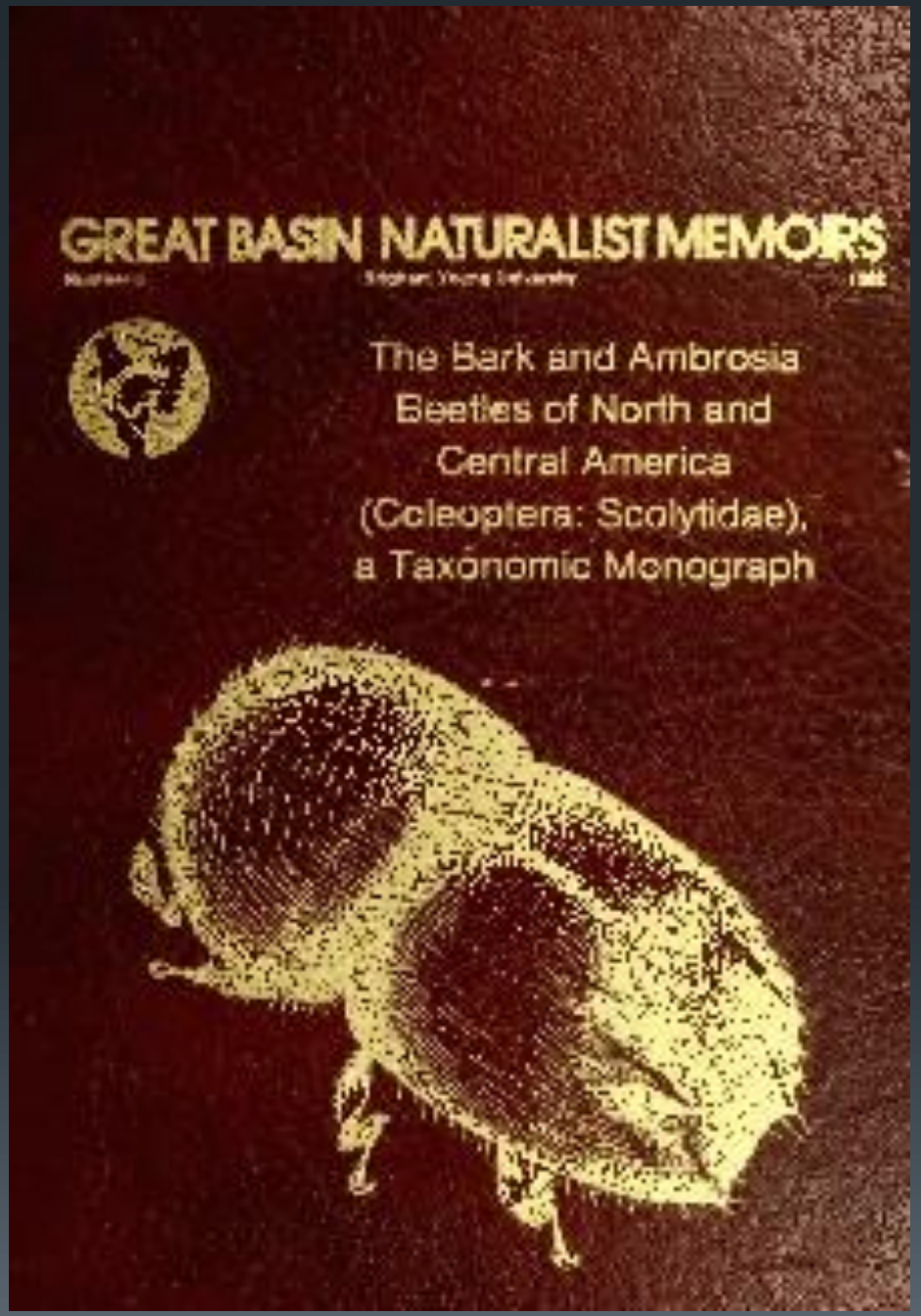
“descubrir consiste en ver aquello que todos han visto y pensar lo que nadie ha pensado” Albert Szent-Gyorgyi (1893-1986)



GREAT BASIN NATURALIST MEMOIRS

The Bark and Ambrosia Beetles of North and Central America (Coleoptera: Scolytidae), a Taxonomic Monograph

No. 6 Brigham Young University, Provo, Utah 1982

Stephen L. Wood[1]

PREFACE

The first insect I examined critically and collected for permanent preservation was *Trypodendron retusum* LeConte. At the age of 14 years I was introduced to it by T. O. Thatcher on 21 June 1939 at Lehman Creek Canyon, White Pine County, Nevada, near the base of Wheeler Peak. The attraction was immediate and permanent. An important factor in reinforcing that initial attraction was W. J. Chamberlin's (1939) *The Bark and Timber Beetles of North America*, which kept the interest alive and served initially as a guide to its expansion.

