**Whelks, rock-snails, and allied: a new phylogenetic framework for the family Muricidae (Mollusca: Gastropoda)**

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**SUPPLEMENTARY MATERIAL**

**Table S1.** List of primer for each molecular marker

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Sequence primer 5’-3’ |  |
| 12S | 12SI  12SIII | TGCCAGCAGCCGCGGTTA- GAGCGACGGGCGRTTWGTAC | Oliverio & Mariottini, 2001 |
| 16S | 16SA  CgLEUUR | CGCCTGTTTATCAAAAACAT- TATTTAGGGCTTAAACCTAATGCAC | Palumbi, 1996; Hayashi, 2003 |
| 28S | LSU5’  ECD2S  900F  LSU1600 | TAGGTCGACCCGCTGAAYTTAAGCA- CTTGGTCCGTGTTTCAAGACGG  CCGTCTTGAAACACGGACCAAG- AGCGCCATCCATTTTCAGG | Littlewood et al., 2000;  Williams et al., 2003 |
| *cox1* | LCO1490  HCO2198 | GGTCAACAAATCATAAAGATATTGG-TTAACTTCAGGGTGACCAAAAAATCA | Folmer et al., 1994 |

Table **S2.** Specimens included in the dataset with GenBank accession number of genetic sequences. \* indicates types species and sequences newly produced for this paper.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Authorship** | **Voucher** | **Locality** | ***cox1*** | **16S** | **12S** | **28S** |
| **Aspellinae Keen, 1971** |  |  |  |  |  |  |  |
| *Aspella media* | Houart, 1987 | MNHN-IM-2009-4893 | Philippines, Panglao I.; PANGLAO 2004, B9, 09°33.1'N, 123°44'E, 8-10 m; caves in the reef wall | MN520787 | OR257855\* | OR257938\* | OR257893\* |
| *Aspella producta* | (Pease,1861) | MNHN-IM-2009-4894 | Philippines, Panglao I.; PANGLAO 2004, B8, 09°37.1'N, 123°46.1'E, 0-3 m; subtidal reef platform | OR252551\* | OR257856\* | OR257939\* | OR257894\* |
| *Attiliosa nodulifera* | (G. B. Sowerby II, 1841) | MNHN-IM-2009-4955 | Vanuatu, E Aoré I.; SANTO 2006, EP36, 15°33.1'S, 167°12.2'E, 60 m | GU575368 | FN651896 | FN651854 | FN651962 |
| *Dermomurex boucheti* | Garrigues & Merle, 2014 | MNHN-IM-2013-8857 | Guadeloupe, Est Petite Terre; KARUBENTHOS 2012, GD60, 16°12.05'N, 61°03.9'W, 95 m | KJ591660 |  |  |  |
| *Dermomurex neglectus* | (Habe & Kosuge, 1971) | MNHN-IM-2009-4908 | Philippines, Panglao I.; PANGLAO 2004, L76-L77, 09°36.5'N, 123°43.3'E, 80-120 m | GU575372 | FN651900 | FN651858 | FN651966 |
| *Dermomurex wareni* | Houart, 1990 | MNHN-IM-2009-5031 | New Caledonia, Ile des Pins; NORFOLK 2, DW2156, 22°54'S, 167°15'E, 468-500 m | GU575373 | FN651901 | FN651859 | FN651967 |
| **Coralliophilinae Chenu, 1859** |  |  |  |  |  |  |  |
| *Babelomurex armatus* | (G. B. Sowerby III, 1912) | MNHN-IM-2009-5110 | Philippines, Balicasag I.; 09°30.83'N, 123°41.26'E, 150 m |  |  | FN391955 |  |
| *Babelomurex benoiti* | (Tiberi, 1855) | Bam-1 | Greece, Cyclades |  |  | AJ293671 |  |
| *Babelomurex bernardi* | (K. Nicolay, 1984) | MNHN-IM-2009-5112 | Ivory Coast; intertidal |  |  | FN391957 |  |
| *Babelomurex cariniferus\** | (G. B. Sowerby II, 1834) | MNHN-IM-2009-5111 | Italy, Sicily, Ustica I.; 0-10 m | FN651934 | FN651889 | FN391956 | FN651954 |
| *Babelomurex cristatus* | (Kosuge, 1979) | MNHN-IM-2009-5094 | Philippines, Balicasag I.; PANGLAO 2004, P3, 09°31.1'N, 123°41.5'E, 100 m; tanglet nets from local fisherman |  |  | FN391958 |  |
| *Babelomurex deburghiae* | (Reeve, 1857) | MNHN-IM-2009-5095 | Philippines, Bohol I.; PANGLAO 2004, P1, 09°36'N, 123°45'E, 90-200 m; tanglet nets from local fisherman |  |  | FN391959 |  |
| *Babelomurex diadema* | (A. Adams, 1854) | MNHN-IM-2009-5096 | Philippines, Bohol I.; PANGLAO 2004, P1, 09°36'N, 123°45'E, 90-200 m; tanglet nets from local fisherman |  |  | FN391960 |  |
| *Babelomurex gemmatus* | (Shikama, 1966) | MNHN-IM-2009-5097 | Philippines, Balicasag I.; PANGLAO 2004, P3, 09°31.1'N, 123°41.5'E, 100 m; tanglet nets from local fisherman |  |  | FN391961 |  |
| *Babelomurex memimarumai* | Kosuge, 1985 | MNHN-IM-2009-4878 | Nord New Caledonia, Grand Passage; CONCALIS, CP3011, 18°48'S, 163°17'E, 612-621 m |  |  |  | OR257895\* |
| *Babelomurex nakayasui* | (Shikama, 1970) | MNHN-IM-2009-5099 | Philippines, Bohol I.; PANGLAO 2004, P1, 09°36'N, 123°45'E, 90-200 m; tanglet nets from local fisherman |  |  | FN391963 |  |
| *Babelomurex neocaledonicus* | Kosuge & Oliverio, 2001 | MNHN-IM-2009-4879 | Nord New Caledonia, Grand Passage; CONCALIS, DW2969, 18°14'S, 163°03'E, 246-249 m |  |  | OR257940\* | OR257896\* |
| *Babelomurex princeps* | (Melvill, 1912) | MNHN-IM-2009-5100 | New Caledonia, Ride de Norfolk; NORFOLK 1, CP1713, 23°22'S, 168°04'E, 204-216 m |  |  | FN391964 |  |
| *Babelomurex spinosus* | (Dall, 1889) | MNHN-IM-2009-5101 | New Caledonia, Banc Kelso; EBISCO, DW2520, 24°06'S, 159°41'E, 350-400 m | FN651935 | FN651890 | FN391965 | FN651955 |
| *Babelomurex yamatoensis* | Kosuge, 1986 | MNHN-IM-2009-4880 | Nord New Caledonia, Grand Passage; CONCALIS, DW2951, 18°58'S, 163°25'E, 0-300 m |  |  | OR257941\* | OR257897\* |
| *Coralliophila bathus* | Oliverio, 2008 | MNHN-IM-2009-4882 | Nord New Caledonia, Grand Passage; CONCALIS, DW3016, 19°05'S, 163°28'E, 244-252 m | OR252552\* |  | OR257942\* |  |
| *Coralliophila brevis* | (Blainville, 1832) | Cbr-1 | Italy, Tuscany |  |  | AJ293676 |  |
| *Coralliophila bulbiformis* | (Conrad, 1837) | MNHN-IM-2009-5104 | Vanuatu, S Baldwin Cove; SANTO 2006, FR58, 15°35.2'S, 167°02.1'E, 3-18 m |  |  | FN391968 |  |
| *Coralliophila clathrata* | (A. Adams, 1854) | NMSA D2534 | South Africa, Mtwalume; 30.48° S, 30.63° E; intertidal rock pools |  |  | FN391969 |  |
| *Coralliophila costularis* | (Lamarck, 1816) | MNHN-IM-2009-5113 | Yemen, Darsa I.; 7 m |  |  | FN391970 |  |
| *Coralliophila curacaoensis* | Potkamp & B. W. Hoeksema, 2017 | RMNH 5004323 | Curacao, Playa Daaibooi; 12.212°N, 69.087°W | KY818757 |  | KY829340 |  |
| *Coralliophila erosa* | (Röding, 1798) | NA | NA | U86331 |  |  |  |
| *Coralliophila erosa* | (Röding, 1798) | NHMUK 20070626 | New Caledonia, Yate | FR853815 |  | FR853977 | FR853896 |
| *Coralliophila fontanangioyae* | Smriglio & Mariottini, 2000 | MZUR BAU 342 | Spain, Tenerife, Teno South, off Cueva Corvina; 28.34°N, 16.92°W, 32 m |  |  | FN391972 |  |
| *Coralliophila galea* | (Dillwyn, 1823) | RMNH 5004294 | Curacao, Bluebay; 12.135°N, 68.987°W | KY818778 |  | KY829357 |  |
| *Coralliophila kaofitorum* | Vega, Vega & Luque, 2002 | MNHN-IM-2009-5115 | Spain, Teno Sur, Tenerife, Canary I.; 28°20.5'N, 16°55.5'W, 0-32 m; on Antipathella wollastoni |  |  | FN391973 |  |
| *Coralliophila meyendorffii* | (Calcara, 1845) | BAU 344 | Italy, Cape Circeo; 41.18°N, 13.07°E | FN651936 | FN651891 | AJ297519 | FN651956 |
| *Coralliophila mira* | (Cotton & Godfrey, 1932) | WAM S10866 | Australia, Geography Bay; 33.62°S, 115.3°E | FN651937 | FN651892 | FN651853 | FN651957 |
| *Coralliophila ovoidea* | (Kosuge, 1985) | MNHN-IM-2009-4883 | Nord New Caledonia, Grand Passage; CONCALIS, CP2976, 18°15'S, 163°06'E, 258-274 m |  |  | OR257943\* | OR257898\* |
| *Coralliophila panormitana* | (Monterosato, 1869) | Cpa-1 | Italy, Latium |  |  | AJ293681 |  |
| *Coralliophila radula* | (A. Adams, 1855) | MZUR BAU 15 | Cook Islands, Rarotonga; 20.2°S, 159.72°W, 12 m |  |  | FN391974 |  |
| *Coralliophila richardi* | (P. Fischer, 1882) | USNM 1526878 | USA, Many Mounds site, west of Sanibel, Florida ; 26°12'27''N, 84°43'34''W , 478 m | OM307660 |  |  |  |
| *Coralliophila salebrosa* | H. Adams & A. Adams, 1864 | RMNH 5004260 | Curacao, Directors Bay; 12.067°N, 68.861°W | KY818752 |  | KY829336 |  |
| *Coralliophila squamosissima* | (E. A. Smith, 1876) | NMSA D9663 | South Africa, Zululand, Boteler Point; 27.01° S, 32.86° E; intertidal rock pools |  |  | FN391975 |  |
| *Coralliophila trigoi* | Mariottini, Smriglio & Rolán, 2005 | Ctr-2 | Spain, Galicia |  |  | AJ937306 |  |
| *Coralliophila violacea\** | (Kiener, 1836) | NHMUK 20080819 | Guam | FR853816 |  | FR853978 | FR853897 |
