

FIG LIST FOR NIAH CAVES

**A New Bornean *Paraboea* (Gesneriaceae)
Species Endemic to Niah National Park,
Sarawak and Further Plant Records from Niah**

KATHARINE G. PEARCE

32 Lorong Kumpang 4
93200 Kuching, Sarawak, Malaysia**Abstract**

Paraboea culminicola K.G. Pearce, endemic to the Subis limestone at Niah, was first collected in 1932 and subsequently in 1961, 1962 and 2002. The species is described and illustrated. In addition, a list is provided of 357 taxa (356 species) from Niah represented by specimens in the herbarium of the Sarawak Forestry Corporation (SAR), bringing the total number of taxa recorded for Niah National Park to c. 550 and the total number for the Park and its vicinity to c. 700; the total number of taxa associated with limestone at Niah to 281; and the total of Borneo endemics found in the Park to 19 taxa.

Introduction

Paraboea in Borneo is currently represented by 14 described species. All but one (*P. paraboeoides* (Kranzlin) B.L.Burtt) are found on limestone and typically the species have restricted distributions, are described from a single or few collections and from remote locations (Burtt, 1984; Xu & Burtt, 1991).

In limestone locations in Sarawak for which data are available, more than one *Paraboea* species co-exist on the same hill (west Sarawak with *P. clarkei* B.L.Burtt and *P. havilandii* (Ridl.) B.L.Burtt (Kiew *et al.* 2004) and Mulu with *P. banyengiana* B.L.Burtt, *P. candidissima* B.L.Burtt, *P. effusa* B.L.Burtt and *P. meiophylla* B.L.Burtt (Burtt, 1982) and now on the Niah limestone with *P. speluncarum* B.L.Burtt (Burtt, 1971) and the new species, *P. culminicola* K.G.Pearce, here described.

In preparation of the checklist of plants from the Niah National Park, (Pearce, 2004), based on botanical field investigations and examination of herbarium specimens carried out as part of the Sarawak Forest Department/DANIDA Project 'Support to Wild Life Master Plan Implementation through the Improved Management of Totally Protected Areas in Sarawak, Malaysia', a re-examination of the *Paraboea* specimens showed that one specimen from near the summit of Bukit Kasut did not conform to any species yet described from Sarawak. It was neither *P. speluncarum*, which is endemic to the Park, nor did it fit the description

Fibraurea tinctoria Lour.

Climber to 5 m on *Agrostistachys*. Primary tropical heath forest, 33 m a.s.l. Path from Pangkalan Lobang to Great Cave, Niah J.A.R. Anderson, Sonny Tan & E. Wright S 26070.

MONIMIACEAE

**Kibara coriacea* (Blume) Tulasne

Tree to 10 m tall, 25 cm girth or 25 cm diam. Limestone forest at 80 m a.s.l. and along plankwalk to Great Cave, Niah N.P. Rena George S 39938, Yü Puan Ching S 40200.

MORACEAE

Ficus aurata (Miq.) Miq.

Tree 5 m tall, 18 cm girth. Primary lowland dipterocarp forest on clay loam soil. Ulu Sungei Sekaloh, Niah river Erwin Wright S 29128.

**Ficus aurita* Blume var. *auriculifera* (Merr.) Corner

Bushy tree 6 m tall. Base of limestone hill on limestone rocks at 17 m a.s.l. G. Subis area, Niah Mohidin S 21604; Path to Great Cave, G. Subis J.A.R. Anderson S 31695; G. Brangin, Ulu Sg. Subis, Niah N.P. Yü Puan Ching S 40169.

Ficus beccarii King

Tree 3 m tall. Disturbed belian forest, alluvial soils at base of limestone hill. Between mouth of Sg. Sekaloh and G. Subis, Niah J.A.R. Anderson S 27589.

**Ficus benamina* L.

Tree 23 m tall, 90 cm girth or shrub. Vertical exposed limestone cliff, also swampy alluvial soils at base of limestone hill subject to periodic inundation. Niah J.A.R. Anderson S 16029; On southern slopes of G. Subis in the Sekaloh river, Niah J.A.R. Anderson, Sonny Tan & E. Wright S 26087.

