

LIST OF HEPATICAE
COLLECTED IN MARION ISLAND BY MR. R. W. RAND
DEC. 1951—APRIL 1952.

BY

SIGFRID ARNELL.

By the courtesy of Mr. S. GARSIDE, the Bolus Herbarium, Cape Town, I got this small collection of liverworts, made by Mr. R. W. RAND from Marion Island, for determination. Marion Island lies in south of South Africa, $46^{\circ} 52' S$ and $37^{\circ} 45' E$. The vegetation is about the same as in the Crozets, Kerguelen and Heard Islands. The distance to Bouvet Island is 1 400 miles, Tristan da Cunha 2 150 miles, Kerguelen 1 200 miles, Falkland 4 500 miles. The Island is 4 250 ft. high, the rock is basalt. It is seldom visited by people and it seems to have been the place for collection of liverworts only once before, when H. M. S. Challenger passed the Island. MITTEN reports the following 6 plants from this collection: *Jungermania colorata* LEHM., *Plagiochila heterodonta* HOOK. f. & TAYL., *Lophocolea pallide-virens* HOOK. f. & TAYL., *L. novae-zealandiae* (L. & L.) NEES, *Gottschea carnosa* MITT., *Lepidozia laevifolia* HOOK. f. & TAYL. The new collection is richer in species, and therefore I made up a list over them. I also wish to express my gratitude to Miss BOLUS and Mr. GARSIDE for their help in correcting the language in my descriptions.

List of Localities.

- 3269—3293. Dec. 31, 1951. En route to Stony Ridge (Macarony Bay).
3300—3312. Jan. 4, 1952. Good Hope Bay area.
3314—3319. Jan. 6. Sea Elephant Bay cave.
3331—3346. Jan. 8. Coastal plain, near waterfall.
3366—3375. Jan. 14. Coastal plain above Fur Seal Bay.

- 3384—3385. Jan. 21. W/T cabin.
 3392—3400. Jan. 25. Coastal plain, Boot Rock.
 3408—3412. Jan. 30. Station.
 3431—3438. Febr. 6. Coast edge to Sealers Cave.
 3468—3490. Febr. 16. Mixed Pickle Cove.
 3563—3590. March 6. Ridges between Transvaal Cove and Trypot Beach,
 mostly from lava outcrops where mosses and ferns protected from wind.
 3591—3606. March 7. Soft Plume River bed.
 3628—3637. March 15. Sealers Hut 2.
 3660—3662. March 19. Tristan House.
 3666—3669. March 21. Station, fresh water stream.
 3736—3752. April 17. Long Ridge.
 3762—3789. April 19. Between Station and Skau Ridge.

List of Species.

- Blepharidophyllum densifolium* ÅNGSTR. — No. 3394, 3585, 3632, 3746.
Cephalozia Randii nov. spec. — No. 3782.
Cephaloziella marionensis S. ARN. — No. 3279, 3431, 3567, 3737, 3782.
Cephaloziella sp. — No. 3782.
Gymnomitrium (Cesia) marionense nov. spec. — No. 3788.
Diplophyllum marionense nov. spec. — No. 3782.
Jamesoniella colorata (LEHM.) SPR. — No. 3278 b, 3288, 3332, 3342, 3587.
J. grandiflora (L. & G.) SPR. — No. 3279, 3288, 3431, 3567, 3573, 3574,
 3575, 3632, 3737.
Lepidozia Randii nov. spec. — No. 3274, 3276 (type), 3305, 3289, 3666.
L. asperifolia ST. — No. 3305, 3332, 3337, 3400, 3597, 3632, 3666, 3746.
Lophocolea humilis (H. & T.) ST. — No. 3305, 3585, 3632, 3737, 3746.
L. kerguelensis G. — No. 3276, 3305, 3485, 3487, 3660, 3666, 3747, 3782.
L. Randii nov. spec. — No. 3333, 3410.
Lophozia cylindriiformis (MITTEN) ST. — No. 3782 (only a shoot).
L. marionensis nov. sp. — No. 3575, 3746.
Marchantia cephaloscypha ST. — No. 3316, 3487.
Metzgerea marionensis nov. sp. — No. 3276, 3487, 3575 (type), 3666, 3737.
Plagiochila marionensis MITT. — No. 3595, 3666.
Schistochila carnosus (MITT.) ST. — No. 3341.
Symphogyna marionensis nov. sp. — No. 3749.
Tylimanthus viridis MITT. — No. 3276, 3288, 3289, 3374, 3573, 3575.

9 of the species (almost 50 %) seem to be endemical. Of course some of them later on will be found in other of the Subantarctic Islands. *Marchantia cephaloscypha* (perhaps identical with *M. Berteroana* L. & L.) and *Jamesoniella colorata* are widely spread, *Blepharidophyllum densifolium* occurs also in Fretum Magellanicum, *Jamesoniella grandiflora* occurs also in Fuegia, Chile, Patagonia, Argentina, Nova Granada, Bolivia, Peru, Tristan da Cunha, *Sv. Bot. Tidskr.*, 47: 3



Fig. 1. *Cephalozia Randii* S. ARN. — a. Shoot with female organ. — b. Fragment of a stem with amphigastrium. — c. Marginal cells from the mouth of a perianth. — d. Male bract.

