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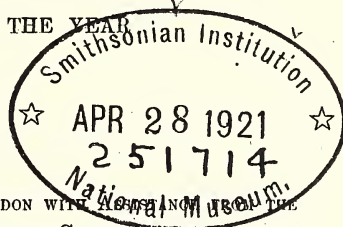
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EXPLANATORY.

This Volume is printed in the Divisions enumerated on p. iv.

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In the Subject Index of each Division authors are quoted by name only. The full references will be found in the Title Section of the Division.

The Literature indexed is mainly that of 1918 but includes entries for earlier years that have been received too late for inclusion in previous volumes.

On account of the international situation, the Royal Society of London found itself unable to undertake at present any financial responsibility for any volumes of the International Catalogue subsequent to those of the Fourteenth Annual Issue.

Under these circumstances the Zoological Society of London arranged to undertake the issue of the present volume, which is the fifty-fifth of the Zoological Record, and would have been N. Zoology of the Eighteenth Annual Issue of the International Catalogue. Its preparation has been conducted as closely as possible on the model of the previous volumes prepared jointly by the International Catalogue and the Zoological Society.

It can now be purchased from the Zoological Society of London at the price of £2, either in the binding of the Zoological Record or in series with the International Catalogue.

Volume 56, dealing with the Literature of 1919, is in preparation.

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I. COMPREHENSIVE ZOOLOGY

BY

D. SHARP

This section includes works that deal with more than one branch of Zoology, or that are of general interest to Zoologists. It is, therefore, not complete in itself as regards any one subject included in it. The special records complete each subject. A few memoirs included in the special records are repeated in this division.

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ARRANGED BY

II. M. WOODCOCK, D.Sc.

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†*Chrysalidina pulchella* sp. n., Panama; CUSHMAN Bull. U.S. Nat. Mus. 103 p. 54 pl. xx fig. 2.

†*Cristellaria americana* p. 50 pl. x figs. 5, 6, with var. n. *spinosa*, p. 51, fig. 7, *floridana* pl. xi fig. 1, *catenulata* fig. 2, p. 51, spp. n., Miocene, CUSHMAN U.S. Geol. Surv. Bull. 676.—†*C. protuberans* pl. xxii fig. 2, *vaughani* fig. 3, p. 61, spp. n., Panama, CUSHMAN Bull. U.S. Nat. Mus. 103.

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†*Lepidocyclina vaughani*, p. 93, pl. xxxvii figs. 1–5, pl. xxxviii, *macdonaldi*, pl. xl figs. 1–6 *panamensis* pl. xxxix figs. 1–6, pl. xlii, p. 94, *L. (Multicyclina* subgen. n.) type *duplicata*, p. 96, pl. xli figs. 2–4, spp. n., Panama, CUSHMAN T.c.—†*L. (Eulepidina) stercolata* p. 254, pl. viii figs. 1–6, *planata* p. 254 figs. 7–10, *L. (Nephrolepidina) parva* p. 255 pl. viii figs. 11, 12, pl. ix fig. 9, *atjchensis* p. 255 pl. ix figs. 1–3, spp. n. Tertiary, Sumatra, OPFENOORTH Verh. Geol.-Mijn. Gen. Ned. Geol. Ser. Deel 2 1918.

†*Massilina ginginensis* sp. n., Cretaceous, W. Australia, CHAPMAN Geol. Surv. W. Australia Bull. 72 p. 16 fig. 3.

Miliolina subrotunda var. n. *striata*, p. 58 fig. 3, *M. oblonga* var. n. *arenacea* p. 59, fig. 7, Ross Sea, CHAPMAN Brit. Antarct. Exped. Geol. 2.

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†*N. anomalina* pl. xxvi fig. 2, *panamensis* fig. 1, p. 74 spp. n., Panama, CUSHMAN Bull. U.S. Nat. Mus. 103. †*N. extensa* sp. n., Miocene, S. Carolina, CUSHMAN U.S. Geol. Surv. Bull. 676 p. 69 pl. xxv fig. 4.

†*Nummulites panamensis* p. 98 pl. xliii figs. 9, 10, *dauidensis* p. 98, fig. 11, spp. n., Panama, CUSHMAN Bull. U.S. Nat. Mus. 103.

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†*Orthophragmina minima* sp. n., Panama, CUSHMAN T.c. p. 97 pl. xli fig. 1.

†*Polystomella fimbriatula* sp. n., Pliocene, Florida, CUSHMAN Bull. U.S. Geol. Surv. 676 p. 20 pl. viii fig. 5.

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†*Quinqueloculina panamensis* sp. n., Panama, CUSHMAN Bull. U.S. Nat. Mus. 103 p. 80 pl. xxxi fig. 1.—†*Q. subdecorata* sp. n., Miocene, Virginia, CUSHMAN U.S. Geol. Surv. Bull. 676 p. 71 pl. xxix fig. 3.

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†*Rotalina cayeuxi* sp. n. Cretaceous, Hendaye, LAPPARENT Mém. Carte géol. dét. France 1918 p. 89 text-figs. 25 and 26.

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†*Textularia virginiana* sp. n., Miocene, CUSHMAN T.c. p. 48 pl. ix fig. 7.—†*T. laminata* pl. xix fig. 4, *subagglutinans* fig. 5, p. 52, *panamensis* p. 53, pl. xx fig. 1, spp. n., Panama, CUSHMAN Bull. U.S. Nat. Mus. 103.

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†*Truncatulina americana*, p. 68 pl. xxiii fig. 2, *culebrensis* p. 70 pl. xxiv fig. 4, spp. n., Panama, CUSHMAN Bull. U.S. Nat. Mus. 103.—†*T. subloba* pl. xix fig. 1, *floridana* fig. 2, p. 62, *americana* p. 63, pl. xx figs. 2, 3, pl. xxi fig. 1, *basiloba* fig. 2, *concentrica* fig. 3, p. 64, spp. n., *T. lobatula* var. n. *ornata* p. 61, pl. xviii figs. 1 and 2, Miocene, CUSHMAN Bull. U.S. Geol. Surv. 676.

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(e) Actinomyxidia.

[Vacant.]

(f) Sarcosporidia.

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(b) Silicoflagellata.

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(d) **Rhynchoflagellata**

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III. PORIFERA OR SPONGIDA

ARRANGED BY

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IV. COELENTERATA

ARRANGED BY

A. KNYVETT TOTTON.

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V. ECHINODERMA

ARRANGED BY

II. B. PRESTON.

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†*Protarthrasteridae* fam. n., SPENCER London Pal. Soc. 1916 1918 p. 125.

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Pseudarchaster, ULREY 118.

Psilaster andromeda, GREIG 54.

Pteraster, BUSH 16.—*P.*, ULREY 118.

Pycnopodia heliethoides Stimpson, KJERSKOG-AGERSBERG 77.—*P.*, BUSH 16.—*P.*, ULREY 118.

Rathbunaster, FISHER 44.

†*Salteraster* with *S. asperrimus* (Salter), *S. imbricatus* (Salter), *S. coronella* (Salter), SPENCER London Pal. Soc. 1916 1918 pp. 149-156 pl. xi figs. 3, 4, 5, 6.

Solaster, BUSH 16.—*S.*, ULREY 118.

†*Stauranderaster bulbiformis*, HAWKINS 60.

†*Taeniaster*, FOERSTE 46.

Thrissacanthius, ULREY 118.

†*Uranasteridae* with *U. ramseyensis*, SPENCER London Pal. Soc. 1916 1918 pp. 109-112 pl. vi. figs., 1-4.

†*Urastrella* with *U. thraivensis* sp. n. Ordovician Scotland; *U. ruthveni* with *U. r.* var. *leintwardinensis* var. n. Silurian England; *U. gutterfordensis* sp. n. Silurian Scotland, SPENCER London Pal. Soc. 1916 1918 pp. 135-148 pls. viii. figs. 1-3; ix. figs., 1-5; x. figs., 1-6.

†*Urastrellidae*, SPENCER 112.

E. OPHIUROIDEA.

Amphilepis pecten, J. 70.

Amphiodia with *A. mesopoma* fig., *rhabdota*, *trychna*, *tymbara*, *coniortodes*, *thrombodes* spp. n. W. Indies CLARK Bull. Mus. Comp. Zool. Harvard 62 pp. 285-292 pls. ii. fig. 6; iii. figs. 7, 1-3; vii. figs., 3, 4; viii. fig. 4.—*A.*, BUSH 16.

Amphiopholis pachyactra sp. n. West Indies CLARK Bull. Mus. Comp. Zool. Harvard 62 p. 284 pl. i. figs., 3-5.

Amphioplus, BUSH 16.

Amphiura with *A. vivipara* and var. *annulata* sp. and var. n. W. Indies CLARK Bull. Mus. Comp. Zool. Harvard 62 pp. 267-269 pl. i figs., 1, 2.—*A. chiujei* and *filiformis* WINTZELL 124.

Asthrombus chrysanthi sp. n. Japan MATSUMOTO Dobuts. Z., Tokyo 30 pp. 146-154.—*A. chrysanthi* sp. n. Japan MATSUMOTO Annot. Zool. Jap., Tokyo 9 pp. 475-480.

Astrocharis gracilis sp. n. Mortensen off Philippines in MORTENSEN & STEPHENSEN Med. Dansk. Natur hist. Foren Kjøbenhavn 69 pp. 264-267.

Astrocynodus gen. n. *A. herrerai* sp. n. W. Indies CLARK Proc. U. S. Nation. Mus. 54 p. 638 pl. xevi.

Gorgonocephalidae, CLARK 28.

Gorgonocephalus, BUSH 16.

Ophiactis with *O. lymani* fig. *cyano-ticta* sp. n. W. Indies CLARK Bull. Mus. Comp. Zool. Harvard 62 pp. 295-312 pl. iv. figs., 3-6.

Ophiocantha oligacantha sp. n. W. Indies CLARK Bull. Mus. Comp. Zool. Harvard 62 p. 265 pl. vii fig. 5.

Ophiocoma nigra WINTZELL 124.

Ophiocryptus dubius sp. n. West Indies CLARK Bull. Mus. Comp. Zool. Harvard p. 336 pl. iii. figs. 4, 5.

Ophioderma phoenium, *squamosissimum* CLARK Bull. Mus. Comp. Zool. Harvard 62 pp. 333-335 pls. iv. fig. 1; vi figs., 1, 2, 3, 4.

Ophionephthys with *O. intricata* fig. CLARK Bull. Mus. Comp. Zool. Harvard 62 pp. 278-282 pl. ii. figs. 1-3.

Ophionereis, CLARK 30.

Ophiopholis aculeata WINTZELL.—*O.* BUSH 16.

Ophiophragmus with *O. flograneus* fig., *pulcher* sp. n. W. Indies CLARK Bull. Mus. Comp. Zool. Harvard 62 pp. 270-278 pls. ii. figs., 4, 5; viii fig. 1.

Ophioplocus bispinosus sp. n. Victoria [Australia] CLARK Bull. Mus. Comp. Zool. Harvard 62 p. 337 pl. iv. fig. 2.

Ophiopsila with *O. vittata* sp. n. West Indies CLARK Bull. Mus. Comp. Zool. Harvard 62 pp. 326-332 pl. viii fig. 2.

Ophiostigma rugosum sp. n. Philippines CLARK Bull. Mus. Comp. Zool. Harvard 62 p. 285 pl. iii fig. 6.

Ophiothrix with *O. ørstedii* var. n. *lutea*, *angulata* varr. n. *atrolineata*, *megalaspis*, *phoinissa*, *phlogina* and *pocilla* West Indies, *O. dirrhabdota*, *eurycolpodes*, *leucotrigona* spp. n., Philippines, CLARK Bull. Mus. Comp. Zool. Harvard 62 pp. 312-324 pls. v figs. 1, 2, 3, 4; viii fig. 3.—*O. fragilis* WINTZELL 124.

Ophiura ciliaris, *albida* WINTZELL 124.—*O.*, BUSH 16.

Ophiurodon cupida, CLARK 30.

Ophiuroidea, GEMMILL 48.—*O.*, JAEKEL 72.

†*Ophiuroidea*, DIBLEY 39.—*O.*, VADASZ 119.

F. CRINOIDEA.

†*Abacocrinus erraticus* sp. n. Upper Silurian N. Europe JAEKEL Palaeont. Zs. Berlin 3 pp. 29 text fig., 31.

†*Acanthocystis briareus*, Barr. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 14.

†*Acrocyrinus amphora*, W. & Sp. fig. JAEKEL Palaeont. Zs. Berlin 3 p. 39.

†*Actinometra hungarica*, *miocaenica*, spp. n. VADASZ Geol. Hung. 1 p. 76-77 pls. i figs. 27-32; ii figs. 1-3.

Analcidometra armata, CLERK 31.

†*Anarchocrinus rossicus* gen. & sp. n. Lower Silurian Esthonia JAEKEL Palaeont. Zs. Berlin 3 pp. 50 text fig., 51.

†*Angelinocrinus* gen. n. Upper Silurian Gotland JAEKEL Palaeont. Zs. Berlin 3 p. 38.

†*Antedon* with *A. hungaricus*, *panonicus* spp. n. & *A. allardi*, *taurinensis*, *rhodanicus* fig., *fontannesi* VADASZ Geol. Hung. 1 p. 72 pl. i figs. 4-14, 2-26.—*A.* fig. JAEKEL Palaeont. Zs. Berlin 3 p. 70.—*A.*, BATHER 6.

†*Anthemocrinus minor*, Ang. sp. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 40.

†*Apiocrinus* fig., JAEKEL Palaeont. Zs. Berlin 3 p. 70.—*A.*, SCALIA 109.

†*Apsidocrinus remesi* fig.; JAEKEL Palaeont. Zs. Berlin 3 p. 75.

†*Arachnocrinus ignotus* sp. n. Devonian Canada STAUFFER J. Geol. Chicago Ill. 26 p. 555 pl. i fig. 1.

Argyrometra, CLARK 26.

†*Ascocrinus bohemicus* gen. and sp. n. Devonian Bohemia JAEKEL Palaeont. Zs. Berlin 3 p. 54 text fig.

†*Ascocystites barrandei* sp. n. Lower Silurian Bohemia JAEKEL Palaeont. Zs. Berlin 3 pp. 17 text fig., 18, 25.—*A. drabowiensis*, Barr. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 17.

†*Atelocrinus belgicus*, Jkl. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 73.

Austrometra, CLARK 26.

†*Balanocrinus pentagonalis*, COUFFON 35.

†*Bathericrinus* gen. n. Upper Silurian England JAEKEL Palaeont. Zs. Berlin 3 p. 58.

†*Beyrichocrinus* gen. n. Trias C. Europe JAEKEL Palaeont. Zs. Berlin 3 pp. 32, 67.

†*Bichirocrinus* gen. n. Upper Silurian N. America and Europe, JAEKEL Palaeont. Zs. Berlin 3 p. 88.

†*Bourgueticrinus hagenowii*, Golf. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 73.—*B.*, DIBLEY 39.

†*Burdigalocrinus lorioli* gen. and sp. n. Upper Jurassic JAEKEL Palaeont. Zs. Berlin 3 p. 71 text fig.

†*Camarocrinus asiaticus*, REED 105.

†*Carabocrinus esthonus* sp. n. Lower Silurian Esthonia JAEKEL Palaeont. Zs. Berlin 3 p. 50 text fig.

Chondrometra rugosa sp. n. Malay Archipelago, CLARK Rés. expl. Mon. 42b Siboga Leiden p. 188.