| *Emozamia licina\** | (Hedley & Petterd, 1906) | NMNZ M.305191 | New Zealand, NE of Table Cape, Mahia Peninsula; RV Tangaroa | OR252553\* | OR257857\* | OR257944\* |  |
| *Galeropsis monodonta* | (Blainville, 1832) | BAU 349 | Indonesia, Bunaken Island; 1.62°N, 124.77°E | FN651940 | FN651895 | AJ293675 | FN651960 |
| *Hirtomurex squamosus\** | (Bivona e Bernardi, 1838) | M70-1-677 | Italy, Nameless-Urania Bank ; cruise M70-1, R/V METEOR, , 36° 50.340', 13° 09.300', 544 m | OR252554\* | OR257858\* | OR257945\* | OR257899\* |
| *Latiaxis hayashii* | Shikama, 1966 | MNHN-IM-2009-5116 | New Caledonia, Norfolk Ridge; 23°45'S, 168°17'E, 400-500 m |  |  | FN391977 |  |
| *Latiaxis pilsbryi* | Y. Hirase, 1908 | MNHN-IM-2009-5107 | New Caledonia, N Banc Nova; EBISCO, DW2534, 22°17'S, 159°28'E, 390-430 m | FN651938 | FN651893 | FN391978 | FN651958 |
| *Leptoconchus inactiniformis* | A. Gittenberger & E. Gittenberger, 2011 | HacMak9007 | Indo-West Pacific | EU215826 |  |  |  |
| *Leptoconchus inalbechi* | A. Gittenberger & E. Gittenberger, 2011 | CecPalLP4 | Indo-West Pacific | EU215808 |  |  |  |
| *Leptoconchus incrassa* | A. Gittenberger & E. Gittenberger, 2011 | CcraTogLCc | Indo-West Pacific | EU215804 |  |  |  |
| *Leptoconchus incycloseris* | A. Gittenberger & E. Gittenberger, 2011 | cosMa87860 | Indo-West Pacific | EU215813 |  |  |  |
| *Leptoconchus infungites* | A. Gittenberger & E. Gittenberger, 2011 | funPalLP34 | Indo-West Pacific | EU215819 |  |  |  |
| *Leptoconchus ingrandifungi* | A. Gittenberger & E. Gittenberger, 2011 | PcrPalLP40 | Indo-West Pacific | EU215839 |  |  |  |
| *Leptoconchus ingranulosa* | A. Gittenberger & E. Gittenberger, 2011 | grnToLFGl2 | Indo-West Pacific | EU215823 |  |  |  |
| *Leptoconchus inlimax* | A. Gittenberger & E. Gittenberger, 2011 | limBalL82 | Indo-West Pacific | EU215829 |  |  |  |
| *Leptoconchus inpileus* | A. Gittenberger & E. Gittenberger, 2011 | pilMa90079 | Indo-West Pacific | EU215840 |  |  |  |
| *Leptoconchus inpleuractis* | A. Gittenberger & E. Gittenberger, 2011 | pauMa90020 | Indo-West Pacific | EU215837 |  |  |  |
| *Leptoconchus inscruposa* | A. Gittenberger & E. Gittenberger, 2011 | scrMa90035 | Indo-West Pacific | EU215855 |  |  |  |
| *Leptoconchus inscutaria* | A. Gittenberger & E. Gittenberger, 2011 | scuMa90019 | Indo-West Pacific | EU215858 |  |  |  |
| *Leptoconchus intalpina* | A. Gittenberger & E. Gittenberger, 2011 | PtaMakL162 | Indo-West Pacific | EU215846 |  |  |  |
| *Leptoconchus massini* | A. Gittenberger & E. Gittenberger, 2011 | repRZL195 | Indo-West Pacific | EU215851 |  |  |  |
| *Leptoconchus vangoethemi* | Massin, 1983 | Lept-Oman | Oman | EU215828 |  |  |  |
| *Rapa rapa\** | (Linnaeus, 1758) | MNHN-IM-2009-5109 | Philippines, Panglao I.; PANGLAO 2004, R19, 09°37.1'N, 123°46.1'E, 2-54 m; reef slope with gorgonians & black coral | FN651941 |  | FN391980 | FN651961 |
| **Ergalataxinae Kuroda, Habe & Oyama, 1971** |  |  |  |  |  |  |  |
| *Azumamorula mutica\** | (Lamarck, 1816) | NHMUK 20080772 | Guam, Mangalao, Pago Bay |  | FN677429 | FN677379 | FN677473 |
| *Bedevina birileffi\** | (Lischke, 1871) | NHMUK 20090344 | Japan, Kagoshima, Kyushi | HE584044 | HE583979 | HE583822 | HE583895 |
| *Claremontiella nodulosa\** | (C. B. Adams, 1845) | UCR 7783 | Costa Rica, Manzanillo | HE584013 | OR257859\* | OR257946\* | OR257900\* |
| *Cronia amygdala\** | (Kiener, 1835) | AM C.458326 | Australia, Queensland | FR853822 | HE583970 | FR853984 | FR853903 |
| *Cronia aurantiaca* | (Hombron & Jacquinot, 1848) | NHMUK 20100355 | Australia, Darwin Harbour, Northern Territories | FR853821 | HE583969 | FR853983 | FR853902 |
| *Cytharomorula grayi* | (Dall, 1889) | MNHN-IM-2007-18225 | New Caledonia, Banc Crypthelia; NORFOLK 2, DW2123, 23°18'S, 168°15'E, 187-197 m | HE584051 | HE583989 | HE583835 | HE583904 |
| *Cytharomorula lefevreiana* | (Tapparone Canefri, 1881) | UF 414310 | USA, Hawaii, Oahu, Kaneohe Bay, NE of Kapapa I. |  | HE583941 | HE583791 | HE583871 |
| *Cytharomorula ornamentata* | (Houart, 1995) | MNHN-IM-2009-5587 | Mozambique Channel, Maputo transect; MAINBAZA, CP3130, 25°53'S, 33°07'E, 112-127 m | HE584055 | HE583996 | HE583844 | HE583910 |
| *Cytharomorula pinguis* | Houart, 1995 | MNHN-IM-2009-8827 | New Caledonia, Ride de Norfolk; TERRASSES, DW3102, 22°59'S, 168°23'E, 410-430 m | HE584017 | HE583936 | HE583785 |  |
| *Cytharomorula springsteeni* | Houart, 1995 | MNHN-IM-2007-18184 | Philippines; AURORA 2007, CP2661, 15°47'N, 121°44'E, 160-167 m | HE584052 | HE583990 | HE583838 | HE583905 |
| *Cytharomorula vexillum\** | Kuroda, 1953 | MNHN-IM-2007-18174 | New Caledonia, Banc Capel; EBISCO, DW2496, 24°46'S, 159°43'E, 400-418 m | HE584062 | HE584009 | HE583858 | HE583923 |
| *Daphnellopsis lamellosa\** | Schepman, 1913 | MNHN-IM-2009-4659 | Philippines, Bohol / Sulu seas sill, Dipolog Bay; PANGLAO 2005, DW2371, 08°35'N, 123°16'E, 172-175 m; sandy/muddy | OR252555\* |  |  |  |
| *Drupella cornus\** | (Röding, 1798) | NHMUK 20070144 | New Caledonia, Yate | FR853842 | HE583972 | FR854005 | FR853923 |
| *Drupella eburnea* | (Küster, 1862) | NHMUK 20100146.2 | Japan, Sakaematsu, Kyushu I. | FR853828 |  | FR853991 | FR853909 |
| *Drupella fragum* | (Blainville, 1832) | NHMUK 20090098 | Japan, Fukashima, Oita Pref. | FR853846 | HE583973 | FR854009 | FR853927 |
| *Drupella margariticola* | (Broderip, 1833) | MNHN-IM-2009-4850 | Philippines, Cavite, Manila Bay; Cuming Tour 2007, CT39, 14°23.55'N, 120°49.97'E; grey sand, beach drift | FR853849 | OR257860\* | FR854012 | FR853930 |
| *Drupella rugosa* | (Born, 1778) | NHMUK 20080824.1 | Hong Kong, Bluff Island | FR853848 | HE583974 | FR854011 | FR853929 |
| *Ergalatax contracta* | (Reeve, 1846) | NHMUK 20080019 | Japan, Chiba Pref. | FR853882 | HE583967 | FR854045 | FR853963 |
| *Ergalatax junionae* | Houart, 2008 | NHMUK 20080906 | United Arab Emirates, Abu Dhabu | FN677409 | FN677446 | FN677390 | FN677463 |
| *Lataxiena blosvillei* | (Deshayes, 1832) | XL-3 | China, Daya Bay, Guangdong | KP253011 | KP252979 |  |  |
| *Lataxiena fimbriata\** | (Hinds, 1844) | NHMUK 20090354 | Australia, Moreton Bay, Queensland | HE584039 | HE583964 | HE583816 | HE583890 |
| *Lauta parva\** | (Reeve, 1846) | MNHN-IM-2007-18212 | Philippines, Panglao I.; PANGLAO 2004, B8, 09°37.1'N, 123°46.1'E, 0-3 m; subtidal reef platform | HE584034 | HE583959 | HE583811 | HE583885 |
| *Maculotriton serriale\** | (Deshayes, 1833) | MNHN-IM-2007-18197 | Philippines, Panglao I.; PANGLAO 2004, B3, 09°33.5'N, 123°48.6'E, 8 m; base of reef slope | FR853894 | HE583976 | FR854057 | FR853975 |
| *Morula aspera* | (Lamarck, 1816) | NA | Egypt | HE584020 | HE583940 | HE583790 | HE583870 |
| *Morula biconica* | (Blainville, 1832) | MNHN-IM-2007-18172 | Philippines, Panglao I.; PANGLAO 2004, B3, 09°33.5'N, 123°48.6'E, 8 m; base of reef slope |  | HE583942 | HE583792 | HE583872 |
| *Morula chrysostoma* | (Deshayes, 1844) | NHMUK 20080911 | United Arab Emirates, Fujairah | HE584021 | HE583943 | HE583793 |  |
| *Morula coronata* | (H. Adams, 1869) | MNHN-IM-2009-5447 | Mozambique Channel, Almirante Leite Bank; MAINBAZA, DW3168, 26°12'S, 35°03'E, 87-90 m | HE584022 | HE583944 | HE583794 | HE583873 |
| *Morula japonica* | (G. B. Sowerby III, 1903) | NHMUK 20090347 | Japan, Sakihara I., Amami I. | HE584023 | HE583945 | HE583795 | HE583874 |
| *Morula nodicostata* | (Pease, 1868) | NHMUK 20080766 | Guam, Mangalao | HE584024 | HE583946 | HE583796 | HE583875 |
| *Morula spinosa* | (H. Adams & A. Adams, 1853) | NHMUK 20090351 | Japan, Kagoshima, Kyushiu | HE584025 | HE583948 | HE583798 | HE583877 |
| *Morula striata* | (Pease, 1868) | NHMUK 20090346 | Japan, Sakihara I., Amami I. | HE584027 | HE583950 | HE583800 | HE583879 |
