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## THE WESTERN SOCIETY

## OF MALACOLOGISTS

"Sea Shells of Tropical West America":

Additions and Corrections to 1975
by
A. Myra Keen and

Eugene Coan


Occasional Paper 1

The Vestern Society of Malacologists Occasional Paper 1
"SEA SHELLS OF TROPICAL NEST AMERICA": ADDITIONS AND CORRECTIONS TO 1975

## by

A. Myra Kieen and

Eugene Coan

With two text figures

Issued: JUN 221915

This is the first Occasional Paper of the Western Society of Malacologists. The price is $\$ 2.50$, which covers printing costs and includes a small handling charge.

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Nearly four years have passed since the second edition of Seat Shel1s of Tropical West America was issued on September 1, 1971 -a surficient tine for the publication of many papers that affect both the content of the book and the nomenclature of Panamic province mollusks. The purpose of the present report is to coordinate the data (thus facilitating use of the newer literature) and to correct typographical and other errors in the book itself; also to indicate omissions that have come to light. The cut-off date for canvass of new literature is April $1,1975$.

A few special conventions that were adopted in this work should be explained:

1) For each entry, the page number is to edition 2 of Sea Shells.. The number symbol (钅) is used to save space. New entries (i.e., species to be added) are shown by suffix letters: -a, $-b,-c$, etc., for those that alphabetically follow the stated entry; e.9., on
 indicated by wavy underscoring instead of the usual italic symbol. If, however, the additions alphabetically precede the stated number, the suffix letters $-x,-y$, and $-z$ are used. For example, on page 10 "page 257 , no. 654x" comes before the first species of Abra in the book. To have numbered it 653 a would have made it seem to belong in the preceding genus, Semele.
2) Comments submitted by colleagues are credited as "fide .... (in litt.)" or, if already published, are cited in the conventional manner of bibliographic references, with parentheses and date. Range extensions, however, that have been published are indicated by square brackets and the author's name. Unpublished extensions are cited as "fide .... (in litt.)" We have not included many of the umpublished extensions that we might have, partly in order not to make this work of unduc length, partly to give those people who have made the discoveries the privilege of announcing them.
3) Another use of square brackets is for species that must be treated out of their previous sequence in order to preserve alphabetical order. This may happen when there has been revisionary shifting; for example, on page 29 of this work, no. 1015 must be after no. 1018 because of rearrangement of subgenera.

Bibliographic references in parentheses are to those cited in the Supplementary Bibliography, pages $56-66$ of this work. This Bibliography includes not only the recent publications since 1971 but also earlier references accidentally overlooked or that should be called to the attention of Vest Coast workers.

We acknowledge, with thanks, the assistance of all those who have pointed out needed corrections or brought to our attention material we otherwise would have missed, especially: Hans Bertsch, Frank Bernard, Beatrice Burch, James Carlton, Helen DuShane, Bertram Draper, Anthony D'Attilio, George Hanselman, Filliam Jrierson, George Kennedy, James Miclean, Eveline Marcus, Louie Marincovich, Leroy Poorman, George Radwin, Barry Roth, Donald Shasky, Carol Skoglund, Judith Smith, H. B. Stenzel, Gale Sphon, and Ruth Turner. irithout their generous help, the coverage herein would have been nuch less inclusive.


Figure 1. No. 1035. Ceratostoma unicorne (Reeve, 1849). Sketch to show correct outline of the anterior canal (background not properly blocked out in printing). See page 31 of this work.

Page
viii
: iii

26,\#12 Read: chrysocoma.
31,\#31 Read: Gulf of California to Ecuador. [Knudsen, 1970].
32,\#39 In the lower figure the concentric sculpture should be shown more strongly as "crossing the lines of growth obliquely in the middle and posteriorly," as described by Pilsbry and Lowe (1932, p. 107).

35,\#48a Add: Malletia (Neilo) cuneata (Jeffreys, 1876). Gulf of Panama, 2,950 to 3,190 m. Also Atlantic. [Knudsen, 1970]

35,\#50 Central and South Pacific (not North Pacific).
35,\#51 Depth range, 4,100 to 6,100 m. [Knudsen, 1970]
35
Correct the definition of Tindaria to read: Ligament external; shell ovate, thick; beaks high.

40,\#71 Similar to the Caribbean B. (A.) domingensis (Lamarck, 1819), fide Woodring (1973). Also in Galápagos Islands, fide Bernard (in litto). Heath (1941) studied the anatomy.

42,\#75 Also to Galápagos Islands. [Hertlein \& Grant, 1972]

| 46, 垪36 | Similar to the Caribbean species A. chemnitzii (Philippi, 1851); in subgenus Potiarca Iredale, 1939 [Woodring, 1973]. |
| :---: | :---: |
| 50,\#95 | Allocated to subgenus Tosarca Noda, 1965 [Woodring, 1973]. |
| 50, \#97 | An earlier name is Bathyarca orbiculata (Dall, 1881). Off |
|  | southern California to the Gulf of Panama in 2,030 to 2,518 m; also western Pacific and Atlantic. <br> [Knudsen, 1970] |
| 54,1ine 6 | The subgeneric name Barbatiella Lamy, 1917 (?Feb.) may have priority over Sheldonella Maury, 1917 (Apr.). |
| 54, \#104 | Read: Limopsis dalli Lamy, 1912 (Synonym: Le compressus |
|  | Dall, 1896, not Nevill, 1874). Regarded as a subspecies of L. pelagica Smith, 1885, by Knudsen (1970). |
| 55,\#111 | Also in Galápagos Islands, fide Bernard (in litt.). |
| 57 | Genus Philobrya Cooper, 1867. [Earlier validation of name.] |
| 68,\#138 | Add as synonyms: (?Lithodomus subula Reeve, 1857; ?Lithophaga plumula kelseyi Hertlein \& Strong, 1946). |
| 72,4148a | Modiolus abyssicola Knudsen, 1970. Gulf of Panama, 3,270 to $3,670 \mathrm{~m}$. |
| 74 | After no. 155, add as new paragraphs: |
|  | Genus Dacreydium Torell, 1859 |
|  | Shell minute, smooth, hinge crenate to striate; resilium internal. |
|  | Subgenus Dacrydium, s. S. |
|  | With a thickened support on anterior adductor scar. |
|  |  |
|  | Acapulco, Mexico, to Panama, 3,270 to 3,670 m. |
|  | Subgenus Quendreda Iredale, 1936 |
|  | With grooved teeth flanking resilium; no thickened support on anterior adductor scar. |
|  | 155b. Dacrydium (Quendreda) elegantulum Soot-Ryen, 1955. |
|  | Length, 2.4 to 4.5 mm . Off Redondo Beach, California, to the Galapagos Islands, in 25 to 200 m 。 |
| $75,-455$ | Range also includes Clipperton Island, south to Salinas, |
|  | Ecuador. [Salvat \& Salvat, 1972] |

75，H157 Add as synonym：（？Pinna cumingii Hanley，1858）。
75， 160 Considered a synonym of no． 157 by some authors，notably Winckworth（Proc．Malac．Soc．London，vol．18，p．296， 1929）and Fischer－Piette（1974）．

80－84 Stenzel（1971）has published a major reclassification of the Ostreacea．He would reallocate West American species oí oysters as follows（Stenzel，in litt．）：

Family OSTREIDAE
169．Ostrea（Ostrea）conchaphila Carpenter， 1857
Genus Agerostrea Vyalov， 1936
173．Agerostrea megodon（Hanley，1046）．
Genus Crassostrea Sacco，1897
170．Crassostrea corteziensis（Hertlein，1951）
Genus Lopha R8ding， 1798
167．Lopha angelica（Rochebrune，1895）
Genus Saccostrea Dollfus \＆Dautzenberg， 1920
168．Saccostrea columbiensis（Hanley，1846）
174．Saccostrea palmula（Carpenter，1857）
Genus Striostrea Vyalov， 1936
172．Striostrea iridescens（Hanley，1854）
Generic position uncertain
175．Ostrea tubulifera Dall， 1911.
Family GRYPHAEIDAE
Genus $\underset{\sim}{\text { Hyotissa }}$ Stenzel， 1971
171．Hyotissa fisheri（Dall，1914）．
Hyotissa hyotis（Linnaeus，1758），reported on Clipperton Island，is type of the genus．

84，\＃173 Add as synonyms：Ostrea gallus Valenciennes，1846；0． cerrosensis Gabb， 1806.

87，\＃181 Coan（1973a）reports inshery the Gult of Califormia． ひ，开ivia Cyclopecten yraui Knucisen，1970．Panama Bay，， 270 to ？， 670 m ．

29，\＃10，a ！yciopecten neoceanicus（Dall，190\％）．Panama Bay to the Galapagos Islands，3，270 to 3，670 m．［hnucisen，1970］

23， 7 ROl Range restricted 1,0 Galápagos Islands；not on mainlanc．

| 3 | Waller ( 9971 ) moposes tice family group name Propeamusiliae for the genus Propeanussiun. |
| :---: | :---: |
| $0 \%$ | The correct spelling ior the author of the generic name Dimya is Rouault. |
| $\because 209$ | In 1 ine 3 , read jeuador. |
| 103, 227 | Add as synonvil: (?Placunanomia alope Gray, 1849) |
| 103 | : da subranily Crassatellinae before Genus Eucrassatella. |
| 10\% | Add Suoramily Scambulinae before Genus Crassinella. |
| 109 | Cyclocardia is ranked as a separate genus by a number of modern authors. |
| 112, 251 | In 1 ine 2, insert the date 1832 after C. B. $\mathrm{I}^{\text {dams. }}$ |
| I 18 | Sbove Sumerfamily Cyrenoidea adr: |
|  | Genus Eelliella M.Sars, 1670 |
|  | Shei minute, rounded-ovate: hinge with two teeth in each valve. |
|  | 265a. Kelliella galatheae Knudsen, 1970. Off southern |
|  | Baja California, 2,950 to $3,570 \mathrm{~m}$. |
| 120,7270 | Scamon's iaooon, Baja California, and throughout the Gulf of California, to MazatIán, Mexico. |
| 120-123 | Several of these subgenera, notably Parvilucina, are con- |
|  | sidered to be of generic rank by a number of modern authors. |
| 121,\#276 | Transferred to his new subgenus Radiolucina by Britton, |
|  | 1972. He ranks Radiolucina as a subgenus of Parvilucina. |
| 123,\#283 | Read: height, 10 mm . |
| 108,7203 | In line 3 , read: (Gould, 1851). This species may prose |
|  | to ranme north to the riorthern end of the Gulf of cali- |
|  |  |
| 135,210 | Note date of this new species as 1071. langes north to |
|  | Guaynas, Sonora, Merico, in 91 m (L. Shy, coll., 1969). |
| 14, , $3^{2}$ | An erroneous early record cited the type locality as |
|  | Guaymas. |

```
    147,##47 Add as synonym: C. delesserti Chenu, 1846. The range
        is the Gulf of Calitornia to Ecuador.
149,#350 Delete the synonym.
14%,*5: (Synonym: C. digueti Rochebrune, l895) [Bernard, in litt.]
157 Americardia is ranked as a full genus by some authors.
16! Transenmella Dall, 1U84. Note also correct date for the
    sneeies P. conradina (Dal1, 18%4).
160,%39% Note date of this new species as l97l.
202,7489 The type species of Simomactra Dall, 1894; doubtfully
    to be distinguished from Mactrotoma by having a smaller
    pallial sinus.
209 In line 1 of the definition of Tellinacea, delete "never
    with a chondrophore" and substitute, "never with any in-
    verted V-shaped cardinal teeth."
211,#512 Note date of this new species as 1971.
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225.7554 Not "5/4i."
20% For the species of Florimetis, Coan (1971) recommends use
    of the generic name Leporimetis Iredale, 10%0, with rlori=
    metis Oissoa & Harbisor, 1953 as, at most, a subgenus.
234, t}580\mathrm{ The range is from the northern end of the Gulf of Cali-
    fornia south to Ecuador.
236.586 After D. conradi add: "Reeve, 1854, ex Deshayes MS, and D."
236,年587 Ns first synonym add: "Donax californicus auctt., not
    Conrad, 1837."
242,4606 A large specimen mey reach 115 mrn in length.
#L2,GOM Rande extends south to Peru. FOlsson, 19617
44 Coan (10%36) demotes Solecurtidae to subfamily rank under
    Msammobi|dar hut omphasimes fhat more study is needed.
M,#G15 Hanme: \orro imy, Califorvia, to Manolaralto, Ecuador.
```

246,\#616 Range: Humboldt Bay, California, to Baja California and throughout the Gulf of California.
[Coan, 1973c]
246, \#620 The correct date is 1862, not 1861.
248,\#621 Delete last sentence, line 5, beginning, "The figure ..."
248,\#624 Range, south to Peru. If Solen politus Wood, 1828 proves to be a Tagelus, S carpenteri Dunker, 1862 , or S . nitidissima Dunker, 1862 (not 1868) may be needed as replacement; the former has line priority but an ambiguous type locality.

248 If Semelidae proves not to be separable from Scrobiculariidae, the latter has priority. [Coan, 1973b]
$250,4628 \mathrm{Semele}$ decisa (Conrad, 1837), a Californian species, has been recorded at Cabo San Lucas, Baja California.
251. $\%$, Range: fromghout the Gulf of California and south to Peru.


255,6452 scmele rupicola Dall, 1915, a Califormian species, has been recorded at Cabo San Lucas.
$255,705 i$ Range: Isla San Luis, Gulf of California, to west Colombia. $237,054 x$ Abra californıca Knudsen, 1970. Oft southern Baja California, 3,480 to $3,518 \mathrm{~m}$.

257,7656 After "ex Carpenter," read; MS.
257,7659 Range, North end of the Gulf of California to Guaymas, Mexico.
259 Read: Genus Solen Linnaeus, 1758 ( $\operatorname{not}$ "Scopoli, 1777")
203 , 7673 This may prove to be a synonym of the Californian Sphenia Iuticola (Valenciennes, 1846).

264,45 Add as synonym: Corbula luteola rosea williamson, 1905 (not Reeve, 1844).

273 Hnder superfamily Pioladacea add: See Turner in Moore, Jur, for a more extensive discussion of morphology.

| :is, next | to last linc：Read，＂necessarily powerful foot muscles used in boring activity．＂ |
| :---: | :---: |
| 204, line | 3 Read，＂shell has reached adult size and boring activity has ceaser．＂ |
| 275 | Under definition of Pholadinae，delete the word＂plates．＂ |
| 275 | Under Genus Barnea，add Subgenus Anchomasa Leach， 1852.「Kennedy，19747 |
| 275，701 | Add as synonym：Pholas spathulata Deshayes，1843．A similar species in the Atlantic is B．truncata（Say， 1822）． <br> ［Kennedy，1974］ |
| 276 | Kennedy（1974）regards Pholadopsis as a full genus． |
| 276，704 | Range，Cedros Island，Baja California，through the Gulf of California and south to Peru <br> ［Kennedy，1974］ |
| 278，\＃707 | Also Galápagos Islands，fide Bernard（in litt．）． |
| 278，苼711 | This may prove not distinguishable from \＃7 |
| 280 | For Subfamily Xylophaginae，read：Xrlophagainae emendfi， Tuiner in Moore， 1060 ，to avoid homonvmy？ |
| $280, \because-150$ | Vlonhaga globosa Sowerby，1035，has recently been reported as ranging from Panama to Chile． <br> 「Turner， 10717 |
| $280, \% 15$ | Ranre：Soithern California to Acanulco． |
| 282 | Before Genus Psiloteredo add： |
|  | Genus Lyrodus bould in Gould and Binney， 1870 |
|  | ＂： $\mathrm{l}_{\text {cts }}$ with a hrown，easily－shed periostracal cap． |
| 282．732a | Lyrodus bipartitus JJefreys，1860）．Gulf of lanama， ，2． 0 to in 70 m ．［Antasen，1970］ |
|  | ```A Detter *inure o: the pallets is given by furner (l906), plate t?.``` |
| $\because 6 I_{5}$ | Under Mausitora，ine first sentence of the definition should read，＂Pailets elongate，with ciosely packed， usea cones．＂ |

284，\＃730 In line 3，read：＂The shell is grayish white，often stained with reddish brown from boring in mangrove wood．＂ ［Turner，in litt．］．

284,4731 Delete the synonym and the last sentence of the paragraph． ［Turner，in $1 i t t$.$] ．$

Turner（in litt．）has confirmed the occurrence of Bankia （Neobankia）destructa Clench \＆Turner，1946，and Noto－ teredo knoxi（Bartsch，1917）in Panama Bay．

Knudsen（1970）regards Cetoconcha as a full genus，dis－ tinguished by lacking a hinge tooth and by having three pairs of septal openings，but Bernard（1974）continues it as a subgenus．

298，\＃767 Knudsen（1970）transfers this species to genus Poromya， but Bernard（1974）retains it in subgenus Cetoconcha． Range，Gulf of California to Ecuador in 3,073 to $3,518 \mathrm{~m}$ ．

293，\＃769 Range，Acapulco，Mexico，to Patagonia in 302 to $3,439 \mathrm{~m}$ ． ［Bernard，1974］

300 ，荘 772 Cu Cuspidaria haasi Knudsen，1970．Off Central America in $3,570 \mathrm{~m}$ ．［Knucisen，1970］

300，\＃7－4a Cuspidaria parieri Knudsen，1970．Off tie Guli of Cali－ Cornia， $2,7,0$ to 2，81\％n．Knudsen，1970？
s00，\＃779 Range，Gulf of California to Ecuador，in 55 to 146 m ． ［Bernard，1974］

302，＊＂アラja Myonera mexicana Krudsen，1970．Off West Mexico，in 3,529 to $3,557 \mathrm{~m} . \quad(=\mathrm{M}$ ．garretii Dall， 1908 ，ride Bernard， 1974）。

302，\＃－ 766 Bernard（1974）regards Plectodon Carpenter，1864，as a subgenus of Leiomya A．Adams， 1864.