†*Chytrocrinus* gen. n. for *Stelidiocrinus laevis* Ang. JAEKEL Palaeont. Zs. Berlin 3 p. 33.

†*Cladocrinoidea*, JAEKEL 72.

†*Clonocrinus klinbergi* sp. n. Upper Silurian Gotland JAEKEL Palaeont. Zs. Berlin 3 p. 31 text fig.

Coccometra guttata, *nigrolineata* spp. n. Malay Archipelago, CLARK Rés. Expl. Mon. 42b Leiden pp. 219, 220.—*C. hagenii* CLARK 31.

- Comactinia echinoptera*, CLARK 31.
- Comanthus* with *C. tasmaniae* Tasmania; *C. novaezealandiae* New Zealand spp. n. CLARK Washington Proc. Biol. Soc. 31 pp. 41-43.
- Comatonia cristata*, CLARK 31.
- Comissia*, CLARK 26.
- Compsometra*, CLARK 26.
- Cosmiometra*, CLARK 26.
- † *Costalocrinus* gen. n. for *Poteriocrinus dilatatus*, L. Sch. Devonian Germany, JAEKEL Palaeont. Zs. Berlin 3 p. 61.
- † *Cremacrinus* gen. n. Trias Italy, JAEKEL Palaeont. Zs. Berlin 3 p. 70.
- Crinoidea*, BENSON 13.—*C.*, JAEKEL 72.
- † *Crinoidea*, MOODIE 93.—*C.*, JAEKEL 72.
- † Crinoid stems, BARTON 4.
- Crinometra gracilis, ornata*, CLARK 31.
- † *Cromyocrinus geminatus*, Trtsch. fig. JAEKEL Palaeont. Zs. Berlin 3 p. 65.
- † *Cryptocrinus laevis*, Pander fig., JAEKEL Palaeont. Zs. Berlin 3 p. 21.
- † *Culmicrinus* gen. n. Carboniferous Germany, JAEKEL Palaeont. Zs. Berlin 3 p. 62.—*C. regularis*, H. v. Meyer sp. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 62.
- † *Cupressocrinus abbreviatus* Goldf. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 82.
- † *Cyathidium holopus*, St. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 76.
- † *Cyatocrinus*, DE STEFANI Pal. Ital. 23 p. 16 pl. i [i] figs. 23-27.
- † *Cyclocrinus macrocephalus*, COUFFON 35.
- † *Dadocrinus kunischi* W. & Sp. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 65.
- Democrinus rawsonii*, CLARK 31.
- † *Dendrocrinus acutidactylus*, Bill. fig. JAEKEL Palaeont. Zs. Berlin 3 p. 53.
- † *Dichirocrinus* gen. n. Lower Carboniferous N. America, JAEKEL Palaeont. Zs. Berlin 3 p. 88.
- † *Dichocrinus* fig., JAEKEL Palaeont. Zs. Berlin 3 p. 39.
- † *Dictenocrinus* gen. n. Upper Silurian JAEKEL Palaeont. Zs. Berlin 3 p. 59.—*D. fig.*, JAEKEL Palaeont. Zs. Berlin 3 p. 68.
- Dorometra clymene* sp. n. Malay Archipelago, CLARK Rés. expl. Mon. 42b. Siboga Leiden p. 217.
- † *Drepanocrinus sessilis* gen. and sp. n. Upper Cretaceous, JAEKEL Palaeont. Zs. Berlin 3 p. 72 text fig.
- † *Echinocrinus anceps*, BATHER 5.
- † *Encrinus* fig. JAEKEL Palaeont. Zs. Berlin 3 p. 70.—*E. hyattii*, BATHER 7.
- † *Entrochus* with *E. undatus, ternio* spp. n. Trias New Zealand BATHER Q. J. Geol. Soc. 73 pp. 247-252.
- † *Eocrinoidea*, JAEKEL 72.
- † *Eocrinus* gen. n. for *Ecocystites*. JAEKEL Palaeont. Zs. Berlin 3 p. 24.
- Erythrometra australis* sp. n. Malay Archipelago, CLARK Rés. Expl. Mon. 42b Siboga, Leiden p. 235.
- † *Esthonorinus laevior* gen. & sp. n. Lower Silurian Estonia, JAEKEL, Palaeont. Zs. Berlin 3 p. 52 text fig. 53.
- Eudoxocrinus parrae*, CLARK Bull. Lab. Nat. Hist. Univ. Iowa No. 5 p. 13 pls. i, ii.
- † *Eugeniocrinites caryophyllatus* v. Schloth, sp. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 75.
- † *Eupachyocrinus geminatus* Trtsch. fig. JAEKEL Palaeont. Zs. Berlin 3 p. 65.
- Evantedon tahitiensis* sp. n. Malay Archipelago. CLARK Rés. Expl. Mon. 42b Siboga Leiden p. 200.
- Extracrinus*, fig., JAEKEL, Palaeont. Zs. Berlin 3 p. 70.
- Fariometra scutifera, diome* spp. n. Malay Archipelago, CLARK Rés. Expl. Mon. 42b Siboga Leiden pp. 249, 250.
- † *Geroldicrinus* gen. n. Devonian, JAEKEL Palaeont. Zs. Berlin 3 p. 80.
- † *Glyptocrinus*, FOERSTE 46.
- † *Haplocrinus*, SPRINGER 114.
- † *Heterocrinus pachydactylus*, Sandb. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 53.—*H.*, FOERSTE 46.
- † *Holocrinus* fig., JAEKEL Palaeont. Zs. Berlin 3 p. 70.

†*Homocrinus rhenanus* sp. n. Lower Devonian Germany, JAEKEL Palaeont. Zs. Berlin 3 p. 54 text fig.

†*Hypalocrinus* fig., JAEKEL Palaeont. Zs. Berlin 3 p. 68.

Isocrinus asteria, decorus CLARK Bull. Lab. Nat. Hist. Univ. Iowa 7 No. 5 p. 14 pls. i; iii, figs. 1-3.

†*Isocrinus* with *I. trechmanni* Trias New Zealand; *I. argenteus, cupreus gravinae* Trias Alaska spp. n. BATHER Q. J. Geol. Soc. 73 pp. 252-256 figs.—*I. hungaricus* sp. n. VADASZ Geol. Hung. 1 p. 78 pl. i figs. 33-35.—†*I.* fig., JAEKEL Palaeont. Zs. Berlin 3 p. 70.—*I.* (*Pentacrinus*), DIBLEY 39.

Isometra vivipara, MORTENSEN 94.

†*Jahnocrinus minutus* gen. and sp. n. Devonian Bohemia, JAEKEL Palaeont. Zs. Berlin 3 p. 54 text fig.

†*Jenaicrinus* gen. n. Trias, JAEKEL Palaeont. Zs. Berlin 3 p. 67.

†*Lecanocrinus*, SPRINGER 114.

†*Lenneocrinus cirratus* gen. and sp. n. Lower Devonian Germany, JAEKEL Palaeont. Zs. Berlin 3 p. 35 text fig.

†*Lichenocrinus tuberculatus*, MILLER, FOERSTE Ottawa Nat. 31 p. 99 pl. iv fig. 3.

†*Lichenoides priscus* BARR fig., JAEKEL Palaeont. Zs. Berlin 3 p. 25.

†*Lindstroemiocrinus* gen. n. with text fig of *L. gotlandicus* Ang. Upper Silurian Gotland, JAEKEL Palaeont. Zs. Berlin 3 p. 31.—*L. gotlandicus* Ang. sp. fig. JAEKEL Palaeont. Zs. Berlin 3, p. 31.

†*Loriolicrinus* gen. n. Upper Jurassic JAEKEL Palaeont. Zs. Berlin 3 p. 71 text fig., 72.—*L. insuetus*, de Lor. sp. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 71.

†*Loveniocrinus gotlandicus* gen. and sp. n. Upper Silurian Gotland JAEKEL Palaeont. Zs. Berlin 3 p. 36 text fig.

†*Macrostylocrinus anglicus* sp. n. Upper Silurian England, JAEKEL Palaeont. Zs. Berlin 3 p. 36 text fig.

Mastigometra pacifica sp. n. Malay Archipelago, CLARK Rés. expl. Mon. 42b Siboga Leiden p. 199.

†*Metabolocrinus ressicus*, Jkl. [*?rossicus*. Jkl.] fig., JAEKEL Palaeont. Zs. Berlin 3 p. 84.

Metacrinus, CLARK 26.

†*Metapiocrinus minutus* gen. and sp. n. Cretaceous Germany, JAEKEL Palaeont. Zs. Berlin 3 pp. 70, 71, text fig.

†*Methabocrinus erraticus* gen. and sp. n. Upper Silurian Germany, JAEKEL Palaeont. Zs. Berlin 3 p. 37 text fig.

†*Millericrinus* fig., JAEKEL Palaeont. Zs. Berlin 3 p. 70.—*M. granulatus*, COUFFON 35.

†*Moscovicrinus* gen. n. Carboniferous Russia, JAEKEL Palaeont. Zs. Berlin 3 p. 62.

†*Mysticocrinus* gen. n. *M. Wilsoni* sp. n. Silurian. S. Indiana, SPRINGER Amer. J. Sci. New Haven Conn. 46 p. 666.

†*Nassoviocrinus* gen. n. Lower Devonian Germany, JAEKEL Palaeont. Zs. Berlin 3 pp. 53 text fig., 54.

Nemaster insolitus and *iowensis*, CLARK 31.

Neocomatella alata, CLARK 31.

Notocrinidae fam. n. Antarctic Sea, MORTENSEN Wissenschaftl. Ergebnisse Schwed. Südpolar-Exp. 6 8 p. 2 pls. and text figs.

Notocrinus virilis, MORTENSEN 94.

†*Ohiocrinus*, FOERSTE 46.

†*Ontariocrinus deviatu*s gen. and sp. n. Lower Silurian Canada, JAEKEL Palaeont. Zs. Berlin 3 p. 83 text fig.

†*Ophiurocrinus* gen. n. Carboniferous Russia, JAEKEL Palaeont. Zs. Berlin 3 p. 62.

†*Ottawacrinus tenuis*, BILL fig., JAEKEL Palaeont. Zs. Berlin 3 p. 85.

†*Palermocrinus* gen. n. Permian Sicily, JAEKEL Palaeont. Zs. Berlin 3 pl 67.

†*Pandoracrinus pinnulatus* gen. and sp. n. Lower Silurian Bohemia, JAEKEL Palaeont. Zs. Berlin 3 pp. 56 text fig., 57.

†*Paractocrinus tuberculatus, laevis* gen. and spp. n. Lower Silurian Russia, JAEKEL Palaeont. Zs. Berlin 3 pp. 22 text figs., 25.

- †*Parorthocrinus liber* gen. and sp. n. Lower Silurian Russia, JAEKEL Palaeont. Zs. Berlin 3 pp. 25, 26 text fig.
- †*Patinocrinus* gen. n. for *Stelidocrinus* W. and Sp. non Ang., JAEKEL Palaeont. Zs. Berlin 3 p. 36.
- †*Pentacrinites asteriscus* ? Hall and Whitfield 1877, BATHER 7.
- †*Pentacrinoidea*, JAEKEL 72.
- †*Pentacrinus rotiensis* sp. n. Jurassic East Indies, SPRINGER Jaarb. Mynw. Ned.-Indie Batavia 45 p. 59.—*P. fossilis*, Blum. sp. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 69.—*P. fig.*, JAEKEL Palaeont. Zs. Berlin 3 p. 70.—*P.*, SCALIA 109.
- †*Pentamerocrinus praematurus* gen. and sp. n. Lower Silurian Russia, JAEKEL Palaeont. Zs. Berlin 3 p. 79 text fig.
- Perissometra gorgonia* sp. n. Malay Archipelago, CLARK Rés. Expl. Mon. 42b Siboga Leiden p. 179.
- †*Peritocrinus* with *P. transitior* sp. n. Lower Silurian Russia, JAEKEL Palaeont. Zs. Berlin 3 pp. 21, 43, 46, 47, 49 text fig., 50.
- †*Pisocrinus*, SPRINGER 114.
- †*Polycrinus ramulatus, kosoviensis* gen. and spp. n. Lower Silurian, JAEKEL Palaeont. Zs. Berlin 3 p. 55, text figs.
- †*Polyptychella esthona* sp. n. Lower Silurian, JAEKEL Palaeont. Zs. Berlin 3 pp. 26 text fig., 27.
- †*Poteriocrinus dilatatus*, L. Sch., JAEKEL 72.
- †*Procupressocrinus* gen. n. Devonian, JAEKEL Palaeont. Zs. Berlin 3 p. 82.
- Prometra longipinna* sp. n. Philippine Isds., CLARK Washington Proc. Biol. Soc. 31 p. 37.—*P. longipinna* sp. n. Malay Archipelago, CLARK Rés. expl. Mon. 42b Siboga Leiden, p. 125.
- †*Protencrinus moscoviensis* gen. n. and sp. n. Lower Carboniferous, JAEKEL Palaeont. Zs. Berlin 3 pp. 66 text fig., 67.
- Ptilometra*, CLARK 26.
- †*Ravelocrinus costatus* gen. and sp. n. Lower Silurian Esthonia, JAEKEL Palaeont. Zs. Berlin 3 p. 90 text fig.
- †*Rhenocrinus ramosus* gen. and sp. n. Lower Devonian Germany, JAEKEL Palaeont. Zs. Berlin 3 p. 59 text fig.
- †*Sacomma* gen. n. var. for *Saeccocoma tenella* (Gold), Jaekel Upper Jurassic, JAEKEL Palaeont. Zs. Berlin 3 p. 92 text fig.
- †*Scaphiocrinus depressus* sp. n. Carboniferous Indo-China MANSUY Mem. Serv. géol. Indochine p. 97 pl. xviii. figs., 2 a-e.
- †*Solanocrinus scrobiculatus*, Goldf. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 73.
- †*Springericrinus* gen. n. Carboniferous N. America Belgium, JAEKEL Palaeont. Zs. Berlin 3 p. 62.
- †*Stelidocrinus capitulum*, Ang. fig. JAEKEL Palaeont. Zs. Berlin 3 p. 33.
- Stylometra spinifera*, CLARK 31.
- †*Symbathocrinus*, SPRINGER 114.
- †*Synchirocrinus anglicus* gen. and sp. n. Upper Silurian England, JAEKEL Palaeont. Zs. Berlin 3 pp. 86, 88 text figs.
- †*Tetractocrinus compactus* gen. and sp. n. [Lower Silurian, Russia], JAEKEL Palaeont. Zs. Berlin 3 p. 26 text fig.
- †*Thiolliericrinus ribeiroi*, de Lor. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 71.
- Thaumatometra nutrix* sp. n. Antarctic Sea, MORTENSEN Wissenschaftl. Ergebnisse der Schwed. Südpolar-Exped. 1901-1903 6 p. 15 pl. v text figs. 14-15.
- †*Thuringocrinus saalfeldianus* gen. and sp. n. Upper Devonian Germany, JAEKEL Palaeont. Zs. Berlin 3 pp. 61, 62 text fig.
- †*Thylacocrinus vannioti*, Oehl. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 41.
- †*Timorechinus mirabilis*, Wanner fig., JAEKEL Palaeont. Zs. Berlin 3 p. 64.
- †*Torynocrinus granulatus* fig., JAEKEL Palaeont. Zs. Berlin 3 p. 75.
- †*Traumatocrinus perforatus* sp. n. Trias Indo-China MANSUY Mem. Serv. géol. Indochine 1 pp. 15, 121 pl. xxii figs., 3a-b.

