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S. neglectum, 78, Peebles, "Ann. Scot. Nat. Hist.," 101, 1910.

S. affine, 85, Fife, G. West.

S. affine, 109, Caithness, Dr. Davidson sp.

Since Mr. Beeby's remarks, *S. neglectum* has been found in West Lancashire by Messrs. Salmon, Thompson, and Wheldon.

NEW OR IMPERFECTLY DESCRIBED SPECIES OF ACACIA
FROM WESTERN AUSTRALIA. By ALEX. MORRISON.

Acacia densiflora, n. sp. — Phyllodia subulate, terete, striate; flowers in globular sessile heads, 5-merous, with a short turbinate-lobed calyx.

A rigid shrub with terete, closely woolly-pubescent branches, phyllodia subulate, somewhat spreading, terete but slightly flattened, rigid, mucronate but scarcely pungent, slightly narrowed at base, with 15-20 rather prominent striæ and minutely pubescent, 0·8-2·5 cm. long and about 1 mm. thick.

Inflorescence in globular sessile flower-heads crowded in pairs in the upper axils; flowers about 20 or fewer in the head, 5-merous, calyx turbinate with short lobes, woolly, less than half as long as the petals, which are subacute, smooth, with the midrib somewhat prominent near the top. Pod not seen. (Kellerberrin, E. Avon district. R. B. Leake.)

Meissner describes a barren specimen from the interior (Preiss, No. 976, "Pl. Preiss," i. 12) as a possible variety of *A. leptoneura*, but Bentham in "Fl. Austral" has placed this under *A. aciphylla*, without, however, having seen Preiss's specimen. Our plant, if it should be the same as that collected by Preiss, differs in aspect from *A. aciphylla*, being a scrubby, rigid shrub, with the flower-heads distinctly globular, so that Meissner seems to have been nearly right in placing it under *A. leptoneura*. Moreover, although the calyx is that of *A. aciphylla*, the globular flower-heads and the phyllodia approach those of *A. leptoneura*, so that this plant may be set down as a distinct species.

Acacia longispinea, n. sp.—Phyllodia linear tetragonous, rigid, mucronate; inflorescence in pedunculate globular heads containing numerous 5-merous flowers, with free sepals and petals; pod flat, straight, seeds ovate attached by a short funicle without folds or aril.

A glabrous shrub with terete branches, the phyllodia being incurved, with very prominent ribs as in *A. gonophylla*, narrowed at the base, and tapering to a short point, 5–12.5 cm. long by about 1.5 mm. broad, stipules minute, deciduous. Peduncles in pairs in axils, slender, spreading or reflexed, 0.7 cm. to 2.2 cm. long, bearing heads of about 6 mm. diameter, containing 40 or 50 florets. Sepals very narrow linear spatulate, ciliate, $\frac{2}{3}$ as long as petals, which are distinct, tapering below, and smooth. Pod stipitate, linear-oblong, straight, slightly contracted and depressed between seeds, flat, 2.5–5 cm. long by 0.5 cm. broad, valves coriaceous with margins thickened. Seeds longitudinal but sometimes slightly oblique, ovate, flattened, mottled, 0.25 cm. long; funicle short and slender, dilated at base, but scarcely thickened or folded, about half as long as seed. (Kununoppin, E. Avon district. F. E. Victor.)

F. v. M. and Tate, in their report on the plants of the Elder Expedition, p. 351, note "*Acacia* (aff.) *gonophylla*, Benth., with long phyllodes. W. A. near Barrow Range," and probably this is the same species. As compared with *A. gonophylla*, Benth., besides having longer phyllodia, the peduncles are longer, the flower-heads larger and containing numerous florets, the ladle-like sepals with a very slender claw and broad orbicular lamina, and about $\frac{2}{3}$ as long as the petals; the pod is depressed between the seeds but not contracted on the margins; the seeds are ovate and flattened, and the funicle is different.

Acacia uncinella, Benth.—As the fruit of this species is imperfectly known, the following description may be given:—

Pod (not quite mature) almost sessile, linear, straight, flat, with thickened sutures, slightly contracted between the seeds, obtuse and more or less beaked at the top, maximum length 5.6 cm. by about 0.2 cm. in breadth. Seeds longitudinal, oblong, funicle thickened and shortly folded

under the seed and forming a white and membranous cup-shaped aril. (Kununoppin. F. E. Victor.)