Tasmania. *Lophocolea kerguelensis* is described from Kerguelen, it is very near related to *L. pallide-virens*. *Lepidozia asperifolia* occurs in Tasmania and New Zealand. *Lepidozia Randii* also occurs in Tristan da Cunha. As was expected, the flora has species common with the flora of the Fuegia, the other Subantarctic Islands and New Zealand.

New or Otherwise Interesting Species.

Cephalozia Randii S. ARNELL nov. spec. — Fig. 1.

Type: Marion Island, R. W. RAND no. 3782, together with *Diplophyl- lum marionense* S. ARN.

Dioica?, filiformis, pallide viridis. Caulis ad 15 mm longus, 90 μ in diam., stoloniferus, cellulae corticales 8 seriatæ. Folia caulina remotiuscula, ad $1/2$ bilobata. Cellulæ 20 \times 40 μ , leptodermes. Amphigastria caulina

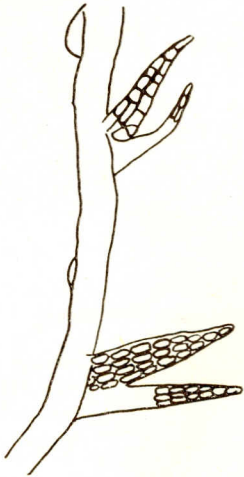


Fig. 2. *Cephaloziella* sp.
Part of the plant.

parva, ligulata. Folia floralia magna, ad $\frac{1}{3}$ bilobata, amphigastrium floralibus aequimagnum, ligulatum. Perianthia in ramo postico brevia vel terminalia, ore crenulato. Sporae 8—10 μ , leves. Androecia parva, bracteis 3—4 jugis.

Dioicous or autoicous?, filiform, pale green. Stem up to 15 μ long, 90 μ in diam., cortical cells rectangular, about 20—26 \times 60 μ , 8 cells in the periphery, sparsely ventrally branched, shoots mostly stoloniform, microphyllous. Leaves distant and spreading, inserted at about 45° angle, apex bilobed to about $\frac{1}{2}$, lobes basally 3 cells wide. Cells about 20 \times 40 μ , thin-walled, trigones lacking. Amphigastria small, lingulate. Female organs in short ventral branches or sometimes apical, female bracts large, bilobed to $\frac{1}{3}$, bracteole of about the same length, lingulate. Mouth of the perianth slightly crenulate. Spores 8—10 μ , smooth, reddish brown. Androecia intercalary, short, bracts in 3—4 pairs, slightly saccate, bilobed to $\frac{1}{3}$.

Differs from the other antarctic species by the lingulate amphigastria and bracteoles.

Cephaloziella sp. — Fig. 2.

Marion Island, R. W. RAND no. 3782.

Only one plant observed, this pale green, 5 mm long. Leaves distant, deeply bilobed (belonging to the subgenus *Schizophyllum*). Lobes lanceolate, basally up to 4 cells wide, apex subacute. Cell-walls of medium thickness, trigones lacking. Cells 14—30 μ long. Amphigastria lacking.

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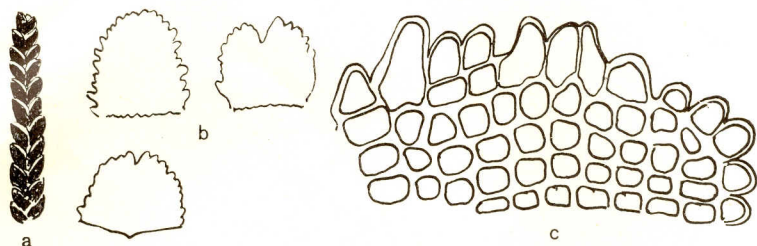


Fig. 3. *Gymnomitrium (Cesia) marionense* S. ARN. — a. Shoot in dorsal view, hyaline margins of the leaves. — b. Leaves. — c. Margin of a leaf.

Gymnomitrium (Cesia) marionense S. ARNELL nov. spec. — Fig. 3.

Type: Marion Island, R. W. RAND no. 3288.

Sterilis, parva, capillaris, rubro-brunnea. Caulis ad 5 mm longus, 140 μ in diam., cellulae corticales incrassatae, 8–10 μ . Folia dense imbricata, obovata—elliptica, apice rotundato vel breviter bilobato, margine serrato-crenulato. Cellulae marginales 12–26 μ , hyalinae, cellulae centrales 8 \times 12–12 \times 20 μ .

Only observed sterile, capillaceous, reddish brown, growing among *Tylimanthus viridis* on soil. Stem to 5 mm long, 140 μ in diameter, cortical cells thick-walled, rectangular, about 8–10 μ wide. Leaves imbricate except in the microphyllous stolons, transversally inserted, densely appressed, obovate-oval, apex rounded or sometimes shortly bilobed. Marginal cells larger than the inner cells, 12–26 μ , forming a colourless, serrate marginal row. Cells in the central parts of the leaf regularly rectangular, arranged in rows, 8 \times 12–12 \times 20 μ .

