



A new species of *Hechtia* (Bromeliaceae: Hechtioideae) from Hidalgo (Mexico)

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Abstract

We propose that two populations previously referred to *Hechtia epigyna*, from the Mexican state of Hidalgo, represent a new species. Plants from the Hidalgo populations share the inferior ovary with *Hechtia epigyna*, an unusual trait in the genus, but they differ in their growth pattern (central vs. lateral inflorescence), characters of the adaxial foliar surface, petal color, and fruit position during dehiscence. We also provide a clarification on the typification of *Hechtia epigyna*. An assessment of the conservation status of the new species, *Hechtia deceptrix* following IUCN criteria resulted as CR (Critically Endangered).

Key words: Epigynous flowers, growth pattern, *Hechtia epigyna*, Hidalgo, IUCN, Tamaulipas

Introduction

Hechtia Klotzsch (1835: 401) is represented in the Mexican State of Hidalgo by three species (Espejo *et al.* 2004), namely *H. glomerata* Zuccarini (1840: 240), *H. lundelliorum* Smith (1938: 97), and *H. podantha* Mez (1896: 549). A fourth species, *H. lepidophylla* Ramírez (2008: 65) also has been reported for Hidalgo. Hornung-Leoni & Ramírez-Morillo (in prep.) have records of three more species in this state and overall, here we report a total of eight *Hechtia* species for Hidalgo, including the new one described herein. Plants of some of these species form large colonies: *H. podantha* does around the capital city, Pachuca, and *H. glomerata* in areas such as the Biosphere Reserve Barranca de Metztlán in the central-north portion of the state of Hidalgo.

Materials and methods

Field work was carried out in the state of Hidalgo, Mexico, where we collected plants of the new species from two populations identified as *Hechtia epigyna* Harms (1935: 532) by Espejo *et al.* (2010). We found pistillate plants in bloom at the Municipality of Atotonilco El Grande and staminate plants in bloom at Municipality of Cardonal; fruit features were studied on specimens deposited at Herbarium UAMIZ (López-Ferrari *et al.* 3311; Zamudio *et al.* 13866; Zamudio & Zamudio 14085). We based the description of the new entity on Espejo *et al.* (2010), and on our collections deposited at HGOM (Hornung *et al.* 1344, 1354). In order to circumscribe the new species, we carried out field work in Tamaulipas, Municipality of Jaumave, at Nogales at the type locality of *H. epigyna* where we collected plants in fruit and with old staminate inflorescences and live plants of both sexes to cultivate and obtain fresh flowering material; vouchers of these collections are deposited at Herbarium CICY (Ramírez *et al.* 1721, 1723). We also studied high resolution images of the two sheets labeled *H. W. Viereck 81* collected in Jaumave, Tamaulipas on March 2, 1930, both deposited at Herbarium B (Röpert (ed.) 2000+ [continuously updated]), and examined two collections of the same species at GH. Members of the San Diego Bromeliad Society kindly provided images and flowers in spirit of *H. epigyna*. We measured dimensions and compare qualitative features across all the available specimens.