Erythrina lysistemon

Alan Esler and Max Goodey

The coral tree standing on the edge of the duck pond in Auckland Domain displays its scarlet flowers every year in October and November unaware that people are saying "well, what is the species at the duck pond?". Some give it one name, some another. A good description would resolve it once and for all. The conspectus of the genus by Krukoff and Barneby (*Lloydia 37:* 332, 1974) leaves us wondering about this and some of the other Auckland plantings. Confusion is compounded by diversity within species, among flowers on the same tree, and absence of fruit on most of the species grown here.

We can rule out *Erythrina humeana*, one of the suggestions. This leaves *E. lysistemon*, a regionally variable species in South Africa. Codd (*Bothalia 6:* 507, 1956) examined this species very carefully to make a clear distinction from *E. caffra* with which it was previously confused. No description was given but some dimensions are wide enough to include our duck pond tree - standard 38-54 mm (duck pond 50 mm), wing and keel 9-18 mm (duck pond 12 mm). Krukoff and Barneby's illustration of calyx, wings and keel do not match our plant (maybe drawn from dried specimen). Eliovson in *Shrubs, trees and climbers* (1975 edition) acknowledged that *E. lysistemon* differs from *E. caffra* but illustrated *E. lysistemon* as it looks in Codd's photograph and labelled it *E. caffra*! In the absence of better information we believe that the duck pond tree is *E. lysistemon*, the true kaffirboom.

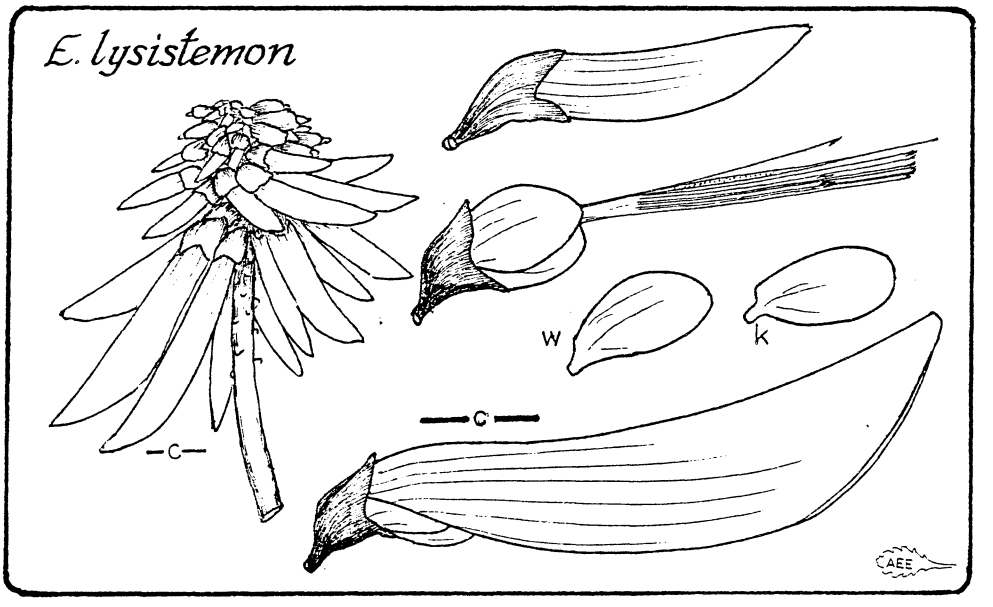

Figure 1. *Erythrina lysistemon*, w = wing, k = keel, c = cm.

Erythrina xsykesii

Alan Esler and Elizabeth Edgar

We take this opportunity to add some details to the type description of *Erythrina xsykesii* and pay tribute to W.R. Sykes. This anomalous coral tree has been around this country and Australia without a reliable name for a long time. North of Auckland this tree is widely dispersed. It is easy to propogate from cuttings, so easy in fact that it is difficult to find a place where fallen branches will not spring back to life again. The Sykes coral tree brightens the winter landscape from mid May to November with masses of scarlet flowers mostly after the leaves have fallen. No seeds develop.

Bill Sykes sent specimens to B.A. Krukoff and R.C. Barnaby in USA, and in their conspectus of the genus in *Lloydia 37*, 332-459, 1974 they named it *E.* x*sykesii* assuming it to be a hybrid of unknown parentage. The type description is brief. The abundance of the Sykes coral tree around Auckland gave the opportunity to fill out some of the details from fresh material. The inflorescence is an elongating raceme to 25 cm long bearing up to 160 flowers. The lengths of the flower parts in millimetres given here are based on 50 flowers from a tree at Mt Albert.

standard: mean 57.2, range 49--65
wings: mean 26.2, range 20--29
keel: mean 19.8, range 16--24
calyx: mean 16.2, range 14--19

The calyx is seldom symmetrical at the mouth. The two sides are inherently different and they are stretched sometimes unevenly by developing flower parts within the calyx. The illustration shows two sides of the same calyx. These kinds of irregularities are not unusual in *Erythrina* and need to be accommodated in the description. An aberrant split in the calyx on flowers of *E. speciosa* in Parnell Rose Garden, Auckland, led Krukoff and Barneby to treat this plant as a separate taxon which they called *E. xorba*. The stated distinctive features of the keel petals cannot be substantiated.