Diplophyllum marionense S. ARNELL nov. spec. — Fig. 4–5.

Type: Marion Island, R. W. RAND no. 3782.

Paroica, parva, pallide viridis. Caulis ad 10 mm longus, 200 μ in diam. Folia caulina parum imbricata, subrecte patula, margine denticulata, anguste oblonga, leviter falcata, apice obtuso, lobulus anticus folii brevior, apice obtuso, margine serrulato; carina arcuata. Cellulae marginales 8–10 μ , centrales 14 \times 20 μ , basales 14 \times 40 μ . Perianthia terminalia, obovata, pluriplicata, ore contracto, argute spinuloso, sub sterilibus uninnovata. Androecia sub perianthio, bracteis 2–3 jugis, saccatis. Propagulia apicalia, 8–12 μ , angulares.

Monoicous (paroicous), pale yellowish green, on soil. Stem to 10 mm long, about 200 μ in diameter. Stem-cells thin-walled, cortical layer slightly compressed, in cross section about 10–16 μ .



Fig. 4.

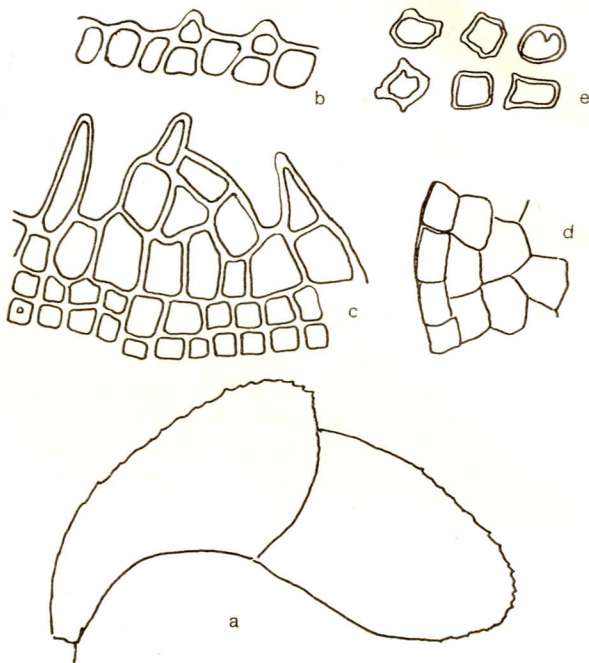


Fig. 5.

Fig. 4. *Diplophyllum marionense* S. ARN. Plant with perianths and male bracts.
 Fig. 5. *Diplophyllum marionense* S. ARN. — a. Leaf. — b. Marginal cells in a leaf. —
 c. Marginal cells of the perianth. — d. Portion of a cross section of a stem. —
 e. Gemmae.

Rhizoids long, colourless, arising from the ventral side and also from the lateral sides of the stem. Apex of the leaf mostly rounded, sometimes acute, especially at the top of the shoots, central strip of elongate cells lacking. Base sheathing the stem to $\frac{1}{2}$. Ventral lobe 3—4 times longer than wide. Length of the dorsal lobe 65 % of that of the ventral one, width 40 % of the length. Length of the seam $\frac{2}{3}$ of the length of the dorsal lobe. Margins finely and sharply dentate in the distal $\frac{1}{2}$ of the lobes and the distal $\frac{2}{3}$ of the lobuli. Marginal cells 8—10 μ , cells in the central part about $14 \times 20 \mu$, basal cells up to $14 \times 40 \mu$. Oil bodies 2 μ , 1—2 per cell, lacking in the marginal cells. Cuticle smooth. Perianth obovate, 3-plicate in the dorsal side in the distal $\frac{1}{4}$, mouth dentate, teeth 1(—3) cells long, marginal cells larger than the following cells, these isodiametrical in the distal part, towards the basal part gradually

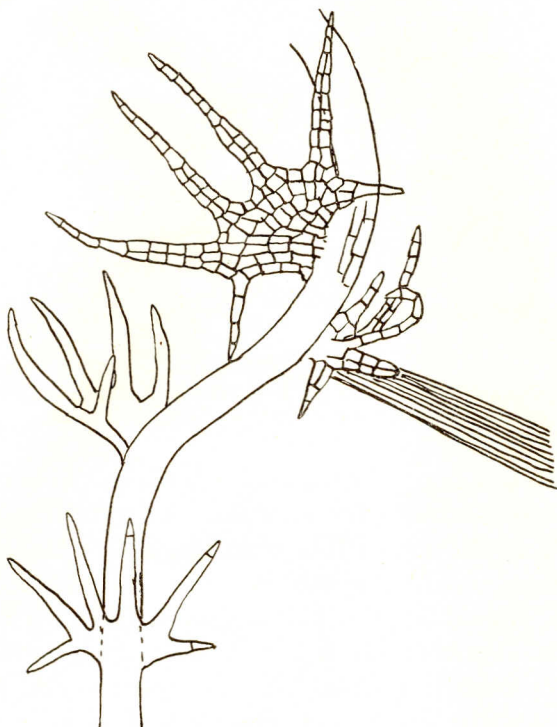


Fig. 6. *Lepidozia Randii* S. ARN. Fragment of a shoot.

more and more elongate. Below the female bracts 2—3 pairs of male bracts with saccate base. Mostly one innovation below the sterile perianths. Gemmae in apical clusters, 8—12 μ , \pm cubical, angles frequently somewhat projecting.

