

durch kaltes, regnerisches Wetter die Ernährungsverhältnisse ungünstige sind.

2. Die Blumenblätter werden ebenfalls nicht in Form eines Mützchens abgehoben, sondern entfalten sich nach Art anderer Blüten nach oben. Die Ursache davon liegt in einer anormalen Bildung des Fruchtknotens (erreicht bisweilen das Doppelte der normalen Grösse), oder der Stanzgefässe (der Staubfaden ist mehr oder weniger blattartig entwickelt) oder darin, dass die Rebenblüten gefüllt sind (die normal vorhandenen Nektarien sind zu Blumenblättern umgebildet).

Anschliessend wird die Blüte von *Ampelopsis hederacea* beschrieben.

(Fortsetzung folgt.)

Neue Litteratur.

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[*Xylomelum salicinum.*

(A. Cunn. in R. Br. Proteac. nov. 31.)

Branchlets slender, glabrous or slightly downy; leaves on rather short stalks, comparatively small, narrow-lanceolar, occasionally some broad-lanceolar, all entire or rarely with a few indentations near the summit, prominently pinni-nerved and conspicuously net-veined; spikes slender and rather short, almost sessile; flowers small; bracts and petals outside thinly tomentose; connective of anthers conspicuously protruding; style downy towards the base, glabrous towards the summit; stigma clavate-oval; hypogynous scales free, truncated; fruit oblique-ovate, very turgid, only slightly attenuated towards the blunt summit, thinly velvet-downy outside, bursting only for a short distance on the posterior side; pericarp very thick: seeds not fully half as broad as the pericarp, ovate-rhomboid, somewhat broader than long; terminating membrane obliquely oblong-lanceolar, pale-brown, nearly three times as long as the nucleus, the raphe somewhat removed from the anterior margin of the membrane.

On Dogwood-Creek, Leichhardt and Bunce; on Darling-Downs, Mrs. Ford and Mr. Lau; on the Warrego, Mrs. Spencer.

Leaves 2-4 inches long, mostly $\frac{1}{2}$ - $\frac{3}{4}$ inch broad. Spikes generally $1\frac{1}{2}$ - $2\frac{1}{2}$ inches long. Petals hardly $\frac{1}{4}$ inch long. Ripe fruit measuring nearly $2\frac{1}{2}$ inches in length and $1\frac{1}{2}$ inches in breadth.

This plant became confused in the Flora Australiensis (V. 408-409) with a species, to which I had given the name *X. Scottianum*, of which descriptive notes appeared in the Fragm. Phytogr. Austr. IV, 107; v. 174 and 215, and which is known only from Endeavour-River and Rockingham-Bay. That differs from the extra-tropic inland-plant, now specifically defined, in often somewhat larger leaves with less prominent and less regularly pinnate primary nerves and with less prominent veins, in distinctly pedunculate spikes, in very much narrower almost glabrescent strongly compressed fruits, which are indeed three or four times as long as they are broad, and upwards much attenuated gradually into the recurved apex, in the comparatively thin pericarp (of much less thickness than in any other congener), in the seeds as well as their appendages being thus nearly as broad as the valves, in the deltoid-ovate form of the nucleus (therefore longer than broad) with a terminating membrane only about twice as long, of livid coloration, more tender in texture, more narrowed upwards and with the raphe contiguous to the anterior margin.

Like so many plants, either of the eastern or of the western half of the country, the two *Xylomelum*-species, here alluded to, are clearly distinct; *X. salicinum* was probably not found by Cunningham near Moreton-Bay, but inland towards that large oceanic sinus. Nevertheless it may only be a reduced form of *X. pyriforme*, such as R. Brown considers it to be, and some specimens, sent by Mr. Th. Watson from the vicinity of the Dawson-River, seem to mediate the transit. In its normal state however *X. pyriforme* is larger in all its parts, the leaves are frequently forming large serratures, the tomentose vestiture of the flowers is more dense, the fruit more perceptibly attenuated in its upper portion, the nucleus proportionately longer and the termi-

nating membrane somewhat curved. This species extends to the Blue Mountains (Mrs. Calvert), to Illawarra (Kirton), to the Hunter-River (Leichhardt). Mr. Bailey records both species from Queensland.

X. occidentale I noticed on the Blackwood-River. Not rarely 2 or 3 pair of spikes terminate the branchlets.

X. angustifolium is already quite distinct from the other species in the form of its pericarp, in the shape and coloration of the seed and in the comparative shortness of the membranous appendage. No representative of the genus *Xylomelum* is known nor likely obtainable from between 120° and 145° longitude east of Greenwich; and this can be said also of a considerable number of other genera, endemic to Australia.]

Mueller, Ferd. Baron v., Description of two unrecorded Leguminous trees from New Guinea. (Extra print from the Australasian Journal of Pharmacy. April, 1886.)

[*Cynometra minutiflora*.—Branchlets thin, subtle-hairy; leaves consisting generally of two pair of leaflets, short-stalked or almost sessile, the petiole and rachis minutely hairy; leaflets comparatively small, chartaceous, sessile, oblique ovate-lanceolar, gradually protracted into a short-bilobed summit, hardly paler beneath, glabrous on both sides; fascicles of flowers almost capitate, emanating often from near the base of the petiole; peduncle obliterated; bracts minute, roundish; pedicels very short, subtle-downy; calyces minute, their segments almost ovate, glabrous; stamens ten, about twice as long as the calyx-segments; anthers roundish; ovary short-stipitate, as well as the style glabrous; stigma not dilated; fruit comparatively small, almost semi-orbicular-ovate, oblique, short-stipitate, slightly rough, rather turgid, indehiscent, one-seeded.

