Supplementary Material S1

Doubtful records

In this section we include species for which distribution or taxonomic status are hill-defined. Their presence in the Mexican Pacific needs to be confirmed, particularly if these are species occurring primarily in other regions of the world.

Order Oegopsida Orbigny, 1845
Family Cranchiidae Prosch, 1847
Genus *Helicocranachia* Massy, 1907

90. *Helicocranchia joubini* (Voss, 1962)
Type locality. 45°02'N, 13°05'W, Sargasso Sea, northwestern Atlantic. Holotype at MOM (uncatalogued). **Synonym and common name**. *Ascocranchia joubini* Voss, 1962 (PS). A new common name is proposed herein: small cow squid. **Geographic distribution**. Tropical and subtropical Atlantic Ocean, southwestern Pacific Ocean. **Habitat**. Mesopelagic, bathypelagic. **Remarks**. The general distribution of *H. joubini* (Atlantic-Pacific) do not indicate its occurrence in the eastern Pacific. Jereb and Roper [1] include western Mexico in the distribution map for this species. However, we were not able to find precise records for this otherwise Atlantic and Indo-Pacific species.

Genus *Egea* Joubin, 1933

91. *Egea inermis* Joubin, 1933
Type locality. 33°51'N, 66°43'W, North Atlantic Ocean. Lectotype at ZMUC (uncatalogued).
Common name. Unarmed cranchid squid (FAO). **Geographic distribution**. Circumglobal, except boreal and polar. **Habitat**. Paralarvae epipelagic; juveniles mesopelagic; adults bathypelagic. **Remarks**. Jereb and Roper [1] include western Mexico in the distribution map of this species. We were not able to find any precise Mexican record of this widely distributed species in literature or in collections.

Genus *Liguriella* Issel, 1908

92. *Liguriella podophthalma* Issel, 1908

Type locality. 28°38'S, 47°31'W, South Atlantic Ocean. Holotype presumably lost. **Common name**. Bigeye cranch squid (FAO). **Geographic distribution**. Circumglobal, except boreal and equatorial. **Habitat**. Surface to bathypelagic zone. **Remarks**. Okutani and McGowan [2] reported this species in an area close to the USA-Mexico border. The quality of the map they presented, however, does not allow for a clear distinction between USA and Mexican localities. Lack of adequate sampling probably explains why this species has so far not been properly detected in Mexico where it should logically occur.

Genus *Sandalops* Chun, 1906

93. *Sandalops melancholicus* Chun, 1906

Type locality. 32°08'S, 08°28'W, off Tristan da Cunha Island, central South Atlantic. Syntypes at ZMB (uncatalogued). **Common name**. Melancholy cranch squid (FAO). **Geographic distribution**. Circumglobal except in polar waters. **Habitat**. Juvenile epipelagic; adults mesopelagic and bathypelagic. **Remarks**. Jereb and Roper [1] include this widely distributed species in a distributional map for the west coast of Mexico. However, no precise records related to a Mexican distribution were located either in literature or in collections.

Family Brachioteuthidae Pfeffer, 1908

Genus *Brachioteuthis* Verrill, 1881

94. *Brachioteuthis picta* Chun, 1910

Type locality. 5°06'N, 9°58'E, Benguela Current, South Atlantic. Holotype presumably at ZMB.

Common name. Ornate arm squid (FAO). **Geographic distribution**. Circumglobal, tropical and subtropical. **Habitat**. Oceanic, epipelagic, mesopelagic. **Remarks**. Jereb and

Roper [1] include this otherwise Atlantic species in a distributional map for the west coast of Mexico. However, no precise records related to a Mexican distribution were located either in literature or in collections.

