

## OPISTHOBRANCH MOLLUSKS OF PARQUE NACIONAL DE COIBA, PANAMÁ (TROPICAL EASTERN PACIFIC)

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**Abstract:** In May 2003 a faunal study was conducted in Parque Nacional de Coiba aboard Smithsonian's RV *Urracá*. During the expedition, opisthobranchs were targeted during the 50 dives, 22 trawls and 8 intertidal surveys. Over 950 specimens of 75 species of opisthobranchs in the orders "Cephalaspidea," "Notaspidea," Anaspidea, Sacoglossa and Nudibranchia were found. Locality data, size, depth and habitat observations were recorded for each specimen found. Twenty-two of these species have not been previously reported as occurring within Parque Nacional de Coiba, Golfo de Chiriquí, Panamá or anywhere else south of Panamá; 10 species found are unidentified or yet undescribed. Species previously reported for Parque Nacional de Coiba are discussed herein.

### Introduction

Parque Nacional de Coiba is a group of islands located south of the Veraguas Province (in the southwest of the República de Panamá) in the southeast part of the Golfo de Chiriquí between 7°10' and 7°53' N and 81°32' and 81°56' W. Because of its geographical isolation, a penal colony was established at Isla de Coiba in 1910. It is still active today and has contributed to the preservation of the flora and fauna on the islands. Parque Nacional de Coiba was established in 1991, under the administration of ANAM (Autoridad Nacional de Medio Ambiente), to protect and preserve its natural environment and wildlife.

Coiba itself, (50,314 ha) is among the largest islands of the American Pacific. The other islands in the Park are Ranchería, known also as Coibita (242 ha), Jicarón (2,002 ha), Jicarita (125 ha), Afuerita (27 ha), Canal de Afuera (240 ha), Pájaros (45 ha), Uva (257 ha) and Brincanco (330 ha) for a total land surface of 53,582 ha together with 216,543 ha of marine areas making Parque Nacional de Coiba one of the most extensive parks in the world. It protects three kinds of ecosystems: the islands, reefs and marine life (San Martín et al., 1997) (Figures 1 & 2).

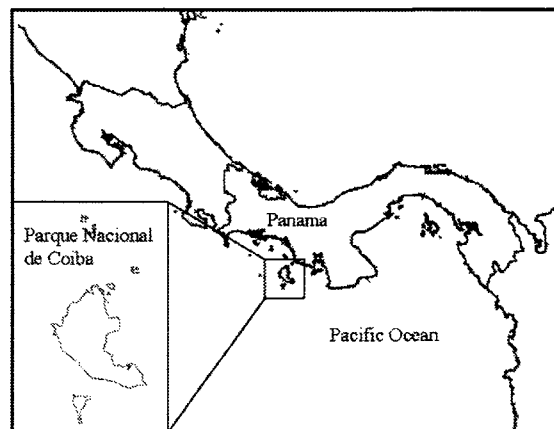


Figure 1. Map of the República de Panamá and insert of Parque Nacional de Coiba.

There are two distinct climatic seasons in Parque Nacional de Coiba: the dry season from December to April, with strong winds that cause upwelling, a drop in water temperature (from 20 to 15°C) and a rise in nutrient levels, and the rainy season, from May to December, with typical afternoon showers, higher water

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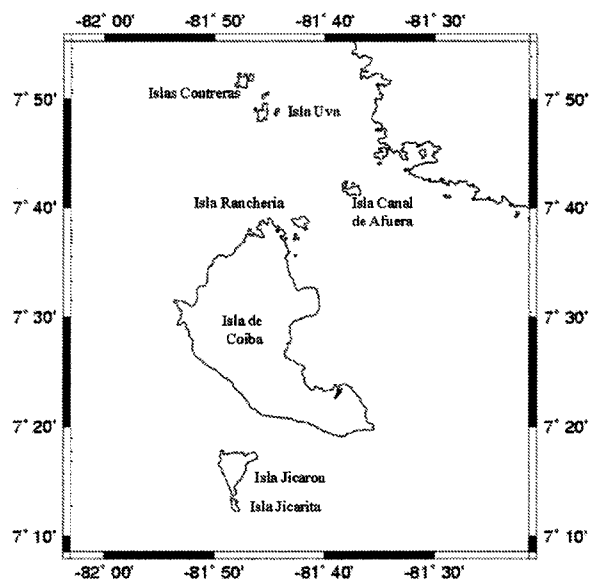


Figure 2. Map of Parque Nacional de Coiba.

temperatures and clearer waters (San Martín et al, 1997).

There is a paucity of information on Coiba and most data were generated during the development of the management plan of Parque Nacional de Coiba. The present paper is the result of an expedition, part of an ongoing faunal study of the coastal and oceanic islands of the Tropical Eastern Pacific conducted by the Smithsonian Tropical Research Institute in Panamá, with the goal of increasing our knowledge of the local fauna.

Keen (1971) reports 28 species of both shelled and shell-less opisthobranchs for Panamá and 10 additional species that occur in adjacent areas and would be expected to inhabit suitable substrates of Panamá. Later, various authors reported 18 species from Panamá but not specifically for Parque Nacional de Coiba: Sphon (1971) one species; Bertsch et al. (1973) one species; Abbott (1974) four species; Ferreira & Bertsch (1975) one species; Bertsch (1979) one species; Bertsch & Kerstitch (1984) one species; Gosliner & Bertsch (1988) one species; Gosliner (1990, 1991 & 1994) seven species; Gosliner & Behrens (1998) one species.

San Martín et. al. (1997) report a species list of 12 opisthobranchs for Parque Nacional de Coiba; 15 additional species are listed in Vega et al. (2000) in an extensive paper listing mollusks for the Veraguas Province (of these, 5 are reported from the Park and 10 in other locations of the Veraguas Province). García

and Troncoso (1999, 2001) described two species whose type localities are within Parque Nacional de Coiba. During the present study, several species of opisthobranchs not previously known from the Park or Panamá were collected.

Other authors have studied other elements of the molluscan fauna (Bivalvia, Polyplacophora and the shelled groups of Gastropoda) of the Golfo de Chiriquí in the Veraguas Province: Strong (1939); Hertlein (1946-1950); González, G. (1983); Avilés (1984); Gil (1996) and González, M. (1999).

### Materials and Methods

Collecting and observation were conducted during the month of May 2003 aboard the RV *Urracá*. The areas surveyed were sand and rocky shores, sea mounts, islets, estuaries and reefs in order to find the species living in all distinct habitats within the Park. The survey covered three different zones: intertidal, subtidal (5 to 25 m by scuba-diving) and deep (51 to 106 m) by trawling. Opisthobranchs were found on and under rocks, within cracks and crevices and on potential prey or habitat (such as algae, sponges, hydroids, bryozoans, corals and gorgonians). Specimens were deposited at the Natural History Museum of Los Angeles County, California Academy of Sciences and the KL Kaiser Collection.