Bill Sykes arrived in New Zealand on a bitterly cold day, 5th July 1961, when he was appointed to Botany Division, DSIR, Lincoln, as a scientist specialising in the taxonomy of horticultual plants. Bill was born at Walsham-le-Willows, Suffolk, England, and after completing his National Service in the Royal Navy as a medical attendant he studied horticulture at the Royal Horticultural Society's Gardens, Wisley, from September 1949 to August 1951. On gaining his diploma he was appointed assistant botanist at Wisley and worked there until 1957 when he enrolled to take an Honours degree in taxonomic botany and zoology at London University. Before he came to New Zealand Bill took part in the 1952 and 1954 combined British Museum (Natural History) and Royal Horticultural Society Expeditions to Nepal. These expeditions to collect seeds and live plants and herbarium specimens from Western Nepal `cemented' his determination to make his career in botany.

In New Zealand Bill was immediately in demand from local horticultural societies as a lecturer and he has served for many years on the Nomenclature Committee of the Royal New Zealand Institute of Horticulture. He was made an Associate of Honour of the Institute in 1992.

At Botany Division Bill first undertook the vast project of the study of ornamental plants cultivated in New Zealand and started by tackling the woody ornamentals. He has built up the herbarium collection of these plants at Lincoln (CHR) and has compiled a database of the distribution of each shrub and tree species throughout New Zealand.

His next major research interest, the study of the flora of the South Pacific Islands, began in 1964 with a visit to the Kermadecs as a member of the NZ Ornithological Society's Expedition. This foray was cut short after two days by a volcanic eruption on Raoul, but on many subsequent visits Bill made collections from every island in the Kermadec group. His "Annotated Checklist of the Kermadec Islands Flora" (DSIR Bulletin no. 219) appeared in 1977 as well as a second edition, with coauthor Carol West, published in 1996 (*NZJBot. 34:* 447-462). In 1965 Bill surveyed the Niue Island flora for 2½ months at the request of the Department of Island Territories, collecting nearly 1100 numbers and finding over 200 taxa new to this island. "Contributions to the Flora of Niue" (DSIR Bulletin no. 200) was published in 1970. Bill then turned his attention to the floras of Tonga, Samoa, Norfolk Island and the Cook Islands.

From the late 1970's to 1988, Bill was also working on his massive contribution to Flora of New Zealand Volume 4 with coauthors C.J. Webb and P.J. Garnock-Jones. This volume covered the naturalised gymnosperms and dicotyledons. In 1988 Bill returned to Asia for six months as an exchange botanist at the Guangxi Institute of Botany in Guangxi Province in South China where his main project was a study of the conifers of southern China, but again