Differs from the other antarctic species of *Diplophyllum* in being paroicous.

Lepidozia Randii S. ARNELL nov. spec. — Fig. 6.

Type: Marion Island, R. W. RAND no. 3276.

Sterilis, brunneo-viridis—brunnea. Caulis ad 20 mm longus, 80 μ in diam. Folia caulina remota, squarrosa, 5—6-fida, laciniis regulariter distributis, lanceolatis, basi per 2(—4) cellulas latis, lateralibus minoribus. Cellulae 14—28 μ . Amphigastria folio parum minora, 5-fida.

Sterile, brownish-green to brown, among other bryophytes on soil. Stem to 20 mm long, 80 μ in diameter. Leaves squarrose, 3—4-lobate, discus wider than long, with a 3—5 cells long, acute,

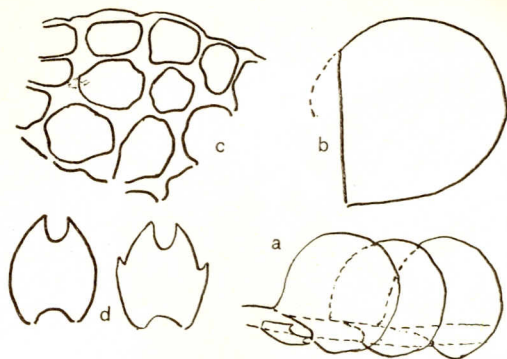


Fig. 7. *Lophocolea humilis* (H. & T.) St. — a. Shoot in side view. — b. Leaf. — c. Marginal cells from a leaf. — d. Amphigastria.

sometimes reflexed marginal tooth on each side. Lobes lanceolate, narrow and acute, basally 2(—4) cells wide, spreading. Cells about 14—28 μ long in the lobes, thin-walled, trigones lacking. Amphigastria somewhat smaller, mostly 3-lobate and with a basal tooth on each side, resembling the lateral leaves. Rhizoids pale brown, in bunches arising from the bases of the amphigastria.

Differs from *Lepidozia sexfida* St. in being more slender and somewhat larger, the leaves more distant and spreading, more flat (in *L. sexfida* concave), the lobes longer and more spreading, the discus larger.

Lophocolea humilis (H. & T.) St., Bull. Herb. Boiss. 1906, p. 547; Sp. Hep. IV, p. 61. *Jungermania humilis* H. & T., J. of Bot. 1844, p. 468. — Fig. 7.

Dioicous, pale green. Stem 2(—6) cm long. Leaves almost circular, concave. Marginal cells 16—20 μ , central cells about 20 μ , walls rather thick, trigones large. Amphigastria appressed, concave, widely oval, bilobed to $\frac{1}{4}$ — $\frac{1}{3}$, frequently with a marginal tooth or knuckle on each side. Previously known from Kerguelen, Falklands Islands and Fretum Magellanicum.

L. kerguelensis GOTTSCHKE. — Fig. 8.

Dioicous. Large, flaccid, dark reddish brown, on soil among other bryophytes, i.a. *Blepharidophyllum densifolium*. Stem 3—4 cm long, about 200 μ in diameter, brown, cortical cells rectangular, about 20 \times 60 μ , cell-walls thin, middle lamina brighter, almost
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Fig. 8. *Lophocolea kerguelensis* G. — a. Fragment of a shoot in ventral view. — b. Leaves. — c. Marginal cells from a leaf. — d. Amphigastria. — e. Female shoot with perianth.

colourless. Leaves of varying shape, in well developed shoots lingulate-rounded rectangular, sometimes emarginate-bluntly bilobate, apical lobe then frequently smaller or almost lacking, in slender shoots bilobate with subacute lobes, in female shoots also bilobate, dorsal margin mostly longly decurrent. Marginal cells $30-34\ \mu$, cells in the central part of the leaves $30-40\ \mu$, basal cells to $40 \times 60\ \mu$. Marginal wall of the marginal cells almost invisible (also in the amphigastria), elsewhere the walls are rather thick, middle lamella almost colourless, trigones small to lacking, some cells deeply brown by the brown-coloured cuticula. Cuticula smooth. Oil bodies 1—2 per cell, dark brown, $2 \times 8\ \mu$. Amphigastria somewhat spreading from the stem, deeply bilobed, a marginal tooth on each side of the base, base decurrent, insertion U-shaped, cells of the same appearance as in the leaves. Female organs apical on long branches. Female bracts in one pair, lobes subacute and narrow, dorsal one frequently smaller, leaves in female shoots all bilobate. Bracteole almost of the same size as the leaves, amphigastria in the female shoots gradually larger towards the top. Perianth trigonous, mouth wide, with 6 subacute, large teeth, corresponding to the lobes of the connate leaves. Spores 1—2-celled, brown, $16 \times 16-20 \times 20-18 \times 38\ \mu$. Elaters bispiral, $10\ \mu$ wide, brown. Androecia not observed.

