An interesting new record from the Malayan beach: Spilanthes urens Jacq., its synonymy and distribution

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IN 1934 Mr. Corner collected on Jason Bay, Johore, a remarkable creeping Composite which at the time defeated identification. It grows as most beach plants with a horizontal, more or less subterranean stem, at the nodes giving off downward roots for anchorage and upward simple (lateral) stems (10–40 cm. high), each with a few pairs of opposite narrow leaves and a terminal, rather long-peduncled (5–15 cm.) head. The leaves are strictly opposite, 3-plinerved, 3–9½ by 0·4–1½ cm. The head consists entirely of tubular, white flowers and measures c. 1 cm. diameter. The achene is rather peculiar, being flattened elliptic, with one, less frequently two, awns on top and 2(–3) yellowish, rounded ridges (obviously corky), distinctly set off against the rather dark colour of the fruit itself.

It has now appeared that it had been referred in *Spilanthes,* a well-known genus of mostly erect, annual weeds. Bentham (1866) had referred a North Bornean specimen collected by Barber to the North Australian *S. anactina* F.v.M.; Martelli (1883) identified a specimen collected by Beccari in Sarawak as belonging to the American *S. urens* Jacq., and finally A. H. Moore (1907) had described a North Bornean specimen as a new endemic species, *S. chamaecaula* A. H. Moore.

The remarkable thing about the latter species appeared its rarity, its exacting habitat, and the fact that it seems to lack immediate relationships with any other Malaysian species in the infrageneric system of the monographer A. H. Moore. He placed it with the S. American *S. urens* Jacq. and some other species.

This circumstantial evidence raised our suspicion as it does not fit with the generally wide distribution of plants restricted to the tropical beach.

This led us to a closer examination of the characters A. H. Moore used in his revision to discriminate it from its allied species.

It appeared that *S. chamaecaula* was keyed out against *S. urens* on the strength of two characters, viz. the uniaristate achene (in the other species there are 2 bristles) and the corky swollen ridges which were said to be absent in the other species.

The first character broke down at once in the Bornean material, as in one head both 1- and 2-aristate achenes were found to occur.

The second character appeared at first sight satisfactory in our scant material at Leyden. But in a bunch of S. American material of *S. urens,* which we borrowed through the kindness of Dr. Lanjouw and Dr. Jonker from the Utrecht Herbarium, we found pertinent proof that in *S. urens,* which both in habit and in habitat agrees so very well with *S. chamaecaula,* in all heads containing mature achenes some of these are provided with the characteristic swollen corky ridges.

This induced us to re-examine a complete head of the scant Malaysian material and here we found to our satisfaction that besides the corky achenes there were in one single head also achenes without these ridges. Though it is possible that the ratio of achenes with and those without corky ridges differs slightly in Malaysian versus American material, it is useless for taxonomic distinction. It is rather astonishing that the presence of ridged achenes has hitherto been overlooked in *S. urens,* which is not a particularly rare plant in America. This demonstrated to us that for a good examination one must dissect an entire head; it is insufficient to pick just a few random achenes. In doing so we did not succeed in finding any regularity in the location of the corky achenes in the head.

We have come to the conclusion that Martelli, who referred the Bornean Beccari material to *S. urens,* was perfectly justified.

In the Old World a third species had been described from the islands in the Gulf of Carpentaria, viz. *S. anactina* F.v.M. Already Bentham, in the Flora Australiensis, had referred a Bornean collection of Barber (obviously in the Kew Herbarium) to it. F. von Mueller had described his species without having available ripe achenes. As the Queensland specimens agree perfectly in habit and habitat according to the description, we feel entirely at ease in reducing *S. anactina* also to the synonymy of *S. urens.* We feel the more confident as A. H. Moore merely distinguished *S. urens* from *S. anactina* by saying that it was found in the New World while *S. anactina* is from North Australia. There seems no doubt that this also represents the same species.

There is a fourth species which we feel should be critically re-examined, namely *S. pusilla* Hook. & Arn., from the New World. We have a strong suspicion that this is also conspecific with *S. urens.* The differences cited in Moore's key to exist between these two species appear very slight: the linear-spathulate leaves attributed to *S. pusilla* are quite common in *S. urens.*

It may seem remarkable that the localities in the Old World tropical beaches are so scattered and distant, but this is by no means uncommon in widely dispersed beach plants and is similarly encountered in mapping localities of *Scaevola plumieri, Ipomoea pes-caprae* ssp. *pes-caprae, Launaea sarmentosa, Suriana maritima, Digitaria longissima, Triumfetta procumbens,* etc.

The distribution of *S. urens* ranges from tropical and sub-tropical Central and South America to North Australia (Gulf of Carpentaria), and West Malaysia.

As far as we have ascertained within the scope of our examination the synonymy and the distribution in Malaysia run as follows:—

Spilanthes urens Jacquin, En. Syst. Pl. Carib. (1760) 28; Select. Stirp. Am. Hist. (1763) 214, t. 126, fig. 1; Martelli, Nuov. Giorn. Bot. Ital. 15 (1883) 296; Merrill, En. Born. (1921) 589.

?*Spilanthes pusilla* Hook. & Arn. in Journ. Bot., London 3 (1841) 317.

Spilanthes anactina F.v. Mueller, Fragm. Phyt. Austr. 5 (1865) 63; Bentham, Fl. Austr. 3 (1866) 541; Bailey, Queensl. Fl. 3 (1900) 863.

Spilanthes chamaecaula A. H. Moore, Proc. Am. Ac. Arts & Sc. 42 (1907) 528; Koster & Philipson, Blumea 6 (1950) 353.

Borneo. North Borneo: Burbidge (Gray); Barber (K). Sarawak: pr. Sibu, flowers white, leaves more or less fleshy, Beccari P.B. 1750 (Fi, L), June 1866.

Malay Peninsula, Johore: Sg. Tuenseh, Jason Bay, Corner S.F. 28459 (Sing, Bo, K, L, A), June 1934.

We hope that this little note will draw attention to this curious plant and stimulate collectors to find new localities.