



PLANTS PEOPLE
POSSIBILITIES

Macrozanonia Macrocarpa

Author(s): R. A. Rolfe

Source: *Bulletin of Miscellaneous Information (Royal Botanic Gardens, Kew)*, Vol. 1920, No. 6 (1920), pp. 197-199

Published by: Springer on behalf of Royal Botanic Gardens, Kew

Stable URL: <http://www.jstor.org/stable/4118666>

Accessed: 27-06-2016 03:05 UTC

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at
<http://about.jstor.org/terms>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Springer, Royal Botanic Gardens, Kew are collaborating with JSTOR to digitize, preserve and extend access to *Bulletin of Miscellaneous Information (Royal Botanic Gardens, Kew)*

XXVII.—MACROZANONIA MACROCARPA.

R. A. ROLFE.

Two beautiful winged seeds have been sent to Kew for determination from the Botanic Gardens, Brisbane, by Mr. C. T. White, Government Botanist. One is from a sample obtained by Mr. M. J. Colclough in the Aru Islands, and it is said that they are often picked up on schooners' decks at sea, and when seen in the air have a butterfly-like appearance. The other is from specimens collected by the late Captain F. R. Barton, private secretary to the Lieut.-Governor of New Guinea. These were doubtfully referred to *Bignoniaceae* by the late Mr. F. M. Bailey, Government Botanist, though he remarked that "without further specimens it would only be conjecture to say to what plant they belong." Mr. White adds: "I have also seen the same thing in Papua (Mekoe District), but unfortunately failed to get specimens. The plant is said to be a large climber." The two seeds are identical, and are clearly Cucurbitaceous. They prove on comparison to belong to the plant described by Blume as long ago as 1825, from Javan materials, under the name of *Zanonia macrocarpa*, Blume, which has since been separated from *Zanonia* by Cogniaux, under the name of *Macrozania macrocarpa*. As it proves to be of wide distribution, though still very imperfectly known, the following account of its history should prove interesting.

The plant was originally very briefly described by Blume, in 1825, under the name of *Zanonia macrocarpa*, from fruiting materials found on Mt. Parang, Java. The author gave the native name as "Aroy Kitjubung," and created for it the new section, *Alsomitra*, Blume, which he distinguished from *Zanonia* proper by its hemispherical fruit and polyspermous cells. The flowers were not known.

In 1843 the plant appeared under the name of *Alsomitra macrocarpa*, Blume, a mistake for Roemer. The latter author established a genus *Alsomitra*, Blume (also a mistake), including in it *Zanonia* section *Alsomitra*, *Z. macrocarpa* (both wrongly attributed to De Candolle), and seven other species which are evidently not immediately allied to *Z. macrocarpa*. He did not define the genus in any way, and its heterogenous character was subsequently recognised by the authors of the *Genera Plantarum*, who excluded *Alsomitra macrocarpa*, Roem., as a foreign element, and gave to the remainder clear generic definition, an arrangement which has since been generally accepted.

In 1881 Cogniaux was able to give further details of *Z. macrocarpa*, including its fruit and seeds, though flowers were still lacking, and he then established the sectional name *Macrozania* for its reception, rightly pointing out that it was not *Zanonia* section *Alsomitra*, Blume. The character of section *Macrozania* was given as "Fructus maximus, hemisphaericus, loculis polyspermis. Semina ovata; ala ampla, tenuissime membranacea, diaphana, lateraliter valde dilatata," while of section *Euzania* he wrote, "Fructus parvus, cylindrico-clavatus, loculis 2-spermis. Semina oblonga; ala crassa, basi apiceque dilatata."

He also added the localities, Islands of Batjam, Borneo, Mt. Arfak, in Dutch New Guinea, and the Aru Islands, further materials having been collected by Zollinger, De Vriese, Korthals, and Beccari.

In 1893 Cogniaux gave to *Macrozania* the rank of a distinct genus, though he added that the flowers were still unknown, and it was not until thirteen years later that he was able to add these important details. The circumstance is thus described: "J'étais désireux de pouvoir étudier les fleurs du *Zanonia macrocarpa* qui jusqu'ici, à ma connaissance, n'existent encore dans aucun herbier européen. Au printemps dernier, ayant eu l'occasion d'être en rapport avec M. J. J. Smith, conservateur au Jardin botanique de Buitenzorg (Java), je lui exprimai l'ardent désir que j'avais de posséder des fleurs de cette espèce. Ma demande fut accueillie avec la plus grande bienveillance, et sur la fin de juillet, je reçus de M. le Dr. Treub, directeur du Département de l'Agriculture, à Java, une caisse contenant de beaux échantillons fleuris de la plante désirée, ainsi qu'un flacon des fleurs des deux sexes, à divers degrés développement." This material enabled the description of the genus to be completed.

