

APHID PREDATORS OF THE GENUS *COCCINELLA* L.
(COLEOPTERA: COCCINELLIDAE)

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ABSTRACT

This study deals with Aphid predators of the genus *Coccinella* L. recognized in different regions of the world. They have been arranged systematically according to Korschefsky's catalogue (1931). The list includes sites of study and the reference (works) that consider Coccinellids as predator. The study has revealed that there are thirteen Aphid predator species belonging to the genus *Coccinella* L. in different places of the world, although there might be other species that were not recorded by this work.

Systematic list of Aphid predators of the genus *Coccinella* L.

Many individuals of the genus *Coccinella* L. were recognized as predators to Aphids in different parts of the world. In this work the individuals have been listed in a classification list according to Korschefsky (1931). The list includes sites of the study and the references.

No.	Predator	Reference	Place
1	<i>Coccinella ancoralis</i> Germ.	Botto <i>et al</i> , 1979	Buenos aires, Field Studies
2	<i>C. arcuata</i> F.	Franzman, 1973 Broadly and Rogers, 1978. Bhumannaver and Thontadarya, 1983.	Pangola Grass in north Queensland, Field Studies. North Queensland pastures. Karnataka.
3	<i>C. californica</i> Manne	Roitberg <i>et al</i> , 1979. Lves, 1981.	Res. Station, Canada.
4	<i>C. hieroglyphica</i> (L.)	Hippa <i>et al</i> , 1984.	Kevo Subarctic Res. Station.
5	<i>C. novemnottata</i> Hbst. d.	Carroll and Hoyt, 1984.	Res. Station in north-central Washington.
6	<i>C. prolongata</i> Cr.	Carroll and Hoyt, 1984.	Res. Station in north-central Washington.
7	<i>C. quatuordecimpus tulata</i> (L.)	Kaczmarek, 1973	Koszalin Administrative District, Poland.
8	<i>C. quinquepunctata</i> L.	Galecka, 1969 Kaczmarek, 1973	Warsaw, Poland. Poland.

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9	<i>C. repanda</i> Thamb	Franzman, 1973 Patnaik <i>et al</i> , 1977 Carver, 1978 Corcoran & Ironside, 1981 Chambers <i>et al</i> , 1983 Saharia, 1985	North queensland, Field Studies. India. Australia. Queensland.
10	<i>C. septempunctata</i> L.	Awadallah & Khalill, 1970 Saxena <i>et al</i> , 1970 Rautapaa, 1972 Stary & Kaddou, 1975 Radike <i>et al</i> , 1977 Gumovskaya, 1982 Mohammad & Abdulla, 1985 Nakamata & Satio, 1985	Hammam Al-Alil, Iraq. Indian Agric. Res. Institue, New Delhi. Agric.Res.Cen. Tikkurila,Finland Iraq. India U.S.S.R. Saladdin, Iraq. Japan.
11	<i>C. transversogutta</i> Fald.	Carroll & Hoyt, 1984	Res. Station in North-central Washington.
12	<i>C. trifasciata</i> L.	Frazer & Gilbert, 1976.	British Colombia
13	<i>C. undecimpunctata</i> L.	Ibrahim, 1955 Stary & Kaddou, 1975 Honek, 1981 Bates & Miln, 1982 El-Heneidi & Abbas, 1984 Ghanum, 1984	Egypt. Iraq. New Zealand. Giza, Egypt. Mansoura, Egypt.

Aphids preyed upon by *Coccinella* L.

No.	Predator	Reference	Place	Prey
1.	<i>Coccinella ancoralis</i> Germ.	Botto <i>et al</i> , 1979	Buenos Aires	<i>Metopolophium dirhodum</i> (Walker)
2.	<i>C. arcuata</i> F.	Bhumannaver & Thontadary, 1983 Broadly & Rogers, 1978 Franzman, 1973	Karnataka North Queensland North Queensland	<i>Dactynotus composita</i> <i>Schizaphis hypersiphonata</i> Basu <i>S. graminum</i> (Rond.)
3.	<i>C. californica</i>	Roitberg <i>et al</i> , 1979	Canada	<i>Acyrthosiphon pisum</i> Harris
4.	<i>C. hieroglyphica</i> (L.)	Hippa <i>et al</i> , 1984	Kevo Subarctic Res. Station	<i>Myzus persica</i> (Sutz).
5.	<i>C. novemnotata</i> Hbst. d.	Carroll & Hoyt 1984	North-central Washington	<i>Artemisia tridentata</i>
6.	<i>C. prolongata</i> Cr.	Carroll & Hoyt 1984	North-central Washington	<i>Aphis pomi</i>
7.	<i>C. quatuordecimpustulata</i> (L.)	Kazcmarek, 1973	Poland	
8.	<i>C. quinquepunctata</i> L.	Galecka, 1969	Warsaw, Poland	<i>Acyrthosiphon pisum</i> Harris, <i>Aphis fabae</i> , <i>A. nasturtii</i> Kalt <i>Myzus persicus</i> (sulz.), <i>Rhopalosiphum padi</i> (L.)
9.	<i>C. repanda</i> Thanb.	Franzman, 1973 Patniak <i>et al.</i> , 1977 Carver, 1978 Carcoran & Ironside 1981 Chambers <i>et al.</i> , 1983 Broadly & Rogers 1978	North Queensland India Australia Queensland North Queensland North Queensland	<i>Schizaphis graminum</i> (Rond.) <i>Melanaphis sacchari</i> (Zhnt.) <i>Toxoptera aurantii</i> Boyer, <i>T. citricidae</i> (kirkald) <i>Aphis kondi</i> Shinji, <i>Therioaphis trifoliiformmaculata</i> (Buckt) <i>Metopolophium dirhodum</i> (Wik.) <i>Schizaphis hypersiphonata</i> Basu.

