THE WILD HARVESTING OF PLANT MEDICINES IN CAPE TOWN

An overview and checklist for protected area managers
Background

While inhabitants of the Western Cape have relied on the harvest of plants for medicinal applications for centuries, several factors have increased the scale and intensity of these practices in recent decades. The rise of Rastafari philosophy and identity in the Western Cape and Cape Town since the late-1970s, coupled with a renewed interest in local medicinal flora and indigenous Khoisan ways of being, is one of these factors. Rastas began gathering medicinal plant knowledge from elderly people during the late-1970s and anecdotal reports from elder Rasta bush doctors suggest that only a handful of Rasta herbalists were active in the Cape during the early-1980s (Philander 2011; Reid 2014). Today, research from Petersen (2014) estimates there to be well over 1,000 Rastas of Western Cape origin engaged in the local medicinal plant trade.

A second factor driving the escalation of plant harvesting in and around Cape Town is the growth of the migrant population since the end of Apartheid, primarily as a result of former Eastern Cape residents moving to the city to pursue formal employment and education opportunities. As a result, townships and informal settlements both in and around Cape Town have increased substantially in the past two decades, with up to 13,000 migrants arriving from the Eastern Cape each month (Poswa and Levy, 2006). Many of these migrants carry cultural patterns of medicinal plant use with them, thus increasing the demand for plants of Eastern and Western Cape origin. In addition, local Rasta bush doctors and others involved in the trade have adapted their harvesting activities and movements to meet the demand. A simple illustration of this, with major implications for conservation and sustainability in the Cape, is a transition from harvesting leaves to ‘roots and barks’, driven by consumptive patterns of migrants from the Eastern Cape (Reid 2014: 67).
The conservation problem

Cape Town’s informal economy is currently reliant on approximately 456 species (252 plants, 198 animals and 6 inert resource items) which are locally utilised / harvested for cash trade within the City (Petersen et al. 2012). At present, 28% of plant species collected in the city share IUCN Red List status – making the activity a real, incremental threat to local biodiversity. This threat is being recorded through increased incidences of wild resource harvesting from City protected areas, including the confiscation of more than 16,000 bulbs of known traditional medicines from illicit harvesters in the past two years in the 300 ha Tygerberg Nature Reserve. Anecdotal reports from conservation officials and Rasta herbalists of the disappearance of particular plants from areas where they were historically abundant also speaks to the gradually detrimental effect of anthropogenic activity in the city. The largely limited availability of wild medicinal resources and their commonly illegal extraction poses increasing problems for ecological, economic and cultural sustainability.
The scale of the trade

Estimating traditional healer population size

Based on the SLF research and Stats SA demographic data, the city population of practicing traditional healers is estimated to be 5,100 practitioners, with predominant groups being amaQhira (2,600 individuals) and Rasta herbalists (2,500 individuals) (Petersen et al. 2014).

Estimating wild harvest volumes

Based on healer numbers and local natural resource reliance, total estimates of ecological impacts were made for harvests in local habitats.

The estimated total yearly wild harvested medicine trade in the City across all healer types is 1,316 tonnes of biological material.

Of this amount, Cape Town public space and wild lands provides approximately 262 tonnes of biological material for medicinal purposes every year, primarily collected by Rasta herbalists who extract ~98 kg of material each per year (when individually, incrementally gathered this equates to under two kilograms per harvester each week). Further afield, Western Cape wild lands provide 317 tonnes of biological material for traditional medicinal use on a yearly basis. Some is harvested from formalised arrangements between CapeNature and Rasta populations outside
the city. Once again, the data show that Rasta herbalists harvest the most materials (~136 kg each per year). Part of this dominance can be explained by the fact that Rasta herbalists not only sell directly to customers, but are also often involved in supplying sangomas with the plants needed for their healing activities. Rasta herbalists and traders are highly mobile and well-connected across large areas of the Western and Eastern Capes, facilitating their key role in the inter-regional trade in plant-medicines (Reid 2014).

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The value of the trade

Based on average monthly incomes reported by traditional healers in the research (amaQhira earn US$ 210, and Rastas earn US$ 200 per month from the trade) Cape Town’s trade in bush medicine is worth approximately US$ 15 million per year. This direct use value is not included in any economic analysis and points to considerable undervaluation of local natural capital. Including Cape Town, the Western Cape (and largely CFR) biological capital contribution of natural resources for the Cape Town informal economy of traditional healing is worth US$ 5 million per year. The Cape Town vicinity biological contribution to this economy is US$ 2 million per year – more than the annual municipal budget for local biodiversity conservation including management of 24 protected areas.

