

V. THE SINGAPORE BOTANIC GARDENS DURING 1941-1946.

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Prior to the Japanese attack on Malaya, most of the senior staff of the Gardens were seconded for other duties under the Department of Food Control and Information, for at least part of the time. The result was that botanical work was reduced, and considerable arrears of unnamed and undistributed specimens accumulated. The Gardens were maintained as usual, with the addition of demonstration plots of vegetables.

After the attack on Malaya, Messrs J.C.Nauen (in charge of the Waterfall Gardens, Penang) and G.H.Addison, horticultural officers, were mobilized with the local defence forces; they were subsequently taken prisoner and sent to work on the Siam-Burma railway, where Mr.Nauen lost his life. Mr J.L.Pestana, Laboratory Assistant, was similarly taken prisoner and sent to Siam. Mr J.W.Ewart, the third senior horticultural officer, was on leave, and was later transferred temporarily to the Dept. of Agriculture, Gold Coast. Mr M.R.Henderson, Curator of the Herbarium was evacuated from Singapore with the Dept. of Information, and subsequently worked in the herbarium of the National Botanic Gardens, Kirstenbosch, South Africa, Messrs R.E.Holttum and E.J.H.Corner remained in Singapore during the Japanese occupation; also Dr C.X.Furtado, Assistant Botanist.

At the time of the Japanese attack on Singapore, fighting ceased on a line about half a mile from the Gardens boundary. Part of the Gardens was occupied by defending troops, and a considerable number of small shells were fired by the Japanese into the Gardens. Most of these exploded in tree-tops, and caused some casualties later among the trees. A few small trees were damaged owing to the digging of trenches and other operations, but on the whole the woody plants of the Gardens suffered little serious damage. The Director's house had a direct hit from a shell, and the Gardens store was slightly damaged by a bomb which exploded 20 yards away. The offices and herbarium were undamaged. The local Gardens staff nearly all remained at their quarters, where they had good shelters; three or four of them suffered minor injuries.

Three days after the Japanese occupation, Professor Hidezo Tanakadate, of Tohoku Imperial University, assumed control of the Gardens. He asked Mr Holttum to remain in executive charge, and to resume all normal horticultural work. The Japanese military required the supply of some ornamental plants, but only such as were easily propagated. Professor Tanakadate and his successors took energetic steps to see that the Gardens were not in any way despoiled by the Japanese military; and the same action was also taken with regard to the Nature reserves in Singapore Island under the control of the Gardens.

Prof. Tanakadate arranged for the Botanic Gardens and Raffles Museum to form a single Department under the Municipality of Singapore, with head office at the Museum. In Sept. 1942 the Marquis Yoshichika Tokugawa assumed the office of Honorary President of the Museum and Gardens; this he held until his departure for Japan in the middle of 1944.

In December 1942 Professor Kwan Koriba, Professor of Botany at the Imperial University of Kyoto, was appointed Director of the Gardens. Thereafter Mr Holttum ceased to have responsibility for garden work, but unofficially both he and Mr Corner remained in constant touch with the local staff and advised them in their work. Garden work continued throughout the Japanese occupation, but greatly deteriorated for various reasons. More than half the outdoor staff (49 men) were sent by the Japanese military to work in the Siam-Burma railway; some of those remaining were taken for planting experimental crops of medicinal, fibre and dye plants in the adjoining Tyersall estate, and latterly all spent part of their working time in food production; tools also were gradually reduced both in number and quality. Fortunately the motor mowers were maintained in good running order throughout, so that the grass of the main lawns never got out of hand. Many outlying parts of the Gardens were neglected and became overgrown, and there were considerable losses in some collections of smaller plants. Stocks of pot plants were greatly reduced.

Wages for local staff at the end of the Japanese occupation were less than double the wages of 1941, but prices gradually increased to about 500 times those of 1941, with the exception of a small and diminishing fixed-price ration of rice, sugar and oil. Municipal employees, including those of the Gardens, were at a great disadvantage as compared with persons employed directly by the Japanese military; but most of the Gardens staff, both indoor and outdoor, remained at their work. Had they not done so, the Gardens could not have been maintained as they were, nor so quickly rehabilitated in 1946. In this connection, special credit is due to Mr Quan Ah Gun, Chief Clerk, and to Dr Furtado. Of the men who were sent to work on the Siam-Burma railway, twenty-two lost their lives. These included both Indians and Malays.

Prof. Koriba obtained permission for Messrs. Holttum and Corner to remain in the Gardens and continue their botanical work. Mr Corner continued his researches on the larger fungi, and also made elaborate investigations of the development of flowers and fruits in various families of trees, from the appearance of the first floral rudiments to ripe fruits and seeds. Mr Holttum spent most of his time preparing new descriptions of Malay Peninsula representatives of the following groups: Ferns, Orchidaceae, Zingiberaceae, Marantaceae, Gramineae, Cyperaceae.

The Herbarium remained intact (except for the loss of some specimens on loan in Germany) and also the library. All the Japanese scientific officers concerned were insistent that the Herbarium and library (as also the collections at the Raffles Museum) should be preserved as part of the cultural heritage of Malaya, and on this basis the British staff cooperated with them. We should like to express our gratitude to Professor Koriba and others concerned for the disinterested way in which they carried out their duties, and also for much personal courtesy and kindness. Prof. Koriba himself carried out a research into the growth-behaviour of some Malayan trees. From September 1945 to March 1946, under the British Military Administration, the Gardens were under the care of Dr Gilbert Archey (Director of the Auckland Museum, New Zealand), who was responsible for Monuments, Fine Arts and Archives. Mr Holtum left for England on September 18th. Mr Corner remained in Singapore in immediate charge of the Gardens until November 11th. Mr J.W. Ewart returned soon afterwards and had charge of the Gardens until the return of Mr M.R. Henderson in January 1946. Mr Addison returned to take charge of horticultural work in April 1946, Mr Ewart being appointed to undertake the duties of Agricultural Officer, Singapore. Mr Holtum returned to duty as Director in May 1946.