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First record of an important agent in Scales biocontrol, *Pharoscyrnushorni* (Weise, 1900) (Coleoptera: Coccinellidae) from Iran

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Abstract

The Coccinellid species, *Pharoscyrnushorni* (Weise, 1900), is newly recorded from Iran. It was collected by Malaise trap, during a survey on the insect fauna of Rask region in Sistanva Baluchestan province, Iran from June 2015 to August 2016.

Keywords: Coccinellid, Malaise trap, Rask, Iran

1. Introduction

Biological control recourse to the actions of parasites, predators or pathogens unto a pest population which reduces its numbers lower than a level causing economic injury^[10]. Many coccinellid species are considered as important biological control agents^[4, 5, 10, 11]. Beneficial usage of coccinellids in many cases has been proven successful and occasional studies of this type of biological control of pests around the world have been recorded^[4, 11].

Barring some species such as the phytophagous Epilachninae and the mycophagous Coccinellinae (Halyziiniand Tythaspis), others relict coccinellids are predators of hemipteran insects like aphids, scales, psyllids and whiteflies), mites and eventually other insect larvae^[3]. Entomophagous Coccinellidae are important agents in the biological control of agricultural and forest and crop pests^[8, 10].

The first successful and classical biological control was related to the use of the *Vadalia* beetle, *Rodolia cardinalis* (Mulsant) against the cottony cushion scale, *Icerya purchasi* Maskell (Heteroptera: Margarodidae) in the orange orchards of California^[2]. Several lists of coccinellid fauna in multifarious regions have subsequently been completed^[1, 6, 9, 12].

The family Coccinellidae is one of known beetle family, belong to the superfamily Cucujoidea, order Coleoptera^[7] with Global distribution and discreted into 6 subfamilies: Coccidulinae, Coccinellinae, Scymninae, Chilocorinae, Sticholotidinae and Epilachninae. There is amazing variability in the color pattern of ladybirds, ranging from a reddish or yellowish to black background with dark spots. Many coccinellids lay their eggs directly on aphids and scale insect colonies in order to ensure their larvae have an immediate food source^[9]. Here provide objective of your study.

Materials and Methods

A field survey aimed to determined fauna, had been done by Malaise trap in Rask region, Sistanva Baluchestan province, Iran, at 05/06/2016 to 15/07/2016. Species identification was done using valid keys and final result and species identification confirmed by Dr Mehdi Zare Khormizi, Yazd, Iran and Dr. Oldřich Nedvěd, České Budějovice, Czech Republic.

Results and Discussion

Ladybirds are regarded as important predators both in their larval and adult stages on multiple important pests. Their life cycle will be complete in approximately one month that is depending on prey, location and temperature^[8]. In this survey we collect a number of *Pharoscyrnushorni* (Weise, 1900) that is one of the most important biocontrol agents, as scale predator and we considered this species as a new record for Iranian Coccinellida fauna, Material Examined

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Rask, Sistanva Baluchestan, Iran, 412 m a.s.l., 26°13'N, 61°24'E. 2016, leg. Mostafa Ghafouri Moghaddam.



Fig 1: *Pharoscyrmushorni* (Weise, 1900), specimen from Rask, Sistanva Baluchestan Province (Iran).

Iran is a big country and consisted of agricultural other different habitats with rich fauna of insects include pests and their natural enemies. More researches on biological agent could help in the better management of the ecological infrastructure in agro-ecosystems.

Conclusion is missing.

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