

A PRELIMINARY SYNOPSIS OF THE FAUNA OF THE PICKWELL DOWN, BAGGY, AND PILTON BEDS.

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PICKWELL DOWN SANDSTONE.

Fish Remains and Wood, collected by Dr. Hicks, F.R.S., and myself.

MARWOOD, BAGGY, AND SLOLY BEDS.

Arthropoda.

Cariderpestes gyius, n. sp., a Myriopod with very long body, narrow spine-less plates, and elongate appendages.

Echinocaris Whidbornei, Jones & Woodward.

Anatifopsis (?) *Anglica*, n. sp., like *A. acuta* Barr., but shorter.

Ceratiocaris (?) sp., small, oval valves.

Cephalopoda.

Poterioceras, sp. (= *Orthoceras imbricatum*, Phill. not His.).

Orthoceras vennense, Foord.

Actinoceras (?) (*Huronia*) *Crickii*, n. sp., with longitudinally striated surface, rather narrow chambers, and siphuncle arranged as in *Huronia*.

Gasteropoda.

Naticopsis Hallii, n. sp., sub-globose, oblique, very like *N. striolata*, F. A. Römer, but smooth.

Bellerophon subglobatus, McCoy.

Lamellibranchiata.

Leptodomus constricta, McCoy.

L. semisulcata, Sow.

Sanguinolites mimus, n. sp.

Prothyris scalprata, n. sp., flat, lancet-shaped, sub-angular behind, with large anterior notch.

Myophoria deltoidea (Phill.).

Ctenodonta pullastraiformis, McCoy.

Ct. tensa, n. sp., very transverse, acute behind, with fine and very irregular growth lines.

Cypricardinia, sp., with numerous step-like ridges.

Cucullæa unilateralis, Sow. (including varieties, *Hardingii*, *amygdaloides*, *angusta*, and *trapezium*).

C. depressa, Phill.

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Ptychopteria damnoniensis (Sow.).

Actinopteria rudis (Phill.).

Brachiopoda.

Lingula squamiformis, Phill.

Plants.

"*Knorria*," sp.

"*Bernia*," sp.

"*Rhodea moravica*" (?), Stigmarian roots.

Fucoids.

PILTON, CROYDE, AND BRAUNTON BEDS.

Vertebrata.

Fish scales.

Arthropoda.

Ceratiocaris (?) *subquadrata*, n. sp., large sub-oblong valves with ogee end.

Phacops latifrons (Bronn.).

Phillipsia Hicksii, n. sp., with a tuberculated pygidium of thirteen rings with a broad rim.

Brachymetopus Woodwardii, n. sp., differing from *B. Maccoyii* (Portlock) by having a larger glabella and fewer rings in the tail.

Ischilina canaliculata, Kiause.

Aparchites Lindstræmi, Jones, var.

Primitia sparsinodosa, n. sp., differing from *P. mundula*, Jones, in bearing tubercles.

Primitia, 2 sp.

P. dorsicornis (Ulrich).

P. bovisfrons, n. sp., large sub-oblong valves, with margined central furrow and long horns in the upper corners.

P. vestita, n. sp., bean-shaped, with a central node and rugose surface.

Beyrichia æquilatera, Hall (?).

B. Damesii, Krause (?).

Beyrichiopsis Ruperti, n. sp., smaller than *B. fimbriata*, Jones and Kirkby, and without a central boss.

Klædenia bursæformis, n. sp., sub-ovate, with three elevated lobes and narrow rim.

Ulrichia interserta, n. sp., with two large oval defined central nodes and elevated ends.

Cephalopoda.

Agoniatites, sp.

Goniaticites, sp., small globose.

Subclymenia Symondsii, n. sp., differing from *S. evoluta* (Phill.) by being tuberculate.

Poterioceras, sp.

Orthoceras, sp. (= *O. Ludense*, Phill. not Sow.).

Orthoceras, sp.

O. speciosum, Münster.

O. Barumense, n. sp., very like *O. ibex*, Sow., but without longitudinal striae.

Pteropoda (?).

Conularia deflexicosta, Sandb.

Tentaculites conicus, F. A. Römer.

T. tentacularis (Phillips).

Gasteropoda.

Macrochilina turbinea, n. sp., like *M. elevata*, Whidb., but with broader whorls and turbinate spire.

M. pusilla, n. sp., minute, approaching *M. minor*, De Kon., but with a wider body-whorl.

Loxonema Hallii, n. sp., approaching *L. leviusculum*, De Kon, but with fewer and broader whorls.

L. trochleatum (Münster).

L. priscum (Münster).

L. Anglicum, D'Orb. (= *L. rugifera*, Phill., Pal. Foss., not Geol. Yorks.).

Natica meridionalis, Phill.

Capulus rostratus, Trenkner (?).