302
Beriara（19，＇4）allocates the three species listeci as Verticordia，S．S．，to Trigonuiina Orisigny，1540，w：rich ise reydicis as a goon subgenus distinguished by lateral com－ pression of tiae sireil．

302, \#737 Ranges also to tine Galápagos Islands in 137 m . [Bernard, 1974]

303, aiter no. 792, adid:
Genus Pol ic $\underset{\sim}{c} \underset{\sim}{r} d i \underset{\sim}{a}$ Dall, Bartsch, \& Rehder, 1938 Shell ovate, with fine radial ribs; edentulous; liganent in a groove. (Synonymized with Lyonsiella by Bernard, 1974). 792a. Policordia alaskana (Dall, 1895). Alaska to West Mexico, in depths to $3,570 \mathrm{~m}$.

## GASTROPODA

329 Before Superfamily Trochacea, add:
Genus Pectinodonta Dall, 1882
Shell conic, with a sunken scar at apex and indistinct muscle scars within, surface with irregular concentric ribs and weal radials; radula lacking central teeth.
 mm. Guli of Panama, 3,193 to 3,200 m. [Olsson, 1971]

332, 泥't Acici as synonym: Turcica panamensis Olsson, 1971.
 diameter, 15 man Guifor Panama, in 59 to 77 m . [01sson, 1971]

334,\#85 Add as synonym: Calliostoma joanneae 01sson, 1971. Range to Gulf of Panama and Ecuador, in depths to $5 \%$ m. Delete last line, referring to color plate. [McLean, in litt.]

335,\#87 Bathymetric range, 53 to 128 m .
335,\#33 Add at end: "See Color Plate XIII."
335, \#03a
Calliostoma pir~~~~~~~~~~~~~~~~~~ Olsson, 1971. Heigint, 17 mm diameter, 19 mm . Perlas Islands, Panama Bay, in 57 to 64 m . [Olsson, 19717

335 , kanges souti: to Panama Bay.
325, Adi as syionym: Calliostoma decipiens Olsson, 1971. Babivnetive range, 59 to 100 m .

34, 123 In last line of paragrapin, readi lurida.

350,\#143 Depth range extended upward to 273 m . [Olsson, 1971] 360,\#162 Add parentheses on author's name: (Miller, 1879).

361,\#175 According to Olsson (1971) this may prove to belong in Pectinodonta; if so, it would follow \#6la on page 329.

363,\#176 Type of Bathy $\underset{\sim}{p e d} \underset{\sim}{t a}$ Moskalev, 1971. Habitat: abyssal, on squid beaks.

365,\#181 The Caribvean species Littorina ziczac (Gmelin, 1791) is recorded by Bequaert (Johnsonia, no. 7, 1943) as established in the Paciric near Panama City; he suggests transport through the Panasia Canal.

366,\#182 South to Peru. [Peña, 1970]
$3 i,{ }^{2} 180$ Southward to Ecuador and Peru.
[Peña, 1970]

California to Cabo San Lucas. [Baler, Hanna, \& Strong, 1930]
 fornia to tie Gulf of California. [Baker, Hanna, \& Strong, 19307
$37, \# 230$ The type was also figured by Bartsch (1920a).
374, \#260 Lover case on species name: Rissoina inca.
375, \#277 An epitoniid: see no. 667, page 436. Delete. [DuShane, 1974]
375,\#282 An epitoniid; an earlier specific name for no. 681, page 440 .
[DuShane, 1974]
370, \#204 Add as synonym: Truncatella stimpsoni stearns, 1872. Kanye, fide Nichean (ISCr), Santa Barbara, California, to Maydalena Bay, Baja California.

37 Robertson (1973) has shown that the Cyciostremellidae siould de transierred to Pyramidellacea (see page 792).

301,432 Note date of the new species as 19:1.
 Strong, 1030. [Deiphinoidea]. Cabo Saii Lucas.

385, 4390 Note correct date: Pilsbry \& Olsson, 1952 (not 1945). 385,\#391 Note correct date: Pilsbry \& Olsson, 1952 (not 1945). 386, \%416 Delete (see under no. 418, below). 386, "416a Add as new entry: Teinostoma myrae Pilsbry \& Olsson, 1952. Bucaru, Panama.

386,\#418 Adid the present no. 416 as synonym. McLean (1969), as first reviser has selected no. 418 as the senior synonym. Probably not Panamic; early records of both in the Gulf of California have not been confirmed.

386, \#419 Read: Ant 1952. Puerto Peñasco, Sonora, to La Paz, Baja California. 386, H19a Read: A. (S.) willetti Hertlein \& Strong, 1951. Costa Rica. 388 Delete lines 2 to 4 , "?Family Choristidae."

388, \#142 Transfer Choristes to Naticacea, page 480 .
396, \#44.7 Trawled near Kino Bay, Sonora, Mexico. 「Skoglund, in litt.?
300,408 Delete present entry (duplicates $\% 456$ ) and substitute: M. İmetes Long, 1972 . Sonora coast, in brachisiomarshes.

400,4200 Range: soutinwari to Peru. [Feña, 1970]

$\underset{\sim}{C e r i t i j u m ~(P s e u c o v e r t a g u s) ~ c i a v a ~(G i n e l i n, ~ 1791) ~ i s ~ a n ~}$ Indo-Pacific species reported in the Galapagos Islands. [Salvat, 1967]

409, \#507 Range includes tio Gaípagos Islands. Bratcher (1973) inas reported egg masses as looking like white dots on a thread.

409,\#510 Adi to synonymy: Cerithium nebulosum Sowerby, 1855 (not Pinilippi, 10j1), umecessary new name, with an erroneous locality citation of Galápagos Islands.

411,\#j17 Note date of tiee new species as 1971.
412, \#522a Adi: Cerithiopsis cassi Baker, Hanna, \& Strong, 1938. Cabo San Lucas.

413, \#55la ddd: Bittium santamariensis Bartsch, 1917. Bahía Santa Maria, Baja California.

414，＂564＂Read：565．The species figured is A．excurvata．
415，\＃554 Insert parentheses：（Carpenter，1865）．
415，\＃555 Range：Monterey，California，to Panama．Mclean（1969） regards the two species of Metaxia as synonymous．

415，\％ 556 Synonym of no．555，fide McLean（1969）．
415，\＃557a Seila kanoni（DeFolin，1867）is cited as a separate species by DuShane \＆Draper（1975）．Tepoca Bay，Sonora，Mexico，to Salinas，Ecuador；offshore to 27 m 。

415，\＃557b $\underset{\sim}{\text { Seila }} \underset{\sim}{\text { pu }} \underset{\sim}{p u r m o e n s i s ~}$ DuShane \＆Draper，1975．Head of the Gulf of California to Banderas Bay，Mexico；also Panama Bay． Intertidally and offshore to 30 m ．

415，\＃563 Delete and transfer to page 440 as no．681y．
416 Triphorinae should be accorded family status：Triphoridae． 419，\＃602－4604．Range south to Peru．
［Peña，1970］
421 Revised definition of Superfamily Epitoniacea：Small to medium－sized，slender to globose，whorls numerous；mostly axially ribbed．

421 DuShane（1074）has published a major revision of West Amer－ ican Epitoniidae．Her recommended changes are summarized and range extensions noted here，with a list of the species in the genera and subgenera，at the end of each section．

424,2611 Intertidally and to depths of 30 m 。
224，做12 In depths of 2 to 14 m 。
$422^{2}$ ， 513 Intertidally and to deptis of 10 m 。
424，湖14 Delete（＝no．617）。
424，M6I5 To Isla Espirito Santo，Gulf of California。
424， 615 a Ad present no． 648 as new entry：Epitonium（Asperiscala） elenense，with no 628 as synonym．Range：Gulf of Cali－ fornia to fanana．Intertidal．

42\％，\＃16 Intertidally and to depths of 72 m ．
424，\＃617 Add as synonym no．61＇．Depths， 7 to 42 m 。
$425, G 10$ Epitoniun（Asperiscala）gradatum（Sowerby，1844）（Synonym： E．gaylordianum Lowe，1932）．Panama to Ecuador，inter－ tikally to 19 m 。

426,\#619 Intertidally and in depths to 12 m .
426,\#622 Transfer to page 434, as synonym under no. 663x.
426,\#623 Author's name should be in parentheses: (Dall, 1906). Range includes (though rarely) Guif of California and Panama; depths, 72 to 108 m .

426,\#624 To Escondido Bay, Baja California, depths 27 to 45 m .
426,\#625 Correct spelling of specific name: minuticosta [not minuticostatum" of authors]. Cedros Island, Baja California, and south through the Gulf of California to Ecuador and the Galápagos Islands, in 18 to 137 m .

426,\#625a Add as new entry present no. 653, as Epitonium (Asperiscala) obtusum, with no. 656 as synonym; omit Scalaria suprastriata, which remains in subgenus Nitidiscala. Intertidally and to depths of 11 m .

426,\#626 Correct spelling of specific name and date: regulare (Carpenter, 1856). Positively known only in Panama; no modern records.

428,\#628 Synonym of new no. 615a.
428,\#629 Intertidally to 6 m .
428,\#631 Intertidally to 23 m .
Species of the subgenus Asperiscala: acapulcanum; billeeanum; canna; cookeanum; elenense; emydonesus; eutaenium; gradatum; habeli; huffmani; indistinctum; lowei; macleani; minuti= costa; obtusum; regulare; rhytidum; tinctorium; venado; walkerianum; zeteki.

428 Cirsotrema is regarded as a genus by DuShane (1974).
428,\#633 C. togatum (Hertlein \& Strong, 1951). Depths 32 to 113 m .
428,\#634 In depths of 9 to 54 m .
Species of the genus Cirsotrema: togatum; vulpinum.

| 428，\＃635 | In depths of 9 to 27 m ． |
| :---: | :---: |
| 430，\＃636 | Magdalena Bay to Nicaragua；intertidally（rarely）， commoner offshore in depths to 9 m ． |
| 430，\＃637 | In depths of 5 to 25 m ． |
| Species of | Epitonium（Hirtoscala）：mitraeforme；reflexum；replicatum． |
| 430，\＃638 | Transfer to subgenus Depressiscala，page 434，as no．663x， with no． 622 as synonym． |
| 430，7639 | $=$ no．652． |
| 430，\＃640 | Gulf of California［probably not southern California，as stated by Dall］．Intertidally to 18 m ． |
| 430， $7640 a$ | Epitonium（Nitidiscala）basicum，now as a synonym under no．662．＂Gulf of California＂［no modern records；perhaps not an Eastern Pacific species］． |
| 430，\＃642 | ＝no． 645 ． |
| 430，林 6 | Depth，＂about 54 m .0 |
| 430，\＃644 | ＝no． 652. |
| 430，\＃645 | Add no． 642 as synonym．Range，south to Galápagos Islands， intertidally and to 18 m ． |
| 432，\＃646 | ＂Central America＂to Panama． |
| 432，新647 | In depths of 9 to 27 m ． |
| 432，4648 | Transfer to subgenus Asperiscala，as no．615a；synonym，no． 628 |
| 432，葹649 | Transfer to subgenus Asperiscala，as no．618，with E．（？A．） |
| 432，\＃ | gaylordianum as synonym． |
| 432，\＃650 | In line 3 read，＂Resembling E．（A．）habeli Dall， 1917 ．．＂ Range，south to Peru，in depths of 26 to 200 m ． |
| 432，\＃652 | Add as synonyms nos． 644 and 654．Range，Punta Abreojos， Baja California，to Peru，in 11 to 198 m ． |
| 432，\＃653 | Transfer to subgenus Asperiscala as no．625a，except synonym Scalaria suprastriata，which becomes no．659a． |

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432,#654 = no. 652.
432,#655 In depths of 11 to 393 m.
434,4656 Transfer to Asperiscala, no. 625a, as a synonym
434,#657 Gulf of California to Manzanillo, Mexico; in 20 to 25 m.
434,#657a Add as a new species; E. (Nitidiscala) skoglundae
    DuShane, 1974, p. 72. Panama.
434,#658 Add as synonym: E. Strongi Lowe, 1932, not Bartsch, 1928;
    intertidally and to 36 m.
434,#659 = no.618.
434,#659a Add E. (N.) suprastriatum (Carpenter, 1857), now a syno-
    nym under no. 653. Southern part of the Gulf of California
    to Mazatlán, Mexico; intertidally to 12 m.
434,#660 Depth, "112 m." [sole record].
434,#661 Ranges south to Ecuador, in 14 to 36 m.
434,#662 Delete: not a member of Panamic province fauna [DuShane,
    in litt.]
Species of subgenus Epitonium (Nitidiscala): barbarinum; basicum;
    callipeplum; columnella; cumingi; curvilineatum; durham-
    ianum; hancocki; hexagonum; hindsii; politum; shyorum;
    skoglundae; statuminatum; suprastriatum; tabogense; willetti.
434 Subgenus Depressiscala De Boury, 1909 (Symonym: Pictoscala
    Da11, 1917).
434,#663x Add: Epitonium (Depressiscala) aciculinum, now no. 638, with
    no. 622 as a synonym. Outer coast of Baja California to
    "Central America," in 9 to 54 m.
\(434, \# 663\) E. (Depressiscala) purpuratum. Panama to northern Peru. Species of subgenus Depressiscala: aciculinum; purpuratum.
434 Correct date of subgenus Sthenorytis: Conrad, 1862.
434,#664 Add as synonym: S. hertleini Olsson, 1964 [Neogene].
    Ranges southward to Ecuador, in 65 to 146 m.
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436，\＃665 Range：Through the Gulf of California，from Cabo San Lucas，southward to Ecuador and the Galápagos Islands， in 110 to 550 m ．

Species of Epitonium（Sthenorytis）：dianae；turbinum．
436，\＃666 Cabo San Lucas，Baja California，to Cerralvo I．，Gulf of California in 7 to 38 m ．

436，\＃667 Add as synonym no．277，Rissoina berryi Baker，Hanna，\＆ Strong，1930．

436，\＃668 Depth， 54 m 。
Species of genus Acirsa：cerralvoensis；menesthoides；murrha．
436，7670 South only to Costa Rica；in 9 to 72 m ．
434,3671 In depths of 36 to 162 m 。
438，\＃672 Ranges south to Peru，in depths of 36 to $1,333 \mathrm{~m}$ ．
$438, \# 573$ Cabo San Lucas，Baja California，to the Galápagos Islands， in depths to $1,435 \mathrm{~m}$ 。

Species of the genus Amaea：brunneopicta；deroyae；ferminiana； pompholyx；tehuanarum；contexta．

438 Replace definition of subgenus Opalia，s．s．with：No Panamic province species seem to qualify as members of the subgenus Opalia，s．
438，在676 Transfer to Dentiscala as no．679a．
438， 677 Transfer to Nodiscala as no．681a．
440， 4673 Range：Cabo San Lucas，Baja California，to the Galápagos Islands，in depths of 2 to 7 m ．

440，\＃679 Galápagos Islands to Peru，intertidally．
440， 4679 Add present no． 676 as Opalia（Dentiscala）exopleura． Range：Cabo San Lucas，Baja California，to Manzanillo， Mexico．
440， 680 Remove＂？Scala gereti＂from synonymy of 0 ．funiculata． CDuShane（107k）regards it as distinct but not positively identifiable with any Eastern Pacific species．Her final entry in the synonymy of 0 ．diadema on page 59 seems to belong under 0 ．funiculata on page 61，instead．］
 ＂Acapulco，Mexico．＂［Possibly not West American．］

440，\＃680b Transfer the present no． 684 as Opalia（Dentiscala） mexicana Dall，1908．Santa Cruz，Nayarit，to Guerrero， Mexico．
$440,7680 \mathrm{c}$ Add as a new species：Opalia（Dentiscala）paulula DuShane， 1974．Jalisco，Mexico，depth 11 m.

Species of Opalia（Dentiscala）；crenatoides；diadema；exopleura； funiculata；gereti；mexicana；paulula．

440，欮61x Transfer present no． 677 as Opalia（Nodiscala）colimana． Offshore，in depths of 22 to 55 m ．

440，\＃681y Add：Opalia（Nodiscala）crystallina from page 415，no． 563，with no． 682 as synonym．Gulf of California to Chiapas，Mexico；intertidally and to 36 m ．

440， 7681 Earliest name for this unit is Opalia（Nodiscala）infrequens （C．B．Adams，1852），now listed on page 375 as no． 282. Synonyms：Opalia bullata Carpenter， 1864 （not Scala bullata Sowerby，1844）；Scalaria crosseana Tapparone－Canefri，1876； O．mazatlanica Dall，1908；O．tremperi Bartsch，1927；O． ordenanum Lowe，1932．Southern California to Panama，inter－ tidally and offshore to 36 m ．

4．40，活682＝no．681y．
$440, \# 683=$ no． 681 ．
$440, \# 684=n o .680 \mathrm{~b}$ ．
$440,7^{\prime \prime} 685$ Range：Gulf of California to Panama；intertidally，to 36 m 。
$442, \# 686$ In depths of 18 to 72 m ．
Species of Opalia（Nodiscala）：colimana；crystallina；infrequens； sanjuanensis；spongiosa．

443，\＃691 Also recorded in the Caribbean．
［Woodring，1970］
446，\＃718 Correct date：1924．

453, \#766 Also recorded (as H. antiquata) from Galápagos Islands
(Hertlein \& Strong, 1955).

