

143

CONTENTS

	Page
Preface.....	355
Chapter I. Stratigraphy of the McKay group and EVANS' Collection of its Fossils.....	361
Chapter II. The Ages of the Ordovician Faunas in the McKay Group	370
Chapter III. The Bearing of the McKay Faunas on the Palaeogeography	379
A. The Relation of the McKay Faunas to the Arctic ones	379
B. The Relation of the McKay Faunas to the Atlantic ones	383
C. The Relation of the McKay Faunas to the Andean ones.....	390
D. A brief Note on the Relation of the McKay Faunas to the Western Pacific ones	396
Chapter IV. Summary and Conclusion	398
Chapter V. Description of Fossils	403
Phylum Mollusca, Class Gastropoda.....	404
Genus <i>Eobucania</i> KOBAYASHI, nov.....	404
① PM 2108 - 1. <i>Eobucania pulchra</i> KOBAYASHI, nov., I, 1a-f.....	404
Genus <i>Raphistomina</i> ULRICH and SCOFIELD, 1897.....	
PM 2109 - 2. <i>Raphistomina sinclairiensis</i> KOBAYASHI, nov., I, 2a-c, 3.....	405
PM 2110 - 3. <i>Raphistomina sinclairiensis</i> var. <i>acuta</i> KOBAYASHI, nov., I, 4a-b.....	406
Genus <i>Burnesella</i> BRIDGE and CLOUD, 1947.....	
② PM 2112 - 4. <i>Burnesella tympana</i> KOBAYASHI, nov., I 5a-c.....	406
Genus <i>Ozarkispira</i> WALCOTT, 1924.....	
③ PM 2113 - 5. <i>Ozarkispira leo</i> WALCOTT, I, 6a-c.....	408
6. <i>Ozarkispira</i> sp. indt.....	408
Genus <i>Lytospira</i> KOKEN, 1896.....	
④ PM 2114 - 7. <i>Lytospira mediosulcata</i> KOBAYASHI, nov., I, 7a-c.....	408
Class Cephalopoda, Order Nautiloidea	
Family Robsonoceratidae ULRICH, FOERSTE, MILLER and UNKELSBAY, 1944.	
Genus <i>Robsonoceras</i> ULRICH and FOERSTE, 1936.....	
PM 2115 - 8. <i>Robsonoceras</i> sp., I, 8a-c.....	409
Phylum Arthropoda, Class Trilobita.....	410
Subclass Polymera JAEKEL, 1909, Order Redlichida RICHTER, 1932.	
Family Kainellidae ULRICH and RESSER, 1930.....	412
Subfamily Kainellinae KOBAYASHI, 1953.	
Genus <i>Kainella</i> WALCOTT, 1924.....	
PA 2116 - 9. <i>Kainella kindlei</i> KOBAYASHI, nov., II, 1.....	413
Subfamily Apatokephalinae KOBAYASHI, 1953.	
Genus <i>Apatokephalus</i> BRÖGGER, 1897.....	
PA 2117 - 10. <i>Apatokephalus canadensis</i> KOBAYASHI, II, 2.....	414
Family Pliomeridae RAYMOND, 1913.....	414
Genus <i>Protopliomerops</i> KOBAYASHI, 1934.....	
PA 2118 - 11. <i>Protopliomerops subquadratus</i> KOBAYASHI, nov., II, 3-4.....	414
PA 2119 - 12. <i>Protopliomerops radiatus</i> KOBAYASHI, nov., II, 5a-b, 6.....	416
PA 2120 - 13. <i>Protopliomerops longispinus</i> KOBAYASHI, nov., II, 7.....	417
Genus <i>Tesselacauda</i> ROSS, 1951.....	
PA 2123 - 14. <i>Tesselacauda flabella</i> KOBAYASHI, nov., II, 8a-b.....	417

2108 - 2254

72

- Order Corynexochida KOBAYASHI, 1935.
- Family Telephidae ANGELIN, 1854..... 418
- Genus *Telephus* BARRANDE, 1852..... 419
- PA2124
PA2125 15. *Telephus pacificus* KOBAYASHI, nov., II, 9a-b, 10..... 419
- Family Leiostegiidae BRADLEY, 1925.
- Subfamily Leiostegiinae KOBAYASHI, 1935.
- Genus *Leiostegium* RAYMOND, 1913.
- Subgenus *Evansaspis* KOBAYASHI, nov. 420
16. *Leiostegium (Evansaspis) glabrum* KOBAYASHI, nov., II, 11-17..... 421
- Order Dikelocephalida KOBAYASHI, 1935.
- Family Asaphiscidae RAYMOND, 1924.
- Genus *Hyperbolochilus* ROSS, 1951.
- PA2133 17. *Hyperbolochilus expansus* KOBAYASHI, nov., III, 1..... 422
- Family Nileidae ANGELIN, 1854..... 424
- PA2134
PA2135 18. Genus and species indt., V, 20-21..... 425
- Family Asaphidae BURMEISTER, 1843..... 425
- Subfamily Symphysurinae KOBAYASHI, nov. 426
- Genus *Symphysurina* ULRICH, 1924..... 429
- Subgenus *Symphysurina* KOBAYASHI, nov.
- PA2136
PA2137 19. *Symphysurina (Symphysurina) spicata* ULRICH, III, 8-9..... 430
20. *Symphysurina (Symphysurina) spicata* var. *eugenia* WALCOTT, III, 22..... 430
21. *Symphysurina (Symphysurina) cfr. corlissensis* (RAYMOND), VII, 22a-b..... 431
- Subgenus *Symphysuroides* RAYMOND, 1937..... 431
- PA2143
PA2144 22. *Symphysurina (Symphysuroides) elegans* POULSEN, III, 19-21..... 432
23. *Symphysurina (Symphysuroides) expansa* KOBAYASHI, nov., III, 6a-b, 7..... 432
24. *Symphysurina (Symphysuroides) cfr. brevispicata* HINTZE, III, 15-18..... 433
- PA2149-11
PA2150-11
PA2151-12
PA2152-13
PA2153-14 25. *Symphysurina* a and b spp., III, 10-14..... 433
- Subfamily Ogygiocarinae RAYMOND and WALCOTT, 1913..... 434
- Genus *Bellefontia* ULRICH, 1924..... 436
- PA2154-2
PA2155-3
PA2156-4
PA2157-5 26. *Bellefontia platana* ULRICH, III, 2-5..... 436
27. *Bellefontia* (?) aff. *collicana* (RAYMOND), V, 4-5..... 437
- PA2161-1
PA2162-2
PA2163-3 28. *Bellefontia* (?) sp., V, 6..... 437
- Genus *Asaphellus* CALLAWAY, 1877.
- PA2181
PA2182 29. *Asaphellus* (?) *canadensis* KOBAYASHI, nov., V, 1-3..... 438
- Genus *Xenostegium* WALCOTT, 1924..... 439
- Genus *Kobayashia* HARRINGTON, 1938..... 440
- PA2183 30. *Kobayashia lanceolata* KOBAYASHI, nov., IV, 1-3..... 441
- Genus *Kayseraspis* HARRINGTON, 1938.
31. *Kayseraspis* (?) *euclydes* (WALCOTT), IV, 4-12, V, 8-10 (sp) (?) 22-23..... 442
32. *Kayseraspis* (?) sp., IV, 13-14..... 444
- Genus *Columbicephalus* KOBAYASHI, nov. 444
33. *Columbicephalus macrops* KOBAYASHI, nov., V, 7a-b..... 444
- Subfamily Asaphinae GÜRICH, 1908.
- Genus *Kirkella* KOBAYASHI, 1942.
- PA2184-12
PA2185-13
PA2186-14
PA2187-15
PA2188-16
PA2189-17 34. *Kirkella* cfr. *vigilans* (WHITTINGTON), V, 12-17, VIII, 6..... 445
- Genus *Protopresbymileus* HINTZE, 1954.
- PA2190-6 35. *Protopresbymileus* (?) aff. *willdeni* HINTZE, V, 18-19, VIII, 15..... 446
- Family Bathyruridae WALCOTT, 1886.
- PA2126-11-4
PA2127-12-2
PA2128-13-2
PA2129-14-2
PA2130-15-2
PA2131-16-2
PA2132-17-2
- PA2140-19
PA2141-20
PA2142-1
- PA2145-15
PA2146-16
PA2147-17
PA2148-18
- PA2158-4
PA2159-5
PA2160-6
- PA2164-1
PA2165-2
PA2166-3
- PA2167-4
PA2168-5
PA2169-6
PA2170-7
PA2171-8
PA2172-9
PA2173-10
PA2174-11
PA2175-12
PA2176-13
PA2177-14
PA2178-15
PA2179-16
PA2180-17
- PA2191-18
PA2192-19
PA2193-15