| *Morula uva\** | (Röding, 1798) | NHMUK 20080831 | Guam, Mangalao | HE584030 | HE583954 | HE583804 | HE583883. |
| *Morula zebrina* | Houart, 2004 | NHMUK 20090331 | Japan, Yakushima I., Kyushu | HE584033 | HE583958 | HE583809 | HE583884 |
| *Murichorda fiscellum\** | (Gmelin, 1791) | NHMUK 20070623 | New Caledonia, Noumea | FN677415 | FN677432 | FN677382 | FN677470 |
| *Murichorda rumphiusi* | (Houart, 1996) | NHMUK 20090337 | Japan, Yakushima I., Kyushu | HE584019 | HE583938 | HE583787 | HE583868 |
| *Muricodrupa anaxares* | (Kiener, 1836) | MNHN-IM-2007-18198 | Vanuatu, W Baldwin Cove; SANTO 2006, VM04, 15°34.9'S, 167°01.8'E, 0-1 m; intertidal, hard bottom |  | HE583927 | HE583776 |  |
| *Muricodrupa fenestrata\** | (Blainville, 1832) | NHMUK 20070620 | New Caledonia, Noumea | FN677419 | FN677428 | FN677378 | FN677474 |
| *Oppomorus funiculatus* | (Reeve, 1846) | NHMUK 20090340 | Japan, Amami I. | HE584045 | HE583980 | HE583823 | HE583896 |
| *Oppomorus noduliferus\** | (Menke, 1829) | AM C.451257 | Australia, Sydney, NSW | HE584048 | HE583983 | HE583828 | HE583899 |
| *Oppomorus purpureocinctus* | (Preston, 1909) | NHMUK 20080748 | Malaysia, Langkawi I. | HE584050 | HE583986 | HE583831 | HE583902. |
| *Orania bimucronata* | (Reeve, 1846) | NHMUK 20080746 | Malaysia, Pulau Dayang Bunting | HE584036 | HE583961 | HE583813 | HE583887 |
| *Orania castanea* | (Küster, 1859) | NHMUK 20100166 | South Africa, Sunrise-on-Sea | HE584061 | HE584008 | HE583857 | HE583922 |
| *Orania fischeriana* | (Tapparone Canefri, 1882) | MNHN-IM-2009-8832 | Madagascar, devant la Baie de Narendry; MIRIKY, CP3288, 14° 31.9' S, 47° 26.54' E, 46-54 m | HE584053 | HE583991 | HE583839 | HE583906 |
| *Orania fusulus\** | (Brocchi, 1814) | BAU 780 | Azores, Ilheu de Vila Franca do Campo |  | OR257861\* |  | OR257901\* |
| *Orania gaskelli* | (Melvill, 1891) | MNHN-IM-2007-18173 | Vanuatu, N Aoré I.; SANTO 2006, AT52, 15°31.5'S, 167°12.7'E, 52-62 m | HE584037 | HE583962 | HE583814 | HE583888 |
| *Orania mixta* | Houart, 1995 | MNHN-IM-2007-18201 | Philippines, Bohol I.; PANGLAO 2004, T18, 09°41.8'N, 123°49.9'E, 80-100 m; muddy bottom with sponges | HE584054 | HE583992 | HE583840 | HE583907 |
| *Orania pacifica* | (T. Nakayama, 1988) | MNHN-IM-2007-18193 | Philippines, Bohol Sea, off Balicasag Island; PANGLAO 2005, DW2400, 09°33'N, 123°42'E, 111-115 m; rock/sand/corals | HE584056 | HE583998 | HE583846 | HE583912 |
| *Orania rosea* | Houart, 1996 | MNHN-IM-2009-5434 | Mozambique Channel, Almirante Leite Bank; MAINBAZA, DW3168, 26°12'S, 35°03'E, 87-90 m | HE584042 | HE583977 | HE583820 | HE583893 |
| *Orania serotina* | (A. Adams, 1853) | MNHN-IM-2009-6382 | Philippines; AURORA 2007, CP2764, 15°49.8'N, 121°36.1'E, 45-47 m | HE584038 | HE583963 | HE583815 |  |
| *Pascula darrosensis* | (E. A. Smith, 1884) | MNHN-IM-2009-4950 | Philippines, Balicasag I.; PANGLAO 2004, B37, 09°30.9'N, 123°40.8'E, 19-20 m; floor of cave A, corals sponges | HE584057 | OR257862\* | HE583848 | HE583914 |
| *Pascula muricata* | (Reeve, 1846) | BAU 950 | Mozambique, Cabo Delgado Prov. | HE584058 | HE584000 | HE583849 | HE583915 |
| *Pascula ochrostoma* | (Blainville, 1832) | MNHN-IM-2007-18176 | Philippines, Panglao I.; PANGLAO 2004, B5, 9°35'12.0012''N, 123°50'23.9856''E, 4 m | HE584059 | HE584004 | HE583853 | HE583918 |
| *Pascula submissa* | (E. A. Smith, 1903) | MNHN-IM-2009-5609 | Mozambique Channel, Almirante Leite Bank; MAINBAZA, DW3168, 26°12'S, 35°03'E, 87-90 m |  | HE584007 | HE583856 | HE583921 |
| *Phrygiomurex sculptilis\** | (Reeve, 1844) | MNHN-IM-2007-18196 | Vanuatu, Palikulo Peninsula; SANTO 2006, VM12, 15°28.9'S, 167°15.5'E, 0-1 m; intertidal, soft bottom | HE584035 | HE583960 | HE583812 | HE583886 |
| *Spinidrupa euracantha\** | (A. Adams, 1853) | NHMUK 20060429 | Mozambique |  | HE583987 | HE583833 |  |
| *Spinidrupa infans* | (E. A. Smith, 1884) | MNHN-IM-2009-8833 | Madagascar, devant la Baie de Narendry; MIRIKY, DW3238, 14°29'S, 47°27'E, 48-139 m | HE584043 | HE583978 | HE583821 | HE583894 |
| *Tenguella ceylonica* | (Dall, 1923) | NHMUK 20080822 | Malaysia, Langkawi I. | HE584015 | HE583931 | HE583780 | HE583863 |
| *Tenguella granulata\** | (Duclos, 1832) | LSGB2302001 | China, Sanya, Hainan | GU188267 | GU188164 |  | HM583745 |
| *Tenguella granulata\** | (Duclos, 1832) | NHMUK 20070621 | New Caledonia, Noumea | FN677414 | FN677433 | FN677383 | FN677469 |
| *Tenguella marginalba* | (Blainville, 1832) | NHMUK 20090088 | Australia, Moreton Bay, Queensland | HE584016 | HE583934 | HE583783 | HE583865 |
| *Tenguella musiva* | (Kiener, 1835) | LSGB2301901 | China, Sanya, Hainan | GU188266 | GU188165 |  | HM583748 |
| *Trachypollia lugubris* | (C. B. Adams, 1852) | UCR 7797 | Costa Rica, Puntarenas | HE584011 | HE583924 | HE583773 |  |
| *Usilla avenacea\** | (Lesson, 1842) | NHMUK 20100318 | Japan, Konigami, Okinawa | HE584041 | HE583966 | HE583818 | HE583892 |
| *Usilla avenacea\** | (Lesson, 1842) | NHMUK 20100385 | USA, Oahu, Hawaii | HE584040 | HE583965 | HE583817 |  |
| **Haustrinae K. S. Tan, 2003** |  |  |  |  |  |  |  |
| *Bedeva paivae\** | (Crosse, 1864) | AM C.458273 | Australia, Tasmania | FN677412 | FN677437 | FN677387 | FN677466 |
| *Bedeva vinosa* | (Lamarck, 1822) | AM C.458268 | Australia, Tasmania | FN677413 | FN677435 | FN677385 | FN677468 |
| *Haustrum albomarginatum* | (Deshayes, 1839) | NMNZ M.301488/2 | New Zealand, North Island, SW of Hawera, N side of mouth fan of Waihi Stream; 39.6075°S, 174.242°E | KP844979 |  | KP845114 |  |
| *Haustrum haustorium\** | (Gmelin, 1791) | UO-HH-PB | New Zealand, Pakerua Bay | FN677410 | FN677443 | FN677389 | FN677464 |
| *Haustrum lacunosum* | (Bruguière, 1789) | UO-LL2-SC | New Zealand, St Clair, Dunedin | FN677411 | FN677442 | FN677388 | FN677465 |
| *Haustrum scobina* | (Quoy & Gaimard, 1833) | NMNZ M.301489/8 | New Zealand, North Island, SW of Hawera, N side of mouth fan of Waihi Stream; 39.6075°S, 174.242°E | KP844987 | KP845074 | KP845121 |  |
| **Muricinae Rafinesque, 1815** |  |  |  |  |  |  |  |
| *Bolinus brandaris\** | (Linnaeus, 1758) | BAU 1030 | Italy, Capo Linaro; 30 m |  |  | OR257947\* | OR257902\* |
| *Chicomurex laciniatus* | (G. B. Sowerby II, 1841) | MNHN-IM-2009-4958 | Vanuatu, NW Mavéa I.; SANTO 2006, FR35, 15°22.4'S, 167°13'E, 45 m; steep coral and rubble slope | GU575369 | FN651897 | FN651855 | FN651963 |
| *Chicomurex lani* | Houart, Moe & C. Chen, 2014 | MNHN-IM-2009-4596 | New Caledonia, Ride of Norfolk; TERRASSES, DW3106, 23°02'S, 168°21'E, 180-220 m | OR252556\* |  |  |  |
| *Chicomurex protoglobosus* | Houart, 1992 | MNHN-IM-2009-4862 | Nord New Caledonia, Grand Passage; CONCALIS, DW2963, 18°22'S, 162°59'E, 220-240 m | OR252557\* | OR257863\* | OR257948\* | OR257903\* |
| *Chicomurex superbus\** | (G. B. Sowerby III, 1889) | MNHN-IM-2009-4899 | Philippines, Bohol I.; PANGLAO 2004, P1, 09°36'N, 123°45'E, 90-200 m; tanglet nets from local fisherman | OR252558\* | OR257864\* | OR257949\* | OR257904\* |
| *Chicomurex superbus\** | (G. B. Sowerby III, 1889) | MNHN-IM-2019-20630 | New Caledonia, Banc Crypthelia; NORFOLK 2, DW2123, 23°18'S, 168°15'E, 187-197 m | OR252559\* | OR257865\* | OR257950\* | OR257905\* |
| *Chicoreus aculeatus* | (Lamarck, 1822) | MNHN-IM-2009-4900 | Philippines, Bohol I.; PANGLAO 2004, P1, 09°36'N, 123°45'E, 90-200 m; tanglet nets from local fisherman | OR252560\* | OR257866\* | OR257951\* | OR257906\* |
| *Chicoreus asianus* | Kuroda, 1942 | LSGB2300604 | China, Beihai, Guangxi | GU188202 | GU188093 |  |  |
| *Chicoreus axicornis* | (Lamarck, 1822) | MNHN-IM-2009-4962 | Vanuatu, Betw. Urélapa & Tuvana I.; SANTO 2006, EP24, 15°36'S, 167°01'E, 108-121 m | GU575370 | FN651898 | FN651856 | FN651964 |