The trawling was done aboard the RV *Urracá*. The otter trawl used was 5 m wide, with a protective net of 3 cm and an inner mesh of 6 mm. The net was lowered by a metal cable with a winch. The length of the cable was calculated to three times the depth. Once the cable was fully extended, the trawl was conducted for 15 minutes. The net was then winched up to the surface and untied on the deck where the specimens collected were sorted by taxonomic group.

Size, depth and habitat observations were recorded for each opisthobranch found. The size was measured in situ with a metric ruler and depth and temperature were taken with an Uwatec Smart dive computer. A station number was assigned to each dive, trawl and intertidal survey, with the acronym ICP (Isla de Coiba, Panamá) and a consecutive number. For each station we recorded date, latitude and longitude, time of day, temperature range, depth range surveyed, type of substrate, energy level and dominant reef characteristics. All species were photographed in situ when possible and/or in an aquarium.

### Results and Discussion

Reported herein are the 75 species of opisthobranchs that were found during the month of May 2003 in 22 trawls, 50 dives and 8 shore excursions. They include members in the orders "Cephalaspidea," "Notaspidea," Anaspidea, Sacoglossa and Nudibranchia. A total of 951 specimens of opisthobranchs were measured and recorded. Seventy-five species were identified: 4 "Cephalaspidea," 5

Anaspidea, 9 "Notaspidea," 5 Sacoglossa and 52 Nudibranchia. Of this total, 22 species collected have not been previously reported as occurring within Parque Nacional de Coiba, Panamá, or in localities south of Panamá. Additionally, 10 species are new to science.

In order to simplify the presentation of results, all collecting stations were grouped into major areas of the Park. Table 1 presents these localities, the general latitudes and longitudes and shorter names (i.e. Isla de Coiba northwest as Coiba NW) and are then used in Table 2.

Table 1. Collecting Areas in Parque Nacional de Coiba.

Areas	As referred to in Table 2	Longitude and Latitude
Canal de Ranchería	Ranchería	07°37'N, 081°42'W
Isla Afuerita	Afuerita	07°42'N, 081°37'W
Isla Brincanco	Brincanco	07°52'N, 081°47'W
Isla Canal de Afuera	C. Afuera	07°41'N, 081°37'W
Isla Coibita	Coibita	07°39'N, 081°43'W
Isla de Coiba east	Coiba E	07°24'N, 081°39'W
Isla de Coiba northeast	Coiba NE	07°35'N, 081°42'W
Isla de Coiba northwest	Coiba NW	07°37'N, 081°47'W
Isla de Coiba southeast	Coiba SE	07°25'N, 081°41'W
Isla de Coiba west	Coiba W	07°31'N, 081°53'W
Isla Jicarita	Jicarita	07°13'N, 081°48'W
Isla Jicarón	Jicarón	07°17'N, 081°48'W
Isla Uva	Uva	07°49'N, 081°45'W
Islas Contreras	Contreras	07°46'N, 081°45'W
Trawl off Isla Jicarón and Jicarita	Trawl 1	07°17'N, 081°43'W
Trawl off Islas Contreras	Trawl 2	07°40'N, 081°44'W

#### Benthic Trawl Collections

Benthic trawls brought up specimens of all major taxonomic groups: mollusks, fish, crustaceans, sponges and a few cnidarians. Opisthobranchs taken in trawl samples normally suffer from distortion and damage due to their soft bodies. Nonetheless, the species of opisthobranchs collected in the trawls were successfully identified.

A total of 76 specimens of an undescribed species of *Armina* Rafinesque, 1848 (Nudibranchia: Arminina), were collected live along with what is its known preferred alcyonarian prey (*Cavernularia* sp.). The nudibranch was photographed and videotaped. A description of both the *Armina* and the *Cavernularia* is in preparation.

Other species collected during trawls were:

*Flabellina cynara* (Marcus & Marcus, 1967) (12 specimens were collected without any cerata remaining but identified by the unique purple markings on foot, tail, oral tentacles and rhinophores); *Berthellina ilisima* Marcus & Marcus, 1967; *Berthella californica* (Dall, 1990); *Armina californica* (Cooper, 1863); *Navanax aenigmaticus* (Bergh, 1894) and *Chromodoris marislae* Bertsch & Ferreira, 1973. The latter is the first report of this species outside of México.

#### Subtidal and Intertidal Collections

The mean water temperature registered during our survey for the month of May was 27.9°C, the minimum temperature recorded was 22.8°C at a depth of 18 meters and the maximum at the surface was 30°C. There was a usual drop in the water temperature of two

degrees from the surface to the survey depth.

Table 2 lists the 75 species collected. The Table includes each species' size range, depth at which it was found, locality, number of specimens found and the repository voucher reference number. The following abbreviations are used: LACM, Natural History Museum of Los Angeles County; CASIZ, California Academy of Sciences, and KLK, for the K.L. Kaiser Collection.

A species list of opisthobranchs for Coiba was previously published by San Martín et al. (1997) in a comprehensive study of the Park (climate, geology, land and marine environments). Their paper reported 12 species of opisthobranch mollusks. Five additional species for the Park are listed in Vega et al. (2000). Parque Nacional de Coiba is the type locality for two more species: *Phidiana mariadelmarae* García & Troncoso, 1999, and *Favorinus elenalexiae* García & Troncoso, 2001, both found regularly during the present study. Of these 19 species previously reported from the Park, five are not reported herein for various reasons.

Two species, *Doriopsilla janaina* Marcus & Marcus, 1967, reported by San Martín et al. (1997) and *Tyrinna evelinae* (Marcus, 1958) reported by San Martín et al. (1997) and Clay Bryce (Western Australian Museum) in 1998 (pers. comm) were not found during the present study. Further survey would likely have produced these species.

One species reported in San Martín et al. (1997) as occurring in the Park, *Glossodoris edmundsi* Cervera, García-Gomez & Ortea, 1989, is known only from the Atlantic side of Panamá. It has not been reported from the Pacific. I suggest that the report of *G. edmundsi* is a misidentification of *Glossodoris dalli* (Bergh, 1879), which I found regularly in the Park. It has similar morphological characteristics to *G. dalli* such as the patchy brownish-gray dorsum with numerous dark tubercles and scattered larger orange spots, orange margin in both mantle and tail and orange tips of rhinophores and gill.