PA2194-17			
(R) PA2195-18			
PA2196-10			
PA2197-19			
PA2198-16			
PA2199-12			
PA2200-16			
PA2201-3			
PA2202-12			
(R) PA2203-6			
PA2204-6			
PA2205-1			
PA2206-2			
PA2207-8			
PA2208			
PA2209			
PA2210			
PA2211-13			
PA2212-2			
PA2213			
PA2214			
PA2215-18			
PA2216-19			
PA2217-10			
PA2218-11			
PA2219-14			
PA2220-15			
(R) PA2221-16			
PA2222-17			
PA2223			
	Genus <i>Gonioteloides</i> KOBAYASHI, nov.		446
	36. <i>Gonioteloides monoceros</i> KOBAYASHI, nov., VI, 17a-b, 18a-b; VIII, 10		447
	37. <i>Gonioteloides punctatus</i> KOBAYASHI, nov., VI, 19a-b		448
	Genus <i>Licnocephala</i> ROSS, 1951.		
	38. <i>Licnocephala longa</i> KOBAYASHI, nov., VI, 16, VIII, 13		448
	Genus <i>Lachnostoma</i> ROSS, 1951.		
	39. <i>Lachnostoma</i> (?) sp., V, 11.		449
	Order Conocoryphida SWINNERTON, 1915.		
	Family Ptychoparidae MATTHEW, 1887.		
	Subfamily Eulominae KOBAYASHI, nov.		449
	Genus <i>Eulomella</i> KOBAYASHI, nov.		450
	40. <i>Eulomella mckayensis</i> KOBAYASHI, nov., VI, 3, IX, 1.		451
	Subfamily Elviniinae KOBAYASHI, 1935.		
	Genus <i>Neotaenicephalus</i> KOBAYASHI, nov.		451
	41. <i>Neotaenicephalus obsoleta</i> KOBAYASHI, nov., VI, 12a-b, IX, 9a-b.		452
	Genus <i>Vermilionites</i> KOBAYASHI, nov.		452
	42. <i>Vermilionites bisulcatus</i> KOBAYASHI, nov., VI, 4, IX, 2.		453
	Family Solenopleuridae ANGELIN, 1854.		
	Genus <i>Hystricurus</i> RAYMOND, 1913.		
	43. <i>Hystricurus platypleurus</i> KOBAYASHI, nov., VI, 6.		454
	44. <i>Hystricurus</i> cfr. <i>genalatus</i> ROSS, VI, 1-2.		454
	45. <i>Hystricurus</i> sp., VI, 8.		455
	46. <i>Hystricurus</i> (?) sp.		455
	Genus <i>Parahystricurus</i> ROSS, 1951.		
	47. <i>Parahystricurus</i> (?) sp., VI, 7.		455
	Genus <i>Clelandia</i> COSSMANN, 1902.		456
	48. <i>Clelandia</i> (?) sp., VI, 5a-b.		456
	Genus <i>Dimeropygiella</i> ROSS, 1951.		
	49. <i>Dimeropygiella eos</i> KOBAYASHI, VI, 10.		456
	Family Emmerichellidae KOBAYASHI, 1935.		
	Genus <i>Metabowmania</i> KOBAYASHI, nov.		457
	50. <i>Metabowmania latilimbata</i> KOBAYASHI, nov., VI, 13, VIII, 9, IX, 7a-b.		458
	Genus <i>Amechilus</i> ROSS, 1951.		459
	51. <i>Amechilus tuberculatus</i> KOBAYASHI, nov., VI, 11.		459
	Genus <i>Macroculites</i> KOBAYASHI, nov.		460
	52. <i>Macroculites enigmaticus</i> KOBAYASHI, nov., VI, 14, IX, 6a-b.		461
	53. <i>Macroculites</i> (?) sp., VI, 15a-b.		462
	Family Olenidae BURMEISTER, 1843.		462
	Subfamily Oleninae KOBAYASHI, 1935.		
	Genus <i>Parabolinella</i> BRÖGGER, 1882.		
	54. <i>Parabolinella bisulcata</i> KOBAYASHI, nov., VII, 18-19.		463
	Subfamily Leptoplastinae ANGELIN, 1854.		
	Genus <i>Sphaerophthalmella</i> KOBAYASHI, nov.		463
	55. <i>Sphaerophthalmella inexpectans</i> KOBAYASHI, nov., VII, 10a-b, 11, IX, 12a-b.		464
	Subfamily Pelturinae HARRINGTON and LEANZA, 1952.		
	Genus <i>Peltura</i> MILNE-EDWARDS, 1840.		
	56. <i>Peltura pacifica</i> KOBAYASHI, nov., VII, 14-17.		465
	57. <i>Peltura canadensis</i> KOBAYASHI, nov., VII, 20.		466