| *Chicoreus boucheti* | Houart, 1983 | MNHN-IM-2007-43363 | New Caledonia, Terrasses Sud Est; TERRASSES, DW3090, 22°16'S, 167°08'E, 260 m | GU439805 |  |  | GU440167 |
| *Chicoreus brunneus* | (Link, 1807) | MNHN-IM-2009-4981 | Vanuatu, Segond Channel; SANTO 2006, ZR04, 15°33.1'S, 167°09.6'E, 0-45 m; drop-off with corals gorgonians rubble | OR252561\* | OR257867\* | OR257952\* | OR257907\* |
| *Chicoreus brunneus* | (Link, 1807) | MNHN-IM-2009-4991 | Vanuatu, NW Mavéa I.; SANTO 2006, FR35, 15°22.4'S, 167°13'E, 45 m; steep coral and rubble slope | OR252562\* | OR257868\* | OR257953\* | OR257908\* |
| *Chicoreus capucinus* | (Lamarck, 1822) | MNHN-IM-2009-4903 | Philippines, Bohol I.; PANGLAO 2004, M30, 09°43.1'N, 123°51.5'E, 0-1 m; magrove, salinity 29% | OR252563\* |  | OR257954\* | OR257909\* |
| *Chicoreus cornucervi* | (Röding, 1798) | MNHN-IM-2009-4904 | Philippines, Pamilacan I.; PANGLAO 2004, R31, 09°29.4'N, 123°56'E, 10-41 m; reef slope with caves anthipa./gorg. | OR252564\* | OR257869\* | OR257955\* | OR257910\* |
| *Chicoreus microphyllus* | (Lamarck, 1816) | MNHN-IM-2009-4998 | Vanuatu, E Aoré I.; SANTO 2006, DR09, 15°34.6'S, 167°13.8'E, 12 m; coral ridges | OR252565\* | OR257870\* | OR257956\* | OR257911\* |
| *Chicoreus ramosus\** | (Linnaeus, 1758) | NA | NA | FJ784239 |  |  |  |
| *Chicoreus saulii* | (G. B. Sowerby II, 1841) | MNHN-IM-2009-4905 | Philippines, Pamilacan I.; PANGLAO 2004, R31, 09°29.4'N, 123°56'E, 10-41 m; reef slope with caves anthipa./gorg. | OR252566\* | OR257871\* | OR257957\* | OR257912\* |
| *Chicoreus subpalmatus* | Houart, 1988 | MNHN-IM-2007-40519 | New Caledonia, Ride de Norfolk; NORFOLK 1, DW1651, 23°26'S, 167°50'E, 276-350 m; Sable | GU439855 |  |  | GU440172 |
| *Chicoreus torrefactus* | (G. B. Sowerby II, 1841) | MNHN-IM-2009-4907 | Philippines, Bohol I.; PANGLAO 2004, R43, 09°41.3'N, 123°49.5'E, 3-41 m; isolated coral plateau | OR252567\* |  | OR257958\* | OR257913\* |
| *Flexopteron poppei* | (Houart, 1993) | MNHN-IM-2009-5046 | Philippines; AURORA 2007, CC2744, 15°58'N, 121°49'E, 418-456 m | MZ364595 | MZ364659 | OR257959\* | MZ364728 |
| *Haustellum haustellum\** | (Linnaeus, 1758) | MNHN-IM-2009-4909 | Philippines, Panglao I.; PANGLAO 2004, N3, 09°32.9'N, 123°46.6'E, 25-30 m; baited traps | GU575380 | FN651902 | FN651860 | FN651968 |
| *Hexaplex trunculus* | (Linnaeus, 1758) | BAU 1031 | Italy, Capo Linaro; 10 m | OR252568\* | OR257872\* |  | OR257914\* |
| *Murex africanus* | Ponder & E. H. Vokes, 1988 | MNHN-IM-2007-38025 | Madagascar, between Nosy-bé and Banc du Leven; MIRIKY, CP3207, 12°40'S, 48°18'E, 70-135 m | OR252569\* |  |  |  |
| *Murex africanus* | Ponder & E. H. Vokes, 1988 | MNHN-IM-2007-38026 | Madagascar, S Cap SAint-Sébastien; MIRIKY, CP3204, 12° 37.03' S, 48° 30.3' E, 59-60 m | OR252570\* |  |  |  |
| *Murex pecten* | [Lightfoot], 1786 | MNHN-IM-2009-5043 | Philippines; AURORA 2007, CP2653, 16°05.8'N, 121°58.8'E, 83 m | GU575382 | FN651903 | FN651861 | FN651969 |
| *Murex tenuirostrum* | Lamarck, 1822 | MNHN-IM-2009-14380 | Sud Madagascar, Fort-Dauphin sector; ATIMO VATAE, CP3510, 25°14.6'S, 47°09.1'E, 79-80 m | OR252571\* |  |  |  |
| *Murex trapa* | Röding, 1798 | LSGB2300401 | China, Beihai, Guangxi | GU188195 | GU188086 |  | HM583721 |
| *Murex trapa* | Röding, 1798 | LSGB2300402 | China, Beihai, Guangxi | GU188196 | GU188087 |  |  |
| *Murex trapa* | Röding, 1798 | LSGB2300403 | China, Beihai, Guangxi | GU188197 | GU188088 |  | HM583720 |
| *Murex trapa* | Röding, 1798 | QF-1 | China, Daya Bay, Guangdong | KP253006 |  |  |  |
| *Murex trapa* | Röding, 1798 | QF-2 | China, Daya Bay, Guangdong | KP253007 |  |  |  |
| *Murex troscheli* | Lischke, 1868 | MNHN-IM-2009-5045 | Philippines; AURORA 2007, CP2718, 14°29'N, 121°48'E, 216-220 m | OR252572\* | OR257873\* | OR257960\* | OR257915\* |
| *Murex troscheli* | Lischke, 1868 | NA | NA | U86329 |  |  |  |
| *Muricanthus radix\** | (Gmelin, 1791) | MNHN-IM-2009-4618 | Panama, Venado; 8°53'24.0"N, 79°35'24.0"W, 0-1 m | FM999168 | FM999118 | FM999087 | OR257916\* |
| *Naquetia barclayi* | (Reeve, 1858) | MNHN-IM-2009-4913 | Philippines, Bohol I.; PANGLAO 2004, P2, 09°39'N, 123°44'E, 0-400 m; tanglet nets from local fisherman | OR252573\* | OR257874\* | OR257961\* | OR257917\* |
| *Naquetia cumingii* | (A. Adams, 1853) | MNHN-IM-2009-5008 | Vanuatu, SE Malo I.; SANTO 2006, FR53, 15°42.7'S, 167°15.1'E, 7 m; sand dead corals, soft corals | OR252574\* | OR257875\* | OR257962\* | OR257918\* |
| *Naquetia triqueter\** | (Born, 1778) | MNHN-IM-2013-14425 | Papua New Guinea, S Paeowa Is; PAPUA NIUGINI, PR71, 05°10.8'S, 145°49.7'E | OR252575\* |  |  |  |
| *Naquetia vokesae* | (Houart, 1986) | MNHN-IM-2009-22519 | Sud Madacascar, W Pointe Evatra; ATIMO VATAE, TB08, 24°59.2'S, 47°05.5'E, 2-7 m; corail | KC860507 |  |  |  |
| *Phyllonotus pomum* | (Gmelin, 1791) | MNHN-IM-2013-56004 | French Guyane; GUYANE 2014, CP4355, 06°17.2'N, 53°07.4'W, 50 m | KX422193 |  |  |  |
| *Ponderia magna* | Houart, 1988 | MNHN-IM-2019-20633 | New Caledonia, Chesterfield Plateau; EBISCO, CP2596, 19°43'47.0388''S, 158°36'13.2588''E, 382 -386 m | OR252576\* | OR257876\* | OR257963\* | OR257919\* |
| *Pterynotus barclayanus* | (H. Adams, 1873) | MNHN-IM-2009-5010 | Vanuatu, W Aoré I.; SANTO 2006, FB90, 15°35'S, 167°07.7'E, 36-39 m; coarse sand | OR252577\* | OR257877\* | OR257964\* | OR257920\* |
| *Pterynotus elongatus* | ([Lightfoot], 1786) | MNHN-IM-2009-4916 | Philippines, Panglao I.; PANGLAO 2004, B39, 09°32.8'N, 123°42.1'E, 17-25 m; reef wall with small caves | GU575385 | FN651906 | FN651864 | FN651972 |
| *Pterynotus martinetanus* | (Röding, 1798) | MNHN-IM-2009-5011 | Vanuatu, Surunda Bay; SANTO 2006, FR45, 15°27'S, 167°13.5'E, 0-7 m; sandy slope | GU575384 | FN651905 | FN651863 | FN651971 |
| *Siratus alabaster* | (Reeve, 1845) | MNHN-IM-2009-4917 | Philippines, Bohol I.; PANGLAO 2004, P2, 09°39'N, 123°44'E, 0-400 m; tanglet nets from local fisherman | OR252578\* |  | OR257965\* | OR257921\* |
| *Siratus beauii* | (P. Fischer & Bernardi, 1857) | MZUR BAU 183 | Guadeloupe; 16.35°N, 61.64°W | FM999167 | FM999117 | FM999086 |  |
| *Siratus pliciferoides* | (Kuroda, 1942) | MNHN-IM-2009-4872 | Nord New Caledonia, Grand Passage; CONCALIS, CP2960, 19°05'S, 163°13'E, 382-387 m | GU575390 | FN651908 | FN651866 | FN651974 |
| *Timbellus bilobatus* | Houart, 2012 | MNHN-IM-2009-4870 | Nord New Caledonia, Grand Passage; CONCALIS, DW2973, 18°14'S, 163°06'E, 275-288 m | JX466892 | OR257878\* | OR257966\* | OR257922\* |
| *Timbellus flemingi* | (Beu, 1967) | NMNZ M.306307 | New Zealand, North Island, White Island Canyon; RV Tangaroa, TAN1206/158, 37°36.75'S, 177°13.40'E, 600-672m m | OR252579\* | OR257879\* | OR257967\* |  |
| *Timbellus fulgens* | (Houart, 1988) | MNHN-IM-2009-5038 | New Caledonia, Ile des Pins; NORFOLK 2, DW2147, 22°50'S, 167°16'E, 496 m | GU575386 | FN651907 | FN651865 | FN651973 |
| *Timbellus richeri* | (Houart, 1987) | MNHN-IM-2009-5140 | New Caledonia, Plateau des Chesterfield; EBISCO, DW2586, 19°35'S, 158°43'E, 542 m | OR252580\* |  |  | OR257923\* |
| *Timbellus sublimis* | Houart, 2012 | MNHN-IM-2019-20632 | New Caledonia, S Banc Nova; EBISCO, DW2528, 22°49'S, 159°23'E, 320-345 m | OR252581\* |  | OR257968\* | OR257924\* |
| *Vokesimurex dolichourus* | (Ponder & E. H. Vokes, 1988) | MNHN-IM-2009-5125 | Philippines; AURORA 2007, CP2654, 16°04'N, 121°57'E, 98-107 m | OR252582\* | OR257880\* | OR257969\* | OR257925\* |
| *Vokesimurex hirasei* | (Dautzenberg, 1915) | MNHN-IM-2009-4876 | Nord New Caledonia, Grand Passage; CONCALIS, DW2986, 17°59'S, 163°06'E, 270-300 m | GU575392 | FN651909 | FN651867 | FN651975 |
| *Vokesimurex mindanaoensis* | (G. B. Sowerby II, 1841) | MNHN-IM-2009-5120 | Philippines; AURORA 2007, CP2665, 15°54'N, 121°42'E, 123-125 m |  | OR257881\* | OR257970\* | OR257926\* |