Family Cycloteuthidae Naef, 1923
Genus *Discoteuthis* Young and Roper, 1969

95. *Discoteuthis discus* Young and Roper, 1969
Type locality. 03°50'N, 02°37'W, East Atlantic. Holotype at NMNH (576214). **Common name**. Rounded disc-fin squid (FAO). **Geographic distribution**. Circumglobal, except subpolar and polar. In Mexico, one specimen at 18°06'00"N, 119°07'59". **Habitat**. Epipelagic to mesopelagic. **Remarks**. Jereb and Roper [1] include this widely distributed species in a distributional map for the west coast of Mexico. However, no precise records related to a Mexican distribution were located either in literature or in collections. SIOPIC holdings possess at least two specimen of the genera, one catalogued as *D. discus* and the other as "sp." Unfortunately, we could not find the specimens.

96. *Discoteuthis laciniosa* Young and Roper, 1969
Type locality. 33°04'N, 64°37'W, western Atlantic Ocean. Holotype at NMNH (576215). **Common name**. A new common name is proposed herein: circular fin squid. **Geographic distribution**. Circumglobal, tropical and subtropical. **Habitat**. Epipelagic to mesopelagic. **Remarks**. Jereb and Roper [1] include this widely distributed species in a distributional map for the west coast of Mexico. However, no precise records related to a Mexican distribution were located either in literature or in collections.

Family Joubiniteuthidae Naef, 1922
Genus *Joubiniteuthis* Berry, 1920

97. *Joubiniteuthis portieri* (Joubin, 1916)
Type locality. 29°03'N, 16°08'30"W, Atlantic. Holotype at MHNN (number unknown). **Synonym and common name**. *Chiroteuthis portieri* Joubin, 1931 (PS). Joubin’s squid

(FAO). **Geographic distribution**. Circumglobal, except boreal. **Habitat**. Mesopelagyc at night, bathypelagic migrations during the day. **Remarks**. Jereb and Roper [1] include this widely distributed species in a distributional map for the west coast of Mexico. However, no precise records related to a Mexican distribution were located either in literature or in collections.

Family Ommastrephidae Steenstrup, 1857
Genus *Sthenoteuthis* Verrill, 1880

98. *Sthenoteuthis pteropus* (Steenstrup, 1855)
Type locality. St Croix Island, Caribbean. Holotype at ZMUC (uncatalogued). **Synonym and common names**. *Ommatostrephes pteropus* Steensrup, 1855 (PS). Orangeback flying squid (FAO), orangeback squid (WoRMS). **Geographic distribution**. Atlantic anti-boreal. In Mexico, 27°40'48"N, 115°46'11"W (see remarks). **Habitat**. Epipelagic to mesopelagic. **Remarks**. The SIOPIC holdings contain material identified by G. Voss as *Sthenoteuthis pteropus* and collected in Mexico, but all the references dealing with this species agree that it is only found in the Atlantic Ocean. Unfortunately, the material of the SIOPIC could not be located and re-examined. There is indeed a possibility that this material belongs to *S. oualaniensis*, widely distributed in the eastern Pacific.

Family Enoploteuthidae Pfeffer, 1900
Genus *Abraliopsis* Joubin, 1896

99. *Abraliopsis morisii* (Vérany, 1839)
Type locality. 39°N, 20°W, East Atlantic. Holotype not designated. **Synonym and common name**. *Onychoteuthis morisii* Vérany, 1839 (PS). A new common name is proposed herein: Atlantic two stripes abralia. **Geographic distribution**. West and East Atlantic; Gulf of Mexico, Mediterranean Sea. In Mexico from 26°54'N, 118°46'48"W to 13°4'N, 95°W (see remarks).
Habitat. Epipelagic to mesopelagic. **Remarks**. There are some doubts about the identity of this species. Jereb and Roper [1] reported *A. morisii* only for the Atlantic, thus ignoring the

report of Okutani and McGowan [2] for the Mexican Pacific. Even considering that most of the material in SIOPIC was identified by J. McGowan, a well-recognized squid expert (unpublished information available in the collection data-base), there is a possibility that it belongs to another species of the family Enoploteuthid.

