

Descriptions of New Species of New Zealand Hepatics

III

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INTRODUCTION.

(By K. W. Allison.)

PROFESSOR HERZOG is eminently qualified to revise our Lejeuneaceous liverworts, of which many specimens have been sent to him, but, unfortunately, the war practically stopped this work. Recently, however, he forwarded descriptions of the four new species, here described, for publication in New Zealand, writing that the *Colura* was one of the most remarkable hepatics that he knew.

Colura and *Rectolejeunea* are new genera to New Zealand.

Further localities are:

Pycnolejeunea zotovii.

- (a) Paparoa Range, 3,000-3,800 ft, Westland; H. W. Weelman, March, 1946. Leaf cells rather clearer, with less thickened walls than in the type.
- (b) Damp ground at mouth of small cavern, Mount Ruapehu, ca. 4,500 ft.; G. O. K. Sainsbury, March 26, 1940.

Strepsilejeunea tereticalyx.

Several gatherings from East of Taupo, 2,000-2,500 ft., May to October, 1934, K. W. A.

Pelorus Bridge, Nelson; leg. A. L. Hodgson, No. 780; Jan., 1945.

DESCRIPTION OF SPECIES.

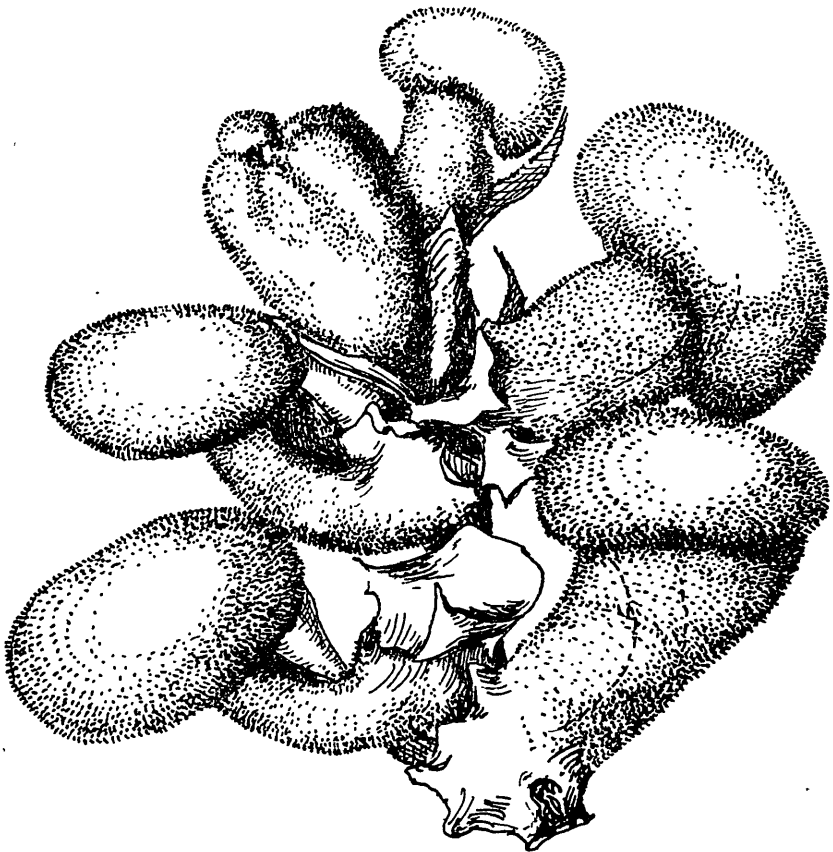
Colura saccophylla Hodg. et Herz. n.sp.

