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## A taxonomic monograph of the Middle American leaf-litter inhabiting weevil genus *Theognete* Champion (Coleoptera: Curculionidae; Molytinae; Lymantini)

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## Abstract

The formerly monobasic genus *Theognete* Champion is revised. The two syntypes of *Theognete laevis* Champion are found to represent two species, one of which is described as *T. championi* Anderson, new species. Another 92 new species are also recognized. The 94 known species are grouped into 8 informal species groups, based largely on the structure of the thoracic sterna. These are (numbers of species in group and distribution for each species in parentheses): ***Theognete araneiformis* species group (6)**—*T. araneiformis* Anderson, new species (México, Puebla); *T. gracilis* Anderson, new species (México, Hidalgo); *T. azteca* Anderson, new species (México, Veracruz); *T. striatifemur* Anderson, new species (México, Tamaulipas); *T. kovariki* Anderson, new species (México, Tamaulipas); *T. tuberosa* Anderson, new species (México, Querétaro, San Luis Potosí); ***Theognete laevis* species group (4)**—*T. laevis* Champion (México, Veracruz); *T. championi* Anderson, new species Guatemala (Quezaltenango, San Marcos); *T. janzeni* Anderson, new species México (Oaxaca); *T. cozari* Anderson, new species (México, Chiapas); ***Theognete denticulata* species group (5)**—*T. denticulata* Anderson, new species (México, Puebla); *T. caviventris* Anderson, new species (México, Hidalgo, Puebla, Querétaro, San Luis Potosí); *T. thibodeaui* Anderson, new species (México, Veracruz); *T. fulgida* Anderson, new species (México, Hidalgo, San Luis Potosí); *T. stefurinoi* Anderson, new species (México, Oaxaca); ***Theognete semistriata* species group (5)**—*T. semistriata* Anderson, new species (México, Guerrero); *T. akros* Anderson, new species (México, Oaxaca); *T. semiopaca* Anderson, new species (México, Oaxaca); *T. humilis* Anderson, new species (México, Oaxaca); *T. elongata* Anderson, new species (México, Oaxaca); ***Theognete bothynometopon* species group (10)**—*T. bothynometopon* Anderson, new species (México, Oaxaca); *T. giselae* Anderson, new species (México, Oaxaca); *T. carinata* Anderson, new species (México, Guerrero); *T. genieri* Anderson, new species (Guatemala, Quezaltenango); *T. plumosa* Anderson, new species (México, Oaxaca); *T. birdi* Anderson, new species (México, Oaxaca); *T. ashei* Anderson, new species (Honduras, Santa Barbara); *T. pragudemii* Anderson, new species (El Salvador, Santa Ana; Honduras, Lempira); *T. jeanae* Anderson, new species (El Salvador, Santa Ana, Chalatenango; Honduras, Lempira); *T. chiapaneca* Anderson, new species (México, Chiapas); ***Theognete tzotzil* species group (36)**—*T. tzotzil* Anderson, new species (México, Chiapas); *T. ludvigseni* Anderson, new species (México, Oaxaca); *T. howdenorum* Anderson, new species (México, Oaxaca); *T. lutulenta* Anderson, new species (México, Oaxaca); *T. campbelli* Anderson, new species (México, Chiapas); *T. zapatista* Anderson, new species (México, Chiapas); *T. braunae* Anderson, new species (Guatemala, Baja Verapaz); *T. lapouimetorum* Anderson, new species (Guatemala, Zacapa); *T. schusteri* Anderson, new species (Guatemala, Sacatepequez); *T. peckorum* Anderson, new species (México (Oaxaca); *T. montana* Anderson, new species México (Chiapas); *T. scopulus* Anderson, new species México, Chiapas); *T. clavisetosa* Anderson, new species (México, Chiapas); *T. huitepec* Anderson, new species (México, Chiapas); *T. backorum* Anderson, new species (México, Chiapas); *T. confusa* Anderson, new species (México, Chiapas); *T. balli* Anderson, new species (México, Chiapas); *T. lalondei* Anderson, new species (Guatemala, Totonicapan); *T. schaubeli* Anderson, new species (México, Chiapas); *T. sylvatica* Anderson, new species (México, Chiapas); *T. hortenseae* Anderson, new species (México, Chiapas); *T. gaia* Anderson, new species (México, Veracruz); *T. echinata* Anderson, new species (México, Tamaulipas); *T. lalannei* Anderson, new species (Honduras, Cortes, Ocotepeque; El Salvador, Santa Ana, Chaltenango); *T. cavei* Anderson, new species (Honduras, Olancho); *T. trustrae* Anderson, new species (Honduras, Lempira); *T. coleadesi* Anderson, new species (Honduras, Santa Bárbara); *T. jonesi* Anderson, new species (México, Chiapas); *T. maturini* Anderson, new species (Honduras, Santa Bárbara, Yoro); *T. cortesi* Anderson, new species (México, Chiapas); *T. maziaki* Anderson, new species (México, Chiapas); *T. barringerorum* Anderson, new species (México, Chiapas); *T. evelynae* Anderson, new species (México, Chiapas); *T. illuviosa* Anderson, new species (México, Chiapas); *T. weadockae* Anderson, new species (México, Chiapas); *T. galvezi* Anderson, new species (México, Chiapas); ***Theognete distenta* species group (18)**—*T. distenta* Anderson, new species (México, Hidalgo); *T. kaulbarsi* Anderson, new species (México, Veracruz); *T. baranowskii* Anderson, new species (México, Oaxaca); *T. globosa* Anderson, new species (México, Oaxaca); *T. fossor* Anderson, new species (México, Oaxaca); *T. terrestris* Anderson, new species (México, Oaxaca); *T. libertei* Anderson, new species (México, Oaxaca); *T. dansereau* Anderson, new species (México, Oaxaca); *T. desautelsi* Anderson,

