

## AMPLIACIONES DE AMBITO

**New records of 20 species of Majoidea and Parthenopoidea  
(Crustacea: Decapoda) along the Pacific coast of Mexico**

Fifty-eight species of Majoidea have so far been reported from the Gulf of California, Mexico (Garth 1958, 1960, Hendrickx and van der Heiden 1983, 1984, Hendrickx 1987). Of these, about 21 are inhabitants of the rocky intertidal and shallow subtidal environments; they are usually captured by hand or with small dredges on or near rocky substrate or in sea-grass beds. The other 37 species are found much below the intertidal habitat and must be collected with trawls and dredges operated from ships.

Regarding the Parthenopoidea, 15 species have been recorded in the area (Garth 1958, 1960), of which 13 are found exclusively well below the lower limit of the intertidal.

During recent sampling operations in the Gulf of California, Mexico, 52 species of Majoidea and 10 species of Parthenopoidea were collected by hand in the intertidal or with the B/O "El Puma", UNAM, on the continental platform. The present paper presents range extensions within the Gulf of California for 18 of these species. Two species of Majoidea are also reported for the first time in the Gulf of California.

The taxonomic sequence followed for the Majoidea is that proposed by Drach and Guinot (1983). All the specimens collected during this study are held in the Reference Collection of the Laboratorio de Invertebrados y Peces Bentónicos, Estación Mazatlán, UNAM.

Superfamily Majoidea Samouelle, 1819  
Family Inachoididae Dana, 1851  
*Eucinetops lucasi* Stimpson, 1860.

**Previous records:** Several localities along the Gulf of California west coast, from Cabo San Lucas to Puerto Refugio; from Bahía Cholla to Bahía Catalina, on the east coast of the Gulf (Garth 1958).

**New record:** Puerto Viejo, Mazatlán, 1 ♀ ovig. collected by hand, rocky intertidal (March, 1983).

*Collodes gibbosus* (Bell, 1835)

**Previous records:** Bahía San Francisco, Cabo San Francisco, Cabo Parado and Isla Salango, Ecuador; Panamá, Colombia and Guatemala; Acapulco, México (Garth 1958).

**New records:** Several collection sites along the coast of Sinaloa, in the Gulf of California: off Mazatlán, 1 ♂ and 1 ♀ ovig. obtained from a bottom grab sample at 14 m (30/IV/80); off Mazatlán, 1 ♀ ovig. with an otter-trawl at 24 m (25/I/80); off Bahía Santa María, 1 ♂ , with an otter-trawl at 102 m (03/V/82).

*Collodes tenuirostris* Rathbun, 1893.

**Previous records:** From Isla Cedros, on the west coast of Baja California, and from Isla Angel de la Guarda and Bahía Tepoca, south to Bahía Sechura, Peru (Garth 1958).

**New records:** In addition to collections from as many as 32 stations throughout the central and southern Gulf of California, *Collodes tenuirostris* was also collected for the first time in the northern Gulf: off Roca Consag, 7 ♂ , 5 ♀ and 10 ♀ ovig., with an otter-trawl at 60 m (9/V/82); off Punta Willard, 1 ♀ , otter-trawl at 77 m (8/V/82); south of Roca consag, 13 ♂ and 12 ♂ collected with an otter-trawl at 95–103 m (16/III/85).

*Paradasgygius depressus* (Bell, 1835)

**Previous records:** Gulf of California, From Bahía Concepción and Ensenada de San Francisco, south to Bahía Cuevita, Colombia (Garth 1958).

**New records:** *Paradasgygius depressus* was found abundantly in 4 stations in the northern and eastern central Gulf of California: north of Isla Tiburon, 3 ♂ and 9 ♀ collected with an otter-trawl at 112 m (14/III/85); off Punta Willard, 1 ♂ with an otter-trawl at 79 m; south of Roca Consag, 16 ♂ and 9 ♀ , with an otter-trawl at 95–103 m (16/III/85) and 2 ♂ and 2 ♀ ovig., with an otter-trawl at 74 m (5/VIII/85); off Cabo Tepoca, 28 ♂ , 14 ♀ and 5 ♂ ovig., with an otter-trawl at 91–102 m (17/III/85).