*Berthellina quadridens* (Mörch, 1863) and *Berthellina engeli* Gardiner, 1936, were reported by Vega et al. (2000) as occurring in Parque Nacional de Coiba. For some time there has been uncertainty concerning the proper placement of the bright orange pleurobranchs on the Pacific coast and elsewhere. *Berthellina ilisima* (Marcus & Marcus, 1967), *B. engeli*, *B. quadridens* and *B. citrina* (Rüppell & Leuckart, 1828) have been used interchangeably throughout the literature. A recent study of the world-wide smooth, orange *Berthellina* species, undertaken by Terrence Gosliner and

Lucas Cervera (pers. comm., 2003), concludes that the eastern Pacific animals should be assigned to *B. ilisima* as noted in Behrens (2004). Therefore, I consider the species reported by Vega et al. (2000) and in the present study to be *B. ilisima* which is found abundantly within the Park.

Gil & Pérez (1996) report *Hypselodoris californiensis* (Bergh, 1879) at Tres Islas and Isla Leones, Veraguas, Panamá. These islands are not part of Parque Nacional de Coiba but the report for Panamá should be clarified. This chromodorid nudibranch is a known northern Pacific species distributed from California to the outer coast of Baja California and northern Golfo de California and has not been found to occur from southern México to Panamá. This record most likely is *Hypselodoris agassizii* (Bergh, 1894) which is widely distributed and abundant from Sonora (Sphon, 1971) to Ecuador (Sphon & Mulliner, 1972). *Hypselodoris agassizii* was wrongly identified in Keen (1971) as *H. californiensis*.

The following list presents 22 new distribution records for Panamá and localities south of Panamá. Included are the northern and southern published distributions for each of the species. A short description of the external anatomy is added for those species which were unidentifiable or thought to be potentially undescribed. These descriptions are purposely general in nature and in no way intended as formal descriptions. No trivial names are proposed and no type material has been deposited or designated for them.

#### Order CEPHALASPIDEA

##### Family HAMINOEIDAE

- *Haminoea ovalis* Pease, 1868 (Plate 1, Figure G). Previously known from the Indo-Pacific and Costa Rica (Camacho, Y., in press).
- *Phillinopsis cynaea* (Martens, 1879). Previously reported from the tropical Indo-West Pacific (Rudman, 1972).

#### Order NOTASPIDEA

##### Family PLEUROBRANCHIDAE

- *Berthella agassizii* (MacFarland, 1909) (Plate 1, Figure F). West Atlantic-Caribbean to Brazil (Marcus, 1955), Pacific coast of México (Gosliner & Bertsch, 1988) and Costa Rica (Camacho, Y., in press.).
- *Berthellina* sp. 1. This typical shaped *Berthellina* is off-white with small opaque spots on the mantle. Rhinophores are rolled and the oral veil is small. It has

been found before in Bahía de Banderas, Jalisco-Nayarit, México.

Order ANASPIDEA  
Family APLYSIIDAE

• *Phyllaplysia padinae* Williams & Gosliner, 1973. Known from the head of the Golfo de California to Bahía San Carlos, Sonora (Williams & Gosliner, 1973); Bahía de los Angeles, Baja California, México (Poorman & Poorman, 1977) and Costa Rica (Camacho, Y., in press).

Order NUDIBRANCHIA  
Suborder DORIDINA  
Family CHROMODORIDIDAE

• *Cadlina luarna* (Marcus & Marcus, 1967). Previously reported from La Paz, Baja California Sur; Mazatlán, Sinaloa (Valdés & Angulo-Campillo, 2000); Bahía de Banderas, Jalisco-Nayarit, México and Costa Rica (Camacho, Y., in press).

• *Chromodoris marislae* Bertsch & Ferreira, 1973 (Plate 1, Figure A). Known from Guaymas, Sonora (Bertsch, 1978) to Faro de Bucerías, Michoacán, México (Hermosillo-González, 2003).

• *Mexichromis antonii* (Bertsch, 1976). Reported from Morro Colorado, Sonora (Bertsch & Kerstitch, 1984) and Costa Rica (Camacho, Y. in press).

Family DORIDIDAE

• *Diaulula greeyeli* (MacFarland, 1909) (Plate 1, Figure E). Previously known from Brazil (MacFarland, 1909), Isla Isabela, Nayarit, México (Ortea & Llera, 1981, as *Peliodoris nayarita*) and Costa Rica (Camacho & Valdés, 2003).

• *Taringa aivica* Marcus & Marcus, 1967. Reported previously from Paradise Cove, Los Angeles County, California (Behrens & Henderson, 1982) to Bahía de Banderas, Jalisco-Nayarit, México (Hermosillo-González, 2003) and Costa Rica (Camacho, Y., in press).

• *Discodoris ketos* (Marcus & Marcus, 1967). Known from San Felipe, Baja California and Bahía de Banderas, Jalisco-Nayarit, México (Ferreira & Bertsch, 1975) and Costa Rica (Camacho, Y., in press).

• *Hoplodoris bramale* Fahey & Gosliner, 2003 (Plate 1, Figure H). Known only from the type locality in Costa Rica (Fahey & Gosliner, 2003).

• *Dorid* sp. 1. Three specimens of this species were

observed, all of them living in similar habitats under coral rubble. This dorid is light grayish-brown to dark brown. The body has coarse ridges and processes that make the animal look sponge-like. Rhinophores are perfoliated and the same color as the body, the sheaths are irregular in shape. The branchial plume forms a line and is not very visible among the irregular notum surface.

• *Dorid* sp. 2. Very small specimens (3 and 11 mm long) were found living under rocks at depths between 12 and 17 meters. The color of the body is pinkish brown, the notum is smooth with darker spots and some small tubercles. The rhinophores are perfoliated and the branchial plume is unipinnate.

• *Dorid* sp. 3. Only one specimen 12 mm long was found under an intertidal rock. The color of the animal is a light, almost translucent grayish-brown, darker towards the middle. It bears well-defined dark brown spots, smaller close to the margin, larger around the middle and smaller again in the center of the mantle. The body is smooth, with small regular tubercles. The rhinophores are clear on the shaft with a heavily perfoliated brown clavus. The unipinnate gill is also clear with brown tips.

Family POLYCERATIDAE

• *Polycera alabe* Collier & Farmer, 1964. Reported to occur throughout the Golfo de California, from Puerto Peñasco, Sonora, México (Bertsch, 1973) and Costa Rica (Camacho, Y., in press).

• *Polycera gnupa* Marcus, 1967. A very cryptic species that has not been reported again since its description from Puerto Peñasco, Sonora, México (Marcus & Marcus, 1967).