new species (México, Oaxaca); *T. newtoni* Anderson, new species (México, Puebla); *T. weiri* Anderson, new species (México, Oaxaca); *T. romanoi* Anderson, new species (México, Oaxaca); *T. broadheadae* Anderson, new species (México, Oaxaca); *T. chauliothorax* Anderson, new species (México, Hidalgo, San Luis Potosí); *T. boaseae* Anderson, new species (Honduras, Comayagua); *T. corderoi* Anderson, new species (Honduras, Comayagua); *T. adarmstrongae* Anderson, new species (México, Chiapas); *T. laurentiae*, new species (México, Querétaro); ***Theognete hesmos* species group (10)**—*T. hesmos* Anderson, new species (México, Hidalgo); *T. minuta* Anderson, new species (México, Hidalgo); *T. harbini* Anderson, new species (México, Hidalgo); *T. reprela* Anderson, new species (México, Veracruz); *T. michaudi* Anderson, new species (México, México); *T. lakarms* Anderson, new species (México, Veracruz); *T. tomneyae* Anderson, new species (México, Oaxaca); *T. cristata* Anderson, new species (México, Oaxaca); *T. grimblyae* Anderson, new species (México, Querétaro); *T. draco* Anderson, new species (México, Oaxaca).

Species groups are characterized and taxonomic composition and general distribution and ecological correlates summarized. Diagnoses and distributions are given for all species and ecological information is presented where available. Local endemism is remarkable throughout the genus, nearly all species known from one or only a limited number of proximal localities. Individual distribution maps are not presented but .kmz data files for use with GoogleEarth® are presented as hot links under the distribution for each species group. Immature stages, life history and food habits are not known for any of the species, although the larvae are presumed to feed in dead wood, as do other members of Lymantini and related tribes. The species are distributed as follows: México (78), Honduras (10), Guatemala (6), El Salvador (3). This study represents the results of over 20 years of intensive leaf litter collections made in México and northern Middle America.

**Key words:** biodiversity, classification, taxonomy, new species, weevil

## Introduction

The genus *Theognete* was described by Champion (1902) to include one species, *Theognete laevis* Champion, based on two specimens, one from Cerro Zunil in Guatemala and the other from the "Sierra de Durango" (actually likely in Veracruz or Oaxaca [Champion 1903: 210]) in México. Other than citations in checklists (Dalla Torre *et al.* 1932, Blackwelder 1947, O'Brien & Wibmer 1982; Alonso-Zarazaga 1999), no subsequent mention has been made of species in this genus. However, rather than being a rare monobasic genus, as historical coverage in the literature would imply, *Theognete* is a hyperdiverse, commonly found and thus important genus in the leaf-litter inhabiting community of Coleoptera throughout México and northern Central America. Furthermore, whereas individual species distributions are very restricted, the genus is relatively widespread in northern Meso-America. It is now known that 94 species of *Theognete* are distributed throughout various forest types in México, Guatemala, El Salvador and Honduras, and indications are that many more species likely await discovery.

## Classification of *Theognete*

The genus *Theognete* is placed in the tribe Lymantini of the subfamily Molytinae (Alonso-Zarazaga & Lyal 1999). Lymanini are best characterized by the placement of the eyes, which are located beyond the constriction that demarcates the division between the head and the rostrum, thus appearing as if situated on the rostrum. The eyes vary in extent of development throughout the tribe, from absent or composed of a few very small facets to well-developed, large and distinct. The female genitalia lack styli on the coxites, and eyeless members of the group can thus be distinguished from superficially very similar eyeless Anchonini and Cossoninae, which possess such styli (Howden 1992). Also, in Anchonini and most Cossoninae the eyes, if present, are located distinctly posteriorly of the head-rostrum constriction and thus are situated on the globular head. *Theognete* species have a more rounded and globose habitus than nearly all other lymantines, with the