

ERYTHRINA IN ZAMBIA

By Mike Bingham

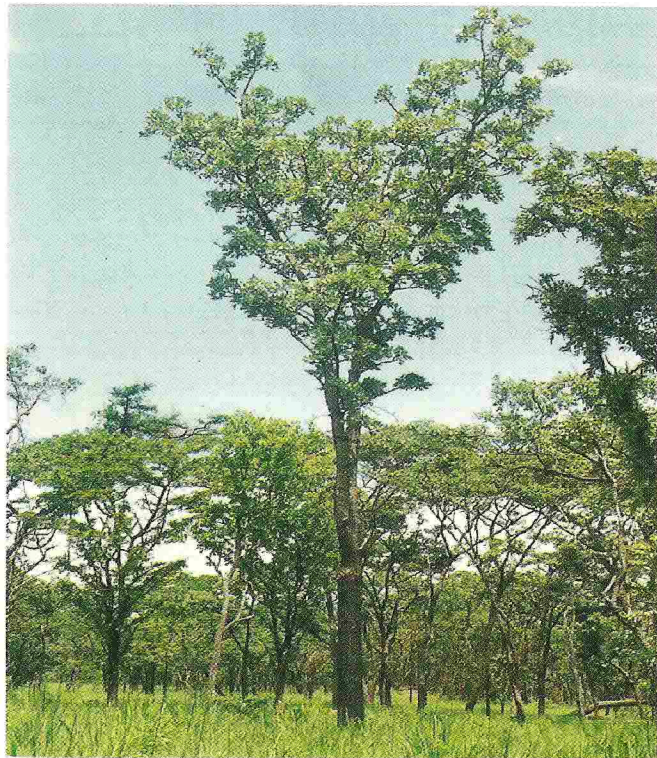


Figure 1. *Erythrina* sp. 1. A tree in open miombo woodland, between Mporokoso and Nsama, Northern Province, 11 Dec.2002.

The genus *Erythrina* belongs to the subfamily Papilionoideae of the legume family (Fabaceae), a very large group including the pulses. Most of the papilionoids have flowers adapted to pollination by bees, but the red flowers of *Erythrina* are adapted for bird pollination. More than 100 species are known from tropical and warm temperate zones, with the majority in the Americas where they are pollinated by hovering hummingbirds, while those of the old world are pollinated by sunbirds, which perch on the long thick peduncles while feeding.

Species of *Erythrina* recorded from Zambia in Flora Zambesiaca Vol.3, Part 5 (2001):

***E. baumii* Harms**

A suffrutex on Kalahari Sands in Western Province.

***E. abyssinica* Lam. ex DC.**

Widespread in Zambia, except on the Kalahari Sands.

***E. excelsa* Baker**

A large tree in riverine forests in northern Zambia, and widespread in tropical Africa.

***E. livingstoniana* Baker**

A species of Malawi, central Mozambique and Zimbabwe, recorded in Zambia from a single sterile specimen from a site now inundated by Lake Kariba. A cultivated specimen at the back gate of the Seventh

Day Adventist Church headquarters, at the corner of Independence Avenue and Burma Road, Lusaka, flowers every second year.

At least one, probably two more species occur in Zambia, and it is these which are the main focus of this paper. One of these was first collected by Norman Robson, a Kew botanist, who did a collecting trip to Eastern Province and the Nyika Plateau in November 1958. The fruiting specimen was collected from Petauke. In his Forest Flora of Northern Rhodesia (1962), Frank White listed it as *Erythrina* sp. 1, as I shall refer to it here. To date the species remains unnamed.

I first found *Erythrina* sp. 1 in the early 1970s on the Luano escarpment on the road to Shikabeta in the Luano Valley from the Great East Road. It was the first week in January and the tree was in flower. *Erythrina abyssinica*, the only species of the genus to be expected in the area, flowers in the mid to late dry-season, never in January. Knowing full well that I was onto something new, yet I failed to collect a specimen - the densely prickly stem would have been daunting in dry weather, but it was raining hard. I had no adult to give me a hand up, only two small boys.

I returned to the Luangwa-Luano escarpment area on numerous Sundays over the next few years, always hoping to find flowering trees again, but it was not until 2005 that I was able to get flowering material to the Kew herbarium. I did, however, find several trees, which are easily identified from the leaves. I also found a few seeds and succeeded in growing one tree.



Figure 2. *Erythrina* sp. 1. Flowering occurs during the first half of the rainy season, between November and January, Nyimba 7 Dec.2004.

The Luangwa-Luano escarpment occurrence stretches from near the crest of the Rufunsa escarpment to Petauke. In 1992 I found another population in Northern Province on the escarpment north of Mporokoso. So far it appears to be a Zambian endemic, although the 600km, which separates the two occurrences suggests the likelihood of further occurrences.

