

unless in flower or from their stated provenance. Veitch (1889) regarded *P. concolor* and *P. niveum* as two extremes of a series including *P. godefroyae* and *P. bellatulum*. Certainly specimens included in this account under *P. godefroyae* have features linking *P. concolor* and *P. niveum*, but the vast majority of plants are readily assignable to one of the four species involved. The case of *P. × ang-thong* is discussed under *P. godefroyae*.

In some well-grown plants of *P. niveum* the inflorescence may bear two flowers, but one is usual in the wild. It also varies in the size of its flowers and the degree of purple-spotting. Of the several named varieties, var. *album* (Masters) Pfitzer, which has pure white flowers with a central yellow spot on the staminode, is highly prized. This and others such as vars. *punctatissimum*, *punctatum*, *regnieri*, *reticulatum* and *roseum* and forms *majum* and *radians* should, in my view, all be treated as forms.

Fowlie (1973b) has given a graphic description of the habitat of *P. niveum* in the Langkawi Islands. It grows there on the small limestone islands to the south of the main island, 9–30 m above the sea on the jagged, eroded and often vertical sides of the rock and shaded from direct sunlight. It particularly likes fissures in the limestone where humus has gathered. The wet season in the islands lasts from May until November and the plants flower in June and July.

DESCRIPTION. *Terrestrial herb*, often with clustered growths. Leaves 4–6, strap-shaped to narrowly elliptic, rounded and minutely emarginate at apex, 8–19 cm long, 2.4–3.6 cm wide, mottled very dark and pale green above, heavily dotted purple below, ciliate on basal margins. *Inflorescence* 1- or 2-flowered, 6–25 cm long; peduncle up to 20 cm long, purple, shortly but densely white-pubescent; bracts conduplicate, broadly ovate, obtuse, 11–14 mm long, 10–12 mm wide, white to pale green, spotted purple. *Flowers* white, often highly dotted purple towards base of segments and on front of lip, with a yellow centre to the staminode, 6–8 cm diameter, pubescent on outside and at base of petals within; ovary 4.5 cm long, green flushed with dark purple, densely shortly pubescent. *Dorsal sepal* very broadly ovate, obtuse to emarginate, 2.7–4.2 cm long, 3–5 cm wide. *Synsepal* concave, ovate, obtuse, 2–3 cm long, 1.5–3 cm wide. *Petals* elliptic, rounded, 3.3–4.3 cm long, 2.2–3.9 cm wide, shortly ciliate on margins. *Lip* rather small, ovoid to ellipsoidal, with incurved margins, 2.2–3.6 cm long, 1.5–1.8 cm wide. *Staminode* broader than long, transversely subelliptic, one- to three-toothed at apex, 6–9 mm long, 10–12 mm wide. $2n = 26$. (PLATE 11 & FIG. 29).



Fig. 29. *Paphiopedilum niveum*, flowering in cultivation. (Photo.: P. Cribb)