

## Additional notes on some aphids in the Madras State

by

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Of the seventy species of aphids recorded by the writer (David 1954 a, b, c), sixty-eight are known to occur within the Madras State. Collections made since then include three species which were noted by George (1927) previously. In this paper these species are reviewed as to their present systematic position, distribution and status in economic entomology. For fourteen other aphids which have already been commented upon in previous papers, additional notes are given.

1. *Dactynotus (Uromelan) carthami* HRL. (Syn. *Macrosiphum solidaginis* (Fab) sec. George 1927 and Ullah 1940): This aphid is easily recognised by the deep black colour of the nymphs and the apterous and alate forms. Only the distal portion of the femora are yellow. Siphunculi have reticulations on the distal 1/5th of its length. The cauda bears about 18 long and thick hairs.

### Measurements in mm.

	Length of body	Antennæ			Siph.				Cau.				Antennal segments			
		III	IV	V	VI	III	IV	V	VI	III	IV	V	VI			
Apteræ	2.85	3.26	.83	.54	.95	.54	.40	.14 + .97								
Alatæ	2.85	3.37	.92	.43	.91	.56	.45	.15 + 1.06								

Rhinaria on the III antennal segment in apteræ number 58 to 60 and in alatæ about 100. Length of last rostral segment 0.17 mm.; length of second joint of hind tarsi 0.14 mm.

Host: *Carthamus tinctorius* (Safflower).

Locality: Coimbatore. November to January.

This is one of the largest aphids in South India. It feeds mainly on the stem of the plant but when it gets crowded it feeds on the undersurface of the lower leaves. The colonies are large and are easily detected by their colour though ants are not found attending on them. It has been noted as affecting safflower to a considerable extent in Bellary and Coimbatore (Ayyar 1940). But large numbers of aphids occur on these plants only when they have already flowered and the damage is not severe.

Das (1918) recorded an aphid on *Sonchus* sp. as *Macrosiphum solidaginis* (Fab). Though he was keeping safflower under close observation for studying in detail two other aphids, he did not find his *M. solidaginis* feeding on safflower. It is evident that this is a species which does not feed on *Carthamus*. George (1927) and Ullah (1940) identified their safflower aphids as *M. solidaginis*. But Hille Ris Lambers (1939, 1948) showed that the European form for which this name has to be applied, is a distinct one and described an aphid on *Carthamus glaucus* from Israel as *Uromelan carthami* HRL. The South Indian form is similar to this species but has about twice the number of rhinaria on the third antennal segment in both apteræ and alatae. Since the variability of this character in the species from Israel is not known, this is tentatively retained in this species.

2. *Greenidea artocarp* (Westwood): The nymphs of this species are pale green in colour. The apterous form is pale brownish green with black siphunculi which are very long and slightly swelling in the middle. These also bear thick, long hairs of varying length and are covered over with small spinules which mark out a pattern of reticulation on the surface. The caudal process is small, narrow and conical. The alate form is dark green and has oval irregular rhinaria on the third antennal segment. The abdominal segments 2 to 6 have broad transverse sclerotic bands. The last segment of the rostrum is slender and tapering and rostrate with about 13 small hairs in the proximal portion. The apical hairs in the rostrate portion are minute.

*Measurements in mm.*

	Length of body	Ant.	Siph.	Cau. process	Antennal segments				
					III	IV	V	VI	
Apteræ	2.46	2.64	1.31	.06	.74	.31	.39	.28	+ .77
Alatae	2.06	2.91	1.93	.06	.91	.36	.39	.31	+ .75

Rhinaria on the third antennal segment in alate 38 & 35; length of last rostral segment .15 and second joint of hind tarsus .12 mm.

Hosts: *Artocarpus heterophylla* (Syn. *A. integrifolia*) (jack fruit) and *A. incisa* (bread fruit).

Locality: Coimbatore and Kallar (The Nilgiris).

Date: January-February and September-October.

The aphids are found feeding on the under surface of tender leaves [usually on the leaves near the main trunk of the tree. Even a large colony did not cause any visible injury to the leaf or plant. Ants are not found attending on them nor could any predators or parasites be found on them. Previous records of this aphid are from Malabar (George 1927) and Mysore (Krishnamurthy 1930). Though Ayyar (1940) regards it as an important pest of jack, no serious damage by this insect has been brought to the notice of the writer so far.

3. *Acyrtosiphon pisum* (Harris). (Syn. *Macrosiphum pisi* Kalt, *Illinoia pisi* Kalt): The aphid is pale green in all stages with long, slender, tapering siphunculi.