†*Voseocrinus granulatus* gen. and sp. n. Lower Silurian Bohemia JAEKEL Palaeont. Zs. Berlin 3 pp. 56 text fig. 57.

†*Whiteocrinus* gen. n., JAEKEL Palaeont. Zs. Berlin 3 p. 58.

†*Xenocrinus*, FOERSTE 45.

G. CYSTIDEA AND EDRIOASTEROIDEA.

†*Agelacrinites rectiradius* sp. n. Ordovician U.S.A., SHIDELER Ohio J. Sci. 19 p. 58.—A., WILLIAMS 120.

†*Agelacrinus*, WILLIAMS 120.

†*Amygdolocystis florealis*, BATHER 8.

†*Anomocystis* gen. n. Lower Silurian Bohemia, JAEKEL Palaeont. Zs. Berlin 3 p. 122 text fig.

†*Asteroblastus regularis* sp. n. Lower Silurian Russia, JAEKEL Palaeont. Zs. Berlin 3 pp. 100 text fig., 101.—*A. regularis* fig., JAEKEL Palaeont. Zs. Berlin 3 p. 100.

†*Asterocystis globulus* sp. n. Lower Silurian Esthonia, JAEKEL Palaeont. Zs. Berlin 3 p. 100 text fig.—*A. fig.*, JAEKEL Palaeont. Zs. Berlin 3 p. 100.

†*Callocystites jewetti*, Hall fig., JAEKEL Palaeont. Zs. Berlin 3 p. 96.

†*Carpoida*, JAEKEL 72.

†*Caryocrinus*, REED 105.

†*Caryocystis bicompressa* sp. n. Ordovician Yun-nan REED Pal. Ind. Calcutta 6 p. 13 pl. iv figs., 6, 6a, 6b.

†*Chirocrinus insignis*, Jkl. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 94.

†*Cigara dusli*, Barr. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 15.

†*Cothurnocystis*, BATHER 8.

†*Cyathocystis corallum* sp. n. Lower Ordovician Russia, JAEKEL Palaeont. Zs. Berlin 3 p. 112, text fig.

†*Cyclocystoides huronensis*, FOERSTE 46.

Cystoidea, JAEKEL 72.

†*Cystoidea*, JAEKEL 72.

†*Dendrocystis*, BATHER 8.

†*Dendrocystoides* gen. n. Lower Silurian Scotland, JAEKEL Palaeont. Zs. Berlin 3 pp. 123, 124 text fig.

†*Dichoporita*, JAEKEL 72.

†*Diploporita*, JAEKEL 72.

†*Echinocentrinus* REED Pal. Ind. Calcutta 6 p. 19 pl. iv fig. 7.

†*Echinospheæ* with *E. asiatica*, *sinensis*, spp. n. Ordovician Yun-nan REED Pal. Ind. 6 pp. 13-15 pls. iii. figs. 12-14a; v. figs., 1, 1a.

†*Eocystites primævus*, *E. (?) longidactylus*, BATHER 8.

†*Estonocystis antropoffi* gen. and sp. n. Silurian Esthonia, JAEKEL Palaeont. Zs. Berlin 3 pp. 101 102 text fig.

†*Encystis* cf. *rariopunctata*, REED Pal. Ind. Calcutta 6 p. 11 pl. iii. figs. 3 3a.

†*Gyrocystis platessa* gen. and sp. n. Cambrian France, JAEKEL Palaeont. Zs. Berlin 3 pp. 114 (with text fig.) 120.

†*Heliocrinus* with *H. fiscella*, Bather, *H. qualus*, Bather and *H. subovatis* sp. n. Ordovician Yun-nan, REED Pal. Ind. Calcutta 6 pp. 15 16 pl. iv figs. 2 2a 3 4 5 5a.

†*Hemicosmites altus* sp. n. Lower Silurian Esthonia, JAEKEL Palaeont. Zs. Berlin 3 p. 97 text fig.

†*Lagynocystis* gen. n. Lower Silurian Bohemia, JAEKEL Palaeont. Zs. Berlin 3 pp. 121 122 text fig.—*L. pyramidalis*, Barr. sp. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 122.

†*Lichenocrinus*, WILLIAMS 120.

†*Macrocytella mariae*, BATHER 8.

†*Metasterocystis micropella* gen. and sp. n., JAEKEL Palaeont. Zs. Berlin 3 p. 101.

†*Mitrocystella barrandei*, Jkl. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 121.

†*Mitrocystites latus* sp. n. Lower Silurian Bohemia, JAEKEL Palaeont. Zs. Berlin 3 p. 121 text fig.

†*Ovocystis* gen. n. with *O. mansuyi* sp. n. Ordovician Yun-nan, REED Pal. Ind. Calcutta p. 7 pl. ii figs. 2-11.—*O.*, Reed = *Sinocystis*, Reed, BATHER Geol. Mag. London 5 p. 515.

†*Polycosmites bohemicus* gen. and sp. n. Lower Silurian Bohemia, JAEKEL Palaeont. Zs. Berlin 3 p. 98 text fig.

†*Procystis* ? *orientalis* sp. n. Ordovician Yun-nan, REED Pal. Ind. Calcutta 6 p. 10 pl. iii figs. 1 2.

†*Schizocystinae* subfam. n., JAEKEL Palaeont. Zs. Berlin 3 p. 96.

†*Shufferia* gen. n. [vide Zool. Record 1917 p. 24] erroneously recorded as a Cystid is a Crustacean.

†*Sinocystis* gen. n. with *S. loczyi*, *yunnanensis*, spp. n. Ordovician Yun-nan, REED Pal. Ind. Calcutta 6 pp. 3-6 pls. i figs. 1-10; ii. figs. 1 1a 16.—*S.* with *S. loczyi* Genotype, BATHER Geol. Mag. London 5 p. 515.—*S. loczyi*, *mansuyi*, *yunnanensis*, BATHER 10.

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†*Trochocystis*, BATHER 8.

†*Trochocystites longifossatus* sp. n. Cambrian Bohemia, JAEKEL Palaeont. Zs. Berlin 3 pp. 114 (with text fig.)

120.—*T. bohemicus*, Barr., JAEKEL Palaeont. Zs. Berlin 3 p. 62.

†*Trochocystoides parvus* gen. and sp. n. Cambrian, JAEKEL Palaeont. Zs. Berlin 3 p. 120 text fig.

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†*Agelacrinites lebouri*, P. Sladen, fig., JAEKEL Palaeont. Zs. Berlin 3 p. 112.

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†*Blastoidea*, JAEKEL 72.

†*Blastoidocrinus carchariaedeus*, Bill. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 166.

†*Cyathocystis plautinae*, F. Schm. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 112.

†*Mespilocystites bohemicus*, Barr. fig., JAEKEL Palaeont. Zs. Berlin 3 p. 110.

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†*Troostocrinus reinwardti* Shum. fig. JAEKEL Palaeont. Zs. Berlin 3 p. 107.

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ARRANGED BY

H. M. WOODCOCK.

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VII. BRACHIOPODA AND BRYOZOA

BY

F. W. EDWARDS.

(a) BRACHIOPODA

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VIII. MOLLUSCA

ARRANGED BY

H. B. PRESTON.

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†*Pseudocassis harmeri*, BELL 39.
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†*Strombus*, MARTIN 245.
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†*Aclisina* with *A. pulchra* var. *exigua* nom. n. for *A. pulchra* var. *tenuis* (De K.) Donald 1898, *A. venusta*, *faber*, *delicatula*, *micula*, *subelongata*, *A. ? multivolva* spp. n. Carboniferous Scotland, LONGSTAFF & LONGSTAFF London Q. J. Geol. Soc. 73 pp. 68-78.

Aclicisoides, LONGSTAFF & LONGSTAFF 231.

†*Bittium* with *B. robustum*, sp. n. Pliocene England, HARMER London Palaeont. Soc. 1916 1918 pp. 414-418.

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†*Cerithiopsis*, HARMER 163.

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†*Kilvertia* [*Excellissa*], ODLING 268.

†*Laecocochlis*, HARMER 163.

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†*Nerinea*, ODLING 268.

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†*Potamides* with *P. (Ptychotamidea) tricinctus* var. n. *icenica* Pliocene British Isles, HARMER London Palaeont. Soc. 1916 1918 pp. 411-412.

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†*Torellia*, HARMER 163.

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†*Trichotropis*, HARMER 163.

†*Triforis*, HARMER 163.

Triphora with *T. incolumis*, *interpretes* spp. n. Persian Gulf; *T. perversa* var. n. *persica*, MELVILL Ann. Mag. Nat. Hist. 1 pp. 149-151.

Triphoridae, HEDLEY 165.

†*Turritella krooni* sp. n. Célèbes, crétacé, DOLLFUS E. C. Abendanon. Midden-Celebes 3 p. 965.—*T.* with *T. (Haustator) incrassata* var. *minor*, *T. (H.) erthensis* var. & sp. n. Pliocene England, HARMER London Palaeont. Soc. 1916 1918 pp. 438-455.—*T. dibleyi* sp. n. Cretaceous England, NEWTON London Proc. Geol. Ass. 29 p. 97.—*T.*, MARTIN 245.

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†*Tympanotomus* (*Vicarya*) *verneuili*, MARTIN 245.

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†*Bourguetia* ? *arata* sp. n. Trias New Zealand, TRECHMANN London Q. J. Geol. Soc. 73 p. 188.

†*Coronaria spectabilis* sp. n. Trias New Zealand, TRECHMANN London Q. J. Geol. Soc. 73 p. 187.

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Fossarus entorniscus, Karachi, *F. (Couthouyia) cancellarinus* "Persian Gulf" spp. n., MELVILL Ann. Mag. Nat. Hist. 1 p. 148.

†*Holopea Mobergi* sp. n. Sweden Silurian, TROEDSSON Lund Univ. Årsskr. N.F. Avd. 2 15 No. 3 p. 42.

†*Holopella* ? *canavarii* sp. n. Carboniferous Elba, DE STEFANI Pal. Ital. Pisa 23 p. 51.

Iselica nom. n. for *Isapis*, Ads. 1853, DALL Washington Proc. Biol. Soc. 31 p. 137.

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†*Loxonema pillai* sp. n. Carboniferous Elba, DE STEFANI Pal. Ital. Pisa 23 p. 50.—*L. inculta* sp. n. Devonian U.S.A., STAUFFER J. Geol. Chicago 26 p. 559.

Melania with *M. baccata* subsp. n. *elongata* Burma, ANNANDALE Rec. Ind. Mus. Calcutta 14 pp. 114–116.—*M. masapensis*, *towutica*, *mahalonica*, *mahalonensis*, *abendanoni*, *sarasinorum*, *lalemae*, *tominangensis* spp. n. Celebes, KRUMMEL E. C. Abendanon. Midden-Celebes. pp. 1628–1636.—*M.* with *M. (Melanoides) subcostellaris*, *sentaniensis* spp. n.; *M. (s. str.) villosa* var. n. *elongata*; *M. (Tarebia) kampeni* sp. n. N. New Guinea, SCHEPFMAN Zool. Med. Leiden 4 pp. 10–13.—*M. (Melanoides) tuberculata*, Müll., GERMAIN 144.—*M., tuberculata*, ANNANDALE 1.—*M., ANNANDALE 4.*

†*Melania aubryana* varr. n. *can-cellata*, *spiralis*, *costellata*, *obsoleta* Quaternary Indo-China, MANSUY Mem. Serv. géol. Indochine 1 pp. 135–137.—*M. (Goniobasis?) sculptilis* Meek, *M. convexa* var. *impressa* Mk. & H., *M. multistriata* Mk. & H., HENDERSON 168.—*M., ANNANDALE 2.*

Melanopsis with *M. subtingitana* Nev., Ms. descr. Mesopotamia, ANNANDALE Rec. Ind. Mus. Calcutta 15 p. 163.—*M. ricardi*, *percarinata*, *brevicula*, *lecointrei*, *edriassiana*, spp. n. N. Africa, PALLARY Bull. Soc. Hist. Nat. Af. Nord. 1918 pp. 150–151.

Melarihapha sulculosa, HEDLEY 164.—*M., DALL 106.*

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†*Pseudomelania [Eulima]*, ODLING 268.

†*Soleniscus sycumoides* sp. n. Carboniferous Indo-China, MANSUY Mem. Serv. géol. Indochine 1 p. 111.

Tectarius malaccanus, HEDLEY 164.

†*Turbonitella gortanii* sp. n. Carboniferous Elba, DE STEFANI Pal. Ital. Pisa 23 p. 51.

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Ammicola with *A. alticola* sp. n. Burma, ANNANDALE Rec. Ind. Mus. Calcutta 14 p. 122.—*A., bakeriana*, *clarkei*, *oneida*, spp. n., New York State, PILSBRY Syracuse Univ. Tech. Pub. No. 9 N.Y. State Coll. For. 18 pp. 244–246.—*Ammicola taylori*, TAYLOR 349.—*A., BAKER 17.*—*A., BAKER 22.*—*A., WALKER 377.*

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Cleopatra bulimoides, Oliv. with var. n. *bilirata* Blue Nilc, GERMAIN Bull. Mus. Paris 1918 pp. 443-445.

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†*Euomphalus klobukowskii*, sub-*circularis*, *nitidus* spp. n. Carboniferous Indo-China, MANSUY Mem. Serv. géol. Indochine 1 pp. 105, 110.

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†*Hydrobioides nassa* subspp. n. *distoma* Quaternary Burma, ANNANDALE Rec. Ind. Mus. Calcutta 14 p. 120.

Hypsobia with *H. minuscula* sp. n. China, ANNANDALE Mem. As. Soc. Beng. 6 pp. 306-307.

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†*Jullienia* (*Lacunopsis*) *verneai* sp. n. Quaternary Indo-China, MANSUY Mem. Serv. géol. Indochine 1 p. 135.

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†*Rissoina*, ODLING 268.

†*Solarium hornesii*, BELL 39.—*S.*, ODLING, 268.

Somatogyrus, BAKER 17.—*S.*, WALKER, 377.

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†*Taia intermedia*, *obesa*, *cylindrica*, *lacustris analoga*, *conica* spp. n., Burma Quaternary, ANNANDALE Rec. Ind. Mus. Calcutta 14 pp. 128-133.

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†*Viviparidae*, BAKER 21.

Viviparus [vide etiam *Vivipara*] *conctoides limi* nom. n. for *V. c. compactus* Pils., PILSBRY Nautilus 32 p. 71.—*V. malleatus, conctoides*, JOHNSON 193.—V., WALKER 377.

†*Viviparus* [*Paludina*], ODLING 268.

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†*Acicula lineata*, CARTER 61.

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Alycaeus with *A. (Stomacosmethis) porcilliferus* sp. n. Celebes, BOLLINGER Rev. Suisse Zool. Genève 26 pp. 314–317.

Cyclostoma elegans, MUSHAM 262.

Cyclotus with *C. (Pseudocyclophorus) carinornatus* sp. n. Celebes, BOLLINGER Rev. Suisse Zool. Genève 26 p. 313.—*C.* with *C. subcanaliculatus* sp. n. N. New Guinea, SCHEPMAN Zool. Med. Leiden 4 pp. 15–16.

Japonia, BOLLINGER 46.

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Omphalotropis cariei sp. n. Mauritius, GERMAIN Bul. Mus. Paris 1918 p. 524.