• *Polycerella glandulosa* Behrens & Gosliner, 1988. Previously reported from Morro Bay to San Diego, California; Bahía de los Angeles, Baja California to La Paz, Baja California Sur, México (Behrens & Gosliner, 1988) and Costa Rica (Camacho, Y., in press).

Suborder DENDRONOTINA  
Family TRITONIIDAE

• *Tritonia pickensi* Marcus & Marcus, 1967. A very small cryptic species known from Bahía de los Angeles, Baja California to Cabo San Lucas, Baja California Sur (Bertsch & Gosliner, 1984); Bahía de Banderas, Jalisco-Nayarit, México (Hermosillo-González, 2003) and Costa Rica (Camacho, Y., in press).

## Family SCYLLAEIDAE

•*Notobryon wardi* Odhner, 1936 (Plate 1, Figure B). Reported from the Indo-West Pacific (Thompson, 1981); Mazatlán, Sinaloa; Bahía de Banderas, Jalisco-Nayarit and Faro de Bucerías, Michoacán, México.

## Family DOTIDAE

•*Doto* sp. 1. Three specimens of this species were observed. They were all found living on a brown hydroid. Egg masses are white. The body shape is typical of the genus *Doto*. The color of the body as well as the rhinophore sheaths is rose. The rhinophores and cerata are translucent white. The grape-like cerata are rose, getting darker towards the tips. This species has been observed regularly in Bahía de Banderas and at Isla Isabela, Pacific coast of México.

## Suborder ARMININA

## Family ARMINIIDAE

•*Armina* sp. 1. Seventy-six specimens of the species were found by trawling and were collected with its preferred alcyonarian prey of the same color. The sizes ranged from 22 to 33 mm in length. They are wider than typical for species of *Armina*, almost heart-shaped. Specimens have white with yellow-orange notal ridges emanating from the frontal notch where striated bulbous rhinophores are situated. The frontal veil and foot are the same color.

## Suborder AEOLIDINA

## Family FLABELLINIDAE

•*Flabellina cynara* (Marcus & Marcus, 1967). Known from Bahía de los Angeles, Baja California and throughout the Golfo de California (Bertsch & Kerstitch, 1984); Bahía de Banderas, Jalisco-Nayarit, México (Hermosillo-González, 2003) and Costa Rica (Camacho, Y., in press). A very unusual purple color variation was observed (Plate 1, Figure D).

## Family EUBRANCHIDAE

•*Eubbranchus cucullus* Behrens, 1985 (Plate 1, Figure C). Reported from Isla Ángel de la Guarda, Golfo de California (Behrens, 1985) and Bahía de Banderas, Jalisco-Nayarit, México (Angulo-Campillo, 2002).

•*Eubbranchus* sp. 1. Three specimens of this minute species were found on a *Bugula* sp. of bryozoan. The

color of the body is yellow, the rhinophores are simple. The most distinctive character of the species is a wine-red ring in the middle of the rhinophores. The cerata are yellow and inflated.

## Family AEOLIDIIDAE

•*Berghia major* (Eliot, 1903) (Plate 1, Figure I). Known from the Indo-Pacific; Tanzania (Edmunds, 1969); Hawaii (Gosliner, 1979) and Japan (Baba, 1937). In the eastern Pacific it is reported from Puertecitos, Baja California, México (Keen, 1971) and central and southern Golfo de California (as *Baeolidia nodosa* in Kerstitch, 1989).

## Family FAVORINIDAE

•*Phidiana lasrucensis* Bertsch & Ferreira, 1974. Reported from Bahía Bacochibampo, Sonora, México and Golfo de Nicoya, Costa Rica (Bertsch & Ferreira, 1974).

•*Noumeaella rubrofasciata* Gosliner, 1991. Reported from Santa Barbara and Santa Catalina Island, California; Islas San Benito, Baja California, Punta Colorada, Baja California Sur (Gosliner, 1991); Bahía de Banderas, Jalisco-Nayarit, México (Hermosillo-González, 2003) and Costa Rica (Camacho, Y., in press).

## Family FACELINIDAE

•*Facelina* sp. 1. This species has been found in Bahía de Banderas and Isla Isabela, Nayarit; Santiago, Colima and Faro de Bucerías, Michoacán, México. It lives on a hydroid, *Tubularia* sp. The body is transparent white, the orange insides can be seen in most specimens, opaque white blotches of various sizes and placements can be observed in some specimens. The body has a thin, segmented dark purple line in the middle of the dorsum and on both sides of the foot. The oral tentacles are long with purple spots and opaque white blotches. The rhinophores are simple with the same coloration as the oral tentacles. The color of the cerata varies among individuals, going from light orange, light red, deep red to purple, some bearing white spots. There is a thin purple line defining the cnidosacs which are always lighter than the rest of the ceras.

## Family TERGIPEDIDAE

•*Phestilla hakunamatata* Ortea, Caballer & Espinosa,

2003. This species was described based on a single specimen collected in Costa Rica, but the reproductive system was not studied. Since generic placement for aeolids with uniserrate radula (such as *P. hakunamatata*) requires careful analysis of the reproductive system, the generic assignment is dubious. The species is known to be abundant in Bahía de Banderas and Isla Isabela, Nayarit; Ixtapa, Guerrero, México as well as Parque Nacional de Coiba and the Azuero Peninsula, in Panamá (pers. obs.). Ortea et al. (2003) reported the species as being cryptic and living and feeding on a gorgonian. I have found this species living exclusively on a *Solanderia* sp. hydroid.

•*Cuthona* sp. 1. Two small specimens (4 mm) were found laying eggs on the alga *Padina* sp. The color of the body is transparent off-white, covered with opaque white specks. The rhinophores are long and plain, the same color as the body but without the white specks and bearing a brown ring at approximately one third of the length. The oral tentacles are very short. The cerata are not numerous, are transparent off-white in color, followed by a series of colored rings: yellow, blue, yellow and off-white.

•*Aeolid* sp. 1. Two specimens found living on a floating buoy. We are not able to place this species in any current aeolid genus. The bodies of the specimens are extremely long and slender with 23 rows of cerata for the larger specimen and 12 for the smaller one. Each row bears one to two cerata. The color of the body is a bright brown with a white, almost silvery, line along the dorsum branching to form a circle around each ceratal group. The rhinophores are large and smooth with the pointy end translucent yellow with dense irregular brown and a few white spots (the same coloration is observed on the oral tentacles). There are white speckles dispersed over the cerata. The internal anatomy was not examined.