Family Epialtidae McLeay, 1838

*Epialtus sulcirostris* Stimpson, 1860

**Previous records:** Bahia Santa María, on the west coast of Baja California and up to Isla San Marcos on the east coast (Garth 1958).

**New records:** First record of this species along the east coast of the Gulf of California, at Mazatlan: Punta Chile, 1 ♂ and 2 ♀ captured by hand, rocky intertidal (4/VII/82); Puerto Viejo, 2 ♂ and 3 ♀ collected with a dredge at 4–5 m (20/IX/82); 1 ♂, by hand, on rocky beach (24/III/83), and 2 ♂ and 1 ♀ collected with a dredge at 1–3 m (10/VIII/83).

*Eupleurodon peruvianus* (Rathbun, 1923)

**Previous records:** This species has been reported from Iquique, Chile, north to Salinas, Ecuador (Garth 1958, Báez 1985).

**New records:** One ovigerous female, collected by hand in the rocky intertidal at Punta Piaxtla, in the southeastern Gulf of California (23/XI/84).

Family Pisidae Dana, 1851

*Pelia pacifica* A. Milne Edwards, 1875.

**Previous records:** From Tumbes, Peru, north to Mazatlan, Sinaloa (del Solar 1970, Hendrickx and van der Heiden 1984).

**New record:** Punta Pixtla, Sinaloa, 3 ♂ and 2 ♀ and 2 ♀ ovig., (22/IX/79), and 9 ♂, 3 ♀ and 10 ♀ ovig. (22/XI/84), all collected by hand, rocky intertidal.

*Herbstia tumida* (Stimpson, 1871)

**Previous records:** From Santa Elena, Ecuador, north to Manzanillo, Colima and Banco Arena, Baja California, México; Islas Cocos and Revillagigedo (Garth 1958).

**New record:** Punta Chile, Mazatlan, 1 ♂ collected by hand, rocky intertidal (25/X/81).

*Libinia mexicana* Rathbun, 1892

**Previous records:** Known only from the northern Gulf of California (Garth 1958).

**New records:** Off Estero Tastiota, Sonora, 10 ♂ and 14 ♀, otter-trawl at 35 m; off Bahia San Esteban, Sinaloa, 1 ♀, otter-trawl at 40 m (1/V/80); off Macapule, Sinaloa, 2 ♀, otter-trawl at 15 m.

Family Mithracidae Balss, 1829

*Mithrax (Mithrax) armatus* de Saussure, 1853

**Previous records:** This species is known from Panama to Los Frailes, Baja California, and to Mazatlan, Sinaloa (Garth 1958).

**New record:** Punta Piaxtla, Sinaloa; 4 ♀ ovig. (22/IX/79), 8 ♂ and 3 ♀ (23/XI/84) collected by hand, rocky intertidal.

*Mithrax (Mithrax) spinipes* (Bell, 1835)

**Previous records:** Several localities along the east coast of Baja California, from Banco Arena to Bahia Agua Verde; Isla Cocos and Galapagos (Garth 1958).

**New record:** First record on the east coast of the Gulf of California, at Mazatlan, Sinaloa, 1 ♀ collected by hand, rocky intertidal (4/XII/79).

*Mithrax (Mithraculus) denticulatus* Bell, 1835

**Previous records:** San Diego, California (extralimital); in the Gulf of California, the species has been collected up to Bahia Agua Verde on the west coast and at Isla Isabel on the east coast; south to Guayaquil, Ecuador; Isla Cocos (Garth 1958).