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†*Pomatias elegans*, CARTER 61.

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†*Ampullina (Cernina) rauracica, A. dolium*, spp. n., JURASSIC, ROLLIER Mem. Soc. Pal. Suisse 43 pp. 64–69.

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†*Gyrodos genti*, NEWTON 265.

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Lamellaria (Chelynotus) bergi fig., MELVILL Ann. Mag. Nat. Hist. 1 p. 142 pl. iv. fig. 2.

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†*Natica Pseudomutabilis* sp. n. Celebes, OLIGOCENE DOLLFUS. E. C. Abendanon. Midden-Celebes 3 p. 992.—*N. ferruginea*, BELL 39.—*N.*, ODLING 268.

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†*Epitonium delandense* sp. n. Tertiary Florida, MANSFIELD Florida St. Geol. Surv. 1918 p. 120.—*E. tricinatum* sp. n. Tertiary New Zealand, MARSHALL Trans. & Proc. N.Z. Inst. 50 p. 263.

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Amphithalamus psomus sp. n. Mokran Coast, MELVILL Ann. Mag. Nat. Hist. 1 p. 147.

†*Aesopus idae* sp. n. California [? Pleistocene], BARTSCH Washington Proc. Biol. Soc. 31 p. 79.

†*Chemnitzia*, ODLING, 268.

Cingulina sacernenda sp. n. Karachi, MELVILL Ann. Mag. Nat. Hist. 1 p. 146.

†*Eulima*, ODLING, 268.

Eulimella squarrosula sp. n. Persian Gulf, MELVILL Ann. Mag. Nat. Hist. 1 p. 145.

†*Macrochilina corsii, brevis*, spp. n., Carboniferous Elba, DE STEFANI Pal. Ital. Pisa 23 pp. 49–50.

Melanella lampra sp. n. Persian Gulf, MELVILL Ann. Mag. Nat. Hist. 1 p. 142.—*M. bryani, mimus, kanaka, ima, letsonae, lunata*, spp. n., Hawaii, PILSBRY Proc. Acad. Nat. Sci. Philad. 69 pp. 309–312.

Mucronalia with *M. aethria* sp. n. Persian Gulf, MELVILL Ann. Mag. Nat. Hist. 1 p. 143.

Odostomia with *O. (Odostomella) patricia*; *O. (Chrysallida) stearnsiella*; *O. (Miralda) syrtites, paulbartschi*; *O. (M. ?) pupu*; *O. (Eovalina) waikikiensis, halewensis, eclectic, O. e. nematoderma*; *O. (Cyclodostonica) sarta*; *O. letsonae*; *O. (Odostomia) kahoolawensis, loxocephala, gulicki*; *O. (Nesiodostomia) prima, secunda, tertia, quarta*, spp. & subsp. n., Hawaii, PILSBRY Proc. Acad. Nat. Sci. Philad. 69 pp. 317–326.—*O. (Chrysallida) zeteki* sp. n. Panama, BARTSCH U.S. Nation. Mus. Proc. 54 p. 572 pl. 88, fig. 5.

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Styloptygma clymene sp. n. Persian Gulf, MELVILL Ann. Mag. Nat. Hist. 1 p. 146.

Subularia delicata sp. n. Hawaii, PILSBRY Proc. Acad. Nat. Sci. Philad. 69 p. 312.

Teretianax gen. n. for *Scalenostoma suteri*, Oliver, IREDALE London Proc. Mal. Soc. 13 pp. 28, 39.

Turbonilla exilispira Karachi, *patruelis, thryallis* Gulf of Oman, *umbrina* Karachi, spp. n., MELVILL Ann. Mag. Nat. Hist. 1 pp. 143–145.—*T.* with *T. (Chemnitzia) oblectamentum, Kahoolawensis*; *T. (Turbonilla) Kanaiensis*; *T. (Evaletta) elizabethae, laysanensis*; *T. (Lanella) vitiensis, T. (L.) v. clavus*, spp. & subsp. n., Hawaii, PILSBRY Proc. Acad. Nat. Sci. Philad. 69 pp. 313–317.

†*Turbonilla (Pyrgolampros) amava* sp. n. Pleistocene California, BARTSCH Washington Proc. Biol. Soc. 31 p. 81.

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Geophorus agglutinans leytensis, subsp. n., Philippine Isds., BARTSCH Washington Proc. Biol. Soc. 31 p. 154.

Helicina, BOLLINGER 46.

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†*Astrarium bistellatum* sp. n. Jurassic, ROLLIER Mem. Soc. Pal. Suisse 43 p. 62.

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†*Ataphrus*, ODLING 268.

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†*Calliostoma gracilis*, fig. Tertiary N. Zealand, MARSHALL Trans. & Proc. N.Z. Inst. 50 p. 263 pl. xviii figs. 1, 1a.—C., *xavtteri*, BELL 39.

†*Callonema perlata* sp. n. Devonian U.S.A., STAUFFER J. Geol. Chicago 26 p. 559.

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†*Cirrus*, ODLING 268.

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†*Crossostoma*, ODLING 268.

†*Cyclonema striatulum* sp. n. Devon. Asia Minor, LEIDHOLD Zs. D. Geol. Ges. Monats. 69 p. 316.

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Discopsis panamensis, argentea, spp. n., Panama, BARTSCH U. S. Nation. Mus. Proc. 54 p. 574 pl. 88 figs. 9–11, 1–3.

Euchelus xeniolum sp. n. Gulf of Oman, MELVILL Ann. Mag. Nat. Hist. 1 p. 154.

Forskalea gen. n. for *Trochus fanulum* Gmelin, IREDALE London Proc. Malac. Soc. 13 pp. 28, 31.

Gabrielana nepanensis nom. n. for *Phasianella* n., COSSMANN Rev. crit. pal. Paris 22 p. 42.

†*Heliacus aucklandicus* fig. Tertiary N. Zealand, MARSHALL Trans. & Proc. N. Z. Inst. 50 p. 263 pl. xviii figs. 2, 2a.

Isanda coronata, HEDLEY 164.

Leptothyra with *L. miltochrista* sp. n. "Persian Gulf" MELVILL Ann. Mag. Nat. Hist. 1 pp. 151-152.

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Liotia rammata, S. California; *L. olivacea*, Bay of Panama; *L. (Arene) cookeana*, *L. acuticostata* var. *radiata* & *stearnsii*, spp. & varr. n., Lower California, DALL Washington Proc. Biol. Soc. 31 pp. 7-8.—*L. solitaria*, MESTAYER 257.

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Liotina cycloma sp. n. Japan TOMLIN J. Conch. Leeds 15 p. 305.

†*Margarita* ? *Steenstrupi* sp. n. Cretaceous Greenland, RAVN Kjøbenhavn Medd. Groenl. 56 p. 356.

†*Microdoma imbricata* sp. n. Carboniferous Indo-China, MANSUY Mem. Serv. géol. Indochine 1 p. 105.

Microthyca, A. Ads. should replace *Microtheca*, A. Ads., IREDALE London Proc. Malac. Soc. 13 pp. 28, 32.

Minolia charmosyne & var. *albinella* Karachi; *M. (Conotrochus) eutyches* Persian Gulf var. & spp. n., MELVILL Ann. Mag. Nat. Hist. 1 p. 153.

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†*Naticopsis neritinoidea*, *margheritii* Carboniferous Indo-China; *N. piriformis* Permian Indo-China, spp. n., MANSUY Mem. Serv. géol. Indochine 1 pp. 90, 106, 118.—*N. rioulensis* sp. n. Carboniferous Elba, DE STEFANI Pal. Ital. Pisa 23 p. 48.

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†*Nerita (Neritodomus) beneckeii*, *duboisi*, spp. n., Jurassic, ROLLIER Mem. Soc. Pal. Suisse 43 pp. 32-40.—*N.*, ODLING 268.

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Neritina marteli sp. n. N. Africa, PALLARY Bull. Soc. Hist. Nat. Af. Nord. 1918 p. 151.—*N. bryance* sp. n. Hawaii, PILSBRY Proc. Acad. Nat. Sci. Philad. 69 p. 330.—*N. fluviatilis*, DAVIES 110.—*N.*, ANNANDALE 1.—*N.*, SCHEPMAN 332.—*N.*, UPTON 366.—*N.*, WALKER 377.

†*Neritopsis* with *N. juillerati*, *jurana*, *albida*, spp. n., Jurassic also *N. dumortieri*, *monilifera*, *robusta*, *huddlestoni*, *cossmanni*, *punctulata*, *mattheyi*, *fringeliana*, *lockensis*, *etallonii*, *lorioti*, *streitbergensis*, *wimmisensis*, *oosteri*, *srambergensis*, *zitteli*, spp. n., ROLLIER Mem. Soc. Pal. Suisse 43 pp. 13-31.

Orbitestella batowi nom. n. for *Cyclostrema* b. Gat., COSSMAN Rev. crit. pal. Paris 22 p. 42.

Orbitestellidae, HEDLEY 165.

Phasianella variabilis, PILSBRY 293.

†*Phasianella*, ODLING 268.

Photinula wacei sp. n. Falkland Islands, MELVILL & STANDEN J. Conch. Leeds 15 p. 234.

Septaria, SCHEPMAN 332.

Talopena gen. n. for *Monilea incerta* Iredale, IREDALE London Proc. Malac. Soc. 13 pp. 28, 30.

Theodoxis crepidularia, HEDLEY 164.

Trochidae, HEDLEY 165.

Trochus, HEDLEY 164.

†*Trochus (Tectus) marshalli* sp. n. Trias New Zealand, TRECHMANN London Q. J. Geol. Soc. 73 p. 187.—*T.*, ODLING 268.—*T.*, MARTIN 245.

Turbinidae, HEDLEY 165.

†*Turbinilopsis sinensis* sp. n. Carboniferous Indo-China, MANSUY Mem. Serv. géol. Indochine 1 p. 104.

Turbo porcatus, HEDLEY 164.—*T. porphyrites*, SCHEPMAN 332.

†*Turbo [Trochus] ?*, ODLING 268.—*T.*, MARTIN 245.

†*Vitrinella thomasi* sp. n. California [? Pleistocene], BARTSCH Washington Proc. Biol. Soc. 31 p. 79.

†*Yunnania* gen. n. with *Y. termieri*, *sulcata*, spp. n., Carbon. Indo-China, MANSUY Mem. Serv. géol. Indochine 1 pp. 103-104.

STOMATIDÆ, COCCULINIDÆ, HALIOTIDÆ,
PLEUROTOMARIIDÆ, BELLEROPHON-
TIDÆ & FISSURELLIDÆ.

†*Aclisina* with *A. pulchra* var. *exigua* nom. n.; *A. venusta*, *faber*, *delicatula*, *micula*; *A. ? multivolva*, spp. n., Carboniferous Scotland, LONGSTAFF Q. J. Geol. Soc. 73 pp. 68–78.

†*Bellerophon* (*Sinuitopsis* ?) *conso-brinus*, *subtrilobatus*, (*Bucaniella*) *atavus*, spp. n., Sweden Silurian, TROEDSSON Lund Univ. Årsskr. N. F. Avd. 2 15 No. 3 pp. 40–41.—*B. planoconvexus* sp. n. Carboniferous Indo-China, MANSUY Mem. Serv. géol. Indochine 1 p. 103.—*B.*, DE STEFANI 341.

†*Cyrtolites*, FOERSTE 131.

†*Deslongchampsia*, ODLING 268.

Diodora jukesii, HEDLEY 164.

†*Ditremaria ingens* sp. n. Jurassic also *D. somertonensis*, *huddlestoni*, *quenstedti*, *conica*, *cossmanni*, *ranvilliana*, spp. n., ROLLIER Mem. Soc. Pal. Suisse 43 pp. 48–62.

Emarginula, SCHEPMAN 332.

†*Emarginula*, ODLING 268.

†*Euphemus subsphericus* sp. n. Carboniferous Indo-China, MANSUY Mem. Serv. géol. Indochine 1 p. 109.—*E. meneghinii* sp. n. Carboniferous Elba, DE STEFANI Pal. Ital. Pisa 23 p. 44.

Fissurellidæ, HEDLEY 165.

Haliotidæ, HEDLEY 165.

Haliotis, HEDLEY 164.

†*Helicotoma*, FOERSTE 131.

Hemitoma, HEDLEY 164.

†*Hercynella elevata* sp. n. Devon Asia Minor, LEIDHOLD Zs. D. Geol. Ges. Monats. 69 p. 318.

†*Hormotoma*, FOERSTE 131.

†*Ivania* (?) *fabrii* sp. n. Carboniferous Elba, DE STEFANI Pal. Ital. Pisa 23 p. 47.

†*Lepetopsis millosevichi* sp. n. Carboniferous Elba, DE STEFANI Pal. Ital. Pisa 23 p. 43.

†*Murchisonia* with *M. angulata* var. n. *conoidea* Devonian Indo-China; *laevigata* sp. n. Carboniferous Indo-

China, MANSUY Mem. Serv. géol. Indochine 1 pp. 61–63, 69.—*M. deangelisi*, *paretoi*, *cylindroides* spp. n. Carboniferous Elba, DE STEFANI Pal. Ital. Pisa 23 pp. 45–47.

Pleurotomariidæ, HEDLEY 165.

†*Pleurotomaria* (*Mourlonia*) *cayeuxi* sp. n. Carboniferous Indo-China, MANSUY Mem. Serv. géol. Indochine 1 p. 89.—*P. (Mourlonia) sarraulti*, *wildeni*, *P. choneitangensis*, *multicarinata*, *P. (Worthenia) margaritifera*, *constantini*, *P. (M.) propinqua* spp. n. Carbon. Indo-China, MANSUY Mem. Serv. géol. Indochine 1 pp. 100–102, 108.—*P. (Perotrochus) burgundiana* sp. n. Jurassic also *P. (P.) rhodanica*, *hannoverana*, *laubei*, *adoxa* spp. n., ROLLIER Mem. Soc. Pal. Suisse 43 pp. 40–48.—*P. (Sisenna) hectori*, *P. hokonuiensis* spp. n. Trias New Zealand, TRECHMANN London Q. J. Geol. Soc. 73 p. 186.

†*Porcellia jullidieri* sp. n. Carboniferous Indo-China, MANSUY Mem. Serv. géol. Indochine 1 p. 110.

†*Rimula*, ODLING 268.

Stomatidæ, HEDLEY 165.

†*Warthia subcarinata* sp. n. Carboniferous Indo-China, MANSUY Mem. Serv. géol. Indochine 1 p. 103.

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Acmaea, SCHEPMAN 332.

Acmaeidae, HEDLEY 165.

Lepeta (*Cryptoctenidia*) *lima* sp. n., Japan DALL Smiths. Inst. U.S. Nation Mus. Proc. 54 p. 233.

Lepetidae, HEDLEY 165.

†*Patella* (?) *nelsonensis* sp. n. Trias New Zealand, TRECHMANN London Q. J. Geol. Soc. 73 p. 185.—*P. (Helcion)* with *P. (H.) paturathensis* Jurassic; *huddlestoni*; *P. (H.) bathiensis* sp. n. for *P. cingulata*, M. & L. (*non* Goldf.); *banneana* sp. n. for *P. humbertiana*, Et. (*non* Buv.), ROLLIER Mem. Soc. Pal. Suisse 43 pp. 3–12.—*P.*, ODLING 268.

Patellidae, HEDLEY 165.

Patelloida saccharina, HEDLEY 164.