454, H784a Add Macromphalina carinata (Pilsbry \& 01sson, 1945) [Chonebasis]. Ecuador.

454,\#787a Add M, foliniana (Pilsbry \& Olsson, 1945) [Chonebasis]. Colombia.

456,\#804 Add: Also West Africa. (Vokes, 1975).
458, \#807a Add Cheilea uncinata (Reeve, 1858). A Caribbean form reported at Masachapa, western Nicaragua, by E. Vokes (1975).

461,\#816 Ranges south to Peru. [Peña, 1970]
461,\#820 Add parentheses and correct date: (Gould, 1846).
463, \#824 Perhaps restricted to Panama; Mexican records now are regarded as questionable.

463, if826 Add synonyms: C. piliferum Guppy, 1867, and C. arculatum Sowerby, 1883 (Caribbean, extinct there). [Woodring, 1973]

467,\#834 West American provenance confirmed by J. McLean, who collected it in Costa Rica in March, 1974.

470,\#854 California to Gulf of Califormia.
[Seapy, in litt.]
With the cooperation of Louie Marincovich the following notes on
his doctoral thesis (now in press) are made available here:

In the Family Naticidae, three subfamilies are recognized:
Naticinae: Natica
Siminae: Sinum, Eunaticina
Polinicinae: Polinices, Choristes, Neverita
Subgeneric assignments under Natica:
(Natica, s.s.): nos. 864a, 867
(Glyphepithema Rehder, 1943): no. 864
(Naticarius Duméril, 1806): nos. 859-863, 865-866, 868.
473,\#859 Depth range, 37 to 292 m .
473, \#860 Cabo San lucas and Mazatlán, Mexico, to Paita, Peru, in depths of 118 to 133 m .

473，\＃861 Add as synonyms：Natica undata Philippi，1852；N．maroc－ cana californica Carpenter，1857．Intertidally and off－ shore to 18 m 。

475，\＃862 Cedros Island，throughout the Gulf of California，and south to Gulf of Nicoya，Costa Rica，in 32 to 130 m ．

475 ，\＃863 South to Paita，Peru，in 2 to 58 m. ，mostly in 5 to 15 m ．
475，\＃864 Bahia San Quintin，through the southern Gulf of California to Puerto Utria，Colombia and the Galapagos Islands，in 18 to 35 m 。

475，\＃864a Depths， 117 to 119 m 。
475，\＃865 Isla San Benito，Baja California，throughout the Gulf of California and south to Bahía Santa Elena and the Galá－ pagos Islands，Ecuador；in 4 to 265 m ．

475，\＃866 La Paz，Baja California，to Islas Lobos de Tierra，Peru， in 37 to 281 m ．Large specimens may be 24 mm in height．

475，\＃867 Depths， 35 to 90 m ．
475，\＃868 La Unión，El Salvador，to Gulf of Guayaquil，Ecuador． The range may prove to extend from the Gulf of Tehuantepec， Mexico，to the Galápagos Islands and Peru．
$477, \not \# 869$ N．（Lunaia）－－accepted as a subgenus by Marincovich．Range， Estero Tastiota，Sonora，Mexico，to Paita，Peru；in 13 to 46 m 。

477，\＃870 N．（Stigmaulax）－－accepted as a subgenus by Marincovich． Add as synonym：N．taslei Récluz，1853．Range：Cabo San Lucas and through the Gulf of California south to Manglar Alto，Ecuador（possibly north to Cedros Island and south to Lobitos，Peru），in 2 to 70 m depth．

477，\＃871 Also in N．（Stigmaulax）fide Marincovich．Add as synonyms： M．haneti Récluz，1850；N．sulculosa Philippi，1851．Range， south to the Galápagos Islands，in 15 to 70 m depth．
477，\＃872 Eunaticina insculp $\underset{\sim}{\text { Enc }} \underset{\sim}{\text { ins }}$（Carpenter，1865），an overlooked name， takes priority over E．heimi，fide Marincovich；it was named as a Narica［＝Vanikoro］，type locality，Acapulco．Southern end，Gulf of California，to Corinto，Nicaragua，and the Galápagos Islands，Ecuador，in depths to 22 m 。

Subgenera recognized by Marincovich for species of Polinices:
(Polinices, S. So): nos. 873, 877, 879-882
(Hypterita Woodring, 1957): no. 876
(Mammilla Schumacher, 1817): no. 874
(Euspira Agassiz in Sowerby, 1838): nos. 884-887
478,\#873 Delete: "See Color Plate XIV." Bahía Magdalena, Baja CaliCorniag and the Gulf of California, south to Panama Bay; mainly intertidally but also in depths to 60 m .

478, 4874 Add as synonym: P. crickmayi Palmer \& Hertlein, 1936 [Pleistocene]. Cabo San Lucas and the southern end of the Gulf of California to Paita, Peru, and the Galápagos Islands; in 45 to 65 m .
$478,4875=$ no. 879 .
478,\#876 Southern range only to Paita, Peru; in 9 to 46 m .
478,\#877 Add as synonym: Natica rapulum Reeve, 1855. Range, south to Bahía Independencia, Peru, and the Galápagos Islands, in 9 to 160 m 。

478,\#878 Delete. [A Miocene, not a Recent form, fide Marincovich.]
478,\#879 Add as synonyms: Natica galapagosa Récluz, 1844; N. unimaculosa Reeve, 1855, ex Carpenter MS. Correct date for N. Salongonensis: Récluz, 1843. Range, south to Santa Elena, Ecuador but not the Galápagos Islands; in 20 to 297 m 。

478,\#880 Transfer symonym to no. 881. Range, Cedros Island and throughout the Gulf of California to Bahia Independencia, Peru; intertidally and offshore to 139 m .

480, \#881 Transfer from no. 880: Polinices (Polinices) amiculatus (Philippi, 1849). Synonym: Natica ravida Souleyet, 1852. Santa Elena, Ecuador, to Isla Lobos de Tierra, Peru.

480,\#882 In line 7, comma (not semicolon) after (Orbigny, 1842). Line 8 , for P . limi and P . unimaculatus, read: P. panamaensis. Cedros Island, Baja California, southward and throughout the Gulf of California, to Paita, Peru, and the Galápagos Islands: intertidally and offshore to 100 m .
$480, \# 883=$ no. 879 .
480 Under Polinices, s.1., 1ine 2, the correct date and authorship is Euspira Agassiz in Sowerby, 1838. Marincovich regards it as the appropriate subgenus for the group.

480,\#884 Height, 26; diameter, 24 mm . Aguja, Peru, in 980 m . The Panama Bay deep-water record is questionable.

480,\#885 Height, 15; diameter, 13.5 mm . Ranges also to the Galapagos Islands in 1,000 to $1,895 \mathrm{~m}$.

430,\#886 Height, 9; diameter, 8.5 mm .
480, $7 \neq 887$ Height, 13; diameter, 14 mm .
480 Before "Subgenus Neverita" add a generic unit from page 388, lines 2 to 9, as follows: Delete line 2, "?Family, Choristidae." Combine definitions in lines 3 to 4 and 6 to 7 , so entry reads:

Genus Choristes Carpenter in Dawson, 1872
Shell thin, small to medium-sized, inflated, smooth, spire somewhat tabulate, slightly elevated, base umbilicate; operculum paucispiral, concave, its nucleus central.
480,\#887a Choristes carpenteri Dall, 1896. Height, 20; diameter, 20 mm . Range: off Oregon to Panama Bay, 2,700 to $3,440 \mathrm{~m}$. Previously listed, on page 388, as no. 424.

480, last paragraph. Marincovich regards Neverita as a full genus, with Glossaulax Pilsbry, 1929 a subgenus, distinguished by having a furrow on the umbilical callus.

482,\#888 Revised allocation and spelling of specific name: Neverita (Glossaulax) reclusiana. Deshayes' original spelling of the name was with an "s," not a "z," and should be main= tained, although many authors have emended it. Add as synonyms: Neverita callosa Gabb, 1866; Polinices recluziana alta Arnold, 1903, ex Dall MS; N. r. imperforata Dall, 1909, ex Stearns MS. Northern California, south through the Gulf of California to the Tres Marias Islands; intertidally and offshore to 50 m . Add as last line of entry: See Color Plate XIV, fig. 4.

482, 茫889
$482, \# 890$
$482, \# 891$
$482, \# 890$
$482, \# 891$

482,4892

482,\#893

487, \%908
497,4936
Allocated to his new gerus Delonovula by cate (1973), with an unjustified change of type locality. His suggested symonymy also is open to question.

497,\#937 Allocated to the genus Neosimnia by Cate (1973), with the type locality unjustifiably revised, from "Panama" to Guaymas Mexico.

497, \#938 Allocated to his new genus Simnialena by cate (1973).
497 H939 Allocated to bis new genus Simnialena by Cate (1973).
499, \#942 The Iiving animal, observed by E. V. Coan at Puerto Vallarta, Mexico, in January, 1973, is black.

500

501
Add as synonyms: Sigaretus maximus Philippi, 1844; Sigaretus cymba alba Weinkauff, 1883. Range, Manta, Ecuador and the Galapagos Islands south to Caldera, Chile , in 24 to 100 m .

La Paz, Gulf of California, to Panama; intertidally and to depths of 73 m .

In line 5, the specific name should not be capitalized: Sinum cymba. Range, south to Lambayeque, Peru; in 25 to 160 m 。

Range, Isla San Benito, Baja California, to Isla Gorgona, Colombia; intertidally and to depths of 89 .

Range, Isla San Benito, Baja California south to northern peru; depths 18 to 165 m .

Range, south to peru.
[Peña, 1970]

497 , \# 937

The International Commission on Zoological Nomenclature in Opinion 1023 (1974) alters the spelling of the family group name based on Cassis to Cassidae, because of the prior use of Cassididae for another group of animals.

Add before "Genus Casmaria" the following generic unit: Genus Bathygalea Woodring \& Olsson, 1957
Large, thinoshelled; whorls shouldered; terminal varix present; outer lip reflexed, almost smooth; parietal callus and shield thin; spiral sculpture weak.

501,\#948a Bathygalea pilsbryi Woodring \& Olsson, 1957. Galápagos Islands. Although found on a beach, the specimen had probably lived in deep water, 200 m or more.

501,\#949 A new northern record: Isla San Pedro Nolasco, Sonora, Mexico, collected in 1974 by A. Kerstich.

505,\#954 Note that the date of the new species is 1971.
507,\#961 Collection of record-sized specimens in the northern end of the Gulf of California seems to negate separation of C. adairense even subspecifically.

508, ${ }^{7} 962$ Read: Mancora, Peru [not "Ecuador"].
508,\#964 A similar species in the Atlantic is B. corrugata (Perry, 1810), which some authors (e.g., D'Asaro, 1969, following Abbott, 1954) would synonymize with this, although there are color differences, the Pacific form running to darker brown.

509,\#969 Lives in association with coral. [Bratcher, 1973]
512, 9 th line from bottom of page: for "mostly" read: "often."
513, lines 22 and 23: Further publications by Vokes (1971a; 1971b; 1975) and by Radwin and D'Attilio (1971; 1972) have indeed shown that more readjustments of the classification are needed. The proposal of a new subfamily by Radwin and
 The skeletal outline given below is followed by any needed commentaries on species. New name combinations are cited, but indication of the resultant new sequence by use of intercalated new numbers not only would require undue space here but would add more confusion than clarity.

Subfamily Muricinae
"Clan 1 " of Vokes, 1971
Murex, s. S.: nos 975-978
Hexaplex: nos. 979-981
Muricanthus: nos. 999-1003
Phyllonotus: no. 982
"Clan 2 " of Vokes, 1971 (Aspellinae Keen, 1971, in part)

Aspel1a: nos. 1012-1013
Calotrophon, s. s.: no. 1023
Calotrophon (Attiliosa): no. 1021
Dermomurex, s. s.: nos. 1014, 1016
Dermomurex (Gracilimurex): no. 1017
Dermomurex (Takia): no. 1015
Dermomurex (Trialatella): no. 1019
Paziella: no. 1008
Pterynotus (Purpure1lus): nos. 1010, 1011

Subfamily Muricopsinae Radwin \& D'Attilio (1971)
Muricopsis: nos. 1004-1007
Bizetiella: nos. 1020, 1020a, 1020b
Evokegia: nos. 1092, 1022
Favartia: nos. 1027-1029
Homalocantha: nos. 983-984
Maxwellia: no. 1018
Murexiella: nos. 985-998
Vitularia: no. 1040
Subfamily Ocenebrinae
Ocenebra, s. 3.: Possibly nos. 1036, 1039 Ceratostoma: nos. 1032-1035
?Eupleura: nos. 1024-1026 [may require a new subfamily]
Pteropurpura, s. s.: 1036
Pteropurpura (Calcitrapessa): 1009
Pteropurpura (Centrifuga): nos. 1037-1038
Pterorytis: no. 1039
Trachypoliia: no. 1093
Xanthochorus: nos. 1097, 1031
Subfamily uncertain
Phyllocoma: no. 1030

516,\#980 Correct spelling 3d line from end: Fay [not Faye].
51?, 408 Range, north to Guarmas, Mexico, depth 7 m .
521, \#995 Radula figured by Radwin \& D'Attilio (1971).
521, \#998 Transfer to Murexiella as M. jacquelinae (Emerson \& D'Attilio, 1969). Delete citation and description of Genus Murexsul.

525,\#1007 Radula figured by Radwin \& D'Attilio (1971).
525 In the definition of Pterynotus (which remains in Muricinae) for "Two Panamic subgenera" read: One Panamic subgenus.

525
Transfer subgenus Calcitrapessa to Ocenebrinae as subgenus of Pteropurpura. In the second line of the definition, for "apical (basal) nucleus" read: sublateral nucleus.

525,\#1009 Transfer to page 534 as Pteropurpura (Calcitrapessa) leeana (Dall, 1890). In line 2 , for "muricine" read: muricid.

526-529 On the basis of the radula, the subfamily grouping Aspellinae has been rejected both by Vokes and by Radwin \& D'Attilio; in keying out groups on the basis of shell characters, however, it does bring together muricine genera with shells lacking spines or scales, in which varices are irregular or poorly developed. Vokes (1975) accords generic status to Dermomurex, citing four Panamic subgenera.

527,\#1014 Dermomurex (Dermomurex) indentatus (Carpenter, 1857). A similar species in the Atlantic is D. engonatus (Dall, 1892).

527,\#1015 [See below].
527,\#1016 Dermomurex (Dermomurex) obeliscus (A. Adams, 1853). A similar species in the Atlantic is $D$. pauperculus ( $C . B$. Adams, 1850).

529, \#1017 Dermomurex (Gracilimurex) bakeri (Hertlein \& Strong, 1951). 529,\#1018 Maxwellia is raised to generic rank and transferred to the Muricopsinae by Radwin \& D'Attilio (1971). Note the correct spelling of M . angermeyerae (Emerson \& D'Attilio, 1965) [not angermayerae].

Add as a new subgenus: Takia Kuroda, 1953 Varices usually 6 (rarely 3 in last whorl), rounded, cord-like.

529 [1015] Dermomurex (Takia) myrakeenae (Emerson \& D'Attilio, 1970), from page 527.

529,\#1019 Dermomurex (Trialatella) cunninghamae (Berry, 1964). Vokes (1975) has recognized a similar species in the Atlantic -D. (T.) abyssicola (Crosse, 1863). Attiliosa now becomes a subgenus under Calotrophon, page 530.

529, \#1020 Transfer to Muricopsinae as Bizetiella carmen [see below]. 529,\#1021 Transfer to Calotrophon as C. (Attiliosa) incomptus [see below].

530,\#1022 Transfer to Muricopsinae as Evokesia rufonotata [see below].
530 Add at end of definition of Calotrophon: Two Pacific subgenera. Before no. 1023 insert:

Subgenus Calotrophon, s. s.
Whorls somewhat inflated, suture indented; lirations of outer lip well spaced, weak, inner lip rounded.

530,\#1023 Calotrophon (Calotrophon) turritus (Dall, 1919).
530 Insert, following no. 1023:
Subgenus Attiliosa Emerson, 1968
Small to medium-sized ... etc., from page 529.
530 [1021] Calotrophon (Attiliosa) incomptus (Berry, 1960), from page 529.
$530, \# 1024$ to 1026 Transfer to Ocenebrinae, but with the reservation that eventually the group will merit status as a separate subfamily.

532 Transfer Phyllocoma to "Subfamily uncertain," following no. 1058.

532 Before Ocenebrinae insert:
Subfamily Muricopsinae Radwin \& D'Attilio, 1971 Shells small to medium-sized; radula resembling that in the Ocenebrinae but with broader central cusps and few or no denticles on rachidian tooth, which is projecting and fang-like.
[Note that the following groups are assigned here by Radwin and D'Attilio: Bizetiella [see below]; Evokesia [see below]; Favartia, from page 532; Homalocantha, from 517; Maxwellia, from 529; Muricopsis, from 523; Murexiella, from 517; and Vitularia, from 536.]

