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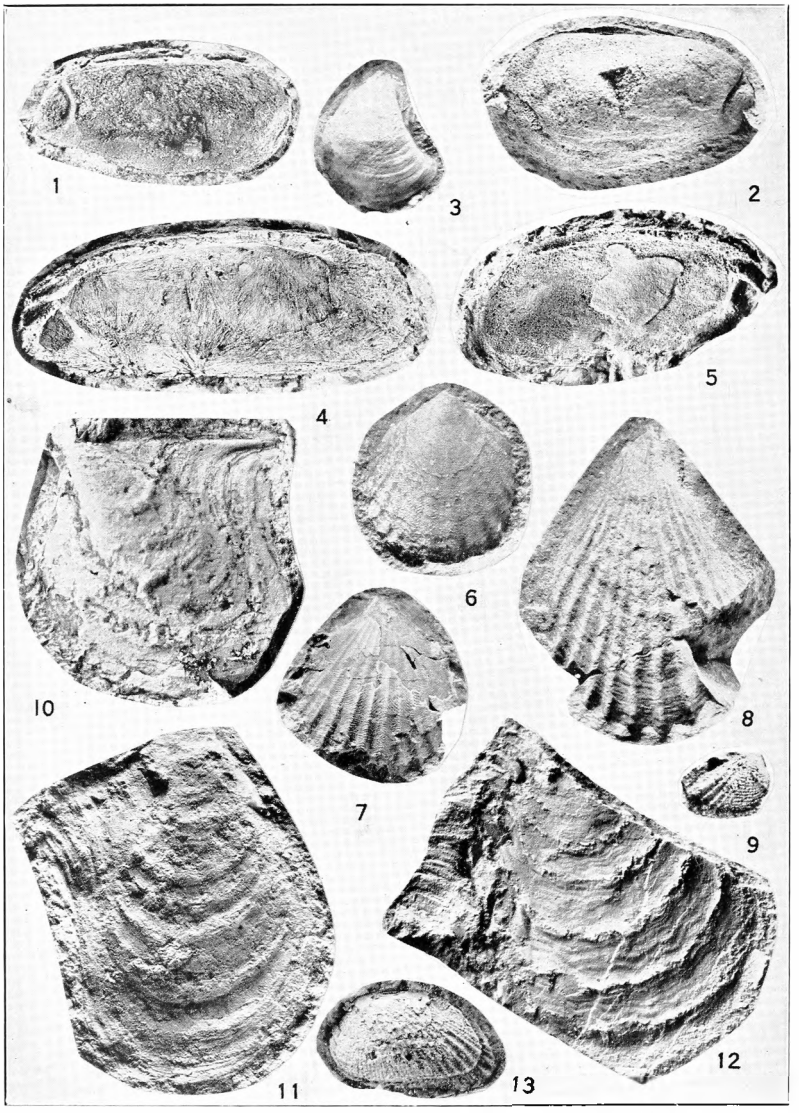
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PRELIMINARY DESCRIPTIONS OF SOME NEW TRIASSIC PELECYPODS FROM THE PEACE RIVER FOOTHILLS, B.C.*

By F. H. McLEARN

TEN NEW species and varieties of pelecypods, some very close to European species, are described in the following pages. The generic assignment of some is difficult and some generic revision may be required later. All of the new forms, however, merit description on account of their stratigraphic value.

The type specimens are in the collections of the Geological Survey at Ottawa.

Pteria? laksel n. sp.

Plate I, figure 3

The left value of the holotype is moderately convex and oblique in outline. The posterior ear is fairly large and has a concave, posterior margin. The anterior ear of the holotype is not well preserved, but in another specimen it is small and only slightly differentiated from the remainder of the shell. The surface has low folds and varices of growth. A much larger specimen than the holotype has a similar outline and a large posterior ear with a concave, posterior margin. Compared with the left valve of *Avicula* ? *difficilis* Bittner, our species is not so convex, the posterior ear is larger and the anterior ear is not so well defined.

This species has been previously listed as *Pteria* ? cf. *difficilis* Bittner.

Name. *Laksel*, the Raven phatry of the Sekani tribe.

Type. The holotype, cat. no. 8763, is from near the base of the *Halobia* zone on McLay spur.

Aviculomyalina ? *williamsi n. sp.*

Plate I, figures 10 to 12

The outline of this somewhat convex species is higher than long, somewhat oblique and somewhat extended postero-ventrally. The surface is flattened in the postero-dorsal part of the shell, forming there a poorly delimited "wing" which is somewhat mucronate and emarginate posteriorly, particularly in half grown specimens. The surface is covered with concentric ridges which in well preserved specimens are elevated in a wavy or curved ornament. The broad, shallow furrows between the ridges bear fine, curved or wavy, concentric costae. There is probably some variation in this surface ornament, but its extent cannot be measured until more well preserved specimens are obtained. There is a narrow ridge of variable length close to the dorsal border, on the posterior "wing."