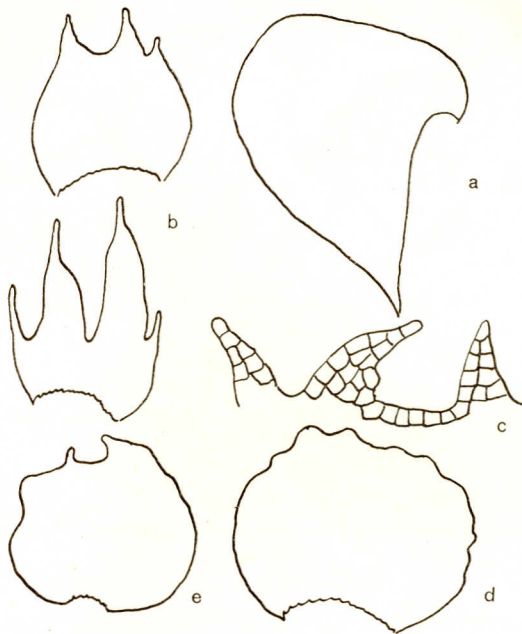


Fig. 9. *Lophocolea Randii* S. ARN. — a. Leaf. — b. Amphigastria. — c. Teeth from the mouth of the perianth. — d. Female bract. — e. Bracteole.

L. Randii S. ARNELL nov. spec. — Fig. 9.

Type: Marion Island, R. W. RAND no. 3333.

Dioica, mediocris, brunneola, flaccida. Caulis ad 4 cm longus, 250 μ in diam., fusco-brunneus, stoloniferus. Folia caulina integerrima, apice rotundato vel truncato, vel in stolonibus bilobata. Cellulae marginales 26—40 μ , centrales 30 \times 32—34 \times 36 μ , trigones parvi. Amphigastria magna, concava, ad $\frac{2}{3}$ — $\frac{1}{4}$ bilobata, margine utrinque unidentato. Folia floralia caulinis similia, margine undulato. Amphig. florale circulare, apice breviter obtuso-dentato. Perianthia ore trilobata, lobis dentatis. Sporae 20 \times 26 μ , leviter papillatae.

Dioicous, of medium size, brown, flaccid, somewhat shiny, on soil. Stem to 4 cm long, brown, about 250 μ in diam., dark brown. Leaves rounded, apex \pm truncate, dorsal margin decurrent, ventral margin somewhat reflexed, sometimes somewhat wavy, in the microphyllous stolons longly rectangular and bilobed. Marginal cells 26—40 μ , cells in the central part 30 \times 32—34 \times 36 μ , walls thin, colourless, trigones small but distinct. Oil bodies one per cell, up to 10 \times 26 μ , compound. Female bracts of the same size as the stem-leaves, entire, margin slightly wavy. Bracteole almost

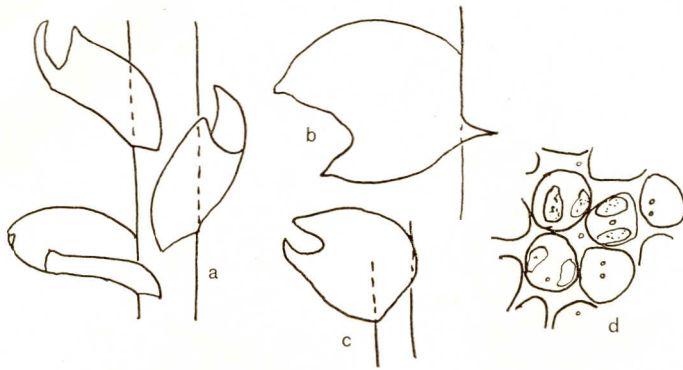


Fig. 10. *Lophozia marionensis* S. ARN. — a. Fragment of a shoot in dorsal view. — b. Leaf in dorsal view. — c. Leaf in side view. — d. Cells with oil bodies.

circular, with small and blunt apical teeth. Perianth trigonous, mouth wide, trilobate, lobes dentate. Spores $20 \times 26 \mu$, bicellular, finely papillose. Elaters $10-12 \mu$ wide.

Lophozia marionensis S. ARNELL nov. spec. — Fig. 10.

Type: Marion Island, R. W. RAND no. 3575.

Sterilis, filiformis, fusco-rubra. Caulis ad 10 mm longus, $90-100 \mu$ in diam., cellulae corticales incrassatae, $10-12 \mu$. Folia caulina regulariter approximata et aequimagna, oblique inserta, antice vergentia, ad $\frac{1}{3}$ bilobata, sinu obtuso, lobis acutis, antico saepius minore. Cellulae marginales 16μ , centrales $18-20 \mu$, basales ad $30 \times 36 \mu$, trigonibus magnis, brunneis. Cuticula papillosa. Amphigastria nulla. Cetera desunt.

