Nomia edentata Mor., N. inermis Mor. N. innesi Grib., N. magretti Grib., M. rufiventris Spin. and N. rufiventris Var. albicincta Luc. These Species were surveyed in 21 localities at 14 Governorates visiting flowers of 20 plant species blonging to 6 plant families. Dill and clover plants were visited by 6 species, beans by 5 species, lupin and fenugreek by 4 species caraway, peas and tamarix by 3 species and wornwood by only two species. Other plants were visited by only one species.

The most abundant and widely distributed species was *Nomia innesi* which was collected from 17 localities, followed by both *N. inermis* and *N. magrettii* which were collected from 14 localities . *N.edentata*, *N.rufiventris* and *N. rufiventris* var. *albicincta* were recorded in 13,11 and 12 localities, respectively.

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حصر أنواع النحل البري التابعه لجنس نوميا (فصيلة هالكتيدي – رتبة غشائية الأجنحة) في مصر

عبد الحميد عبد العزيز الناقح

معهد بحوث وقاية النباتات - مركز البحوث الزراعية - الدقي

تم عمل حصر لأنواع النحل البري التابعة لجنس Nomia من عائلة Halictidae فـي ٢١ منطقة تابعه لـ ١٤ محافظه من الأسكندرية شعالا إلي الأقصر جنوباً. وقد أسفر هذا الحصر عن وجود ستة أنواع هي:

Nomia edentata Mor., N. inermis Mor., N. innesi Grib., N. magrettii Grib., N. rufiventris Spin., and N. rufiventris var. alicincta Luc.

وكانت هذه الأنواع أكثر وفره وانتشارا في مناطق محافظات الأسماعيلية والجيزة والقيوبية، تزور ٢٠ نوعا من النباتات الاقتصادية تتبع العائلات النباتية البقولية والخيمية والشفوية والمكبية والمكبرية.

وقد غطي نشاط هذه الأنواع من النحل البري كل شهور السنة ماعدا نوفمبر ، مع زيادة واضحة في هذا النشاط في شهور مارس وابريل وديسمبر.

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