Order Bathyteuthoidea
Family Chtenopterygidae Grimpe, 1922
Genus *Chtenopteryx* Appellöf, 1890

100. *Chtenopteryx sicula* (Vérany, 1851)
Type locality. Messina, Italy, Mediterranean Sea. Holotype presumably at MHNN. **Synonym and common names**. *Sepioteuthis sicula* Verany, 1851 (PS). Sicilian comb-finned squid (FAO), toothed-fin squid (WoRMS). **Geographic distribution**. Circumglobal, tropical and template.
Habitat. Mesopelagic to bathypelagic. **Remarks**. Jereb and Roper [1] include this widely distributed species in a distributional map for the west coast of Mexico. However, no precise records related to a Mexican distribution were located either in literature or in collections.

Family Octopoteuthidae Berry, 1912
Genus *Octopoteuthis* Rüppell, 1844

101. *Octopoteuthis nielseni* Robson, 1948
Type locality. Off Cocos Island, Costa Rica, eastern Pacific. Syntypes at BMNH (1947.7.7.10). **Common name**. A new common name is proposed herein: arms tip-less squid. **Geographic distribution**. Mexico to Chile (see remarks). **Habitat**. Mesopelagic, bathypelagic. **Remarks**. Jereb and Roper [1] include this Pacific species in a distributional map for the west coast of Mexico. However, no precise records related to a Mexican distribution were located either in literature or in collections, but its presence in Central America is in favor of a possible distribution further north.

102. *Octopoteuthis sicula* Rüppell, 1844

Type locality. Sicily, western Mediterranean Sea. Holotype at BMNH (1845.9.8.13). **Common name**. Rüppell's octopus squid (FAO). **Geographic distribution**. Circumglobal, anti-boreal.

Habitat. Mesopelagic to bathypelagic. **Remarks**. Jereb and Roper [1] include this widely distributed species in a distributional map for the west coast of Mexico. However, no precise records related to a Mexican distribution were located either in literature or in collections.

Superorden Octopodiformes Berthold and Engeser, 1987

Orden Octopoda Leach, 1818

Suborder Incirrata Grimpe, 1916

Family Argonautidae Cantraine, 1841

Genus *Argonauta* Linnaeus, 1758

103. *Argonauta hians* Lightfoot, 1786

Type locality. Ambon, Indonesia, Pacific. Lectotype in Rumphius (1739 plate 18, figure B), designated by Moolenbeek [3] (see Finn [4]; Moolenbeek [3]). **Common names**. Lesser argonaut (FAO), brown argonaut (WoRMS), winged argonaut (ITIS). **Geographic distribution**. Atlantic and Indo Pacific Oceans, tropical to template. **Habitat**. Epipelagic; adult and juveniles migrate to mesopelagic. **Remarks**. The NMNH has two specimens assigned as *A. hians* (729891 and 729892), both identified by M. Sweeney. This material is from western Mexico (17°52'12"N, 103°47'59"W and 20°34'48"N, 105°52'48"W) but it could not be examined during this study. According to Finn [4], there is no reliable record for *A. hians* in this area, hence this might be a misidentification of *A. nouryi*.

Family Octopodidae Orbigny, 1839

Genus *Abdopus* Norman and Finn, 2001

104. *Abdopus horridus* (d'Orbigny, 1826)

Type locality. Red Sea. Syntypes at SMF (25993/2). **Synonym and common name**. *Octopus horridus* d'Orbigny, 1826 (PS). A new common name is proposed herein: horrible octopus.

Geographic distribution. Red Sea. Western Mexico (?) (see remarks). **Habitat**. Neritic, epipelagic. **Remarks**. Known only for the Red Sea (Norman and Hochberg [5]). The material from western Mexico deposited in the NMNH (816369) could not be examined.

105. *Octopus pusillus* Gould, 1852 nomen dubium

Type locality. Mangsi Island, China Sea, western Pacific. Holotype at NMNH (no extant). **Common name**. None assigned. **Geographic distribution**. Western Pacific. Mexico, 16°33'00"N, 99°52'30"W. **Habitat**. Unknown. **Remarks**. The material from Mexico was reported by Hoyle in 1904. The *nomen dubium* status of this species is discussed by Norman and Hochberg [5].

References

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