| **Muricopsinae Radwin & D'Attilio, 1971** |  |  |  |  |  |  |  |
| *Acanthotrophon sentus* | S. S. Berry, 1969 | BAU 441 | Panama, Isla Contadora; 08°37.18'N, 079°01.12'W, 20 m; sand | OR252583\* | OR257882\* | OR257971\* | OR257927\* |
| *Favartia alveata* | (Kiener, 1842) | NHMUK 20070644 | Pamama, Bocas del Toro | EU391588 |  |  | EU391569 |
| *Favartia balteata* | (G. B. Sowerby II, 1841) | MNHN-IM-2009-5021 | Vanuatu, W Aoré I.; SANTO 2006, FB90, 15°35'S, 167°07.7'E, 36-39 m; coarse sand | GU575374 | FN651910 | FN651868 | FN651976 |
| *Favartia erosa* | (Broderip, 1833) | BAU 281 | Panama, Las Perlas; 8.73°N, 79.35°W | FN651942 | FN651911 | OR257972\* | FN651977 |
| *Favartia hidalgoi* | (Crosse, 1869) | MNHN-IM-2013-56222 | French Guyane; GUYANE 2014, CP4363, 06°58'N, 53°00'W, 197-200 m | KX422191 |  |  |  |
| *Favartia incisa* | (Broderip, 1833) | BAU 416 | Panama, Isla San Telmo; 08°14.81'N, 078°50.8'W, 24.3 m; rocks | OR252584\* | OR257883\* | OR257973\* | OR257928\* |
| *Favartia jeanae* | Bertsch & D'Attilio, 1980 | MNHN-IM-2009-4929 | Philippines, Balicasag I.; PANGLAO 2004, L46, 09°30.9'N, 123°41.2'E, 90-110 m | GU575375 | FN651912 | FN651869 | FN651978 |
| *Favartia lappa* | (Broderip, 1833) | BAU 501 | Panama, Isla Galera; 08°13.12'N, 078°46.64'W, 22.8 m; rocks | OR252585\* | OR257884\* | OR257974\* | OR257929\* |
| *Favartia mactanensis* | (W. K. Emerson & D'Attilio, 1979) | MNHN-IM-2009-4931 | Philippines, Bohol I.; PANGLAO 2004, P1, 09°36'N, 123°45'E, 90-200 m; tanglet nets from local fisherman | GU575376 | FN651913 | FN651870 | FN651979 |
| *Favartia maculata* | (Reeve, 1845) | MNHN-IM-2009-4932 | Philippines, Bohol I.; PANGLAO 2004, P1, 09°36'N, 123°45'E, 90-200 m; tanglet nets from local fisherman | GU575377 | FN651914 | FN651871 | FN651980 |
| *Favartia peregrina* | (B. M. Olivera, 1980) | MNHN-IM-2009-5023 | Vanuatu, W Tutuba I.; SANTO 2006, DS96, 15°34'S, 167°17'E, 114 m; silty sand slope | OR252586\* |  | OR257975\* | OR257930\* |
| *Favartia ponderi* | B. W. Myers & D'Attilio, 1989 | MNHN-IM-2009-4936 | Philippines, Panglao I.; PANGLAO 2004, B8, 09°37.1'N, 123°46.1'E, 0-3 m; subtidal reef platform | OR252587\* | OR257885\* | OR257976\* | OR257931\* |
| *Favartia rosamiae* | D'Attilio & B. W. Myers, 1985 | MNHN-IM-2009-5024 | Vanuatu, W Aoré I.; SANTO 2006, FB90, 15°35'S, 167°07.7'E, 36-39 m; coarse sand | GU575379 | FN651916 | FN651873 | FN651982 |
| *Favartia tetragona* | (Broderip, 1833) | MNHN-IM-2009-4944 | Philippines, Pamilacan I.; PANGLAO 2004, S12, 09°29.4'N, 123°56'E, 6-8 m; coral plateau with fine sand | OR252588\* | OR257886\* | OR257977\* | OR257932\* |
| *Homalocantha pele* | (Pilsbry, 1918) | MNHN-IM-2009-4949 | Philippines, Panglao I.; PANGLAO 2004, B3, 09°33.5'N, 123°48.6'E, 8 m; base of reef slope | GU991548 | FN651918 | FN651874 | FN651984 |
| *Murexsul octogonus\** | (Quoy & Gaimard, 1833) | NMNZ M.302892/1 | New Zealand, North Island, E of Table Cape, Mahia Peninsula; RV Tangaroa, 1108/179, 39°5.05'S, 178°5.78'E, 41-46 m |  | OR257887\* | OR257978\* |  |
| *Muricopsis cristata\** | (Brocchi, 1814) | BAU 352 | Italy, San Pietro Island; 39.15°N, 8.2°E | FN651943 | FN651917 | FN391981 | FN651983 |
| *Muricopsis schrammi* | (Crosse, 1863) | NHMUK 20070647 | Panama, Bocas del Toro | EU391572 |  |  | EU391570 |
| *Pazinotus sibogae* | (Schepman, 1911) | MNHN-IM-2019-20631 | New Caledonia, N Bellona; EBISCO, DW2577, 20°20'19.0212''S, 158°41'37.194''E, 399 -602 m | OR252589\* | OR257888\* | OR257979\* | OR257933\* |
| *Vitularia miliaris\** | (Gmelin, 1791) | MNHN-IM-2009-5030 | Vanuatu, E Malo I.; SANTO 2006, DR84, 15°43.4'S, 167°15'E, 6 m; flat sand and dead corals | GU575391 | FN651922 | FN651877 | FN651988 |
| *Vitularia salebrosa* | (P. P. King, 1832) | BAU 291 | Panama, Venado; 8.88°N, 79.58°W | FN651947 | FN651923 | FN651878 | FN651989 |
| *Xastilia kosugei\** | Bouchet & Houart, 1994 | MNHN-IM-2009-5142 | New Caledonia, Banc Capel; EBISCO, DW2508, 24°41'S, 159°43'E, 304-350 m | OR252590\* | OR257889\* |  |  |
| *Zetecopsis zeteki\** | (Hertlein & A. M. Strong, 1951) | BAU 265 | Panama, Isla Pedro Gonzalez | OR252591\* | OR257890\* |  | OR257934\* |
| **Ocenebrinae Cossmann, 1903** |  |  |  |  |  |  |  |
| *Acanthina monodon\** | (Pallas, 1774) | NHMUK 19990298 | Chile, Isla Rojas, Region IX | EU391583 | FN677445 | FN677401 | EU391563 |
| *Acanthinucella spirata* | (Blainville, 1832) | BAU 1137 | USA, Monterey, California | KX377526 | KX377538 |  | KX377546 |
| *Ceratostoma foliatum* | (Gmelin, 1791) | MIB1220 | Canada, British Columbia, Regional District of Nanaimo, Jack Point; 49.167°N, 123.896°W | KX069502 |  |  | KX070343 |
| *Ceratostoma rorifluum* | (Reeve, 1849) | LSGB2301503 | China, Rongcheng, Shandong | GU188259 | GU188151 |  |  |
| *Chorus giganteus\** | (Lesson, 1831) | BAU 987 | Chile, Valdivia, Corral Bay | KX377528 | KX377540 |  | KX377548 |
| *Eupleura nitida* | (Broderip, 1833) | BAU 283 | Panama, Las Perlas; 8.79°N, 79.26°W | FN651944 | FN651919 | FN651875 | FN651985 |
| *Eupleura tampaensis* | (Conrad, 1846) | cF2 | USA, Florida | DQ868962 |  |  |  |
| *Gracilipurpura craticulata\** | (Bucquoy & Dautzenberg, 1882) | BAU 1309.1 | Italy, Pozzuoli; 40 m | KX377529 |  |  | KX377549 |
| *Jaton decussatus\** | (Gmelin, 1791) | BAU 1014 | Senegal, Goree; under rocks | KX377530 | KX377542 |  |  |
| *Jaton hemitripterus* | (Lamarck, 1816) | BAU 1140.1 | Morocco, Bay of Dahbila | KX377531 | KX377543 |  | KX377550 |
| *Nucella canaliculata* | (Duclos, 1832) | MIB426 | Canada, British Columbia, Capital Regional District, Botany Bay; 48.529°N, 124.453°W | KX069681 |  |  | KX070560 |
| *Nucella emarginata* | (Deshayes, 1839) | NemarPAC14 | USA, Pacific Grove, California | KJ093789 |  | KJ093813 |  |
| *Nucella freycinetii* | (Deshayes, 1839) | NfreyN815 | Russia, Kholmsk, Sakhalin I. | KJ093796 |  | KJ093816 |  |
| *Nucella heyseana* | (Dunker, 1882) | NelongN901 | Russia, Kholmsk, Sakhalin I. | KJ093780 |  | KJ093801 |  |
| *Nucella lamellosa* | (Gmelin, 1791) | MIB1198 | Canada, British Columbia, Regional District of Nanaimo, Jack Point; 49.167°N, 123.896°W | KX069693 |  |  | KX070573 |
| *Nucella lapillus\** | (Linnaeus, 1758) | MNHN-IM-2009-4617 | United Kingdom, Portobello; 55°57'N, 03°06'W; intertidal | FM999169 | FM999119 | FM999088 | FM999146 |
| *Nucella lima* | (Gmelin, 1791) | lima812 | USA, Juneau, Alaska | KJ093798 |  | KJ093804 |  |
| *Nucella ostrina* | (Gould, 1852) | MIB217 | Canada, British Columbia, Alberni-Clayoquot Regional District, Mackenzie Beach; 49.128°N, 125.904°W | KX069730 |  |  | KX070614 |
| *Ocenebra brevirobusta* | Houart, 2000 | BAU 916 | Morocco, South Cape Ghir, 40 Km north-west of Agadir | KX377532 |  |  |  |
| *Ocenebra* cf. *edwardsii* | (Payraudeau, 1826) | BAU 1029.3 | Croatia, Umag, Sol Stella Maris | KF153336 | KF153636 |  |  |
| *Ocenebra edwardsii* | (Payraudeau, 1826) | BAU 1107.1 | Italy, Zannone I. |  |  |  | KX419569 |
| *Ocenebra erinaceus\** | (Linnaeus, 1758) | BAU 1307 | Italy, Cagliari, Marina piccola; 2 m | KX377533 | KX377544 |  | KX377551 |
| *Ocenebra hispidula* | (Pallary, 1904) | BAU 186 | Tunisie, Gabès Gulf, Chergui I. | FN651946 | FN651921 |  | FN651987 |
| *Ocenebra ingloria* | (Crosse, 1865) | BAU 902.1 | Italy, Venice Lagoon; low tide | KF153270 | KF153617 |  |  |
| *Ocenebra leukos* | (Houart, 2000) | BAU 1290.3 | Spain, Tenerife Island, La Caleta | KF153306 |  |  |  |
| *Ocenebra miscowichae* | (Pallary, 1920) | BAU 1133.1 | Morocco, Dakhla |  | KX420247 |  | KX419573 |
| *Ocenebra nicolai* | (Monterosato, 1884) | BAU 1282.1 | Spain, Barbate | KF153446 | KF153656 |  |  |
| *Ocenebra piantonii* | (Cecalupo, Buzzurro & Mariani, 2008) | BAU 1051 | Tunisia, Kerkennah Islands, Ra's Bu Numah | KF153271 | KF153618 |  |  |