Genus Bizetiella Radwin \& D'Attilio, 1972 Biconic, whorls with one principal blunt carina; anterior canal distinct, open.

532 [1020] Bizetiella carmen (Lowe, 1935), from page 529. Type species.

532，\＃1030a Bizetiella micaela Radwin \＆D＇Attilio，1972．Jalisco， Mexico，in 3 to 10 m ．

532，报1030b Bizetiella shaskyi Radwin \＆D＇Attilio，1972．Cabo Pulmo， Baja California，south to Panama and the Galápagos Islands， in 1 to 26 m ．

532
Genus Evokesia Radwin \＆D＇Attilio， 1972 Resembling some of the Thaididae，with a short，open antee rior canal but with radula and operculum of the Muricidae．

532 ［1092］Vvoiesia ferruginosa（Reeve，1846），from page 554.
532 ［1022］Evokesia rufonotata（Carpenter，1864），from page 530．Type of the genus．

533，\＃1031 Marincovich（1973）transfers this to Xanthochorus，which Radwin（in litt．）regards as ocenebrine on the basis of the radula．If this assignment proves tenable，then no． 1097 from page 556 and no． 1031 should follow no． 1039.

534，\＃1035 The second sentence should begin：Reeve＇s figure，not ．．．． See fig．1，page 4 for corrected outline of anterior canal．

536，代1039 Belongs in Ocenes：a，S．S．fide Radvin（in Iitt。）。
536，\＃1040 Transfer to Muricopsinae．
536 Transfer Genus Xanthochorus from page 556，fide Radwin（in litt．），including under it nos． 1097 from page 556 and 1031 from page 533.

537，71044 Radwin（in 1itt．）considers that nos． 1045 and 1046 are synonyms of this and that Zacatrophon is not separable from Austrotrophon；moreover，the radulae are thaidid rather than muricid．However，shell characters do not seem to support a transfer at this time；further work is needed．
$537, \# 1044 \mathrm{a}$ Depth， 84 m ．See note on page 854.
539，\＃1047x Add：Trophonopsis diazi（Durham，1942）．Sal Si Puedes Channe1，Gulf of California，depth $1,573 \mathrm{~m}$ ．

539，\＃1047y Add：Trophonopsis lorenzoensis（Durham，1942）．Sal Si Puedes Channel，Gulf of California，in $1,573 \mathrm{~m}$ ．

539，line 9．Radwin reports（in litt．）that the radula in Typhinae is closer to that in Muricinae than to Ocenebrinae．
$540, \# 1050$ Considered referable to Typhisala Jousseaume, 1882 by Radwin (in litt.) [see under no. l052, below]. Egg capsules figured by Gemmell (1974).

540, \#1052 Type species of subgenus $\underset{\sim}{T y p h i s a l a}$ Jousseaume, 1882 [regarded as a genus by Radwin (in litt.)], separable from Typhisopsis on the basis of the radula. No. 1050 is closely related. The type lot of 3 specimens of T. grandis in the British Museum would, in modern terminology, be considered syntypes, but some past curator has labelled the largest one as "holotype," and it was so figured by Keen (1971). It is, unfortunately, a specimen of $T$. (Typhisopsis) coronatus. Formal action will be required to have one of the 2 "paratypes" redesignated as the lectotype. These, though not as well preserved, come closer to matching Adams' original figure, which showed only the back of the shell.

540,\#1053 Radula figured by Radwin \& D'Attilio (1971).
542 Following no. 1058 add a category: Subfamily Uncertain, for Phyllocoma, now on page 532.

543,\#1061 correct spelling of specific name: neritoidea [not neritoides]. 548,\#1072 Line 1: correct date is 1832 [not 1882]. 550,\#1077 Radula figured by Radwin \& D'Attilio (1971). 550, \#1081 Feeds on Cerithium adustum, fide Bratcher (1973).

554 Radwin \& D'Attilio (1972) show that Morunella is a subjective
 a Caribbean Miocene form.

554, \#1092 Transfer to Muricopsinae, genus Evokesia, page 532.
554, \#1093 Trachypollia lugubris (C. B. Adams, 1852).
554 Radwin and D'Attilio (1971) consider that the Rapanidae are a distinct family rather than subfamily, on the basis of the radula.

556 Transfer Xanthochorus to Ocenebrinae, page 536, fide Radwin (in litt.).

Before Caducifer, add:
Genus Bay
Fusiform, thin, sculptured with fine spiral threads. Radula buccinoid.

557,\#1098a Transfer Bayerius fragilissimus (Dall, 1908) from page 854.

558 Before no. 1104, insert:
Subgenus Mur icantharus 01 sson, 1971
Proposed without differential diagnosis, with Pseudoneptunea panamica Hertlein \& Strong, 1951 as type. See also page 854.
558,\#1104 Ranges south to Colombia, in $60-91 \mathrm{~m}$.
565, 71124 The name Engina fusiformis Stearns, 1894 is preoccupied by E. fusiformis Pease, 1865. The name E. solida Dall, 1917 may therefore again be used for this species.

565,\#1125a Depth, 275 m [see also page 854].
566 Olsson \& Bayer (1972) consider that all West American species are Metula, s. s. They discuss nos. 1133 and 1134 and add two new species:
 Mexico.

566,\#1134a Metula (Metula) optima 01 sson \& Bayer, 1972. Gulf of Panama, in $77-79 \mathrm{~m}$ 。

566, \#1135 The radula of Neoteron ariel shows nassariid affinities, fide Radwin (in litt.) Therefore, the genus is to be transferred to page 610.

569, Hilit Allocated to subgenus Strombinophos by Olsson (1971). Depth range, 11 to 46 m 。
 1848) to be an older synonym. See also page 854].

572, second paragraph under Columbellidae. Add, after the word "consultation": (although not necessarily with his concurrence on all matters of detail or ranking).

573, key, choice 9. For "18" read: 11.

573，$\$ 1153$ Distribution of this species is discontinuous：replaced by no．1155，C．fuscata，between Magdalena Bay and La Paz， fide Radwin（in litt．）．

574，\＃1161 In line 2，read：［not Deshayes in Laborde and Linant，1834］； Columbella aglaomorpha Tomlin \＆Salisbury，1928；．．．Ranges north to Saladita Cove，Sonora，Mexico．［Myhre，1973］

577，\＃1170 In last 1 ine，for＂A．terpsichore（Sowerby，1822）＂，read： A．veleda（Duclos，1846），fide Radwin（in litt．）．

577，\＃1172 Ranges southward to Sayulita，Nayarit，Mexico，fide Radwin． $581, \# 1190$ Ranges south to Paita，Peru．
［Peña，1970］

582 ，荊1194 Ranges south on Mexican mainland at least to Manzanillo， fide Radwin（in litt．）．

Radwin（in litt．）does not consider Glyptanachis separable． 588，\＃1224 and 590，\＃1232：Note date of species is 1971．

593，H1245 The type may be an adventitious specimen of the Mediter－ ranean M．scripta（Linné，1758），fide Radwin（in litt．）．

595 Radwin（in litt．）regards both Radwinia and Steironepion as separate genera，not subgenera of Nassarina．

596 Radwin（in litt．）regards Zanassarina as a genus．

600，\＃1271 Range：Gulf of Tehuantepec to central Ecuador，fide Radwin．
600，\＃1273 Should be allocated to the subgenus $\underset{\sim}{\text { Sincola }}$ Olsson \＆ Harbison，1953，fide Radwin（in litt。）．Ranges northward to San Ignacio Lagoon，Baja California．

601，茫1274 Range in the Gulf of California to Puerto Peñasco，south－ ward to the Galápagos Islands，fide Radwin（in litt．）．

603，茫1286 Ranges south to central Ecuador，fide Radwin（in litt．）． 604，\＃1290 Ranges south to Peru．
［Peña，1970］
604 It is probable that a petition by $W$ ．Cernohorsky now before the ICZN，on the dating of the family－group name Nassari－ idae，will be acted upon favorably．The type species of Nassarius Dumeril， 1806 ［not＂1805＂］would also be fixed， as N．arcularia（Linné，1758），and the subgenus Arcularia would fall into synonymy．

606,\#1292 Add as synonym: Nassa hanleyana Marrat, 1880 (not Dunker, 1847), fide Cernohorsky (in litt.).

606, \#1294 This becomes Nassarius scabriusculus (Powys, 1835), with two synonyms: Nassa collaria C. B. Adams, July 1852, and N. fuscata A. Adams, Dec. 1852, fide Cernohorsky (in litt.), after study of type material in the British Museum.

606,\#1295 Add synonyms Nassa polygonata Reeve, 1853 (not Lamarck, 1822) ; N. rufolineata Marrat, 1880 ["Philippines," by error], fide Cernohorsky (in litt.).

606,\#1300 Add synonym: Nassa decorata Marrat, 1880, fide Cernohorsky.
607,\#1305 Ranges south to Chiapas, Mexico. [Shasky, 1966]
607, ${ }^{\text {F1 }} 1310$ Delete: a western Pacific species, fide Cernohorsky (in litt.).
609, \#1311 This now becomes Nassarius stimpsonianus (C. B. Adams, 1852), for the name $N$. scabriusculus must replace $N$ - collarius, fide Cernohorsky (in litt.) from a study of Powys type material. Fortunately, the figure is of Adams' type specimen.

609, \#1314 Add as synonym: Nassa albipunctata Reeve, 1853.
609, 1315 Ranges south to Tumbez, Peru (figured by Peña, 1970, as "N. complanatus").

609 If Buccinum arcularia Linne, 1758, is accepted as type of Nassarius (the course favored by Cernohorsky and others), the subgeneric name Arcularia will fall into synonymy, and the species nos. 1316 to 1321 become Nassarius, s. S.

610, ${ }^{71} 1320$ This becomes Nassarius brunneostoma (Stearns, 1893). The type of N . moestus (Hinds, 1844) proves, according to Cernohorsky (in press), to be a western Pacific form with an erroneous American type locality.

610 After subgenus Pallacera add Genus Neoteron, from page 566.
614,\#1335 Ranges south to Isla La Plata, Ecuador. [Olsson, 1971]
617. 1347 This is now no. 1098a, under genus Bayerius, page 557 (see also page 854\%

617, \#1348 In last line, read: coast of Mexico [not "to"].

619，仆1350 Ranges from Cabo Colnet，Baja California，to Panama in depths to $3,680 \mathrm{~m}$ ．
［Rokop，1972］
619，\＃1353 Delete first synonym，which proves to be an Atlantic form． 620 ，${ }^{\#} 1356$ Off Ensenada，Baja California，in 2,989 to $4,084 \mathrm{~m}$ ．
［Rokop，1972］
620 In line 2 of the discussion of Family Harpidae，delete the sentence beginning，＂Unlike ．．＂This statement overlooks Emerson＇s evidence（1964）that the family occurred in both western and eastern Atlantic during the Tertiary．

628，\＃1377a Add：O1ivella drangai Olsson，1956，from the Galápagos．
631，\＃1390 Add as synonym：Mitra affinis Lesson，1842，fide Cerno－ horsky（1972），from＂Tuamotus，＂an erroneous locality． Ranges south to Peru．
［Peña，1970］
633,4401 As Dentimargo proves to be a noun with feminine gender，the specific name should be $D$ ．erema，and in line 2 of page 635 ， D．aureocincta．

636，渵1411 An earlier name for the Atlantic form，line 7，is C．larva（Bavay，1922）．

636，\＃1412 Add specific name，G：achenea Roth \＆Coan， 1971.
638，\＃1413 Add specific name，G。 insularum Roth \＆Coan， 1971.
639， 71420 Ranges north to Santa Catalina Island，Los Angeles County， California，fide Sphon（in litt．）．

642 Note by E．Coan：Further study of mitrid classification suggests that Imbricariinae and Mitrinae often merge；thus， it seems preferable to recognize only one subfamily in the Eastern Pacific area，Mitrinae．Vexillinae should be ele－ vated to family rank，as Vexillidae，in accordance with usage elsewhere．

645 Read：Family Vexillidae．

653 －Petit（1975）shows that because of a type designation overlooked by authors，Narona H．\＆A．Adams， 1854 must replace Hertleinia Marks，1949，which then becomes a synonym． 653，\＃1467 Cancellaria（Narona）mitriformis Sowerby， 1832. $653 \underset{\sim}{\sim} \underset{\sim}{\text { Para }} \underset{\sim}{\sim} \underset{\sim}{\sim} \underset{\sim}{c}$ Petit，1975，replaces the Narona of authors． 653，\＃1469 Cancellaria（Panarona）Clavatula Sowerby，1832，type species． 653，\＃1470 Cancellaria（Panarona）exopleura Dall， 1908.

660 ，line 2 under Conus，third word，read：with．
661，\＃1491 Egg capsules pink，of squarish shape．［Bratcher，1973］
663，\＃1496 Bathymetric range， 10 to 75 m ．［Nybakken，1971］
664 New evidence shows that Cylinder Montfort，1810，is valid， not preoccupied by earlier use．Therefore，Cylindrus Deshayes，1824，falls as a synonym of it．

664，\＃1502 Conus（Cylinder）dalli Stearns， 1873. $664, \# 1503$ Conus（Cylinder）lucidus Wood， 1828.
$665, \# 1505$ In depths to 84 m 。
［Nybakken，1971］
666，figure 1506 is actually of no．1507．See p．4，fig． 2 of this work．
666，figures numered 150 represent tivo species；figure at left is actually of no．1506，that at right of no． 1507.

669 ，\＃\＃ 1515 In the last line read：Cylinder［not Cylindrus］．
669，\＃1516 Height may be as much as 45 mm ．［Nybakken，1971］
672，\＃1521a Height， 71.4 mm ［not 77．4］．Depth， 37 m 。
672，\＃1522 Ranges to the Galápagos Islands．［Bratcher \＆Burch， 1971 ］
572,1524 Ranges to Cocos Island．［Bratcher \＆Burch，1971］
678，\＃1540 In line 5，for＂smaller than＂read：larger than．
680，\＃1547 Ranges south to Peru．
［Peña，1970］
680，\＃1549 In line 5，length is 300 mm ［not m］．
680，\＃1554 In last line，read：recurved．
 ities uncertain．Peru。

682，荘1558 Add in line 4：Most live－taken specimens show a brown tinge on the columella，fide Bratcher（in litt．）．
682，着1559 Type locality，Galapagos Islands，Ecuador．
$682, \# 1561$ Add in line 3 after＂the outer lip＂：of the fragile shell．
684，莐1566 In line 4，after＂axial stripes＂add：that are rarely absent．
686，\＃1571 Until a formal opinion on this nomen oblitum is issued by the ICZN，the formulation，in 1972，of Art．79－b－iii，and Art． 80 apply，and $T$ variegata should be continued in use．
687，figure captions；688，column 1；and 689，loth and 4th lines from bottom of page：Cernohorsky（1972）has shown that because of homonymy，Turriculinae must be replaced by Cochlespirinae and that because of priority，Mitrolumninae must be replaced by the earlier Mitromorphinae．

691，\＃1575 In depths to 117 m ．
［Olsson，1971］
691， 11 th line from bottom of page，read：retain．
703， 1622 A preoccupied name that must be replaced by the authors．
708 As synonym of Polystira，add：Oxytropa Glibert，1955．Species no． 1648 was designated as its type．The taxon was justifi－ ably synonymized by Powell（1964；1966）．

708 For Turriculinae，read：Cochlespirinae．
713，\＃1665 Ranges from northern California to Panama，in depths of 3,200 to $3,590 \mathrm{~m}$ 。
［Olsson，1乌71；Rokop，1972］
724，\＃1704 Read：C．currini［not currani］．This incorrect original spelling may be corrected under the code：there is evidence in the original publication that it is an inadvertent spelling error or lapsus calami．

733，\＃1734 Add as synonym：Carinodrillia dariena 01sson，1971．Range， south to Panama Bay．
$740 \quad$ For Mitrolumninae，read：Mitromorphinae．

746,1787 See page 854 for discussion of a cited synonym．

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759,#1837 Lyons (1972) suggests allocation to subgenus Pr~~~~~~~~~~~~~
    Laseron, 1954. A similar species in the Atlantic is D.
    (P.) margaretae Lyons, 1972.
764,#1857 See note on page 854.
764,#1864 See note on page 854 [not 853].
768, under Longchaeus, add description:
    With a groove or sulcus at periphery of body whorl.
768,#1886 P. (P.) clavulus (A. Adams in Sowerby, 1854) may be rein=
    stated, for P. moffati proves to be an unnecessary new name,
    fide Corgan (19736).
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    776,\#1968 O minutissima Dall \& Bartsch, 1909 (not Murdoch, 1900) may
    be replaced by 0 . raymondi Dall \& Bartsch, 1909, fide Cor-
    gan (1973c). Abbott 1974 considers that both are synonyms of O. angularis Dall \& Bartsch, 1907, from California area.
     Baja California. Type lost, fide Palmer (1963).

777 Delete no. 1987, which is the same as no. 2021.
730, \#2023 A primary homonym (not Maury, 1917); renamed $\underset{\sim}{\text { T. }} \underset{\sim}{\text { pacificus }} \underset{\sim}{c}$ Corgan, 1973a.
 Chemnitzia caelata Carpenter, 186\%, not I. caelata Gould, 1861; T. (P.) favilla Dall \& Bartsch, 1909). Type locality uncertain, perhaps Panama; figured, Palmer (1963).