**New records:** Punta Chile, Mazatlan, 1 ♂, 2 ♀ and 4 ♀ ovig. (25/X/80), 4 ♂ and 6 ♀ (13/IV/82), 3 ♂ and 5 ♀ (12/II/83), by hand, rocky intertidal; Puerto Viejo, Mazatlan, 3 ♂, 3 ♀ and 1 ♀ ovig. (23/III/83), 1 ♀ ovig. (10/VIII/83) and 1 ♂ (7/VIII/83), by hand, rocky intertidal; Isla pajaros, Mazatlan, 2 ♂ and 1 ♀, in tide-pools, rotenona (15/III/84); Punta Piaxtla, Sinaloa, 1 ♂, 1 ♀ and 2 ♀ ovig. (22/XI/84), by hand, rocky intertidal; Guaymas, Sonora, 3 ♂ and 2 ♀, by hand, rocky intertidal (5/IV/86).

*Teleophrys cristulipes* Stimpson, 1860.

**Previous records:** From Bahia Santa María, on the west coast of Baja California; from Agua Verde and Isla Isabel, in the southern Gulf of California, to Bahia Manta, Ecuador. Islas Galapagos, Clipperton, Revillagigedo, Cocos and Malpelo (Garth 1958, Birkeland *et al.* 1975).

**New record:** Punta Piaxtla, Sinaloa, 1 ♂ collected by hand in rocky intertidal (23/XI/84).

*Stenacionops beebei* Glassell, 1936.

**Previous records:** From Bahia Magdalena, on the west coast of Baja California; Gulf of California, along the west coast up to Isla Angel de la Guarda and along the east coast from Isla Tiburon to Guaymas, Sonora (Garth 1958, 1960).

**New records:** Off Roca Consag, in the northern Gulf, 1 ♂ collected at 60 m, otter-trawl (9/V/82); off Rio Fuerte, 1 ♂ collected at 97 m, otter-trawl (20/V/85); off Bahia Santa Maria, 2 ♂ collected at 61–67 m, otter-trawl (10/III/85), in the southern Gulf.

Superfamily Parthenopoidea Mc Leay, 1838

Family Parthenopidae Mc Leay, 1838.

*Parthenope (Platylambrus) exilipes* (Rathbun, 1893).

**Previous records:** Punta San Domingo, on the west coast of Baja California; Cabo San Lucas to Boca de La Trinidad and Islas Tres Marias, Gulf of California; south to Isla Lobos de Afuera, Peru. Isla Cocos (Garth 1959).

**New records:** Off Punta Piaxtla, Sinaloa, 2 ♂ and 1 ♀, otter-trawl at 66 m (23/VIII/81); off Bahia Santa Maria, Sinaloa, 1 ♂ and 1 ♀ ovig., otter-trawl at 51 m (20/III/85); off Estero Tastiota, Sonora, 1 ♀, otter-trawl at 57 m (6/VIII/85); off Cabo San Miguel, 1 ♂, otter-trawl at 107–118 m (1/VIII/85).

*Parthenope (Pseudolambrus) excavata* (Stimpson, 1871)

**Previous records:** Gulf of California, from Isla Angel de la Guarda and Isla Isabel, south to Panama (Garth 1958).

**New record:** Bahia Santa Maria, on the east coast of the Gulf of California, 1 ♀, otter-trawl at 30 m (September 1979).

*Parthenope (Pseudolambrus) stimpsoni* Garth, 1958.

**Previous records:** Known only from Islas Tres Marias, in the southern Gulf of California and to Isla Gorgona, Colombia (Garth 1958).

**New record:** Off Banco Gordo, Baja California, 1 ♀, oyster dredge at 38 m (13/V/82).

*Solenlambrus arcuatus* Stimpson, 1871.

**Previous records:** From Los Frailes, Baja California and Bahia Tepoca, Sonora, to Bahia Santa Elena, Ecuador. Islas Galapagos and Revillagigedo (Garth 1958, 1960).

**New records:** Off Punta San Marcial, 1 ♂, 1 ♀ and 1 ♀ ovig., otter-trawl at 23–39 m (30/VII/85) and off Cabo San Miguel, 3 ♀ ovig., otter-trawl at 27 m (13/III/85), on the east coast of the Gulf of California.'

*Leiolambrus punctatissimus* (Owen, 1839).

**Previous records:** From Punta Tosca (west coast), Cabeza Ballena (east coast), Baja California, and Guaymas, Sonora, to Tumbes, Peru (del Solar 1970).