| *Ocenebra piantonii* | (Cecalupo, Buzzurro & Mariani, 2008) | BAU 1052 | Tunisia, Kerkennah Islands, Borj el-Hissar | KF153402 | KF153647 |  |  |
| *Ocinebrellus inornatus* | (Récluz, 1851) | C01 | South Korea, KwangAnri | AY148724 | AY148678 | AY148599 |  |
| *Ocinebrellus inornatus* | (Récluz, 1851) | NHMUK 20080007 | Japan, Hokkaido | FN677403 | FN677454 | FN677399 | FN677457 |
| *Ocinebrina corallina* | (Scacchi, 1836) | BAU 1304.1 | Italy, Giannutri I. | KX534760 |  |  |  |
| *Ocinebrina corallinoides* | Pallary, 1912 | BAU 2376 | Tunisia, Gharbi I., Sidi Youssef | KX534761 |  |  |  |
| *Ocinebrina reinai* | Bonomolo & Crocetta, 2012 | BAU 1038 | Italy, Secche di Tor Paterno | FR851912 | KX420245 |  | KX419570 |
| *Paciocinebrina circumtexta* | (Stearns, 1871) | BAU 1136 | USA, Monterey, California | KX377537 | KX377545 |  | KX377552 |
| *Paciocinebrina interfossa* | (P. P. Carpenter, 1864) | MIB132 | Canada, British Columbia, Capital Regional District, Cattle Point; 48.438°N, 123.294°W | KX069735 |  |  | KX070619 |
| *Paciocinebrina lurida\** | (Middendorff, 1848) | MIB308 | Canada, British Columbia, Capital Regional District, Botanical Beach; 48.526°N, 124.448°W | KX069747 |  |  | KX070628 |
| *Paciocinebrina sclera* | (Dall, 1919) | 10BCMOL-304 | Canada, British Columbia, Haida Gwaii, Lawn Hill, off Hwy 16, intertidal; 53.415°N, 131.913°W | KF643463 |  |  |  |
| *Urosalpinx cinerea* | (Say, 1822) | NHMUK 20080059 | United Kingdom, Whitstable, Kent | FN677423 | FN677440 | FN677371 | FN677478 |
| *Vokesinotus perrugatus* | (Conrad, 1846) | cG1 | USA, Cedar Key, Florida ; 29.135°N , 83.037°W ; | DQ868954 |  |  |  |
| *Xanthochorus cassidiformis\** | (Blainville, 1832) | BAU 190 | Chile, La Rinconada | FN651948 | FN651924 | FN651879 | FN651990 |
| **Pagodulinae Barco, Schiaparelli, Houart & Oliverio, 2012** |  |  |  |  |  |  |  |
| *Abyssotrophon soyoae* | (Okutani, 1959) | KIV669-BC1-16 | Japan, Okinawa Trough | LC333138 |  |  |  |
| *Axymene aucklandicus\** | (E. A. Smith, 1902) | NMNZ M.290404/3 | New Zealand, South Island, Cliffort Bay, Blenheim, Marfells Beach | KP844957 | KP845061 | KP845097 |  |
| *Boreotrophon cepula* | (G. B. Sowerby II, 1880) | 11BIOAK-627 | USA, Alaska, Cook Inlet, Outside Beach, rocky intertidal, abundant macroalgae; 59.459°N, 151.707°W | KF643511 |  |  |  |
| *Boreotrophon truncatus* | (Strøm, 1768) | MT07725 | North Sea; 59.764°N, 0.374°E | KR084835 |  |  |  |
| *Boreotrophon xestra* | Dall, 1918 | LSGB23019 | China | HQ834056 | HQ833926 | HQ833865 |  |
| *Comptella curta\** | (Murdoch, 1905) | NMNZ M.305597 | New Zealand, off Snares Island; 48.02°S, 166.615°E | KP844966 | OR257891\* | OR257980\* |  |
| *Enixotrophon eos* | (B. A. Marshall & Houart, 2011) | NIWA 30162 | New Zealand, Chatham Rise; 42.65° S, 177.21° E, 1377–1402 m | HE804834 | HE804815 |  | HE804829 |
| *Enixotrophon latus* | (B. A. Marshall & Houart, 2011) | NMNZ M.284123 | Tasman Sea; 36.91°S, 167.53°E | HE804835 |  |  | HE804830 |
| *Enixotrophon maxwelli* | (B. A. Marshall & Houart, 2011) | NMNZ M.284122 | Tasman Sea; 37.27°S, 169.67°E | HE804837 |  |  | HE804831 |
| *Enixotrophon tangaroa* | (B. A. Marshall & Houart, 2011) | NMNZ M.301825 | New Zealand, South Island, SE of Cape Campbell; 42.1342°S, 174.538°E | KP844971 |  |  |  |
| *Enixotrophon venustus* | (B. A. Marshall & Houart, 2011) | NMNZ M.306209 | New Zealand, Southern Kermadec Ridge, West chimney field; 35.3483°S, 178.543°E | KP844972 | KP845070 |  |  |
| *Lamellitrophon traversi* | (F. W. Hutton, 1873) | NMNZ M.290404/1 | New Zealand, South Island, Cliffort Bay, Blenheim, Marfells Beach | KP844963 | KP845067 | KP845103 |  |
| *Pagodula echinata\** | (Kiener, 1839) | MNHN-IM-2009-15463 | Ibero-Marocain Gulf; BALGIM, CP98, 34°29'N, 07°42'W, 1721-1773 m | KP844993 | HE804825 |  |  |
| *Paratrophon cheesemani\** | (F. W. Hutton, 1882) | NMNZ M.297885 | New Zealand, North Island, S of Waitotara, Waiinui Beach; 39.8712°S, 174.739°E | KP844996 | KP845076 |  |  |
| *Paratrophon cheesemani exsculptus* | Powell, 1933 | NMNZ M.298790/1 | New Zealand, North Island, S of Waitotara, Waiinui Beach; 39.8712°S, 174.739°E | KP844997 | KP845077 | KP845129 |  |
| *Paratrophon patens* | (Hombron & Jacquinot, 1848) | NMNZ M.285284/1 | New Zealand, Stewart Island, Ringaringa; 46.9167°S, 168.15°E | KP844998 | KP845078 | KP845130 |  |
| *Paratrophon quoyi* | (Reeve, 1846) | NMNZ M.305192 | New Zealand, North Island, Pananehe Island, Spirits Bay; 34.42°S, 172.853°E | KP845001 | KP845081 | KP845133 |  |
| *Poirieria syrinx* | B. A. Marshall & Houart, 1995 | NMNZ M.314529 | New Zealand, South Island, SE of Cape Campbell; 41.9853°S, 174.699°E | KP845002 | KP845082 | KP845134 |  |
| *Poirieria zelandica\** | (Quoy & Gaimard, 1833) | NMNZ M.303377/2 | New Zealand, South Island, Tasman Bay, off Kaiteriteri; 41.0162°S, 173.037°E | KP845006 | KP845083 | KP845139 |  |
| *Trophonella echinolamellata* | (Powell, 1951) | MNA 2713 | Antarctica, Bellingshausen Sea, Skua shelter; 65.15°S, 64.16°W | JX110857 | HE804819 |  |  |
| *Trophonella longstaffi* | (E. A. Smith, 1907) | BAU 949 | Antarctica, Tethys Bay; 74.68°S, 164.02°E | FN651950 | FN651927 | FN651882 | FN651993 |
| *Trophonella longstaffi* | (E. A. Smith, 1907) | MNA 43 | Antarctica, Ross Sea |  | HE804821 |  | HE804833 |
| *Trophonella scotiana* | (Powell, 1951) | MNA 4 | Antarctica, Ross Sea; 71.755°S, 171.148°E | JX110861 | HE804820 |  |  |
| *Trophonopsis muricata* | (Montagu, 1803) | BAU 1111.1 | Spain, Calahonda; 36.6925°N, 3.35217°W | KP845010 |  |  |  |
| *Xymene plebeius\** | (Hutton, 1873) | NMNZ M.302931/1 | New Zealand, North Island, Wellington, Shell Bay Road, 100m N of Miramar wharf; 41.3097°S, 174.812°E | KP845030 | KP845091 | KP845145 |  |
| *Xymenella pusilla* | (Suter, 1907) | NMNZ M.305394 | New Zealand, North Island, Lyall Bay; 41.3337°S, 174.791°E | KP845014 | OR257892\* | KP845142 |  |
| *Xymenopsis muriciformis\** | (P. P. King, 1832) | MZUR BAU 913 | Chile, Tierra del Fuego, Pueblo Porvenir | JX033993 | HE804813 |  | HE804827 |
| *Zeatrophon ambiguus\** | (R. A. Philippi, 1844) | NMNZ M.285274/1 | New Zealand, Stewart Island, Paterson Inlet; 46.9083°S, 168.108°E | KP845036 | KP845095 | KP845148 |  |
| *Zeatrophon pulcherrimus* | Finlay, 1930 | NMNZ M.284120 | New Zealand, Challenger Plateau; , 2007615, 38.02°S, 168.45°E | HE804838 | HE804814 |  | HE804828 |
| **Rapaninae Gray, 1853** |  |  |  |  |  |  |  |
| *Acanthais brevidentata\** | (W. Wood, 1828) | UCR 7791 | Costa Rica, Playa Ventanas, Puntarenas | FR695720 | HE584227 | FR696178 | FR696048 |
| *Acanthais callaoensis* | (J. E. Gray, 1828) | NHMUK 20080055 | Peru, Piura | HE584320 | HE584229 | HE584064 | HE584153 |
| *Acanthais triangularis* | (Blainville, 1832) | IBUNAM CNMO 3101 | Mexico, Jalisco | HE584322 | HE584231 | HE584066 | HE584155 |
| *Agnewia tritoniformis\** | (Blainville, 1832) | AM C.442736 | Australia |  | HE584233 | HE584068 | EU391551 |
| *Concholepas concholepas\** | (Bruguière, 1789) | NHMUK 19990303 | Chile, Isla Rojas, Region IX | EU391581 | FN677453 | FN677398 | EU391554 |
| *Dicathais orbita\** | (Gmelin, 1791) | AM C.458269 | Australia, Tasmania |  | FN677450 | FN677395 | FN677459 |
| *Drupa albolabris* | (Blainville, 1832) | NHMUK 20080015 | French Polynesia, Papura, Tahiti | HE584500 |  | HE584411 | HE584457 |
| *Drupa aperta* | (Blainville, 1832) | NHMUK 20100379 | USA, Big Island, Hawaii | HE584326 | HE584235 | HE584070 | HE584157 |
| *Drupa clathrata* | (Lamarck, 1816) | NHMUK 20080011 | French Polynesia, Tahiti | HE584327 | HE584236 | HE584071 | HE584158 |
| *Drupa elegans* | (Broderip & G. B. Sowerby I, 1829) | UF 291894 | French Polynesia |  | HE584237 | HE584072 |  |
