

III. BRIEF NOTE ON *NEUWIEDIA SINGAPUREANA* IN THAILAND

The small family *Apostasiaceae*, a group of primitive orchids, is extremely interesting from a taxonomic and evolutionary point of view. It consists of about 20 species scattered over tropical Asia from Nepal Himalaya to New Guinea and Australia. Four genera have been described, viz. *Adactylus*, *Schoenomorphus*, *Apostasia*, and *Neuwiedia*; only the two last-mentioned genera have been found in Thailand so far.

While *Apostasia wallichii* has long been known from Thailand, the find of *Neuwiedia* is a new record. Two collections are available, HANSEN, SEIDENFADEN & SMITINAND No. 11246 Phitsanulok province: Huey Ya, Lom Sak; in evergreen forest, alt. 700m., 23.2.1964; the specimen is fruiting (Fig. 1). The next find was made in the same area, but about 50 km from Huey Ya two years later, viz. LARSEN, SMITINAND & WARNCKE No. 1100 Phitsanulok province: Phu Mieng Mountain, evergreen forest, alt. 700m., 29.7.1966, the plants being in flower (Fig. 2).

The whole family will be treated in another connection, the present short note is mainly given because this species in its new locality in the Phitsanulok mountains is separated from the hitherto known Northern limit by 1800 km. It should be considered that two species of *Neuwiedia* have been described from Annam and Tonkin by GAGNEPAIN in Fl. Gén. Indo-Chine; these species are probably dubious.

Another reason for this short communication is that it is possible for the first time to get an idea of the cytology of this family. From the Phu Mieng population three living plants were sent to Aarhus for chromosome studies. Here the batch was kept alive for about one year, but few new leaves were produced, and after two months the growth stopped. Few new roots were produced; still fixation in



Fig. 1. Neuwiedia singaporeana from Phu Mieng.



Fig. 2. *Neuwiedia singaporeana* from Lom Sak.

Navashin-Karpetchenko was undertaken. The root tips, stained in Feulgen, showed few divisions, but some metaphase plates were found and counted.

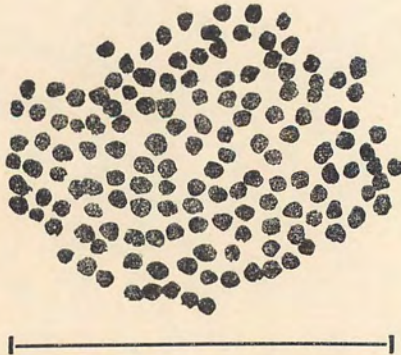


Fig. 3. Root tip metaphase-The scale is 10 μ .

It is not possible to give an exact chromosome number but in the drawing of the best plate (Fig. 3) 144 entities are seen. The number may deviate by ± 5 . The drawing gives, however, a good idea of the morphology of the chromosomes, which are certainly the smallest found in the whole orchid-group.

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