

Plesioneura Cameroni, n. sp.

Wings above dark chocolate-brown ; anterior wings crossed near end of cell by a broad transverse yellow fascia, almost straight inwardly, and outwardly deeply and acutely notched above the first median nervule, and with a small subapical and sublunate yellow spot situate on the ultimate subcostal nervule. Wings beneath as above, but the brown colour slightly paler. Body and legs concolorous with wings.

Expanse of wings 38 millim.

Province Wellesley ; Penang.

Allied to *P. aurivittata*, Moore.

The above species will be figured in my 'Rhopalocera Malayana,' and are contained in the collection made by myself and Mr. Sauer in Province Wellesley.

XXIV.—*Polyzoa of the Queen Charlotte Islands: Preliminary Notice of new Species.* By the Rev. THOMAS HINCKS, B.A., F.R.S.

IN this paper I propose to give a diagnosis of a number of Polyzoa from the Queen Charlotte Islands, entrusted to me by Dr. G. M. Dawson on behalf of the Geological Survey of Canada.

These forms will be more fully described and figured in a special report on the Polyzoa of these islands, which I hope to publish hereafter. As the preparation of the plates may occupy some time, it seems better to record the new species at once, and so avoid the risk of being anticipated after much labour has been expended on the work.

All critical notes on the species will be reserved for the Report.

Family Membraniporidae.

MEMBRANIPORA, De Blainville.

Membranipora nigrans, n. sp.

Zoëcia ovate (variable, sometimes arched above and narrowing downwards, sometimes broad-ovate, sometimes oval), irregularly disposed, margins much elevated, crenate, the whole front of the cell covered by a rather coarse stout membrane of a black colour ; oral valve large ; on each side at the top a pointed *avicularium*, placed on the margin, depressed at the base, the beak sloping upwards, mandible directed obliquely downwards ; very large *avicularia*, slightly raised in

front, with a broad triangular mandible, which is bent abruptly in the middle, scattered amongst the zoecia. *Oæcium* very shallow, just covering the extremity of the cell, smooth, with a raised rib across it a little above the oral margin.

Zoarium of a deep black colour, forming a large irregularly spreading crust.

Loc. Houston-Stewart Channel, Queen Charlotte Islands (Dr. G. M. Dawson).

Membranipora exilis, n. sp.

Zoecia oblong, quincuncial, subtruncate above and below, set closely together, of considerable size and delicate material, margin thin, a good deal raised, the front wall wholly membranous; at the top of the cell 2 spines, and 3 or 4 on each side (or sometimes a smaller number), situated on the upper half of the cell, slender, pointed, suberect, jointed to a tubular base; a sessile *avicularium* on the margin at one side (often absent), just below the top, beak sloping upwards, scarcely bent at the extremity, mandible blunt, directed obliquely outwards. *Oæcia* (?).

Loc. Houston-Stewart Channel, Queen Charlotte Islands, enveloping *Cellaria borealis*, Busk, with a very thin crust (Dr. G. M. Dawson).

Membranipora conferta, n. sp.

Zoecia oval, quincuncial, set closely together, front wall wholly membranous, margin thin, smooth; on each side about 4 sharply pointed spines, and (often) a central one below, which bend rather abruptly over the area and meet in the middle; an *avicularium* at each side on the margin, just below the upper end, slightly raised, pointed, the mandible directed upwards, a small erect spine below the *avicularia*; at the bottom of the cell a single pointed *avicularium* with triangular mandible, variously turned. *Oæcium* rounded, smooth, with a variously shaped depressed area (or fossa) in front, composed of thinner material than the rest of the surface, and appearing dark-coloured as compared with the surrounding dense white crust.

Loc. Houston-Stewart Channel, Queen Charlotte Islands (Dr. G. M. Dawson).

Membranipora levata, n. sp.

Zoecia small, oval, distinct, quincuncial, margin very slightly raised, thin, smooth, the whole front closed in by a smooth, light-coloured, and rather glossy membrane, which lies very much on a level with the edge of the cell; above

each zoecium, on a somewhat quadrate area, a small nodule, with a pointed *avicularium* on one side of it, the mandible directed transversely upwards. *Oæcium* rounded, smooth, umbonate.

Loc. Houston-Stewart Channel, Queen Charlotte Islands (Dr. G. M. Dawson).

Membranipora echinus, n. sp.

Zoecia quincuncial, oval, distinct, separated by rather deep interspaces, 2 spines at the top and 7-8 slender, pointed, and rather tall spines down each side, which slant inwards but do not meet in the centre; on each side, springing from below the second spine from the top, a pedicellate *avicularium*, the upper part large and much swollen (closely resembling a "bird's head"), very slightly hooked at the extremity, apparently jointed to an extremely thin pedicle, mandible slender, pointed. *Oæcium* (?).

