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Primer registro de marea roja debida a *Mesodinium rubrum* (Protozoa: Ciliata) en Bahía de Banderas, México

(Rec. 28-IX-1995. Rev. 25-I-1996. Acept. 22-II-1996)

Key words: Red tide, *Mesodinium rubrum*, cell densities, Bahía Banderas.

La marea roja se presentó el 10 de abril de 1995 (15 días de permanencia) y el 4 de enero de 1996 (2 días de permanencia) en Bahía de Banderas (Nay./Jal.). Esta región se localiza entre latitud norte 21° 30' y 21° 45' y longitud oeste 106° 15'y 106° 30', es de las Bahías más grandes de la costa del Pacífico de México (700 km^2). La importancia de estas mareas rojas es que están estrechamente relacionadas con surgencias dando por resultado el enriquecimiento de la capa eufótica (Rhyter 1967, Packard *et al.* 1978) Las colectas de agua se realizaron en la superficie del agua y en lo más denso de la mancha roja el 19 de abril 1995 y el 4 de enero de 1996. La distancia de la marea roja a la costa fue de 700 a 800 m y abarcó desde la playa Destiladeras hasta el poblado de La Cruz de Huanacaxtle. Para el conteo celular se siguió el método de Utermöhl en cámaras compuestas de 10 ml (Hasle 1978).

El análisis cualitativo y cuantitativo del fitoplancton indican que *Mesodinium rubrum* (Lohman) Hamburger et Buddenbrock 1911(= *Cyclotrichium meunieri*, Powers 1932), fue dominante en ambos muestreos. En 1995 su abundancia fue 1 282 cels/ml (= células por mililitro) y representó el 82.3% de dominancia y en 1996 fue de 1 496 cels/ml con 52.7% de la comunidad fitoplanctónica.

Revisiones previas de este ciliado se encuentran en Taylor *et al.* 1971 y Lindhom 1985. Estos autores únicamente lo localizan en el Golfo de California (Lackey & Clendenning 1963) y en la costa fuera de la península de California (Packard *et al.* 1978). Registros más recientes también se encuentran en el Golfo de California (Cortés 1984, 1987; Hernández 1987). Según Cortés y Nuñez (1992) y, Cortés *et al.* (1995), este ciliado es muy común en las costas del Golfo de California y es el responsable de producir del 63% al 75% de mareas rojas en la Bahía de Mazatlán, en los 16 años anteriores. Sin embargo, en Bahía Banderas las mareas rojas no han sido observadas previamente, siendo este el primer registro que se tiene de dicho fenómeno debido a este ciliado.

Varias zonas de florecimiento fitoplanctónico se han detectado en la zona Este del Golfo de California (Cortés *et al.* 1995). Este registro muestra que la Bahía de Banderas puede ser una zona sujeta a estos fenómenos. La temperatura de 23°C y salinidad de 34 °/oo, representan condiciones semejantes a las presentadas en la Bahía de Mazatlán, que posiblemente influyan en sus abundancias, ya que en ambas Bahías fluctúan del 000 a 2 000 cels/ml. Taylor *et al.* (1971) relacionan la abundancia de *M. rubrum* con la temperatura (0 a 20°C) y la salinidad (0 a 35 °/oo), presentando las máximas abundancias antes de los 20°C y 20 ° /oo, por abajo de estos valores las abundancias disminuyen considerablemente. Valores arriba de los 20°C no hay información. Sin embargo, parece factible que mayores abundancias del ciliado pueden encontrase en regiones más cálidas, que no han sido bien estudiadas. Esto parece cierto, ya que Jiménez (1986) reporta valores de 1 500 a 70 000 cels/ml en las costas de Ecuador. Por tanto, los valores aquí registrados deben considerarse de abundancia intermedia.

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Nuevos registros de algas marinas para el Caribe Mexicano

(Rec. 16-III-1995. Rev. 23-X-1995. Acept. 18-I-1996)

Key words: New record, marine algae, Mexican Caribe, Rhodophyta, *Agardhiella, Griffithsia.*

Como resultado de muestreos de algas marinas realizados en la costa de Quintana Roo, México, encontramos dos especies, que representan nuevos registros para la flora marina del Caribe Mexicano. Los ejemplares se encuentran depositados en el Herbario Dr. Alfredo Barrera Marín del Centro de Investigaciones de Quintana Roo, A. C. (CIQRO), en Chetumal, Quintana Roo, México.

RHODOPHYTA, Gigartinales, Solieriaceae

Taxon: *Agardhiella subulata* (C. Agardh) Kraft *et* Wynne 1979

Registros anteriores: Puerto Rico, Jamaica, Bahamas, Florida, La Habana, Boca Chica Texas, Isla Guadalupe, Sisal cerca de Progreso en Yucatán, México, Colombia, Jeremie en Haití, Punta Alligator, Fort Myers en Florida,

Bahía Matanzas en Cuba, en Bahía Man of War (Taylor, 1960 y 1962), Punta Brava, Punta La Loma y Punta de Cal en la Costa Atlántica de Colombia (Schnetter y Schnetter 1967), Bahía Salina, Punta Othoe, Punta Taparo, Punta Los Gallos en Isla Trinidad (Richardson 1975) (como *Agardhiella tenera* J. Agardh 1841)

Nuevos registros: México, Quintana Roo: Paamul, CIQRO 1011, 13 de marzo de 1986. Recolector Marco A. Aguilar Rosas.