The human population explosion of this century applied increasing worldwide pressure on forests and agricultural resources to increase the efficiency with which their products are formed. Since bark and ambrosia beetles constitute an important destructive element that interferes with this production and with the esthetic values derived from our forests, increased knowledge of these insects should be of value to our society in dealing with them. Because of the enormity of the task, I selected one small facet, fundamental in nature, for my contribution.

The first and most fundamental step in the solution of a problem in biology is the accurate identification of the organism under investigation. Without it, all else is meaningless, because effective communication is not possible.

Among my first experiences in scolytid taxonomy was the discovery that numerous errors in identification had been made. They were made partly because of a faulty species concept possessed by early taxonomists and partly because of a consuming desire on the part of a few authors to indelibly engrave their names in the annals of science by naming species they presumed were new to science. More recently, we have learned that the behavior of a population in nature determines whether or not it is a species, not the taxonomist. Many of the early contributions must now be rejected as a result. Even so, those early contributions established the foundation on which we now build.

There has been a tremendous need for a comprehensive review of the Scolytidae of North and Central America to aid in the identification of species and to serve as a guide and reference work in the training and

[1]Life Science Museum and Department of Zoology, Brigham Young University, Provo, Utah 84602. Scolytidae contribution No. 72.

Las especies del género *Dendroctonus* tienen una importancia mayúscula para la ecología de bosques de coníferas en Norte y Centromérica.

La mayor diversidad de especies de este género se encuentra en Mesoamérica

Síntesis académica que presenta e ilustra las especies de *Dendroctonus* reportadas hasta hoy en Mesoamérica

CLAVE DICOTÓMICA PARA ADULTOS DEL GÉNERO *Dendroctonus* [1]

1. Márgenes laterales del proceso epistomal amplios, aproximadamente 50% de la d
cia entre los ojos, inclinados menos de 50° con respecto a la horizontal (Figura 9a); inte
II del declive elitral casi tan amplia o más que las interestrías I y II (Figura 9b); en las her
las interestrías I a III se encuentran ornamentadas con gránulos dispersos, sin arreglo de
puntuaciones o crenulaciones, nunca con tubérculos uniseriados prominentes (Figu
en la varilla seminal, no se observa un lóbulo distal (Figura 9c). Desarrollan su ciclo d
principalmente en especies de *Pinus* .....

1'. Márgenes laterales del proceso epistomal estrechos, menos del 40% de la distanc
tre los ojos, inclinados más de 80° con respecto a la horizontal (Figura 9d); la interestrí
declive elitral evidentemente más estrecha que las interestrías I y III (Figura 9e); en her
las interestrías I a III se encuentran ornamentadas con tubérculos prominentes unise
(Figura 9e); en la varilla seminal en vista lateral, el cuerpo presenta un lóbulo distal en
de hoja (Figura 9f); desarrolla su ciclo de vida exclusivamente en *Pseudotsuga menziesii*
Franco; especie mediana, longitud total del cuerpo de 4.4 a 7.0 mm.....
..... *D. pseudotsugae barragani* Fu

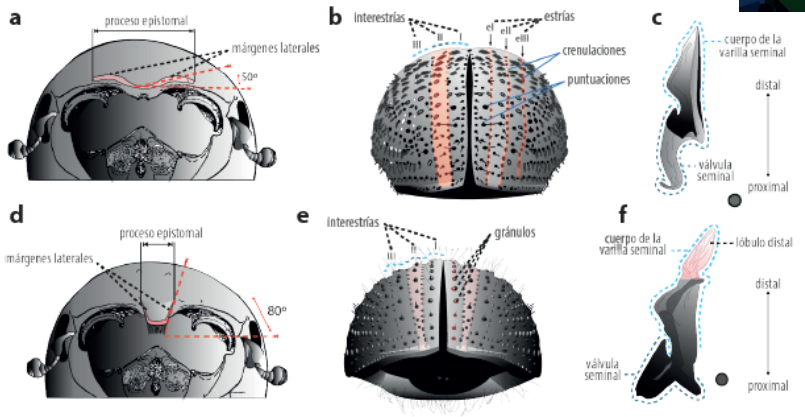


Figura 9. Anatomía de la cabeza declive elitral y varilla seminal de *Dendroctonus*: **a**, **d**, cabeza en vista ventral; **b**, **e**, declive elitral en vista posterior; **c**, **f**, varilla seminal en vista lateral; **d-f**, *Dendroctonus pseudotsugae barragani*.

1 La clave es una adecuación de la clave en ingles titulada: "Illustrated Key to Species of Genus *Dendroctonus* (Coleoptera: Curculionidae) Occurring in Mexico and Central America" (Armendáriz-Toledano y Zúñiga 2017). Algunas de las ilustraciones fueron redibujadas y otras fueron elaboradas para esta obra.

Referencia obligada para la identificación taxonómica de especies de *Dendroctonus*