II. STUDIES ON CALANTHE TRIP LICATA

A) Introduction

*Calanthe triplicata* (Willemet) Ames is a species of orchid from the genus *Calanthe* and belongs to the family of Orchidaceae. It is a low growing evergreen terrestrial orchid, snow white flowers with yellow or red callus found in the hilly parts of south India like Coimbatore, Dindigul, Namakkal, Nilgiri and Salem districts (21 & 22).

**Botanical name:** *Calanthe triplicata*

**Common name:** Christmas Orchid

**Synonym:** *C.veratrifolia*

**Family:** Orchidaceae

**Tamil Name:** Kanniyasthri orchid

Leaves are persistent, 4 to 10 arising on a fleshy conical pseudobulb; prominently stalked, broadly elliptic, 20-50 cm x 4-8 cm, thin textured, pleated, ends rangy. Flowers are white, 30 mm across; numerous, crowded on top of the tall green fleshy stem which elongates as the flowers develop. Fruit a capsule 3-4 cm long. Roots are generally fleshy and very brittle (23).
Shrub

Figure – 2 a: *Calanthe triplicata*

Leaf, Stem, Root with Flower

Figure – 2 b: *Calanthe triplicata*
B) Review of Literature

The flowers and leaves contain a glucoside, indicane, which on hydrolysis yields indigo blue (24). The herbs are reported to be used in diseases of stomach and intestine; and the root is chewed along with betel nuts or other aromatic substances, in diarrhoea. A poultice of the flowers is used to reduce pain due to ulcers. The flowers and leaves contain a glycoside, indican which on hydrolysis yields indigo-blue. A paste of bulbs of other species of *Calanthe* is applied to painful joints (21).

Besides, their ornamental value, orchids are also known for their medicinal usage especially in the traditional system of treatments. The orchid’s genera like *Aerides*, *Bulbophyllum*, *Eria*, *Dendrobium*, *Habeneria*, *Calanthe*, *Vanda* and *Oberonia* are used as medicine in different parts of the world to cure various diseases such as diabetes, diarrhea, dysentery, paralysis, convalescence, cuts & wounds, bronchitis, arthritis and rheumatism. Conservation of such economically important medicinal orchids should be encouraged to save from extinction in natural habitats and retain their sustainable utilization both for floriculture trade and herbal medicine (25).

The root of *C. triplicata* used for mycorrhizal study and the presence of pelotons may be attributed to the fact that the orchid achieves a balance between digestion and re-infection. The host system controls the degree of peloton digestion so as to maintain the fungal association as symbiotic parasitism (26).

The Management and conservation of medicinal orchids of Eastern Ghoats of Tamil Nadu, South India had been done in *C. triplicata* (27).