	Genus <i>Jujuyaspis</i> KOBAYASHI, 1936.....	466	PA 2224-2
58.	<i>Jujuyaspis borealis</i> KOBAYASHI, nov., VII, 12, 13a-b.....	467	PA 2225-13
	Genus <i>Paenebittella</i> ROSS, 1951.		PA 2226-21
59.	<i>Paenebittella convexa</i> KOBAYASHI, nov., VII, 21a-b, VIII, 12.....	468	PA 2227-12
	Family Raphiophoridae ANGERIN, 1854.		PA 2228-1
	Genus <i>Ampyx</i> DALMAN, 1826.		PA 2229-2
60.	<i>Ampyx walcottii</i> KOBAYASHI, nov., VIII, 1a-b, 2a-b, 3.....	469	PA 2230-3
61.	<i>Ampyx walcottii</i> var. <i>stenorachis</i> KOBAYASHI, nov., VIII, 4a-b, 5.....	470	PA 2231-4
62.	<i>Ampyx</i> a sp. nov., VIII, 21-23.....	470	PA 2232-5
63.	<i>Ampyx</i> b sp. nov., VIII, 18-20.....	471	PA 2233-6
	Family Shumardiidae LAKE, 1907.		PA 2234-19
	Genus <i>Shumardia</i> BILLINGS, 1865.		PA 2235-23
64.	<i>Shumardia</i> sp., VII, 9.....	471	PA 2236-18
	Genus <i>Lunacrania</i> KOBAYASHI, nov.	472	PA 2237-19
65.	<i>Lunacrania trisecta</i> KOBAYASHI, nov., VII, 8, IX, 10.....	472	PA 2238-20
	Order and Family uncertain		PA 2239-9
	Genus <i>Rhamphopyge</i> KOBAYASHI, nov.	472	PA 2240-8
(R) 66.	<i>Rhamphopyge altipolum</i> KOBAYASHI, nov., VI, 9a-b, IX, 8a-b.....	473	PA 2241-9
	Subclass Miomera JAEKEL, 1909, Order Agnostida KOBAYASHI, 1935.		PA 2242-6
	Family Agnostidae MCCOY, 1849.		PA 2243-5
	Genus <i>Neagnostus</i> KOBAYASHI, nov.	473	PA 2244-2
67.	<i>Neagnostus aspidoides</i> KOBAYASHI, nov., VII, 4-5, IX, 5.....	473	PA 2245-3
	Genus <i>Hyperagnostus</i> KOBAYASHI, nov.	474	
68.	<i>Hyperagnostus binodosus</i> KOBAYASHI, nov., VII, 2-3, IX, 4.....	475	
	Genus <i>Geragnostus</i> HOWELL, 1935.		PA 2246-1
69.	<i>Geragnostus</i> aff. <i>mundus</i> (RAYMOND), VII, 1, VIII, 17.....	475	PA 2247-17
	Genus <i>Trinodus</i> MCCOY, 1846.		PA 2248
70.	<i>Trinodus priscus</i> KOBAYASHI, nov., VII, 6.....	476	PA 2249
71.	<i>Trinodus tardiformis</i> KOBAYASHI, nov., VII, 7a-b.....	476	
	Postscript	478	
	Bibliography	479	
	Index	487	

List of Tables

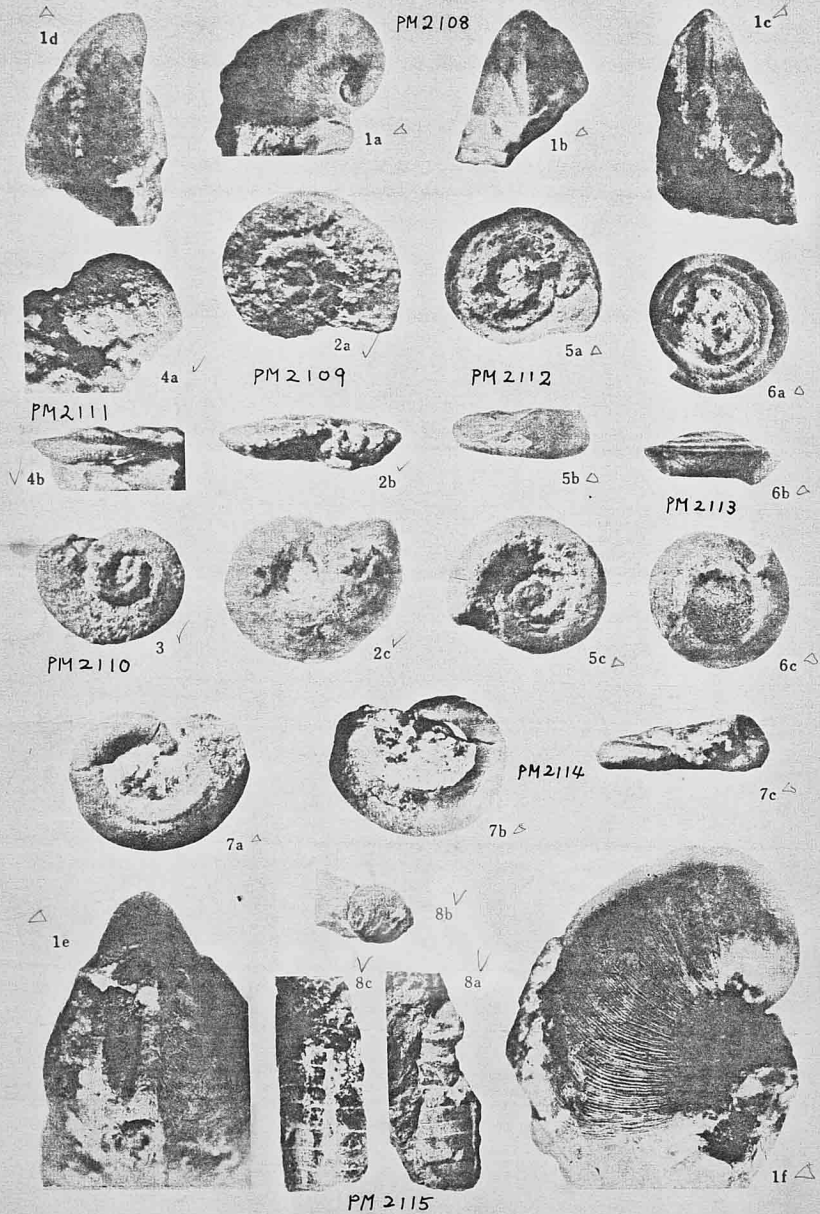
	Page
Table 1. Relation of the McKay Group to the Glenogle and other Formations ..	361
Table 2. Fossil Horizons in the McKay Creek type section.....	364
Table 3. The <i>Symphysurina</i> Fauna	365
Table 4. The <i>Kainella-Evansaspis</i> Fauna.....	366
Table 5. The <i>Apatokephalus-Peltura</i> Faunule and the asaphid Faunules.....	367
Table 6. The <i>Kirkella-Protopliomerops</i> Fauna and the <i>Telephus</i> Faunule.....	368
Table 7. Correlation of the Fossil Beds in the McKay Group to the Fossil Zones in the Pogonip and Garden City Formations.....	375
Table 8. Relation between the Faunas classified here and the Fossil Zones cited in EVANS' Report, 1933.....	375
Table 9. Zonation of the Upper Cambrian and Lower Ordovician Formations in Cape Breton.....	383
Table 10. Correlation of the Ordovician Faunas in the McKay Group to the Fossil Zones in the South Andes.....	394

- PA 2250 gen. et sp. - pl. 8, fig. 7,
 PA 2251 Asaphid gen. et sp. pl. 8, fig. 8
 PA 2252 Asaphid gen. et sp. indit pl. 8, fig. 11,
 PA 2253 Asaphid gen. et sp. indit pl. 8, fig. 14,
 PA 2254 " " " " pl. 8, fig. 16,

Explanation of Plate I

Ordovician Gastropoda and Nautiloidea from the McKay group in British Columbia.