Monoica: *pusilla*, *grisea*, *epiphylla*, *nidulans*. *Carulis pauci millimetri longus, arcte repens, intricatus, utrinque—hic amphigastriis necnon rhizoidibus, illic appendiculis foliaribus crispatis—quasi villosus. Folia caulina oblique ascendentia, forma insolita memorabilia, ubique fere dorso minutissime echinato-papillosa, lamina quam sacculus minore, ipsa concavissima, basi antica appendiculo foliaceo, conchaeformi-inflexa ampliata, margine antico superiore arcte revoluta, sacco giganteo, a vertice depresso, ovato, obtusissimo, sensim in lobulum tubiformem, ipsum laevissimum transeunte: cellulae pro genere minutissime, in sacco diametro 13 μ , hexagonae, tenerrime, ubique echino-papillosae, in lobulo distincte majores, laevissimae: lobulus tubiformi-involutus, carina leviter arcuata. Amphigastria caulina sat magna, profundissime bifida, laciniis oblique divergentibus, anguste longae lanceolatis, ciliiformi-acuminatis, margine ubique cellulis parum majoribus, regulariter prominulis minutim et eleganter*

fimbriolato-denticulatis, cilia terminali 3-4 cellulae longa. Involucrum parvum, perianthio quadruplo vel triplo brevius, foliis breviter bifidis, lobo uno foliari, altero lobulari subaequimagnis, fimbriolato-denticulatis, laxe papillois: amphigastrium florale caulinis simillimum, brevius. Perianthium oblongo-obovatum vel clavatum, superne leviter 5-plicatum, plicis obtusis, apice indistincte breviter umbonatis, quoinde ore immerso, rostro brevi primum occulto, ceterum ubique fere minutissime echinato-papillosum. Capsula subglosa, ad basin fere 4-valvis, elateris monospiris. Sporae bacillari-elongatae, 4- vel pluricellulares, 60-100 μ longae, 52 μ latae. Androecia lateralia, minuta, foliis caulinis triplo vel quadruplo breviora, brevissime spicata, bracteolis papillois, 2-5-jugis, diandris.

New Zealand: on fronds of *Lycopodium scariosum* amongst open short manuka, on steep side of a gully, east of Taupo, 2,200 ft.; leg. K. W. Allison, 21/9/35.

To be known by the areolation, the sack-like form and size, the expanded base of the leaf on the upper side of the stem (*appendiculus basalis anticus*) and the perianth shape. It can be compared with no other species.



Colura saccophylla Hodgs. et Herz. n.sp. Habitus ca. 70/1. Dorsal view.

***Pycnolejeunea zotovii* Herz. n.sp.**

Dioica videtur (♀ tantum visa): pro genere minima, dense caespitosa, grisea, terricola. Caulis filiformis, suberectus (videtur), tamen ramosus, ramis elongatis, ad 5 mm. longus, cum foliis nec 0.5 mm. latus, quasi catenulatus. Folia caulina oblique patula, laxè imbricata, concavissima, late subovata, obtusissima, integerrima, margine antico subplano, postico et apicali stricte incurvo, quoinde quasi conchiformia, 0.4 mm. longa, 0.28 mm. lata: cellulis ubique fere aequalibus, rotundato-hexagonis, marginalibus diametro 12μ , mediis et basalibus 16–17 μ , trigonis ubique majusculis, acutis in parietibus sat validis: lobulus longitudine folium dimidium vix aequans, in situ valde involutus, subfusiformis, angulo occulto, in marginem folii recurvum sensum excurrrens, in plano subovatus, apice leviter emarginatus, angulo dente brevi, erecto, apiculato, carina substricta, in folii marginem recte excurrente. Amphigastria caulina caule parum latiora, subovalia, transverse inserta, ad medium fere biloba. Lobis triangularibus, subacutis, subcontiguis, rima angustissima. Folia floralia caulinis duplo longiora, laxè patula, oblonga, obtusa, lobulo lanceolato-ligulato, subobtusulo, ad medium fere soluto: amphigastrium florale foliis subaequilongum, e basi cuneata oblongum, apice brevissime bifidum, reflexum. Perianthium pro plantula maximum, longe exsertum, 1 mm. longum, 0.75 mm. latum, truncato-obcordatum, 5-carinatum, carinis acutis, ventralibus ad basin fere decurrentibus, rostro brevi.

Watercourse on north face of Mount Hector, 4,800 ft.; leg. V. D. Zotov, 31/12/33.

One of the smallest species of the genus. It is marked off by the spoonlike hollow leaves together with the strongly inrolled lobule in which the incurving of the margins right up to the apex forms a channel.