**Ficus binnendykii* (Miq.) Miq. var. *coriacea* Corner

Tree 13 m tall, 28 cm girth. Primary lowland dipterocarp forest on rocks beside waterfall. Ulu Sg. Sekaloh, Niah river Benang ak Bubong S 27871.

Ficus delosyce Corner

Epiphyte 3 m tall, 12 cm girth. Riverine forest. Along Sg. Niah, Niah N.P. Yü Puan Ching S 40122.

Ficus fistulosa Reinw. ex Blume

Tree 5 m tall, 12 cm girth. River bank of Nangau Selakan on clay soil. Ulu Sg. Sekaloh, Niah river J.A.R. Anderson S 27600.

**Ficus laevis* Blume var. *tomentosa* King

G. Subis area, Niah Mohidin S 21671.

Ficus lepicaarpa Blume

Tree 8 m tall, 50 cm girth. Swampy alluvial soils at base of limestone hill subject to periodic inundation, also at foot of limestone hill near stream 50 m a.s.l. Ulu Sg. Subis, Niah N.P. Bernard Lee S 40086; On southern slopes of G. Subis in the Sekaloh river, Niah Mohidin S 21609, J.A.R. Anderson, Sonny Tan & E. Wright S 26089.

*Ficus magnoliifolia* Blume

Tree 23 m tall, 60 cm diameter. On sandy soil at starting point of path to Niah Cave. Niah N.P. *Rena George S 39932*.

**Ficus pisocarpa* Blume

Climber entwined round tree. Hillslope on limestone rocks, 167 m a.s.l. Ulu Sg. Sekaloh, Niah river *J.A.R. Anderson S 27570*.

**Ficus sunaica* Blume var. *sunaica*

Tree 17 m tall. Foot of limestone 17 m a.s.l. G. Brangin, Ulu Sg. Subis, Niah N.P. *Yü Puan Ching S 40175*.

Ficus treubii^E King

Tree 10 m tall, 20 cm girth. On rocks beside swift flowing stream. Niah *Banyeng Bubong S 27869*.

Ficus uniglandulosa Wall. ex Miq.

Climber 15 m high. Primary lowland dipterocarp forest on clay loam soil. Ulu Sg. Sekaloh, Niah river *Erwin Wright S 29132*.

MYRISTICACEAE

Endocomia virella^E W.J. de Wilde

Tree 20 m tall, 50 cm diam. Along path to Niah Cave, Niah N.P. *Rena George S 39933*.

Gymnacranthera farquhariana (Hook.f. & Thom.) Warb. var. *zippeliana* (Miq.) R.T.A.Schouten.

Tree 23 m tall, 50 cm girth. Primary lowland dipterocarp forest on clay loam soil. Ulu Sg. Sekaloh, Niah river *Sonny Tan & Benang ak Bubong S 26103*.

Knema curtisii (King) Warb. var. *curtisii*

G. Subis area, Niah *Mohidin S 21659*.

Knema latifolia Warb.

Tree 19 m tall, 30 cm girth. Primary lowland dipterocarp forest on clay loam soil. Ulu Sg. Sekaloh, Niah river *Benang ak Bubong S 26107*.

Knema tridactyla^E Airy Shaw ssp. *tridactyla*

Tree to 5 m tall, 8 cm girth. Primary lowland dipterocarp forest on clay loam soil. Ulu Sg. Sekaloh, Niah river *Sibat ak Luang S 26128, Erwin Wright S 29136*.

Myristica iners Blume

Tree 22 m tall, 150 cm girth. MDF between two steep slopes at 85 m a.s.l. Niah N.P. *Normah Yusoff S 40069*.

Myristica malaccensis Hook.f.

Tree 15 m tall, 40 cm girth. Primary lowland dipterocarp forest on clay loam soil. Ulu Sg. Sekaloh, Niah river *Erwin Wright S 29145*.

MYRSINACEAE

**Ardisia breviramea* Merr.

Treelet to 2.7 m tall. Lower slopes of limestone hill, large limestone boulders. Sg.