C. terminalis, Whidb.

C. compressus, Goldf.

Orthonychia rotunda, n. sp., slightly plicated, semi-elliptic, with recurved sub-central apex.

O. acuta (F. A. Römer).

Holopella tenuisulcata, Sandb.

Acisina longissima, n. sp., aciculate, with six spiral equidistant threads.

Euomphalus vermis, n. sp. (= Phill., Pal. Foss., Pl. 36, fig. 172c—e).

Euomphalus, sp.

Rhaphistoma junius, De Kon.

Pleurotomaria gracilis, Phill.

Pl. Hamlingii, n. sp. (= *Pl. aspera*, Phill., Pal. Foss., Pl. 37, fig. 117a, b).

Pl. aspera, Sow.

Murchisonia Anglica, D'Orb. (= *M. angulata*, Phill., Pal. Foss., not Geol. Yorks.).

Murchisonia, sp.

M. similis, Trenkner.

Bellerophon labyrinthodes, n. sp., approaching *B. Hicksii*, Whidb., but with finer and zigzagging ornament.

B. macromphalus, F. A. Römer.

B. elegans, D'Orb.

Bellerophon (?), sp.

Tropidodiscus trilobatus (Sow.).

Euphemus Barumensis, n. sp. (= Phill., Pal. Foss., Pl. 40, fig. 199).

Lamellibranchiata.

Leptodomus constricta, McCoy.

Panenka Anglica, n. sp., smaller and with finer ribs than *P. grandis*, Whiteaves.

Sanguinolites Porteri, n. sp., transverse, slightly keeled, covered with fine, regular ridges.

S. mimus, n. sp., similar, but with smooth posterior slope and fewer ridges.

Edmondia Bodana (F. A. Römer).

E. Athenæ, n. sp., small, short, oval, with few strong ridges.

E. Hamlingii, n. sp., globose, nearly smooth, with sub-central umbo.

Sphenotis (?) *Hicksii*, n. sp. (= *Pullastra* (?) *complanata*, Phill., not Sow.).

Sph. solenoides, Hall (?).

Sph. (?) soleniformis (Goldfuss).

Phthonia, sp.

Prothyris recta, n. sp., small, sub-oblong, coarsely striated.

P. contorta, n. sp., elongate, finely striated, with sigmoidal lower margin.

Scaldia (?) *longa*, n. sp., small, smooth (?), transversely ovate, with sub-central umbo.

Cypricardinia scalaris (Phill.).

Myophoria trigona (F. A. Römer).

Modiolopsis, sp.

Nucula lineata, Phill.

Ctenodonta Newtonii, n. sp.

Nuculites latissimus (Phill.)?

Ctenodonta lirata (Phill.).

C. (?) elliptica (Phill.).

Koenenia, sp.

Parallelodon pygmæus, Whiteaves, var. *infans*.

P. priscus (Goldfuss).

Modiola amygdalina, Phill.

Spathella munda, n. sp., obliquely transverse, sub-trigonal, covered with fine regular transverse striæ, and with sub-anterior umbo, which is regularly pitted within.

- Mytilarca modioloides*, n. sp., obliquely sub-trigonal with anterior umbo and steep front margin.
- Cobracephalus angulosus*, n. sp., oblique, semi-globose, radially angulated, crossed by fine sharp striæ, with incurved umbo and large angulated front wing.
- Leptodesma citinum*, n. sp., smooth, short, trigonal, oblique with very large wings and sub-anterior umbo.
- L. cultellatum*, n. sp., very transverse, sabre-shaped, finely striated, with short hinge and wings.
- L. anatinum*, n. sp., transversely sub-oblong with large umbo and wings and coarse growth striæ.
- Leiopteria Conradi*, Hall.
- L. murata*, n. sp., sub-ovoid, slightly transverse, with large hind wing and few strong regular concentric ribs.
- Ptychopteria Damnoniensis* (Sow.).
- Pterinopecten Hallii*, n. sp., short sub-orbicular with 20 or 30 strong distant alternating ribs and fine distant transverse threads.
- Pt. mundus*, n. sp., similar, but with simple ribs and close striæ.
- Pt. scabriradians*, n. sp., right valve with strongly rugose rays and very long narrow triangular wing.
- Pt. polytrichus* (Phill.).
- Pt. Austeni* (F. A. Römer).
- Actinopteria rudis* (Phill.).
- Aviculopecten transversus* (Sow.).
- A. nexilis* (Sow.).
- Pleuronectites Piltonensis*, n. sp., smooth, with striated wing and produced anterior side.
- Pl. lepis*, n. sp., smooth, sub-orbicular, slightly oblique, with sub-equal wings.
- Pl. Hicksii*, n. sp., short, ovate with minute concentric striæ.
- Crenipecten auritus*, n. sp., very short, radiated, with small central umbo and large sub-equal wings.
- Pernopecten* (?) *insperatum*, n. sp., flat, sub-orbicular, with gently protruding rounded wings.

