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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 species	Host plant		Locality	Collection month
	Plant family	Plant species		
Nomia edentata Mor.	Leguminosae	*Vigna sinensis* Endl. (Peas)	Helwan	February
			Kerdasa	February
		Trigonella graecum L. (Fenugreek)	Sohag	February
			Kerdasa	March
		Trifolium alexandrinum L.(Egyptian clover)	Ismailia	March
			Kerdasa	March
		Vigna sinensis Endl. (Lupin)	New Valley	March
			Kerdasa	March
		Vicia faba L. (Bean)	Helwan	December
			Sohag	December
	Umbelliferae	*Carium carvi* Linn. (Caraway)	El-Kanater	from Feb.
			Giza	till Apri
		Petroselinum sativum Hoff.(parsley)	Giza	March
			Ismailia	March
		Anthum graveolens L. (Dill)	Beni-Suef	March
			Ismailia	March

	Cruciferae	*Eruca sativa* Mill	Nahia	February
		(Rocket)	Montaza	June
		Raphanus sativus L.	Abu-Rawash	March
		(Raddish)		
	Compositae	*Matricaria chamomilla*	Beni - Suef	March
		L. (Wormwood)		
		Flowers	Suez	March
			Ismailia	March
			Helwan	April
		Grasses	Kom-Oshem	April
N. inermis Mor.	Legumimosae	*Trigonella graecum* L.	Sohag	January
		(Fenugreek)	Kerdasa	February
			Magadla	February
		Vigna catjang Endl.	New Valley	February
		(Peas)	Kerdasa	February
			Helwan	February
		Vigna sinensis Endl.	New Valley	March
		(Lupin)	Mansoura	March
		Trigonella graecum L.	W.Natrun	March
		(Fenugreek)		
		Trifolium alexandrinum	Kerdasa	March
		L. (Egyptian clover)	Ismailia	June
		Vicia faba L.	Helwan	December
		(Beans)	Sohag	December
	Umblliferae	*Anethum graveolens* L.	Helwan	February
		(Dill)	Luxor	March
		Pimpinella anisum L.	El-Kanater	March
		(Anise)		
		Ammi Visnaga Lam.	El-Kanater	March
		(Ammee)		Till
		Petroselinum sativum	Ismailia	May
		Hoff. (Parsley)		March
		P. anisum (Anise)	Giza	
		Flowers	Abu- Rawash	April

			Helwan	April
			New Valley	April
			Kom Oshem	April
			Magadla	April
N. innesi Grib.	Leguminosae	*Trifolium alexandrinum* L. (Egyptian clover)	Ismailia	March
			El-Kanater	March
			Kerdasa	June
		Vicia faba L. (Beans)	Qena	December
			Helwan	December
			Shohag	December
	Umbelliferae	*Anethum graveolens* L. (Dill)	Mansoriah	February
			Helwan	March
			Luxor	March
		Carium carvi Linn. (Caraway)	El-Kanater	March
			Ismailia	March
		Ammi visnaga Lam. (Amee)	Helwan	March
			Giza	March
		C. carvi (Caraway)	El-Kanater	April
			Manoriah	April
	Labiatae	*Thymus vulgaris* L. (Thyme)	El-Kanater	March
		Mentha viridis H. (Mint)	Giza	July till October
	Tamaricaceae	*Tamarix articulata* Vahl. (Tamarix)	Helwan	December
			Ismailia	December
			Sohag	December
		Flowers	Abu-Rawash	March
				March
			Dakhla Oasis	April
			Helwan	April
			Burg El-Arab	April
		Grass		March
			New Valley	March
			Kom-Oshem	October

N. magretti Grib.	Leguminosae	*Trigonella graecum* L.	Sohag	February
		(Fenugreek)	Kerdasa	March
		Vigna sinensis Endl.	New Valley	March
		(Lupin)	Sohag	March
		Trifolium alexandrinum L.	Kerdasa	March
		(Egyptian clovr)		
		Vicia faba L.	Helwan	December
		(Beans)	Sohag	December
			Kerdasa	December
	Umbelliferae	*Anethum graveolens* L.	Ismailia	January
		(Dill)	Beni-Suef	March
		Pimpinella anisum L.	El-Kanater	Feb. till
		(Anise)	Giza	April
		Coriandrum sativum L.	Giza	March
		(Coriander)	El- Kanater	April
			Luxor	December
	Labiatae	*Mentha viridis* H.	Giza	July till
		(Mint)	Ismailia	October
	Tamaricaceae	Flowers	Abu-Rawash	March
			Helwan	March
			Dakhla Oasis	April
			Burg El-Arab	April
			Kom Oshem	April
			Magadla	April
		Tamarix articulata	Sohag	December
		Vahl. (Tamarix)	Ismailia	December
			Helwan	December
N. rufiventris Spin.	Leguminsoae	*Trigonella graecum* L.	kerdasa	February
		(Fenugreek)		
		Trifolium alexandrinum	Ismailia	March
		L. (Egyptian clover)		
		Vigna sinensis Endl.	New Valley	March
		(Lupin)	Kerdasa	March
			shoag	March

		Vicia faba L. (Beans)	Helwan	December
			Sohag	December
	Umbelliferae	*Anethum graveolens* L. (Dill)	Beni-Suef	February
			Ismailia	March
			El-Kanater	March
		Faeniculum vulgare Mill. (Fennel)	Giza	March
			El-Kanater	April
			Ismailia	April
	Labiatae	*Thymus vulgaris* L. (Thyme)	Giza	March
	Tamaricaceae	Flowers	Dakhla Oasis	March
			Kom -Oshem	April
			Helwan	April
			Magadla	April
			Abu-Rawash	April
		Grass	Helwan	March
			New Valley	April
		Tamarix articulata Vahl. (Tamarix)	Helwan	December
N.*rufiventris* *Var.albicincta Luc.*			Ismailia	December
	Leguminosae	*Vigna catjang* Endl. (peas)	New Valley	February
			Helwan	February
		Trigonella graceum L. (Fenugreek)	Sohag	March
			Kerdasa	March
		Trifolium alexandrinum L. (Egyptian clover)	Ismailia	March
	Umbellifera	*Carium carvi Linn.* (Caraway)	El - Kanater	February
			Giza	till April
		Anethum graveolens L. (Dill)	Ismailia	March
			El - Kanater	March
	Compositae	*Matricaria chamomilla* L. (Wormwood)	Beni - Suef	March
			Suez	March

		Flowers	Ismailia	Mach
			Suez	Mach
			Helwan	Mach
			Kom - Oshem	Mach
			Nobaria	April
			New Valley	April
			Helwan	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 في ٢١ منطقة تابعه لـ ١٤ محافظه من الأسكندرية شمالا 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 والقليوبية ، تزور ٢٠ نوعا من النباتات الاقتصادية تتبع العائلات النباتية البقولية والخيمية والشفوية والصليبية والمركبة والخبازية.

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