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Boetica gen. n. Type *B. vaginata*, DALL, DALL Washington Proc. Biol. Soc. 31 p. 137.

†*Bollenella*, WADE 375.

Elachisma (grippi) Dall gen. & sp. n. California, DALL Washington Proc. Biol. Soc. 31 p. 137.

†*Fungia*, MARTIN 245.

†*Lophospira*, FOERSTE 131.

†*Newtoniella*, HARMER 163.

†*Parafusus* nom. n. for *Hyllus* Type *P. callilateras*, WADE Philad. Proc. Acad. Nat. Sci. 70 p. 114.

†*Trigonostoma*, BELL 39.

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Acteonidae, HEDLEY 165.

†*Actaeonina*, ODLING 268.

Aeolidiadae, HEDLEY 165.

Akeridae, HEDLEY 165.

Anopsis, Gistel should replace *Psyche*, Rang (1825) non Schrank., COSSMANN Rev. crit. pal. Paris 22 p. 42.

Aplustridae, HEDLEY 165.

Aplysia, CRAIFELEANU 97.

Architectonicidae, HEDLEY 165.

Bornellidae, HEDLEY 165.

†*Bulla groenlandica* sp. n. Cretaceous Greenland, RAVN Kjøbenhavn Medd. Groenl. 56 p. 361.—*B.*, ODLING 268.

Bullaria botanica nom. mut. for *B. australis*, Gray, HEDLEY Sydney N.S.W. J. R. Soc. 51 pp. M. 104, M. 114 [Reprint].

Cavolinia, COLOSI 84.

Cavolinidae, HEDLEY 165.

†*Conularia* with *C. stromeri* sp. n. Mesozoic, OSSWALD Centralbl. Min. Stuttgart 1918 pp. 337-343.—*C.*, FOERSTE 131.—*C.*, TRECHMANN 360.

Cylichna with *C. euthlasta* Karachi MELVILL Ann. Mag. Nat. Hist. 1 p. 154.

†*Cylichna* with *C. rugosa* sp. n. Cretaceous Greenland, RAVN Kjøbenhavn Medd. Groenl. 56 p. 361.

Cylichnella zeteki sp. n. Panama, BARTSCH U.S. Nation. Mus. Proc. 54. p. 571 pl. 88 fig. 4.

†*Cylindrites*, ODLING 268.

Cylindrobulla systemma sp. n. Gulf of Oman, MELVILL Ann. Mag. Nat. Hist. 1 p. 155.

Damoniella gen. n. for *Bulla cranchii* Flem., IREDALE London. Proc. Mal. Soc. 13 pp. 28, 37.

Doridiidae, HEDLEY 165.

Doriopsidae, HEDLEY 165.

Dotona gen. n. for *Melibæa fragilis* Forbes=Doton, Oken, 1815 non 1807, IREDALE London Proc. Malac. Soc. 13 pp. 28, 30.

Elysiella, WHEAT 384.

Elysiidae, HEDLEY 165.

Eubranchus Forbes 1838 should replace *Galvina* Ald. & Han., IREDALE London Proc. Malac. Soc. 13 pp. 28, 30.

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Haminea, LEONARD 228.

Hydromeles, Gistel (1848) should replace *Euribia*, Rang (1827) non Mayen (1800), COSSMANN Rev. crit. pal. Paris 22 p. 42.

†*Hyalithus Mobergi*, H. (*Orthotheca*) fibrosus, TROEDSSON 362.

Janthinidae, HEDLEY 165.

Notobranchaeidae, HEDLEY 165.

Oxynoë with *O. omega* sp. n. Gulf of Oman, MELVILL Ann. Mag. Nat. Hist. 1 p. 155.

Oxynoëidae, HEDLEY 165.

Philine gouldi sp. n. S. Orkneys, DOELLO-JURADO Physis Buenos Aires 4 p. 260.

Philinidae, HEDLEY 165.

Pleurobranchaeidae, HEDLEY 165.

Pleurophyllidiidae, HEDLEY 165.

Polyceriidae, HEDLEY 165.

Pteropoda, COLOSI 84.

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Ringiculidae, HEDLEY 165.

Scaphandridae, HEDLEY 165.

Sphaerostoma, MacGill, 1843 should replace *Tritonia* Cuv. 1803 *et auct. non* Cuv.-Lk, 1798-1801, IRBEDALE London Proc. Malac. Soc. 13 pp. 28, 29.

Strombiformidae, HEDLEY 165.

†*Tentaculites irregularis* sp. n. Devon. Indo China, MANSUY Mem. Serv. géol. Indochine 1 p. 46.

Tethyidae, HEDLEY 165.

Tornatinidae, HEDLEY 165.

Tritonia, IRBEDALE 180.

Umbraculidae, HEDLEY 165.

†*Vaginella torpedo* sp. n. Tertiary New Zealand, MARSHALL Trans. & Proc. N. Z. Inst. 50 p. 263.

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Atlanta gen. n. *Atlantidae*, HEDLEY Sydney J. R. Soc. 51 pp. M 79, M 81, M 114. [Reprint.]

†*Atlanta primigenia* sp. n. Cretaceous Greenland, RAVN Kjøbenhavn Medd. Groenl. 56 p. 359.

Atlantidae, HEDLEY 165.

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Cochicopa, STEPHENS 345.

Ennea (*Enneastrum*) *putrini* and var. *mascarenensis*, *E.* (*Microstophia*) *clavulata* var. *clavulopsis*, *E.* (*M.*) *cariei* spp. & varr. n. Mauritius, GERMAIN Bul. Mus. Paris 1918 pp. 521-522.—*E.*, GERMAIN 142.

†*Palaeoglandina gracilis* (Ziöten) varr. n. *insignis*, *costata* & *steinheimensis* Tertiary Germany, JOOS Centralbl. Min. Stuttgart 1918 pp. 287-288.

Streptaxis, with *S.* (*Goniaxis*) *craveni* Smith var. *minor* var. n. Zanzibar, GERMAIN Bull. Mus. Paris 1918 pp. 251-252.

Testacella maugei, UPTON 366.—*T. maugei* var. *viridans*, HADDEN 157.—*T.*, GATENBY 135.

ARIONIDAE, LIMACIDAE, PHYLOMYCIDAE & ZONITIDAE.

Agriolimax agrestis & *campestris*, BAKER 20.—*A.*, ROEBUCK 316.—*A.*, ROEBUCK 319.

†*Aegopis praecostatus* sp. n. Tertiary Germany, JOOS Centralbl. Min. Stuttgart 1918 p. 288.

Arion minimus, UPTON 366.—*A.*, ROEBUCK 316 & 319.

†*Arion*, CARTER 61.

Atopos, BOLLINGER 46.

Austenia dawnaensis sp. n. Dawna Hills, GODWIN-AUSTEN Rec. Ind. Mus. Calcutta 15 p. 150.

Bapuia gen. n. Type *B. rengineensis* sp. n. Renging, GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 p. 589.

Bensonia ? *aborensis* sp. n. Abor Hills, GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 p. 596.—*B. aborensis* fig., GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 p. 621.

†*Euconulus fulvus*, CARTER 61.

Euhyalinia, TAYLOR 352.

Euplecta costellifera, *imperfiorata* spp. n. N. New Guinea, SCHEPMAN Zool. Med. Leiden 4 p. 2.

Everettia with *E. klemmantanica* sp. n. Borneo, GUDE London Proc. Malac. Soc. 13 pp. 19-20.

Girasia? *sukliensis*, *gravelyi*, spp. n., Dawna Hills, GODWIN-AUSTEN Rec. Ind. Mus. Calcutta 15 pp. 149-150.

Harmogenanina gen. n. (*Ariophantidae*) *H. subdetecta* sp. n. Mauritius, GERMAIN Bul. Mus. Paris 1918 p. 517.

Helicarion, BOLLINGER 46.—*H.*, SCHEPMAN 332.

Hemiplecta sagittifera batanensis, subsp. n., Philippines, BARTSCH Nautilus 32 p. 15.

Hyalinia lucida, ROEBUCK 323.—*H.*, *cellaria*, TAYLOR 352.

†*Hyalinia* with *H. procellaria* sp. n. Tertiary Germany JOOS Centralbl. Min. Stuttgart 1918 pp. 288-289.

†*Janulus mörsingensis* sp. n. Tertiary Germany, JOOS Centralbl. Min. Stuttgart 1918 p. 289.

Khasiella fulloni sp. n. Assam, GUDE London Proc. Malac. Soc. 13 p. 17.—*K.?* *dinoensis* sp. n. Abor Hills, GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 p. 593.

Lamprocystis, BOLLINGER 46.

Limax cinereoniger with var. n. *brunnea* England, ROEBUCK J. Conch, Leeds 15 p. 259.—*L. flavus*, ROEBUCK, 321.—*L. flava*, STILES 347.—*L. maximus*, HENDERSON 169.—*L.* with *L. tenellus*, ROEBUCK 316.—*L.* ROEBUCK 319.

Macrochlamys planorbiformis sp. n. Celebes, BOLLINGER Rev. Suisse Zool. Genève 26 p. 322.—*M.* with *M. bapuenensis*, *shimangensis*, *hippocastaneum*, *psittacensis* Abor Hills; *M. ? rotungensis*, & var. Abor Hills; *M. burkilli*, Sadiya E. Assam; *M. albulus*, *murdochi* Abor Hills; *M. ? luyorensis* Abor Hills spp. n., GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 pp. 582-587.—*M.* with *M. imperforata* sp. n. N. New Guinea, SCHEPMAN Zool. Med. Leiden 4 p. 3.

Micrarionta praesidii sp. n. S.W. United States, PILSBRY & FERRISS Philad. Proc. Acad. Nat. Sci. 70 p. 312.

Microcystis tythulus sp. n. Mauritius, GERMAIN Bul. Mus. Paris 1918 p. 523.

Nanina (Medyla); *N. (Xesta)* with *N. (X.) citrina* var. n. *olivacincta*; *N. (Hemiplecta)* with *N. (H.) wickhami* S.S. var. n. *fusciminula* Celebes, BOLLINGER Rev. Suisse Zool. Genève 26 pp. 323-328.

Oxytes oglei Upper Assam & var., Abor Hills; *O. aborensis*, Rotung; *O. siyomensis*, Abor Hills spp. n., GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 pp. 594-595.

Polita, TAYLOR 352.

†*Polita suevica* sp. n. Tertiary Germany, JOOS Centralbl. Min. Stuttgart 1918 p. 289.

Prisma prismatica, T.C., SCHEPMAN 332.

Propilula, subgen. n. (*Ariophantidae*), GERMAIN Bul. Mus. Paris 1918 p. 519.

Pseudocaldwellia gen. n. (*Ariophantidae*), GERMAIN Bul. Mus. Paris 1918 p. 518.

Pseudokaliella annandalei, Abor Hills; *P. ? sadiyaensis*, Sadiya, spp. n., GODWIN-AUSTEN Abor. Exp. Rec. Ind. Mus. Calcutta 8 pp. 596-597.

†*Punctum pumilio* sp. n. Tertiary Germany, JOOS Centralbl. Min. Stuttgart 1918 p. 292.

Rahula aborensis, Abor Hills; *R. dishingensis*, E. Assam; *R. burrailensis*, N.E. Manipur; *R. koboensis*, Kobo, spp. n., GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 pp. 597-599.—*R. koboensis* fig., GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 p. 621.

Rhysota ovum, COCKERELL 78.

Rotungia gen. n. Type *R. williamsoni* sp. n. Abor Hills, GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 p. 590.

Sesara globosa sp. n. Rotung, GODWIN-AUSTEN Abor. Exp. Rec. Ind. Mus. Calcutta 8 p. 599.

Sitala with *S. crenocarinata* sp. n. N. New Guinea, SCHEPMAN Zool. Med. Leiden 4 p. 4.

Sivella castra with *S.c.* var. n. *kobonensis* Abor Hills, GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 p. 604.

Tadunia gen. n. *T. oakesi*, Abor Hills; *T. ? muspratti*, E. Naga Hills, spp. n., GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 p. 588.

Thysanophora macneilli sp. n. Florida CLAPP Nautilus 31 p. 74.—*T.*, PILSBRY & FERRISS 301.

Trachia ? delibrata, Bens. var. *faciata*, G.-A., GODWIN-AUSTEN 149.

Trochomorpha acris (Bs.) var., GODWIN-AUSTEN 149.—*T.*, BOLLINGER 46.

Trochonantina (Martensia), GERMAIN 142 & 144.

Urocyclus, GERMAIN 143.

Vitrina alaskana, PILSBRY & FERRISS 301.

Xesta citrina, SCHEPMAN 332.

†*Zonites* with *Z. (Grandipatula) alsaticus* sp. n. Upper Eocene France, JOOS Centralbl. Min. Stuttgart 1918 p. 166.

Zonitidae, PILSBRY & FERRISS 301.

Zonitoides nitidus, ROEBUCK 323.

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†*Endodontidae*, BAKER 21.

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†*Pyramidula* with *P. (Gonyodiscus) silvana, wenzii*, spp. n., *P. (G.) diezi* (Clessin) var. n. *ulmensis* Tertiary Germany, Joos Centralbl. Min. Stuttgart 1918 pp. 290–291.

Tachyphasis (Endodontidae) gen. n. with sub. gen. n. *Pseudophasis* & *T. planorbina* sp. n. Mauritius, GERMAIN Bul. Mus. Paris 1918 pp. 519–520, 523.

HELICIDAE.

Acanthinata, STEENBERG 340A.

Albea marteli, roumesiana spp. n. N. Africa, PALLARY Bull. Soc. Hist. Nat. Af. Nord. 1918 pp. 137–138.

Archelix gebiletana, A. ? liasana, A. barbini, A. b. var. coloria, A. b. var. persimilis, A. ? aenigmatica spp. & varr. n. N. Africa, PALLARY Bull. Soc. Hist. Nat. Af. Nord 1918 pp. 146–147.

Ashmunella, PILSBRY & FERRISS 301.

Camaena trailli weberi, Ct. bugsuensis subsp. n. Philippine Islands, BARTSCH Washington Proc. Biol. Soc. 31 pp. 199–200.

Chloritis micromphala, HEDLEY 164.
—*C. dinodomorpha*, T. C., SCHEPFMAN 332.

Cochlicella acuta (Müll.) var. n. *obesa* N. Africa, PALLARY Bull. Soc. Hist. Nat. Af. Nord 1918 p. 144.

Cochlostyla mirabilis donsaliana subsp. n. Philippine Isds., BARTSCH Washington Proc. Biol. Soc. 31 p. 153.—*C. palavanensis bancalanensis* subsp. n. Philippine Isds., BARTSCH Washington Proc. Biol. Soc. 31 p. 200.—*C. polychroa buriasensis* subsp. n. Philippines, BARTSCH Nautilus 32 p. 16.—*C. rufogastra*, Less. & *C. metaformis*, Fer., COCKERELL 78.

Epiphragmophora cuyamacensis lowei, traskii isidroensis subsp. n. S. California, BARTSCH U. S. Nation. Mus. Proc. 54 pp. 523 524 pl. 83.—*E. callistoderma* sp. n. California, PILSBRY & FERRISS Nautilus 31 p. 93.

Eulota, BOLLINGER 46.

Gaetulia olceseii, Pall var. n. *fichtalana* N. Africa, PALLARY Bull. Soc. Hist. Nat. Af. Nord 1918 p. 148.

