BRIEF BIOGRAPHIES OF FORESTERS WHO CONTRIBUTED TOWARDS THE PROTECTION OF THE

INDIGENOUS FORESTS OF THE GARDEN ROUTE

By

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INTRODUCTION

The indigenous forests along the coastal plateau from Mosel Bay in the west to Humansdorp in the east represent the largest more or less uninterrupted indigenous forest belt in Southern Africa (Seydack 2004). The total area of this closed canopy evergreen forest is slightly more than 60 000 ha of which two thirds are State owned and mostly managed, for nearly a decade already, by the South African National Parkes authority SANParks. The remaining indigenous forest area, mostly in private hands, is subject to strict conservation legislation, controlled by the State Forest authority, presently under the umbrella of the Department Agriculture, Forestry and Fisheries (DAFF).

The saving of these unique forests from the greed of human endeavour can to a great extend be contributed to many devoted and gifted men, who over a period of nearly 300 years have diligently worked for the rescue and later scientific management of these forests.

These days we are not inclined to look back in history and are mostly involved in the present and are busy making plans. But let us briefly look back at the historic development, which lead to the preservation of these precious forests, which was driven and enforced by outstanding man, who should not be forgotten.

EARLY FOREST MEN

Khoi Khoi and San people made very little impact onto these forests. They lived outside the forests and only used building material and fire wood from the edge of the forest.

Carl Peter Thunberg, an eminent botanist and student of Carl Lineus, travelled to the Garden Route in the late eighteenth century and reported to the authorities of the Dutch East Indian Company in Cape Town that the forests east of Mossel Bay contain a large amount of harvestable timber, which was scarce at that time at the Cape. This started an uncontrolled harvesting of all easily accessible trees along the Garden Route, first near George and later along the coast to Knysna.

Joachim van Plettenberg, the last Governor of the Dutch East Indian Company at the Cape, arrived 1778 at the previously called “Bahia Formosa”. He named the settlement and bay after himself and decided that timber from the surrounding forests should be shipped out to the Cape from this ideal natural harbour, since then called Plettenberg Bay.

However only after J.F. Meding, an educated official of Prussian origin, was appointed by the company in 1787, was harvesting of the forests near the settlement controlled and the timber finally sent by ship to the Cape. Meding achieved reasonable control of the woodcutters and for the first time and ensured that wastage of timber had to be avoided. He also introduced a “Working Rotation” of the forests, which means, that after harvesting a specific site, the relevant forest had to rest for a while, so that the forest could regenerate (Von Breitenbach 1968). He was resident at Plettenberg Bay until 1813 and under his supervision the present historic “Timber Shed”, now a ruin, was built. Meding can be considered to have been the first “Conservator of Forests” because he controlled the woodcutters effectively and prevented complete destruction of the forests. It was reported by Lt. – Col. Richard Collins ‘‘that the forest along the road from Knysna to Plettenberg Bay had been worked heavily but not destroyed, thanks to Meding, who controlled the woodcutters”.

After Meding the uncontrolled harvesting by the woodcutters commenced again until the Cape Government decided in 1848 that all worked out forests north of Knysna should be sold.

Captain Christopher Harison, who had fought as Lieutenant during the Ama-Xhosa war of 1850 – 1851, was the first officially appointed “Forest Ranger” in 1856 at Witelsbos. By 1866 he introduced an originally French forest management system, called “tire et aire” or shelterwood system, which meant that certain forest areas should be worked and then left for 80 years to regenerate. He wrote “the present license system is good as a preventative one, but it goes no further, and we are now mining our forests instead of farming them”. His plans were however not approved and the license system for the woodcutters remained in place (Von Breitenbach 1968). He later introduced the “Section“ system in the Tsitsikamma, which meant that selected trees were only allowed to be harvested during a particular period at a specific section. The selection fellings, which are still practiced today, secured the existence of the forests as we have them today. He then became the first “Conservator of Forests” at Knysna in 1874. He advocated though the harvesting of the giant Outeniqua Yellowwood trees (*Podocarpus falcatus*) but was against the introduction of Australian Blackwood (*Acacia melanoxylon*) into the forests.

FOREST CONSERVATORS

The first scientifically trained forester at the Cape was Comte M. de Vasselot de Regné, who was appointed as Superintendent of Woods and Forests at the Cape in 1881. He was a graduate of the school of forestry of Nancy in France. He was a person of superior personality, profound knowledge and wide experience. However, his shortcoming was that he did not learn to speak and write English and had to rely on his secretary, A.W. Heywood, a younger forestry graduate, for translation. His fame however is that he produced in 1883 the first Forest Regulations and then in 1885 a management manual “Introduction of Systematic Forestry” which advocated sustained yield in accordance with scientific principles (Von Breitenbach 1974). During his term of office, the revenue of the forestry section increased six-fold and the capital value of the forest also increased. He also organised an annual Arbor day and started testing exotic tree species at Tokai and Kluitjieskraal, a forest station near Wolseley.

