

WATER HERITAGE

Exploring the large footprint of South Africa's 'smallest' river

In semi-arid South Africa even the smallest river has a role to play in sustaining the country. Petro Kotzé explores the Klein River.

All photographs by Petro Kotzé



Rivers are the lifeblood of South Africa. Most of the country's water requirements are met from the roughly 160 000 km of river length that crisscrosses the country. This network densifies and increases in volume from the arid west to the wetter east of South Africa. The country's longest river, the Orange, shoulders intensive economic development along its course from Lesotho to Alexander Bay on the West Coast, but even our smallest river has supported generations of communities settled on its banks.

The title of South Africa's smallest river is debatable, but one that is claimed to be exactly that is the Klein River ('Klein' literally meaning 'small'), which runs from the northern slopes of the Kleinriver Mountain Range in the Overberg to the Klein River Lagoon or *Kleinriversvlei* between Stanford and Hermanus.

The river's claim to fame is the shortest distance between its

origin and mouth in the world – a mere five kilometers as the crow flies, although the river itself is about 80 km long. The source of the title is today somewhat obscure, but largely rumoured to be from the Guinness World Book of Records.

While the river might, or might not be, South Africa's shortest from source to sea, it still offers a glimpse into the vast support that even 'small' rivers provide across economic sectors, to varied ecological systems, the quality of life of those that settle near them over generations and, the price that the river itself pays for this service.

The river's source

Bea Whittaker, a stalwart of civil societies in and around Stanford, sends word that the river starts as the Hartbees on the north-eastern slope of the Maanskynekop, at around

964 m the highest mountain in the Kleinriviersberg Mountain Range and visible from along the Hemel-and-Aarde road from Caledon to Hermanus. From there, she says, you can trace the river's flow along the mountain towards Tesselaarsdal, with a number of streams flowing into it. Along with the Hartbees, the main tributaries of the Klein include the Steenbok and the Karringmelk.

The waters that eventually converge into what we call the Klein River flow towards it from the surrounding mountainous catchment. A considerable amount arrives from the 120 km² catchment of the Hartbees, and around 30% is generated from the southern flanks of the Klein River Mountains between Wagenboomsdrift (Akkedisbergkloof) and Aasvoëlkop (located in the Vogelgat catchment) – a catchment area of approximately

According to the Department of Statistics South Africa, with a total length of 163 533 km, South Africa's rivers would encircle the earth four times if placed end to end. The statistic was calculated from the river network data layer maintained by the Department of Water and Sanitation (DWS). Main rivers make up 47% of this total length while tributaries (smaller rivers) constitute the remaining 53%. The majority of South Africa's rivers are upper or lower foothill rivers, with a moderate gradient and little to no floodplain. Lowland rivers with distinct floodplains make up only 9% of total river length, making them relatively rare, especially compared to many northern hemisphere countries.

100 km². The so-called 'small' river's total catchment area is just over 98 000 ha, but the highest point where this water starts to be known as the Klein River can be traced on Google Maps and can be reached with a leisurely drive along well-maintained tarred and dirt roads.

The way to the start is a scenic mixture of vineyards and rolling hills striped with undulating croplands, but the birthplace of the Klein is surprisingly unspectacular; a marshy area dense with port jacks and black wattle. Today, management plans declare that almost the whole river, including its tributaries, is heavily infested with alien wattle species such as *Acacia saligna* (orange wattle), *Acacia longifolia* (Sydney golden wattle) and *Acacia mearnsii* (black wattle) and very little of the natural riparian vegetation remains.

Though the river disappears from view as one travels from this point along the Oudekraal road that crosses the Hartbees just before it joins the Klein, heading towards the scenic R326, signs that water is near are clear. The road cuts through extensive dryland agricultural fields, interspersed with irrigated farming operations visible by the centre pivots on the horizon, while sheep and cattle roam the quiet landscape. Agricultural activities comprise the bulk of the land-use of the Overberg region, with Stanford and Hermanus mostly making up urban development. About 44% of the total catchment area is transformed, and many of the natural vegetation represent habitats that are now considered endangered or critically endangered. These include the endangered Greyton Shale Fynbos and the critically endangered Elim Ferricrete Fynbos.

The river and its main tributaries continue through agricultural land and by the time the Oudekraal crosses it again it is as a



The bridge that runs over the Hartbees, just before it joins the Klein River.



The official source of the Klein River, just after the Hartbees.

bridge over a well-defined river, though not running on this day. Now you can follow it as you drive on the R326 past the Stonehouse Cheese Shop, where the air smells heavy of cattle, and the Boschrivier and Raka wineries, both of which are on the opposite of the road from the Klein River as it runs close to the foot of the mountains.