790, figure 2212: read, 2202.
 lena, Baja California, in 25 m 。

792 Following no. 2227, add the Family Cyclostremellidae, from page 376 , shown by Robertson (1973) to have pyramidellid affinities.

792, t2230 Radula and anatomy figured, Marcus (1972).
794 add, above Microglyphis: Family Ringiculidae. With one or more heavy folds in apertural margin.

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797,#2249 In line 2, read: spine not evident.
798, 9th line from bottom: Delete last sentence and add
                        Genus Aglaja "Renier" auctt.
    Inner side of internal shell with a spiral process.
798,##253x Add: Agiv~~~~~
                Bahía Las Cruces, Baja California del Sur.
798 Navanax becomes a synonym of Chelidonura A. Adams, 1850,
    according to evidence shown by Edmunds (1968).
800,#2253 Chelidonura aenigmatica (Bergh, 1894).
800,#2254 Chelidonura inermis (Cooper, 1863).
800,#2254a Add: Chelidonura polv~~~~~~~~~~~~~~~
Type locality, Bahia San Carlos, Sonora, Mexico.
800,#2259 Correct authorship: A. inculta (Gould, 1855) [Johnson,1964]
801,#2261 Delete: El Salvador; record incorrect, fide McLean (in litt.).
808,#2297 In third line add: and Lance (1971); from Puerto Peñasco
    to Isla San Marcos.
810,##2303 Add no. 2304 as synonym, fide Ferreira & Bertsch (1975).
    Range, Head of the Gulf of California to Galapagos Islands.
810 Before Subfamily Notarchinae, add:
                                    Genus \underset{~~~}{Phy}10~~~~~
    Internal shell, if present, lacking any marginal lamina.
810,#2304a Phy~~~~~~aplysia padinae Williams & Gosliner, 1973. Head of
    the Gulf of California to Bahia San Carlos, Sonora, Mexico.
810,#2305 Length, to 54 mm.
                                    [Bertsch,1970b]
811 As new lines 12 and 13 add:
        Family: Notobranchaeidae
        Genus: Notobranchaea Pelseneer, 1886.
811 Add as synonym of Notaspidea: Pleurobranchomorpha auctt.
    For discussion, see Edmunds & Thompson, 1972.
811,#2306 The ending -branchus is neuter. Thus, the specific name
    must be P. areolatum. Also in West Africa, fide Edmunds (1968).
811,洪2307 Considered a synonym of no. 2306 by Bertsch & Smith (1973).
    Range, south to Galápagos Islands. [Sphon & Mulliner, 1972]
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812,line 3 Add: Genus $\underset{\sim}{B e r \sim \sim} \underset{\sim}{t h e} \underset{\sim}{l} \underset{\sim}{a}$ Blainville, 1825
Radular teeth short, hooked, smooth; gill rhachis smooth.
812,\#2308x $\underset{\sim}{\text { Berthe }} \underset{\sim}{l} \underset{\sim}{1 a} \underset{\sim}{\text { kaniae }}$ Sphon, 1972. Nayarit, Mexico, to Islas Perlas, Panama.
 (Synonyms: B. engeli Gardiner, 1936; B. e. ilisima Marcus \& Marcus, 1967, fide Bertsch (1970b) and Edmunds \& Thompson (1972)). Worldwide in the tropics; in the eastern Pacific from Santa Barbara, California, throughout the Gulf of California and south to the Galápagos Islands (Sphon \& Mulliner, 1972).

812,\#2310 South to the Galápagos Islands [Sphon \& Mulliner, 1972] 812,\#2311 For "southern California", read: Cayucos, California...

814 Under Oxynoidae add as synonym: Lobigeridae. Combine the description of Family Lobigeridae with that of the genus Lobiger.
814, \#2313 Shells are straw-colored rather than green, fide M. Larson (in litt.). Isla San José, Gulf of California (Larson \& Bertsch, 1974) to Galápagos Islands (Sphon \& Mulliner, 1972).

815 Add, before Superfamily Juliacea:

$$
\text { Genus } \underset{\sim}{\text { Ascobu }} \underset{\sim}{l} 1 \mathrm{\sim} \text { Marcus, } 1972
$$

Shell resembling that of Cylindrobulla; cylindrical, thin; gill as in Volvatella, pectinate; radula with normal sacoglossan bladelike teeth.

815,形2314a Add: AScobur~~~~ Espíritu Santo, near La Paz, Gulf of California. Named as Cylindrobulla, which has different type of radular teeth, fide Marcus, 1972.

817, \#̈2316 Ranges south to the Galápagos Islands [Sphon \& Mulliner, 1972]
317 For Superfamily Elysiacea, read: Superfamily Plakobranchacea. For Family Elysiidae, read: Family Plakobranchidae [Keen, 1973]

817, 䒜2317 Range: San Juan Islands, Washington, to La Jolla, California, and in the Gulf of California from Puertecitos to Bahía San Carlos, Sonora (Williams and Gosliner, 1973).

Family Caliphydiidae
Body flattened; with leaflike lateral expansions; foot broad anteriorly.

Genus Polybranchia Pease, 1860 (Synonyms: Phyllobranchus Alder \& Hancock, 1864 (not Girard, 1851); Lobifera Pease, 1866; Phyllobranchillus PruvotFol, 1933; Branchophyllum Pruvot-Fo1, 1947). Rhinophores channeled, bifid; oral tentacles short; dorsal papillae in several series, without cnidophore sacs.

818,\#2320a Polybranchia viridis (Deshayes, 1857). Bahía Las Cruces, Baja California del Sur, to the Galápagos Islands; widely distributed throughout the Caribbean (Bertsch \& Smith, 1973, as Phyllobranchillus). [Ferreira \& Bertsch, 1975]

818, Before Stiliger, add:
Genus Aplysiopsis Deshayes, 1864
(Synonym; Hermaeina Trinchese, 1874)
Rhinophores bifid; dorsal papillae elongate, containing ramifications of the hepatic lobe; radula teeth denticulate on lower edge.

818, 2321a Aplysiopsis smithi (Marcus, 1961) [Hermaeina]. (Synonym: Phyllobranchopsis enteromorphea [sic] of MacFarland, 1966). Specialists are not in agreement on whether this is identi= cal with the older A. enteromorphae (Cockerell \& Eliot, 1905) [named as Phyllobranchopsis]. San Juan Islands, Washington, to San Diego, California; in the Gulf of Califormia at Bahía San Carlos, Sonora, Mexico. [Williams \& Gosliner, 1973]

818,\#2322x Add: Stiliger fuscatus (Gould, 1870). Puerto Peñasco, Sonora, Mexico. Widely distributed in North and South Atlantic and southeastern Australia.
[Ferreira \& Bertsch,1975]

821 Before Rostanga, add:
Genus Aldisa Bergh, 1878
Mantle with tubercules; oral palps resembling tentacles; radula with long teeth, finely serrate to denticulate at ends.

821,\#2324x Add: Aldisa sang suinea (Cooper, 1863). Ferreira \& Bertsch (1975) report this southern Californian form in the Gulf of California at Isla San Diego and Isla Espíritu Santo.

821 Emend spelling of Conualevinae to: Conualeviinae.
821,\#2325 Range: Monterey Bay, California, to Bahía de Banderas, Nayarit, Mexico.
[Ferreira, 1972]
821, after no. 2327 insert:
Subfamily Platydoridinae Body flat, of firm consistency; mantle granular to smooth, larger than foot.
 Cruz, Galápagos Islands, Ecuador.

822,\#2328 Add no. 2329 as synonym. Ranges south to Isla Tortugas, Costa Rica. [Bertsch et al., 1973]

822, \#2329 Delete: synonym of no. 2328, fide Bertsch et al. (1973). 822, \#2330 Delete: not a Panamic province species.

822, new"2330 Chromodoris $\underset{\sim}{\text { b }}$ baumanni Bertsch, 1970. Guaymas, Sonora, Mexico, to the Galapagos Islands. [Smith \& Mulliner, 1972]
 Santa Catalina suoth to the La Paz area, Gulf of California.

322, 2332 The species was first transferred to Chromodoris by Bertsch, (1970b). South to Galapagos Islands. [Smith \& Mulliner, 1972]

822, 2333 Ranges north to Nayarit, Mexico. [Bertsch et al., 1973]
822, after ${ }^{\circ} 2333$, add: Genus Felimida Marcus, 1971
Radula with unicuspidate teeth having many denticles on the outer side; inner side of first four laterals denticulate.
 to Isla Tortugas, Costa Rica, fide Bertsch et al. (1973)

323, \#2334 Hypselodoris agassizii (Bergh, 1894) was reinstated by Sphon (1071). Figure 2335, page 824, and figure 1 of Color Plate xX illustrate it. Range, Puerto Peńasco, Sonora, Mexico, to the Galápagos Islands, Ecuador. [Ferreira \& Bertsch, 1975]

823，范2335 In lines 11 and 12，read：Similarly colored slugs from the Gulf of California are Chelidonura inermis，Polycera alabe， Hypselodoris sp．

823，2335a Hypselodoris sp．La Paz，Baja California area，fide Bertsch（1973）．

823 Before Cadlininae，add：
Genus Thorunna Bergh， 1891
Body shaped like Chromodoris；with no labial armature； rachis naked；innermost lateral tooth of radula broader than the others．

823，\＃2335b Thorunna lapislazuli Bertsch \＆Ferreira，1974．Galápagos Islands，Ecuador．

826，\＃2345 Range：Head of the Gulf of California to Bahia de Ban－ deras，Nayarit，Mexico．［Ferreira \＆Bertsch，1975］

827，\＃2350 Range：Throughout the Gulf of California，from Puerto Peñ－ asco to Isla Espiritu Santo．［Bertsch，1973－b］

827，\＃2353a Add：Laila janssi Bertsch \＆Ferreira，1974．Range： southern Gulf of California to northern Costa Rica．

827，\＃2354 Add a question mark in front of $N$ ．hubbsi．
830，\＃2359 Also in the Caribbean．
［Bertsch，1973］
832，H2367 Range：throughout the Gulf of California，from Puerto Peñasco，Sonora，to Isla Cerralvo．［Bertsch，1973－b］

832，\＃2368 After＂Péron \＆Lesueur，1810，＂add：of authors．
833，Line 7，for＂name，＂read：reference to authors．
834，\＃2373 Correct date： 1863 ［not 1862］．
335，\＃2376 New records：Isla San Diego and Isla Monserrate，Gulf of California．
［Ferreira \＆Bertsch，1975］
836，若2378x Add：Flabellina stohleri Bertsch \＆Ferreira，1974．San Francisquito，Gulf of California．

836，㘶 2378 Length， 20 to 40 mm ；width，over 3 mm ．Ranges south to Isla Las Animas，Baja California del Sur；also subtidally to 12 m ．
［Ferreira \＆Bertsch，1972］

836 Current practice is to regard Flabellinopsis as a synonym of Coryphella or at most a subgenus under it.

836,莯2383 Coryphella iodinea (Cooper, 1863).
837, after line 6 add:
Genus Coryphellina $O_{\sim}{ }_{\sim}^{\prime}$ Donoghue, 1929
837, \#2382a Coryphellina rubrolineata $0^{\circ}$ Donoghue, 1929. Circumtropical; in the Panamic province at San Agustin, Sonora, Mexico, fide Marcus \& Marcus (1970).

837, line 12: Genus Eubranchus Forbes, 1833 (Synonym: Capellinia Trinchese, 1874; ICZN Op. 774, 1966) Radula triseriate, with one lateral a thin plate; dorsal papillae usually with one or more constrictions, apex acute.

837,\#2383 Eubranchus rustyus (Marcus, 1961). Bamfield, British Columbia, Canada, to Punta Abreojos, Baja California, and in the Gulf of California from San Felipe to Bahia de los Angeles, fide Robilliard (1971) and Bertsch (in litt.).

839, as new line 10, add:
Genus Aeolidiella Bergh, 1867
Rininophores wrinkled obliquely; dorsal papillae closely packed, elongate; genital openings between third and fourth rows of cerata.

839, 2385 Aeolidiella takanosimensis Baba, 1930. Gulf of California, Bahia San Marti, Lat. $25^{\circ} 30^{\prime} \mathrm{N}$, Long. $111^{\circ} 01^{\prime} \mathrm{W}$, fide Ferreira \& Bertsch (1975).

839, 2386 Ranges south to Isla San José, Gulf of California, fide Ferreira \& Bertsch (1975).

839 Before Spurilla, add:
Genus Limenandra Haefelfinger \& Stamm, 1958 Radula with about 30 flattened denticles; cerata papillate, 1 to 9 per row; jaws smooth to finely striate.

839, 范3337a Limenandra nodosa Haefelfinger \& Stamm, 1953. Bahía Las Cruces, Baja California del Sur; also in the Caribbean and Mediterranean.
[Bertsch,1972]
 bampo, Sonora, Mexico, to Gulf of Nicoya, Costa Rica.

340,\#2391 Correct date: 1962 [not 1961].
844,\#2398 Ranges south to Peru.
[Peña, 1970]
848, 代2411 In line 3, read: Clench (1964) [not 1967].
Plate captions, following page 848:
Pl. XIII, figure 8: read, Calliostoma palmeri Dall (88).
P1. XIV, figure 4: read, Neverita reclusiana (Deshayes) (888).
Pl. XVI, line 3: tentacle and siphon emerge at the right [not left].
P1. XVII, line 2 mantle filament at the posterior end of aperture [not anterior].
P1. XX, figure 1: Hypselodoris agassizii (Bergh).
849,\#2413 Correct original spelling: Auricula reclusiana [not "z"].
849,\#2414 Ranges south to Peru. [Peña, 1970]
854 Delete no. 1722a (see under no. 1734); for "55" read: 35.
863 Second paragraph under Radsiella: The statement attributed by Thorpe to Thiele (1929) is not verifiable in this reference and thus must have come from some other source. Some of the species assigned by Thorpe to Radsiella do not fall within the limits of the genus as originally established by Pilsbry, fide Col. G. Hanselman (in litt.).

868,险15 Dall redescribed I. ophioderma as new in 1919-- same locality (Panama) but with a different type. [Baker, 1937]

869, 18 See note under no. 35 .

871, $43 x$ Before Stenoplax conspicua conspicua, add: Stenoplax circumsenta Berry, 1956. Type locality, Scammon's Lagoon, Baja California. Range in the Gulf of California from La Paz to Guaymas, Sonora; intertidally and to 15 m. [Ferreira (1972); Hanselman (1973)]

873, \#27a Transfer no. 33, now on page 875, to Callistochiton, as C. elenensis (Sowerby, 1832). [Ferreira, 19747

873，\＃27b Transfer no． 34 as Callistochiton flavidus Thiele，1910， now on page 875.

873

873，\＃31 Ranges south to Manzanillo，Mexico，intertidally and off－ shore to 10 m 。
［Ferreira，1974］
875，\＃32 Range in the Gulf of California from Isla Monserrate to Gorda Banks，in 15 to 109 m 。
［Ferreira，1974］
875，\＃33 Reverts to the allocation of edition 1 ，Callistochiton； it should follow no． 27 on page 873.

875，\＃34 Reverts to the allocation of edition 1 ，Callistochiton； it should follow $C$ ．elenensis．
 Puerto Escondido to Isla Cerralbo，Gulf of＂alifornia，in 5 to 20 m ．［Note by M．Keen：The citation，＂．．．．．Thorpe， MS＂became necessary when the paper he had planned for prior publication had not materialized by the time the book was in final proof stage．Citation of Thorpe＇s names without addi－ tional documentation would have been even more of a disser－ vice to malacology than the alternative the editors adopted． As his paper has not since appeared，other authors who can recognize the species may in all propriety describe them．］
 ［See note under no．35．］Range：Isla Las Animas，Gulf of California，to Bahía de Huevos，Costa Rica，in 2 to 20 m ．

875，\＃37 Range，fide Ferreira（1974）：Monterey，California；Bahia Magdalena；head of the Gulf of California；to Islas Tres Marías，Mexico，intertidally and offshore to 10 m 。

877，\＃38 Range，fide Ferreira（1974），San Felipe to Bahía San Fran－ cisquito，Gulf of California；intertidally，to 3 m ．

877 ，\＃ 39 See note under no． 35 ．
 Guaymas，Sonora，Mexico，in 159 to $1,189 \mathrm{~m}$ 。［Smith，1974］

Add as a new third paragraph: Recent papers on Scaphopoda are by McFadien (1973) and C. P. Palmer (1974). In a revised classification, Palmer creates two orders and raises many subgenera to generic rank. His arrangement would distribute Panamic province species as follows:

Order Dentalioida
Family Dentaliidae
Dentalium (Dentalium) [numbers 1 to 4 , as on page 884] Tesseracme hancocki (Emerson, 1956); T. quadrangulare (Sowerby, 1832); $T$. tesseragonum (Sowerby, 1832) Fissidentalium megathyris (Dall, 1890)
Compressidens brevicornu (Pilsbry \& Sharp, 1897) Antalis pretiosum berryi (Smith \& Gordon, 1948)
Graptacme inversum (Deshayes, 1826); ?G. sectum (Deshayes, 1826); G. semipolitum (Broderip \& Sowerby, 1829)

Family Laevidentaliidae
Laevidentalium splendidum (Sowerby, 1832)
Rhabdus aequatorius (Pilsbry \& Sharp, 1897)
Episiphon innumerabilis (Pilsbry \& Sharp, 1897)
Order Siphonodentalioida
Family Siphonodentaliidae
Siphonodentalium quadrifissatum (Pilsbry \& Sharp, 1898)
Family Cadulidae [Gadilidae has priority but has not been used]
$\frac{\text { Gadila fusiformis }}{(\text { Sowerby, } 1832)}$ (Pilsbry \& Sharp, 1898); G. perpusilla Polyschides
P. (Polyschides) californicus (Pilsbry \& Sharp, 1898) P. (Platyschides) austinclarki (Emerson, 1951); P. (P.) peruvianus (Dal1, 1908); P. (P.) platystoma (Pilsbry\& Sharp, 1898)
$\frac{\text { Striocadulus }}{\& \text { Sharp, }} \frac{\text { albicomatus }}{898 \text { ) }}$ (Dall, 1890); S. striatus (Pilsbry
884,\#2 Read: Dentalium [not Dantalium].
884, 泮3 Range: Laguna San Ignacio, Baja California, throughout the Gulf of California to Bahia Santa Elena, Ecuador, and the Galápagos Islands.
886. $7 x$ Add: Dentalium (Graptacme) inversum Deshayes, 1826. length, 30 mm ; diameter at aperture, 1.9 mm 。 Bahía Magdalena, Baja California, throughout the Gulf of California, to Guayaquil, Ecuador, in 22 to 45 m . [Accidentally omitted in edition 2 ; figured in edition (1958), pages 238-39, as species no. 2.]