He also officially introduced the Section system, which was originally introduced by the German foresters Hartwig and von Carlowitz, who are both regarded as the fathers of sustainable forest management. The “Section” system replaced the Shelterwood system of Harison. Only at selected Sections and “Vireés” trees were marked and then sold to the woodcutters. His main impact was also the training and motivation of all forestry officers, who followed him, like D.E. Hutchins, James Rawborne, H.G. Fourcade, James Cooper, A.W. Heywood and C.B. Mac Naughton who all managed and further improved his system of conservation orientated forest management. His term of office was not extended by the colonial authority and he left South Africa in 1892 after he had produced the first Forest Act (Von Breitenbach 1968). His name has been immortalised by the naming of the “De Vasselot Nature Reserve” consisting of prime forest and fynbos areas between the Crags and the Grootrivier in the Tsitsikamma. This Nature Reserve is now managed by SANParks.

The history of the woodcutters is well known and has been well documented. It must be mentioned that the woodcutter episode has been glorified by the books of Daleen Mathee. The woodcutters, called “poor whites”, had a strong political power as voters and were therefore tolerated by the authorities. In 1913 the woodcutters were registered, meaning that no new woodcutters could start operating. As of 1939 the remaining 258 woodcutters were either put on pension or were employed by the newly established plantation management of the Forestry Department or at the railways.

D.E. Hutchins, one of the competent and professionally trained foresters, followed Captain Harison as conservator of forests in Knysna in 1888. His main achievement was that he introduced the system of “Demarcated State Forests“ in 1890, which ensured that Demarcated State Forest land could not anymore be alienated without the approval of parliament. This system is still valid legislation today and has secured the land holding of the State. He also introduced the interplanting of the gaps in the indigenous forest with fast growing exotic species, including *Acacia melanoxylon* (Australian Blackwood) (Von Breitenbach 1968). This silvicultural sound but also environmental sacrilege must be understood considering that the tremendous damage which the forests had endured for over hundred years and that the very slow growth pattern of our indigenous trees, compared with fast growing exotic trees, needed improvement.

A.W. Heywood followed Hutchins as conservator of forests in 1996. He stopped the interplanting of the forests with exotic trees, introduced by his predecessor.

James Cooper followed Heywood for a short period. He was a very much liked manager and introduced the so called “Outright System”, which prescribed that only one contractor had the right to work a specific section at a time, even though the contractor could hire woodcutters to attend to the harvesting. This enabled a much easier control of the forest operations.

Prior to Hutchins and Heywood, a self-trained Frenchman, H.G. Fourcade, made a great contribution towards the protection of the forests by surveying the “Sections” introduced by Harison and de Vasselot. He also was district forest officer at Knysna for a short period before he left the forest service after his benefactor Comte de Vasselot left South Africa. He became subsequently one of the most outstanding botanists of the Garden Route flora. He also invented aerial survey systems and equipment subsequently to a career as land surveyor. He later owned a saw mill at Witelsbos, from where he collected his many botanical specimens.

C.B. McNaughton became forest conservator at Knysna in 1898. His scientific contribution towards the conservation of the forests is evident by the first “Permanent Sample Plots” which he established to monitor the growth of indigenous tree species. He realised the slow growth pattern of most indigenous tree species and advocated that a minimum of a 20-year interval between the working of the sections should be implemented. He also drafted the first forest working plan for the Sourflats area at Goudveld. His name is immortalised by the rare and beautiful forest tree *Faurea mcnaughtonii* (Terblans), which occurs at the Garden Route only at a very remote and restricted area at the Gouna State Forest, the Lilievlei Nature Reserve.

J. Storr Lister was appointed Chief Conservator at the Cape in 1906. He had already in 1876 established the first commercial plantation of eucalypts at Worcester to provide fire wood for the railway locomotives and had started the School for Foresters at Tokai in 1906 (Olivier 2009). He promoted plantations with fast growing exotic trees in order to alleviate the pressure for wood from the indigenous forest; an idea, which had been proposed previously by De Vasselot.

J.S. Henkel was forest conservator at Knysna from 1909 until 1914. He introduced *Acacia melanoxylon* (Australian Blackwood) as nurse tree into the openings of the indigenous forest. He was also an eminent botanist and ended his career after a period as conservator in Natal and later as Chief Forester in Australia (Von Breitenbach 1968). The introduction of *A. melanoxylon* into the indigenous forest enabled the wood of this species to become an important furniture timber, even though today the further cultivation is being fased out, because the species has become one of the most aggressive invader plants along the Garden Route after his close relative the Black Wattle (*Acacia mearnsii*).