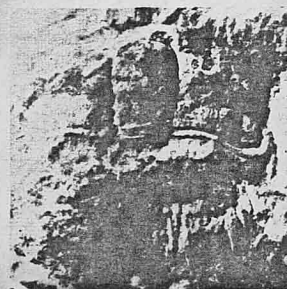
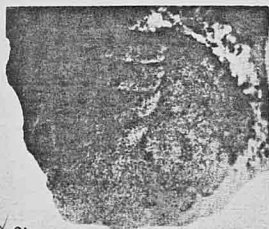
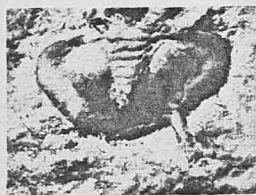
- (R) *Eolucania pulchra* KOBAYASHI, new species 404 PM2108-a-f
 Figures 1a-d. Lateral, dorsal and dorso-lateral views of the holotype, $\times 2$, loc. 19.
 Figures 1e-f. Dorsal and lateral views of the same specimen showing the slit-band and surface sculptures, $\times 4$.
- Raphistomina sinclairensis* KOBAYASHI, new species 405
 ✓ Figures 2a-c. Apical, lateral and basal views of the holotype, $\times 1\frac{1}{2}$, loc. 5. PM2109-2a-c
 ✓ Figure 3. Apical view of a paratype, $\times 1\frac{1}{2}$, loc. 5. PM2110-3
- Raphistomina sinclairensis* var. *acuta* KOBAYASHI, new variety 406 PM2111
 ✓ Figures 4a-b. Apical and lateral views of the holotype, $\times 2$, loc. 2.
- (R) *Burnesella tympama* KOBAYASHI, new species 406 PM2112 (R)
 Figures 5a-c. Apical, lateral and basal views of the holotype, $\times 1\frac{1}{2}$, loc. 17.
- (R) *Ozarkispira leo* WALCOTT 408 PM2113 (R)
 Figures 6a-c. Apical, lateral and basal views of a specimen, $\times 2$, loc. 6.
- (R) *Lytospira mediusulcata* KOBAYASHI, new species 408 PM2114 (R)
 Figures 7a-c. Apical, basal and lateral views of the holotype, $\times 3$, loc. 6.
- ✓ *Robsonoceras* sp. 409 PM2115
 Figures 8a-b. Lateral and adapical views of a phragmacone, $\times 2$, loc. 3.
 Figure 8c. Ventral view of the same phragmacone, $\times 3$.



Explanation of Plate II

Ordovician Trilobites from the McKay group in British Columbia.

✓	<i>Kainella kindlei</i> KOBAYASHI, new species	413	PA2116
	Figure 1. Holotype cranium, $\times 3$, loc. 2.		
✓	<i>Apatokephalus canadensis</i> KOBAYASHI	414	PA2117
	Figure 2. Cranium, $\times 2\frac{1}{2}$, loc. 20.		
✓	<i>Protopliomerops subquadratus</i> KOBAYASHI, new species	414	PA2118-3 PA2119-4
	Figures 3-4. Holotype cranium and paratype pygidium, $\times 1\frac{1}{2}$, loc. 21.		
✓	<i>Protopliomerops radiatus</i> KOBAYASHI, new species	416	
	Figure 5a. Holotype cranium, $\times 1\frac{1}{2}$, loc. 13.		PA2120-5
	Figure 5b. Postero-lateral part of the fixed cheek of the same cranium showing the pitted test, $\times 3\frac{1}{2}$.		
✓	Figure 6. Paratype pygidium, $\times 1\frac{1}{2}$, loc. 13.		PA2121-6
✓	<i>Protopliomerops longispinus</i> KOBAYASHI, new species	417	PA2122
	Figure 7. Holotype pygidium, $\times 4$, loc. 21.		
✓	<i>Tesselacauda flabella</i> KOBAYASHI, new species	417	PA2123
	Figures 8a-b. Holotype pygidium, $\times 3$, loc. 2.		
✓	<i>Telephus pacificus</i> KOBAYASHI, new species	419	
	Figures 9a-b. Dorsal and lateral views of the holotype, $\times 5$, loc. 10.		PA2124
✓	Figure 10. Clay cast from a mould of a cranium, $\times 3$, loc. 10.		PA2125
✓	<i>Leiostegium (Evansaspis) glabrum</i> KOBAYASHI, new species	421	
	Figures 11-13. Holotype pygidium, a free cheek and a paratype cranium, $\times 1\frac{1}{2}$, loc. 2.		PA2126-11
	Figure 14. Cranium, $\times 1\frac{1}{2}$, loc. 12.		PA2127-12
	Figure 15. Cranium, $\times 2$, loc. 12.		PA2128-13
	Figure 16. Hypostoma, $\times 1$, loc. 8.		PA2129-14
	Figure 17. Pygidium, $\times 1\frac{1}{2}$, loc. 25.		PA2130-15 PA2131-16 PA2132-17



Explanation of Plate III

Ordovician Trilobites from the McKay group in British Columbia.

- ✓ *Hyperbolochilus expansus* KOBAYASHI, new species 422 PA2133
 Figure 1. Holotype cranium, $\times 2$, loc. 2.
- ✓ *Bellefontia platana* KOBAYASHI, new species 436 PA2154-2
 Figures 2-3. Holotype cranium and paratype free cheek, $\times 2$.
 Figure 4. Hypostoma, $\times 4$. PA2155-3
 Figure 5. Pygidium, $\times 1\frac{1}{2}$. PA2156-4
 All from loc. 15. PA2157-5
- (R) *Symphysurina (Symphysuroides) expansa* KOBAYASHI, new species 432 PA2143-6
 Figures 6a-b. Dorsal and lateral views of holotype cranium, $\times 2$, loc. 24. PA2144-7
 Figure 7. Paratype pygidium, 3, loc. 24.
- ✓ *Symphysurina (Symphysurina) spicata* ULRICH 430 PA2136-8
 Figure 8. Cranium, $\times 2$, loc. 18. PA2137-9
 Figure 9. Pygidium, $\times 1\frac{1}{2}$, loc. 18.
- ✓ *Symphysurina* a sp. 433 PA2149-10
 Figures 10-11. Cranium and free cheek, $\times 1\frac{1}{2}$, loc. 19. PA2150-11
- ✓ *Symphysurina* b sp. 433 PA2151-12
 Figure 12. Cranium, $\times 3$, loc. 23. PA2152-13
 Figure 13. Cranium, $\times 3$, loc. 15. PA2153-14
 Figure 14. Cranium, $\times 4$, loc. 2.
- ✓ *Symphysurina (Symphysuroides) cfr. brevispicata* HINTZE 433 PA2145-15
 Figure 15. Cranium, $\times 3$, loc. 22. PA2146-16
 Figures 16-17. Cranium and free cheek, $\times 2$, loc. 23. PA2147-17
 Figure 18. Pygidium, $\times 1\frac{1}{2}$, loc. 22. PA2148-18
- ✓ *Symphysurina (Symphysuroides) elegans* POULSEN 432 PA2140-19
 Figure 19. Holotype cranium, $\times 2$.
 (R) Figures 20a-b. Paratype cranium, $\times 3$ and about 6 times magnified to show the pitted texture. (R) PA2141-20
 Figure 21. Pygidium, $\times 1\frac{1}{2}$. PA2142-21
 All from loc. 22.
- (R) *Symphysurina (Symphysuroides) spicata* var. *eugenia* WALCOTT 430 PA2138
 Figure 22. Pygidium, $\times 2$, loc. 24.



Explanation of Plate IV

Ordovician Trilobites from the McKay group in British Columbia.