Sterile, filiform, reddish brown. Shoot to 10 mm long, stem $90-100 \mu$ in diam., cortical cells thick-walled, $10-12 \mu$. Leaves frequently directed dorsally, insertion straight, at about 45° angle, bilobed to $\frac{1}{3}$, sinus obtuse, lobes acute, dorsal lobe mostly somewhat smaller. Marginal cells 16μ , cells in the central part $18-20 \mu$, basal cells up to $30 \times 36 \mu$, walls reddish brown, trigones large, sometimes confluent, cuticle with a few small papillae. Amphigastria lacking. Oil bodies mostly 2 per cell, $6-8 \mu$ long, granular.

Metzgeria marionensis S. ARNELL nov. spec. — Fig. 11.

Type: Marion Island, R. W. RAND no. 3575.

Sterilis, pallide viridis, minor, terricola. Frons ad 6 mm longa, $\frac{3}{4}$ mm lata, irregulariter furcata. Cellulae marginales $30 \times 30-30 \times 40 \mu$. Alae nudaе, per $10-12$ cellulas latae, cellulae $30 \times 30-40 \times 50 \mu$, trigones parvi vel abeuntes. Costa tenuis; cellulae corticales 4 (utroque latere 2), $30 \times 40-20 \times 60-80 \mu$, in sectione transversali $10 \times 24-14 \times 26 \mu$, ven-

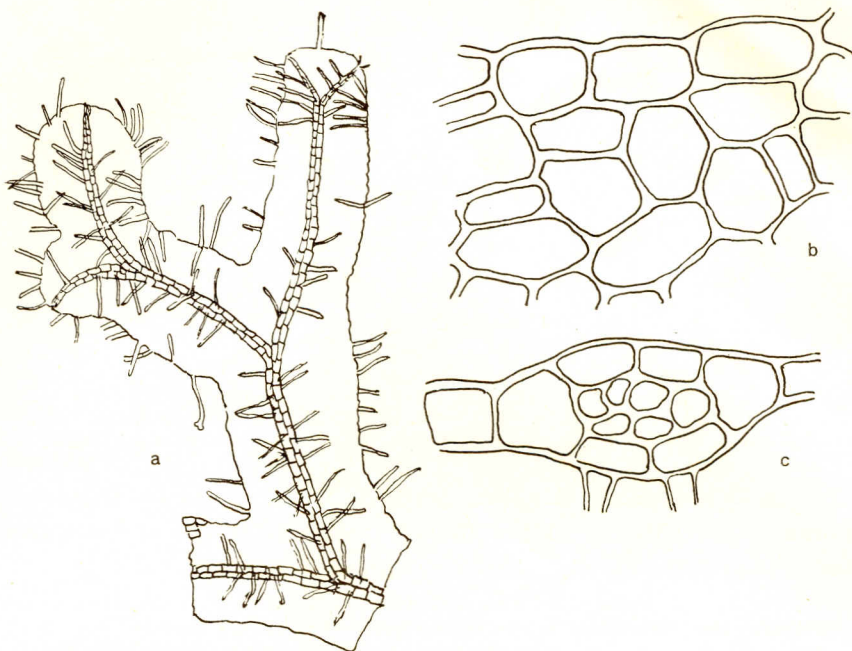


Fig. 11. *Metzgeria marionensis* S. ARN. — a. Thallus in ventral view. — b. Marginal cells. — c. Transversal section of the midrib.

trales setulosae, cellulae centrales 6, in sectione transversali 8–14 μ , parietibus crassis. Setae marginales 100–200 μ , simplices vel geminatae.

Sterile, pale green to whitish-green, creeping among mosses on soil. Thallus to 6 mm long, $\frac{3}{4}$ mm wide, repeatedly furcate. Marginal cells 30 \times 30–40 μ , slightly bulging, inner cells of the alae 30 \times 30–40 \times 50 μ , walls moderately thickened, trigones small or mostly lacking. Cells of the midrib 30 \times 40–20 \times 60–80 μ . Transversal section of the midrib shows 2 dorsal and 2(–3) ventral cortical cells with a size of 10 \times 24–14 \times 26 μ and 6 central cells (8–14 μ wide) with thickened walls. Hairs in the margin and on the midrib, 100–200 μ long, mostly single, sometimes geminate. Alae nude, 10–12 cells wide.

M. glaberrima St. is larger, has only single hairs, transversal section of the midrib shows 2 + 14 + 2 cells.

Schistochila carnosa (MITT.) STEPH. — Fig. 12.

Syn. *Gottschea carnosa* MITTEN, J. Linn. Soc. Bot. XV (1877), p. 72.

