

genus for the palm of the Ryukyu Islands. The name *Satakentia* is proposed to honor my longtime correspondent and an ardent student of palms, Mr. Toshihiko Satake.

*Satakentia* has doubtless evolved with *Clinostigma* from a common stock. It differs, however, in having a densely and a finely stellate-tomentose rather than glabrous inflorescence, staminate flowers with the pistillode well developed and subcapitate at the apex rather than minute and trifid, and in having fruit with an excentrically apical stigmatic residue. In habit, *Satakentia* seems to resemble most closely some of the Samoan species of *Clinostigma* which apparently lack the stilt roots so characteristic of *C. exorrhiza* of Fiji and some other species in the New Hebrides and Solomon Islands.

**Satakentia** H. E. Moore, *gen. nov.*

*Clinostigmati* valdi affinis sed inflorescentia tomentosa, floris masculi pistillodio subcapitato antheras aequante, fructus residuo stigmatico apicali differt.

Solitary, unarmed, monoecious palms of moderate size, the trunk usually enlarged and with a mass of adventitious roots at the base, columnar above. Leaves reduplicate pinnate; sheaths tubular, forming a prominent crownshaft; petiole short; rachis elongate with pinnae regularly arranged, these acute, with one principal nerve, thickened marginal nerves, usually 2 (-3) secondary nerves, and numerous tertiary nerves on each side of the midnerve. Inflorescences infrafoliar, densely and minutely stellate-tomentose, paniculately twice-branched basally, once-branched apically; first peduncular bract (prophyll) complete, terete with ancipitous margins and rostrate in bud, enclosing the complete, terete, rostrate second peduncular bract and inflorescence in bud, both splitting abaxially and caducous at an-

thesis, sometimes a prominent third, and even a fourth, incomplete peduncular bract developed; peduncle prominent, essentially terete near the base, angled above as is the rachis. Flowers borne in triads of two staminate and one pistillate in the lower one-fourth to one-third of the rachillae, paired to solitary staminate above: staminate flower slightly asymmetric; sepals 3, distinct, imbricate, more or less rounded; petals 3, valvate, more than twice as long as the sepals; stamens 6, filaments distinct, subulate, inflexed at the apex in bud, anthers oblong in outline, dehiscent by lateral slits; pistillode as long as the stamens, cylindric with obliquely subcapitate apex: pistillate flower ovoid; sepals 3, broadly imbricate; petals 3, imbricate with shortly valvate apices; staminodes 3, dentiform, on one side of the pistil, this ovoid, with 3 recurved stigmas at anthesis, unilocular, uniovulate, with a pendulous, anatropous ovule. Fruit ovoid-ellipsoid with excentrically apical stigmatic residue; exocarp smooth but drying longitudinally lined; mesocarp with numerous flat longitudinal fibers in thin flesh and some red-brown stone cells near the apex next to the thin, fragile endocarp; endocarp operculate at base of elongate hilar seam, not adherent to the seed; seed ellipsoid, with elongate hilum, anastomosing rapheal branches, homogeneous endosperm, and basal embryo.

Type: *Satakentia liukiensis*

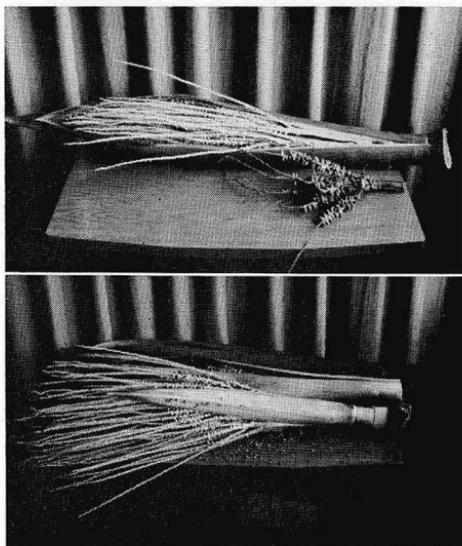
**Satakentia liukiensis** (Hatusima)

H. E. Moore, *tr. nov.*

*Gulubia liukiensis* Hatusima, Memoirs of the Faculty of Agriculture, Kagoshima University 5(1): 39. Mar. 1964.

Trunk to 15 or 20 m. high, ca. 20-30 cm. in diam. at base, light brown to gray-brown, irregularly and closely ringed. Leaves about 14, to 5 m. long

(fide Hatusima); sheath ca. 8 dm. long, reddish-green to mahogany-green at maturity, with numerous, small, medifixed, shining, castaneous, membranous scales; petiole 8–10 cm. long in mature individuals, longer in juvenile plants, rounded below, concave above, both surfaces with shining, membranous, brown, medifixed scales when young, the dark bases persistent and impressed (when dry) in age; rachis ca. 2.94 m. long, rounded below, progressively concave to flat to angled above, both surfaces more or less densely brown scaly or brown punctulate in age; pinnae ca. 93 on each side, regularly arranged, basal pinnae very narrow, to ca. 24 cm. long, 3.5 mm. wide, subbasal pinnae (6th) ca. 38 cm. long, 11 mm. wide, median pinnae ca. 55–70 cm. long, 3–4 cm. wide, apical pinnae ca. 15 cm. long, 1 cm. wide, midnerve elevated above, less prominent below where clothed with numerous minute brown scales and scattered, medifixed, brown, membranous scales to 10 mm. long, the secondary and tertiary nerves with minute brown or pale scales. Inflorescences several (ca. 6), stiff, horizontal; first peduncular bract (prophyll) dark green, densely ferruginous-scaly, ca. 9.9 dm. long, second peduncular bract green-lilac-cream with pale scales, 9.1 dm. long, third peduncular bract (on one individual, *Moore et al.* 9382) like the second but incomplete, divided into 2 parts respectively 57 and 36 cm. long, fourth peduncular bract (*Moore et al.* 9382) 16 cm. long; peduncle 7 cm. wide at insertion of prophyll, 20 cm. or more long, chocolate-brown (in life) and densely scaly between prophyll and first bract, lilac (in life) and densely