- ✓ *Kobayashia lanceolata* KOBAYASHI, new species 441 PA2164-1
 Figure 1. Holotype cranidium, $\times 1\frac{1}{2}$. PA2165-2
 Figures 2a-b. Ventral and lateral views of paratype hypostoma, $\times 2$. PA2166-3
 Figure 3. Pygidium, $\times 1$.
 All from loc. 14.
- Kayseraspis* (?) *euclides* (WALCOTT) 442 PA2167-4
 ✓ Figure 4. Hypostoma, $\times 1\frac{1}{2}$. PA2168-5
 ✓ Figures 5-6. Cranidium and pygidium, $\times 1$. PA2169-6
 ✓ Figures 7-8. Two pygidia, $\times 2$. PA2170-7
 All from loc. 4. (R) PA2191-8
 ✓ Figure 9. Pygidium, $\times 1\frac{1}{2}$, loc. 11. PA2192-9
 ✓ Figures 10, 11a-b, 12. A cranidium and 2 pygidia, $\times 1$, loc. 3. PA2193-10
 PA2194-11
Kayseraspis (?) sp. 444 PA2195-12
- ✓ Figure 13. Pygidium, $\times 1$, loc. 11. PA2181-13
 ✓ Figure 14. Pygidium, $\times 1$, loc. 1. PA2182-14