Captain F. R. Barton, private secretary to the Lieut.-Governor of New Guinea, sent seeds of an unknown plant to Mr. F. M. Bailey in 1904 and described them as brown, surrounded by broad transparent wings, the whole giving a horizontal diameter of from 5 to 6 in. It is one of these seeds that has now been sent by Mr. White, and proves to belong to *Macrozania macrocarpa*.

In 1906, Mr. E. D. Merrill, of the Philippine Bureau of Science, described *Zanonia philippinensis*, Merrill, from the Lamao Lake district, Mindanao, remarking, "A species evidently related to the Malayan *Zanonia macrocarpa*, Blume, differing from the latter in its cordate leaves, and smaller seeds, which have much wider and somewhat longer wings than in Blume's species." It has since been collected in the Island of Negros, and there are specimens from both localities at Kew, but I am unable to separate them from the Malayan materials.

Lastly, we have the record of Miss L. Gibbs that in the Mt. Arfak district of New Guinea "*Zanonia macrocarpa* is the most conspicuous plant seen along the coast in the lower forest. It obliterates whole trees with dense walls of verdure, while the huge fallen fruits, rotting on the ground, are the most striking objects in the forest. The seeds, with transparent wings about 10 cm. across, often fill the air, lazily borne on the breeze, like great butterflies, for which, indeed, I took them at first in the distance."

The species appears to be widely diffused, from Java and Borneo, to Negros and Mindanao in the Philippines, the Aru Islands in the Moluccas, and both western and eastern New Guinea.

The following are the references:—

Macrozania macrocarpa, Cogn. in Bull. Herb. Boiss. i. p. 612 (1893); K. Schum. & Lauterb. Fl. Deutsch. Südsee, p. 589 (1901); Cogn. in Bull. Soc. Bot. Belg. xliii. p. 358 (1906).

Zanonia macrocarpa, Blume, Bijdr. p. 937 (1825); Ser. in DC.

Prodr. iii. p. 299 (1828); G. Don Gen. Syst. iii. p. 4 (1834); Miq. Fl. Ind. Batav. i. pt. 1, p. 683 (1855); Cogn. in DC Monogr. iii. p. 927 (1881); Warb. in Engl. Jahrb. xiii. p. 444 (1891); Gibbs, Dutch N.W. New Guinea, pp. 17, 51, 222 (1917).

Alsomitra macrocarpa, Roem. Synops. ii. p. 117 (1846).

Bignoniaceae, F. M. Bailey, in Proc. Roy. Soc. Queensl. xviii. p. 2 (1904).

XXVIII.—THE WEST AFRICAN OIL PALM.

(*Elaeis guineensis*, Jacq.).

J. H. HOLLAND.

In the editorial paper on the West African Oil Palm (*K.B.* 1909, p. 47) special importance was attached to the cultivation and development of well marked varieties. The lines on which the experiments should be made were given, the keeping of careful records suggested and from the facts gathered up to that time it was considered clear that prolonged experimental work should be undertaken before any extensive sowings of the seed of a particular variety of the Oil Palm were made. Since that date the subject has been before the Agricultural Departments of the Gold Coast, Nigeria, Federated Malay States, Ceylon, Seychelles, etc. All the known varieties have been tested, more especially in West Africa, the "Soft-shelled nut" (forma *tenera*, Becc.) having been one of the most prominent, and great hopes have been centred in this form because of its convenience for cracking. So far, however, neither *tenera* nor any other variety or form appears to have been found constant in their characters on reproduction. The position was summarised in the *Bulletin* for 1918 (pp. 121-124) and the following particulars are to a large extent a continuation of the records there discussed.

In the Gold Coast Report on the Agricultural Department for 1918, it is stated that "the varieties again suffered badly from beetles and only very small crops of fruit were obtained, and that **(a)* "Gamopeley"—trees 2, 4 and 6 gave 11 bunches, containing 2215 nuts weighing 50.11 lb., the fruits being similar to "Abetuntum" [fruit nearly spherical, pericarp black at the apex, red at the base, nut hard: see *K.B.* 1909, p. 40]. **(b)* "Diwakak-waka"—the single tree was badly attacked by beetles and no fruits were gathered during the year. **(c)* "Lisombe" [the soft-shelled palm, forma *tenera*, Becc.]—trees 1, 2 and 4 gave 14 bunches containing 3200 nuts, weighing 77.26 lb. No. 1 alone gave 9 bunches. The fruits are similar to "Abetuntum." **(d)* "Abefita" [fruit very large, pericarp reddish-white, occasionally streaked with black, nut hard: palm exceedingly scarce: (see *K.B.* l.c.): the white Oil Palm, var. *albescens*, Becc.]—trees 4 and 5 gave 5 bunches containing 654 nuts, weighing 10.8 lb.; one of them gave true nuts, the other resembled "Abepa" [fruit pointed at the apex, pericarp very thin and of a dark-reddish colour, a very hard thick nut (l.c. p. 39): the hard-shelled

* *(a)*, *(b)*, *(c)* Cameroon varieties.