<https://doi.org/10.17129/botsci.2975>

**Supplementary material**

**Table S1.** List of the material used in the present study with information about the origin of the material studied, vouchers, and GenBank accession numbers. “–” Missing sequences. Herbarium abbreviations follow the Index Herbariorum ([sweetgum.nybg.org/science/ih](http://sweetgum.nybg.org/science/ih/)). Cult.: Cultivated for the second author. Accession numbers in bold refer to sequences generated in this study

|  |  |  |  |
| --- | --- | --- | --- |
|   |   |   | **GenBank accession number** |
| **Taxon** | **Locality** | **Voucher specimen** | ***rpl32*-*trnL*** | ***ycf1-*a** | ***ycf1-*b** | **PRK** |
| *Aechmea bromeliifolia* | Mexico: Quintana Roo | Ramírez 1629 (CICY) | **MZ324831** | **MZ324856** | **MZ324882** | - |
| *Bakerantha caerulea*  | Mexico: Estado de Mexico | Ramírez 1516 (CICY) | MF741043 | MF1043 | MF741103 | MF740926 |
| *Bakerantha hidalguense* | Mexico: Hidalgo | Ramírez 2076 (CICY) | MT234634 | MT226879 | MT232018 | MT512338 |
| *Bakerantha lundelliorum* | Mexico: San Luis Potosí | Ramírez 1491 (CICY) | MF741004 | MF741062 | MF741121 | MF740944 |
| *Bakerantha purpusii* | Mexico: Veracruz | Ramírez 787 (CICY) | MF741021 | MF741079 | MF741138 | MF740961 |
| *Bakerantha tillandsioides* | Mexico: Puebla | Ramírez 1475 (CICY) | MF741033 | MF741091 | MF741150 | MF740973 |
| *Brocchinia reducta* |  | Piliackas s.n. (RB) | MF74097 | MF74103 | MF74109 | MF74092 |
| *Bromelia hemisphaerica*  | Mexico: Jalisco | Ramírez 1806 (CICY) | MF740978 | MF741038 | MF741097 | MF740921 |
| *Bromelia karatas*  | Mexico: Yucatán | Ramírez 1805 (CICY) | MF740980 | MF741039 | MF741098 | MF740922 |
| *Catopsis nutans*  | Mexico | Pinzón s.n. (CICY) | MF740981 | MF741040 | MF741099 | MF740923 |
| *Cottendorfia florida*  | Brazil | S.C. de Sant Ana 3692 (RB) | MF740982 | MF741041 | MF741100 | - |
| *Hechtia aquamarina*  | Mexico: Puebla | Ramírez & Durán 1283 | MF740984 | MF741042 | MF741102 | MF740925 |
| *Hechtia argentea* | Mexico: Hidalgo | Hornung s.n. (CICY) | **MZ324832** | **MZ324857** | **MZ324883** | - |
| *Hechtia bracteata* | Mexico: Puebla | Ramírez 1591 (CICY) | **MZ324833** | **MZ324858** | **MZ324884** | **MZ324909** |
| *Hechtia caulescens* | Mexico: Oaxaca | Ramírez 2374 (CICY) | **MZ324834** | **MZ324859** | **MZ324885** | - |
| *Hechtia chichinautzensis* | Mexico: Morelos | Ramírez 920 (CICY) | **MZ324835** | **MZ324860** | **MZ324886** | **MZ324910** |
| *Hechtia colossa* | Mexico: Oaxaca | Ramírez 2154 (CICY) | **MZ324836** | **MZ324861** | **MZ324887** | **MZ324911** |
| *Hechtia confusa* | Mexico: Puebla | Ramírez 2127B (CICY) | **MZ324837** | **MZ324862** | **MZ324888** | **MZ324912** |
| *Hechtia cordylinioides*  | Mexico: Oaxaca | Ramírez 1441 (CICY) | MF740986 | MF741044 | MF741104 | MF740927 |
| *Hechtia deceptrix*  | Mexico: Hidalgo | Ramírez 1723 (CICY) | MF740987 | MF741045 | MF741105 | MF740928 |
| *Hechtia edulis*  | Mexico: Chihuahua | Ramírez 1326 (CICY) | MF740989 | MF741047 | MF741107 | MF740929 |
| *Hechtia elliptica*  | Mexico: Coahuila | Ramírez 1347 (CICY) | MF740990 | MF741048 | MF741108 | MF740930 |
| *Hechtia epigyna*  | Mexico: Tamaulipas | Ramírez 1956 (CICY) | MF740991 | MF741049 | MF741109 | MF740931 |
| *Hechtia flexilifolia* | Mexico: Oaxaca | Carnevali 7136 (CICY) | MF740992 | MF741050 | MF741110 | MF740932 |
| *Hechtia fosteriana* | Mexico: Oaxaca | Ramírez 1747 (CICY) | MF740993 | MF741051 | MF741111 | MF740933 |