***Rectolejeunea ocellata* Herz. n.sp.**

Monoica: minima, albida, quasi crustacea, corticola. Caulis nec 3 mm. longus, fasciculatim ramosus, appressus, cum foliis 0.32–0.35 mm. latus. Folia caulina imbricata, oblique patula, parum concava, anguste inserta, oblique ovata, 0.26 mm. longa, 0.2 mm. lata, obtusissima, integerrima, margine antico a basi alte arcuato, postico substricto: cellulis hexagonis, validiusculis, densissimis, apicalibus diametro ca. 8μ , basalibus ad 12μ , area mediana basali ocellata, id est ocellis suprabasalibus 7–8 ad 20μ longis, 16μ latis, aggregatis, maculam hyalinam efficientibus, insuper ocellis minoribus, diametro ca. 12μ in folii parte superiore distributis: lobulus folio triplo brevior, ovatus, inflatus, sub apice parum constrictus, apice leviter emarginato, angulo obtuse prominulo, carina leviter arcuata, substrictè in folii marginem excurrente. Amphigastria caulina remota, appressa, transverse inserta, caule vix duplo latiora, infra medium biloba, lobis anguste lanceolatis, acutis, porrectis, sinu angusto, acuto. Inflorescentia ♀ in caule vel ramis terminalis, uno latere breviter innovata. Folia floralia caulinis vix majora, angustiora, obtusa, ocellata, lobulo late ligulato, obtuso, ad medium soluto. folii vix dimidium longitudinem aequante: amphigastrium florale foliis subaequilongum, oblongo-ellipticum,

marginē irregulariter angulatum, apice ad $\frac{1}{2}$ bifidum, lobis triangularibus, acutis, contiguīs, rima angustissima. Perianthium 0.26 mm. longum, et latum, ocellatum, late obtusum vel truncato-obcordatum, compressum, 4-carinatum, dorso applanatum, carinis lateralibus dilatatis, magnis, compressis, ventralibus 2 infra medium decurrentibus, angustioribus, rostro brevissimo. Androecia terminalia, brevissima, quasi capitata, bracteolis 1-2-jugis, quam folia antecedentia majoribus, valde inflatis, subgloboso-concavis.

Bush near Wairoa, Hawke's Bay; leg. E. A. Hodgson, 21/1/34.

This small species is distinguished chiefly by the characteristic differentiation of the leaf cells and can be confounded with no other species. A notable new species.

Strepsilejeunea tereticalyx Herz. n.sp.

Monoica: exigua, sordide viridis. Caulis ad 5 mm. longus, cum foliis 0.7 mm., latus, dute pinnatim ramosus, sub flore ♀ saepius furcatus. Folia subrecte patula, imbricata, decurva, sat late inserta, falcato-ovata, asymmetrica, acutiuscula, integerrima, ca. 0.5 mm. longa, 0.4 mm. lata: cellulis densissimis, opacis, ubique fere aequalibus, mediis diametro ca. 16-20 μ , trigonis maximis, nodulosis, saepius confluentibus in parietibus tenuissimis, dorso leviter papuloso-prominulis: lobulus oblique ascendens, folio subtriplo brevior, subovatus, inflatus, apice emarginato, angulo spina valida stricte erecta armato, carina leviter arcuata, substricte vel (in situ) sinu amplo in folii marginem excurrente. Amphigastria caulina caule subtriplo latiora, transverse inserta, late ovata, ad $\frac{1}{2}$ bifida, lobis late triangularibus, acutis, sinu acuto. Inflorescentia ♀ geminatim innovata: folia floralia caulinis parum majora, oblongo-subfalcata, obtusiuscule acutata, lobulo duplo breviora, parum vel vix soluta, anguste oblongo, subacutò: amphigastrium florale foliis subaequilongum, concavissimum, e basi angustiore oblongo-spathulatum, brevissime bifidum, rima angusta. Perianthium subgloboso-obovatum, laevissimum, inflatum, ca. 0.8 mm. longum, 0.6 mm. latum, rostro breviter cylindrico, recto, ore patellari-expanso. Androecia lateralia, breviter spicata, bracteolis 2-4-jugis.

New Zealand: Morere Bush, Wairoa, Hawke's Bay; leg. E. A. Hodgson, No. 292.

This new species is to be known at first glance by the quite unribbed perianth of swollen balloon form and by the rostrum having the upper margins expanded out into a hat-like form.