†*Galactochilus brauni* (Thomae) var. n. *suevica*; *G. alveum* sp. n. Tertiary Germany, Joos Centralbl. Min. Stuttgart 1918 pp. 292–293.

Heliacus panamensis sp. n. Panama BARTSCH U. S. Nation. Mus. Proc. 54 p. 573 pl. 88 figs. 6 7 8.

Helicella gigaxii, CARTER 59.—*H. HURST* 179.—*H.*, UPTON 366.

†*Helicella*, CARTER 61.

Helicigona lapicida, MUSHAM 262.—*H.*, UPTON 366.

†*Helicigona lapicida*, CARTER 61.

Helicostyla woodiana paracaleana subsp. n. Philippine Isds., BARTSCH Washington Proc. Biol. Soc. 31 p. 153.

Helix aspersa & nemoralis, STELFOX 343.—*H. aspersa*, COLGAN 83.—*H. a.*, STEEL 340.—*H. areolata*, ORCUTT 278.—*H. carthusiana & H. syriaca*, TAYLOR 350.—*H. catostoma*, GODWIN-AUSTEN 149.—*H. fusca, rotundata*, MANSFIELD 247.—*H. limbata*, Drap., 1804, non Da Costa, 1778, KENNARD & WOODWARD 205.—*H. nemoralis*, KLEINER 210.—*H. n.*, BARBER 24.—*H. n.*, COCKERELL 80.—*H. n.*, ELLIOTT 123.—*H. n.* var. *fascialba*, JOLLIFFE 194.—*H. pisana*, QUICK 305.—*H. pomatia*, JORDAN 198.—*H. p.*, JORDAN & LAM 199.—*H.*, GATENBY 135.—*H.*, UPTON 366.

†*Helix aspersa*, CARTER 61.—*H. nemoralis*, SCHARFF, SEYMOUR & NEWTON 331.—*H. occidentalis* Mk. & H., HENDERSON 168.—*H.*, HARMER 163.

Hygromia fusca, ROEBUCK 326.—*H. odeca* (Locard), KENNARD & WOODWARD 205.—*H.*, UPTON 366.

†*Klikia coarctata* (Klein) varr. n. *umbilicata & steinheimensis*; *K. catantostoma* (Sandberger) var. n. *conica* Tertiary Germany, Joos Centralbl. Min. Stuttgart 1918 p. 294.

Landouria gen. n. Type *H. huttoni*, Pfr., with *L. damsangensis*, Sikkim, *hengdanensis*, N. Cachar., *aborensis* Abor. Hills spp. n. GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 pp. 604–611.

Massylaea (?) severinae sp. n. N. Africa PALLARY Bull. Soc. Hist. Nat. Af. Nord 1918 p. 148.

Mikiria gen. n. Type *M. diyungensis*, G.-A, sp. n. Singpho Hills, GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 p. 611.

Obba listeri bataanensis subsp. n. Philippines, BARTSCH Nautilus 32 p. 16.—*O.* with *O. papilla* Müll form n. *konawensis* Celebes, BOLLINGER Rev. Suisse Zool. Genève 26 p. 329.

Odontosagda abbotti sp. n. Haiti, VANATTA Proc. Acad. Nat. Sci. Philad. 70 p. 237.

Oreohelix with *O. strigosa meridionalis* subsp. n. S. W. United States, PILSBRY & FERRISS Philad. Proc. Acad. Nat. Sci. 70 pp. 320-325.—*O. cooperi obscura* form. n. Wyoming, HENDERSON Nautilus 32 p. 46.—*O. handi* sp. n. Nevada, PILSBRY & FERRISS Nautilus 31 p. 94.—*O.* FERRISS 130.—*O.* HENDERSON 166.

Papuina with *P. lintschuana* form. n. *infraplanata* & *P. kubaryi* var. n. *albolabiata* N. New Guinea, SCHEPMAN Zool. Med. Leiden 4 pp. 7-9.

Planispira with *P. zodiacus* Fér var. *tuba* (Albers) form. n. *rubida* Celebes, BOLLINGER Rev. Suisse Zool. Genève 26 p. 330.—*P.* with *P. (Cristigibba) planissima*, sp. n. & *P. (C.) musgravi* var. n. *efasciata* N. New Guinea, SCHEPMAN Zool. Med. Leiden 4 pp. 5-6.

Plectotropis chondroderma var. n. *subinflata* Tonkin, GUDE London Proc. Malac. Soc. 13 p. 18.—*P.*, GODWIN-AUSTEN 149.

†*Pleurodonte debooyi* sp. n. Quaternary St. Croix, W. Indies, BARTSCH Smiths. Inst. Proc. U. S. Nation. Mus. 54 pp. 605-606.

Polygyra albolabris maritima, COCKERELL 79.

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Sonorella with *S. odorata*, *S. o. marmoris*, *S. sabinoensis*, *S. s. occidentalis* & *bushmanensis*, *S. hesterna*, *S. marmorarius*, *S. m. limifontis* & *imula*, *S. galiurensis*, *tortillita*, *S. grahamensis*, *delicata*, *cærulifluminis*, *S. binneyi franciscana* spp. & subspp. n. S. W. United States, PILSBRY & FERRISS Philad. Proc. Acad. Nat. Sci. 70 pp. 285-301 311 314-318.—*S. wolcottiana*, PILSBRY 292.—*S.*, FERRISS 130.

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†*Trichiopsis helicidarum* sp. n. Tertiary Germany, Joos Centralbl. Min. Stuttgart 1918 p. 292.

†*Tropidomphalus dilatatum*, *sparsitictum* spp. n. Tertiary Germany, Joos Centralbl. Min. Stuttgart 1918 p. 293.

Vallonia cyclophorella septuagentaria subsp. n. California, PILSBRY & FERRISS Nautilus 31 p. 95.—*V.*, STEINBERG 340A.

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Zachrysia ramsdeni sp. n. Cuba, PILSBRY Nautilus 31 p. 78.

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Amphidromus with *A. centrocelebensis* sp. n. Celebes, BOLLINGER Rev. Suisse zool. Genève 26 pp. 331-333.

Borus rimanni sp. n. Argentina, FRENGUELLI Bol. Ac. Nac. Ci. Cordoba (Argentina) 23 p. 228.

†*Borus rimanni* var. n. *fossilis* [Quaternary] Argentina, FRENGUELLI Bol. Ac. Nac. Ci. Cordoba (Argentina) 23 p. 228.

Bulimulus (Proglyptus) brunoi nom. n. for *Loboa brunoi* v. Ihering, BARTSCH Nautilus 32 p. 54.

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Clausilia with *C. aborensis, shiman-gensis*, spp. n., Abor Hills, GODWIN-AUSTEN Abor Exp. Rec. Ind. Mus. Calcutta 8 pp. 618-619.—*C. biphlicata*, UPTON 366.—*C.*, BOLLINGER 46.—*C.*, HURST 179.

†*Clausilia rolphii*, CARTER 61.

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Rachis (Rachis) rhodotaenia Martens with var. n. *andradensis* Portuguese East Africa, GERMAIN Bull. Mus. Paris 1918 pp. 362-364.—*R. (Rachisellus) punctatus* Anton, GERMAIN 142.

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Achatina with *A. (Achatina) vassei* sp. n. Portuguese East Africa, GERMAIN Bull. Mus. Paris 1918 pp. 368-370.

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Curvella delicata (Gibbons) Taylor, GERMAIN 142.—*C. ?*, GODWIN-AUSTEN 149.

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Homorus insularis sp. n. Zanzibar, GERMAIN Bull. Mus. Paris 1918 pp. 266-268.

Limicolaria flammata Caillaud, GERMAIN 144.

Obeliscus abbotti sp. n. Haiti, VANATTA Proc. Acad. Nat. Sci. Philad. 70 p. 238.

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Sandahlia with *S. cylindrica curta* subsp. n. [? France]. PILSBRY Man. Conch. 23 p. 261.

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- Bullinus sisurnius* sp. n. W. Australia, HEDLEY Proc. R. Geogr. Soc. Australasia S. Austr. Branch Adelaide 1916-1917 p. 20.—B., ANNANDALE 1.
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& spp. n., GERMAIN *Bul. Mus. Paris* 1918 pp. 271–283.—*P. vortex* var. n. *albida*, England, JACKSON *J. Conch. Leeds* 15 p. 288.—*P.* with *P. confusus* nom. n. for *P. ferrugineus* Spix in d'Orb.; *P. centimetralis*, *nigrilabris*, *melleus*, *incertus*, *P. (Spirulina) nigellus*, *P. pronus*, spp. n., Brazil, LUTZ *Rio de Janeiro Mem. Inst. Oswaldo Cruz* 10 pp. 69–80 49–60.—*P. exustus*, LISTON & SOPARKAR 229.—*Planorbis (Planorbis) riippelli*, Dunker, GERMAIN 144.—*P.*, ANNANDALE 1 & 4.—*P.*, BAKER 17—*P.*, BOYCOTT 50.—*P.*, CAWSTON 62.—*P.*, COLTON 85.—*P.*, FAUST 129.—*P.*, GERMAIN 145.—*P.*, HURST 179.—*P.*, LUTZ & PENNA 237 & 238.—*P.*, WALKER 377.

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†*Segmentina (S.) boulei* sp. n. Quarternary Madagascar, GERMAIN *Bul. Mus. Paris* 1918 p. 53.

Siliquaria wilmanae sp. n. South Africa, TOMLIN *London Proc. Malac. Soc.* 13 p. 10.

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†*Dentalium Martini* sp. n. Celebes Oligocene, DOLLFUS E. C. *Abendanon Midden-Celebes* 3 p. 993.—*D. groenlandicum* sp. n. Cretaceous Greenland, RAVN *Kjøbenhavn Medd. Groenl.* 56 p. 354.—*D. (Plagioglypta) novaresci* sp. n. Carboniferous Elba, DE STEFANI *Pal. Ital. Pisa* 23 p. 42.—*D.*, TRECHMANN 360.

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†*Exogyra minos*, DIETRICH 116.

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†*Didymotis* with *D. trinidadensis* sp. n. Cretaceous Trinidad, SOMMERMEIER Centralbl. Min. Stuttgart 1918 p. 132.

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†*Halobia* with *H. zitteli* var. n. *zealandica* Trias New Zealand, TRECHMANN London Q. J. Geol. Soc. 73 pp. 197-201.

†*Hokoniua* gen. n. with *H. limaeformis, rotundata*, spp. n., Trias New Zealand, TRECHMANN London Q. J. Geol. Soc. 73 pp. 202-205.

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†*Monotis* with *M. salinaria* varr. n. *intermedia* & *hemispherica* Trias New Zealand, TRECHMANN London Q. J. Geol. Soc. 73 pp. 195–196.—*M.*, SOMMERMEIER 337.

†*Myallina rosteri, ilvaensis, spp. n.*, Carboniferous Elba, DE STEFANI Pal. Ital. Pisa 23 pp. 28–29.

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†*Leda circumflexa* sp. n. Silurian Indo China, MANSUY Mem. Serv. Géol. Indochine 1 p. 35.—*L. semicrenulata* sp. n. Trias New Zealand, TRECHMANN London Q. J. Geol. Soc. 73 p. 191.

†*Limopsis rinki* sp. n. Cretaceous Greenland, RAVN Kjøbenhavn Medd. Groenl. 56 p. 347.

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†*Sarepta aucklandica* sp. n. Tertiary N. Zealand, MARSHALL Trans. & Proc. N. Z. Inst. 50 p. 271.

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†*Tellina (Arcopagia) mianii* sp. n. Cretaceous Egypt, GRECO Pal. Ital. Pisa 23 p. 156.—*T. (Arcopagia) inconspicua* sp. n. Tertiary N. Zealand, MARSHALL Trans. & Proc. N. Z. Inst. 50 p. 272.

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†*Ceromya* with *C. egerkingensis* sp. n. Jurassic, GERBER Mem. Soc. Pal. Suisse 43 pp. 4-15.

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†*Arietites turgescens* sp. n. Jurassic England, BUCKMAN London Q. J. Geol. Soc. 73 p. 296.

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†*Arnioceras* with *A. flavum* nom. n. for *Arietites semicostatus*, Wright (non Young & Bird sp.); *A. anageneticum*, *fortunatum* spp. n. Jurassic England, BUCKMAN London Q. J. Geol. Soc. 73 pp. 298-301.

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†*Parthenope panamensis* Oligocene
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Bull. U.S. Nation. Mus. 103.

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†*Euphyllax callinectias* p. 165, *fortis* p. 167, figs., spp. n., Miocene, Costa Rica, RATHBUN Bull. U.S. Nation. Mus. 103.

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†*Eurytium cremulatum* sp. n. Pleistocene, Panama p. 174 figs., RATHBUN Bull. U.S. Nation. Mus. 103.

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Monograph of American Catometopa with descriptions and figs. of all spp. (only new names noted below), RATHBUN Bull. U.S. Nation. Mus. 97.

Partial revision of seven families with keys to genera and species, TESCH Rés. expl. Siboga 39c and 39c1.

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- Euryplax nitida* p. 442 fig., HAY & SHORE t.c.
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- Hapalonotus reticulatus* p. 278 fig., TESCH Rés. expl. Siboga 39c1.
- Helice tridens* var. n. *latimera* China etc. p. 106, *leachi* p. 108, figs., PARISI Pavia Atti Soc. ital. sci. nat. 47.—*H. subquadrata* p. 120 fig., TESCH Rés. expl. Siboga 39c.
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- Parapinnixa beaufortensis* p. 444 fig., HAY & SHORE Bull. U.S. Bur. Fish. 35.—*P. hendersoni* Cuba p. 109, *bouvieri* Yucatan p. 111, *beaufortensis* N. Carolina p. 112, spp. n., figs., RATHBUN Bull. U.S. Nation. Mus. 97.
- Paraselwynia* gen. n. (*Goneplacidae*) *ursina* sp. n. Malay Archipelago p. 222 fig., TESCH Rés. expl. Siboga 39c1.
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† *Thaumastoplax prima* sp. n. Oligocene, Panama, p. 176 figs., RATHBUN Bull. U.S. Nation. Mus. 103.

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† *Uca macrodactylus* Pleistocene, Panama p. 177 fig., RATHBUN Bull. U.S. Nation. Mus. 103.

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† *Calappa costaricana* sp. n., Pliocene Panama, p. 156, *flammea* p. 157, figs., RATHBUN Bull. U.S. Nation. Mus. 103.

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† *Leucosilia bananensis* sp. n. Miocene, Costa Rica, p. 161 figs., RATHBUN Bull. U.S. Nation. Mus. 103.

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†*Goniochele* ? *armata* sp. n. Oligocene, Panama p. 154 figs., RATHBUN Bull. U.S. Nation. Mus. 103.

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†*Holoparia* [*Holoparia*] *gabbi* p. 361, *gladiator* p. 362 figs., PILSBRY Maryland Geol. Surv. Upper Cretaceous.

†*Holoparia mesembria* sp. n. Lower Cretaceous, Queensland, p. 7 figs., ETHERIDGE Geol. Surv. Queensland Publ. 260.

†*Nephrops costatus* sp. n. Pleistocene, Panama p. 133 figs., RATHBUN Bull. U.S. Nation. Mus. 103.

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†*Axius reticulatus* sp. n. Oligocene Panama p. 135 figs., RATHBUN Bull. U.S. Nation. Mus. 103.