| *Hechtia fragilis* | Mexico: Oaxaca | Ramírez 1446 (CICY) | **MZ324838** | **MZ324863** | **MZ324889** | **MZ324913** |
| *Hechtia gayorum* | Mexico: Baja California | Ramírez 2214 (Cult.) | MF740994 | MF741052 | MF741112 | MF740934 |
| *Hechtia ghiesbreghtii* | Mexico: Chiapas | Carnevali 7488 (CICY) | MF740995 | MF741053 | MF741113 | MF740935 |
| *Hechtia glauca* | Mexico: Michoacán | Ramírez 2215A (Cult.) | MF740996 | MF741054 | MF741114 | MF740936 |
| *Hechtia glomerata* | Mexico: Querétaro | Ramírez 1495 (CICY) | MF740997 | MF741055 | **MZ324890** | MF740937 |
| *Hechtia gypsophila* | Mexico: Oaxaca | Carnevali-Ramírez 1460 (CICY) | **MZ324839** | **MZ324864** | **MZ324891** | **MZ324914** |
| *Hechtia hernandez-sandovalii* | Mexico: Querétaro | Ramírez 1610 (CICY) | MF740999 | MF741057 | MF741116 | MF740939 |
| *Hechtia hintoniana* | Mexico: Estado de Mexico | Ramírez 1645 (CICY) | **MZ324840** | **MZ324865** | **MZ324892** | **MZ324915** |
| *Hechtia huamelulaensis* | Mexico: Oaxaca | Ramírez 1675 (CICY) | **MZ324841** | **MZ324866** | **MZ324893** | **MZ324916** |
| *Hechtia iltisii* | Mexico: Jalisco | Ramírez 1937 (CICY) | MF741000 | MF741058 | MF741117 | MF740940 |
| *Hechtia isthmusiana* | Mexico: Oaxaca | Ramírez 1536 (CICY) | MF741001 | MF741059 | MF741118 | MF740941 |
| *Hechtia ixtlanensis* | Mexico: Oaxaca | Ramírez 1379 (CICY) | MF741002 | MF741060 | MF741119 | MF740942 |
| *Hechtia jaliscana* | Mexico: Jalisco | Ramírez 1982 (CICY) | **MZ324842** | **MZ324867** | **MZ324894** | **MZ324917** |
| *Hechtia laevis* | Mexico: Colima | Ramírez 1997 (CICY) | **MZ324843** | **MZ324868** | **MZ324895** | - |
| *Hechtia lanata* | Mexico: Oaxaca | Ramírez 1746 (CICY) | **MZ324844** | **MZ324869** | **MZ324896** | **MZ324918** |
| *Hechtia lepidophylla* | Mexico: Querétaro | Ramírez 1503 (CICY) | MF741003 | MF741061 | MF741120 | MF740943 |
| *Hechtia lyman-smithii* | Mexico: Oaxaca | Ramírez 1038 (CICY) | MF741005 | MF741063 | MF741122 | MF740945 |
| *Hechtia marnier-lapostollei* | Mexico: Oaxaca | Ramírez 1443 (CICY) | **MZ324845** | **MZ324870** | **MZ324897** | **MZ324919** |
| *Hechtia mapimiana*  | Mexico: Durango | Ramírez 1317 (CICY) | MF741007 | MF741065 | MF741124 | MF740947 |
| *Hechtia matudae* | Mexico: Morelos | Ramírez 918 (Cult.) | MF741008 | MF741066 | MF741125 | MF740948 |
| *Hechtia melanocarpa* | Mexico: Guerrero | Ramírez 2217A (Cult.) | MF741009 | MF741067 | MF741126 | MF740949 |
| *Hechtia mexicana* | Mexico: San Luis Potosí | Treviño s.n. (CICY) | **MZ324846** | **MZ324871** | **MZ324898** | **MZ324920** |
| *Hechtia meziana* | Mexico: Chiapas | Ramírez 962A (CICY) | MF741010 | MF741068 | MF741127 | MF740950 |
| *Hechtia michoacana* | Mexico: Michoacán | Ramírez 1105 (CICY) | MF741011 | MF741069 | MF741128 | MF740951 |
| *Hechtia minuta* | Mexico: Oaxaca | Ramírez 2373 (CICY) | **MZ324847** | **MZ324872** | **MZ324899** | - |
| *Hechtia montana* | Mexico | Ramírez 2216A (Cult.) | MF741012 | MF741070 | MF741129 | MF740952 |
| *Hechtia mooreana* | Mexico: Guerrero | Ramírez 1976 (CICY) | MF741013 | MF741071 | MF741130 | MF740953 |
| *Hechtia myriantha* | Mexico: Veracruz | Ramírez 1462 (CICY) | MF741014 | MF741072 | MF741131 | MF740954 |
| *Hechtia nivea* | Mexico: Oaxaca | Ramírez 1826 (CICY) | **MZ324848** | **MZ324873** | **MZ324900** | **MZ324921** |
| *Hechtia nuusaviorum* | Mexico: Oaxaca | Carnevali 7133 (CICY) | MF741015 | MF741073 | MF741132 | MF740955 |