Observaciones: Especie poco común, creciendo sobre sustrato rocoso en el nivel bajo de la zona intermareal y los primeros metros del submareal.

RHODOPHYTA, Ceramiales, Ceramiaceae

Taxon: *Griffithsia caribaea* G. Feldmann 1947

Registros anteriores: Islas Guadalupe y Barbados (Taylor 1960), Brasil (Joly *et al.* 1966), Playa La Esperanza y Manatí en Puerto Rico (Ballantine & Wynne 1986).

Nuevos registros: México, Quintana Roo: Tulum, CIQRO 00340 (Preparación semipermanente), 5 de febrero de 1986. Recolector Marco A. Aguilar Rosas.

Observaciones: Especie poco común, creciendo epífita sobre *Digenia simplex*, colectada en la zona submareal a 5 km al sur de Tulum, en una área rocosa protegida.

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Presencia del pulpo *Octopus hubbsorum* (Cephalopoda: Octopoda) en el Pacífico Central mexicano

(Rec. 11-VIII-1995. Rev. 7-XI-1995. Acept. 28-IX-1995)

Key words: *Octopus hubbsorum*, Central Pacific, Geographic Distribution, range extension, new record, México.

La pesquería de pulpo en el estado de Jalisco, México, (19°12´16" N, 104°40´54"W, y 20°38´53"N, 105°13´37" W) es económicamente importante (Aguilar 1995) pero hasta el presente estudio se desconocía la correcta ubicación taxonómica de la especie. La identificación (Hochberg *in lit.*) se hizo con la descripción original de Berry (1953) por faltar en las principales claves (Anónimo 1984, Nesis 1987).

Aparte de la descripción, este trabajo parece ser el único sobre la especie y presenta una ampliación de ámbito de aproximadamente 1 200 km, ya que fue registrada en Guaymas (Berry, 1953), Sonora, México (27°05´27" N, 110°47´43" W).

Se diferencia principalmente del *Octopus bimaculatus* del Pacífico (Ruíz 1990) por la ausencia de ocelos. Los especímenes se encuentran en el Santa Barbara Natural History Museum, California, EEUU (catálogo B6169).

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First record of the genus *Excorallana* (Isopoda: Corallanidae) in the neritic waters from Pacific of Colombia

(Rec. 2-XII-1994. Rev. 20-VI-1995. Acept. 20-IX-1995)

Key words: Isopoda, first records, Colombia, Pacific, *Excorallana meridionalis*, *Excorallana antillensis*.

Until the present study, six species of *Excorallana* Stebbing have been recorded along the eastern Pacific sector: *E. truncata* (Richardson 1899), widely distributed in southern California and northern Mexico (Schultz 1969), Panama, Bindloe Island, and in Galapagos Islands (Delaney 1982); *E. tricornis occidentalis* Richardson 1905, from the Gulf of California, southwestern Baja California, western Mexico, Panama (Delaney 1984), and possibly Costa Rica (Brusca & Iverson 1985); *E. meridionalis* Carvacho & Yañez 1971, known only from Chile; *E. bruscai* Delaney 1984, apparently endemic to the Gulf of California; *E. houstoni* Delaney 1984, known from central Gulf of California, western Mexico and Galapagos Islands (Delaney 1984); and *Excorallana* n. sp., from Galapagos Islands (Brusca 1987). However, not one of them have been previously recorded from waters of the colombian Pacific ocean.

From some sample material recently collected on the Pacific coast of Colombia, two species, *E. meridionalis* and *E. antillensis* were recognized. Their new locality records, Isla Gorgona, Bahía de Buenaventura and Bahía Aguacate, Chocó, represent a considerable increase on the geographic range extension for both species; one of them (*E. antillensis*), is recorded for the first time in the eastern Pacific sector. The specimens were generously reviewed and confirmed by Paul M. Delaney, University of Virgin Islands, St. Thomas, and Richard C. Brusca, Grice Marine Biological Laboratory, University of Charleston, South Carolina. Material was stored in the Colección de Referencia, Biología Marina, Universidad del Valle, Cali, Colombia (CRBMUV). Comments on preliminary drafts was provided by Carlos Fernández, Universidad del Valle.

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Excorallana meridionalis **Carvacho & Yañez 1971**

Previous record: known only from the Provincia de Santiago, Chile -type locality- (Carvacho & Yañez 1971).

Remarks: The male specimens of *E. meridionalis* from the Pacific coast of Colombia show slight variations with the typical chilean material. The frontal lamina is narrow anteriorly to a median point —similar to the frontal lamina of *E. cuadricornis* (Hansen); the first three antennal articles present a small triangular distal protuberance, which the first article in dorsal view resembles an additional pair of small horns. The material, described and drawn by Carvacho & Yañez (1971), has the frontal lamina broadly rounded anteriorly, without vestige of a median point, and the basal article of the first antenna presents the normal shape for this genus. Other differences were observed on the exopod and endopods of the uropods, but that can be due to the size of the specimens; individuals from Colombia are smaller than those collected in Chile.