### Conclusions

The fact that 22 out of 75 species identified have not been reported previously for Parque Nacional de Coiba and that 10 more are most likely undescribed shows us how much is yet to be learned about the opisthobranch fauna of the area. As noted before, there are two very distinct climate seasons in the area: dry season during the winter and rainy season during the summer. Since the mean temperature for the surveyed month of May was 27.9°C, one could expect to find some other species if the survey were conducted during the colder season

(December to April).

More night dives would result in greater numbers of specimens of known nocturnal species such as *Aplysia parvula* Mörch, 1863; *Stylocheilus longicauda* (Quoy & Gaimard, 1824); *Dolabella auricularia* (Lightfoot, 1786); *Chromodoris baumannii* Bertsch, 1970 and *Notobryon wardi* Odhner, 1936.

Only two species previously reported for Parque Nacional de Coiba: *Doriopsilla janaina* Marcus & Marcus, 1967, reported by San Martín et al., 1997, and *Tyrinna evelinae* (Marcus, 1958) reported by Clay Bryce (Western Australian Museum) in 1998 (pers. comm.) were not found during the present study.

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### Literature Cited

- ABBOTT, R. TUCKER  
1974. American Seashells. 2nd ed. Van Nostrand Reinhold Co. New York, 663 pp., 25 pls., 6405 figs.
- ANGULO-CAMPILLO, ORSO  
2002. New distributional records of opisthobranch mollusks from the Golfo de California, México. *The Festivus* 34(10):117-121, 12 figs.
- AVILÉS, M.C.  
1984. Moluscos de la Ensenada Santa Catalina, Distrito de Soná, Provincia de Veraguas. 2. Gasterópodos. *Donax panamensis* 40: 45-48.
- BABA, KIKUTARO  
1937. Opisthobranchia of Japan (II). J. Dept. Agric. Kyushu Imp. Univ. 5(7): 289-344, (pls.1-2).
- BEHRENS, DAVID W.  
1985. A new species of *Eubranchnus* Forbes, 1838, from the Sea of Cortez, Mexico. *The Veliger* 28(2): 175-178, figs. 1-5.  
2004. Pacific Coast Nudibranchs – Supplement II: New Species to the Pacific Coast and New Information on the Oldies. *Proceedings of the California Academy of Sciences* 55(2): 11-54, 4 pls., 15 figs.
- BEHRENS, DAVID W. & TERRENCE M. GOSLINER  
1988. The first record of *Polycerella* Verrill, 1881, from the Pacific, with the description of a new species. *The*

- Veliger 30(3): 319-324, figs. 1-4 (Jan. 4).
- BEHRENS, DAVID W. & ROBERT HENDERSON  
1982. *Taringa aivica timia* Marcus & Marcus, 1967 (Nudibranchia: Doridacea). The Veliger 24(3): 197-199, 4 text figs. (Jan. 1).
- BERTSCH, HANS  
1973. Distribution and natural history of opisthobranch gastropods from Las Cruces, Baja California del Sur, Mexico. The Veliger 16(1): 105-111, 4 tables, 1 map (Jul. 1).  
1976. A new species of *Chromodoris* (Opisthobranchia: Nudibranchia) from tropical west America. The Veliger 19(2): 156-158, figs. 1-8 (Oct. 1).  
1978. The Chromodoridinae nudibranchs from the Pacific coast of America - Part II. The genus *Chromodoris*. The Veliger 20(4): 307-327, figs. 4-15, 3 pls. (Apr. 1).  
1979. Tropical faunal affinities of opisthobranchs from the Panamic province (eastern Pacific). The Nautilus 93(2-3): 57-61.
- BERTSCH, HANS & ANTONIO FERREIRA  
1974. Four new species of nudibranchs from tropical west America. The Veliger 16(4): 343-353, figs. 1-27.
- BERTSCH, HANS, ANTONIO J. FERREIRA, WESLEY M. FARMER & THOMAS L. HAYES  
1975. The genera *Chromodoris* and *Felimida* (Nudibranchia: Gastropoda) in tropical west America: distributional data, description of a new species, and scanning electron microscopic studies of radula. The Veliger 15(4): 287-294, figs 1-11 (Apr. 1).
- BERTSCH, HANS & TERRENCE M. GOSLINER  
1984. *Tritonia pickensi* (Nudibranchia: Tritoniidae) from Baja California, Mexico. Shells & Sea Life 16(9): 138-139, figs. 1-5 (Sept.).
- BERTSCH, HANS & ALEX KERSTITCH  
1984. Distribution and radular morphology of various nudibranchs (Gastropoda: Opisthobranchia) from the Gulf of California, Mexico. The Veliger 26(4): 264-273, figs. 1-16 (Apr. 2).
- CAMACHO-GARCÍA, YOLANDA  
In press. Opisthobranch diversity of the Pacific Coast of Costa Rica.
- CAMACHO-GARCÍA, YOLANDA E. & ÁNGEL VALDÉS  
2003. Caryophyllidia bearing dorid nudibranchs (Mollusca, Nudibranchia, Doridacea), from Costa Rica. Proceedings of the California Academy of Sciences. 54(4): 65-79, 7 figs. (14 Mar.).
- EDMUNDS, MALCOLM  
1969. Opisthobranchiate Mollusca from Tanzania I. Eolidacea (Eubranchidae and Aeolidiidae). Proceedings of the Malacological Society of London 38: 451-469.
- FAHEY, SHIRLEY J. & TERRENCE M. GOSLINER  
2003. Mistaken identities: On the Discodorididae genera *Hoplodoris* Bergh, 1880 and *Carmidoris* Bergh, 1889 (Opisthobranchia, Nudibranchia). Proceedings of the California Academy of Sciences. 54(10): 169-208, 31 figs.
- FERREIRA, ANTONIO J. & HANS BERTSCH  
1975. Anatomical and distributional observations of some opisthobranchs from the Panamic faunal province. The Veliger 17(4): 323-330, figs. 1-19 (Apr. 1).
- GARCÍA, FRANCISCO J. & JESÚS S. TRONCOSO  
1999. Description of a new species of the genus *Phidiana* Gray, 1850 (Nudibranchia: Facelinidae) from Pacific Ocean waters of Panama. The Veliger 42(2):190-193, figs. 1-5 (Apr. 1).
2001. *Favorinus elenalexiae*, a new species (Opisthobranchia: Aeolidiidae) from the eastern Pacific Ocean. The Nautilus 115(2): 55-61, figs. 1-7.
- GIL A. A. & F.J. PÉREZ  
1996. Inventario malacológico (Clases Bivalvia, Gastrópoda, Polyplacophora) en la Isla Leonos y Tres Islas, Distrito de Montijo, Provincia de Veraguas, Panamá. Tesis de Licenciatura. Universidad de Panamá. 74 pp.
- GONZÁLEZ, G.R.  
1983. Informe de las especies de moluscos colectados durante la gira de Barco Salud No 7 a la costa Pacífica de Veraguas. Donax panamensis 29: 66-72.
- GONZÁLEZ M. Y.  
1999. Inventario de las clases Gastrópoda y Pelecypoda en el Litoral Restingue, Parque Nacional Cerro Hoya, Montijo, Veraguas. Tesis de Licenciatura, Universidad de Panamá. 31 pp.
- GOSLINER, TERRENCE M.  
1979. The systematics of the Aeolidiacea (Nudibranchia: Mollusca) of the Hawaiian Islands, with descriptions of two new species. Pacific Science 33(1): 37-77.  
1990. Additions to the aeolidacean nudibranch fauna of the tropical eastern Pacific. The Western Society of Malacologists Annual Report (for 1989) 22:16 (Jun. 11).  
1991. The opisthobranch gastropod fauna of the Galápagos Islands. In Galápagos Marine Invertebrates. Matthew J. James, ed. 488 pp. Plenum Press, New York.  
1994. New records of Flabellinidae (Opisthobranchia: Aeolidacea) from the tropical Americas, with descriptions of two new species. Proceedings of the California Academy of Sciences 48(9): 171-183, figs. 1-10.
- GOSLINER, TERRENCE M. & DAVID W. BEHRENS  
1986. Two new species and genera of aeolid nudibranchs from the tropical eastern Pacific. The Veliger 29(1): 101-103, figs. 1-13 (July 1).
- GOSLINER, TERRENCE M. & HANS BERTSCH  
1988. A review of the genus *Berthella* (Opisthobranchia: Notaspidea) from the Pacific coast of North America. The Veliger 31(1/2): 46-67, figs.1-18 (July 1).
- HERMOSILLO-GONZÁLEZ, ALICIA  
2003. New distributional records of opisthobranch mollusks for Bahía de Banderas, México (Tropical Eastern Pacific). The Festivus 35(3):21-28, 13 figs. 2 tables.
- HERTLEIN, LEO G. & ARCHIBALD M. STRONG  
1946. Eastern Pacific Expeditions of the New York Zoological Society. XXXV. Mollusks from the West Coast of Mexico and Central America Part IV. In Zoologica Scientific Contributions of the New York Zoological Society 31: 93-121, figs. 1-14.
- KEEN, A. MYRA  
1971. Sea Shells of Tropical West America: Marine Mollusks from Baja California to Peru. Stanford University Press, i-xiv + 1064 pp., ca. 4000 figs.
- KERSTITCH, ALEX  
1989. Sea of Cortez Marine Invertebrates: A Guide for the Pacific Coast, Mexico to Ecuador. Sea Challengers. 114 pp., 283 color figs, 21 b&w figs.
- MACFARLAND, FRANK M.  
1909. The opisthobranchiate Mollusca of the Branner-Agassiz Expedition to Brazil. Leland Stanford Junior University Publications, University Series (2):1-104, pls. 1-19.



