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On the coccinellid fauna (Coleoptera) of almond orchards in south-eastern and eastern Anatolia

by Halil Bolu

GÖNTER (1985) published the first list of the Coccinellidae of Turkey, comprising 28 species from southern Anatolia, Central Anatolia and Thrace. UYGUN (1981) made a comprehensive study on Turkish coccinellid beetles, listed 56 species, and gave an identification key. BOLU (2002) studied the coccinellid species of pistachio trees in south-eastern Turkey, and identified a total of 22 species.

In the present study, which was conducted during 2002-03, I studied the coccinellid beetle fauna of Almond orchards. I collected more than 5500 specimens from different areas of Diyarbakır (Centre, Çermik, Ergani and Dicle), Elazığ (Gezin, Harput, Keban and Sivrice) and Mardin (Akbağ, Cevizpınarı, Omerli and Yeşilli) provinces. The sampling method was based on the techniques usually applied in orchards, namely knocking the adults out the trees by the frapping method. Trees selected for sampling were inspected once a week between March and October.

I found 26 Coccinellidae species in Almond orchards. Tab. 1 gives their localities and relative abundance. *P. numidicus* is a new record for Turkey. It was collected in May in Keban (38°43'N, 53°53'E) at an altitude of about 1206 m.

Tab. 1. Occurrence of Coccinellidae species in Almond orchards in three provinces of Turkey. The table gives the provinces together with the relative abundance of each species.

Species	Diyarbakır	Elazığ	Mardin	Total	%
<i>Adalia bipunctata</i> (Linnaeus)	3	64	-	67	1.21
<i>Adalia decempunctata</i> (Linnaeus)	5	10	1	16	0.29
<i>Adalia fasciatopunctata revelierei</i> Muls.	2	341	-	343	6.17
<i>Chilocorus bipustulatus</i> (Linnaeus)	-	12	-	12	0.22
<i>Coccinella septempunctata</i> Linnaeus	96	117	8	221	3.98
<i>Coccinella undecimpunctata</i> Linnaeus	-	-	8	8	0.14
<i>Exochomus nigromaculatus</i> (Goeze)	-	6	4	10	0.15
<i>Exochomus quadripustulatus</i> (Linnaeus)	3	83	12	98	1.76
<i>Hippodamia variegata</i> (Goeze)	2	8	10	20	0.36
<i>Hormonia quadripunctata</i> Puntop	-	30	-	30	0.54
<i>Hyperaspis quadrimaculata</i> Redtenbacher	91	19	35	145	2.61
<i>Hyperaspis repensis</i> (Herbst)	-	5	-	5	0.09
<i>Nephus (Sidis) caneparis</i> Fürsch & Uygun	-	1	14	15	0.27
<i>Nephus nigricans</i> Weise	70	63	43	176	3.17
<i>Oenopia conglabata</i> (Linnaeus)	244	231	228	703	12.66
<i>Oenopia oncina</i> (Olivieri)	2	49	-	51	0.92
<i>Pharoscyrnus mundicus</i> Pic	-	3	-	3	0.05
<i>Pharoscyrnus pharoides</i> Marseul	92	65	73	230	4.14
<i>Platynaspis luteorubra</i> (Goeze)	11	4	-	15	0.27
<i>Psyllobora vigintiduopunctata</i> (Linnaeus)	7	832	1	840	15.12
<i>Scymnus (Pullus) araraticus</i> Khrzorian	203	268	518	989	17.80
<i>Scymnus (Pullus) auritus</i> Thunberger	3	4	2	7	0.13
<i>Scymnus (Pullus) flagellisiphonatus</i> (Fürsch)	17	13	2	32	0.58
<i>Scymnus pallipediformis</i> Günther	186	205	16	407	7.33
<i>Scymnus (Pullus) subvillosus</i> (Goeze)	193	559	88	840	15.12
<i>Stethorus gilvifrons</i> (Mulsant)	51	157	80	288	5.18
Species number	19	25	18	26	
Total number	1.281	3.134	1.140	5.555	100

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