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## PS-15 Karyotype analysis of two *Ophiopogon* species (Convallariaceae) from Taiwan and the Ryukyus of Japan

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The genus Ophiopogon is an evergreen perennial herb that forms attractive clumps of simple, linear, and lush leaves with spikes of showy white flowers. In the Ryukyu Archipelago, besides O. jaburan (Kunth) Lodd., which have been listed in the floras of this area, O. reversus C.C. Huang was recently reported from Yonaguni-jima in the southern Ryukyus. Apart from the Ryukyus, O. reversus is distributed in southern China (Hainan Island, western Guangxi and Hong Kong) and Taiwan.

Accumulation of cytological data is important to deepen our understanding of the cytotaxonomical features of the genus *Ophiopogon*. With regard to *O. reversus*, however, no cytological observations have been made to date. This study is intended to reveal the karyotype of *O. reversus* collected in Taiwan and the southern Ryukyus for accumulating cytotaxonomical information of the genus. *Ophiopogon jaburan* collected from the central Ryukyus was also examined for comparison.

All plants of O. reversus and O. jaburan investigated were the diploid (2n=36). Somatic metaphase chromosomes of these two species consisted of one pair of long (ca. 7.8  $\mu$ m) metacentric chromosomes, two pairs of medium-sized (ca. 5.7 to 4.8  $\mu$ m) submetacentric chromosomes, and 15 pairs of short (ca. 3.8 to 2.0  $\mu$ m) metacentric or submetacentric chromosomes. Among 36 chromosomes of O. reversus, one pair of short chromosomes with submedian centromeres had secondary constrictions at the proximal region of the long arms. While in O. jaburan, one pair of short metacentric chromosomes had secondary constrictions at the proximal region of the short arms. Although O. reversus is morphologically resemblant to O. jaburan, these two species are clearly distinguishable from each other based on this cytotaxonomical character.

As indicated by Tanaka (2001), misidentification between O. reversus and O. jaburan might cause problems in identifying the distribution range and abundance of O. reversus in the southern Ryukyus. It remains unclear whether O. reversus and O. jaburan occur sympatrically in the southern Ryukyus or whether their distribution does not overlap in this area. For further study to reveal the relationship between O. reversus and O. jaburan and for deepening our understanding of the flora of the Ryukyus and Taiwan, distribution of these two species in the southern Ryukyus must be reinvestigated through careful and precise identification.