During this time James O’Connor was district forest officer at Knysna for a short period. His name is mentioned in this context because he became one of the most outstanding forest scientist of South Africa. He established research trials called “Correlated Curve Trend” to study the influence of various silvicultural treatments on pine plantations. The data from these trials are still today the main growth information available and are used for growth modelling and yield predictions.

FOREST SCIENTISTS

John F.V. Phillips was appointed as the first forest research officer at Diepwalle in 1922. His book “Forest Succession and Ecology in the Knysna Region”, being the thesis submitted in partial fulfilment to obtain his “D.Sc.” from the University of Edinburgh in 1927, is still regarded as the foundation of all indigenous forest research of the Garden Route forests (Phillips 1931). He published also a vast amount of scientific papers and in his later life became the first professor for ecology at the University of Natal in Pietermaritzburg. (The author of this paper still had the honour to meet Dr Phillips and talked to him about the most suitable management of the Knysna forests).

F.S. Laughton followed Phillips as forest research officer. He introduced for the first-time enumerations (measurements of trees along strips) after harvesting in the sections had taken place and drafted the first working plan for Diepwalle. His system of selective fellings was based on scientific principles taking the growth pattern of the main tree species into account. He published his findings in 1937 in the book “The Sylviculture of the Indigenous Forest” and proposed a research project to monitor the growth pattern of the forest, which was only implemented after the Second World war.

D.M. Donald implemented Laughton’s selection system on a small scale after the war, but it was not pursued, and the forests were not harvested in accordance with scientific systems anymore until the “Indigenous Forest Research Station” at Saasveld was established in 1963.

F. von Breitenbach, who had previously worked as Chief Forester in Ethiopia, established the station at Saasveld and achieved overall control of all State-owned indigenous forests along the Garden Route. His main achievement was to develop and implement a “Multiple Use Indigenous Forest Management System” (Seydack 2004). After mapping the different forests according to geographical and ecological features separate areas for production (timber harvesting), protection, conversion (forest reconstruction and rehabilitation), recreation and research were set aside. The silvicultural system consisted of selective removal of trees in order to achieve a normality of the specific forest area (Von dem Bussche 1975). -

Von Breitenbach also published a comprehensive book on the “Southern Cape Forests and Trees” and started the South African Dendrological Society, which is still flourishing today and aims at general education of interested people in trees and forests.

After the disbanding of the Indigenous Forest Research and Management office the system was further improved by A.H.W Seydack with the support and scientific inputs from many outstanding researchers and managers. A few are mentioned as follows: C. Geldenhuys, K. von Gadow, H. van Daalen, W.J. Vermeulen, T.C. Stehle, M. Cameron and many others of which some of them are still active. The improvement of the silvicultural system was mainly based on data, which were obtained from research sites established previously. This system is still today applied by SANPark’s management and controlled by their scientific personnel.

OUTLOOK

The indigenous forests, also on private land, enjoy today full protection in accordance with the Forest Act of 1998, which makes provision that no group of indigenous trees may be felled without the approval of the forestry authority of the Department of Agriculture, Forestry and Fishery, commonly called DAFF. Further protection is given to a long list of trees, which include the Yellowwoods (*Podocarpus falcatus and P. latifolius*), Stinkwood (*Ocotea bullata*), Assegaai (*Curtiia dentata*), Cheesewood (*Pittosporum viridiflorum*) and Milkwood (*Sideroxylon inerme*).

Recent devasting veld fires have burnt vast fynbos areas and have destroyed commercial plantations and other infrastructure, however the indigenous forests were by and large just scorched along the edges and only at a few places larger parts of the forest were affected, which are at present recovering. Further damage will however cause a steady shrinking of this valuable natural asset if the warming tendency will continue.

REFERENCES

OLIVIER, W., 2009. There is Honey in the Forest. South African Institute of Forestry

PHILLIPS, J.F.V., 1931. Forest-Succession and Ecology in the Knysna Region. The Government Printer, Pretoria

SEYDACK, A.H.W. and VERMEULEN, W.J., 2004. Timber harvesting from Southern Cape Forests

VON BREITENBACH, F., 1968. Southern Cape Indigenous Forest Management Manual, Volume 1, Foundations of Management (unpublished report by the Department of Forestry)

VON BREITENBACH, F., 1974. Southern Cape Forests and Trees, The Government Printer, Pretoria

VON DEM BUSSCHE, G., 1975. Indigenous Forest Conservation Management. South African Forestry Journal, No. 93

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