



***Cheiloneurus pistaciae* sp. nov. (Hymenoptera: Encyrtidae)  
a facultative hyperparasitoid of *Kermania pistaciella* Amsel  
(Lepidoptera: Tineidae), a pest of pistachio trees in Iran**

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The pistachio twig borer moth, *Kermania pistaciella* Amsel (Lepidoptera: Tineidae), is a native and well known univoltine pest of pistachio (*Pistacia vera* L.) in Iran and Turkey (Mehrnejad 2001). The moth lays eggs on the flower clusters and the newly hatched larva penetrates into the cluster tissue. The earliest damage appears in the young succulent clusters when the whole cluster turns black and falls off the trees. A larva bores a tunnel in the cluster towards the twigs and lives there for about ten months. The pest causes fruit drop and the infested twigs do not grow well. Surveys were conducted from 2003 – 2006 in the pistachio growing areas in Kerman province, in the southern part of Iran, to monitor the parasitoid complex associated with *K. pistaciella*. During this project, an encyrtid parasitoid was reared from pupae of both the pest and its primary parasitoid, *Chelonus kermakiae* Tobias (Hymenoptera: Braconidae). As the biology of this encyrtid is unique within the family it is described below. It is provisionally placed within the genus *Cheiloneurus* Westwood (see discussion below).

***Cheiloneurus* Westwood**

*Cheiloneurus* Westwood, 1833: 343. Type species: *Encyrtus elegans* Dalman, 1820 by monotypy.

*Aulonops* Timberlake, 1922: 158. Type species: *Aulonops bifasciata* Timberlake, by original designation and monotypy.

*Bekilyia* Risbec, 1952: 40. Type species: *Bekilyia metallica* Risbec, by monotypy.

*Blatticida* Ashmead, 1904: 305. Type species: *Blatticida pulchra* Ashmead, by monotypy.

*Cheiloneurus* (*Paracheiloneurus*) Girault, 1915: 119. Type species: *Cheiloneurus perpulcher* Girault, original designation and monotypy.

*Chilonevrus* Aggasiz, 1848: 231. Unjustified emendation of *Cheiloneurus* Westwood.

*Chrysopophagus* Ashmead, 1894: 246. Type species: *Chrysopophagus compressicornis* Ashmead, by monotypy.

*Chrysopophagoides* Girault, 1915: 90. Type species: *Chrysopophagoides westwoodi* Girault, original designation and monotypy.

*Cristatothorix* Girault, 1911: 169. Type species: *Cristatothorax pulcher* Girault, original designation and monotypy.

*Echthrogonatopus* Perkins, 1906: 256. Type species: *Echthrogonatopus exitiosus* Perkins, by subsequent designation of Gahan and Fagan (1923).

*Epicheiloneurus* Girault, 1915: 173. Type species: *Epicheiloneurus albicoxa* Girault, original designation and monotypy.

*Eusemionella* Girault, 1915: 78. Type species: *Eusemionella cristata* Girault, original designation and monotypy.

*Eusemionopsis* Girault, 1918: 3. Type species: *Eusemionopsis centaurus* Girault, original designation and monotypy.

*Hypergonatopus* Timberlake, 1922: 142. Type species: *Echthrogonatopus hawaiiensis* Perkins, original designation.

*Cheiloneurus* (*Lepidoneurus*) Hoffer, 1957: 340. Type species: *Chiloneurus kollari* Mayr, original designation.

*Metacheiloneurus* Hoffer, 1957: 336. Type species: *Metacheiloneurus moestus* Hoffer, by monotypy.

*Procheiloneurus* Girault, 1920: 39. Type species: *Procheiloneurus triguttatipennis* Girault, original designation and monotypy.

*Saronotum* Perkins, 1906: 248, 259–290. Type species: *Saronotum australiae* Perkins, original designation.

*Cheiloneurus* is a moderately large, cosmopolitan genus that currently includes about 130 valid species with many species yet to be described. As the generic synonymy suggests, it is morphologically diverse. It is best characterised by a marginal vein that is at least 3X as long as a very short stigmal vein, and an almost exclusively hyperparasitic habit. Other diagnostic characters for the genus include a dorsally flat scutellum with a distinct subapical tuft of setae, the fore