This kloof is known as Akkedisberg Pass, which runs between the Kleinrivier Mountains on the North and the Perdeberg on the South, following the river through the kloof. Lady Anne Barnard, the popular wife of secretary to the Cape Government, Andrew Barnard, travelled through here in a hired, horse-drawn wagon in May 1798, when the pass was referred to as the Clyne Riviere Kloof: *“Wherever we turned as we left this place the bontebok bounded away before us, and set Johnnie’s heart abeating. No village – no trees – and but one human being appeared as we travelled on. We passed the Clyne Riviere Kloof – not steep but stony and dangerous from the frequent sloping of the road – some very marshy passes – to the right a range of hills and a cascade – to the left a long row of mountains, which on turning the angle we found was succeeded by another. We passed the Hartebeest River – a good farm belonging to one Tesler – the Steenbras River – and arrived about six at Mr Wolfram’s (who rents the Government baths, where people go for a variety of complaints) and slept there.”*

Just after a section where the river is pushed aside with mounds of dirt to allow for the construction of a new bridge, is a small section where Hannah Baleta from the Klein River Cheese Factory farm (now closed to the public) located further along the road says you can still see some of the original riverine vegetation, though a number of large poplars and so are also in the mix. It’s a densely vegetated stretch where footsteps are silenced by the soft layer of rotting leaves and the insistent croak of frogs are a clear sign of the ample amphibia around, but hidden from view. Above, the wind rustles through the autumn leaves that host verbose birdlife in the canopy.

According to management reports the instream habitat integrity of the Klein River varies between moderately modified and largely modified, deteriorating as it flows downstream. The riparian habitat integrity has been modified extensively and critically.

At the Klein River Cheese Farm, Baleta says they live close to the river. They abstract water for their farming activities, but also

enjoy the view every day from when they wake. Their houses are located a short stone’s throw from the river, which swells over the lawn when in flood. Her mom had indigenous trees planted next to it for her birthday and when the river rises, her husband and his friends like to canoe down it from around the Raka winery located upstream.

A couple of kilometres down the road quaint Stanford lies bordered against the Klein. Various businesses here benefit from the waterway. Boat operators offer trips up and down the river, or you can power yourself up and down in a rented kayak. The Stanford Walking Trail winds along the banks of the Klein River and through town, boasting to offer visitors glimpses of the many birds in the area, including Blue Crane, Fish Eagle or a majestic Cape Eagle Owl perched silently in a tree. The area is well known to birding enthusiasts.

From the Stanford Bridge over the R43 the river meanders for 6 km before it reaches the lagoon. Lady Ann had another noteworthy experience along this section of the Klein, when she and her party travelled too close to the edge of a sloping bank, down which ran a little stream, identified to possibly be Maanskynspruit (by author Jose Burman) as they followed the northern edge of the Klein River lagoon over the sloping mountainside.

“For about half an hour matters went pretty well, though the shades of night fell fast about us; at last “Hey” cried Mr. Barnard – the wagon rocked - “sit close” - I felt its wheel sinking on the side I was on, and in a moment down we came like a mountain.



Most of the land-use activities in the Overberg are agricultural, with dryland and some irrigated fields decorating the landscape along the flow of the Klein River.



Move along Klein River – bridge construction along the course of the river.

The wagon was overturned – my head lower than my heels; and everything in the world I felt was above me. Mr. Barnard rushed out to see where we were – Cousin Jane, Johnnie and I were laid low.” The party didn’t suffer any injuries, though the contents of an entire ginger cask that lost its lid poured down the neck of Lady Barnard.

At the sea

Between Stanford and Hermanus, the Klein River flows into the impressively beautiful Klein River Estuary. The Klein is a temporary open /closed estuary, the breaching of which has been contentious, though the practice reportedly dates back to at least the 1860s.

It is unusual because, in general, estuaries in the Overstrand are not particularly productive as they are fed by rivers with low nutrient content, but the Klein River Estuary, as well as the nearby Bot/Kleinmond Estuary, are exceptions. Because of their size and the long residence time of the water that flows into them these systems support many fish such as *Liza richardsonii* (harder) while serving as nursery areas for *Lithognathus lithognathus* (white steenbras) and others. According to assessments, the value of the nursery function is approximately R81.3 million per annum, with the Bot/Kleinmond and Klein estuaries providing 40 to 50% of the estuarine nursery habitat from Cape Point to the Breede River mouth.

These two estuaries also support most of the waterbird fauna in the municipality, with migratory waders, rails and flamingos stopping by. In fact, the Klein River Estuary has been rated as the fifth most important temperate estuary along the country’s coastline in terms of conservation importance.

The flow of the estuary, also known as the Hermanus Lagoon or Kleinriviersvlei, has reduced over the years, due to a combination of abstraction for irrigation and thirsty alien vegetation in the catchment. Concurrently, nutrient loads from wastewater treatment works, septic tanks and agricultural runoff, sedimentation and illegal fishing have increased.



River ahead! A river of any size can still make an impact on the unaware. This road sign in Stanford warns that the Klein River lies ahead.

Regardless, the estuary is of immense value to the area. Taking into account ecosystem functions, natural resource values and contribution to the local economy, its value in monetary terms has been calculated to be R540 million. Closer to the mouth sailing boats dot the water while people harvest for bait in the shallows, alongside playing dogs let loose by their sauntering owners.

Alina Polianskaya, PR Executive for the Guinness World Records Limited, sends word that there is no mention of the Klein River ever being awarded a Guinness World Records title in their database or in the book archives. In fact, there is currently no record holder for the shortest river in the world. However, though the Klein is perhaps not an official record holder as the smallest river, it is worth more than its weight in gold.



The Klein River Estuary has been rated as the fifth most important temperate estuary along South Africa’s coastline due to its conservation importance.



Sunset at the end of the Klein River, perhaps not an official record-holder, but still worth much more than its weight in gold.



The Klein River estuary's value goes far beyond the monetary to include vast additions to the quality of people's lives, and the natural beauty of the area.

Sources

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The Klein River's is a temporary open / closed estuary located between Stanford and Hermanus.