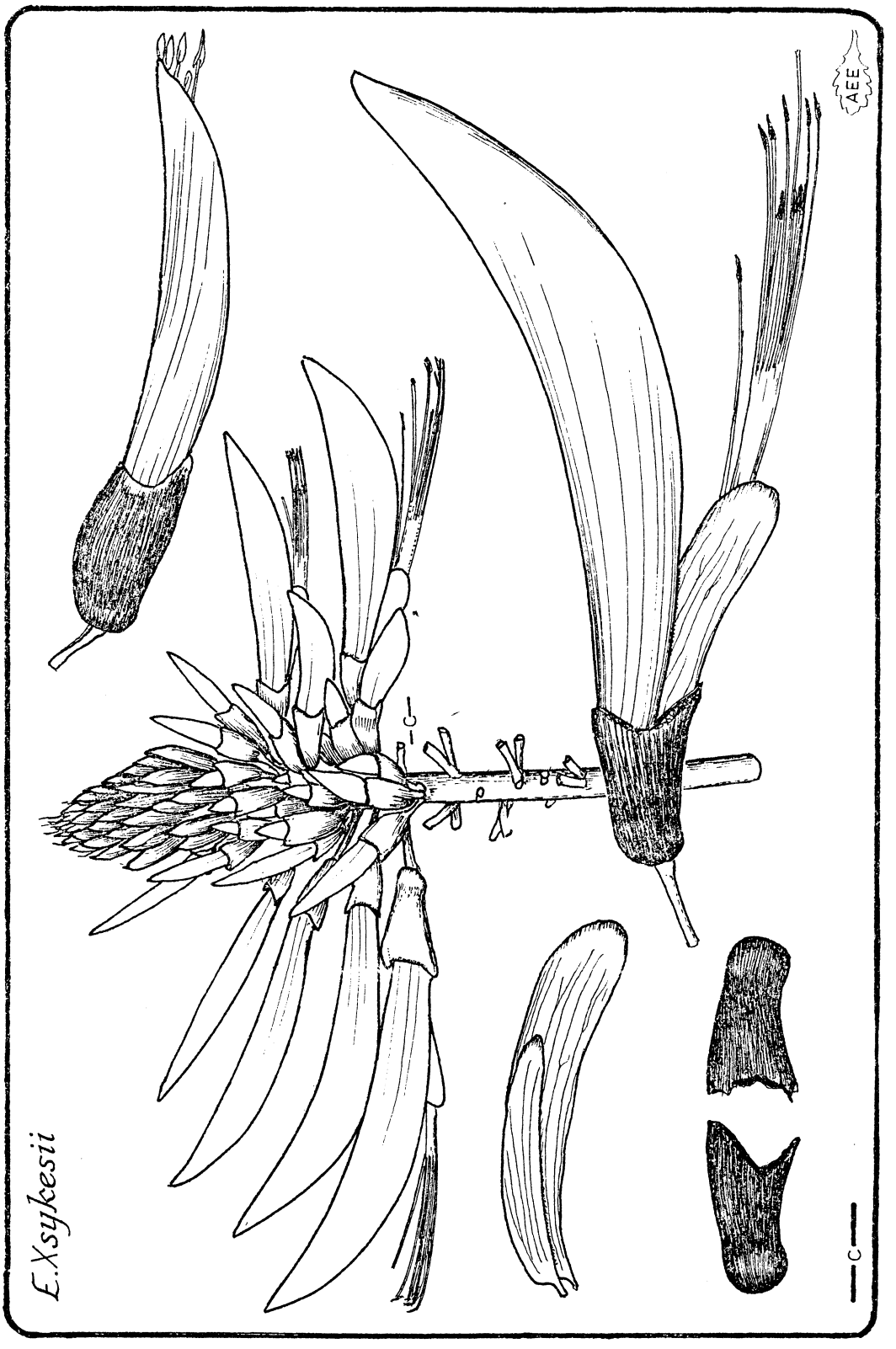

Figure 1. *Erythrina* xsykesii.

he also made a large collection of herbarium specimens.

Bill "retired" in 1992. He is now working on a Flora of the Cook Islands and has completed the account of bamboos for the forthcoming grass volume of Flora of New Zealand. Since his "retirement" Bill has taken part in several expeditions to the Pacific, the Himalayas, remote parts of Fiordland, the Chathams, etc., etc. Whenever he is in Christchurch Bill works almost daily at the Landcare Research herbarium at Lincoln sorting and identifying his numerous plant collections. His colleagues greatly value his presence there and make many calls on his expert knowledge of plant families and species from many parts of the world. He generously gives up his time to provide answers for difficult enquiries and to identify baffling plant specimens.

We are pleased that his name has been given to an elegant tree.

Mida salicifolia, our native sandalwood

Rhys Gardner

Mida salicifolia A.Cunn. willow-leaved maire
SANTALACEAE
Small tree, entirely glabrous; wood "with an agreeable odour"(Kirk); new stems green, slightly ridged below the leaf base and sometimes distinctly flattened in this plane, minutely papillate (x 20), junction between stem and leaf base a very distinct invagination; leaves on leading shoots in 2/5 spiral phyllotaxy or subopposite or opposite, on side shoots usually opposite and tending to be distichous (through internode twisting), blades linear to broadly elliptic, the margins undulate, entire but sinuous, in live plants both surfaces with midrib, lateral veins, and veinlet reticulation raised, the latter elongated in the direction of the margins; buds dark red, solitary, of loosely arranged scales, the outer pair of scales with recurved tips.

The glossy, undulate leaves, which are irregularly arranged and apparently only loosely joined onto the stem, the emphatic leaf venation, and the tatty-looking axillary buds, all combine to give live pieces of this plant a characteristic, and to me somewhat artificial, appearance. Dried material can more challenging to recognise, especially because the species is so variable in leaf shape. Slips in naming AK collections relate mostly to *Nestegis lanceolata* and *N. montana* , while *Syzygium maire* and the narrow-leaved *Alseuosmia* of Waipoua Forest have been plumped for once or twice. A set of specimens (*Mida* and one *Nestegis*) is shown opposite.

With a hand-lens one recognizes the *Nestegis* species by the spotted leaf surfaces (particularly the lower one), caused by minute mushroom-shaped gland-hairs; one can also note the dense short hairs on the newest stems, and the pointed maroon-colored buds, of which there may be two in an axil, the larger above the smaller. The leaves of *Nestegis* species are always opposite, and there is no internode-twisting to bring the leaves of a shoot into one plane to form a flat spray, that is, they are never distichous.

Like members of the family at large, *Mida salicifolia* is generally found in rather dry forest, and is hemiparasitic, its roots attaching to those of other plants. Its distribution is an unusual one — the species is fairly common down to about the kauri line at 38° (kauri is one of its hosts), but then is almost entirely absent until the Wellington region is reached (where perhaps there is another favoured host ?). In AK there are two records from the intervening country: Whakamoenga Cave (Lake Taupo), and Lake Okataina.

Unfortunately, possums like this plant, so in future years it may be necessary to go to Waiheke or Great Barrier to have a good look at it. An easy place to see it in the Waitakeres is in the Sharp's Bush kauri stand, below Mountain Road.