The material from Colombia apparently can represent an interspecific range variation of the valid species, or the authors simply overlooked this variation. More material and comparisons with type material is necessary to clarify the real status of the colombian material.

Distribution: Chile; now from Isla Gorgona, and Pianguita, Bahía de Buenaventura, Pacific coast of Colombia.

Excorallana antillensis **(Hansen 1890)**

Previous record: Known from Florida and West Indies (Schultz 1969).

Remarks: *E. antillensis* is a commonly western Atlantic species within the Caribbean-Antillean group of Delaney (1984). The present is the first record of it from the eastern Pacific sector and, is the only species of the genus that has an amphiamerican distribution.

Distribution: Known from western Atlantic; now it is reported from Chocó, Pacific coast of Colombia.

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Decapod crustaceans from the Pacific coast of Mexico, including new records and taxonomic remarks

(Rec. 1-VI-1995. Rev. 22-IX-1995. Acept. 14-XI-1995)

Key words: Decapod, biodiversity, new records, Mexican Pacific.

Recent studies of the decapod crustaceans fauna of the Pacific coast of Mexico have significantly increased records of species which were previously restricted to Central America, the area of the Panama Bight or even to the Galapagos Islands (Villalobos *et al.* 1989). On the other hand, sampling activities in this area (in particular in the Gulf of California) has resulted in a sharp increase in the number of localities known for many species (Hendrickx 1992).

This report is based primarily on collections made in the southeastern Gulf of California. Samples of decapod crustaceans were obtained

during offshore sampling activities aboard the R/V "El Puma" and in coastal lagoon systems. Among these samples, several species appeared to be new for the area. Some had so far never been reported north of Central America, and their northermost distribution limit is therefore notably increased.

Abbreviations used herein are: CL, carapace length; CW, carapace width. All specimens have been deposited in the invertebrates reference collection of the "Estación Mazatlán" (EMU-, followed by catalog entry number).

Upogebiidae

Upogebia spinigera (Smith 1871)

Upogebia spinigera.- Williams, 1986: 41, fig. 15 (complete synonymy).

Previous records: Reported from the Gulf of Fonseca, El Salvador, to Puerto de El Morro, Ecuador (Williams 1986).

Material examined: Las Ratas islands, Ensenada del Pabellon, Sinaloa, 5/III/1991, in a sediment core, 1m depth, 1 M (CL 11.0 mm) (EMU-4043).

Remarks: The only specimen collected was found in mud and gravel, together with *Protothaca asperrima* (Sowerby) (Pelecypoda, Veneridae), and agrees with the description of Williams (1986) in having spines on the fourth walking leg [which makes it distinct from the closely related *U. longipollex* (Streets); see Williams, 1986: 27]. The Mexican specimen is somewhat larger than individuals reported from Central America to Ecuador (CL 9.5 mm).

Paguridae

Pagurus gladius (Benedict 1892)

Pagurus gladius.- Haig *et al.*, 1970.- Snyder-Conn, 1980: 281.

Previous records: Known from Magdalena Bay, West coast of Baja California, and from Santa Ines Bay and the area of Mazatlan, Gulf of California, Mexico, to Ecuador (Haig *et al.* 1970). Cited for the Northern Gulf (no locality given) by Snyder-Conn (1980).

Material examined: Off San Miguel Cape, Baja California, 28°9' N-112°42' W, 6/V/1982, 48 unsexed specimens, 30-35 m, otter trawl (EMU-4049A); 28°7'N-112°45' W, 6/V/1982, 12 unsexed specimens and 5 FF, 67 m, otter trawl (EMU-4049B).- North of Tiburon Island (29°26.5'N-112°26.5'W), Sonora, México, 07/V/1982, 3 unsexed specimens, otter trawl, 30 m (EMU-4069A).- Southwest of Consag Rocks, Baja California, 31°16'N-114°22'W, 9/V/1982, 3 unsexed specimens, 32-37 m, otter trawl (EMU-4050A); 31°9'N-114°15'W, 9/V/82, 2 unsexed specimens and 13 FF, 60 m, otter trawl (EMU-4050B).- Southwest of Consag Rocks, Baja California, 31°9'N-114°15'W, 16/III/1985, 2 unsexed specimens and 1 FF, 60-69 m, otter trawl (EMU-4051).- Santa Ines Bay, Baja California, 26°59'N-111°59'W, 19/III/1985, 3 unsexed specimens, 33 m, otter trawl (EMU-4052).

Remarks: Present records confirm the presence of *P. gladius* in the upper Gulf of California and along the eastern continental platform.

Porcellanidae

Porcellana hancocki Glassell 1938

Porcellana hancocki.- Haig, 1960: 198, textfigs 9.1, pl. 38, fig. 3.- Gore and Abele, 1976: 26.

Previous records: Known from Los Angeles Bay, Santa Ines Bay, Arena Bank, and Mazatlan area, Gulf of California, Mexico, to the Gulf of Panama. A doubtful record at Chiclayo, Peru (Gore & Abele 1982).