Addendum to the description of MITTEN (see also Spec. Hep. IV, p. 93):

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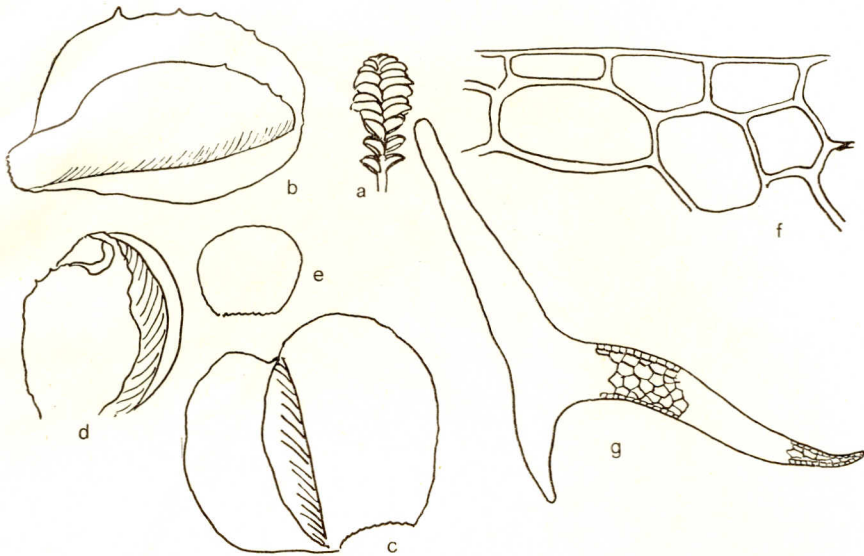


Fig. 12. *Schistochila carnosa* (Mitt.) St. — a. Plant in dorsal view. — b. Leaf in dorsal view, wing below, dorsal lobe in the central part. — c. Leaves in plano, seen from the proximal side. — d. Leaf from the apex of a shoot, seen in dorsal view. Margin of the dorsal lobe recurved near the apex. Wing torn. — e. Amphigastrium. — f. Marginal cells. — g. Cross section of a leaf.

Margins of the leaves sparsely and shortly dentate. Marginal cells of varying size, about 20×30 – $28 \times 38 \mu$, surface cells also of varying size up to $40 \times 50 \mu$. Cross section of the leaf shows the superficial cells regularly rectangular, about $20 \times 30 \mu$. A single unicellular row in the margin, the leaf gradually increasing in thickness towards the centre; in the central part up to 7 cells thick. Inner cells 40×40 – 60×60 – $50 \times 80 \mu$, all cells rather thin-walled, trigones lacking.

Symphyogyna marionensis S. ARNELL nov. spec. — Fig. 13.

Type: Marion Island, R. W. RAND no. 3749.

Dioica, magna, valida, brunneo-viridis. Frons erecta, longe pseudo-stipitata (stipite ipso 20 mm longo), 2–3 furcata, furcis ultimis ad 20 mm longis, linearibus, in medio 8 cellulae crassis, alae per 2–4 cellulas crassae, margine unicellulato, obtuso, sparsim dentato. Squama femina parva, rectangulata, ad dimidium trifida, lobis lacinulatis. Calyptra cylindrica, 5 mm longa, in pedicello 2–3 mm longo, apice fimbriatis. Sporae ferrugineae, 26–30 μ , papillatae, papillis magnis. Elateres 250 μ , medio 6–8 μ lati, fibris dense tortis. Androecia ignota.

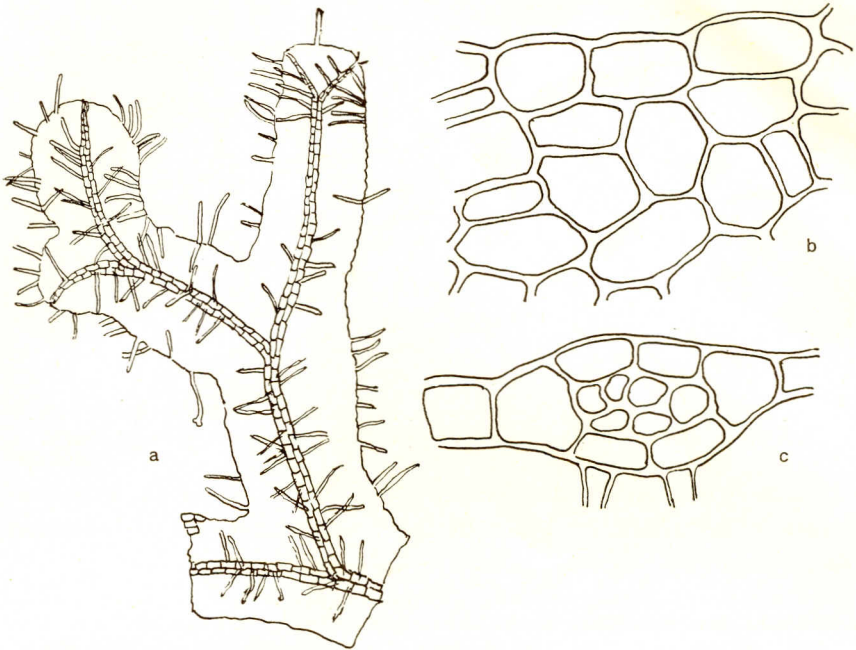


Fig. 11. *Metzgeria marionensis* S. ARN. — a. Thallus in ventral view. — b. Marginal cells. — c. Transversal section of the midrib.

trales setulosae, cellulae centrales 6, in sectione transversali 8—14 μ , parietibus crassis. Setae marginales 100—200 μ , simplices vel geminatae.