PA 2168



2b PA 2165



2a PA 2169



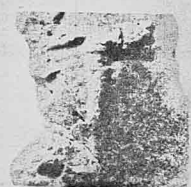
1 PA 2164



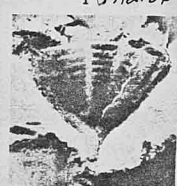
4 PA 2167



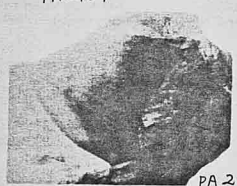
3 PA 2166



6 PA 2169



9 PA 2172



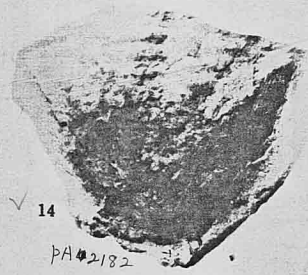
13 PA 2181



10 PA 2173



7 PA 2170



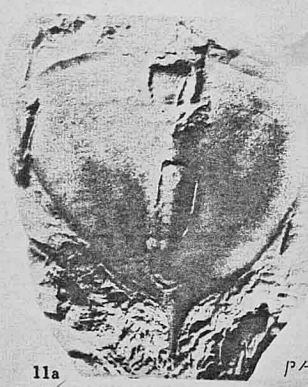
14 PA 2182



8 PA 2171



12 PA 2175



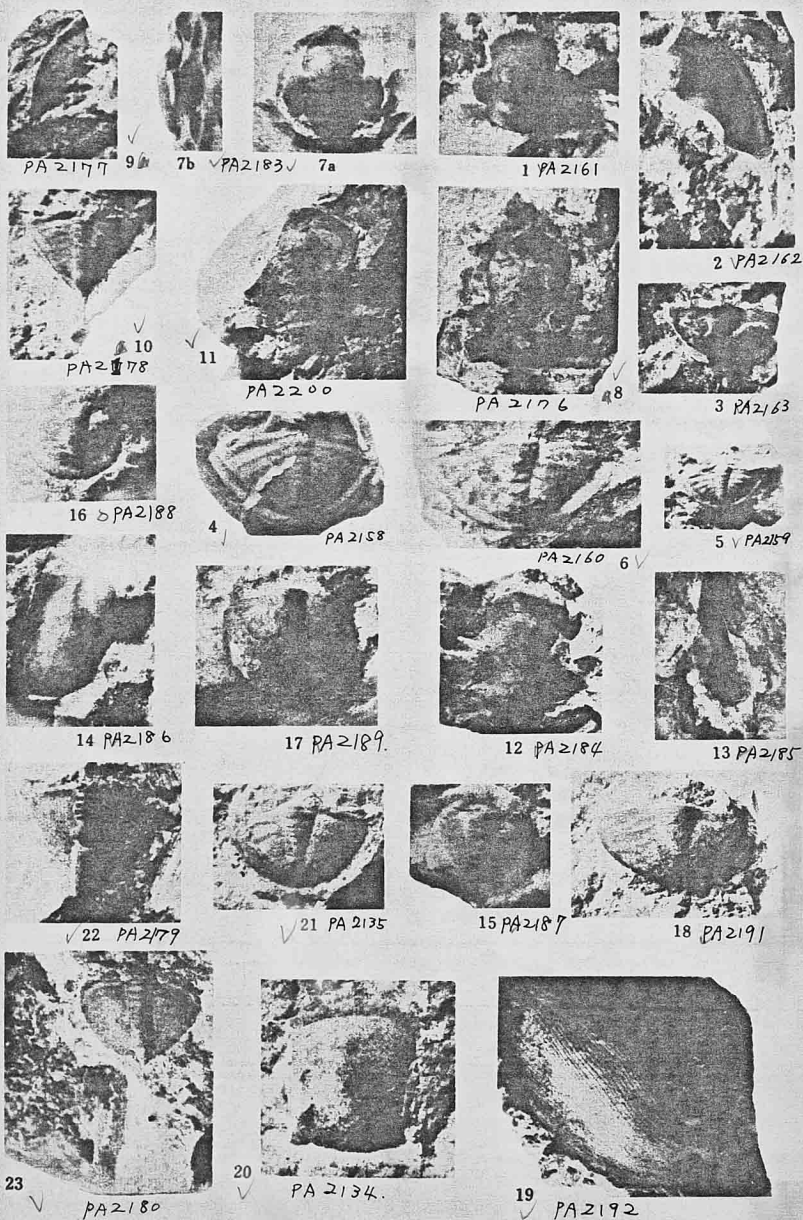
11a PA 2174



11b PA 2174

Explanation of Plate V

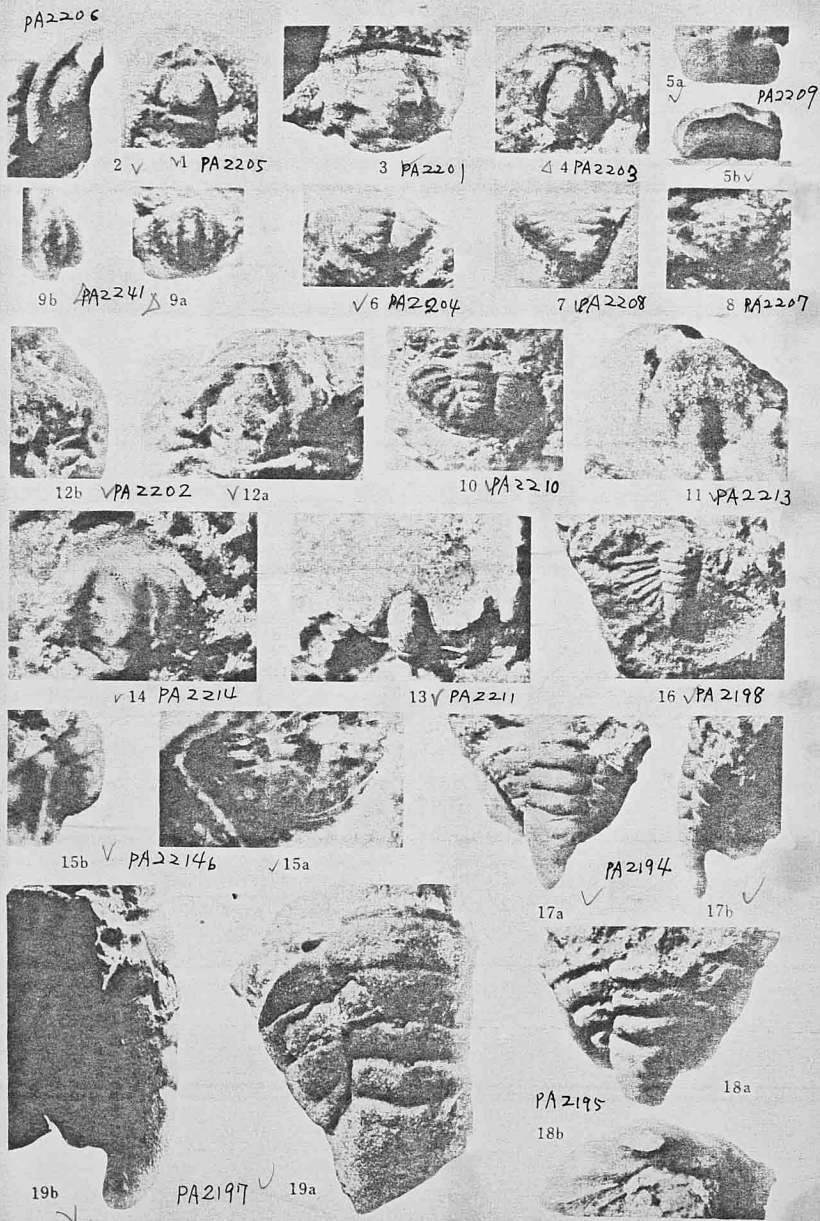
- Ordovician Trilobites from the McKay group in British Columbia.
- ✓ *Asaphellus* (?) *canadensis* KOBAYASHI, new species 438 PA2161-1
 PA2162-2
 PA2163-3
 Figures 1-3. Holotype cranidium, paratype free cheek and pygidium, $\times 4$, loc. 20.
- ✓ *Bellefontia* (?) aff. *colliciana* RAYMOND 437 PA2158-4
 PA2159-5
 Figure 4. Pygidium, $\times 2$, loc. 3.
 Figure 5. Pygidium, $\times 2$, loc. 4.
- ✓ *Bellefontia* (?) sp. 437 PA2160-6
 Figure 6. Pygidium, $\times 2$, loc. 4.
- ✓ *Columbicephalus macrops* KOBAYASHI, new species 444 PA2183
 Figures 7a-b. Holotype cranidium, $\times 3$, loc. 10a.
- ✓ *Kayseraspis* (?) *euclides* (WALCOTT) 442 PA2176-8
 PA2177-9
 PA2178-10
 Figures 8-10. Cranidium, free cheek and pygidium, $\times 1\frac{1}{2}$, loc. 20.
- ✓ *Lachnostoma* (?) sp. 449 PA2200-11
 Figure 11. Cranidium, $\times 1$, loc. 13.
- ✓ *Kirkella* cfr. *vigilans* (WHITTINGTON) 445 PA2184-12
 PA2185-13
 PA2186-14
 PA2187-15
 PA2188-16
 PA2189-17
 Figures 12-13. Cranidium and free cheek, $\times 1\frac{1}{2}$.
 Figure 14. Free cheek, $\times 3$.
 Figure 15. Pygidium, $\times 2$.
 (12) Figure 16. Young pygidium, $\times 5$.
 All from loc. 13. (17)
 Figure 17. Pygidium, $\times 3$, loc. 17.
- ✓ *Protopresbynileus* (?) aff. *willdeni* HINTZE 446 PA2191-18
 PA2192-19
 Figure 18. Pygidium, $\times 1\frac{1}{2}$, loc. 14.
 Figure 19. Doublure of a pygidium, $\times 1$, loc. 14.
- ✓ Nileidae (?), gen. and sp. indt. 425 PA2134-20
 PA2135-21
 Figures 20-21. Cranidium and pygidium, $\times 2$, loc. 9.
- ✓ *Kayseraspis* (?) cfr. *euclides* (WALCOTT) 442 PA2179-22
 PA2180-23
 Figure 22. Pygidium, $\times 3$, loc. 17.
 Figure 23. Pygidium, $\times 2$, loc. 17.



Explanation of Plate VI

Ordovician Trilobites from the McKay group in British Columbia.

- ✓ *Hystericurus* cfr. *genelatus* ROSS 454 PA2205-1
 ✓ Figure 1. Cranidium, $\times 2\frac{1}{2}$, loc. 24. PA2206-2
 ✓ Figure 2. Free cheek, $\times 3$, loc. 24.
- ✓ *Eulomella mckayensis* KOBAYASHI, new species 451 PA2201-3
 Figure 3. Holotype cranidium, $\times 2\frac{1}{2}$, loc. 18.
- (R) *Vermilionites bisulcatus* KOBAYASHI, new species 453 PA2203-4
 Figure 4. Holotype cranidium, $\times 2$, loc. 8.
- ✓ *Clelandia* (?) sp. 456 PA2209
 Figures 5a-b. Dorsal and posterior views of a pygidium, $\times 4$, loc. 2.
- ✓ *Hystericurus platypleurus* KOBAYASHI, new species 454 PA2204
 Figure 6. Pygidium, $\times 3$, loc. 2.
- ✓ *Parahystericurus* (?) sp. 455 PA2208
 Figure 7. Pygidium, $\times 2\frac{1}{2}$, loc. 2.
- ✓ *Hystericurus* sp. 455 PA2207
 Figure 8. Pygidium, $\times 4\frac{1}{2}$, loc. 22.
- (R) *Rhamphopyge altipolum* KOBAYASHI, new species 473 PA2241
 Figures 9a-b. Dorsal and lateral views of holotype pygidium, $\times 4\frac{1}{2}$, loc. 24.
- ✓ *Dimeropygiella eos* KOBAYASHI, new species 456 PA2210
 Figure 10. Holotype pygidium, $\times 2$, loc. 7.
- ✓ *Amechilus tuberculatus* KOBAYASHI, new species 459 PA2213
 Figure 11. Holotype cranidium, $\times 2$, loc. 2.
- ✓ *Neotaenicephalus obsoletus* KOBAYASHI, new species 452 PA2202-12
 Figures 12a-b. Dorsal and lateral views of holotype cranidium, $\times 2$, loc. 24.
- ✓ *Metabowmania latilimbata* KOBAYASHI, new species 458 PA2211
 Figure 13. Holotype cranidium, $\times 2$, loc. 2.
- ✓ *Macroculites enigmaticum* KOBAYASHI, new species 461 PA2214
 Figure 14. Cranidium, $\times 5$, loc. 24.
- ✓ *Macroculites* (?) sp. 462
 Figures 15a-b. Dorsal and lateral views of a pygidium, $\times 5$, loc. 24.
- ✓ *Lienocephala longa* KOBAYASHI, new species 448 PA2198
 Figure 16. Holotype pygidium, $\times 1\frac{1}{2}$, loc. 13.
- ✓ *Gonioteloides monoceros* KOBAYASHI, new species 447 PA2194-17
 Figures 17a-b. Dorsal and lateral views of holotype pygidium, $\times 2$, loc. 2.
- (R) Figures 18a-b. Dorsal and posterior views of a paratype pygidium, $\times 1\frac{1}{2}$, loc. 2. (R) PA2195-18
- ✓ *Gonioteloides punctatus* KOBAYASHI, new species 448 PA2197-19
 Figures 19a-b. Dorsal and lateral views of holotype pygidium, $\times 1\frac{1}{2}$, loc. 7.