886, \#7 Differs in presence of an apical slit on convex surface. Probably not West American: original label cites "Mers d'Asie," fide Emerson (in litt.). Delete the last line of paragraph.

887, figures 7 and 8. Transpose the figure numbers.
888,\#14 Range: Laguna San Ignacio, Baja California, throughout the Gulf of California and south to La Libertad, Ecuador.

890,\#19 Range: San Diego, California south, throughout the Gulf of California to Guayaquil, Ecuador, and the Galapagos Islands.

890,20 Range: South to Guayaquil, Ecuador, and the Galapagos Islands.
892 Under Coleoidea, add the following annotated list of Eastern Pacific species, compiled by Eugene V. Coan:

Order Teuthoidea ["squids"] Suborder Myopsida

Family Loliginidae
Genus Loliopsis Berry, 1929
Loliopsis diomedeae (Hoyle, 1904) [named as Loligo] (Synonym: L. chiroctes Berry, 1929). Gulf of California to Panama; surface to 258 m 。

Genus Lolliguncula Steenstrup, 1881
Lolliguncula panamensis Berry, 1911. Panama to Ecuador; surface to subsurface, depth records lacking.

Suborder Oegopsida
Family Bathyteuthidae
Genus Bathyteuthis Hoyle, 1885
Bathyteuthis abyssicola Hoyle, 1885. Panama to northern South America; also Atlantic, Antarctic, and Indian Oceans; 300 to $3,000 \mathrm{~m}$, mostly between 1,000 and $2,500 \mathrm{~m}$.

Bathyteuthis bacidifera Roper, 1968. Panama to northern South America and ?Indian Ocean; 683 to $1,550 \mathrm{~m}$.

Family Chiroteuthidae (=Valbyteuthidae)
Genus Valbyteuthis Joubin, 1931
$\frac{\text { Valbyteuthis }}{1,000 \text { to } 2,330 \mathrm{~m} \text { e }}$ Joubin, 1931. Southern California to Peru;
Family Cranchiidae
Subfamily Cranchiinae
Genus Cranchia Leach, 1817
Cranchia scabra Leach, 1817. Oregon to Panamic province; also itlantic, Indian, and western Pacific Oceans; to $3,500 \mathrm{~m}$.

Genus Drechselia Joubin, 1931
Drechselia danae Joubin, 1931. Panama; 2,680 m.
Genus Leachia Lesueur, 1821 ( $=$ Pyrgopsis Rochebrune, 1884)
Leachia schneehagenii (Pfeffer, 1884) [Loligopsis]. Panama to Chile; 550 m 。
Subfamily Taoniinae
Genus Bathothauma Chun, 1906
Bathothauma lyromma Chun, 1906. Atlantic and South Pacific; possibly also Eastern Pacific: surface to $3,000 \mathrm{~m}$.

Genus Galiteuthis Joubin, 1898 Galiteuthis pacifica (Robson, 1948) [Taonidium]. Southern California to Panama and cocos Island; no depth records.
Genus Helicocranchia Massy, 1907
Helicocranchia beebei (Robson, 1948). Cocos Island and the Galápagos Islands, Écuador: surface to $1,520 \mathrm{~m}$.
Helicocranchia pfefferi Massy, 1907. Southern California to Panama; also Atlantic; 6639 m .

Family Enoplotehthidae
Subfamily Enoploteuthinae
Genus Abraliopsis Joubin, 1896
Subgenus ibraliopsis, s. s.
Abraliopsis (Abraliopsis) hoylei (Pfeffer, 1884) Enoploteuthis]. From off the Mascarene Islands, Indian Ocean; reported by authors, with some doubt, off Panama; surface to $1,100 \mathrm{~m}$.

Subgenus Micrabralia Pfeffer, 1900
Abraliopsis (Micrabralia) affinis (Pfeffer, 1912) [Abralia]. Acapulco, Mexico, to Cabo San Francisco, Ecuador; 550 to $3,470 \mathrm{~m}$ 。

Subfamily Pyroteuthinae
Genus Pterygioteuthis H. Fischer, 1895 Pterygioteuthis gemmata Chun, 1908. Southern California to Mexico; also Atlantic, Indian, and Pacific Oceans; to 10 m . Pterygioteuthis giardi $H$. Fischer, 1896. Southern California to Panama and the Galapagos Islands, Ecuador; also Atlantic, Indian and western Pacific Oceans; surface to $2,500 \mathrm{~m}$.

Family Gonatidae
Genus Gonatus Gray, 1849
Gonatus californiensis Young, 1972. Southern California to of northern Baja California; ?Gulf of Panama; depth unknown.

Family Histioteuthidae
Genus Histioteuthis Orbigny, 1840 「=Calliteuthis Verrill, 1880; Histiopsis Hoyle, 1835; Meleagroteutnis Pfeffer, 1900 ]

Histioteuthis dofleini (Pfeffer, 1912) [Stigmatoteuthis]. British Columbia and south probably to Panamic province; also tropical Atlantic and South Pacific; surface to $1,000 \mathrm{~m}$. Histioteuthis meleagroteuthis (Chun, 1910) [Calliteuthis]. (Synonym: Meleagroteuthis hoylei Pfeffer, 1908 (non Histiopsis hoylei Goodrich, 1896)). Oregon to the Gulf of Fonseca; also Atlantic and South Pacific; surface to 695 m .

Family Lycoteuthidae
Genus Lycoteuthis Pfeffer, 1900
Lycoteuthis diadema (Chun, 1900) [Enoploteuthis]. (Synonym: L. jattae Pfeffer, 1900). West Coast of South America; also Caribbean, Atlantic, and South Pacific; surface to 500 m .

Family Mastigoteuthidae
Genus Mastigoteuthis Verrill, 1881
Mastigoteuthis dentata Hoyle, 1904 [May prove to be, a synonym of M. grimaldii (Joubin, 1895)]. Panama to the Galapagos Islands, Ecuador; 930 to $2,400 \mathrm{~m}$.

Family Octopoteuthidae
Genus Octopoteuthis Ruppell, 1844
Octopoteuthis delectron Young, 1972. Oregon south to off northern Baja California, possibly to Peru; depths unknown. Octopoteuthis nielseni Robson, 1948. Mexico?; Cocos Island to Panama; no depth records available.
Family Ommastrephidae
Genus Dosidicus Steenstrup, 1357
Dosidicus gigas (Orbigny, 1835) [Ommastrephes]. Monterey, California, to Chile; surface to unknown depths.
Genus Ommastrephes Orbigny, 1835
Ommastrephes bartramii (Lesueur, 1821) [Loligo]. Bering Sea to Chile; also Atlantic, Indian, and Pacific Oceans; surface to ? 300 m .

Genus Symplectoteuthis Preffer, 1900
Symplectoteuthis oualaniensis (Lesson, 1830) [Loligo]. (Synonyms: ?Ommastrephes tryonii Gabb, 1862; ?0. ayresii Carpenter, $1 \overline{864) \text {. Southern California to off Panama and }}$ the Galápagos Islands, Ecuador; surface to unknown depths.

Family Onychoteuthidae
Genus Onychoteuthis Lichtenstein, 1818 Onychoteuthis banksi (Leach, 1817), auctt. [Loligo]. Off Baja California to Panama; surface to $2,330 \mathrm{~m}$. Reported at many localities in world oceans, but this wide range is heing reduced by modern studies and separation into several specific taxa.

Family Thysanoteuthidae
Genus Thysanoteuthis Troschel， 1857
Thysanoteuthis rhombus Troschel，1857．？Panamic；also Atlantic，Western Pacific，Mediterranean；surface to ？．

Order Octopoda［＂octopuses＂］
Suborder Cirrata（ $=$ Cirromorpha）
Family Stauroteuthidae
Genus Froekenia Hoyle， 1904
Froekenia clara Hoyle，1904．Off Cabo Mala，Panama； $1,015 \mathrm{~m}$ ．
Genus Grimpoteuthis Robson， 1932
Grimpoteuthis hippocrepium（Hoyle，1904）［Stauroteuthis］． Malpelo Island，Colombia； $3,352 \mathrm{~m}$ ．

Suborder Incirrata
Family Alloposidae
Genus Alloposus Verrill， 1880 Alloposus mollis Verrill，1880．Circumtropical and sub－ tropical；surface to $3,174 \mathrm{~m}$ ．
Genus Allopsina Grimpe， 1922
Allopsina albatrossi Robson， 1932 （Synonym：Bolitaena micro－ cotyla Steenstrup，1859，of authors，not Steenstrup）．Off the Galapagos Islands，Ecuador： 605 m ．
Family Argonautidae
［See page 894，with the following changes：The date for no． 13 is 1871 （not 1869，a nomen nudum）；depth，surface to 84 mo ］
Family Bolitaenidae
Genus Japetella Hoyle， 1885
Japetella diaphana Hoyle，1885．Acapulco，Mexico，to Ecuador and the Galapagos Islands；also tropical Atlantic and Pacific； surface to $5,103 \mathrm{~m}$ 。 Japetella prismatica Hoyle，18850 Gulf of Tehuantepec，Mexico； also Brazil；1，408 to $4,084 \mathrm{~m}$ ．

Family Octopodidae
894，line 6 ，delete the word＂common．＂

8，基 Probably does not range south to Panama，fide Voss（1971）．
304，Depth range： 17 to 31 m ．［Voss，1968；1971］
S94，化4 Assigned to genus Paroctopus Naef，1923，by Robson（1929）．
S94，tit Proposed in genus Polypus．Tentatively recorded from Costa Rica and Panama，fide Voss（1971）．
894，H9a Add：Octopus pusillus Gould，1852．Described from China but
 Panama； 901 to $1,789 \mathrm{~m}$ ．
394，10a Add：Octop

894，潢10b Add：Octopus strictochrus Voss，1971．Gulf of Panama； 17
to 31 ～$\tilde{m}^{\sim}$ 。
894，\＃10c Add：Genus $\underset{\sim}{\text { Euax }}$ ，
$\underset{\sim}{\text { Euaxoctopus }} \underset{\sim}{\text { panamensis }} \underset{\sim}{c}$ Voss，1971．Gulf of Panama； 35 m ．
Family Ocythoidae
Genus Ocythoe Rafinesque， 1814.
Ocythoe tuberculata Rafinesque，1814．Southern California to the Panamic province；also tropical Atlantic； 200 m ．

Family Tremoctopodidae
Genus Tremoctopus delle Chiaje， 1830
Tremoctopus violaceus delle Chiaje，1830．Cabo San Lucas， Baja California，to Panama；also circumtropical，surface to 164 m 。

Order Vampyromorpha
Fanily Vampyroteuthidae
Genus Vampyroteuthis Chun，1903（＝Retroteuthis Joubin，1929） Vampyroteuthis infernalis Chun， 1903 （Synonyms Cirro－ teuthis macrope Berry， 1911 ；Retroteuthis pacifica Joubin， 1929）．Circumtropical and subtropical； 1,000 to $2,500 \mathrm{~m}$ ．
Genus Melanoteuthis Joubin， 1912
Melanoteuthis beebei Robson，1929．Between Cocos Island and the Galapagos Islands；surface to $1,372 \mathrm{~m}$ ．

900，last species：There proves to be a replacement name available
 Adams， 1856.

902 Under Syncera panamensis，in last line of paragraph delete ＂in litt．＂and add：（1966），following Morrison（1946）．

902，last entry：Pilsbry \＆Olsson， 1952 ［not Pilsbry and Lowe］．
904，last entry：Cernohorsky（Rec．Auckland Inst．and Mus．，vol． 8，p．158，1971）has shown this to be an Engina from the Indo－Pacific province．

905，first entry：Cernohorsky（Rec．Auckland Inst．and Mus．，vol．11， p．126，1974）shows this to be an Indo－Pacific Engina．

906，8th entry：Cernohorsky（op．cit．，p．129，1974）shows that N． pallidus is indeed a Phos but that it is from the Carib－ bean，a prior name for $P$ ．guadeloupensis（Petit de la Saussaye，1852）．Both may prove to be synonyms of Phos unicincta（Say，1827）．

907, under Volutacea, add as sixth entry:
Cancellaria peruviana Strong, 1954. Proposed as a name for a figure in Sowerby's Conchological Illustrations (Cancellaria granosa, fig. 16), on the assumption that it was not conspecific with the Australian material of figure 17 and that Kiener's statement of a Peruvian locality was correct. No authentic Peruvian material has been recorded. This is, therefore, a name of doubtful validity, a species dubia.

923, column 1, and 927, column 1, line 2, correct to Masachapa.

939, explanation for figure 350: The label "holotype" for the specimen photographed by the Museum d'histoire naturelle de Paris was apparently a clerical error; F. Bernard, who recently studied the type lot at the Paris Museum reports (in litt.) that the lot was syntypic but that the specimens upon which Rochebrune based most of his description are an aggregated clump of C. venosa.

942,\#608 Holotype, no. 19.407 [not 19,409]
943, \#693 Paratype, no. 10040-a, lower figure, left valve

947,\#563-64 No figures
947,\#565 Bartsch, 1911...
947,\#566-69 No figures
951,\#1052 Syntype [not "holotype"]
962, 9 th and 8 th entries from bottom of column 1 , read:

$$
\begin{array}{ll}
2184-2201 & \text { No figures } \\
2202 & \text { Dall \& Bartsch } \ldots \quad \text { [not "2212"] } \\
2203-2225 & \text { No figures }
\end{array}
$$

965, Plate XII, no. 5, for "Mrs. Howard" read: Dr. Burch.
972, line 1, read: Baba, K. [not A.]
979, 9th entry from bottom of page: For "Carpenter, 1866" read: Carpenter, 1865-66 .... pp. 207-208 (Dec. 1865), 209224 (Feb. 1866)。

981, 9 th entry from bottom: Cooper's name is needlessly repeated before the date 1866.

989, 9th entry from bottom, delete "Farmer, W. F." Transpose the 7 th entry, beginning "Farmer, W. M. 1963 " to precede the remaining 1967 citation; that is, the present lines 14 and 13 (counting up from bottom of page) should go ahead of the 18 th line up. This puts the W. M. Farmer references in proper chronological order.

994, 9th entry: Delete the Hertlein, 1955, reference (see page 995 under Hertlein and Strong, 1955b).

1000, 5th entry. Note that there is a prior Lance, 1962, paper in the Supplementary Bibliography, below.

1002, 3d entry from bottom: For "Veliger, Suppl. 1," read: Veliger, vol. 3, (Suppl., pt. 1).

1005, line 3, add: 2d rev. ed., 1974, 322 pp. 1005, 7th entry from bottom: for "in press" read: 26 figs. (Mar.). 1056, column 1, 1ine 8: before 904 add: 565,.

Abbott, Donald P. 1966. See Bowman (1966).
Abbott, R. Tucker. 1974. American seashells; the Marine Mollusca of the Atlantic and Pacific coasts of North America. New York, 663 pp., 24 pls., numerous text-figs. (Oct.).
Baker, Fred. 1937. Notes on Ischnochiton ophioderma and Milneria kelseyi. The Nautilus, vol. 50, no. 3, p. 86. (Jan. 29).
Beebe, William. 1938a. Zaca venture. New York, xvi + 303 pp., 23 ill.
1938b. Eastern Pacific expeditions of the New York Zoological Society, XIV. Introduction, itinerary, list of stations, nets and dredges of the Eastern Pacific Zaca Expedition, 1937-1938. Zoologica, Sci. Contrib. New York Zool. Soc., vol. 23, no. 3, pp. 287-98 (Sept. 28).
Bernard, Frank R. 1974. Septibranchs of the eastern Pacific (Bivalvia Anomalodesmata). Allan Hancock Monogr. in Mar. Biol., no. 8, 279 pp., 33 pls., 14 text-figs. (Feb. 28).
Berry, S. Stillman. 1911. A note on the genus Lolliguncula. Acad. Nat. Sci. Philadelphia, Proc., vol. 63, pp. 100-05, l pl., 7 figs.
1912. A review of the cephalopods of western North America. Bull. U. S. Bur. Fisheries (for 1910), vol. 30, pp. 267-336, pls. 3256, 18 text-figs. (July 24).
1929. Loliolopsis chiroctes, a new genus and species of squid from the Gulf of California. San Diego Soc. Nat. Hist., Trans., vol. 5, no. 18, pp. 263-82, pls. 32-33, 9 text-figs. (Aug. 5).

