Coffee Coffea arabica & Coffea robusta



There are two species of Coffea from which coffee is produced. The most popular, *Coffea arabica*, commonly known as 'Arabica coffee', comes from the highlands of Ethiopia and Sudan, and possibly northern Kenya. The less popular but hardier *Coffea canephora* (syn. *Coffea robusta*), which is known as 'Robusta coffee', is native to western and central Africa, from Guinea to Uganda and southern Sudan. However, coffee is now grown in tropical and subtropical regions around the world. You may be surprised to know that coffee is the second most traded commodity in the world after oil¹.



Coffee was probably first consumed in Ethiopia but the earliest record of coffee drinking comes from Yemen in the 15th century. Later, coffee drinking spread to Italy, then through Europe, to Indonesia and the Americas1. Green berries are produced on the coffee bushes, ripening after about 7 to 9 months to red then black. The berries are fermented to remove the fleshy layers remaining seed is dried then later roasted. Although technically the

fruits are 'berries', in the trade they are more usually referred to as 'cherries', probably because of their colour and fleshy coat¹.



Kopi Luwak is the name given to coffee beans that have been eaten by the Asian palm civet (*Paradoxurus haermphroditus*), excreted and then collected and processed to produce the most expensive coffee in the world, costing sometimes more than \$3000 per kilogram. It is claimed that the intense flavour results from the civets' selection of the best coffee beans, then when fermentation occurs in the civets' guts, enzymes are absorbed by the beans, producing shorter peptides and more amino acids. Changes to the protein structure reduce bitterness and alter the flavour ³.

Kopi Luwak is now so valuable that civets are farmed in battery cages and force fed coffee cherries. Apart from the innate cruelty of this system, native civet populations are considerable at threat. Those collecting beans from excreta in the wild consider farmed Kopi Luwak inferior as the civets don't have the opportunity select good



quality cherries and are often fed poor quality coffee cherries².

Kopi Luwak is produced in Indonesia (Bali, Java, Sumatra, Sulawesi), Philippines, East Timor and Vietnam².

Coffea belongs to the plant family **Rubiaceae**, a widespread group recorded in the fossil history from the Eocene, ~34 million years ago¹.



Current world production of coffee: http://en.wikipedia.org/wiki/Coffee

Alison Downing, Zhang Yihong, Brian Atwell, & Kevin Downing Department of Biological Sciences 18th November 2013

¹Wikipedia: http://en.wikipedia.org/wiki/Coffee
²Wikipedia: http://en.wikipedia.org/wiki/Kopi_Luwak

³M. Marcone: http://www.uoguelph.ca/news/archives/002065.html





A different take on a 'Cup of Coffee'