Material examined: Off Rocas Conzag, Baja California, 24°52'N-108°35'W, 16/III/1985, 1 FF, trawl, muddy bottom, 95-103 m (EMU-2920B).- Off southern Sinaloa, 24°52'N-108°35'W, 20/VIII/1991, 1 M and 1 F, Agassiz dredge, muddy bottom, 216-224 m depth (EMU-4071).- Off Teacapan, Sinaloa, 22°17.6'N-106°10.9'W, 23/IV/1981, 2 M, 2 F and 1 FF, 61 m, otter trawl (EMU-989).- Off Arboleda Point, Sonora, 26°46'N-110°6'W, 12/III/85, 1 M, 86 m, otter trawl (EMU-2920A).- Santa Inés Bay, Baja California, 26°58.8'N-111°53.6'W, 19/III/1985, 1 M and 1 FF, 66 m, otter trawl (EMU-2918-B).- Off Fuerte river, Sinaloa, 25°48.3'N-109°37.3'W, 8/VIII/1985, 1 M and 1 F, 96-100 m, otter trawl (EMU-2919).

Remarks: This species has been reported in the literature to a maximum depth of 72 m (Haig, 1960); material collected during this survey increases the lower bathymetric limit to at least 216 m.

Xanthidae

Panopeus mirafloresensis Abele and Kim 1989

Panopeus bermudensis.- Hendrickx 1984: 39 (not *Panopeus bermudensis* Benedict & Rathbun 1891).

Panopeus cf. *mirafloresensis*.- Alvarez del Castillo *et al.*, 1992: 5.

Previous records: Miraflores Locks, Panama (Abele & Kim 1989); Barra de Navidad, Jalisco, and southern Sinaloa, Mexico (as *P.* cf. *mirafloresensis*: Alvarez del Castillo *et al.* 1992, Hendrickx 1993).

Material examined: Agua Brava coastal lagoon (La Tigra inlet), Nayarit, 10/XII/1985, 1 M, 5 F, and 2 FF, 3 m depth, muddy substrate, small shrimp otter trawl (EMU-3643).- Estero la Sirena, Mazatlan, Sinaloa, 26/IV/94, 5 M, 7 F, and 5 FF, on submerged roots of *Rhizophora mangle*, collected by hand (EMU-4067); same, 11 M, 10 F, and 3 FF on submerged roots of *Rhizophora mangle*, collected by hand (EMU-4068).- Puerto Viejo, Bay of Mazatlan, Sinaloa, 20/VIII/1982, 17 M, 7 F, and 16 FF, rocky intertidal, collected by hand (EMU-2110 E,F).- Estero El Verde, Sinaloa, 16/I/1980, 2 FF, intertidal, muddy substrate, collected by hand (EMU-626); same, 29/I/1980, 8 M, 3 F, and 4 FF, intertidal, muddy substrate, collected by hand (EMU-627).- Punta Piaxtla, Sinaloa, 22/XI/1984, rocky intertidal, collected by hand, 1 FF (EMU-3645A) and 1 FF (EMU-3645B).- Ensenada del Pabellon, Estero Pericon, Sinaloa, 11/XII/1990, 24 M, 18 F, 3 FF, and 1 juv., intertidal, muddy substrate, hand net (EMU-4044C).- Topolobampo, Sinaloa, 11/IV/1984, 33 M, 10 F, and 16 FF, intertidal, rubbles and stones on muddy substrate, collected by hand (EMU-3646A).

Remarks: Material from several localities in southern Sinaloa (Agua Brava, Puerto Viejo, Estero El Verde, Punta Piaxtla) and from further north (Topolobampo) previously identified as *P. bermudensis* and kept in the Mazatlan reference collection was reexamined and proved to belong to *P. mirafloresensis*. This very large series of specimens available from many localities along the Gulf of California east coast and the reexamination of material from Puerto Viejo (EMU-2110) identified by the late John Garth as *P. bermudensis*, allows us to conclude that in all chance it is Abele and Kim' species that occurs in the whole eastern tropical Pacific region, and that *P. bermudensis* should be considered exclusively an Atlantic species.

Hexapanopeus beebei Garth 1961

Hexapanopeus beebei.- Martin and Abele 1986: 185, fig. 2D.- Abele and Kim 1989: 30.

Previous records: Known only from Corinto, Nicaragua, and Miraflores Locks, Panama (Abele and Kim 1989).

Material examined: La Tigra Inlet, Agua Brava coastal lagoon, Nayarit, 21 M, 5 F, and 6 FF, 3 m depth, muddy substrate, small shrimp otter trawl, 10/XII/1985 (EMU-4059, ex-EMU-3643 part).- Las Ratas island, Ensenada del Pabellon, Sinaloa, 22/VI/1991, 1 M and 3 F, oyster dredge (EMU-4058A).

Remarks: The Agua Brava material had previously been erroneously identified as *P. bermudensis* and reported as such by Hendrickx (1994: 104, EMU-3643 part). *Hexapanopeus beebei* frequently occurs together with *P. mirafloresensis* on hard substrate, although less abundantly.

Eurypanopeus canalensis Abele & Kim 1989

Eurypanopeus sp.- Martin & Abele 1986: 189, fig. 2C.

Eurypanopeus canalensis Abele & Kim 1989: 27, figs 13-14.

Previous records: Known only from the type locality, Panama Canal, Panama.

