○The chromosome number of *Nepenthes*×*mixta* (Katsuhiko KONDO) 近藤勝彦： *Nepenthes*×*mixta* の染色体数

The Asiatic pitcher plant, known as the genus *Nepenthes*, grows from southeastern China down to northern Australia, and west to Madagascar and Seychelles. About sixty species of *Nepenthes* are taxonomically known. Interspecific hybrids in this genus can be easily made not only in nature but also in artificial status. Those hybrids of *Nepenthes* are almost always highly fertile. Thus, it is considered that the species might be closely related to each other and their chromosome number might be the same. But, on the other hand, they may not have the same chromosome number because of their dioecism. Perhaps *Nepenthes* has sex chromosomes. Only the chromosome numbers of *Nepenthes thorelii* (2n=78) which is a Cambodian species and *N. rafflesiana* (2n=78) which is a Malaysian species were previously counted by Kondo (1969. Bull. Torrey Bot. Club **96**: 322-328). The materials of both species were all males according to this record. The chromosome number of *Nepenthes*×*mixta* Masters (*N. northiana*×*maxima*; in the U.S. the *N.*×*mixta* may be called *N.*×*superba* Williams which is wrong) is, however, reported here for the first time. This individual is a male, and always produces male flowers. Thus, male flower buds of this hybrid were collected in Mr. Joseph A. Mazrimas' greenhouse, Livermore, California, and were fixed in regular Carnoy's solution. Observations were made after preparation of aceto-carmine squash method.

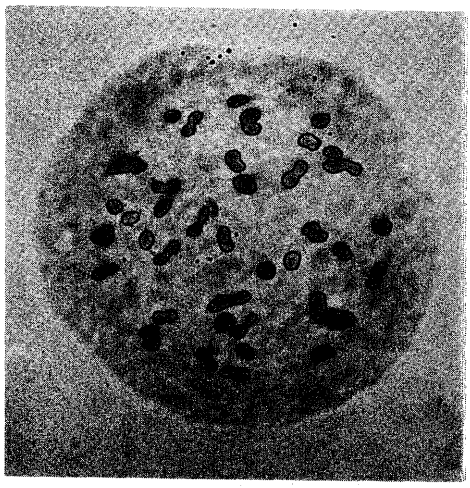

Fig. 1. Meiotic chromosomes (× ca. 1400) in PMC's of *Nepenthes*×*mixta* Masters (n=40).

Forty bivalent chromosomes at metaphase I of meiosis in PMC's were found (Fig. 1). Cytomixis were commonly observed at early stages of meiosis in PMC's. No sex chromosome was recognized. This chromosome number is different from that of *N. thorelii* or of *N. raf-*

flesiana. It is necessary to observe as next step whether or not the difference of those chromosome numbers studied is due to sex determining chromosome numbers or abnormality of chromosome numbers in hybrids.

Nepenthes×*mixta* の染色体数が n=40 であることを報告する。(Department of Botany, The University of North Carolina, Chapel Hill, N.C. 27514).

○シロテツ属（ミカン科）の類縁（山崎　敬）Takasi YAMAZAKI: Generic relationships of the genus *Boninia* (Rutaceae).

シロテツ属は小笠原諸島特産の固有属とされている。しかしその類縁は明瞭でないので検討してみる必要がある。これは Planchon が *Evodia* と比較して属を区別したようにゴミシ属に近く，Engler の分類によれば Evodiinae 亜族に属し，ゴミシ属 *Evodia*，アワダン属 *Melicope* やハワイの *Pelea* などが比較の対象となる。

シロテツ属は，単葉，花弁はつぼみの時瓦重ね状，子房は球形で基部環状の花盤にとりまかれ，心皮は完全に癒合し先に短い1本の花柱がつき，花柱の先端は浅く4裂して柱頭がつく。果実は各室が癒合して胞背でさけ，分果状とならない。

ゴミシ属は，葉は普通3小葉又は羽状複葉からなりまれに単葉，花弁はつぼみの時すりあわせ状，雄しべ 4-5本，花盤は殆んど発達せず，雌花の子房は 4-5個の離生心皮からなり花柱で癒合している。花柱の先にふくらんだ球形状の柱頭がつく。雄花は常に離生した4-5本の花柱をもつ。果実は中部以上が離生した分果状となる。以上の性質はシロテツ属とかなり異っている。

アワダン属は，葉は単葉又は3小葉からなり，花弁は瓦重ね状，雄しべ8本，花盤は環状又は数個にわかれて子房の基部を包む。子房は4個の離生心皮からなる。花柱は離生又は1本に集合し，頭状の柱頭をもつ。果実は分果状となる。花弁は瓦重ね状，雄しべ8本。子房が離生し，果実が分果状となるなど，アワダン属はシロテツ属と異る。

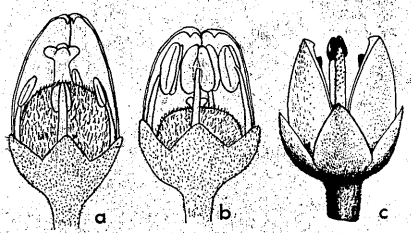

Fig. 1. a and b. *Boninia glabra*. a. Female flower. b. Male flower. c. *Pelea orbicularis* (after B.C. Stone). a and b. ×8. c. ×2.

Pelea は，単葉，花弁はすりあわせ状，雄しべ8本，花盤は環状に子房の基部を包む。子房は4個の心皮が癒合し，先に1本の花柱がつき，先端は浅く4裂して柱頭をもつ。果実は分果状となるか，癒合して分果状とならず，胞背裂開する。

Pelea は雄しべが8本である以外はシロテツ属に非常によく似ている。多くの種類では，8本の雄しべのうち花