| *Drupa morum* | Röding, 1798 | NHMUK 20060441 | Mozambique, Delgado Province | FN677405 | FN677449 | FN677394 | EU391559 |
| *Drupa ricinus* | (Linnaeus, 1758) | NHMUK 20100165.1 | Japan, Miyake I., Izu I. | HE584330 | HE584238 | HE584075 | HE584161 |
| *Drupa rubusidaeus* | Röding, 1798 | NHMUK 20080761 | Guam, Merizo Bay | HE584331 | HE584239 | HE584076 | HE584162 |
| *Drupa speciosa* | (Dunker, 1867) | UF 291737 | French Polynesia, Rangiroa Atoll, Tuamotu Archipelago | HE584332 | HE584240 | HE584077 | HE584163 |
| *Drupina grossularia\** | (Röding, 1798) | MNHN-IM-2007-18165 | Vanuatu, Baldwin Core; SANTO 2006, VM02, 15°34.9'S, 167°02.4'E, 0-1 m; intertidal, coral sand | HE584490 |  | HE584401 | HE584449 |
| *Drupina grossularia\** | (Röding, 1798) | NHMUK 20070146 | New Caledonia, Touho, North Province | FN677407 | FN677447 | FN677392 | FN677461 |
| *Indothais blanfordi* | (Melvill, 1893) | CIFEFGB-TT-1 | India; 18.9°N, 72.8°E | KF246687 |  |  |  |
| *Indothais gradata* | (Jonas, 1846) | NHMUK 20080777 | Malaysia, Johor | HE584333 | HE584241 | HE584078 | HE584164 |
| *Indothais javanica* | (R. A. Philippi, 1848) | NHMUK 20080793 | Hong Kong, Lau Fau Shan | HE584334 | HE584242 | HE584079 | HE584165 |
| *Indothais lacera\** | (Born, 1778) | LSGB2301106 | China, Beihai, Guangxi | GU188251 | GU188145 |  | HM583737 |
| *Indothais lacera\** | (Born, 1778) | NHMUK 20080805 | Malaysia, Tanjung Laboh, S of Batu Pahat, W Coast Johor | FR695723 | HE584243 | FR696283 | FR696152 |
| *Indothais lacera\** | (Born, 1778) | NHMUK 20090093 | Malaysia, Penang | HE584335 |  | HE584080 | HE584166 |
| *Indothais malayensis* | (K. S. Tan & Sigurdsson, 1996) | NHMUK 20080835 | Malaysia, Johor | HE587941 | HE587943 | HE587944 | HE587942 |
| *Indothais rufotincta* | (K. S. Tan & Sigurdsson, 1996) | NHMUK 20080823 | Malaysia, Melaka | HE584336 | HE584244 | HE584081 | HE584167 |
| *Indothais sacellum* | (Gmelin, 1791) | UF 292783 | Oman | HE584337 | HE584245 | HE584083 | HE584169 |
| *Indothais scalaris* | (Schubert & J. A. Wagner, 1829) | NHMUK 20080912 | United Arab Emirates, Khor Fakkan | HE584338 | HE584246 | HE584084 | HE584170 |
| *Indothais wutingi* | (K. S. Tan, 1997) | NHMUK 20100351 | Australia, Northern Territory | HE584339 | HE584247 | HE584085 | HE584171 |
| *Mancinella alouina\** | (Röding, 1798) | NHMUK 20080909 | United Arab Emirates, Fujairah | HE584341 | HE584250 | HE584087 | HE584173 |
| *Mancinella armigera* | Link, 1807 | NHMUK 20080756 | Guam, Merizo Bay | HE584385 | HE584304 | HE584134 | HE584214 |
| *Mancinella capensis* | (Petit de la Saussaye, 1852) | NHMUK 20090356 | South Africa, KwaZulu-Natal | HE584342 | HE584251 | HE584088 | HE584174 |
| *Mancinella echinata* | (Blainville, 1832) | NHMUK 20090096 | Japan, Fukashima | HE584343 | HE584252 | HE584089 | HE584175 |
| *Mancinella echinulata* | (Lamarck, 1822) | hc02 | China | KC466621 |  |  |  |
| *Mancinella grossa* | (Houart, 2001) | MNHN-IM-2007-18175 | Salomon Islands, Oldham Deep; SALOMON 2, DW2234, 06°51'S, 156°24'E, 182-277 m |  |  | HE584090 |  |
| *Mancinella siro* | (Kuroda, 1931) | NHMUK 20090348 | Japan, Kagoshima | HE584344 | HE584253 | HE584091 | HE584176 |
| *Menathais bimaculata* | (Jonas, 1845) | UF 367930 | Oman | HE584345 | HE584254 | HE584092 | HE584177 |
| *Menathais intermedia* | (Kiener, 1835) | NHMUK 20060440 | Mozambique, Londo, N. headland of Pemba Bay, Cabo Delgado Prov. | EU391574 |  |  | EU391543 |
| *Menathais tuberosa\** | (Röding, 1798) | MNHN-IM-2007-18166 | Philippines, Panglao I.; PANGLAO 2004, M22, 09°37.2'N, 123°46.4'E, 0-3 m; coral platform | HE584348 | HE584257 | HE584095 | HE584180 |
| *Menathais tuberosa\** | (Röding, 1798) | NHMUK 20060439 | Mozambique, Cabo Delgaodo Prov |  | FN677424 | FN677372 |  |
| *Nassa serta\** | (Bruguière, 1789) | NHMUK 20070117 | New Caledonia, Noumea | HE584349 | HE584258 | HE584096 | HE584181 |
| *Neorapana muricata\** | (Broderip, 1832) | INB 3848344 | Costa Rica, Puntarenas | HE584351 | HE584261 | HE584099 | HE584183 |
| *Neothais harpa* | (Conrad, 1837) | NHMUK 20100383 | USA, Big Island, Hawaii | HE584352 | HE584262 | HE584100 | HE584184 |
| *Neothais marginatra* | (Blainville, 1832) | NHMUK 20060428 | Mozambique, Cabo Delgado Prov. | HE584353 | HE584263 | HE584102 |  |
| *“Orania” nodosa* | (Hombron & Jacquinot, 1848) | NHMUK 20090343 | Japan, Miyazaki, Kyushu | HE584375 | HE584289 | HE584124 | HE584205 |
| *Pinaxia coronata\** | A. Adams, 1853 | NHMUK 20090353 | Japan, Kagoshima, Kyushu I. | HE584354 | HE584264 | HE584103 | HE584185 |
| *Pinaxia versicolor* | (Gray, 1839) | NM W7305 | South Africa, KwaZulu-Natal | HE584355 | HE584265 | HE584105 | HE584186 |
| *Plicopurpura columellaris\** | (Lamarck, 1816) | IBUNAM CNMO 3097.1 | Mexico, Jalisco | HE584356 | HE584266 | HE584106 | HE584187 |
| *Plicopurpura columellaris\** | (Lamarck, 1816) | IBUNAM CNMO 3099 | Mexico, Jalisco | HE584358 | HE584268 | HE584108 | HE584189 |
| *Plicopurpura patula* | (Linnaeus, 1758) | UCR 7781 | Costa Rica, Manzanillo | HE584360 | HE584271 | HE584110 | HE584191 |
| *Purpura bufo* | Lamarck, 1822 | NHMUK 20080930 | United Arab Emirates, Fujairah | HE584386 | HE584305 | HE584135 | HE584215 |
| *Purpura persica\** | (Linnaeus, 1758) | NHMUK 20090326 | Japan, Setouchi, Amami I. | HE584365 | HE584277 | HE584114 | HE584195 |
| *Rapana bezoar\** | (Linnaeus, 1767) | NHMUK 20080038 | Japan, Tosa Bay, Kochi Pref. | FN677421 | FN677438 | FN677376 | FN677476 |
| *Rapana rapiformis* | (Born, 1778) | MNHN-IM-2009-4891 | Nord New Caledonia, Grand Passage; CONCALIS, CC2931, 19°49.8'S, 163°47.7'E, 31-36 m | HE584366 | HE584278 | HE584115 | HE584196 |
| *Rapana venosa* | (Valenciennes, 1846) | NHMUK 20100317 | Japan, Kumamoto, Kyushu | HE584367 | HE584279 | HE584116 | HE584197 |
| *Reishia bitubercularis* | (Lamarck, 1822) | NHMUK 20080813 | Malaysia, Telok Bahang, Penang Nat'l Park. N Coast Penang | FR695721 | HE584280 | FR696281 | FR696150 |
| *Reishia clavigera* | (Küster, 1860) | LSGB2300804 | China, Zhanjiang, Guangdong | GU188212 | GU188105 |  | OR257935\* |
| *Reishia clavigera* | (Küster, 1860) | NHMUK 20080797 | Malaysia, Johor | HE584370 | HE584283 | HE584119 | HE584200 |
| *Reishia luteostoma* | (Holten, 1802) | NHMUK 20080049 | Japan, Aburatsubo, Miura City, Kanagawa Pier | FR695722 |  | FR696282 | FR696151 |
| *Reishia luteostoma* | (Holten, 1802) | NHMUK 20080825 | Hong Kong | HE584372 | HE584285 | HE584121 | HE584202 |
| *Reishia luteostoma* | (Holten, 1802) | NHMUK 20090094 | Singapore | HE584371 | HE584284 | HE584120 | HE584201 |
| *Reishia luteostoma* | (Holten, 1802) | NHMUK 20100145 | Japan, Miyake I., Izu I. | HE584368 | HE584281 | HE584117 | HE584198 |
| *Semiricinula muricina* | (Blainville, 1832) | NHMUK 20100359 | Australia, Northern Territory | HE584373 | HE584287 | HE584122 | HE584203 |
| *Semiricinula muricoides* | (Blainville, 1832) | NHMUK 20080812 | Malaysia, Penang | HE584374 | HE584288 | HE584123 | HE584204 |
| *Semiricinula squamigera* | (Deshayes, 1833) | UF 291921 | French Polynesia, Rangiroa Atoll, Tuamotu Archipelago | HE584376 | HE584290 | HE584125 | HE584206 |
| *Semiricinula squamosa* | (Pease, 1868) | MNHN-IM-2009-4860 | Philippines, Cavite, Manila Bay; Cuming Tour 2007, CT39, 14°23.55'N, 120°49.97'E; grey sand, beach drift | HE584379 | HE584293 | HE584128 | HE584209 |
| *Semiricinula tissoti* | (Petit de la Saussaye, 1852) | NHMUK 20100162.2 | South Africa, KwaZulu-Natal | HE584381 |  | HE584130 | OR257936\* |
| *Semiricinula turbinoides\** | (Blainville, 1832) | NHMUK 20080801 | Malaysia, Johor | HE584384 | HE584297 | HE584133 | HE584213 |
| *Stramonita biserialis* | (Blainville, 1832) | UNAM 3109.1 | Mexico, Tenacatita, N of San Patricio, Jalisco | FR695802 |  | FR696270 | FR696139 |