In the south-eastern part of New Guinea; Rev. J. Chalmers. Leaflets of the lower pair usually only about half as long as those of the upper, the latter 1–1½ inches long, and much more narrowed towards the summit. Fascicles of flowers reminding of little flowerheads of Acacias; segments of the calyx not fully ¼ inch long. Petals obliterated, unless fugacious, none seen in any of the advanced flowers available. Style thicker than the filaments. Fruit resembling that of some Grevilleas, though not bivalvular, attaining a length only of ¾ of an inch; pericarp rather thick. Seed turgid. The smallness of the leaves, the minuteness of the flowers and the smoothness of the ovary separate this species from all others, except *C. Travancorica*, the flowers of which are also exceedingly small; but that species has the leaflets in single pairs and of large size, while the ovary is downy and the fruit flat. Should further observations confirm the absence of petals in this *Cynometra*, then a still closer approach to the genera *Hardwickia*, *Prioria*, *Copaifera*, *Crudia* and *Detarium* would be indicated. Some South-American species of *Cynometra* yield a kind of Capal.

Pterocarpus Papuanus.—Branchlets almost glabrous; leaflets often 5-7, thinly chartaceous, scattered, soon glabrous, ovate or roundish-ovate, protracted into a narrow acumen; racemes axillary, simple or but little branched; pedicels about as long as the calyx during anthesis; calyces beset with subtle appressed hair outside, only short-protracted at the base; teeth somewhat deltoid, the lower smaller and more acute; petals glabrous, the upper and the lateral crisped, the two lower the shortest; tube of stamens cleft into halves; ovary silky-hairy; style almost glabrous; pod on a stipes of hardly the length of the calyx, thinly silky, all around expanded into a broad membrane, with a small sinus in front not far above the base of the fruit, the anterior portion of the membranous expansion also above its middle forming a short protruding angle.

At Maiva and Kerepuna in New Guinea; Edelfelt. A tall tree, with reddish wood, according to the collector's notes. Specimens obtained through Th. Gulliver, Esq. I should have referred the Pa-

puan species to *P. Indicus*, had it not been for the marked difference in the fruit, the stipes of which is still shorter than in *P. marsupium*. Ripe seeds of the Papuan plant were not available for comparison. Miquel and Baker describe the fruit of *P. Indicus* silky; Kurz found it glabrous already in a young state. *P. macrocarpus* is evidently also closely akin to *P. Papuanus*; but the leaflets are less broad and stiffer, nor can the calyces be called rusty-velvety. But like *P. Indicus* and *P. macrocarpus* also the Papuan tree is sure to yield Kino, perhaps as good as that of *P. marsupium* and *P. erinaceus*; nor can there be doubt, that *P. Papuanus* will furnish dye-wood somewhat similar to that of *P. santalinus*; thus two new articles of export are likely to be supplied by the Papuan tree, now for the first time brought under notice. The specimens from Kerepuna are only flower-bearing, those from Maiva only fruit-bearing; but I regard them as belonging to one species.]

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Wissenschaftliche Original-Mittheilungen.

Cucurbitaria Laburni auf Cytisus Laburnum.

Von

Dr. Karl Freiherrn von Tubeuf.

Hierzu Tafel I u. II.

(Fortsetzung.)

Wenn wir nun die Holzpartien junger, nur Splintholz bildender Cytisus-Pflanzen betrachten, welche von Cucurbitaria Laburni befallen sind, bekommen wir genau dasselbe Bild auf Meter weit in den gebräunten Holztheilen. Wenn wir ferner Infektionsversuche machen, erhalten wir an der Verwundungsstelle auf 2 bis 10 cm (in einem halben Jahre) dieselbe Erscheinung.

Betrachten wir endlich die künstlichen Schnittwunden, die zum Vergleiche ohne Infectionen gemacht wurden, so bekommen wir dieselben Erscheinungen an der Wundstelle. Die Bräunung tritt schon nach wenigen Tagen ein. Wenn wir unsere mikroskopischen Präparate mit den verschiedenen Reagentien behandeln, erhalten wir folgendes Resultat: Die anfangs rein gelbe, dann gedunkelte Masse, welche in Tracheen und Tracheiden auftritt und tropfenweise in Parenchymzellen vorkommt, ist unlöslich in Wasser, Alkohol, Aether, Salpetersäure, Salzsäure, Kalilauge, wird in kochender Salpetersäure gelöst, ebenso in Eau de Javelle, ferner nach Gauundersdorfer bei aufeinanderfolgender Behandlung von Salpetersäure und Kalilauge, färbt sich mit Phloroglucin und Salzsäure roth, mit schwefelsaurem Anilin intensiver gelb, öfters mit Phenolsalzsäure (die auch im Holz nicht gleichmässig färbt) grün. Ist sie gebräunt, so wird sie ebenso wie alle gebräunten Zellwände und Inhaltsreste der Parenchymzellen durch Eisenchlorid tief dunkel gefärbt.

Es ist wohl Holzgummi, der Coniferin und eine dunkle Modification von Gerbstoff enthält. (Es wäre auch möglich, dass der Gerbstoff durch einen Farbstoff gedunkelt ist.) Ueberall, wo ich braune Holzpartien untersuchte, waren die Parenchymzellen getötet und selbst mit braunem Inhalt versehen. Die Reaction auf

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