Out of the Erythrina species growing in India, two, namely, Erythrina suberosa Roxb. and Erythrina variegata Linn. var. orientalis (Linn.) Merrill, have been investigated. The bark of E. suberosa, and seeds and leaves of both the species have been studied.

The petroleum ether extractive of the bark of E. suberosa when processed, yielded various non-nitrogenous fractions. The constituents were mostly wax esters, wax alcohols and wax acids. Two of the fractions consisted of wax alcohol ferulates. One of the fractions was a sterol mixture, which on GLC resolved into stigmasterol, β-sitosterol, campesterol and cholesterol.

The fatty acid compositions of the seed oils of both the species were examined. The sterol part of the unsaponifiable matter from E. suberosa seed oil was found to be composed of β-sitosterol, stigmasterol, campesterol and cholesterol.

The E. suberosa seeds yielded different alkaloidal fractions, some of which could be resolved to give pure entities. These were identified to be erythraline, erysodine,
erysotrine and hypaphorine. This is for the first time that erysotrine has been found to occur naturally, although it is well known as a conversion product of other eryso-alkaloids. The alkaloidal constituents were found to vary in different collections.

Two of the alkaloidal entities obtained from E. variegata var. orientalis seeds were identified to be erythra-line and erysovine. The latter occurred as a 'free' and as well as a 'combined' base.

The leaves of E. superosa gave a crude chloroform-soluble alkaloidal fraction, and a water-soluble base, identified to be hypaphorine. The chloroform-soluble alkaloidal part of E. variegata var. orientalis leaves was worked, but this did not give anything crystalline.

Various of the alkaloidal fractions obtained were tested for their neuromuscular blocking activity. Some of the fractions showing promising results were studied for their general pharmacological actions.