- MARCUS, ERNST  
1955. Opisthobranchia from Brazil. Boletín da Faculdade de Filosofia, Ciências e Letras. Universidad de Sao Paulo. Zoology. 20:89-262, pls. 1-30.
- MARCUS, EVELINE d.B.-R. & ERNST MARCUS  
1967. American opisthobranch mollusks. Studies in Tropical Oceanography, Miami 6:1-256, figs. 1-95.
- ORTEA, JESÚS, MANUEL CABALLER & JOSÉ ESPINOSA  
2003. Nuevos Aeolidaceos (Mollusca:Gastropoda) de Costa Rica. Avicennia 16: 129-142, figs. 1-4, 1 pl.
- ORTEA, JESÚS & EVA MARIA LLERA  
1981. Un nuevo dórido (Mollusca:Nudibranchia) de la Isla Isabel, Nayarit, México. Iberus 1:47-52, figs. 1-4.
- POORMAN, LEROY H. & FORREST L. POORMAN  
1977. Four opisthobranchs living on marine algae from west Mexico. The Nautilus 91(2): 62-66 (Apr. 25).
- RUDMAN, WILLIAM B.  
1972. A comparative study of the genus *Phillinopsis* Pease, 1860 (Aglajidae, Opisthobranchia). Pacific Science, 26: 381-399.
- SAN MARTÍN-PERAL, GUILLERMO; EDUARDO LÓPEZ-GARCÍA; MARISOL REDONDO-RODRIGUEZ; MARÍA CAPA-CORRALES; PEDRO CALDERA DE CODINA AND ANTONIO JOSÉ LAGORDA-NAVIA  
1997. El bentos marino del Parque Nacional Coiba (Panamá) *En* Flora y Fauna del Parque Nacional Coiba (Panamá): Inventario Preliminar. Ed: S. Castroviejo. Pp. 22-55.
- SPHON, GALE G.  
1971. The reinstatement of *Hypselodoris agassizii* (Bergh, 1894) (Mollusca: Opisthobranchia): The Veliger 14(2): 214 (Oct. 1).
- STRONG, ARCHIBALD M. & LEO G. HERTLEIN  
1939. Marine mollusks from Panama collected by the Allan Hancock Expedition to the Galapagos Islands, 1931-1932. Allan Hancock Pacific Expeditions 2(12): 177-245, pls. 18-23.
- THOMPSON, T.E. & BROWN, G.H.  
1981. Biology and relationships of the nudibranch mollusc *Notobryon wardi* in South Africa, with a review of the Scyllaeidae. Journal of Zoology 194(4): 437-444.
- VALDÉS, ÁNGEL & ORSO ANGULO CAMPILLO  
2000. Redescription and reassessment of *Cadlina luarna* (Ev. Marcus and Er. Marcus, 1967), comb. nov. (Mollusca, Opisthobranchia, Doridina). Proceedings of the California Academy of Sciences 52(7): 77-85, 5 figs.
- VEGA, ÁNGEL J. & AIDA GONZÁLEZ  
2002. Moluscos del Pacífico Veraguense, Parte II (Gastropoda). Tecnociencia 4 (1): 23-45.
- WILLIAMS, GARY C. & TERRENCE M. GOSLINER  
1973. A new species of Anaspidea opisthobranch from the Gulf of California (Mollusca: Gastropoda). The Veliger 16(2): 216-232, figs. 1-15 (Oct. 1).