Building sustainability

The underlying driver of this trade is economic and cultural demand for wild resources in the form of medicines, foods and fuels. Whilst in part necessary to manage the situation, reliance on a fines and fences approach is too simplistic a response to this issue which crosses cultural, economic, spatial and class divisions in the city. To develop long term solutions to these issues there needs to be sustained engagement and conservation partnership between the conservation management sector and a non-traditional audience of informal economy wild resource users. Sustainable solutions to this situation can only be devised through enhanced engagement amongst all stakeholders, undertaking experimental conservation approaches and building more inclusive policy.
Determining the major species of harvest importance

To develop an understanding of Cape Town plant species facing the greatest survival pressures as a result of harvest for the medicinal plant trade, a desktop survey of the available literature and data was conducted. Since research on the medicinal plant trade in Cape Town is relatively scant when compared with other parts of South Africa, the desktop survey drew primarily on work by Petersen (2012, 2014), with additional data being drawn from Philander (2010, 2013) and Nzue (2009). This information was further corroborated through conversations with Rasta herbalist elders and key conservation officials representing CapeNature and SANParks.
### Species checklist

<table>
<thead>
<tr>
<th>Common name(s)</th>
<th>Scientific name(s)</th>
<th>Medicinal and cultural uses</th>
<th>Plant parts used</th>
<th>Images</th>
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| Imhepho (Z/X) Kooigoed (A) Everlasting (E) | *Helichrysum spp.*                | • Used at the altar during prayer to bring the ancestors closer  
• Used to induce relaxation and lucid dreams | • Leaves, flowers, stems and occasionally the roots |        |
| Wild garlic (E) Wildeknoffel (A) | *Tulbaghia capensis*  
*Tulbaghia violaceae* | • Used medicinally for a wide range of ailments, including treatment of colds and flu, infections, headaches and asthma | • Bulb | ![Wild garlic](image1) ![Wild garlic](image2) |
| Buchu (K/A/E) | *Agathosma betulina*  
*Agathosma crenulata* | • Used medicinally as a diuretic to treat urinary tract infections  
• Used to manage lifestyle diseases such as diabetes and high blood pressure  
• Well known as a general health tonic | • Leaves and stems | ![Buchu](image3) ![Buchu](image4) |
| Root of David (E) Dawidjiewortel (A) Maysakie (X) | *Cissampelos capensis* | • Used medicinally to treat boils, glandular swelling, cholera, colic, diabetes and several cancers  
• Used to avoid unwanted police attention and for respect from the magistrate when appearing in court | • Rhizomes | ![Root of David](image5) ![Root of David](image6) |
| Cancer bush (E) Kankerbos (A) | *Lessertia frutescens* | • Used in the treatment of cancers, HIV/AIDS, colds and flu, arthritis, chicken pox, eye problems, and digestive and urinary tract issues  
• Washing of wounds  
• Appetite stimulant in cancers and HIV/AIDS patients | • Leaves and stems | ![Cancer bush](image7) ![Cancer bush](image8) |
| Moerbos (A) | *Aristea africana* | • Diabetes, chest ailments, nervous system problems  
• Boost fertility in men and women  
• Cleaning out the womb | • Leaves and stems | ![Moerbos](image9) ![Moerbos](image10) |
| Umathunga (X) | *Haemanthus coccinea*  
*Haemanthus albiflos* | • Treatment of internal wounds  
• Applied externally for broken bones, sprained ankles and other bone and joint issues | • Bulb | ![Umathunga](image11) ![Umathunga](image12) |
| Bitterbos (A) | *Chironia baccifera* | • Used as a laxative  
• Treatment of ulcers, syphilis, leprosy, diabetes, kidney and bladder infections  
• Cleansing the womb | • Leaves, stems and berries | ![Bitterbos](image13) ![Bitterbos](image14) |
Recommendations

There are considerable complexities around the ongoing wild harvest and trade of wild medicinal plants in Cape Town. Ecological protection and sustainability has to take priority for the sake of future generations of South Africans. However there are also important cultural and economic considerations to be made that acknowledge the different “ways of knowing” nature held by groups outside of the formal economy whom can share legitimate cultural connections to these resources. Within the broader pressures of increasing population, urbanisation and climate change all bringing about unprecedented change for local natural habitats there can be no 'silver bullet' solutions to resolving this situation.

At a minimum, conservation professionals can consider the following measures;

• The species listed in this document reflect those of considerable cultural and economic demand. Wild populations of these should be monitored for illicit extraction. Where this is occurring at unsustainable levels, increased protection measures may be required.

• These species are of high local cultural and economic importance, and are the most critical for dialogue between role players. Building stakeholder dialogue around this activity is critical for devising future appropriate sustainable outcomes.

• Growing and cultivation regimes are required for the traditional medicines of importance in this study. The ongoing pilot programme of ‘Herbanisation’ with the Rasta herbalist community of Seawinds demonstrates the relationship building potential of such collaborations.

• Continued research of this topic is required in order to stay abreast of shifting plant-human relations such as changes in popular medicines, plant-parts used, and informal economy value-chains.

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