CHEMICAL INVESTIGATION OF SRI LANKAN ALCYONACEANS

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ABSTRACT

Methylene chloride extracts of several Sri Lankan soft corals (fresh) were tested for in vitro antibacterial activity. A few extracts showed promising activity. These extracts were fractionated by chromatography and pure antibacterial compounds were isolated. The structure of these compounds were determined by spectroscopic analysis.

The methylene chloride extracts of the soft coral *Lobophytum crystagalli* yielded two antibacterial diterpenoids; (7E, 11E, 1R, 2S, 3R, 4R, 14S) - 14 - acetoxy -3, 4 - epoxycembra - 7, 11, 15 - trien - 17, 2 - olide (1) and the corresponding alcohol 2. Detailed stereochemistry of 2 was determined by X - ray crystallography.

Methylene chloride extract of *Sinularia firma* yielded the antibacterial furanosesquiterpenoid (3) while the extract of *Sinularia leptoclados* yielded 4, the cis isomer of 3.

A *Nephthea* species yielded a cyclizied furanosesquiterpenoid (5) and *Sinularia imbriolobata* afforded a guaiane typed alcohol (6) and pukalide (7).