*Measurements in mm.*

	Length of body	Ant.	Siph.	Cau.	Antennal segments			
					III	IV	V	VI
Apteræ	3.50	3.83	1.00	.33	.86	.68	.68	.26 + 1.04
Alatæ	2.81	3.84	.69	.39	.82	.74	.69	.28 + 1.08

Rhinaria on the III antennal segments in alate 15 & 16. Length of last rostral segment .12 mm. and second joint of hind tarsus .15 mm.

Host. *Pisum sativum* (Pea).

Locality: Ootacamund (7200 ft. above M. S. L.)

Date: July to September.

This is a familiar, large green aphid found on peas, especially the sweet variety. It occurs sometimes in considerable numbers and causes appreciable damage to the plant. Though it feeds on a number of other plants and is considered to be a pest of clover and lucerne in America, it has not so far been noted on any other plant in this region.

A closely allied form occurs on *Sesbania grandiflora* (Agathi) on the plains. Among the collections at Bangalore it was found that this species was recorded on the same host there also, as well as on linseed. But the aphid collected on peas in this locality was only *A. pisum*.

4. *Aphis craccivora* Koch: In the collections at Bangalore the slides labelled *Aphis rumicis* L on cowpea and *Anuraphis cynariella* Theob. on *Cyamopsis psoralioides* were found to be this species.

Hosts: *Achyranthes aspera* in February; *Indigofera oblongifolia* in June; *Amarantus gangeticus* and *A. viridis* in February; *Erigeron asteroides*, *Solanum melongena* (brinjal) and *Vernonia cineria* in March.

A severe infestation of this aphid occurred on brinjal and amarantus during February and March 1955. This is an unusual occurrence as this aphid has not been noted to feed on these plants at other times.

5. *Aphis gossypii* Glover.

Hosts: *Cleome chelidonii* and *Emelia sonchifolia* in March. *Ficus banyan*, *F. tsiela* and *Holoptelia integrifolia* in November, *Prosopis juliflora* and *Stenolobium stans* in March.

6. *Aphis punicae* Pass.

Distribution: Madras, in January.

7. *Hyadaphis coriandri* (Das).

Hosts: *Foeniculum vulgare* and *Cuminum sativum*. *Carum copticum* in the vicinity was not affected.

8. *Macrosiphum euphorbiae* (Thomas).

Host: *Echeveria* sp. Locality: Ketti. Date: July and September.

9. *Macrosiphum (Sitobion) avenae* subsp. *eleusinae* (Theob).

Hosts: *Bothriochloa insculpta*, *Dactyloctenium aegyptium*, *Eragrostis superba* and *Cymbopogon martini*.

10. *Macrosiphum (Sitobion) graminis* (Takahashi).

Host: *Chloris barbata*. Locality: Coimbatore. Date: February.

11. *Macrosiphum (Sitobion) lambersi* David.

Hosts: *Ischaemum aristatum*, and *Digitalia marginalis* in March-April and *Eremopogon foveolatus* in November at Coimbatore. *Cynodon dactylon* and *Paspalum conjugatum* at Kallar (The Nilgiris) in November.

12. *Oregma bambusae* Buckton. Distribution: Coimbatore.

13. *Pentalonia nigronervosa* Coq.

Hosts: *Musa paradisiaca*, *M. cavendishii*, *M. superba*, *M. rosacea* in June. *Calladium* sp., *Elleteria cardamomi* and *Colocasia* sp. in November at Coimbatore.



14. *Rhopalosiphum maidis* (Fitch).

Host: *Cenchrus ciliaris*, and *Panicum antidotale* at Coimbatore.

15. *Tetraneura hirsuta* (Baker).

Host: *Echinochloa colona* in June.

16. *Toxoptera aurantii* (B. d. F.)

Hosts: *Artocarpus heterophylla*, (jack) *A. incisa* (breadfruit), *Santalum album* (sandalwood), *Tamarindus indicus* (tamarind) at Coimbatore.

17. *Toxoptera odinæ* (v. d. Goot).

Hosts: *Hibiscus rosasinensis* (shoe-flower) and *Hamelia patens* at Coimbatore.

**Acknowledgements:** The kind help of Dr. D. Hille Ris Lambers, Bennekom, for arriving at the determinations is gratefully acknowledged. The writer is also thankful to Sri K. P. Anantanarayanan, Government Entomologist, for giving the necessary facilities for work.

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