Loc. Houston-Stewart Channel, Queen Charlotte Islands (Dr. G. M. Dawson).

Family **Cribrilinidæ**.

CRIBRILINA, Gray.

Cribrilina furcata, n. sp.

Zoecia ovate, quincuncial, very regularly disposed, moderately convex; surface smooth and lustrous, often of a reddish-brown colour, on each side four to six shallow grooves, radiating to a median line, and a central one below, which are occupied by a row of roundish pores set very closely together, the ridges between them slightly raised, usually bearing several elliptical pores; orifice arched above, straight below, much broader than high, on each side a stout bifid spine (occasionally simple); peristome much thickened in front and rising into a central mucro. *Avicularia* none. *Oæcium* large (covering about half the cell above it), rounded, taller than broad, depressed in front, with a shallow oral arch; surface smooth, rather thickly punctured.

Loc. Off Cumshewa Harbour &c., Queen Charlotte Islands (Dr. G. M. Dawson).

Cribrilina hippocrepis, n. sp.

Zoecia ovate, quincuncial; surface lustrous, flattish (structures very shallow), traversed by radiating ridges (three to five on each side), which pass from the sides to the centre (no median keel), the grooves between them occupied by a line of rather large oblong pores; at the origin of each ridge an elliptical foramen, covered in by a delicate membrane;

orifice large, well arched above, constricted a little above the lower margin, which is straight; operculum of a rich reddish brown; peristome not elevated, lower margin much thickened, usually terminating on each side in a knob; large, elongate, depressed spatulate avicularia scattered amongst the cells. *Oæcium* (?).

Surface of *zoarium* flat; colour brown, with a tinge of red, in old states white and highly calcified.

Loc. Cumshewa Harbour and Houston-Stewart Channel, Queen Charlotte Islands, on shell. (*Dr. G. M. Dawson*).

Family Myrionozoidæ (part.), Smitt.

SCHIZOPORELLA, Hincks.

Schizoporella crassilabris, n. sp.

Zoæcia large, elongate, ovate, quincuncial, very distinct, convex, sutures not very deep; surface dense, punctured (the punctures often obliterated by the calcification); orifice sub-erect, suborbicular, with a broad rounded sinus occupying nearly the whole of the lower margin; peristome raised and thickened, forming a wall round the orifice, often massive in front, where it is carried out into a broad projection, which is notched or sinuated in the centre. *Avicularia* none. *Oæcium* large, rounded, broader than high, with rather large punctures.

Loc. Houston-Stewart Channel, Queen Charlotte Islands, 15–20 fms. (*Dr. G. M. Dawson*).

Schizoporella longirostrata, n. sp.

Zoæcia ovate, disposed in lines, moderately convex (sutures shallow); surface roughened or minutely granulated, covered with an epitheca; orifice arched above, lower margin extended into a wide rounded sinus; peristome thin, elevated at each side; on one side, generally a little below the orifice, an elongate, slender, pointed, dependent *avicularium*, the mandible (which is broad at the base and tapering above) directed obliquely downwards, usually turned slightly outwards. *Oæcium* rounded, flattened in front, thickly punctured, with a shallow oral arch.

Loc. Off Cumshewa Harbour, on shell (*Dr. G. M. Dawson*).

Schizoporella insculpta, n. sp.

Zoarium foliaceous and bilaminate or incrusting. *Zoæcia* large, ovate, quincuncial, depressed, separated by raised lines, sutures shallow; surface vitreous, glossy, thickly covered

over its whole extent with punctures; orifice arched above, the lower margin almost entirely occupied by a wide very shallow sinus; peristome thin, moderately raised, extended in front (beyond the sinus) so as to form a small chamber, in which is a rounded orifice (? *avicularium*). *Oæcia* profusely developed, very large (covering about two thirds of the cell above), elongate, rounded above, with a tall oral arch, thickly covered with slight granulated ridges, which radiate from the opening to the base.

Loc. Queen Charlotte Islands, under 30 fms., attached to a stem, and on shell (*Dr. G. M. Dawson*).

Schizoporella maculosa, n. sp.

Zoæcia quincuncial, rather small, moderately convex, sutures shallow; surface shining, covered with small puncta, which are closed in by a brownish membrane, and give a spotted appearance to the front wall; orifice arched above, with a shallow bluntly-pointed sinus below, not contracted at the opening; peristome slightly thickened, on one side just below the orifice (or occasionally on both sides) a small rounded *avicularium* on a prominent boss. *Oæcium* (?).

Loc. Queen Charlotte Islands, on shell (*Dr. G. M. Dawson*).