Material examined: La Tigra Inlet, Agua Brava Coastal Lagoon, Nayarit, 1 F, 3 m depth, muddy substrate, small shrimp otter trawl, 10/XII/1985 (EMU-4060, ex-EMU-3643, part).- Ensenada del Pabellon, Sinaloa, Estero Pericon, 11/XII/1990, 1 M, intertidal, hand net (EMU-4061); same, Las Ventanas, 5/III/1991, 1 M, intertidal with rubbles, collected by hand (EMU-4062).

Remarks: The Agua Brava material had previously been erroneously identified as *P. bermudensis* and reported as such by Hendrickx (1994: 104, EMU-3643 part). Sympatric of *P. mirafloresensis* and *H. beebei*, it is commonly found on submerged mangroves roots (*Rhizophora mangle*).

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ICECXNA-021926; Agua Brava Project, PCECBNA-022069; Shrimp farm Project, 0625-N9110) and DGAPA-UNAM (Altata-Ensenada del Pabellon Project, IN-202389). One of us (JSB) acknowledges CONACyT for the financial support during his postgraduate studies and the other (MEH) acknowledges Enrique MacPherson, ICM, Barcelona, and the Dirección General de Investigación Científica y Técnica, Madrid, Spain, for their help and support during his sabbatical stay in the Instituto de Ciencias del Mar, CSIC, in Barcelona. Final manuscript was prepared with the help of Mercedes Cordero R.

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New and additional records of Leptophlebiidae (Ephemeroptera) from Rio de Janeiro State, Brazil

(Rec. 1-IX-1995. Rev. 12-I-1996. Acep. 29-III-1996)

Key words: *Askola*, *Hylister*, *Miroculis*, *Needhamella*, mayflies, geographic distribution.

On studying the mayflies deposited in the Entomological Collection of Departamento de Zoologia, Universidade Federal do Rio de Janeiro, Brazil, some new and additional records of four species of Leptophlebiidae were found. This collection is mainly composed of specimens collected during studies carried out on Atlantic rainforest areas in Rio de Janeiro State. The collectors are abreviated as follows: Alcimar L. Carvalho (ALC), Duílio Fernandes (DF), Elidiomar R. Da-Silva (ERS), Gabriel L.F. Mejdalani (GLM), Jorge L. Nessimian (JLN), Luci B.N. Coelho (LBC), Luís F.M. Dorvillé (LFD), Nelson Ferreira-Jr (NFJ), Márcio E. Felix (MEF), Sueli M. Pereira (SMP).

Askola froehlichi Peters, 1969

Previous records: Brazilian states of São Paulo, Paraná and Santa Catarina (Peters 1969).

Additional records: Rio de Janeiro State. Teresópolis, **Fazenda Vale da Revolta** (Paquequer stream) - 3 nymphs, ERS (11/I/1990); 1 nymph, ALC, NFJ (18/I/1990); 1 male subimago, ERS (18/I/1990); 3 nymphs, JLN (II/1990); 5 nymphs, ERS, JLN, LFD (14/I/1991); 1 female subimago, GLM (14/I/1991); 1 nymph, LFD, JLN, ERS (15/II/1991); 1 nymph, LFD, ERS (18/V/1991); 3 nymphs, ERS, LFD (20/VII/1991). Nova Friburgo, **Alto do Cascatinha** (Cascatinha stream) - 19 nymphs, ERS, LFD, JLN (01/IX/1991).

Remarks: This is the first report of the genus *Askola* Peters, 1969 in Rio de Janeiro State. Nymphs of *A. froehlichi* were collected in deposits of organic matter or gravel-rubble substratum in first order sites of oxigenated non-polluted cold streams. Collection records of adults and mature nymphs indicate the former emerge during the summer (January to February).

Hylister plaumanni Dominguez and Flowers, 1989

Previous records: Brazilian states of Santa Catarina, Paraná, Minas Gerais and Rio de Janeiro (Dominguez & Flowers 1989). In Rio de Janeiro State this species was reported in Nova Friburgo (São Pedro da Serra district) and Cachoeiras de Macacu (Dominguez & Flowers 1989, Da-Silva & Pereira 1993).

Additional records: Rio de Janeiro State. Nova Friburgo, **Cascatinha** (Cascatinha river) - 1 nymph, ERS (13/VII/1990); **Mury** (Santo Antônio stream), 1 nymph, SMP (31/I/1981). Teresópolis, **Vieira** (Frades river) - 14 nymphs, LFD (16/VI/1991); 6 nymphs, ERS, LFD, JLN (16/II/1991). Petrópolis, **Sítio Ribeirão** (in a small tributary of Jacó stream on Petrópolis-Teresópolis road) - 1 nymph, ERS, JLN (25/VIII/1991).

Remarks: Nymphs were collected under rocks or in deposits of organic matter in small to medium size streams. Collection records of mature nymphs indicate the adults emerge throughout the year.

Miroculis froehlichi Savage and Peters, 1983

Previous records: São Paulo State, Brazil (Savage & Peters 1983).

