

**STUDIES ON THE OUTER ROOT BARK OF**  
***Kokoona ochracea* (ELM.) MERR.**  
**(FAMILY CELASTRACEAE)**

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**ABSTRACT**

*Kokoona ochracea* (Elm.) Merr. (Fam. Celastraceae), one of eight species in the genus *Kokoona*, is a tree endemic to the Philippines, particularly to Palawan. It is locally known as "repetik" because of the crackling sound it makes when it burns. The natives use the stem bark to kindle fire. The petroleum ether extract of the outer root bark possesses anti-inflammatory activity. The active compounds may be phenolic triterpenes or friedo-oleanane triterpenoids as have been reported to occur in various members of the family. The activity of the extract is due to inhibition of protein denaturation, platelet aggregation, erythrocyte hemolysis, and the enzyme 5-lipoxygenase. The ethanol extract prevents protein denaturation and erythrocyte hemolysis and may contain phenolic compounds which may be anti-inflammatory. The petroleum ether and ethanol extracts of the outer root bark are potential sources of anti-inflammatory drugs. Further studies are indicated.

**INTRODUCTION**

Celastraceae, a tropical family of plants, is represented by 22 species distributed in 12 genera (Ding Hou 1962). Eight species comprise the genus *Kokoona*, distributed as follows: one in Sri Lanka and southern India, one in Burma, and six in Malaysia (Sumatra, Malay Peninsula, Borneo, and the Philippines). The six species found in Malaysia are: *K. ochracea* (Elm.) Merr. (= *Ardisia ochracea* Elm.), *K. littoralis* Laws., *K. coriacea* King, *K. sessilis* Ding Hou, *K. ovatolanceolata* Ridl., and *K. reflexa* (Laws.) Ding Hou. *Kokoona* species are distributed in lowland rainforests, dryland, swampy, or peat, rarely up to 1500 m in altitude. The bark of practically all species contains oil, burns easily, and is sometimes used for tinder.

Phytochemically, many highly characteristic compounds are known from the family Celastraceae but most of them have been found in only a few species with two exceptions (Ding Hou 1962).