Schizoporella tumulosa, n. sp.

Zoæcia quincuncial, very regularly arranged, very convex, ovate, much elevated centrally below the mouth, the wall sloping steeply down to the margin of the cell; surface dense, smooth, rather glossy, areolated round the edge, ridges radiating towards the centre; orifice orbicular, with a small central sinus, not contracted at the opening, peristome not elevated; immediately below the orifice, at one side of the sinus a rostrum, bearing on one side a pointed *avicularium*, the beak very slightly bent at the extremity, mandible directed upwards, the rostrum rising into a short mucronate point behind the *avicularium*; very commonly on the front of the cell near the bottom a much raised *avicularium* (mounted on a prominent elevation), with a pointed mandible directed straight outwards. *Oæcium* rounded, smooth, much broader than high, with a tall oral arch, filled in by a calcareous plate.

Loc. Off Cumshewa Harbour, Queen Charlotte Islands, in 20 fms., forming a brownish spreading crust (*Dr. G. M. Dawson*).

Schizoporella Dawsoni, n. sp.

Zoæcia ovate, quincuncial, very moderately convex, separated by raised lines, highly calcified, vitreous; surface reti-

culato-punctate (punctures appearing as deep shafts in the vitreous crust); orifice arched above, much broader than high (narrow between the upper and inferior margins); a shallow rounded sinus in the centre of the lower margin, not contracted at the opening; peristome perfectly simple, not raised. *Avicularia* none. *Oæcium* rounded, closely united to the cell above, somewhat depressed in front, glossy, covered with rather large punctures; a prominent, thickened border round the opening.

Loc. Virago Sound, Queen Charlotte Islands (*Dr. G. M. Dawson*).

Schizoporella fissurella, n. sp.

Zoæcia small, quincuncially disposed, ovate, the lower portion flattish; oral region raised, tubular, suberect; surface smooth, porcellaneous, shining, sutures extremely shallow; orifice immersed, arched above, straight below, with a narrow slit-like sinus; peristome thickened and elevated round the mouth, so as to form a kind of neck, carried out in front into a mucronate process, which is sometimes notched in the centre. *Oæcium* rounded, smooth, with a small longitudinal fissure above the opening, and a central tooth-like process just within the oral arch.

Loc. Dolomite Narrows, Queen Charlotte Islands (*Dr. G. M. Dawson*).

Family *Escharidæ* (part.), Smitt.

LEPRALIA (part.), Johnston.

Lepralia bilabiata, n. sp.

Zoæcia quincuncially arranged, short, very slightly convex (the sutures little more than incised lines), rounded above, widening out at each side and narrowing off towards the base, which is subtruncate; surface dense, smooth, of a somewhat waxy appearance; orifice large, occupying nearly half of the front surface, rounded above, very slightly contracted immediately above the lower margin, which is somewhat arched; peristome not elevated; operculum smooth, of a deep black colour, distinctly bilabiate. *Avicularia* none. *Oæcium* a subtriangular extension of the cell above the orifice, very little raised, a great part of its front surface occupied by a large foramen, closed in by membrano-chitinous material.

Zoarium of a very dark brown colour (almost black).

Loc. Houston-Stewart Channel, Queen Charlotte Islands, on shells (*Dr. G. M. Dawson*).

When the zoecium is open, the orifice is occupied in great part by the entrance to a tubular passage (through which the polypide issues), which is formed *below* by the thickened border of the operculum, and *above* by a distinct chitinous rim. These two lips are brought together so as to close the entrance when the operculum is shut.

Lepralia nitescens, n. sp.

Zoecia quincuncial, short-ovate, very ventricose; surface dense, vitreous, highly polished and glistening, smooth, with obscure radiating ridges, punctured, sometimes areolated round the margin; orifice much higher than broad, immersed in the older cells, arched above, slightly contracted a short way above the lower margin, which is a little curved outward; peristome not raised, the inner edge of the oral aperture finely denticulate; 3 or 4 spines above; on each side, in a line with the lower margin, a strong nodulous process; about the centre of the margin an *avicularium*, with rounded mandible, placed on a swelling, which extends some way below the mouth, and facing sideways, mandible directed upwards; often on the front of the cell near the bottom (towards one side) a bracket-like projection, bearing a rounded *avicularium*. *Oaecium* (?).

Zoarium forming a brownish patch on shell.

Loc. Houston-Stewart Channel, Queen Charlotte Islands (Dr. G. M. Dawson).

Lepralia claviculata, n. sp.

