

floral segments are consistently narrower at the base. Reichenbach, in describing this as a new species, suggested that further distinctions from *P. villosum* were to be found in its larger bract and purple-blotched peduncle covered with purple and colourless hairs. The variation found in *P. villosum* encompasses this. The type of *Cypripedium dilectum* is, in these respects, rather intermediate between the two varieties whilst retaining the spotting on the dorsal sepal of *C. boxallii*. Var. *measuresianum* O'Brien is likewise intermediate in many features (see also comment by Stiles 1974). Var. *atratum*, on the other hand, is a more boldly marked form of var. *boxallii* and is here reduced to its synonymy.

Var. *annamense*, as its name suggests, is found in Laos (formerly Annam). It also differs from typical *P. villosum* mainly in its dorsal sepal which is white with a dark violet-purple central streak or blotch edged with pale green or yellow. It was discovered by Wilhelm Micholitz collecting for Messrs. Sander & Sons of St Albans and was described by Robert Allen Rolfe in the pages of *Curtis's Botanical Magazine* in 1907. This variety is also found in southern China and Vietnam.

An albino var. *aureum* is illustrated by Braem (1988). This is probably best treated as a form of the typical variety.

The closest allies of *P. villosum* are *P. gratrixianum* and *P. insigne*. From both it can be distinguished by its shorter scape, larger bract and larger flower which is distinctively coloured and has more spatulate broader petals, an obovate dorsal sepal, a villose ovary, triangular in cross-section, and longer lip.

**DESCRIPTION.** An epiphytic or rarely lithophytic herb, often forming clumps. Leaves 4–5, linear-ligulate, acuminate to acute at unequally bilobulate apex, 14–42 cm long, 2.5–4 cm wide, mid-green on



Fig. 77. *Paphiopedilum villosum* var. *annamense*. In wet evergreen cloud forest with *Pinus krempfii* and *Fokienia hodginsii*. 2000 m. Lam Dong Prov., southern Vietnam. (Photo.: L.V. Averyanov)