Acacia triquetra, Benth.—This species differs from *A. Meissneri* in the nerve-like margins of the phyllodia, longer peduncles, pod (immature) curved and narrow, not over $1\frac{1}{2}$ lines broad, and funicle short with a large aril.

Bentham separated *A. Meissneri*, Lehm., and its var. *angustifolia*, as described by Meissner ("Pl. Preiss," i. 13) under the one specific name, making the variety a distinct species, namely, *A. triquetra*. With the exception of the linear phyllodia, our plant answers to the description of this species, but its phyllodia have the obliquely obovate form of those of *A. Meissneri*, with the upper margin more arched than the lower, and bearing a gland below its middle, though differing in having nerve-like margins. The chief distinction between the two species, however, is found in the pod, which in the Kununoppin specimen is nearly sessile, much curved and twisted, forming sometimes more than two circles, somewhat turgid and narrower between the seeds, which are longitudinal, oblong, with the funicle very short and bearing a very large yellowish aril broader than the seed. (Kununoppin. F. E. Victor.)

Acacia pyrifolia, DC., n. var.—At the Ashburton river two forms of *A. pyrifolia*, DC., were met with; one, which appears to be the usual form, growing as a small tree on the open plain, where a heavy clay soil is sometimes seen forming a bare surface but is usually covered with sand. Its phyllodia are thick, undulate, rigid, and primose, and the inflorescence is of a very dark purplish colour. The other grew near the river, as a shrub, amongst others, and somewhat protected from the severity of the heat. In form the phyllodia were exactly the same, but this grew with more prominent veins, while the pods were of a paler colour. The funicle of the seed, however, is much shorter, not passing completely round the seed, while in the other form it makes a complete revolution before being folded twice and somewhat thickened to form an aril.

Acacia microbotrya, Benth.—As Bentham had doubts about the fruit of this species, the following may be added to his notes on the subject:—Pod (not yet mature) on a stalk of about 0.6 cm., straight, flat, valves coriaceous with

thickened sutures, finely reticulate over the seeds and much contracted between them, seeds convex alternately on either surface of the pod, which is found to reach 15 cm. in length and about 0·7 cm. in breadth over the seeds. Seeds sometimes as many as ten in the pod, longitudinal, oblong, flat, 5 mm. in length; funicle long and slender, two or three times folded and expanded below the seed into a large club-shaped fleshy aril. (Hannan's Lake, Boulder. W. D. Campbell.)

Acacia Lindleyi, Meissn.—Meissner, describing *A. Lindleyi* as a new species, speaks of it as being distinct from all others, but he cannot have seen *A. subcærulea*, published by Lindley in the "Botanical Register" in 1827, for the description of the latter applies remarkably well to the former, as seen in specimens from Coolgardie and Kellerberrin districts. To this similarity may also be ascribed the origin of E. Pritzel's *A. subcærulea*, Lindl., var. *subsessilis* ("Bot. Jahrb.," xxxv. p. 303). Spencer Moore also records *A. subcærulea* from near Coolgardie, but in the "Fl. Australiensis" the only localities given for this species are on the south coast. The only ready distinction is found in the longer racemose and more slender branches of the *A. subcærulea*.

The fruit of *A. Lindleyi*, however—up to the present unknown—is very different from that of *A. subcærulea*. The pod measures up to 7·5 cm. in length by 0·6 cm. in breadth, it is stipitate, flat, obtuse, and is coiled more or less into circles; the valves are coriaceous, with the sutures somewhat thickened, depressed between the seeds, and showing transverse veins reticulating on their surface. The seeds are longitudinal, ovate, smooth, black, with a short and slender funicle, not thickened nor folded, about half the length of the seed. (Kununoppin. F. E. Victor.)

