

Types of 'dillenia' on Sulawesi

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2014

**Sulang Language Data and Working Papers:
Topics in Lexicography, no. 27**



Sulawesi Language Alliance
<http://sulang.org/>

LANGUAGES

Language of materials : English

ABSTRACT

Dillenia (or simpoh) is a kind of edible, segmented tropical fruit. This paper briefly describes the five species of genus *Dillenia* that are found on Sulawesi and its environs in Indonesia. Four of these species are endemic to Sulawesi.

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VERSION HISTORY

Version 1 [28 February 2014] Paper drafted June 2013; revised for publication February 2014.

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by David Mead

If I had to describe a *dongi* fruit to someone who had never seen one, I would compare it to an orange. The fruit is round and about the size of a small orange. It also has edible, tart segments like an orange (although they are thinner and there are more of them), and these segments are even orange-colored. But the fruit has no skin or peel, just large, fleshy, cream-colored ‘petals’ that open and fold back to expose the segments.



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The first time I encountered this fruit was in a market on Buton Island in southeastern Sulawesi. Later I came across the same fruit in central Sulawesi. In both places it had the local name *dongi*. Although I looked, I never found it described in any guides to tropical fruits. But if it’s this common, I thought, I’ll eventually stumble across its identification.

I know now that this fruit is a species of *Dillenia* (family Dilleniaceae). Worldwide this genus comprises some sixty or more species. However only five species are found on the island of Sulawesi and its environs (Sidiyasa et al. 1989:36), and of these five, four are endemic to Sulawesi. Below I give brief descriptions of each plant. As it turns out, these species can readily be distinguished from one another simply by counting the number of carpels (segments)—a handy way for a novice like me to make a firm identification at the species level.

SCIENTIFIC NAME	NUMBER OF CARPELS	DISTRIBUTION
<i>D. pentagyna</i>	5 (rarely 6)	Java to Lesser Sunda Islands, South Sulawesi and Muna
<i>D. ochreatea</i>	6 to 9	northeastern Sulawesi
<i>D. celebica</i>	around 11	northern to central Sulawesi
<i>D. talaudensis</i>	14	Talaud Archipelago
<i>D. serrata</i>	18 to 19	throughout Sulawesi

In a general way, plants of genus *Dillenia* can be referred to as *simpur* in Indonesian, and as *simpur* or *simpoh* in Malaysian. The last of these, ‘simpoh,’ has also garnered some usage in English, and can be used next to ‘dillenia’ when one needs to cite a common English name. Other names that apply to specific species are mentioned below.

Except as otherwise noted, the following thumbnail descriptions have been summarized from the section on *Dillenia* found in Hoogland (1954:154–174). This resource should be consulted whenever a more detailed description is required, including for species which occur in other parts of Indonesia.

***Dillenia pentagyna* Roxb.**

This species has a discontinuous distribution. It occurs on the Asian mainland from India through Thailand, Cambodia and Vietnam. It is absent from Malaysia, Borneo, and Sumatra, but it occurs again in a limited area of Indonesia, roughly from central Java and the Kangean Islands to the Lesser Sunda Islands. Its range also extends northward to include South Sulawesi and Muna.

This tall tree (up to 25 m high) is known for having a crooked trunk and crooked branches, for which reason the wood is rarely used, except in some places for charcoal. Unusually for the tropics, the tree is deciduous, and the yellow to white flowers are born directly on the (mostly leafless) branches. Fruits have five carpels (rarely six), and each carpel usually has one seed, but sometimes two seeds. The ripe fruits are edible. In India the buds and young fruits are also eaten raw or cooked (Hedrik 1919:237).



Dillenia pentagyna © 2009 by Dinesh Valke, distributed under terms of the Creative Commons [Attribution-NonCommercial-ShareAlike 2.0 Generic](https://creativecommons.org/licenses/by-nc-sa/2.0/) license.

On Muna the local name is *rondomi*. English common names for this tree include dog teak, five-carpelled simpoh, and Nepalese elephant apple. The descriptor *pentagyna* is from Greek *pente* ‘five’ and *gyne* ‘woman, ovary,’ in reference to the five carpels.

***Dillenia ochreatea* (Miq.) Teijsm. & Binn. ex Martelli**

This species is known only from northeastern Sulawesi. It is a medium-sized tree that grows to fifteen meters. Solitary flowers with yellow petals bloom at the ends of branches. The fruits are light green with six to nine carpels, which in the mature fruit are very slightly spirally twisted. Each carpel is one-seeded.

A local name in Minahasa is *kelemur*. Based on the descriptor *ochreatea*, this species could possibly be referred to ‘ochre dillenia’ or ‘ochre simpoh’ (in reference to the yellow color of the petals?).

***Dillenia celebica* Hoogl.**

This species is distributed from northern to central Sulawesi. It is a tall tree growing to thirty meters. Stems (petioles) of leaves are from four to eight centimeters long and winged. Petals are absent in the flowers, but the flowers have large sepals. Fruits have around eleven carpels. “Closely related to *D. serrata*, also endemic of Celebes, from which it differs by the much longer petioles, the shape of the petiolar wings, and the much smaller number of carpels” (Hoogland 1954:159).

***Dillenia talaudensis* Hoogl.**

D. talaudensis is known to date solely from Salibabu Island in the Talaud Archipelago. It is said to be a small tree growing to eight meters high, common in secondary forests. Leaves are large and ovate (20 to 30 cm long by 14 to 21 cm broad) with winged stems (petioles). Flowers are clustered two or three together. Mature fruits (which were not observed by the collector) are reportedly eaten uncooked.

The local name is *luaran’a*.

***Dillenia serrata* Thunb.**

This species is endemic to Sulawesi, Muna and Buton. It is a tall tree, growing to thirty meters. Stems (petioles) of leaves are from 2-1/2 to 6-1/2 centimeters long and winged, although the wings may be shed at an early stage. Leaves range from having a nearly entire margin to having a clearly saw-toothed margin (whence the descriptor *serrata*). Petals are absent in the flowers, but flowers have large sepals. Fruits have eighteen to nineteen

carpels, with each carpel having up to five seeds. The fruits are edible raw, and the juice is used for candies (Hasniarti 2012).



Dillenia serrata, habit © 2005 by David Mead



Dillenia serrata, leaf and fruit © 2005 by David Mead

Various names for this tree from around Sulawesi include: Manado *dongi*, Gorontalo (?) *dengilo*, Parigi *jengi*, Uma *jengi*, Pamona *jongi*, Balantak *dongin*, Upper Mori *sengi*, Lower Mori *dongi*, Kulisusu *dongi*, Mandar *dongi*, Sa'dan *dengen*, Bugis *denge'*, *songing*, Tolaki *dongi*, *singi*, *bonggao*, and Muna *soni*.

From internet searches, it appears that *dengen* is gaining some currency as the name for *D. serrata*, particularly in the Indonesian context, and it may even become the common name in English.¹

¹ A Google Image search on “buah dengen” returned a number of images of the fruit, whereas other combinations such as “buah dongi” did not. The name ‘dengen’ is also used on the World Crops Database site (<http://world-crops.com/dengen/>).

Based on the number of segments, it's clear that the *dongi* fruit that I encountered is *D. serrata*. It also fits because *D. serrata* is the only species that has been described for Buton Island. But on a recent trip back I was told there are actually two varieties: *dongi ngkarambau* 'water buffalo dongi' and *dongi mpae* 'rice dongi.' Now my curiosity has been piqued!

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