This species has been listed as *Aviculomyalina* cf. *lata* Assmann in a previous publication.

It is larger than *Aviculomyolina lata* Assmann, is more mucronate posteriorly and has a more elaborate surface ornament. The generic position is uncertain, as the hinge and ligament are not preserved. It is placed provisionally in *Aviculomyalina*, because of its resemblance to *A. lata*.

Name. In honour of Dr. M. Y. Williams.

Types. The holotype, cat. no. 8764 and the paratype, cat. no. 8769, are from the *poyana* zone on Pardonet hill; the paratype, cat. no. 8774, is from talus of the same zone on Pardonet hill.

Myophoria (*Elegantinia*) *grahami* n. sp.

Plate I, figure 9

This small, moderately convex species is much longer than high, has an area of moderate width and a high, narrow, nearly straight keel. Anterior to the keel the surface is ornamented with concentric, even, fine costae, crossed in front o fthe keel by three, long, radial costae and two, much shorter and finer costae. The ornament of the area is not so distinct, but it

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has, at least, closely spaced, fine costae, parallel to the growth lines. The dentition is not known.

Trigonia margaritifera Boehm has a shorter outline, a more curved keel and fewer radial costae, anterior to the keel. *Myophoria heslingtonensis* Trechmann has a shorter and higher outline and more radial costae, which begin at a greater distance from the keel than in the Peace River species.

Name. The species name is in honour of the late Doctor Roy Graham.

Type. The holotype, cat. no. 8776, is from the *Halobia* zone in Lima gully, Pardonet hill.

Pecten chiwanae n. sp.
Plate I, figure 7

The holotype, a left valve, is moderately convex and higher than long. The surface is ornamented with about twelve, radial, rather angular ribs, separated by wide, shallow furrows. There is an additional, very fine, divaricate ornament, forming in part, by intersection, an interlaced pattern, particularly well developed on the antero-central part of the body of the shell; this ornament becomes indistinct in the umbonal region. The ears have only a very fine concentric ornament.

The ornament in shells like *Pecten (Indopecten) clignetti* Boehm, has a zigzag, not an interlaced-divaricate, pattern.

Name. *Chiwan*, an Indian proper name.

Type. The holotype, cat. no. 8786, is from the Mahaffy Cliffs fauna on Mahaffy cliffs.

Pecten sasuchan n. sp.
Plate I, figure 6

The holotype, a right valve, is higher than long, fairly convex and is ornamented with low, but fairly wide, rounded folds, hardly noticeable on the dorsal part of the shell, but well defined ventrally. In addition, there is a very fine, divaricate and mesh-like ornament, as in *Pecten chiwanae* n. sp. on the central part of the shell and a *Camptonectes*-like pattern on the anterior and posterior borders. The ears appear to have only fine, concentric ornament. This species has lower, wider and more rounded ribs than *Pecten chiwanae*.

Name. *Sasuchan*, a band of Sekani Indians.

Type. The holotype, cat. no. 8787, is from the *poyana* zone on Pardonet hill.

Lima (Limatula) childerhosei, n. sp.
Plate I, figure 8

The valves are approximately equal, nearly bilaterally symmetrical, somewhat compressed and much higher than long. The surface is ornamented with radial, rather angular and somewhat rugose, strong ribs, which are finer on the margins than on the middle of the shell and very fine on the ears. The outline is more symmetrical and the ribs somewhat more numerous and less curved than in *Limea* ? *protei* Munster.

Name. In honour of A. J. Childerhose.

Type. The holotype, cat. no. 8788, is from talus of the *poyana* zone on Pardonet hill.

Myoconcha curionii var. *montipetraea* n. var.
Plate I, figure 5

This is a fairly large, fairly convex, elongate species with the maximum height in the posterior part of the shell, with no appreciable flattening or sulcus anterior to the evenly rounded, postumbonal slope, with a slightly rounded, dorsal margin, a rounded, obliquely truncate, posterior margin and a very narrow escutcheon. The surface has irregular varices of growth. The somewhat pointed, anterior adductor scar is deeply excavated and undercut dorso-anteriorly into the anterior margin of the shell and in the left valve is bordered dorsally and anteriorly by a curved ridge. Dorsal to the muscle scar is the flat surface of the thickened interior margin. Near the posterior end of the hingeline of the left valve is a short tooth socket. The ligamental groove is not well preserved in available specimens, but appears to extend almost one half of the length of the hinge line. The interior of the right valve of this variety is unknown.

The outline is more narrowed anteriorly than in the original figures of Hauer, published in 1857. There is considerable resemblance, however, to specimens figured by Bittner (Waagen ?) in 1907 (pl. 32, figs. 6, 7); but the outline is apparently not so obliquely truncate posteriorly nor is the anterior border so abruptly rounded.

Name. *Mons*, mountain; *petraeus*, rocky.