Brachiopoda.

- Tropidoleptus carinatus* (Conrad).
- Athyris* (?) *oblonga* (Sow.).
- A.* (?) *concentrica* (Von Buch).
- A. rugulosa*, n. sp., large, with wide flattened fold and numerous imbricated foliaceous striæ.
- Spirifer Urii*, Fleming.
- Sp. lineata* (Martin).
- Sp. Verneuilii*, Murchison.

- Sp. obliterated*, Phill.
Spiriferina cristata (Sow.), var. *octoplicata*, Dav.
Rhynchonella laticosta (Phill.).
Rh. Partridgei, n. sp. (= *Rh. pleurodon*, Phill., Pal. Foss.).
Camarella togata, n. sp., with three large ribs on fold.
Orthis interlineata (Sow.).
Strophomena rhomboidalis (Wilckens).
Orthotetes crenistria (Phill.).
Productus praelongus (Sow.).
P. longispinus, Sow.
P. tenuistriatus, De Vern.
Strophalosia productoides (Murch.).
Chonetes Hardrensis, Phill.
Chonetes margaritacea, n. sp., differing from *Ch. Phillipsii*, Dav.
 in being wider and having finer striae.
Ch. Illinoisensis, Worthen.
Discina nitida, Phill.
Lingula squamiformis, Phill.
Craniella Medusinensis, Ehlert.
Crania ringens, n. sp., transversely oval, with large muscle-scars
 situated very posteriorly.

Polyzoa.

- Fenestella plebeia*, McCoy.
F. laxa, Phill. (?).
Penniretipora bipinnata (Phill.).
Rhabdomeson gracilis (Phill.).
Rh. (?) distans, n. sp., dichotomizing with fewer and more distant
 zoecia, with oval apertures.
Streblotrypa Gregorii, n. sp., stems with acute, narrow, undulating
 ridges dividing large zoecia, which are separated transversely
 by three or four large mesopores.
Berenicea irregularis, Lonsdale (?).

Echinodermata.

- Lepidesthes (?) devonians*, n. sp., with about seven rows of small
 plates in each area, the IA plates having about five warts
 and small spines.
Eocidaritis (?) acuaris, n. sp., having long striated spines, and plates
 with a large central and minute scattered tubercles.
Palæaster longimanus, n. sp., with large irregular warts on body
 and seven rows of plates on arms.

- Eugaster granifer*, n. sp., with minutely granulated surface, circular disk, and two alternating rows of very narrow central and two of lateral ossicula and short petaloid spines.
- Protaster scabrosus*, n. sp., with pentagonal coarsely plated disk and small aciculate spines.
- P. gregarius*, n. sp., with small petaloid disk and long narrow broad-plated arms.
- P. perarmatus*, n. sp., large, with stout blunt arms and long spines.
- Adelocrinus hystrix*, Phill.
- Actinocrinus Porteri*, n. sp., large calix with fine stellate ornament and very numerous arms, IBr. in thirteen rows.
- A. (?) Batheri*, n. sp., with small shallow calix ornamented with strong tessellated bars, arms immediately dividing into twenty.
- Taxocrinus macrodactylus* (Phill.).
- Taxocrinus (?) stultus*, n. sp., with 3 B, 5 R and intercalated anal, and with IBr. in three rows.
- Cyathocrinus*, sp.
- C. Barumensis*, with small globose shallow cup, five wide inversely pentagonal RR and first IBr. elongate, axillary.
- Poteriocrinus stadiodactylus*, n. sp., BB 5 short, with very long thin arms composed of very elongate Brr.
- P. Batheri*, n. sp., cup elongate with five small pentagonal IBB, five large elongate hexagonal BB with 2nd IBr. axillary.
- P. tensus*, n. sp., calix with five hexagonal wide BB, arms long, rarely branching, with 5th IBr. axillary, and anal tube extremely elongate.

Annelida.

- Cornulites devonianus*, n. sp., small, elongate, conical, slightly flexuous, with few step-like annuli.

Actinozoa.

- Cladochonus cornucopiæ*, n. sp., with cups larger than *C. Schlüteri*, Holz., and strongly ridged within.
- Petraia pauciradialis*, Phill.
- P. pluriradialis*, Phill.
- Cyathophyllum*, sp.
- Amplexus tortuosus*, Phill. (?).
- Michelinia antiqua*, McCoy.
- Pleurodictyum repens*, n. sp., differing from *P. problematicum*, Phill., by forming irregular, elongate, and sometimes ramose, masses.

NOTE.—The Rev. G. F. Whidborne is at present describing the above species in a Monograph of the Palæontographical Society, and will be very grateful to be allowed to examine any characteristic specimens that may throw fresh light on the fauna of these beds.