**New records:** North of Isla Tiburon, Sonora, 14 ♂, 3 ♀ and 1 ♀ ovig., otter-trawl at 112 m (14/III/85); off Punta Willard, Baja California, 1 ♂, otter-trawl at 76–82 m (3/VIII/85).

*Mesorhoea belli* (A. Milne Edwards, 1878).

**Previous records:** West coast of Baja California, south of Punta Abreojos; Gulf of California, from Islas Angel de la Guarda and San Jorge, south to Tumbes, Peru (Garth 1958, del Solar *et al.* 1970).

**New record:** Off Roca Consag, 21 ♂, 5 ♀ and 1 ♀ ovig., otter-trawl at 32 m (16/III/85).

## ACKNOWLEDGEMENTS

We thank J.S. Garth, Allan Hancock Foundation, for his precious help and numerous suggestions regarding the taxonomy of brachyuran crabs in general. One of us (MEH) thanks J. Bouillon and M. Jangoux for the facilities provided in the Laboratoire de Biologie Marine, Université Libre de Bruxelles during part of this study, which was partly supported by CONACYT, México (ICECXNA-021926) and the DGPA, UNAM.

## REFERENCES

- Báez, R.P. 1985. *Eupleurodon peruvianus* (Rathbun, 1923). a species of crab newly recorded from Chile (Crustacea: Decapoda: Brachyura). Proc. Biol. Soc. Wash. 98 (3): 561–563.
- Birkeland, C., D.L. Meyer, J.P. Stames & C.L. Buford. 1975. Subtidal communities on Malpelo Island. In: The Biological Investigation of Malpelo Island, Colombia. Smithson. Contr.Zool. 176: 55–68.
- del Solar, E.M. 1970. Crustáceos braquiuros (cangrejos), anomuros y estomatópodos de las zonas nerito–pelágica y litoral de Tumbes. Bol. Soc. Geogr: Lima 89: 40–48.
- del Solar, E. M., F. Blancas & R. Mayta, 1970. Catálogo de crustáceos del Perú. Universidad Nacional Mayor de San Marcos, Universidad Nacional Agraria 1–53.
- Drach, P. & D. Guinot. 1983. Zoologie des invertébrés. Les Inachoididae Dana, famille de Majoidea caractérisée par des connexions morphologiques d'un type nouveau entre carapace, pleurites, sternites et pléon (Crustacea Decapoda). C.R. Acad. Sc. Paris, Ser. II 297:37–42.
- Garth, J.S. 1958. Brachyura of the Pacific coast of America; Oxyrhyncha. Allan Hancock Pac. Exped. 21 (1–2): 1–854.
- Garth, J.S. 1959. Eastern Pacific Expeditions of the New York Zoological Society. XLIV. Non-intertidal brachygnathous crabs from the west coast of tropical America. Part I: Brachygnatha Oxyrhyncha. Zoologica 44 (7): 105–126.
- Garth, J.S. 1960. Distribution and affinities of the brachyuran Crustacea. In: The biogeography of Baja California

and adjacent seas. Part II. Marine Biotas. Systematic Zool. 9(3): 105–423.

Hendrickx, M.E. 1987. *Podochela casoae*, new species (Brachyura, Majidae) from the continental shelf of the Gulf of California, México, with a note on ecology and distribution of *Podochela* in the Eastern Pacific. J. Crust. Biol. 7 (4): 764–770.

Hendrickx, M.E. & A.M. van der Heiden. 1983. New records of twelve species of crustaceans along the Pacific coast of México. An. Inst. Cienc. del Mar y Limnol., Univ. Nal. Auton. México 10 (1): 277–279.

Hendrickx, M.E. & A.M. van der Heiden. 1984. Distribution of seven species of crustaceans along the Pacific coast of America. Bull. So. Calif. Acad. Sci. 83 (2): 110–112.

M. E. Hendrickx, D.P. Sanchez—Vargas and L. A. Vázquez—Cureño.

Instituto de Ciencias del Mar y Limnología, Estación Mazatlán, UNAM. A. Postal 811, Mazatlán, Sinaloa, 82000, México.