Sterile, pale green to whitish-green, creeping among mosses on soil. Thallus to 6 mm long, $\frac{3}{4}$ mm wide, repeatedly furcate. Marginal cells 30×30 — 40μ , slightly bulging, inner cells of the alae 30×30 — $40 \times 50 \mu$, walls moderately thickened, trigones small or mostly lacking. Cells of the midrib 30×40 — 20×60 — 80μ . Transversal section of the midrib shows 2 dorsal and 2(—3) ventral cortical cells with a size of 10×24 — $14 \times 26 \mu$ and 6 central cells (8—14 μ wide) with thickened walls. Hairs in the margin and on the midrib, 100—200 μ long, mostly single, sometimes geminate. Alae nude, 10—12 cells wide.

M. glaberrima St. is larger, has only single hairs, transversal section of the midrib shows 2 + 14 + 2 cells.

*Schistochila carnos*a (MITT.) STEPH. — Fig. 12.

Syn. *Gottschea carnos*a MITTEN, J. Linn. Soc. Bot. XV (1877), p. 72.

Addendum to the description of MITTEN (see also Spec. Hep. IV, p. 93):

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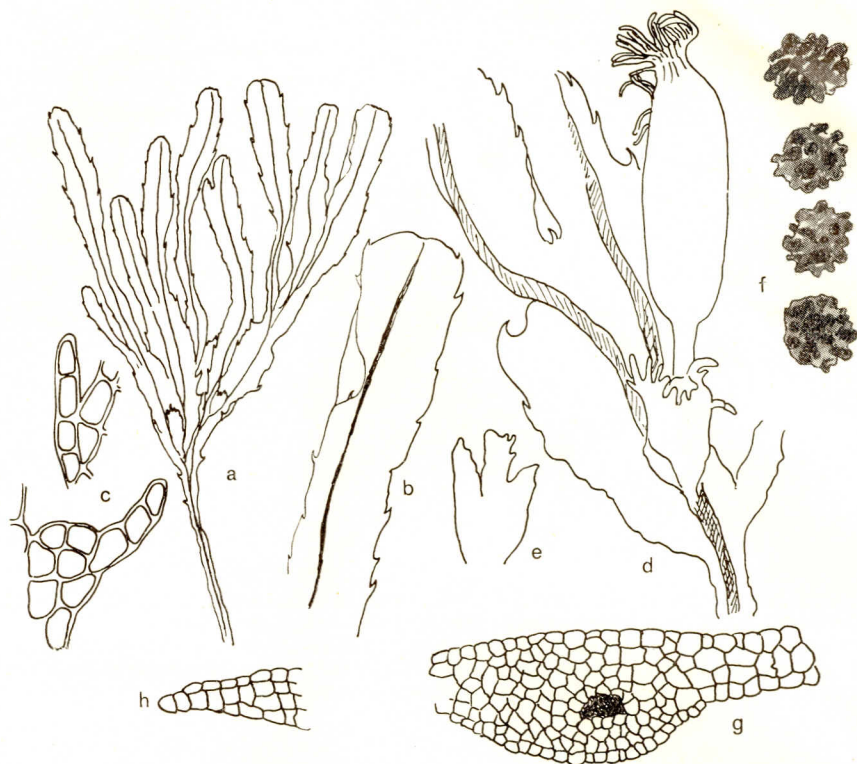


Fig. 13. *Symphyogyna marionensis* S. ARN. — a. Female plant. — b. End of an ultimate branch. — c. Marginal teeth. — d. Calyptra. — e. Squama. — f. Spores. — g. Section of the central part of a branch. — h. Section of the margin of a wing.

Dioicous, large and fleshy, brownish green. Frons erect, 4–5 cm long, the rhizomatous part about 2 cm long, the upper part 2–3 cm long, 2–3-furcate. Ultimate branches about 20 mm long and 2 mm wide, in the middle about 8 cells thick, alae 4–2 cells thick, gradually decreasing in thickness towards the margin, this one cell thick in a uniseriate row. Marginal cells 30×60 – 80μ , surface cells of the wing 40×80 – $50 \times 100 \mu$. Walls of medium thickness, trigones lacking. Marginal teeth sparse, in the ultimate branches mostly 2–4 cells long, in the basal part larger. Female organs in the proximal furcations of the central string, squama small, rectangular, triplicate to $\frac{1}{2}$, plicae fimbriate. Calyptra about 5 mm long, cylindrical, fimbriate in the top. Foot 2–3 mm long. Spores brown, with irregular and large papillae. Elaters brown, *Sv. Bot. Tidskr.*, 47: 3

bispiral, closely twisted, about 250 μ long, 6—8 μ wide in the middle. Androecia not observed.

This species is larger than other known species of Sectio *Dendroides*, the spores also larger and of a characteristic appearance.

Correction.

In a previous paper in this journal (no. 1, p. 118) I described *Calypogeia capensis* as a new species. It is, however, identical with *C. fusca* (LEHM.) ST. and the new name is unnecessary.

Särtryck ur Svensk Botanisk Tidskrift. 1953. Bd. 47, H. 3.

Uppsala 1953. Almqvist & Wiksells Boktryckeri AB