Zoecia ovate or lozenge-shaped (sometimes irregular in shape and size), quincuncial, depressed; surface glossy, thickly covered with minute circular punctures, which give it a pretty speckled appearance; orifice arched and expanded above, slightly narrowed below, contracted by a small projection on each side a short distance above the lower margin, which curves slightly outward. *Avicularia* keyhole-shaped, placed on a distinct area very much smaller than that of the cell, and commonly immediately above a zoecium, mandible directed upward. *Oaecium* very large, elongate (much higher than broad), depressed towards the opening, rising above into a kind of knob, white, glossy, thickly punctured; the surface for some distance above the oral arch frequently traversed by longitudinal furrows.

Zoarium a large, spreading crust.

Loc. Houston-Stewart Channel, Queen Charlotte Islands (Dr. G. M. Dawson).

MUCRONELLA, Hincks.

Mucronella praelucida, n. sp.

Zoecia ovate, quincuncial, slightly convex, separated by raised lines, surface thickly covered with roundish punctures, lustrous; orifice arched above, lower margin straight (no denticles); peristome raised, especially at the back and in front, where it rises in the centre into a blunt mucronate projection, which bends slightly inwards, the surface of the peristome smooth, entire, and very glossy. *Avicularia* none. *Oæcium* (?).

Loc. Houston-Stewart Channel, Queen Charlotte Islands (Dr. G. M. Dawson).

Mucronella praelonga, n. sp.

Zoecia very long, quincuncially arranged, wider above than at the base (elongate-ovate, sometimes appearing almost subtubular), convex, depressed below, rising towards the orifice; surface thickly covered with punctures, shining (the glistening appearance due to the presence of an epitheca); orifice suborbicular, peristome elevated round it, carried out in front into a very prominent process, often much thrown back and elongated, sometimes simply pointed, sometimes bi- or trimucronate, on the inner side of it a single, small, sharply-pointed denticle; the upper margin produced in the centre into a sharp spinous process. *Avicularia* none. *Oæcium* (?)

Zoarium forming a whitish, subcircular patch on shell.

Loc. Queen Charlotte Islands (Dr. G. M. Dawson).

SMITTIA, Hincks.

Smittia spathulifera, n. sp.

Zoecia large, ovate, quincuncial, moderately convex, separated by raised lines, surface reticulato-punctate; orifice arched above, lower margin straight and within it a large bifid tooth; peristome raised and thickened, and produced below into a spout-like sinus, within which is a short spatulate *avicularium*, mandible directed downwards. *Oæcium* large, immersed, closely united to the cell above; surface roughened, punctured round the edge.

Zoarium a brownish crust on shell.

Loc. Houston-Stewart Channel, Queen Charlotte Islands (Dr. G. M. Dawson).

[ADDITIONAL.]

MEMBRANIPORA, De Blainville.

Membranipora protecta, n. sp.

Zoecia contracted above, expanded below, disposed rather irregularly in lines, set closely together, front wall wholly membranous, margin smooth; 2 erect spines (sometimes bifid) at the top, below them on each side a single bifid spine, and below these 2 large, branched, antler-like spines, which meet over the aperture; numerous *avicularia* interspersed amongst the cells, placed on a distinct area; beak elongate, slanting upwards, mandible with a triangular base, the upper portion long, slender, setiform. *Oecium* (?).

Loc. Virago Sound, Queen Charlotte Islands (*Dr. G. M. Dawson*).

BIBLIOGRAPHICAL NOTICE.

Manual of British Botany. By CHARLES CARDALE BABINGTON, M.A., F.R.S., F.L.S., &c., Professor of Botany in the University of Cambridge. Eighth Edition. Corrected throughout. London: Van Voorst, 1881.

THE veteran Professor of Botany at Cambridge may certainly be congratulated, not only on the fact that he is alive and well at the seventh revision of his *magnum opus*, which first saw the light thirty-nine years ago, but also that he has, during that period, virtually educated his critics and his public. The achievement of Professor Babington's life has been the removal of the reproach of insularity from British botany. Sir J. E. Smith was unrivalled in his day in his skilful tracing of synonyms in our earlier writers; Sir Joseph Hooker, in our own time, has brought the vast experience of the geographical botanist to gauge the relative value of our British forms; but it is to Professor Babington we owe that minute examination of fresh specimens, and that careful comparison with foreign herbaria and foreign critical writings, that has made the study of our flora a part of continental botany. His 'Manual' has become essentially the companion of working botanists, and its successive editions have most ably reflected the stages of progress made by them between 1843 and 1881.

To the general public it may seem a small matter whether a plant is to bear one of two conflicting names, whether it is to rank as a species or a variety, or whether the name originated with this or with that authority. The theory of evolution does indeed make us attach less importance to the second of these questions; but any one who has attempted original botanical work will have felt the immense advantage of a most precise system of nomenclature. If continental botanists are to know of what plants we may happen to be writing,