Explanation of Plate VII

- Ordovician Trilobites from the McKay group in British Columbia.
- ✓ *Geragnostus* aff. *mundus* (RAYMOND)..... 475 PA2246 1
Figure 1. Cephalon, $\times 3$, loc. 23.
- ✓ *Hyperagnostus binodosus* KOBAYASHI, new species 475 PA2244 2
PA2245 3
Figures 2-3. Holotype cephalon and paratype pygidium, $\times 3$, loc. 2.
- ✓ *Neagnostus aspidoides* KOBAYASHI, new species 473 PA2242 4
Figure 4. Paratype pygidium, $\times 5$, loc. 24.
PA2243 5
✓ Figure 5. Holotype cephalon, $\times 3$, loc. 24.
- ✓ *Trinodus priscus* KOBAYASHI, new species 476 PA2248
Figure 6. Holotype pygidium, $\times 3$, loc. 15.
- ✓ *Trinodus tardiformis* KOBAYASHI, new species 476 PA2249
Figures 7a-b. Dorsal and lateral views of holotype pygidium, $\times 5$, loc. 10.
- ✓ *Lumacrania trisecta* KOBAYASHI, new species 472 PA2240
Figure 8. Holotype cephalon, $\times 6$, loc. 24.
- ✓ *Shumardia* sp. 471 PA2239 7
Figure 9. Cephalon, $\times 5$, loc. 2.
- ✓ *Spaerophthalmella inexpectans* KOBAYASHI, new species 464 PA2219-10
PA2218-11
Figures 10a-b. Dorsal and lateral views of holotype cranidium, $\times 4$, loc. 19.
Figure 11. Paratype pygidium, $\times 4$, loc. 19.
- ✓ *Jujuyaspis borealis* KOBAYASHI, new species 467 PA2224 12
PA2225 13
Figure 12. Paratype cranidium, $\times 2\frac{1}{2}$, loc. 19.
Figures 13a-b. Dorsal and lateral views of holotype cranidium, $\times 2$, loc. 19.
- ✓ *Peltura pacifica* KOBAYASHI, new species 465 PA2219 14
PA2220 15
PA2221 16
PA2222 17
Figures 14-16. Holotype and two paratype cranidia, $\times 3$, loc. 9.
Figure 17. Paratype free cheek, $\times 3$, loc. 9.
- ✓ *Parabolinella bisulcata* KOBAYASHI, new species 463 PA2215-18
PA2216-19
Figures 18-19. Holotype and paratype cranidia, $\times 2$, loc. 19.
- ✓ *Peltura canadensis* KOBAYASHI, new species 466 PA2223-20
Figure 20. Cranidium, $\times 4$, loc. 20.
- ✓ *Paenebeltella convexa* KOBAYASHI, new species 468 PA2226
Figures 21a-b. Dorsal and lateral views of holotype cranidium, $\times 3$, loc. 2.
- ✓ *Symphysurina* (*Symphysurina*) cfr. *corlissensis* (RAYMOND) 431 PA2139
Figures 22a-b. Dorsal and lateral views of a pygidium, $\times 4$, loc. 24.



10b ✓ PA 2217/10a



✓ 11 PA 2218



9 PA 2239



8 PA 2240



1 PA 2246



12 PA 2224



3 PA 2245



4 PA 2242



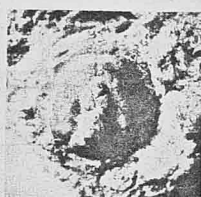
2v PA 2244



7b ✓ PA 2249



✓ 7a



5 PA 2243



6 PA 2248



17 PA 2222



16 PA 2221



14 PA 2219



✓ 15 PA 2220



13b ✓



✓ 13a



20 PA 2223



18 PA 2225



21b ✓



✓ 21a



PA 2216

22a ✓



22b ✓

PA 2139

Explanation of Plate VIII

Ordovician Trilobites from the McKay Group in British Columbia.

- ✓ *Ampyx walcottii* KOBAYASHI, new species..... 469 PA2228-1
 ✓ Figure 1a. Holotype cranidium and a prismatic spine near its right genal angle, $\times 3$. PA2229-2
 ✓ Figure 1b. Lateral view of the same cranidium, $\times 3$. PA2230-3
 ✓ Figures 2a-b. Another cranidium: dorsal and lateral views, $\times 3$.
 ✓ Figure 3. Pygidium, $\times 4$.
 All from loc. 13.
- ✓ *Ampyx walcottii* var. *stenorachis* KOBAYASHI, new variety 470 PA2231-4
 ✓ Figures 4a-b. Dorsal and lateral views of holotype cranidium, $\times 3$. PA2232-5
 Figure 5. Another cranidium, $\times 3$.
 All from loc. 13.
- (R) *Kirkella* cf. *vigilans* (WHITTINGTON) 445 PA2190
 Figure 6. Hypostoma of the species found in the same slab with the cranidium of *Ampyx walcottii* in fig. 1a. $\times 1\frac{1}{2}$, loc. 13.
- ✓ Gen. et spp. indt. 365 PA2250
 Figure 7. Free cheeks of two different types, $\times 2$, loc. 22.
- ✓ Asaphid, gen. et sp. indt. (b) 436 PA2251
 Figure 8. Pygidium, $\times 1\frac{1}{2}$, loc. 24.
- ✓ *Metabourmania latilimbata* KOBAYASHI, new species 458 PA2212
 Figure 9. Cranidium, $\times 3$, loc. 12.
- ✓ *Gonioteleoides monoceros* KOBAYASHI, new species..... 447 PA2196-10
 Figure 10. Side view of a pygidium, $\times 3$, loc. 19.
- ✓ Asaphid, gen. et sp. indt. (c)..... 436 PA2252
 Figure 11. Pygidium, $\times 1\frac{1}{2}$, loc. 24.
- ✓ *Paenebeltella convexa* KOBAYASHI, new species 468 PA2207-12
 Figure 12. Cranidium, $\times 3$, loc. 7.
- ✓ *Licnocephala longa* KOBAYASHI, new species 448 PA2199-13
 Figure 13. Pygidium, $\times 2\frac{1}{2}$, loc. 13.
- ✓ Asaphid, gen. et sp. indt. (a) 436 PA2253
 Figure 14. Pygidium, $\times 1\frac{1}{2}$, loc. 13.
- ✓ *Protopresbrynileus* (?) aff. *willdeni* (HINTZE) 446 PA2198
 Figure 15. Pygidium, $\times 3$, loc. 4.
- ✓ Gen. et sp. indt. 366 PA2254
 Figure 16. Free cheek, $\times 4$, loc. 2.
- ✓ *Geragnostus* aff. *mundus* (RAYMOND)..... 475 PA2245-17
 Figure 17. Pygidium, $\times 5$, loc. 23.
- ✓ *Ampyx* b sp. indt. 471 PA2236-18
 Figure 18. Cranidium, $\times 2$. PA2238-19
 Figure 19. Pygidium, $\times 2$. PA2238-20
 Figure 20. Pygidium, $\times 2$.
 All from loc. 10.
- (R) *Ampyx* a sp. indt. 470 PA2233-21
 Figure 21. Cranidium (b) and pygidium, $\times 1.5$. PA2234-22
 Figure 22. Pygidium, $\times 2$. PA2235-23
 Figure 23. Two cranidia, a and c respectively on the left and right side, $\times 2$.
 All from loc. 7.