| *Stramonita brasiliensis* | Claremont & D. Reid, 2011 | DBSF12 | Brazil, Santos; 23.45°S, 46.3°W | KM655947 | KM655971 |  |  |
| *Stramonita canaliculata* | (Gray, 1839) | UF 434981 | USA, Ceder Key, Levy County, Florida | FR695755 | HE584299 | FR696215 | FR696085 |
| *Stramonita delessertiana* | (d'Orbigny, 1841) | NHMUK 20080046 | Peru, Caleta Cabo Blanco, Piura | FR695725 | HE584300 | FR696255 | FR696125 |
| *Stramonita floridana* | (Conrad, 1837) | NHMUK 20080045 | USA, St Augustine Inlet, St James Co., Florida | FR695795 | HE584301 | FR696262 | FR696131 |
| *Stramonita haemastoma\** | (Linnaeus, 1767) | NA | Spain, Punta Tano, Tenerife, Canary I. |  |  |  | EU391558 |
| *Stramonita haemastoma\** | (Linnaeus, 1767) | NHMUK 20090092.1 | Portugal, Near Ponta Delgado, Sao Miguel, Azores | FR695791 | HE584302 | FR696256 | FR696126 |
| *Stramonita rustica* | (Lamarck, 1822) | UCR 7784.1 | Costa Rica, Cahuita, Caribe | FR695797 | HE584303 | FR696265 | FR696134 |
| *Thais nodosa\** | (Linnaeus, 1758) | NHMUK 20070652 | Ghana, 30 km W. of Takoradi | EU391579 | FN677425 | FN677373 | EU391566 |
| *Thaisella chocolata* | (Duclos, 1832) | NHMUK 20070462 | Peru, Lomas | FR695724 | HE584306 | FR696254 | FR696124 |
| *Thaisella kiosquiformis* | (Duclos, 1832) | NHMUK 20080053 | Peru, Tumbes | HE584387 | HE584307 | HE584138 | HE584216 |
| *Tribulus planospira\** | (Lamarck, 1822) | LACM 84.37.4 | Ecuador |  | HE584313 | HE584144 |  |
| *Tylothais aculeata* | (Deshayes, 1844) | NHMUK 20070631 | New Caledonia, Touho, North Province | FN677422 | FN677426 | FN677374 | FN677477 |
| *Tylothais savignyi\** | (Deshayes, 1844) | NHMUK 20080898 | United Arab Emirates, Khor Fakkan | HE584390 | HE584311 | HE584142 | HE584219 |
| *Tylothais virgata* | (Dillwyn, 1817) | NHMUK 20080792 | Malaysia, Langkawi | HE584388 | HE584308 | HE584139 | HE584217 |
| *Vasula deltoidea* | (Lamarck, 1822) | UCR 7782 | Costa Rica, Manzanillo | HE584391 | HE584314 | HE584145 | HE584220 |
| *Vasula melones\** | (Duclos, 1832) | UCR 7789 | Costa Rica, Puntarenas | HE584392 | HE584315 | HE584148 | HE584222 |
| *Vasula speciosa* | (Valenciennes, 1832) | IBUNAM CNMO 3100 | Mexico, Jalisco | HE584394 | HE584317 | HE584150 | HE584224 |
| *Vexilla taeniata* | (Powis, 1835) | UF 292039 | French Polynesia, Rangiroa Atoll, Tuamotu Archipelago | HE584395 | HE584318 | HE584151 | HE584225 |
| *Vexilla vexillum\** | (Gmelin, 1791) | YK | Japan, Setouchi, Amami I. | HE584396 | HE584319 | HE584152 | HE584226 |
| **Tripterotyphinae D'Attilio & C. M. Hertz, 1988** |  |  |  |  |  |  |  |
| *Tripterotyphis triangularis* | (A. Adams, 1856) | BAU 956 | Cuba | OR252592\* |  |  |  |
| **Trophoninae Cossmann, 1903** |  |  |  |  |  |  |  |
| *Leptotrophon coriolis* | Houart, 1995 | MNHN-IM-2019-20634 | New Caledonia, S Lansdowne; EBISCO, DW2631, 21°3' 46.8''S, 160°44'24.4608''E, 372 -404 m | OR252593\* |  | OR257981\* | OR257937\* |
| *Leptotrophon surprisensis* | Houart, 1995 | MNHN-IM-2009-8589 | New Caledonia, Plateau des Chesterfield; EBISCO, DW2610, 19°34'S, 158°41'E, 486-494 m | GU575381 | FN651925 | FN651880 | FN651991 |
| *Nipponotrophon barbarae* | Houart & Héros, 2016 | MNHN-IM-2013-18646 | Papua New Guinea, Brokenwater Bay; PAPUA NIUGINI, CP4042, 03°53'S, 144°40'E, 495-693 m | KT828349 |  |  |  |
| *Nipponotrophon echinus\** | (Dall, 1918) | NHMUK 20080034 | Japan, Sagami Bay, Kanagawa Pref. | FN677420 | FN677436 | FN677377 | FN677475 |
| *Scabrotrophon fabricii* | (Møller, 1842) | HLC 25222 | Canada, Nunavut, Igloolik | KF643285 |  |  |  |
| *Scabrotrophon inspiratus* | Houart, 2003 | MNHN-IM-2009-15286 | Papua New Guinea, Au large de Madang; BIOPAPUA, CP3708, 04°58'S, 145°50'E, 502-529 m | JX033990 | HE804824 |  |  |
| *Scabrotrophon maltzani\** | (Kobelt, 1878) | 11BIOAK-684 | USA, Alaska, Cook Inlet, Outside Beach, rocky intertidal, abundant macroalgae; 59.459°N, 151.707°W | KF643982 |  |  |  |
| *Scabrotrophon manai* | Houart & Héros, 2016 | MNHN-IM-2013-41016 | Papua New Guinea, E Kotakot; PAPUA NIUGINI, CP4039, 04°19'S, 145°37'E, 1000-1045 m | KT828410 |  |  |  |
| *Scabrotrophon puillandrei* | Houart & Héros, 2016 | MNHN-IM-2013-41021 | Papua New Guinea, E Kotakot; PAPUA NIUGINI, CP4039, 04°19'S, 145°37'E, 1000-1045 m | KT828409 |  |  |  |
| *Trophon geversianus\** | (Pallas, 1774) | BAU 910 | Argentina, Playa Larralde | FN651949 | FN651926 | FN651881 | FN651992 |
| *Trophon plicatus* | ([Lightfoot], 1786) | NHMUK 19990293 | Chile, Golfo Elephantes, Region IX | EU391578 | FN677439 | FN677370 | EU391547 |
| **Typhinae Cossmann, 1903** |  |  |  |  |  |  |  |
| *Choreotyphis pavlova\** | (Iredale, 1936) | MNHN-IM-2009-8590 | New Caledonia, S Lansdowne; EBISCO, DW2632, 21°05'S, 160°45'E, 297-378 m | GU575388 | FN651929 | FN651884 | FN651995 |
| *Monstrotyphis imperialis* | (Keen & G. B. Campbell, 1964) | MNHN-IM-2009-8449 | New Caledonia, S Banc Nova; EBISCO, DW2528, 22°49'S, 159°23'E, 320-345 m | GU575389 | FN651933 | FN651888 | FN651999 |
| *Siphonochelus boucheti* | Houart, 1991 | MNHN-IM-2009-5041 | New Caledonia, Banc Eponge; NORFOLK 2, DW2081, 24°54'S, 168°22'E, 500-505 m | GU575387 | FN651928 | FN651883 | FN651994 |
| *Typhina* cf. *coronata* | (Broderip, 1833) | BAU 396 | Panama, Isla San Jose; 8.3°N, 79.05°W | FN651951 | FN651930 | FN651885 | FN651996 |
| *Typhina grandis* | (A. Adams, 1855) | BAU 376 | Panama, Isla San Jose; 8.3°N, 79.05°W | FN651952 | FN651931 | FN651886 | FN651997 |
| *Typhina lamyi* | (Garrigues & Merle, 2014) | MNHN-IM-2013-7776 | Guadeloupe, Port-Louis; KARUBENTHOS 2012, GD35, 16°22.77'N, 61°34.19'W, 66 m | KJ591665 |  |  |  |
| *Typhinellus labiatus\** | (De Cristofori & Jan, 1832) | BAU 181 | Tunisia, Barj el Mussar | FN651953 | FN651932 | FN651887 | FN651998 |
| **Outgroup** |  |  |  |  |  |  |  |
| *Buccinum undatum* | Linnaeus, 1758 | NHMUK 20080004 | United Kingdom |  | FN677455 | FN677400 | FN677456 |
| *Kelletia lischkei* | Kuroda, 1938 | KK12 | USA, California, Santa Barbara | MH198160 | MH198160 | MH198160 |  |
| *Penion ormesi* | (Powell, 1927) | NMNZ M.316215/1 | New Zealand, Kahurangi Point | MH198169 | MH198169 | MH198169 |  |
| *Serratifusus lineatus* | Harasewych, 1991 | MNHN-IM-2007-34666 | Nord New Caledonia, Grand Passage; CONCALIS, DW2944, 18°58'36.0012''S, 163°24'14.976''E, 320 -335 m | JQ950211 | JQ950145 |  | JQ950167 |

**Table S3.** Substitution models found for each partition.

|  |  |  |
| --- | --- | --- |
| Partition | Substitution model | Base pairs |
| 12S | GTR+I+G | 455 |
| 16S | GTR+I+G | 649 |
| 28S | GTR+I+G | 1417 |
| *cox1* position cod1 | GTR+I+G | 219 |
| *cox1* position cod2 | GTR+I | 219 |
| *cox1* position cod3 | GTR+I+G | 220 |



**Figure S1.** *cox1* Maximum Likelihood phylogenetic reconstruction of the family Muricidae using IQTree. Values at nodes indicates Ultrafast bootstrap support.



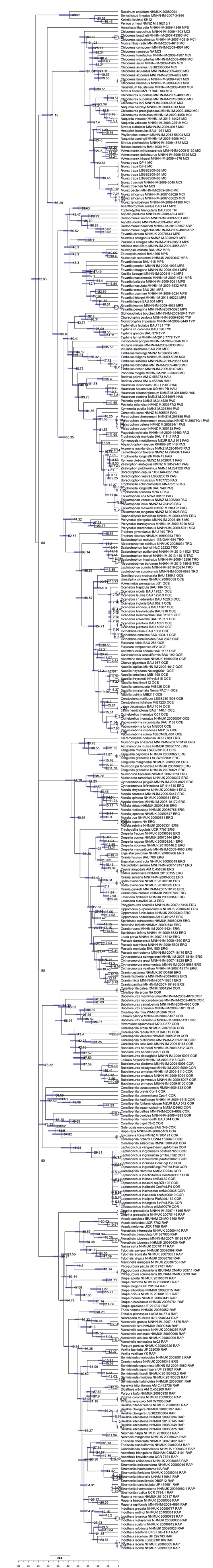
**Figure S2.** 12S Maximum Likelihood phylogenetic reconstruction of the family Muricidae using IQTree. Values at nodes indicates Ultrafast bootstrap support.

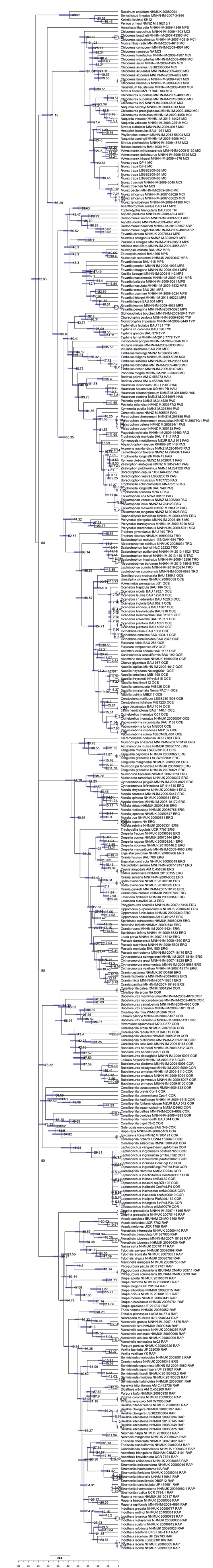


**Figure S3.** 16S Maximum Likelihood phylogenetic reconstruction of the family Muricidae using IQTree. Values at nodes indicates Ultrafast bootstrap support.



**Figure S4.** 28S Maximum Likelihood phylogenetic reconstruction of the family Muricidae using IQTree. Values at nodes indicates Ultrafast bootstrap support.

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**Figure S5.** Maximum Likelihood time calibrated phylogenetic reconstruction of the family Muricidae using IQTree. Bars at nodes indicate 95% confidence intervals expressed in mya. Three letters at the end of each specimen indicates the current subfamily assignation.