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†*Callianassa mortoni* p. 363, var. n. *marylandica* p. 366, *conradi* p. 366, var. n. *punctimanus* p. 368, *clarki* sp. n. Upper Cretaceous Maryland p. 368 figs., PILSBRY Maryland Geol. Surv. Upper Cretaceous.—*C. onalis* p. 137, *lacunosa* p. 138, *elongata* p. 139, *crassimana* p. 141, *moinensis* p. 142, *spinulosa* p. 143, *tenuis* p. 144, *quadrata* p. 145, *toulai* p. 146, *abbreviata* p. 147, *hilli*, *vaughani* p. 148, *stridens*, *magna*, p. 151, *crassa* p. 152, spp. n., Oligocene and Miocene, Panama and Costa Rica, *scotti* p. 140, figs., RATHBUN Bull. U.S. Nation. Mus. 103.

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†*Loxoconcha favata* p. 25, *wanneri* p. 26, spp. n., Tertiary, Holland, KUIPER Ostracoden.

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†*Balanus glyptopoma* p. 185, *concauus* subsp. n. *rarisepitatus* Miocene, Panama

p. 186 figs., PILSBRY Bull. U.S. Nation. Mus. 103.

†*Lepas injudicata* sp. n. Miocene, Panama p. 188 fig., PILSBRY t.c.

Megalasma (Glyptelasma) carinatum p. 401 figs., CALMAN Ann. Mag. Nat. Hist. 1.

†*Pollicipes alatus* Tate ref. to Pelecypoda p. 171 fig., WITHERS Geol. Mag. 5.

Scalpellum (Smilium) trispinosum p. 98, *nudipes* p. 99, *acutum* p. 101, *bengalense* p. 102 figs., (*Scalpellum*) *ecaudatum* sp. n. Java Sea p. 106 figs., *velutinum* p. 108, *annandalei* sp. n. Gulf of Aden etc. p. 109 figs., *regina* p. 112, *regulus* sp. n. Indian Ocean p. 113 figs., *alcockianum* p. 115, *juddi* sp. n. Indian Ocean p. 116 figs., *persona* p. 120, *portoricanum* p. 121, *rubrum* p. 122, *novae-zelandiae* p. 123, *gruvelii* p. 124, *laccadivicum* p. 124, CALMAN Ann. Mag. Nat. Hist. 1.

†*Zoocapsa dolichorhamphia*, Seeley, ref. to Pelecypoda p. 169 fig., WITHERS Geol. Mag. 5.

XI. ARACHNIDA

TO WHICH ARE ADDED

GIGANTOSTRACA (XIPHOSURA; TRILOBITA, EURYPTERIDA),
PANTOPODA, TARDIGRADA, PENTASTOMIDA, MYRIOPODA
and PROTOTRACHEATA

ARRANGED BY

W. T. CALMAN, D.Sc.

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†*Prestwichianella* gen. n. for *Limulus rotundatus* Prestwich p. 469, WOODWARD t.c.

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- Walton, C. L.** Some results of a survey of the agricultural Zoology of the Aberystwyth area. Parasitology Cambridge 10 1918 (206-231). 67
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Insecta, collectively.

Spain: Navás, *Neuropteroidea*, 1053, 1055, 1056, 1057, 1058-1060; Seytre, 1385.

Italy: Ghigi, 563; Razzauti, Isola Capraia, 1240.

Corsica: Klapalek, 815.

Macedonia, Burr pp. 65-67 Ent. Rec. 30; Burr, 222; Waterston, 1612; Salonica, Robertson p. 186 Ent. Rec. 30.

Egypt: Boyd, 169.

Coleoptera.

Holdhaus, 714; Reitter, 1266.

Spain: Doderò, 378; Fuente, 523, 524; Jeannel, 764; Vidal *Carabus rugosus*, Bol. Soc. Ent. espan. 1 p. 123.

Italy: Hicker, 706; Müller, 1032; Paganetti-Hummler, 1123, 1124; Reitter, Italy and Tyrol, 1279; Stolz, Italy & Tyrol, 1443.

Reitter, Sicily, 1273.

Sardinia: Hustache, 739; Reitter, 1258.

Herzegovina: Reitter, 1278.

Istria: Reitter, 1262.

Dalmatia: Roubal, 1328.

Albania: Reitter, 1271, 1277.

Serbia: Roubal, 1329.

Greece: Schuster, 1376.

Macedonia: Viehmeyer, 1563.

North Africa: Chobaut, 267; Desbordes, 360; Peyerimhoff, 1169, 1170, 1171; Reitter, 1268; Théry, 1486.

Hymenoptera.

Dusmet, 406; Mercet, Spain, 998; Nadig, Valsesia, 1042; Pic, 1181, 1185; Stitz, 1442.

N. Africa: Turner, Egypt, 1526; Turner, Tunis, 1530.

Lepidoptera.

Spain: Codina, 295; Hampson, 630.

Fernández, 462; Italy: Rostagno, 1319; Stauder, 1432, 1435.

Corsica: Le Cerf, 873; Lenz, 887.

Cyprus, Hampson, 630.

S. east Europe: Graves pp. 62-64 Ent. Rec. 30.

Macedonia: Barraud, 79; Buresch, 219; *Rhop.*, Rowland-Brown p. 112 Ent. 51; *Geometridae*, Barraud p. 145 Ent. 51.

Cappadocia: Le Cerf, 873.

N. Africa: Graves, Egypt, 604; Egypt, Graves p. 92 Ent. 51; Hampson, 629, 630; Oberthür, 1103; Petroff, Egypt, 1163; Williams, Egypt, 1654.

Trichoptera.

Navás, Asia minor, 1064.

Neuroptera.

Navás, Algeria, 1052.

Navás, Tunis, 1063; Navás, Mytilene, 1064.

Diptera.]

Becker, Greece, 82; Bezzi, Italy, 114, 115; Czizek, 338.

Joyeux, Macedonia, 784; Waterston, Macedonia, 1611.

Townsend, Algeria, 1511.

Homoptera.

Bergevin, 92, 93, 94; Seabra, Portugal *Coccidae*, 1380; Theobald, Egypt, *Aphidae*, 1484.

Plecoptera.

Spain, Navás, 1062.

Paraneuroptera.

Campion, Macedonia, p. 128 Ent. 51.

Orthoptera.

La Baume, Balkans, 850; Nadig, Italy, 1043.

(h) *Caucasus, West & Central Asia*.

Coleoptera.

Fleischer, Turkestan, 476; Reitter, Persia, 1261; Reitter, Talysch, 1276; Roubal, Caucasus, 1327.

Hymenoptera.

Donisthorpe, W. Asia, 386.

Hampson, 630, 632; Korb, Alai, 834; Meyrick, Mesopotamia, 1008.

Africa.

Insecta, collectively.

Wasmann, 1596.

Coleoptera.

Alluaud, 25, 26; Bernhauer, 98, 100; Bickhardt, 116; Blair, 122; Champion,

254; Fleutiaux, 480, 482, 483; Gillet, 572; Gravely, 603; Hoschek Mühlheim, 720; Hubenthal, 731; Kerremans, 806; Kuntzen, 843, 844; Marshall, 981; Moser, 1020, 1021; Obenberger, 1096, 1098, 1099; Pic, 1175, 1176, 1177, 1184; Reineck, 1248; Reitter, 1268; Wasmann, 1595, 1607; Weise, 617.

Hymenoptera.

Bischoff, 120; Brues, 201; Dusmet, 406; Enderlein, 429, 430; Friese, 508, 509; Gahan, 541; Kieffer, 811; Szépligeti, 1469; Turner, 1526, 1528, 1529, 1530, 1534.

Lepidoptera.

Eltringham *Rhopalocera*, 423; Fawcett, 451; Gaede, 535-540; Hampson, 629, 630, 632; Janse, 758; Joicey & Talbot, 777; Jones, 780; Kaye, 796; Le Cerf, 874; Meyrick, 1008, 1010; Morrison, Natal *Rhopal.* S. Afric. J. N. H. 1 p. 106; O'Neil, 1115; Prout, 1218, 1219, 1220; Rothschild, 1325; Strand, 1449, 1450; Wichgraf, 1641, 1642.

Diptera.

Becker, 80; Bezzi, 113; Grünberg, 619; Lamb, 854; Melander, 995; Simpson, 1404; Townsend, 1511; Ville-neuve, 1569.

Hemiptera.

Bergroth, 96; Brain, *Coccidae*, 171; Distant, 369, 370, 371; Muir, 1036, 1037; Seabra & Vayssière, *Coccidae*, 1381; Theobald, *Aphidae*, 1484.

Thysanoptera.

Bagnall, 46, 48; Hood, 717.

Psocoptera.

Enderlein, 427.

Isoptera.

Sjöstedt, 1405.

Paraneuroptera.

Martin, 988.

Orthoptera.

Borelli, 158; Chopard, 269.

Aptera.

Silvestri, 1401.

Madagascar and Mascarene Islands.

Coleoptera.

Alluaud, 27; Bedel, 84; Bourgoin, 164, 165; Champion, 254; Gravely, 603; Grouvelle, Seychelles & Aldabra, 618; Kuntzen, 842; Lesne, Mascarene islds., 891; Pic, 1177.

Hymenoptera.

Forel, 489; Friederichs, 507; Schulthess, 1370.

Lepidoptera.

Meyrick, 1008; Prout, 1219; Rothschild, 1326.

Diptera.

Legendre, 877.

Hemiptera.

Bergroth, 97; Brain, Mauritius *Coccidae*, 171; Distant, 369.

Asia, Tropical and Eastern.

Insecta, collectively.

Silvestri, India, 1403.

Coleoptera.

Bedel, 83; Bernhauer, 99, 102; Breit, Tibet, 178; Cameron, 232, 232a, 233; Champion, 254, 256; Chatanay, 266; Fleischer, China, 477; Fleutiaux, 479, 481; Gebien, 560; Gravely, 603; Kolbe, China, 827; Lapouge, Laos *Carabus* subg. n. *Miscell. Ent.* 1916 sep. pag. p. 85; Lesne, 889; Marshall, 982, 983; Maulik, India, 994; Moser, 1021; Obenberger, *Agrius*, 1097; Obenberger, 1098; Obenberger, 1100; Ohaus, 1113; Pic, Gobi, Mongolia, 1174; Pic, 1175, 1177, 1182, 1183; Raffray, 1235; Reitter, 1254, 1268; Reitter, Mongolia, 1259; Reitter, China, 1259; Reitter, Buchara, 1263; Schuster, India, 1376; Spaeth, 1424, 1425; Wasmann, India, 1605; Wingelmüller, 1660.

Strepsiptera.

Pierce, 1191.

Hymenoptera.

Cockerell, 282, 283, 285, 290; Forel, Japan, 487; Ruschka, China, 1334; Turner, Karachi, 1526; Turner, Tibet, 1526; Turner, 1530, 1532; Yano & Oyama, Japan, 1671.

Lepidoptera.

Bell, 86; Fawcett, Burma, 451; Hampson, 629, 630, 632; Hering, China, 697; Kaiser, 788; Marlatt, *Pectinophora* indian, 979; Meyrick, 1008; Nagano, Japan, 1044, 1045, 1046, 1047; Oberthür, 1106, 1108; Prout, 1216, 1218, 1219, 1220; Prout, Tibet, 1218; Rothschild, Burma, 1324; Strand, 1447; Strand, Formosa, 1448; Swinhoe, 1468; Wileman & South, Japan & Formosa, 1646; Wileman & South, Formosa, 1648.

Trichoptera.

Navás, 1064.

Neuroptera.

Navás, 1064.

Diptera.

Alexander, Japan, 15; Alexander, Japan & Kamchatka, 16; Awati, 38; Brunetti, 210; Frey, Ceylon, 500; Kinoshita, Japan, 813; Lamb, 854; Matsumura, Japan & Formosa, 990; Prashad, 1211; Rao, 1237; Schmitz, 1362; Shiraki, 1398; Tothill, 1509; Townsend, Ceylon, 1511.

Hemiptera.

Baker, Japan, *Aphidae*, 58; Das, India, *Aphidae*, 342; Distant, 367, 368, 369, 372; Essig & Kuwana, Japan, *Aphidae*, 439; Funkhouser, 531; Goot, *Aphidae*, 595; Haupt, 653; Kannan, India, *Coccidae*, 789; Kuwana, Japan, *Nidularia*, 848; Kuwana & Nitobe, Japan, *Coccidae*, 849; Muir, 1036, 1037, 1039; Paiva, 1125, 1126, 1127; Schumacher, Formosa, 1373; Takahashi, Japan, *Aphidae*, 1473, 1474.

Thysanoptera.

Bagnall, 46, 47.

Psocoptera.

Enderlein, India, 427.

Paraneuroptera.

Fraser, India, 495, 496.

Orthoptera.

Bolivar, 145, 146, 147; Chopard, 269, 271.

Asiatic Archipelago.

Java to New Guinea, incl. Philip-
pines.

Coleoptera.

Barber, 72; Bedel, 83; Cameron,
232a, 233; Champion, 254; Gebien,
560; Gravely, 603; Heller, 688, 689,
690; Hubenthal, 731; Kuntzen, 841;
Marshall, 983; Moser, 1021; Oben-
berger, *Buprestidae*, 1097; Ohaus,
1113; Pic, 1177, 1183, 1184; Raffray,
1235; Schultze, 1371, 1372; Schwarz
& Barber, 1377; Wasmann, 1606.

Strepsiptera.

Pierce, 1191.

Hymenoptera.

Cockerell, 277, 282, 283, 284; Craw-
ford, 313; Dusmet, 406; Malenotti,
952; Rohwer, 1311, 1312; Turner,
1527; Viehmeyer, 1564.

Lepidoptera.

Eecke, 420; Gaede, 536; Hampson,
629, 630, 632; Kaye, 795; Martin,
987; Meyrick, 1008; Piepers & Snellen,
1188; Prout, 1216, 1218, 1219, 1220;
Strand, 1447; Swinhoe, 1468.

Wileman & South, 1647.

Diptera.

Felt, 456; Melander, 995; Pettey,
1165; Salm, 1339; Townsend, 1511.

Hemiptera.

Bergroth, 95; Distant, 369; Funk-
houser, 532; Goot, Java, *Aphidae*,
596; Robinson, Philippines, *Coccidae*,
1305.

Paraneuroptera.

Laidlaw, 853; Navás, 1064; Ris,
1292.

Orthoptera.

Bolívar, 145, 146; Borelli, 159, 160;
Griffini, 609.

Australia and Tasmania.

Insecta, collectively.

†Tillyard, 1490, 1495.

Coleoptera.

Carter, 240; Girault, 578; Gravely,
603; Lea, 867, 868, 869; Pic, 1177;
Sloane, 1413, 1415.

Hymenoptera.

Cockerell, 279, 282; Crawley, 315;
Girault, 577; Rohwer, 1311; Turner,
1523, 1525, 1526, 1527, 1531, 1532,
1533; Wheeler, 1631, 1633.

Lepidoptera.

Fawcett, 451; Hampson, 629, 632;
Hardy, 636; Hardy, Tasmania, *Rhop.*,
639; Lower, 917; Meyrick, 1008;
Swinhoe, 1468; Turner, 1518.

Neuroptera.

Esben-Petersen, 435, 436; Tillyard,
1491.

Diptera.

Hardy, 637; Hardy, Tasmania, 638;
Ricardo, 1283; Taylor, 1475, 1476;
White, 1638; White, Tasmania, 1637.

Hemiptera.

Distant, 369; Froggatt, 516, 517;
Hardy, Tasmania, *Homoptera*, 640;
Muir, 1036; †Tillyard, 1503.