Table 2. Specimens observed at Parque Nacional de Coiba

Subclass OPISTHOBANCHIA	Size range (mm)	Depth range (m)	Locality and number of specimens	Repository
<i>Bulla punctulata</i> A. Adams in Sowerby, 1850			Several dead specimens throughout the Park	KLK
<i>Haminoea ovalis</i> Pease, 1868	11	5	Jicarón (1)	LACM 153350
<i>Phillinopsis cynaea</i> (Martens, 1879)	8	17	Coiba W (3)	LACM 153372
<i>Navanax enigmaticus</i> (Bergh, 1894)	14-65	3-65	Coiba N (4), Coibita (3), Jicarón (11), Uva (2), Contreras (1), trawl 1 (1), total of 22	LACM 153303
<i>Aplysia parvula</i> Mörch, 1863	15	16	Coibita (1)	LACM 153315
<i>Dolabella auricularia</i> (Lightfoot, 1786)	35-210	3-16	Afuertita (2), C. Afuera (7), Coiba E (2), Coiba N (7), Coiba SE (6), Coibita (1), Uva (2), Contreras (3), total of 30	KLK (shell)
<i>Dolabrifera dolabrifera</i> (Rang, 1828)	35-62	Intertidal	Jicarón (8), Coiba N (21), Coiba E (4), total of 33	Photo only
<i>Phyllaplysia padinae</i> Williams & Gosliner, 1973	10	18	C. Afuera (1)	LACM 153306
<i>Stylocheilus striatus</i> (Quoy & Gaimard, 1824)			C. Afuera (4), Coibita (6), Coiba NE (7), total of 17	LACM 153367
<i>Pleurobranchus aereolatus</i> Mörch, 1863	10-51	3-17	C. Afuera (3), Coiba SE (1), Coiba W (6), Coiba NE (3), Jicarón (5), Uva (2), Jicarita (4), Contreras (1), total of 25	Photo only
<i>Berthella agassizii</i> (MacFarland, 1909)	15	2	Afuertita (1)	Photo only

Subclass OPISTHOBRANCHIA	Size range (mm)	Depth range (m)	Locality and number of specimens	Repository
<i>Berthella californica</i> (Dall, 1990)	35	65	Trawl 1 (1)	LACM 153333
<i>Berthella martensi</i> (Pilsbry, 1896)	12	5	Jicarón (1)	LACM 153363
<i>Berthella stellata</i> (Risso, 1826)	4-12	12-18	C. Afuera (3)	LACM 153343
<i>Berthellina ilisima</i> Gardiner, 1936	4-54	3-85	Over 100 specimens observed (all stations) including trawls	LACM 153304, 153334, 153347, 153374
<i>Berthellina</i> sp. 1	6-12	2	Coiba SE (1), Afuerita (2), total of 3	LACM 153358
<i>Tyrodina fungina</i> (Gabb, 1865)	5-24	2-21	Coiba N (4), Coiba W (10), Brincanco (1), Coiba NE (1), Coibita (2), Jicarón (3), Jicarita (1), Contreras (2), total of 24	LACM 153309, KLK
<i>Umbraculum umbraculum</i> (Lightfoot, 1786)	71	7	Afuerita (1)	KLK
<i>Oxynoe panamensis</i> Pilsbry & Olsson, 1943	3-16	3-12	C. Afuera (4), Contreras (5), total of 9	LACM 153310, 153328
<i>Lobiger souverbii</i> Fischer, 1857	7-27	2	Coiba NE (3)	LACM 153313
<i>Julia thecaphora</i> (Carpenter, 1857)	1		Several stations, in grunge	KLK
<i>Elysia diomedea</i> (Bergh, 1894)	4-61	3-14	Afuerita (10), Coiba E (5), Coiba NW (3), Coiba SE (5), C. Afuera (2), Coiba NE (12), Jicarón (6), Jicarita (4), total of 47	LACM 153342
<i>Polybranchia viridis</i> (Deshayes, 1857)	10-32	6-14	Coiba SE (1), C. Afuera (26), Contreras (11), Jicarita (5), Jicarón (1), total of 44	LACM 153340
<i>Conualevia alba</i> Collier & Farmer, 1964	9-14	9-12	Canal de Afuera (1), Jicarita (1), Coiba W (1), total of 3	LACM 153337, 153368
<i>Cadlina luarna</i> (Marcus & Marcus, 1967)	64	7	Afuerita (1)	LACM 153377
<i>Cadlina sparsa</i> (Odhner, 1921)	3-5	0-13	Coiba W (1), Coiba E (1), Jicarón (4), Afuerita (1), total of 7	LACM 153307, 153321
<i>Chromodoris baumanni</i> Bertsch, 1970	3-22	0-11	Jicarón (1), Uva (3), Coiba SE (3), Coiba W (2), Coiba E (1), total of 10	LACM 153336, 153362
<i>Chromodoris marislae</i> Bertsch & Ferreira, 1973	21	55	Trawl 1 (1)	LACM 153302
<i>Chromodoris sphoni</i> (Ev. Marcus, 1971)	2-24	2-12	Jicarón (2), Uva (7), Coiba NW (2), Jicarita (4), Coiba SE (1), Coiba NE (2), Coiba W (2), Coiba E (2), C. Afuera (3), total of 25	LACM 153328
<i>Glossodoris dalli</i> (Bergh, 1879)	4-45	4-16	Coiba E (2), Coiba NW (2), Coiba W (2), Brincanco (1), Coiba NE (2), Coibita (2), Jicarón (5), Uva (4), Contreras (1), Jicarita (6), total of 27	LACM 153341
<i>Glossodoris sedna</i> (Ev. Marcus & Er. Marcus, 1967)	6-28	0-14	Coiba E (3), Coiba NW (4), Coiba W (7), Brincanco (1), Coiba NE (1), Coibita (2), Jicarón (5), Contreras (5), Jicarita (7), total of 35	LACM 153373