Type. The holotype, cat. no. 8790 (holoplastotype, cat. no. 8790a), is from talus below Barren gully, Pardonet hill.

Myoconcha curionii var. *chonekai* n. var.
Plate I, figure 4

The shells of this variety are relatively longer in outline than those of *Myoconcha curionii* var. *montipetraea* n. var.

The interior of the right valve is well pre-

served in the holotype of this variety. The anterior adductor muscle scar is deeply excavated out of the thickened margin of the shell and is undercut on its antero-dorsal side. There is a sloping ridge just anterior to this scar and another sloping ridge, or tooth, dorsal to this muscle scar. The deep, ligamental groove extends backwards for nearly half the length of the hingeline. The escutcheon is narrow.

Name. *Chencka,* an Indian proper name.

Type. The holotype, cat. no. 8794 (holoplastotype, cat. no. 8794a) is from talus collected below Barren gully on Pardonet hill and possibly from the *poyana* zone.

Myoconcha amnipacis n. sp.
Plate I, figures 1, 2

The right valve is fairly convex, much longer than high and the maximum height is posterior to the middle of the shell. The postumbonal slope is evenly rounded and the surface in front of it is somewhat flattened or even slightly concave. The hingeline is long, nearly straight, the anterior margin short, rounded and forward sloping, the ventral margin gently rounded to nearly straight and the posterior margin is gently rounded and slopes anteriorly. The anterior adductor scar is large, somewhat pointed above and bounded posteriorly by a curved ridge. The surface is not well preserved, but is known to have varices of growth.

The interior is considerably different from that of *Myoconcha curionii* Hauer and, in particular, the anterior adductor muscle scar is larger proportional to the size of the specimen. The outline is much like that of *Myoconcha curionii* var. *meriani* Stoppani but is more narrowed anteriorly.

Name. *Amnis,* a river; *pax,* peace.

Type. The holotype, cat. no. 8795, is from talus of the Mahaffy Cliff fauna in Mahaffy cliffs and the paratype, cat. no. 8797 (paraplastotype, cat. no. 8797a) is from the same fauna, in situ, at the same locality.

Palaeocardita glaukos n. sp.
Plate I, figure 13

This species is only moderately convex, is much longer than high, has the beaks near the anterior end, has a somewhat broadly curved hingeline, rounded anterior and ventral margins and an obliquely truncate and broadly rounded, posterior margin. The numerous, fine, radial costae are coarser on the postumbonal slope than on other parts of the shell.

The Alpine species, *Cardita latemarensis* Philip is smaller and has fewer costae, more uniform in size.

Name. *Glaukos,* a sea god.

Types. The holotype, cat. no. 8798 (holoplastotype, cat. no. 8798a), is from talus, possibly of the *poyana* zone, below Barren gully, on Pardonet hill.

NOTE

The catalogue number of the holotype of *Juvavites* (*Gonionotites*) *rarus* McLearn, erroneously recorded as 8833 in a previous publication, is 8830. The catalogue number 8833 pertains solely to the holotype of *Juvavites* (*Dimorphites*?) *pardonetiensis* McLearn.

PLATE I

Figure 1. *Myoconcha amnipacis* n. sp. Paraplastotype. Geol. Surv. colls., cat. no. 8797a.

Figure 2. *Myoconcha amnipacis* n. sp. Holotype. Geol. Surv. colls. cat. no. 8795.

Figure 3. *Pteria ? laksel* n. sp. Holotype. Geol. Surv. colls., cat. no. 8763.

Figure 4. *Myoconcha curionii* var. *chenekai* n. var. Holoplastotype. Geol. Surv. colls., cat. no. 8794a.

Figure 5. *Myoconcha curionii* var. *montipetraea* n. var. Holoplastotype. Geol. Surv. colls., cat. no. 8790a.

Figure 6. *Pecten sasuchan* n. sp. Holotype. Geol. Surv. colls., cat. no. 8787.

Figure 7. *Pecten chiwanae* n. sp. Holotype. Geol. Surv. colls., cat. no. 8786.

Figure 8. *Lima* (*Limatula*) *childerhosei* n. sp. Holotype. Geol. Surv. colls., cat. no. 8788.

Figure 9. *Myophoria* (*Elegantinia*) *grahami* n. sp. Holotype. Geol. Surv. colls., cat. no. 8776.

Figure 10. *Aviculomyalina williamsi* n. sp. Holotype. Geol. Surv. colls., cat. no. 8764.

Figure 11. *Aviculomyalina williamsi* n. sp. Paratype. Geol. Surv. colls., cat. no. 8774.

Figure 12. *Aviculomyalina williamsi* n. sp. Paratype. Geol. Surv. colls., cat. no. 8769.

Figure 13. *Palaeocardita glaukos* n. sp. Holoplastotype. Geol. Surv. colls., cat. no. 8798a.