Thysanoptera.

Bagnall, 46; Hood, 716.

Paraneuroptera.

Tillyard, 1492; †Tillyard, 1494,
1502.

Orthoptera.

Bolívar, 146; Shaw, 1394; Sjöstedt,
1407; †Tillyard, 1498.

North America.

Insecta, collectively.

Brumfiel, 202; †Cockerell, 280;
Gibson, Canada, 565; Lutz, 931; Navás,
Neuropteroidea, 1058, 1059; Weiss,
1619.

Coliseum mountain, Whitehouse
Canad. Ent. 50 pp. 1-7.

Coloptera.

Barber, 72; Blaisdell, 125, 126, 127; Blanchard, 130; Blatchley, 132, 133; Casey, 242, 243, 244; Chagnon, Quebec, 249; Chapin, 257; Dozier, 388; Fall, 449, 450; Ferris, 466; Fisher, 470, 471; Garnett, 551, 553; Goldsmith, 594; Hyslop, 743, 744; Knull, 823; Leng, 880, 883; Leng & Mutchler, 884; Liljeblad, 900; McAtee, 936; Myers, 1040; Nicolay & Weiss, 1078; Notman, 1090; Obenberger, 1099; Robinson, 1306; Schaeffer, 1347, 1348; Schwarz & Barber, 1377; Swaine, 1465; Van Dyke, 1544, 1545, 1546, 1547; Wickham, 1643; Woods, 1667.

Adirondack *Carabidae*, Notman p. 119 J. N. York ent. Soc. 26.

Chomong Lake, Morris pp. 109–115 Canad. Ent. 50.

Ontario, Morris pp. 37–43 Canad. Ent. 50.

Strepsiptera.

Pierce, 1191.

Hymenoptera.

Beutenmuller, 110, 111, 112; Bradley, 170; Burrill & Smith, 223; Cockerell, 282, 285, 291; Crawford, 313; Cushman, 331; Fenton, 461; Gahan, 542, 543, 545, 546; Girault, 579, 580, 581; Johnson & Ledig, 774; Malloch, 961, 972; Rohwer, 1313, 1316, 1317; Sladen, 1411, 1412; Smith, 1418; Viereck, 1565; WHEELER, 1632, 1634.

Lepidoptera.

Ainslie, 7; ANON, 34; Barnes & McDunnough, 76; Braun, 173, 174, 175; Ely, 425; Hampson, 629, 630; Heinrich, 676; Lichti, 899; McAlpine, 934; Meyrick, 1008; Skinner, 1410; Swett, 1466, 1467; Watson, 1613, 1614; Wolden, 1663.

California *Coenonympha brenda*, Ireland p. 231 Ent. News 29.

Texas *Rhopalocera*, Leussler p. 149 Ent. News 29.

Trichoptera.

Navás, 1064.

Neuroptera.

Navás, 1064.

Diptera.

Aldrich, 8, 9, 10, 13; Alexander, 17, 18, 19, 21; Andrews, 33; Brues, 200; Cameron, Saskatchewan, 230; Cresson, 316; Cresson, 318; Dietz, 366; Dyar, 411; Felt, 459, 460; Felt in Wood, 1665; Greene, 606; Hine, 711; Johnson, 773; McAtee, 939; Malloch, 954–960, 962–971, 973; Melander, 995; Metcalf, 1000; Parker, 1133, 1134, 1135; Pettey, 1164, 1166; Rogers, 1310; Smith, 1416; Sturgis, 1459; Sturtevant, 1460, 1461; Townsend, 1511, 1512, 1514; Van Duzee, 1542; Walton, 1586.

Illinois *Phorbia albula*, Malloch p. 32 Ent. News 29.

Phaonia querceti, Malloch p. 113 Ent. News 29.

Hemiptera, collectively.

Van Duzee, 1541, 1543.

Heteroptera.

Barber, 69, 70; Drake, 391, 392; Fracken, 494; Gibson, 567, 568; Knight, 820, 821; Reuter, 1281; Stoner, 1444, 1445.

Parry Sound, Bueno pp. 24–25 Canad. Ent. 50.

Homoptera.

Ball, 60; Davis, 347; De Long, 351, 352; Funkhouser, 533, 534; McAtee, 937; Olsen, 1114; Stearns, 1436.

Aphidae.

Baker, 57, 59; Gillette & Bragg, 574, 575; Patch, 1140; Wilson, 1659; Swain, 1463, 1464.

Coccidae.

Ferris, 463, 467.

Thysanoptera.

Cameron & Treherne, 231.

Isoptera.

Dobson, 376.

Zoraptera.

Caudell, 247.

Plecoptera.

Navás, 1064; Smith, 1417.

Paraneuroptera.

Brimley, 190; Kennedy, 801; Howe, 727, 728; Walker, 1582; Wells, 1625.

Florida *Argiallagma minutum*, Currie p. 271 Ent. News 29.

Orthoptera.

Caudell, 246; Hancock, 633; Hebard, 655; McAtee & Caudell, 941; Piers, 1197; Rehn & Hebard, 1246; Walden, 1581.

Collembola.

Folsom, 485.

Central America.

Coleoptera.

Barber, 72; Bernhauer, 103; Casey, 242, 243; Fisher, 469; Gravely, 603; Obenberger, 1096.

Hymenoptera.

Cockerell, 281, 282, 284, 285, 289, 292.

Lepidoptera.

Dognin, 380; Draudt, 393; Dyar, 407, 412; Hampson, 629, 630, 632; Kaye, 796; Prout, 1218; Schaus, 1349.

Neuroptera.

Navás, 1064.

Diptera.

Cresson, 316, 317; Dyar, 408, 409, 411; Hine, 710; Ludlow, 920; Melander, 995; Townsend, 1511.

Hemiptera.

Ball, 61; Enderlein, 428; Gibson, 568; Muir, 1037.

Isoptera.

Banks, 68.

Paraneuroptera.

Ris, 1295, 1296; Williamson, 1657.

Orthoptera.

Hebard, 656, 657.

Antilles. Incl. Bermudas, excl. Trinidad.

Insecta, collectively.

Cardin, 236; Mann, 974.

Coleoptera.

Bernhauer, 104, 105; Marshall, 984; Pic, 1177; Pierce, Jamaica, 1192; Sampson, 1340.

Hymenoptera.

Cockerell, 284; Girault, 580; Malenotti, Barbados, 953.

Lepidoptera.

Dyar, 412; Hampson, Bahamas, 629, 630, 632; Kaye, 796.

Diptera.

Cresson, 316; Knab & Van Zwaluwenberg, 818; Melander, 995; Townsend, 1511; Townsend, Bahamas, 1511.

Hemiptera.

Drake, 390; Houser, *Coccidae*, 723; Muir, 1039; Williams, Grenada, 1652.

Thysanoptera.

Cardin, 235.

Psocoptera.

Enderlein, 427.

Paraneuroptera.

Navás, 1064.

South America, including Trinidad.

Insecta, collectively.

Lutz, Araujo & Filho, 929; Navás, *Neuropteroidea*, 1054; Navás, *Neuroptera* & *Trichoptera*, 1061; Navás, 1065.

Coleoptera.

Barber, 72; Bernhauer, 101, 103, 104, 105; Blair, 123; Brèthes, 185; Bruch, 197, 198; Champion, 251-254; Gravely, 603; Heller, 685, 686, 691; Lüderwaldt, 921; Obenberger, 1097, 1098; Pic, 1175, 1177, 1178, 1179, 1183, 1184; Pierce, 1192; Raffray, 1235.

Hymenoptera.

Bodkin, 141; Brèthes, 180, 183; Cockerell, 278, 281, 282, 284, 286, 287, 288, 292; Ducke, 396; Forel, 489, 490; Gallardo, 550; Hedicke, 659; Holmberg, 715; Schrottky, 1368, 1369; Turner, 1524; Wheeler, 1636.

Lepidoptera.

Dognin, 380; Draudt, 393; Giacomelli, 564; Hampson, 629, 630, 632; Houlbert, 721; Joicey & Talbot, 775, 776; Kaye, 794, 796; Lathy, 866; Meyrick, 1008; Prout, 1216-1220.

Diptera.

Brèthes, 181, 182; Cole, Chile, 297; Cresson, 316; Dunn, 400; Dyar, 408, 409, 410, 411; Edwards, Trinidad, 417; Enderlein, 431; Lamb, Trinidad, 855; Lutz, 928; Lutz and Lima, 930; Melander, Trinidad, 995; Pettey, 1164; Townsend, 1511.

Hemiptera.

Blanchard, *Alcyrodidæ*, 129; Brumpt & Gomes, 204; Enderlein, 428; Lizer, 911; Muir, 1037, 1039; Reuter, 1281.

Isoptera.

Banks, 68.

Paraneuroptera.

Ris, 1296; Sjöstedt, 1406; Williamson, 1656, 1657.

Orthoptera.

Arribáizaga, 35; Bolívar, 144; Caudell, 245; Chopard, 269, 271; Rehn, 1242-1245.

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Hesperia; *centaureae*, *andromedae*, *sibirica*, pl. viii, *alpina*, *sidae*, *antonia*, pl. ix, undersides figured, CHAPMAN p. 145 Ent. Rec. 30; and t.c. pl. xii, *serratulae*, *onopordi*, *carlinae*, *fritillum*; pls. x and xi genital ♂ appendages, pp. 161-165.

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Heterocera.

CASTNIIDAE, EUSCHEMONIDAE.

Revision of *Castnia*, taxonomy, and division into several genera, figures of the species and reproduction of old drawings; HOULBERT in Oberthur Et. Lep. Comp. 15, 736 pp., 55 pls. and many text-figs. The new species were published and recorded last year. 179 species are recognised, arranged in 33 genera, and these genera are placed under "souches phylétiques", which according to an explanation given are the "equivalents of genera." There are thus two sets of generic names which we give in full.

S.p. *Daedalus*. *Cyparissias* gen. n. p. 91 for *C. daedalus* allics, 7 spp., HOULBERT T.c.

S.p. *Cacica*. *Amaula* gen. n. p. 123, for *C. oberthueri* Houlb. allics, 8 spp., HOULBERT T.c.

S.p. *Pylades*. *Corybantes* Hübn., including *pylades* Cr. and 5 others, HOULBERT p. 179 T.c.

S.p. *Schreibersi*. *Eupalamides* Hübn. for *schreibersi*, *zerynthia* and *actor*, p. 158 HOULBERT T.c.

S.p. *Humboldti*. *Castniomera* gen. n. p. 201 with subgg. *Melanosema* and *Phaeosema*, HOULBERT T.c.

Melanosema subg. n. of *Castniomera* for *C. atymnius* Dalm. p. 201 HOULBERT T.c.

Phaeosema subg. n. of *Castniomera* for *C. humboldti* Boisd. and 5 others, HOULBERT p. 201 and 206 T.c.

S.p. *Licus*. *Castnia* Fabr., consists of *C. licus* Dr. and 5 others, HOULBERT p. 220, *sebai* sp. n. Surinam p. 227 pl. RB, T.c.

S.p. *Harmodius*. *Erythrocastnia* gen. n. p. 253 for *C. harmodius* Cr., HOULBERT T.c.

S.p. *Evalthe*. *Xanthocastnia* gen. n. p. 262 for *C. evalthe* Fabr. and 5 others.

S.p. *Dalmani*. *Graya* Bueh. for *C. dalmanii* Gray, HOULBERT p. 284 T.c.

S.p. *Hegemon*. *Athis* Hübn. for *hegemon* Koll. and nine others, HOULBERT p. 288 T.c.

S.p. *Josepha*. *Paysandisia* gen. n. p. 311 for *C. josepha* Oberth., HOULBERT T.c.

S.p. *Icarus*. *Elina* gen. n. p. 325 for *icarus* Cr. and seven others, HOULBERT T.c.

S.p. *Chremes*. *Ceretes* Boisd. for *marcel-serresi* Goed., *thais* and *gracillima*, HOULBERT p. 354 T.c.

S.p. *Phalaris*. *Sympalamides* Hübn. for *mimon* Hübn. and seven others, HOULBERT p. 380 T.c., *mimon* var. n. *lombardi* p. 381.

S.p. *Huebneri*. *Ypanema* gen. n. p. 406 for *C. huebneri* Latr. and three others, HOULBERT T.c.

S.p. *Amycus*. *Schaefferia* gen. n. p. 421 for *amycus* Cr., *meditrina* and *alboinsignita*, HOULBERT T.c.

S.p. *Inca*. *Aciloea* gen. n. p. 436 for *C. inca* Walk. and 10 others, *inca* var. n. *mexicana* p. 441 fig. 152, *rutila* var. n. *rutiloides* p. 451 fig. 154, HOULBERT T.c.

S.p. *Pallasia*. *Imara* gen. n. p. 470 for *pallasia* Esch. and four others, HOULBERT T.c.

S.p. *Galinthias*. *Spilopastes* gen. n. p. 481 for *galinthias* Hoppl., HOULBERT T.c.

S.p. *Cochrus*. *Prometheus* Hübn. for *cochrus* Fabr. and *garbei* F., HOULBERT p. 485 T.c.

S.p. *Therapon*. *Orthia* Boisd. for *therapon* Koll. and four others, HOULBERT p. 503 T.c.

S.p. *Divia*. *Cyanostola* gen. n. p. 514 for *divia* Butl. and *tricolor* Feld., HOULBERT T.c.

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S.p. *Acraeoides*. *Herrichia* Buch. for *acraeoides* Gray, HOULBERT p. 546 T.c.

S.p. *Hecate*. *Ircila* gen. n. p. 553 for *hecate* H.S., HOULBERT T.c.

S.p. *Gramivora*. *Tephrostola* gen. n. p. 558 for *gramivora* Schaus, *fenestrata* sp. n. Parana p. 560 pl. 462 f. 3847, HOULBERT T.c.

S.p. *Mimica*. *Xanthospila* gen. n. p. 563 for *mimica* Feld. and *corrupta* Schaus, HOULBERT T.c.

S.p. Marcus. Enicospila gen. n. p. 566 for *marcus* Jord., HOULBERT T.c.

S.p. Linus. Cabirus Hübn. for *linus* Cr. and four others, HOULBERT p. 569 T.c.

S.p. Pellonia. Boisduvalia, gen. n. p. 584 for *pellonia* Druce and seventeen others, HOULBERT T.c.

S.p. Zagraea. Gazera Boisd. for *zagraea* Feld. and eight others, HOULBERT p. 623 T.c.

S.p. Pelasgus. Nasca gen. n. p. 646 for *pelasgus* Cr., *fulvofasciata* H. and *unifasciata* Feld., HOULBERT T.c.

S.p. Erycina. Westwoodia gen. n. p. 653 for *erycina* W., *pelopia* Dr. and *pelopioides* Dr., HOULBERT T.c.

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- Amalthocera* Boisd. = (*Callibaptis*
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- Amata fulvibasalis* Cameroons, con-
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INCLUDING

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BY

C. TATE REGAN, F.R.S.

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CEPHALOCHORDATA.

Amphioxus, orientation, AREY 1.

XIV. VERTEBRATA

(GENERAL)

i.e., complementary to Mammalia, Aves, Reptilia, and Pisces

BY

D. S H A R P,

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XVI. REPTILIA AND BATRACHIA

ARRANGED BY

C. TATE REGAN, F.R.S.

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ARRANGED BY

W. L. SCLATER, M.A.

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ARRANGED BY

MARTIN A. C. HINTON.

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