Additional records: Rio de Janeiro State. Rio de Janeiro City, **Parque Nacional da Tijuca** (in a small stream in Caminho da Cova da Onça) - 28 nymphs, LFD, NFJ (10/I/1991). Rio de Janeiro City, **Serra dos Três Rios** (Ciganos reservoir) - 1 male imago, SMP (30/XII/1976). Rio de Janeiro City, Campo Grande, **Serra do Mendanha** (Guandu-Mirim river) - 3 nymphs, ERS, LFD (06/I/1991). Nova Friburgo, **Cascatinha** (Cascatinha river) - 2 nymphs, ERS, LFD, JLN (07/II/1991); 2 nymphs, JLN, LFD, ERS (20/IV/1991); 1 female imago, LBC (25/V/1991); 1 male imago and 7 nymphs, ERS (31/VIII/1991). Teresópolis, **Fazenda Vale da Revolta** (Paquequer stream) - 33 nymphs, JLN

(II/1990); 8 nymphs, ERS, JLN, LFD (14/I/1991); 32 nymphs, LFD, JLN, ERS (15/II/1991); 4 nymphs, LFD, MEF, ERS (13/IV/1991); 7 nymphs, LFD, ERS (18/V/1991); 5 nymphs, LFD, ERS (15/VI/1991); 3 nymphs, ERS, LFD (20/VII/1991); 9 nymphs, ERS, JLN (24/VIII/1991). Teresópolis, **Vieira** (Frades stream) - 1 nymph, ERS (16/VI/1991); 2 nymphs, ERS, LFD (21/VII/1991). Cachoeiras de Macacu, **Duas Pontes** (Pedra Branca stream) - 8 nymphs, ERS, JLN (29/VII/1991). Angra dos Reis, **Ilha Grande** (Praia Preta) - 1 nymph, JLN (24/I/1990). **Parque Nacional de Itatiaia** (Preto river, on the frontier with Minas Gerais State) - 9 nymphs, JLN (IX/1990).

Remarks: This is the first report of the genus *Miroculis* Edmunds, 1963 in Rio de Janeiro State. Nymphs of *M. froehlichi* were collected in organic deposits or on gravel-rubble substratum of a wide range of streams. Collection records of adults and mature nymphs indicate the former emerge throughout the year. This species seems to be one of the commonest leptophlebiid mayflies in Rio de Janeiro.

Needhamella ehrhardti (Ulmer 1920)

Previous records: Argentina, Paraguay and Brazilian states of Rio Grande do Sul, Santa Catarina, Paraná and Goiás (Dominguez and Flowers 1989).

Additional records: Rio de Janeiro State. **Rio Claro** (Piraí river) - 1 nymph, DF (09/III/1977); 1 male imago, DF (08/IV/1977).

Remarks: This is the first report of the genus *Needhamella* Dominguez and Flowers, 1989 in Rio de Janeiro State. The nymph of *N. ehrhardti* was collected in a large potamal river. Dominguez and Flowers (1989) pointed out the adults fly from November to March, but these new records indicate that the emergence of adults extends at least to April.

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New records of *Scaris habena* and *S. pubescens* (Homoptera: Cicadellidae) from Brazil

(Rec. 1-IX-1995. Rev. 29-IX-1995. Acept. 18-III-1996)

Key words: *Scaris*, Cicadellidae, southeastern Brazil, geographic distribution.

Taxonomic studies on Cicadellidae deposited in Brazilian collections have revealed some new national and regional records, two of them in the genus *Scaris* Le Peletier and Serville, 1825 (Gyponinae), presented here. Brazilian records include 17 of the 69 described species of *Scaris* (Freytag & DeLong 1982, Freytag 1989, Coelho 1993), most of them occurring in the Amazon region.

Scaris habena Freytag and DeLong, 1982

Previous records: French Guiana (Freytag & DeLong 1982).

New Record: Brazil, São Paulo State, São José do Barreiro, Serra da Bocaina (Fazenda do Bonito), one male, M.A. Vulcano col. (no date), deposited in Museu de Zoologia da Universidade de São Paulo, Brazil.

Remarks: This is the first report of *S. habena* in Brazil, and represents the first record of this species outside its type-locality.

Scaris pubescens (DeLong and Freytag, 1969)

Previous records: Peru and Brazilian state of Amazonas (DeLong & Freytag 1969).

New record: Brazil, Rio de Janeiro State, Maricá, Área de Proteção Ambiental de Maricá (Restinga de Maricá), one male, R.F. Monteiro col. (13 April 1986), deposited in Departamento de Zoologia, Instituto de Biologia, Universidade Federal do Rio de Janeiro, Brazil.

Remarks: This is the first record of *S. pubescens* in southeastern Brazil, and represents the southern and eastern limits of the species geographic range, extended now in over 2 500 km.

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First record of the whitetip reef shark, *Triaenodon obesus* in the west coast of México (Revillagigedo Archipelago)

(Rec. 21-III-1995. Rev. 12-VII-1995. Acep. 1-XII-1995)

Key Words: *Triaenodon*, shark, new record.

Species: Whitetip reef shark, *Triaenodon obesus* (Rüppell, 1837)

Previous range: This shark have a wide geographic range, occurring from the eastern coast of South Africa and the Red Sea to Australia and the Hawaiian and Pitcairn Islands (Compagno 1984). In the eastern Pacific, it has been reported at Galápagos and Cocos Islands, and one specimen was captured near the continental shores of Panamá (Kato *et al.* 1967).

