

George Frederik Papenfuss (1903 – 1981)

George Frederik Papenfuss, born on 4 November 1903, grew up on a farm near Harrismith in the Orange Free State, South Africa. His father François Paulus Papenfuss was French Huguenot, his mother Margretha Aletta (née van Rooyen) was Dutch, and Afrikaans was his native tongue. After graduating from high school, he began a course in agriculture at the University of Cape Town, but dropped out in 1926 and emigrated to America to study the cultivation of cotton and tobacco. While working in various jobs to improve his English, he began an undergraduate programme in agriculture at North Carolina State University, and first became acquainted with algae in the general botany class. He switched to botany, earned his BSc degree with honours and was accepted for graduate studies at Johns Hopkins University in Baltimore. There he met and on 8 June 1929 married zoology student Emma Jean Johnstone. He became interested in marine phycology at the Mount Desert Island Biological Laboratory in Maine, and completed his doctorate in 1933 with his dissertation on the life history of the brown filamentous alga *Ectocarpus*.

After a year teaching at Johns Hopkins, Frikkie or GFP (as he was known by many of his colleagues) was awarded a two-year post-graduate fellowship, which enabled him to work with the Swedish marine phycologists Harald Kylin at the University of Lund and Nils Svedelius at Uppsala. During 1935 to 1939, supported by the University of Cape Town, he made an intertidal ecological survey along the entire South African coast. At the onset of war he accepted the position of temporary assistant professor in the botany department of the University of Hawaii, where he was reunited with his wife. Their son and only child Theodore was born on 22 July 1941.

Classes were suspended after the bombing of Pearl Harbour on 7 December 1941. Papenfuss wanted to further his South African project, and the award of a two-year Carnegie fellowship in 1942 supported his work at the University of California, Berkeley, which had exceptional marine phycology resources. Appointed assistant professor in 1943 and then professor until his retirement in 1971, he taught courses from general botany to advanced phycology, and mentored many doctoral students; their revisions of genera represented in New Zealand had a major influence on phycology in this country. He really enjoyed field trips, and it was reported that during the Seventh Pacific Science Congress in 1949 in New Zealand, Victor Lindauer and Papenfuss were like two young schoolboys, jumping for joy at each fresh discovery.

Papenfuss was a fellow of the California Academy of Sciences, honorary fellow of the Royal Society of South Africa and honorary member of the South African Association of Botanists; he held office in a number of scholarly societies and had a pivotal role in establishing the International Phycological Congress. He also served on the editorial boards of several scientific journals and was often consulted for advice on research or asked to review papers. Three genera and twenty-five algal species were named in his honour, including at least two represented in New Zealand: *Papenfussiella lutea* described by Kylin in 1940 from a Bay of Islands collection by Lindauer, and *Dictyota papenfussii*, a New Zealand endemic collected from Pihama, Taranaki, also by Lindauer, and described by him. Still actively involved with phycology and phycologists, George Frederik Papenfuss died on 8 December 1981 in Berkeley, after a busy and happy day at the university.



Papenfussiella lutea

Species of the brown alga *Papenfussiella* are found in cool to cold temperate waters in the northern Pacific and Atlantic, South Africa, Tristan de Cunha, Chile and New Zealand. *Papenfussiella lutea* is olive green to golden brown in colour and densely furry, with one or a few cylindrical main branches 0.5-2 mm wide and up to 40 cm or more long, with many side branches of varying lengths. Although mainly a spring and summer annual, it has been collected at all times of the year, the 'bootlace' slippery strands attached to rock by a small disc holdfast in tide pools and upper subtidal zones in North, South, Stewart and Chatham islands. It is also found in Tasmania and Chile.

Beachcomber: Chatham Island oystercatcher, 2007