Mitt. Bot. Staatssamml. München	10	162—164	1. 12. 1971

THE BAOBAB MAP PROJECT

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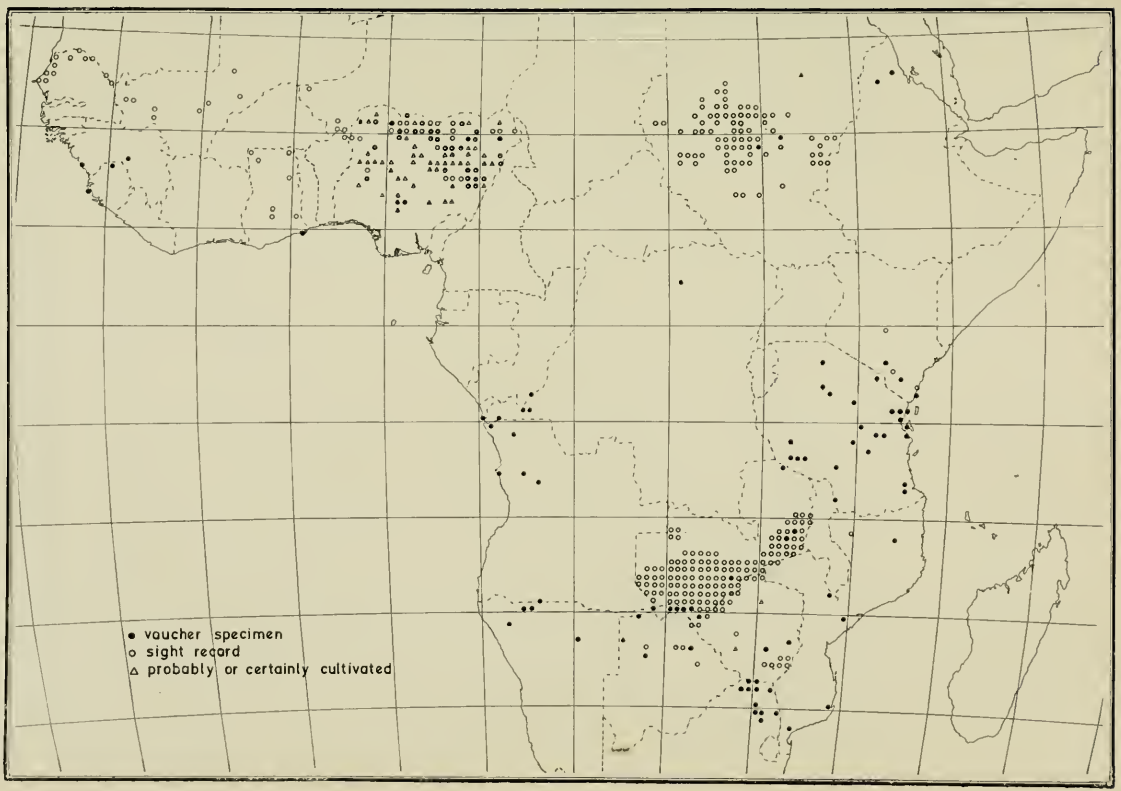
That well-known tree the Baobab *(Adansonia digitata* L.) has always featured in the life of the people wherever it has occured. Today it even reaches into the commercial world of the Christmas card, but I would like to use it to show some of the problems and some of the lessons that can be learned from plotting its distribution throughout Africa. It combines for me my interest in outline maps and the projected AETFAT Atlas.

I decided after discussions with the AETFAT outline map sub-committee and my colleagues at Kew that I would plot the distribution in ½ degree squares of latitude and longitude. I personally decided that in whatever form I received the information, whether as a specimen or as written report of a sighting I would record it on punched cards to study the ease of retrievability and to time approcimately how long the information took to record. The choice of outline map on which to plot the information was a less important decision than I would have thought possible at the last AETFAT Conference. With all the advances in computer technology etc., it is now possible to convert from one projection to another purely within the computer. It is therefore the way one records the information which becomes the vital link. Hand plotting is still the most economic way to prepare a map at the present time however in the future large numbers of plots for many species with regular updating of information will have to be carried out in the larger institutions by machine.

The pilot scheme stage of the study is now over and I should like to explain what was done. It was based on the material to be found at Kew and the British Museum of Natural History. This accounts for the small number of actual herbarium specimens plotted. There are in fact further specimens but these are the earlier ones and they are completely without an identifiable location. The sight records are based upon the replies sent in response to an explanatory letter and questionnaire sheet sent out to the mainly English speaking Institutions, Botanists and keen collectors interested or living in Africa (I chose the English speaking regions and excluded South Africa to limit the size of the pilot stage). The results give rise to the present map.

I hope the second phase will begin shortly with the aid of my French colleagues, starting by preparing an explanatory letter and questionnaire to be sent to the French speaking parts of Africa and with a reprint of my first letter for South African Institutes, Botanists and collectors. Secondly to re-

The BAOBAB Adansonia digitata L.



cord from all the large European and African Herbaria their holdings of Baobab material.

The final phase will then be the clarification of records around the fringes of the distribution map so obtained in phase 2, I hope aerial photographs will be of particular help in this respect.

Now to some of the points of interest that have arisen from the pilot scheme.

The lack of herbarium specimens for recording any species by half degree squares becomes immediately apparent when one studies a continent. In the Baobabs case I am sure this is due, one, to its familiarity to everybody and two, the difficulty of making good herbarium specimens. Many records could have been based on the fruits to be found in most carpological collections if only the exact localities had been noted on the labels. Despite the lack of material, the few specimens and a knowledge of the plants habitat has allowed rough maps to be drawn of the Baobabs distribution for many years. From a general point of view they are fine, but to discuss detailed presence or absence, the dying out or consolidation of a species throughout the range, it appears to me that the half degree square is the very minimum plotting area required. This must not be confused with the minimum number of specimens needed to provide a complete circumscription of a species. The map itself shows areas of intense activity rather than the true distribution of the tree. The Nigerian activity is due in the main to the work of J. A. D. Jackson and his mapping work. In Zambia the main work has been by D. B. Fanshawe of the Forestry Research Dept., Miss W. A. Rees of the Mount Makulu Research Station and Mrs. H. M. Strover of the Lowveld N. H. S. The Sudan cover is extracted from the W. O. S. series 1:250.000 where the "Tebeldi", as it is known, is recorded, no doubt as a Landmark for travellers.

Before finishing this all too brief resumé, I must give you the figures I gathered from the first phase. It normally takes $2^1/_2$ minutes to write out, prepare and punch a completed record card. I have so far 661 cards prepared giving 459 different locality plots on the map, which can be added, when in practice, at the rate of 5 or 6 a minute.

However when latitudes and longitudes of towns, villages, or general localities are not recorded or obtainable through gazetteers or personal knowledge the card production time drops considerably. I still have over 50 cards without a traceable locality, a waste of a valuable record and of time on the part of the collector or recorder. The moral is simple as we have no doubt all said many times before. Specimens or records without accurate labels are valueless.

Finally I should like to thank all those who have helped so far with this work, and appeal to everybody for their future help in completing this project before the next AETFAT Conference.