| *Hechtia oaxacana* | Mexico: Oaxaca | Ramírez 1546 (CICY) | MF741016 | MF741074 | MF741133 | MF740956 |
| *Hechtia perotensis* | Mexico: Puebla | Ramírez 2116C (CICY) | - | **MZ324874** | **MZ324901** | **MZ324922** |
| *Hechtia podantha* | Mexico: Hidalgo | Ramírez 1479 (CICY) | MF741017 | MF741075 | MF741134 | MF740957 |
| *Hechtia pretiosa* | Mexico: Guanajuato | Ramírez 2216 (Cult.) | MF741018 | MF741076 | MF741135 | MF740958 |
| *Hechtia pringlei* | Mexico: Oaxaca | Ramírez 1442 (CICY) | MF741019 | MF741077 | MF741136 | MF740959 |
| *Hechtia pumila* | Mexico: Guerrero | Ramírez 1742 (CICY) | MF741020 | MF741078 | MF741137 | MF740960 |
| *Hechtia purhepecha* | Mexico: Michoacán | Espejo 7547 (CICY) | **MZ324849** | **MZ324875** | **MZ324902** | **MZ324923** |
| *Hechtia rosea* | Mexico: Oaxaca | Ramírez 924 (CICY) | MF741022 | MF741080 | MF741139 | **MZ324924** |
| *Hechtia roseana* | Mexico: Puebla | Ramírez 1293 (CICY) | MF741023 | MF741081 | MF741140 | MF740963 |
| *Hechtia rubicunda* | Mexico: Oaxaca | Ramírez 1670 (CICY) | **MZ324850** | **MZ324876** | **MZ324903** | **MZ324925** |
| *Hechtia santanae* | Mexico: Jalisco | Ramírez 1940 (CICY) | **MZ324851** | **MZ324877** | **MZ324904** | **MZ324926** |
| *Hechtia scariosa* | Mexico | Ramírez 1340 (CICY) | **MZ324852** | **MZ324878** | **MZ324905** | **MZ324927** |
| *Hechtia schottii* | Mexico: Yucatán | Ramírez 529 (CICY) | MF741021 | MF741082 | MF741141 | MF740964 |
| *Hechtia* sp. CHIS\_Comitán | Mexico: Chiapas | Pinzón 234 (CICY) | MF741025 | MF741083 | MF741142 | MF740965 |
| *Hechtia* sp. GTO\_Xichu | Mexico: Guanajuato | Ramírez 1525 (CICY) | MF741026 | MF741084 | MF741143 | MF740966 |
| *Hechtia* sp.TAMPS\_Jaumave | Mexico: Tamaulipas | Ramírez 1609 (CICY) | MF741027 | MF741085 | MF741144 | MF740967 |
| *Hechtia* sp. TAMPS\_Salto | Mexico: Tamaulipas | Ramírez 1599 (CICY) | MF741028 | MF741086 | MF741145 | MF740968 |
| *Hechtia sphaeroblasta* | Mexico: Oaxaca | Carnevali 7152 (CICY) | MF741029 | MF741087 | MF741146 | MF740969 |
| *Hechtia stenopetala* | Mexico: Veracruz | Ramírez 1269 (CICY) | MF741030 | MF741088 | MF741147 | MF740970 |
| *Hechtia subalata* | Mexico: Durango | Ramírez 1314 (CICY) | MF741031 | MF741089 | MF741148 | MF740971 |
| *Hechtia tehuacana* | Mexico: Puebla | Ramírez 1566 (CICY) | MF741032 | MF741090 | MF741149 | MF740972 |
| *Hechtia texensis* | Mexico: Coahuila | Ramírez 1336 (CICY) | **MZ324853** | **MZ324879** | **MZ324906** | **MZ324928** |
| *Hechtia zamudioi* | Mexico: Querétaro | Ramírez 1423 (CICY) | **MZ324854** | **MZ324880** | **MZ324907** | **MZ324929** |
| *Mesoamerantha dichroantha*  | Guatemala | Romero 1169 (CICY) | MF740988 | MF741046 | MF741106 | - |
| *Mesoamerantha guatemalensis* | Honduras | Ramírez 1838 (CICY) | MF740998 | MF741056 | MF741115 | MF740938 |
| *Mesoamerantha malvernii* | Honduras | Ramírez 1842 (CICY) | MF741006 | MF741064 | MF741123 | MF740946 |
| *Pitcairnia breedlovei*  | Mexico: Chiapas | Ramírez 957 (CICY) | MF741034 | MF741092 | MF741151 | MF740974 |
| *Puya mirabilis*  | Argentina | Carnevali s.n. (CICY) | MF741035 | MF741093 | MF741152 | MF740975 |
| *Tillandsia dasyliriifolia* | Mexico: Yucatán | Ramírez s.n. (CICY) | MF741036 | MF741094 | MF741153 | MF740976 |
| *Tillandsia limbata*  | Mexico: Veracruz | Ramírez 1464 (CICY) | KU848483 | MF741095 | MF741154 | MF740977 |
| *Ursulaea tuitensis* | Mexico: Jalisco | Martínez 17 (IBUG) | **MZ324855** | **MZ324881** | **MZ324908** | - |