New range: In December, 1994, several specimens of *T. obesus* were observed and filmed at Isla Clarión, Revillagigedo Archipelago, México (18° 22' N; 110° 44' W). Extending the recorded range of the whitetip reef shark about 4,850 km west (from Hawaii) and 1,250 km north (from Panamá).

Comments: A group of 10 to 12 individuals of *T. obesus* (of both sexes) were filmed in video at 25 m depth in a cave in the north of the Isla Clarión. Identification was based on illustrations, diagnosis and descriptions in Kato *et al.* (1967), Taniuchi (1975), Bass *et al.* (1975), Randall (1977) and Compagno (1984). The species have a conspicuous white tip on their first dorsal fin and upper caudal lobe. The videotape is deposited at Laboratorio de Ecología del Bentos, U.A.B.C.S.

Sharks were filmed for about 10 min while resting on the bottom of a cave, a characteristic behavior of the species in the Indo Pacific (Randall 1977) or swimming in circles above the others. Individuals in resting position showed their heads pointed towards the front of the cave.

The approximate average total length (TL) of the specimens was 140 cm, which means that most of them were sexually mature at the time of the observation (maturity sizes of males and females is 104 to 109 cm TL; Randall 1977, Compagno 1984). This indicates the clear possibility of a local breeding population around the island. In the tropical eastern Pacific, the only confirmed breeding population is at Islas Galápagos, Ecuador (Kato *et al.* 1967).

T. obesus closely associates with coral reef for homing, reproduction and feeding (Randall 1977). At Isla Clarión there exists a well-developed coral reef (Reyes Bonilla 1993). Reported reef residents that are included in the diet of this shark in the central and west Pacific are crustaceans, mollusks and bony fishes. Spiny lobsters can be an especially important food item (Randall 1977). In the island there are two lobster species, and *Panulirus penicillatus* (Olivier, 1791) is so common in the rock caves where the sharks were seen, and possibly are important item in their diet.

This new record greatly extendes the known geographic range of *T. obesus* and supports the hypothesis that the eastern Pacific is currently being colonized by two routes from the Indo West Pacific: by species arriving at the Galápagos and Cocos Islands and later to Central America, and a secondarily, by way of Clipperton and the Revillagigedo Islands, and from there, to the Gulf of California and the west coast of México.

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Primer registro de *Alopias pelagicus* en el Golfo de California, México

(Rec. 21-II-1995. Rev. 1-III-1996. Acep. 1-V-1996)

Key words: Pacific, Gulf of California, *Alopias pelagicus*, new record.

En aguas del Pacífico oriental está bien documentada la presencia del coludo pinto, *Alopias vulpinus* (Bonaterre, 1788), y el coludo cebucano, *A. superciliosus* (Lowe, 1840), ambas con una distribución circumtropical (Compagno 1984). *Alopias pelagicus* (Nakamura 1935) fue descrita con base en organismos del Pacífico occidental, posteriormente fue capturada en el Pacífico Central (Strasburg 1958). El primer registro en el Pacífico oriental fue en las cercanías de las Islas Marías, México (Castro-Aguirre y De Lachica-Bonilla 1973); con base en dos embriones de una hembra. En un estudio sobre la pesquería de tiburones de el Golfo de California (28°30' N y 112°33' W), llevado a cabo de mayo a septiembre de 1994, se observaron un total de 624 organismos de *A. pelagicus*, siendo una de las principales especies en la captura comercial. *Alopias superciliosus* es fácilmente distinguible de las otras dos especies de *Alopias*, por presentar dos surcos conspicuos en la región cefálica, característica de donde se deriva su nombre común. Inclusive, los surcos son notorios en estadio embrionario. La separación a nivel específico entre *A. pelagicus* y *A. vulpinus*, radica principalmente en la dentición: en el primero son pequeños con cúspides oblicuas y dentículos laterales en el lado externo, mientras que en el coludo pinto son rectos y no presentan los dentículos laterales. Mandíbulas y embriones de las tres especies fueron depositados en la colección de peces del Museo de Historia Natural de la Universidad Autónoma de Baja California Sur.

Este hallazgo en el Golfo de California sugiere dos posibilidades; la primera, es que en las investigaciones sobre tiburones del Pacífico *A. pelagicus* haya sido identificado como *A. vulpinus*. La segunda posibilidad, es de que se trate de un desplazamiento en los últimos años de la población del Pacífico occidental hacia el oriental. Ante tal situación se recomienda a los colegas tener cuidado en la identificación de estas especies, porque tal vez su distribución sea más amplia en el Pacífico oriental.

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First record of hermaphroditic specimens of *Caulolatilus affinis* (Pisces: Branchiostegidae) from the Gulf of California

(Rec. 1-VI-1995. Rev. 18-IX-1995. Accep. 11-I-1996)

Key Words: Caulolatilus, new record.