3. *Satakentia liukiensis*. Above, inflorescence in bud with the bracts split along the natural line of cleavage, the first enclosing the second, and a portion of a fruiting branch; below, the same inflorescence with the first and second bracts removed to expose the unusually large but incomplete third bract (*Moore et al.* 9382).

ferruginous scaly above the first bract; rachis ca. 3.6 dm. long, angled, densely tomentose with pale and ferruginous stellate hairs; branches pinkish-purple or lilac in bud, once-branched (ca. the lower 14) or undivided (ca. the upper 12), lowest to 68 cm. long including flattened peduncular base 15.5 cm. long, upper to 40 cm. long, all densely tomentose with ferruginous and/or pale stellate hairs; bracts subtending lower branches acute and ca. 2 cm. long, progressively reduced and rounded on upper branches, bracts subtending triads very low and rounded, bracteoles surrounding pistillate flowers low and rounded, pu-

berulous, the bracteoles of paired staminate flowers irregular, often partially puberulous. Staminate flowers cream-colored, slightly fragrant, 5 mm. long; sepals 1–2 mm. high, rounded; petals 3.5–4 mm. high; stamens as long as the petals in bud, the anthers exerted versatile at anthesis; pistillode as long as the petals and stamens (in life). Pistillate flowers 5–6 mm. high in bud; bracteoles surrounding them 1.5–2.5 mm. high; sepals 3–4 mm. high, 4–5 mm. wide, the margins ciliolate; petals ca. 5 mm. high, the margins ciliolate; pistil ovoid with short, spreading stigmas. Fruit (including perianth) ca. 13 mm. long, 6–7 mm. in diam., black at maturity; seed 9–10 mm. long, 5 mm. in diam. First leaf of seedling bifid.

Lectotype. *S. Hatusima 18500* (KAG).

Vernacular name. This palm is referred to by the people of the Yaeyama District (Ishigaki and Iriomote) simply as *noyashi* in Japanese, meaning “field palm.” It has been suggested that a more apt name would be *Yaeyama-yashi* or “Yaeyama palm” as used by Hatusima and Amano (1967) and I have received a leaf under the name *Sakishima-yashi* or “Sakishima palm,” the southwestern end of the Ryukyu Islands having been known previously as the Sakishima Gunto. The Okinawan name has been reported as *binro*.

Distribution. On slopes of hills or more rarely nearly at sea level (where cultivated?) on Ishigaki Island (Yonehara) and Iriomote Island (Hoshitate, Nakama River, Sonai), Yaeyama Group of the Ryukyu Islands.

Specimens examined. RYUKYU ISLANDS. Iriomote Jima: cultivated (?) in the hamlet of Sonai, alt. 1 m., 9 July, 1955, *S. Hatusima 18500* (lectotype, KAG; photo, BH); Nakama Kawa (Nakama River), on clayey sandstone slopes upriver from Ohara and Otomi, alt. 0–100 m., 9 Sept. 1966, *H. E. Moore, Jr.*,

*K. Teruya & M. Yamakawa 9385* (BH). Ishigaki Jima: on gentle slopes near road at Yonehara Village, alt. ca. 100 m., 8 Sept. 1966, *H. E. Moore, Jr., K. Chinen, K. Teruya & M. Yamakawa 9383* (BH). Okinawa: Shuri, cultivated in yard of private residence, 7 Sept. 1966, *H. E. Moore, Jr., S. Moromizato, H. Nakasone & K. Teruya 9382* (BH).

The descriptions have very largely been drawn from my own collections and notes amplified from Hatusima's description. Hatusima cited two collections as types: *Hatusima 18500* (flowering type) and *Kuroshima s. n.* (fruiting type). It would appear under Article 7 of the *International Code of Botanical Nomenclature* (1966) that one of these must be designated as lectotype. Since the staminate flower is diagnostic for the genus, I would so designate *Hatusima 18500* (KAG).

### Notes on a Visit to the Ryukyu Islands

*Satakentia* is a native, so far as I am aware, only on Ishigaki and Iriomote, two of the larger islands that compose the Yaeyama Gunto (Yaeyama Group) and, with Miyako and associated smaller islands, the larger Sakishima Gunto (Fig. 4). These islands lie to the southwest of Okinawa in the Ryukyu Archipelago which stretches between southern Japan and Formosa. The mean temperature for the Okinawa Prefecture, which includes the Sakishima Gunto and the Okinawa Gunto, is 71.62° F. according to Sonehara et al. (1952) and the mean rainfall 84.46 inches. The climate of Okinawa compares well with that of southern Florida, for a rare frost may damage tropical elements of the flora, while the Yaeyama Group apparently does not suffer temperatures so low.

My own experience with the palms was limited, regrettably, to three days. Arriving in Naha City, Okinawa, from Tokyo on September 6, 1966 on the