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10	<i>C. septempunctata</i> L.	Awadalla & Khalil, 1970 Saxena <i>et al.</i> , 1970 Rautapaa, 1972 Stary & Kaddou, 1975 Radike <i>et al.</i> , 1977 Gumovskaya, 1982 Mohammad & Abdullah, 1985 Nakamata & Saito, 1985	Hammam Al-Alil, Iraq New Delhi Finland Iraq India U.S.S.R. Saladdin, Iraq Japan	<i>Aphis faba</i> Scop . <i>Aphis craccivora</i> Koch <i>Macrosiphum avenae</i> F . <i>Rhopalosiphus padi</i> (L .) <i>Aphis faba</i> <i>Hyalopterus pruni</i> <i>Rhopalosiphum maidis</i> (Fitch) <i>Aphis faba</i> Scop <i>Phylloxera quercus</i> Boyer <i>Myzus persicae</i>
11.	<i>C. transversoguttata</i> Fald	Carrol & Hoyt, 1984	North-central Wash.	<i>Acyrtosiphon pisum</i> Harris, <i>Aphis citricola</i> Van., <i>A. fabae</i> Scop., <i>Chromaphis juglandicola</i> (Kalt.), <i>Myzus persica</i> (Subz.),
12.	<i>C. trifasciata</i> L.	Frazer & Gilbert, 1976	British Colombia	<i>Acyrtosiphon pisum</i> Harris.
13.	<i>C. undecimpunctata</i> L.	Ibrahim, 1955 Stary & Kaddou, 1975 Honek, 1981	Egypt Iraq	<i>Aphis gossypii</i> Clov., <i>A. labrum</i> Kalt., <i>A. maidis</i> Fitch, <i>A. sorghi</i> Theo. <i>Aphis craccivora</i> , <i>Brachycauvus amigdalinus</i> , <i>Sapaphis mali</i> , <i>Aphis nerii</i> Fons., <i>Macrosiphoniella artemisiae</i> (Boy.) <i>Microlophium carnosum</i> (Buckt.), <i>M. tapaska</i> (Hot. & Fris.)

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	Bates & Miln, 1982	New Zealand	<i>Aphis condi</i> , <i>A. pisum</i>
	El-Heneidy & Abbas, 1984	Giza, Egypt	<i>Rhopalosiphum maidis</i> Fitch
	Ghanim , 1984	Mansoura, Egypt	<i>Macrosiphum avenae</i> R., <i>Schizaphis graminium</i> (Rond.)

DISCUSSION

As the abovementioned list of Aphids preyed upon by *Coccinella L.* shows, the most predominant species of predators are *C. septempunctata L.*, *C. repanda* Thanb. and *C. undecimpunctata L.* respectively, and they are polyphagous. This feature helps to increase the spread of the species and reduces the ability of using it in biological control because the monophagous species are more responsive to their preys and tend to limit the spread of the species.

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مفترسات المن من الجنس *Coccinella* L. رتبة غمدية الاجنحة، عائلة الدعاسيق

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الخلاصة

تتعلق هذه الدراسة بمفترسات المن من جنس *Coccinella* L. التي سجلت من مناطق مختلفة من العالم حيث رتبت تصنيفياً طبقاً لكتالوك كورشفكي (١٩٣١). تشمل القائمة مواقع كل دراسة والمصادر التي اعتبرت الدعاسيق كمفترسات، كشفت الدراسة وجود ١٣ نوع من مفترسات المن تعود للجنس *Coccinella* L. في اماكن مختلفة من العالم مع احتمال وجود انواع لن تسجل في هذه الدراسة.