Two hermaphroditic specimens were collected on 27 July 1988 in Canal Cerralvo, Gulf of California (24°08'-24°23'N and 109°46'-110°07'W), B.C.S., Mexico. Catches were made during the daylight hours by hook and line gear, at depths between 70 and 110 m over sandy bottom. The external appearance of the fishes was normal. The specimen characterized as male, measured 328 mm and 289 mm in total and standard length, and weighed 560 g in total weight. The macroscopic aspect of the testes was normal. The microscopic examination revealed the presence of some previtellogenic oocytes and degenerating oocytes located near the collecting tubules of the testis in the central-dorsal area (Fig. 1A). The specimen characterized as female measured 336 mm and 267 mm in total and standard length, it weighed 440 g in total weight, and the ovary looked normal macroscopically. In the microscopic examination, a small peripheral portion of the ovary was found, located in the central-dorsal area of the ovary and with obvious testicular development, in which all cellular types of the spermatogenic development could be seen (Fig. 1B). The configuration of germinal tissues falls into the undelimited type (Sadovy & Shapiro 1987). Within the family Branchiostegidae, evidence of sex reversal and protogyny has been found (Ross & Merriner 1983, Erickson & Grossman 1986). In *C. affinis*, with the occurrence of only two hermaphrodites out of 637 individuals it is possible to talk about incidental hermaphroditism and it is necessary a full study to see whether the species present sex reversal or protogyny.

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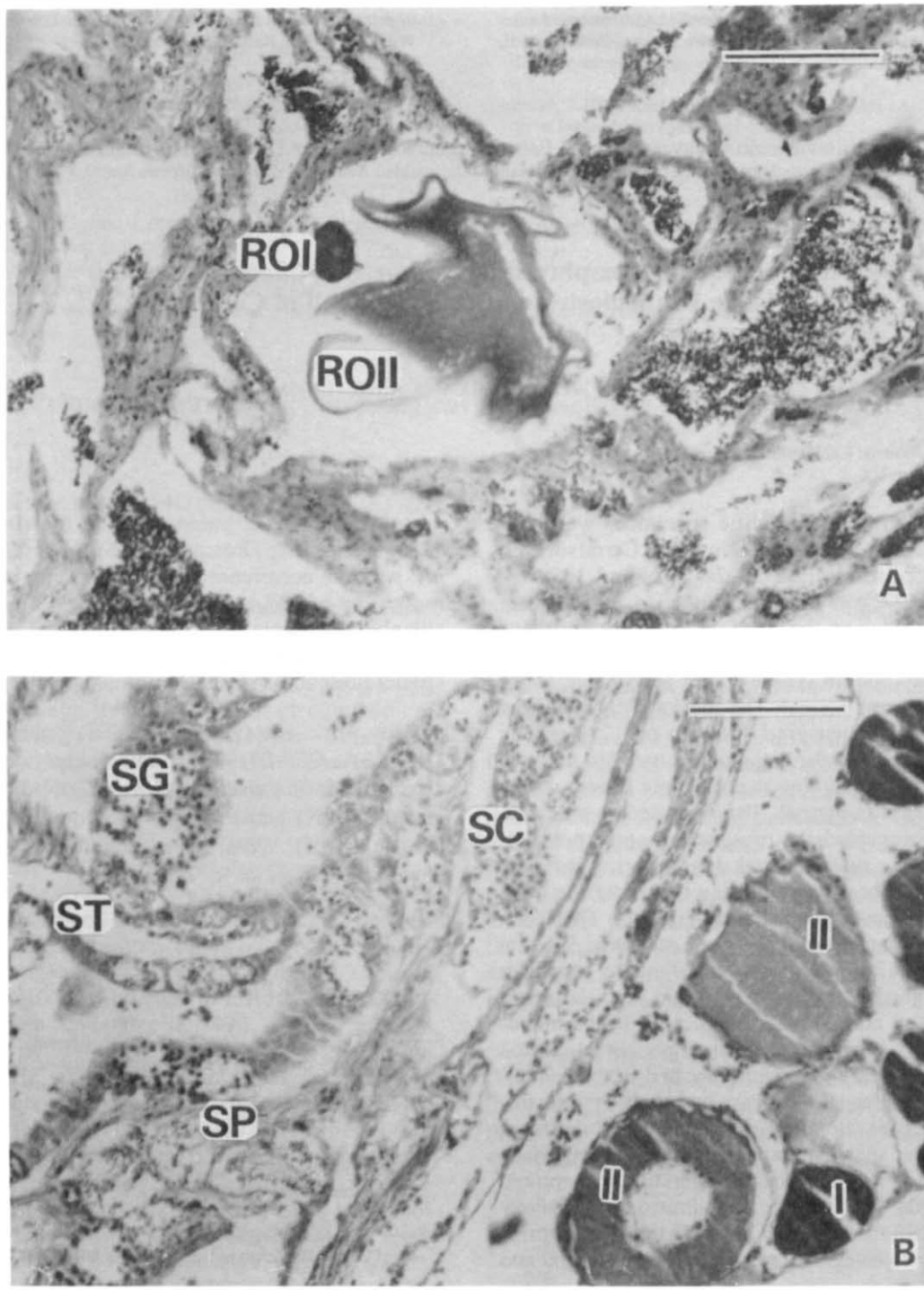

Fig. 1. A) Cross section of the developing testes with residual primary oocyte (ROI) and residual pre-vitellogenic oocyte (ROII). B) Cross section of the developing ovary with testicular development. Primary oocyte (I), pre-vitellogenic occytes (II), spermatogonia (SG), spermatocytes (SC), spermatids (ST) and spermatozoa (SP). Haematoxilin-eosin. Scale bar 100 µm.