1a ✓



PA2228 ✓ 1b



4a ✓



PA2231 ✓ 4b



2a ✓



PA2229 ✓ 2b



5 ✓ PA ~~2193~~
2232



7 ✓ PA2250



✓ 3 PA2230



17 ✓ PA2247



6 ✓ PA2190



21 ✓ PA2233



19 ✓ PA2237



8 ✓ PA2251



20 ✓ PA2238



10 ✓ PA2196



9 ✓ PA2202



18 ✓ PA2236



✓ 13
PA2199



11 ✓ PA2252



✓ 22 PA2234



12 ✓ PA2227



23 ✓ PA2235



14 ✓ PA2253



15 ✓ PA2193



16 ✓ PA2254

Explanation of Plate IX

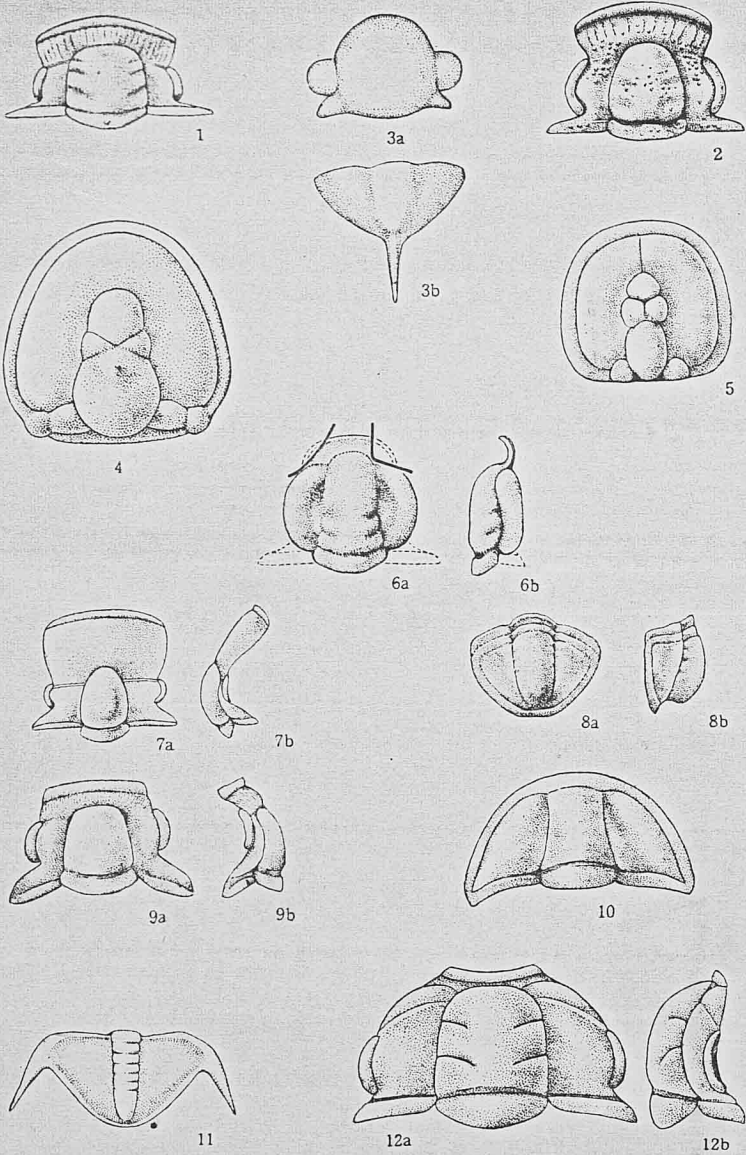
Figure 1. <i>Eulomella mckayensis</i> KOBAYASHI, new species. Postero-lateral limbs of fixed cheeks unpreserved.	451
Figure 2. <i>Vermilionites bisulcatus</i> KOBAYASHI, new species	453
Figures 3a-b. <i>Symphysurinella corlissensis</i> RAYMOND	428
Figure 4. <i>Hyperagnostus binodosus</i> KOBAYASHI, new species	475
Figure 5. <i>Neagnostus aspidoides</i> KOBAYASHI, new species	473
Figures 6a-b. <i>Macroculites enigmaticum</i> KOBAYASHI, new species. Preglabellar area and posterior limbs of fixed cheeks ill-preserved.	461
Figures 7a-b. <i>Metabowmania latilimbata</i> KOBAYASHI, new species. Posterior limbs of fixed cheeks unpreserved.	458
Figures 8a-b. <i>Rhamphopyge altipolum</i> KOBAYASHI, new species. Whether the first segment belongs to the thorax or pygidium is a question.	473
Figures 9a-b. <i>Neotaenicephalus obsoletus</i> KOBAYASHI, new species. Test of the glabella largely exfoliated on the type cranidium.	452
Figure 10. <i>Lunacrania trisecta</i> KOBAYASHI, new species	472
Figure 11. <i>Perishodory grandgei</i> RAYMOND	421
Figures 12a-b. <i>Sphaerophthalmoides inexpectans</i> KOBAYASHI, new species	464

50

2

52

2254



Explanation of Plate I

Ordovician Gastropoda and Nautiloidea from the McKay group in British Columbia.

- Eobucania pulchra* KOBAYASHI, new species 404
Figures 1a-d. Lateral, dorsal and dorso-lateral views of the holotype, $\times 2$, loc. 19.
Figures 1e-f. Dorsal and lateral views of the same specimen showing the slit-band and surface sculptures, $\times 4$.
- Raphistomina sinclairensis* KOBAYASHI, new species 405
Figures 2a-c. Apical, lateral and basal views of the holotype, $\times 1\frac{1}{2}$, loc. 5.
Figure 3. Apical view of a paratype, $\times 1\frac{1}{2}$, loc. 5.
- Raphistomina sinclairensis* var. *acuta* KOBAYASHI, new variety 406
Figures 4a-b. Apical and lateral views of the holotype, $\times 2$, loc. 2.
- Burnesella tympana* KOBAYASHI, new species 406
Figures 5a-c. Apical, lateral and basal views of the holotype, $\times 1\frac{1}{2}$, loc. 17.
- Ozarkispira leo* WALCOTT 408
Figures 6a-c. Apical, lateral and basal views of a specimen, $\times 2$, loc. 6.
- Lytospira mediosulcata* KOBAYASHI, new species 408
Figures 7a-c. Apical, basal and lateral views of the holotype, $\times 3$, loc. 6.
- Robsonoceras* sp. 409
Figures 8a-b. Lateral and adapical views of a phragmacone, $\times 2$, loc. 3.
Figure 8c. Ventral view of the same phragmacone, $\times 3$.