Subclass OPISTHOBRANCHIA	Size range (mm)	Depth range (m)	Locality and number of specimens	Repository
<i>Diautula greeyeli</i> (MacFarland, 1909)	10-18	Intertidal	Coiba E (4), Coiba W (1), Jicarón (2), total of 7	LACM 153329, 153353
<i>Taringa aivica</i> Marcus & Marcus, 1967	10	6	Uva (1)	LACM 153356
<i>Discodoris ketos</i> (Marcus & Marcus, 1967)	8-31	5-12	Afuera (1), Coiba E (1), C. Afuera (3), Coibita (1), Uva (3), Contreras (2), Jicarita (2), Jicarón (2), total of 15	LACM 153349, 153357
<i>Hoplodoris bramale</i> Fahey & Gosliner, 2003	27	Intertidal	Coiba E (1)	LACM 153351
<i>Polycera alabe</i> Collier & Farmer, 1964	4-15	15	Coiba N (2)	LACM 153366
<i>Polycera gnupa</i> Marcus, 1967	3	15	Coiba NE (1)	Photo only
<i>Polycerella glandulosa</i> Behrens & Gosliner, 1988	4-6	15-19	Coiba N (5)	LACM 153379
<i>Limacia jansii</i> (Bertsch & Ferreira, 1974)	7	19	C. Afuera (1)	LACM 153339
<i>Dendrodoris albobrunea</i> Allen, 1933	28-62	3-12	Uva (1), Coiba NE (1), Jicarita (1), Coiba SE (2), Coiba W (1), total of 6	LACM 153310, 153352
<i>Dendrodoris fumata</i> Rüppell & Leuckart, 1881	5-54	4-30	Brincanco (1), C. Afuera (2), Coiba N (2), Coiba SE (2), Coiba W (1), Coibita (1), Uva (4), Jicarita (4), Jicarón (6), total of 23	LACM 153326, 153348
<i>Dorid</i> sp. 1	17-25	4-12	Coiba SE (1), Uva (2), total of 3	CASIZ 167980
<i>Dorid</i> sp. 2	3-11	12-17	Uva (2)	CASIZ 167978
<i>Dorid</i> sp. 3	12	Intertidal	Coiba E (1)	CASIZ 167979
<i>Doto lancei</i> Marcus & Marcus, 1967	4-9	5-18	Coiba SE (20) on floating plastic buoy, Canal de Afuera (2), Coiba NE (1), Jicarón (2), total of 25	LACM 153375
<i>Doto</i> sp. 1	4-5	0-12	Coiba N (3)	LACM 153312
<i>Tritonia pickensi</i> Marcus & Marcus, 1967	3-5	12	Coiba W (12), Brincanco (28), Coiba NE (7), Jicarón (6), Jicarita (2), total of 55	LACM 153320
<i>Lomanotus vermiformis</i> Eliot, 1908	2-7	5-21	Afuera (1), Coiba NW (4), Coiba SE (1), Coiba W (2), C. Afuera (1), Coiba NE (2), Coibita (3), Contreras (2), total of 16	LACM 153371
<i>Notobryon wardi</i> Odhner, 1936	7-14	6-17	Coiba E (1), Coiba NE (1), Coibita (2), total of 4	LACM 153368
<i>Armina californica</i> (Cooper, 1863)	3-8	0-13	Trawl 1 (3), trawl 2 (1), total of 4	LACM 153332
<i>Armina</i> sp. 1	22-33	65-95	Trawl 1 (51), trawl 2 (25), total of 76	LACM 153512, 153302
<i>Flabellina bertschi</i> Gosliner & Kuzirian, 1990	15-31	70-95	Coiba W (3), Brincanco (1), Jicarón (3), total of 7	LACM 153323
<i>Flabellina cynara</i> (Marcus & Marcus, 1967)	3-6	6-16	Coiba N (1), trawl 1 (11), Contreras (2), total of 14	LACM 153354, 153364
<i>Flabellina marcusorum</i> Gosliner & Kuzirian, 1948	2-8	6-55	Brincanco (1), Coiba NE (4), Uva (1), total of 6	LACM 153305
<i>Flabellina vansyoci</i> Gosliner, 1994	7-8	5-18	Coiba W (2), Jicarón (1), total of 3	Photo only
<i>Eubranchius cucullus</i> Behrens, 1985	3-8	5-12	Coiba NE (11), Coiba W (3), total of 14	LACM 153314, 153345

Subclass OPISTHOBRANCHIA	Size range (mm)	Depth range (m)	Locality and number of specimens	Repository
<i>Eubbranchus</i> sp. 1	3	15-19	Coiba N (3)	Photo only
<i>Aeolidiella alba</i> (Risbec, 1928)	5	18	Afuerita (1)	LACM 153322
<i>Aeolidiella chromosoma</i> (Cockerell & Elliot, 1905)	4	3	Coiba E (1), Jicarón (1), total of 2	LACM 153331, 153335
<i>Spurilla neapolitana</i> (Delle Chiaje, 1823)	10-22	0-6	Afuerita (7), Coiba E (2), Coiba N (9), C. Afuera (8), total of 26	LACM 153324, 153330
<i>Berghia major</i> (Eliot, 1903)	7-25	1-16	Coiba N (3), Jicarón (2), C. Afuera (1), total of 6	LACM 153318
<i>Phidiana lasrucensis</i> Bertsch & Ferreira, 1974	6-15	18	Contreras (2), Uva (3), Coiba W (1), total of 6	LACM 153316
<i>Phidiana mariadelmarae</i> García & Troncoso, 1999	7-18	6-7	Coiba E (2), Coiba NW (1), C. Afuera (2), Coibita (1), Uva (1), total of 7	LACM 153338
<i>Bajaeolis bertschi</i> Gosliner & Behrens, 1986	6-21	0-26	Coiba NW (1), Jicarón (2), Coiba W (9), total of 12	LACM 153344, 153381
<i>Favorinus elenalexiae</i> García & Troncoso, 2001	3-10	5-15	Afuerita (1), Coiba NE (2), C. Afuera (7), Coibita (10), Jicarita (1), total of 21	LACM 153319
<i>Facelina</i> sp. 1	3-10	Intertidal	Coiba E (2), estuary	LACM 153355
<i>Noumeaella rubrofasciata</i> Gosliner, 1991	4	12-20	Jicarita (1)	Photo only
<i>Phestilla hakunamatata</i> Ortea, Caballer & Espinosa, 2004	6-7	1-19	Coiba W (10), Brincanco (1), Jicarón (1), Jicarita (1), total of 13	LACM 153521
<i>Phestilla lugubris</i> (Bergh, 1870)	25-32	7	Coiba N (2), Jicarita (1), Coiba SE (1), Coiba E (1), total of 5	LACM 153325
<i>Cuthona</i> sp. 1	4	7-10	Coiba W (2)	CASIZ 167981
<i>Aeolid</i> sp. 1	11-23		Coiba SE (3), on floating plastic buoy	LACM 153376

**Plate 1 (A-I).** (A) *Chromodoris marislae* Bertsch & Ferreira, 1973 (B) *Notobryon wardi* Odhner, 1936 (C) *Eubbranchus cucullus* Behrens, 1985 (D) *Flabellina cynara* (Marcus & Marcus, 1967) dark color variation (E) *Diaulula greeyeli* (MacFarland, 1909) (F) *Berthella agassizii* (MacFarland, 1909) (G) *Haminoea ovalis* Pease, 1868 (H) *Hoplodoris bramale* Fahey & Gosliner, 2003 (I) *Berghia major* (Eliot, 1903). →