Bertsch, Hans. 1968. Effects of feeding by Armina californica on the bioluminescence of Renilla koellikeri. The Veliger, vol. 10 , no. 4, pp. 440-41 (Apr.1).
1972. Two additions to the opisthobranch fauna of the southern Gulf of California. The Veliger, vol. 15, no. 2, pp. 103-06, 1 gl., 3 text-figs. (Oct. 1).

1973a. Zoogeography of opisthobranchs from tropical Vest America. The Echo, vol. S. pp. 47-54 (March 5).

1973b. Distribution and natural history of opisthobranch gastropods from Las Cruces, Baja California del Sur, Mexico. The Veliger, vol. 16, no. $1, \mathrm{pp} .105-11,2$ maps (July 1).

Bertsch, Hans, \& Antonio J. Ferreira. 1974. Four new species of nudibranchs from tropical West America. The Veliger, vol. 16, no. 4, pp. 343-53, 7 pls. (Aprill).
Bertsch, llans, Antonio J. Ferreira, Vesley M. Farmer, \& Thomas I.. Hayes. 1973. The genera Chromodoris and Felimida (Nudibranchia: Chromodorididae) in tropical West America: distributional data, description of a new species, and scanning electron microscope studies of radulae. The Veliger, vol. 15, no. 4, pp. 287-94, 3 pls., 3 text-figs. (April 1).
Bertsch, Hans, and Alberic A. Smith. 1973. Observations on three opisthobranchs of the la Paz area, Baja California, Mexico. The Southwestern Naturalist, vol. 18, no. 2, pp. 165-76, l text-fig. (June 29).

Blair, Greg M. \& Roger R. Seapy. 1972. Selective predation and prey location in the sea slug Navanax inermis. The Veliger, vol. 15 , no. $2, \mathrm{pp} .119-24,1 \mathrm{map}, 2$ text-figs. (Oct. 1).
Bowman, Robert I., ed. 1966. The Galápagos: Proceedings of the Symposia of the Galápagos International Science Project. Berkeley, Calif. (Univ. Calif. Press). [Especially, D. P. Abbott, "Factors influencing the zoogeographic affinities of the Galápagos inshore marine fauna," pp. 108-21].

Brand, Donald D. 1960. "Mollusca," in D. D. Brand et al.: Coalcoman and Motines del Oro, pp. 290-317. Inst. Latin American Studies, Univ. Texas, xxiv +403 pp., 31 pls., 19 tables, 1 map (Published for the Institute by Martinus Nijhoff, The Hague)。
Bratcher, Twila. 1971 Slide show: the Ameripagos Expedition. The Echo, vol. 4 (Abstracts \& Proc., Western Soc. Malacologists), pp. 13-14. (Dec. 27).
1973. The Ameripagos Expedition. American Malac. Union, Bull. for 1972, vol. 38, p. 33. (March).

Bratcher, Twila, \& Robert Burch. 197la. Terebra variegata Gray, 1834 (Gastropoda): proposed preservation under the plenary powers. Z. N. (S.) 1927. Bull. Zool. Nomencl., vol. 27, pts. 5/6, pp. 255-56. (March).

1971b., The Terebridae (Gastropoda) of Clarion, Socorro, Cocos, and Galápagos Islands. Proc. California Acad. Sci., ser. 4, vol. 37, no. 21, pp. 537-66, 33 figs. (Nov. 23).

Britton, Joseph C., Jr. 1972. Two new species and a new subgenus of Lucinidae (Mollusca: Bivalvia), with notes on certain aspects of lucinid phylogeny. Smithsonian Contrib. to Sci., no. 129, $19 \mathrm{pp.g}$ 6 text-figs.

Brusca, Richard C. 1973. A handbook to the comon intertidal invertebrates of the Gulf of California. Tucson, Arizona, Univ. Arizona Press, 428 pp., numerous illust.

Burch, John Q., \& Rose Burch. 1958-59. [Review of the Olividae]. Min. Conchological Club of So. California, nos. 181-94, 196. (Sept. 1958-Dec. 1959).
Burghardt, Glen, and Laura Burghardt. 1969. A collector's guide to West Coast chitons. San Francisco Aquarium Soc., Special Publ. no. $4,45 \mathrm{pp},. 4 \mathrm{pls},, 7$ text-figs. (Nov.).

Carlton, James T. 1971. Review of: "Sea Shells of Tropical West America; Marine Mollusks from Baja California to Peru" by A. Myra 价, with the assistance of James H. Mclean. Opisthobranch Newsletter, vol. 3, no. 12, pp. 45-47. (Dec. 15).
Cate, Crawford N. 1973. A systematic revision of the Recent cypraeid family Ovulidae. The Veliger, vol. 15 (Suppl.), $116 \mathrm{pp}, 51 \mathrm{pls}$.
(Jan. 3l).
Cernohorsky, Walter 0. 1972. Comments on the authorship of some subfanilial names in the Turridae (Mollusca: Gastropoda). The Veliger, vol. 15, no. 2, pp. 127-28. (Oct. 1).

Chace, Emery P. 1956. Additional notes on the Pliocene and Pleistocene fauna of the Turtle Bay area, Baja California, Mexico. San Diego §oc. Nat. Hist., Trans., vol. 12, no. 9, pp. 177-80. (June 11).
Clarke, Malcolm R. 1966. A review of the systematics and ecology of oceanic squids. Advances in Marine Biology, vol. 4, pp. 91-300, 59 text figs.
Clench, William J. 1945. Some notes on the life and explorations of Hugh Cuming, Harvard Univ. Mus, of Comparative Zool., Occ. Papers on Mollusks, no. 3, pp. 17-28, pl. 7. (July 30).
1964. The genera Pedipes and Laemodonta in the western Atlantic. Johnsonia, vol. 4, no. $42, \overline{p p .117-27}, 4$ pls. (July 13).
Coan, Eugene V. 1971. The northwest American Tellinidae. The Veliger, vol. 14 (Suppl.), 63 pp., 12 pls., 30 text-figs. (July 15).
1973a. The scallop fishery at Bahía de los Angeles. The Echo, vol. 5 (Abstracts \& Proc. 5th Ann. Meeting, Western Soc. of Malacologistsh p. 24. (March 5).
1973b. The northwest American Semelidae. The Veliger, vol. 15, no. $4, \mathrm{pp}$. $3 l_{\text {l }}=39,2 \mathrm{pls} ., 7$ text-figs. (April l).
1973c. The northwest American Psammobiidae. The Veliger, vol. 16, no. 1, pp. 40-57, 4 pls. (July 1).
1973d. The northwest American Donacidae. The Veliger, vol. 16, no. 2, pp. 130-39, l pl., 2 text-figs. (Oct. 1).
Corgan, James X. 1973a. New name for Pyramidella (Triptychus) olssoni Bartsch, 1926. The Veliger, vol. 15, no. 3, p. 258. (Jan。1).
1973b. Status of Obeliscus clavulus A. Adams, 1854. The Veliger, vol. 15, no. 4, p. 359. (April 1).
1973c. Odostomia minutissima Dall \& Bartsch, 1909, a synonym of Odostomia raymondi Dall \& Bartsch, 1909. The Veliger, vol. 15,

Cowan, Ian McT. 1974. The west American Hipponicidae and the application of Malluvium, Antisabia, and Hipponix as generic names. The Veliger, vol. 16, no. 4, pp. $377-80,4 \mathrm{pls}$. (April 1).
D'Asaro, Charles N. 1269. The comparative embryogenesis and early organogenesis of Bursa corrugata Perry and Distorsio clathrata Lamarck (Gastropoda: Prosobranchia). Malacologia, vol. 9, no. 2, pp. 349-89, 18 text-figs. (Dec.).
Dexter, Deborah M. 1972. Comparison of the community structures in a Pacific and an Atlantic Panamanian sandy beach. Bull. Mar. Sci., vol. 22, no. 2, pp. 449-62, 4 text-figs. (June).
Dowlen, Robert J. 1973. Late Pleistocene invertebrates from Rancho Miramar and Las Cruces, southern Baja California del Sur. The Veliger, vol. 16, no. 2, pp. 159-62, 1 text-fig. (Oct. 1).
Draper, Bertram C. 1973. "Lost Operculum Club List of Champions": Marine shells of the eastern Pacific, Alaska to Peru. Conch. Club of So. California, 6\% np.

DuShane, Helen. 1974. The Panamic-Galapagan Epitoniidae. The Veliger, vol. 16 (Suppl.), 84 pp., 15 pls., 5 text-figs., 1 map. (May 31).

DuShane, Helen, and Bertram C. Draper. 1975. The genus Seila in the eastern Pacific (Mollusca: Gastropoda). The Veliger, vol. 17, no. 4 , pp. 335-45, 2 pls., 2 text-figs. (April 1).
Edmunds, Malcolm. 1963. Opisthobranch Mollusca from Ghana. Proc. Malac. Soc. London, vol. 38, no. 1, pp. 83-100. (April).

Edmunds, Malcolm, \& T. E. Thompson. 1972. Opisthobranchiate Mollusca from Tanzania. IV. Pleurobranchomorpha, Dendronotoidea, and Arminoidea. Proc. Malac. Soc. London, vol. 40, no. 3, pp. 219-34, 4 text-figs. (Dec.).

Ferreira, Antonio J. 1972a. Range extensions of Conualevia alba Collier and Farmer, 1964. The Veliger, vol, 15, no. 1, pp. 53-54. (July 1).
1972b. Stenoplax circumsenta Berry, 1956, in the Gulf of California. The Veliger, vol. 15, no. 1, pp. 55-56, 1 pl. (July 1).
1974. The genus Lepidozona in the Panamic province, with the description of two new species. The Veliger, vol. 17, no. 2, pp. 162-80, 6 pls., 1 text-fig. (Oct. 1).

Ferreira, Antonio J. and Hans Bertsch. 1972. Additional data on Flabellina telja (Gastropoda: Opisthobranchia). The Veliger, vol. 14, no. $I_{4}, p p .414-15,1$ text-fig. (April 1).
1975. Anatomical and distributional observations on some opisthobranchs from the Panamic province. The Veliger, vol. 17, no. 4, pp. 323-30, 3 pls., 1 text-fig. (April 1).

Fields, Gordon, and Veronica $\therefore$ Gauley. 1972. A report on cephalopods collected by Stanford Oceanographic Expedition 20 to the eastern tropical Pacific Ocean, September to November, 1963. The Veliger, vol. 15, no. 2, pp. 113-18, 1 text-fig. (Oct. 1.).

Fischer, $\mathrm{P} .-\mathrm{H} .1973$. Cantharus fusiformis Blainville, élément des milieu littoraux tres abrites dans la région de Panama. Jour. Conchyliol., vol. 110, no. 4, p. 130. (Dec.).
Fischer-Piette, Edouard. 1974. Révision des Pinnidae du Muséum National d'Histoire Naturelle. Jour. Conchyliol., vol. 111, no. 1/2, pp. 11-85. (May).

Gemmell, Joyce. 1973. Field observations on gastropod breeding and egg-laying. The Echo, vol. 5 (Abstracts and Proc., 5th Ann. Meeting, Vestern Soc. Valacologists, p. 30. (March 5).
1974. Notes on egg capsules and larval development of Typhis clarki Keen \& Campbell, 1964. Festivus, vol. 5, no. 3, pp. $\overline{100-03}, 1$ pl., $4_{1}$ test-figs. (March).
Glynn, Peter $\because$. 197 . Observations on the ecology of the Caribbean and Pacific coasts of Pananá. Biol. Soc. Washington, Bull. no. 2, pp. 13-30, 3 tert-figs. (Sept. 23).

Goslinex, Terrence Mo, and Gary C. Villiams. 1972. A new species of Chelidonura from Bahia San Carlos, Gulf of California, with a synonymy of the family Aglajidae. The Veliger, vol. 14, no. 4, pp. 424-36, 1 map, 3 text-figs. (April 1).
Hamatani, Iwao. 1971. A new species of Cylindrobulla, sacoglossan opisthobranch, from California; with a comparison with C. japonica Hamatani, 1969. Publications of the Seto Marine Biol. Lab., vol. 19, no. 2/3, pp. 111-17, 2 pls., 3 text-figs. (Oct.)
1972. A new species of Volvatella Pease, 1860, found in the Caulerpan microfauna in the province of Kii, middle Japan (Opisthobranchia: Sacoglossa). Publ. Seto Mar. Biol. Lab., vol. 2l, no. 1, pp. 13-20, 2 pls. (Dec.).

Heatl:, Harold. 1941. The anatomy of the pelecypod family Arcidae. American Philos. Soc., Trans. (n.s.), vol. 31, pp. 287-319, 22 pls.
Hertlein, Leo G. and U. S. Grant, IV. 1972. The geology and paleontology of the marine Pliocene of San Diego, California. Part 2B: Paleontology - Pelecypoda. Mem. San Diego Soc. Nat. Hist., vol. 2, pp. 135-409, pls. 27-57, text figs. 7-13 (July 21).
Holleman, John J. 1972. Observations on growth, feeding, reproduction, and development in the opisthobranch Fiona pinnata (Eschscholtz). The Veliger, vol. 15, no. $2, \mathrm{pp} .142-46,5$ text-figs. (Oct. 1).
Houbrick, Richard S. 1974. The genus Cerithium in the western Atlantic. Johnsonia, vol. 5, no. 50, pp. 33-84, 48 pls. (July 29).
Hoyle, William F. 1904. Reports on the Cephalopoda. In Repts., Dredging Operations off the West Coast of Central America... Albatross. V. Bull. Mus. Comp. Zool., vol. 43, no. l, 71 pp., 12 pls., 7 text-figs. (March).
Ingram, W. M., and Harold Trapido. 1947. Cypraea cervinetta Kiener and Cypraea arabicula Lamarck. The Nautilus, vol. 61, no. 1, pp. 16-19 (July 14).
Jatta, Giuseppe. 1889. Elenco dei Cefalopodi della "Vettor Pisani." Soc. Nat. Napoli, Bol., ser. 1, vol. 3, no. 1, pp. 63-67.
1899. Sopra alcuni Cefalopodi della "Vettor Pisani." Soc. Nat. Napoli, Bol., ser. 1, vol. 12, no. $1, \mathrm{pp} .17-32,29$ text-figs.
Jones, Meredith L., ed. 1972. The Panamic biota: Some observations prior to a sea-level canal. Biol. Soc. Washington, Bull. no. 2, 269 pp . (Sept. 28).
Joubin, L. 1929. Notes préliminaires sur les céphalopodes des croisières du Dana (1921-1922). Octopodes - Pt. 1. Inst. Oceanogr., Monaco, Ann. (n.s.), vol. 6, no. 4, pp. 363-94, 23 text-figs.
1931. Notes préliminaires sur les céphalopodes des croisières du Dana (1921-1922). Pt. 3. Inst. Océanogr., Monaco, Ann. (n.s.), vol. 10 , no. 7, pp. 159-211, 48 text-figs.

Keen, A. Myra. 1973. Some nomenclatural problems in Sacoglossa. The Veliger, vol. 16, no. 2, p. 238 (Oct. 1).
1974. Re Laura Trinchese, 1872. The Veliger, vol. 16, no. 4, p. 426 (Apr. 1).

Kennedy, George i. 1974. West American Cenozoic Pholadidae. San Diego Soc. Nat. Hist., Mem. 8, 128 pp., 103 figs. (June 28).
Knudsen, Jørgen. 1961. The bathyal and abyssal Xylophaga. Galathea Report 5, pp. 163-209, 41 text-figs. (Dec. 28).
1970. The systematics and biology of abyssal and hadal Bivalvia. Galathea Report no. $11,241 \mathrm{pp},. 20 \mathrm{pls} ., 132$ text-figs. (Nov. 6).
Kues, Barry S. 1974. New occurrence of Ischnochiton retiporosus Carpenter, 1864, in the eastern Pacific Ocean. The Veliger, vol. 16, no. 4, p. 366 (April 1).
Lance, James R. 1962. Two new opisthobranch mollusks from southern California. The Veliger, vol. 4, no. 3, pp. 155-59, l pl., 8 text-figs. (Jan. 1)。
1971. Observations on the sea hare Aplysia parvula ... from the Gulf of California. The Veliger, vol. 14 , no. 1 , pp. 60-63, 4 text-figs. (July 1).
Larson, Mary, and Hans Bertsch. 1974. Northward range extensions for Lobiger souverbii ... in the eastern Pacific. The Veliger, vol. 17, no. 2, p. 225 (oct. 1).
Lindsay, George E. 1962. The Belvedere Expedition to the Gulf of California. San Diego Soc. Nat. Hist., Trans., vol. 13, no. 1, pp. 1-44, 28 text figs. (Nov. 9).
Long, Garrell E. 1971. The Kest merican Caecidae. The Echo, vol. 4 (Abstracts and Proc., 4 th Annual Meeting, Western Society of Malacologists), p. 25 (Dec. 27).
1972. A new Caecum from the Sea of Cortez. The Veliger, vol. 14, no. 3, pp. 291-92, 1 pl. (Jan. 1).
Lyons, William G. 1972. New Turridae ... from South Florida and the eastern Gulf of Mexico. Nautilus, vol. 86, no. 1, pp. 3-7, 1 pl. (July).
McFadien, M. S. 1973. Zoogeography and ecology of seven species of Panamic-Pacific Scaphopoda. The Veliger, vol. 15, no. 4, pp. 340-47, 2 pls., 3 text-figs. (Apr. 1).
Marcus, Eveline. 1971. On some euthyneuran gastropods from the Indian and Pacific oceans. Proc. Malac. Soc. London, vol. 39, no. 5, pp. 355-69, 20 text-figs. (Aug.).
1972. On some Acteonidae ... Papéis Avulsos de Zoologia, vol. 25, no. 19, pp. 167-88, 1 pl., 32 text-figs. (Feb. 29).
Marcus, Ernst, and Eveline Marcus. 1970. Opisthobranchs from Curacao and faunistically related regions. stud. Faun. Cur. Caribb. Isl., vol. 33 , no. $122, \mathrm{pp} .1=129,160$ text-figs.

