

## Facts about dry land vegetation <Part 7>

### Apple of Sodom

I have chosen the "Apple of Sodom" as the 7th topic for this series. This plant was already introduced in the early AAI News No. 5 (1996) "Plants in Arid Lands and Their Utilization". The scientific name is "*Calotropis procera*", and is very common in the United Arab Emirates at the lowlands between dunes and along wadi. In the arid areas of the Arabian Peninsula, it is considered to be an indicator plant in places where there are relatively favorable water conditions. This plant is also listed as one of the invasive vegetation species and is also an indicator of over-cultivation. In fact, this plant was conspicuous in places like abandoned formerly cultivated land in the desert.



Habitat/ Environment



Flowers of the plant

While I was working in Dubai, at the time I was guiding researchers from Japan, I was told that this plant had the name "Apple of Sodom" or "Dead Sea Milkweed". Sodom is a town on the Dead Sea coast that appears in the Old Testament book "Genesis" and is said to be a town of immorality that was destroyed by the judgment of Yahweh. From this town and the name of the apple, which imitates 'the forbidden fruit', it seems this name is used for some plants that bear toxic fruits. One of them is *Solanum mammosum*, which appears in the TV drama "Apple of Sodom - Daughters Who Killed Lot".

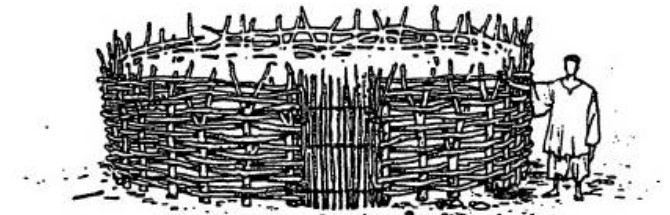
This plant is widely distributed in Oman, especially in the Dhofar region, and is often found in wastelands along the roads around urban areas and villages. In addition, this plant is explained in detail in the book "Plants of Dhofar" published in 1988, along with the illustrations shown on the right. According to the description, the sticky

emulsion-like figs that it exudes when the trunk and branches are damaged is highly toxic and is used as a material for poisoned arrows and, interestingly at the same time is applied as a medicine for livestock skin diseases. Furthermore, there is an account that states charcoal made from the stem of this plant can be used as a raw material for gunpowder.



Morphology of the plant

Even in the area around Lake Fagibinne in Mali, where the non-profit organization "Association Sahel" was initially active, the growth of this plant was commonly observed in places where water conditions are likely to be good, such as old lake bottoms and depressions in sand dunes. It is called "Torsha" in this area, but it seems that it is only partially used because the material is weak and the emulsion is toxic. Meanwhile, the project used this plant as an unutilized resource for various purposes. For example, the trunk of Torsha was used as a material for the hedges surrounding the nursery to protect the seedlings from strong winds. Since it was knitted into a circle as shown in the figure below, it was strong and had no corners, so it was less likely to break. Attempts were also made to introduce the use of the plant's fiber and fluff to women's independence support projects.



This plant is less important to the inhabitants of the Arabian Peninsula and West Africa. In fact, because it is not very useful, it can be considered that it survives even in arid areas where resources are scarce, without suffering from collection pressure. However, as mentioned above, there are some use cases, and it may have some great value that has not been identified yet. When I see this plant, I think of the Daijoa idea that is summarized in one word meaning "The usefulness of the useless".