Acacia dictyophleba, F. v. M. "Pod unknown," Bentham, "Fl. Aus.," ii. 388.—Pod very shortly stalked, flat but undulating over the seeds, resinous and glistening, oblong, rounded at both ends, valves coriaceous, margins straight and nerve-like, with numerous transverse veins reticulating over the surface, maximum dimensions 5·5 cm. long, 1·4 cm. broad. Seeds transverse, oblong, 0·5 cm.—0·3 cm., blackish brown; funicle flattened, thrown into

numerous short folds, forming a large pale yellow aril under the seed. (Uaroo, Ashburton River, N.W.)

Acacia aciphylla, Benth.—As the pod has been only imperfectly described, a few notes are here given:—Pod shortly stipitate, linear, terete, slightly contracted between the seeds, with an obtuse more or less hooked apex, max. length 5·6 cm. by 0·15 cm. broad. Seeds longitudinal, linear-oblong, brown; funicle slender, thickened and repeatedly folded below seed, and forming a white cup-shaped membranous aril embracing its base. (Kununoppin. F. E. Victor.)

Acacia ephedroides, Benth.—Pod on a stalk of 3-4 mm., linear, flat, obtuse or bluntly hooked at top, length 6·5 cm., breadth over seeds 0·25 cm., valves coriaceous, thickened along margins, contracted between seeds, light brown, veined on surface. Seeds longitudinal, narrow-ovate, 3 mm. in length, smooth, brown, funicle forming a number of large folds and expanding into a large white membranous aril below the seed. (Kununoppin. F. E. Victor.)

Acacia stereophylla, Meissn. — This specimen agrees perfectly with the description of *A. stereophylla* as given by Bentham ("Fl. Aus.," ii. 404) as well as by Meissner himself ("Pl. Preiss.," ii. 203), but as its fruit does not appear to have been hitherto met with, a description of the pod is here given.

Pod shortly stipitate; flat, straight, oblong-linear, bluntly mucronate, obscurely reticulate, valves chartaceous, light brown, slightly thickened along margins, 1-2·5 cm. in length by 0·3-0·4 cm. broad. Seeds longitudinal, ovate, turgid, brown, smooth and shining, at most 0·25 cm. by 0·15 cm.; funicle very slender in lower half, but folded and thickened above, forming a large membranous aril, as in *A. acuminata*. (Kununoppin. F. E. Victor.)

E. Pritzel has come to the conclusion that *A. cibaria*, F. v. M., is really the plant known as *A. stereophylla*, but this decision is evidently not based on an examination of the original or any other specimens of *A. stereophylla*, but on the published description only. *A. cibaria* (the description of which is not available here) is believed to have all the characters of *A. stereophylla* as described, and therefore is the same species. Pritzel, however, describes

the fruit of his plant, and finding it resembles that of *A. xylocarpa*, places it—that is, *A. cibaria* or *stereophylla*—near that species, instead of next to *A. acuminata*, of which Bentham thought it might prove to be a marked variety. The fruit of our specimen, however, confirms the close affinity between *A. stereophylla* and *A. acuminata*, as pointed out by Bentham. There are several varieties of *A. acuminata* met with in the inland districts, but their pods have not been described; it is probable they may with *A. stereophylla* form a group showing affinity in all details with the typical *A. acuminata*.

NOTE ON VICTORIA REGIA, LINDL. By Professor
GIOVANNI ARCANGELI.

This plant, the most beautiful of all the species in the Nymphæaceæ or water-lily family, has been recently cultivated in the Botanic Garden of Pisa (Italy) with excellent results and very little expense, using chiefly solar heat. The germination of the seeds was carried out in a small tank of zinc, with water, gently warmed from below by a petroleum lamp. The sowing was made in the month of March or April in small pots immersed in the water of the tank. When the seedlings were sufficiently grown, with leaves 3–4 inches in diameter, one or two seedlings were planted in the bottom of a basin which was placed in a greenhouse without any apparatus for artificial warming but with glazing turned towards the south, and which was, during a large part of the day, in direct sunshine. In these conditions the seedlings, having been kept from the month of June at a temperature from 25° to 40° C., grew quite well and continued to vegetate vigorously during the months of July, August, September, and October. In the process of vegetation the plant developed a dozen and more very fine flowers, of nearly 30 cm. in diameter, which expanded successively at intervals of from three to four days. The blade of the leaf is circular in outline, in the seedlings 5–12 cm. wide and reaching at maturity 1–1.70 m. in diameter. The lifetime of each