Marincovich, Louie, Jr. 1973a. Intertidal mollusks of Iquique, Chile. Sci. Bull. Nat. Hist. Mus. Los Angeles County, no. 16,49 pp., 102 figs. (Feb. 20).

1973b. Neogene to Recent Naticidae . . of the eastern Pacific. Ph.D. Dissertation, University of Southern California Graduate School (Geological Sciences), xii +385 pp., 3 pls., 5 textfigs. (June). [Unpublished; available on interlibrary loan.]

Morris, Percy. 1974. A Field Guide to the Shells of the Pacific Coast ... second revised edition. 322 pp .

Morrison, J. P. E. 1951. American Ellobiidae: an annotated list. American Malac. Union News Bull. and Ann. Rept (for 1950), pp. 8-10.

Mulliner, David K., and Gale G. Sphon. 1974. A new Platydoris.. from the Galapagos Islands. Trans. San Diego Soc. Nat. Hist., vol. 17, no. 15, pp. 209-16, 5 figs. (April 12).

Myhre, Dot. 1972. Range extension for Columbella sonsonatensis Mbrch, 1860. The Veliger, vol. 14, no. 3, p. 321 (Jan. 1).

Nybakken, James. 1971. Food habits of Conus in the Sea of Cortez. The Echo, vol. 4 (Abstracts and Proc. 4 th Annual Meeting, Western Soc. Malacologists), p. 26 (Dec. 27).
Odé, Helmer. 1973. Some remarks inspired by: Sea Shells of Tropical Hest America... Texas Conchologist, vol. 10, no. 2, pp. $14-20,1$ text-fig. (Sept.).
Olsson, Axel A. 1922. The Miocene of northern Costa Rica, with notes on its general stratigraphic significance. Bulls. American Paleont., vol. 9, no. 39; pt. 1, pp. 1-168 (April 1); pt. 2, pp. 169-309, pls. 1-32 (June 21).
1967. Pustularias (Jenneria) in the American Neogene. Notulae Naturae no. $403,13 \mathrm{pp.}$,2 pls . (July 21).
1972. Origin of the existing Panamic molluscan biotas in terms of their geologic history and their separation by the Isthmian land barrier. In Meredith Jones, et al., Bull. Biol. Soc. Washington, no. 2, pp. 117-23 (Sept. 28).

Olsson, Axel A. and Frederick M. Bayer. 1972. American Metulas (Gastropoda: Buccinidae). Biol. Res. Univ Miami Deep-Sea Exped. no. 96. Bull. Marine Sci., vol. 22, no. 4, pp. 900-25, 14 text-figs. (Dec.).
Palmer, Charles Philip. 1974. A supraspecific classification of the scaphopod Mollusca. The Veliger, vol. 17, no. 2, pp. 115= 23, 4 text-figs. (Oct. 1).
Parodiz, Juan José. 1939. Las especies de "Crepidula" de las costas Argentinas. Physis (Rev. Soc. Argentina de Ciencias Naturales), vol. 17, pp. 695-709, 1 pl.
Peña G., Gregorio Mario. 1960a. Datos ecologicos sobre los moluscos de valor económico en los esteros de Puerto Pizarro. Rev. Pesca y Caza, no. 10 (Minist. Agric. Serv. Pesquería, Lima).

Peña G., Gregorio Mario. 1960b. Datos ecólogicos sobre tres esspecies de caracoles del género Cerithidea de Puerto Pizarro. Rev. Pesca y Caza (Minist. Agric. Serv. Pesquería, Lima), no. 10.
1970a. Zonas de distribucion de los gasteropodos marinos del Peru. Univ. Nacion. Agraria, Anales Cient., vol. 8, no. 3/4, pp. 153-170, 1 map.

1970b. Biocenosis de los manglares Peruanos. Univ. Nacion. Agraria, An. Cient., vol. 9, no. $1 / 2, \mathrm{pp} .38-45$, 1 map, 2 pls.

1970c. Descripcion de los gasteropodos de los manglares del Peru. Anales Cient., vol. 9, no. $1 / 2, \mathrm{pp} .4_{6} 6-55,3 \mathrm{pls}$. (Jan.-June).

Pfeffer, Georg J. 1912. Die Cephalopoden der Plankton-Expedition. Ergeb. Atlant. Ozean Planktonexped. Humboldt-Stift, vol. 2, $815 \mathrm{pp} ., \mathrm{L}_{4} 8 \mathrm{pls}$. in atlas.
Radwin, George E. and Anthony D'Attilio. 1971. Muricacean supraspecific taxonomy based on the shell and the radula. The Echo, vol. 4 (Abstracts and Proc., 4 th Annual Meeting, Western Soc. Malacologistsj, pp. 55-67, 23 text-figs. (Dec. 27).
1972. The systematics of some New World muricid species .., with descriptions of two new genera and two new species. Biol. Soc. Washington, Proc., vol. 85, no. 28, pp. 323-52, 26 text-figs. (Dec. 30).

Rehder, Harald A. 1973. Nipponaphera Habe, 1961 (Gastropoda): proposed designation of a type-species under the Plenary Powers. Z. N. (S.) 2007. Bull. Zool. Nomencl., vol. 30, no. 1, pp. 37-38 (July).
Rice, Thomas C. 1968. Additions and revisions to A. Myra Keen's "Sea Shells of Tropical West America." Port Gamble, Wash. (Of Sea and Shore), $88 \mathrm{pp} .$, illust. (Nov. 15).
Robertson, Robert. 1973. Cyclostremella: a planispiral pyramidelide The Nautilus, vol. 87, no. 3 , p. 88 (July).
Robilliard, Gordon A. 1971. Range extensions of some northeastern Pacific nudibranchs ... to Washington and British Columbia, with notes on their biology. The Veliger, vol. 14, no. 2, pp. 16263 (Oct. 1).

Robson, G. C. 1929. A monograph of the Recent Cephalopoda based on the collections of the British Museum (Natural History). Part I. The Octopodinae. London, $x i+236 \mathrm{pp} ., 7 \mathrm{pls} ., 89$ text-figs. (July 27).
1932. Part II. The Octopoda (excluding the Octopodinae). London, xi +359 pp., 6 pls., 79 text-figs. (Jan. 23).
1948. The Cephalopoda Decapoda of the Arcturus Oceanographic Expedition, 1925. Zoologica, vol. 33, no. 3, pp. 115-32.
Rokop, Frank J. 1972. Notes on abyssal gastropods of the eastern pacific, with descriptions of three new species. The Veliger, vol. 15, no. 1, pp. 15-19, 2 pls. (July 1).

Roller, Richard A. 1970. A list of recommended nomenclatural changes for MacFarland's "Studies of Opisthobranchiate mollusks of the Pacific Coast of North America." The Veliger, vol. 12, no. 3, pp. 371-74 (Jan. 1).
Roper, Clyde $F$. E. 1968. Preliminary descriptions of two new species of the bathypelagic squid Bathyteuthis.. Proc. Biol. Soc. Washington, vol. 81, pp. 161-72, 7 pls.
1969. Systematics and zoogeography of the worldwide bathypelagic squid Bathyteuthis.. U. S. National Mus. Bull. 291, 210 pp., 12 pls., 74 text-figs.
Roper, Clyde F. E., Richard E. Young, and Gilbert L. Voss. 1969. An illustrated key to the families of the order Teuthoidea (Cephalopoda). Smithsonian Contrib. Zool., no. 13, 32 pp ., 16 pls., 2 text-figs.

Rosewater, Joseph. 1968. Notes on Periplomatidae... with a geographical checklist. Ann. Rept. Amer. Malac. Union, pp. 37-39.
Roth, Barry. 1971. A second Recent species of Noetia, sensu stricto (Mollusca: Bivalvia) in the tropical eastern Pacific Ocean. So. California Acad. Sci., Bull. 70, no. 3, pp. 131-35, 15 text-figs.

Ruhoff, Florence A. 1973. Bibliography and zoological taxa of Paul Bartsch, with a biographical sketch by Harald A. Rehder. Smithsonian Inst. Contrib. Zool., no. $143,166 \mathrm{pp}$.

Salvat, Bernard, 1967. Cerithium (Pseudovertagus) clava (Gmelin, 1791) (=Clava maculata Martyn, 1784), taxonomie et distribution géographique. Jour. Conchyl., vol. 106, no. 4, p. 130-37.

Salvat, Bernard, and F. Salvat. 1972. Geographic distribution of Pinna rugosa Sowerby, $1835 \ldots$ and its occurrence on Clipperton Island. The Veliger, vol. 15, no. l, pp. 43-44 (July 1).

Sevilla, M., and C. Marine Luisa Sevilla. 1969. Contribucion al conocimiento de la madreperla Pinctada mazatlanica (Hanley), 1845. Rev. Soc. Mexic. Hist. Natural., vol. 30, pp. 223-62, 19 figs. (Dec.).

Shasky, Donald R. 1966. Range and bathymetric extensions for 0livella inconspicua and Nassarius limacinus. The Nautilus, vol. 80, no. 1, pp. 35-36 (July 6).
1973. Obituary: G. Bruce Campbell, M.D. The Nautilus, vol. 87, no. 3, pp. 89-90 (July).

Smith, Allyn G. 1974. The deep-water chiton Placiphorella pacifica Berry. The Veliger, vol. 17, no. 2, pp. 159-61, 4 text-figs. (Oct. 1).

Sphon, Gale G. 1971. The reinstatement of Hypselodoris agassizi [sic] (Bergh, 1894) ... The Veliger, vol. 14, no. 2, p. 214 (Oct. I).

1972a. Psychedelic slugs. Terra, vol. ll, no. 1, pp. 3-6, color. illust.

1972b. An annotated checklist of the nudibranchs and their allies from the west coast of North America. Opisthobranch Newsletter, vol. 4, no. 10/11, pp. 53-79 (Nov.).

1972c. Berthella kaniae, a new opisthobranch from the eastern Pacific. The Nautilus, vol. 86, no. 2/4, pp. 53-55, 8 textfigs. (Nov.).

Sphon, Gale G.g.\& Hans Bertsch. 1974. Green dragons. Terra (Quarterly Mag. Nat. Hist. Mus. Los Angeles Co.), vol. 12, no. 3, pp. 2ly-29, color illust.
Sphon, Gale G., and David K. Mulliner. 1972. A preliminary list of known opisthobranchs from the Galapagos Islands collected by the Ameripagos Expedition. The Veliger, vol. 15, no. 2, pp. 147-52, $1 \operatorname{map}$ (Oct. 1).
Steinberg, Joan $\pm .1963$. Notes on the opisthobranchs of the west coast of North America. II. The Order Cephalaspidea from San Diego to Vancouver Island. The "eliger, vol. 5, no. 3, pp. 114-17 (Jan. 1) .

Stenzel, Henryk B. 1971. Oysters. In Raymond C. Moore, ed., "Treatise on Invertebrate Paleontology" Part N (Mollusca 6: Bivalvia, vol. 3), pp. 953-1224, 153 figs. (Dec. 14).
Strong, A. M. 1954 (posthumously). A review of the eastern Pacific species in the molluscan family Cancellariidae. Minutes, Conchological Club So. California, nos. 135-139, pp. 7-14 (Jan.), 16-23 (Feb.), 28-32 (Apr.), 44-47 (May), 56-59 (June).
Tapparone-Canefri, Cesare. 1874. Malacologia in "Zoologia del viaggio intorno al globo regia fregata Magenta durante gli anni 1365-68.* Torino: 162 pp., 4 pls.
Tore, Sven. 1949. Investigations of the "Dana" Octopoda. Dana Rept., vol. 33, $85 \mathrm{pp}, 69$ figs.
Turner, Ruth Dixon. 1971. Identifications of marine wood-boring molluscs: Chapter $I$ in "Marine Borers, Fungi, and Fouling Organisms of Wood," E. B. S. Jones and S. K. Eltringham, eds. Organiz. Econ. Coop. and Dev., Paris, pp. 17-64, 74 text-ifigs.
Vegas-Velez, Manuel. 1963. Contribución al conocimiento de la Zona de Littorina en la Costa Peruana. Anales Cient. Univ. Agraria, Lima, vol. 1, no. 2, pp. 174-193, 9 text-figs.
1968. Revision taxonomica y zoogeografica de algunos gastropodos y lamellibranquios marinos del Peru. An. Cient. Univ. Agraria, Lima, vol. 6, no. $1 / 2$, pp. $1-29,53$ text-figs, 1 map.

Vokes, Emily H. 1975a. Cenozoic Muricidae of the western Atlantic region. Part VI $-=$ Aspella and Dermomurex. Tulane Studies in Geol. and Paleont., vol. 11, no. 3, pp. 121-62, $7 \mathrm{pls},$. text-fig. (Feb. 5).

1975b. Notes on the fauna of the Chipola formation - XVIII. Sone new or otherwise interesting members of the Calyptraeidae. Tulane Studies in Geol. and Paleont., vol. 11, no. 3, pp. 163= 172, 2 ils., 1 text-fig. (Feb. 5).

Voss, Gilbert L. 1967. Narrative of R/V John Elliott Pillsbury Cruise $P-6703$ in the Gulf of Panama, April 29 to May 11, 1967. Inst. Mar. Sci., Univ. Miami, "processed report." 30 pp., 1 map.
1968. Biological investigations of the deep sea. 39. Octopods from the $R / V$ Pillsbury southwestern Caribbean cruise, 1966, with a descriptions of a new species, Octopus zonatus. Bull. Mar. Sci., Univ. Miami, vol. 18, no. 3, pp. 645-59, 4 textfigs.
1971. Cephalopods collected by the R/V John Elliott Pillisbury in the Gulf of Panama in 1967. Bull. Mar. Sci., vol. 2l, no. 1 , pp. 1-34, 6 text-figs. (March).

Voss, Nancy A. 1970. A monograph of the Cephalopoda of the North Atlantic. The family Histioteuthidae. Bull. Mar. Sci., vol. 19, no. 4, pp. $713-867,37$ text-figs. (Jan. 12).

Waller, Thomas R. 1971. The glass scallop Propeamussium, a living relict of the past. American Malac. Union, Ann. Rept. for 1970, vol. 36, pp. 5-7 (Feb. 18).

Weaver, Clifton S. and John E. duPont. 1970. Living volutes: a monograph of the Recent Volutidae of the world. Delaware Mus. Natur. Hist., Monogr. $1,375 \mathrm{pp}, 78 \mathrm{pls}, 43$ text-figs.
Williams, Gary C., and Terrence M. Gosliner. 1973a. Range extensions for four sacoglossan opisthobranchs from the coasts of California and the Gulf of California. The Veliger, vol. 16, no. $1, ~ p p .112-16,2$ maps (July 1).

1973b. A new species of anaspidean opisthobranch from the Gulf of California. The Veliger, vol. 16, no. 2, pp. 216-32, 15 textfigs., 1 map (Oct. 1).

Wilson, Druid. 1948. Notes on Perplicaria Dall and its systematic position. Nautilus, vol. 61, no.4, pp. 112-14 (May 24).
Winckworth, R. A. 1929. Marine Mollusca from South India and Ceylon. III. Pinna. Jith an inder to the Recent species of Pinna. Proc. Malac. Soc. Iondon, vol. 18, no. 6, pp. 276-97, 5 text-figs.
Woodring, Wendeli P. 1973. Geology and paleontology of Canal Zone and adjoining parts of Panama. Description of Tertiary mollusks (Additions to gastropods, scaphopods, pelecypods: Nuculidae to Malleidae). U. S. Geol. Surv. Prof. Paper 306-E, pp. 453-539, pis. 67-82.

Woodring, Wendell P. and Axel A. Olsson. 1957. Bathygalea, a genus of moderately deep-water and deep-water Niocene to Recent cassids. U. S. Geol. Survey Prof. Paper 314-B, pp. 16-26, pls. 6-10, 1 text-fig.

Young, Richard E. 197, The systematics and areal distribution of pelagic cephalopods from the seas off southern California. Smithsonian Contrib. iool., no. 97,159 pp., $38 \mathrm{pls}, 15$ textfigs.



