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Mangrove Forest Ecosystem
In Monterrico
Natural Reserve
Santa Rosa, Guatemala



ASOCIACION
FLAAR
MESOAMERICA



Biologist Mirtha Cano
Photo by Jaime Leonardo. FLAAR Photo Archive

The marine coast zone it is define as the geographic space between the ocean and earth and the interconnections with the ecosystems that exist in such space. Guatemala has 403 km of line coast 255 in the Pacific, which correspond to the Chiapas-Nicaragua province, because of its biogeography characteristic and oceanography, and 148 in the Atlantic littoral. The estuary covers approximately 140 miles, where 4,000 hectares correspond to mangrove forest, mainly concentrated between Ocos and Champerico at west, and Las Lisas at east.

The Chiquimulilla channel is 140 km wide, and it is located in Santa Rosa, Guatemala. (Perfil Ambiental de Guatemala.2000) The Chiquimulilla Channel represents an Ecosystem of great importance for the surrounding communities (Monterrico, El Pumpo, La Curvina, La Avellana, Agua Dulce, El Cebollito, and Las Quechas) and for the entire republic, because it is a source of food, tourism, wood, medicinal plants, transportation, etc.

PROTECTED AREA

In 1977 the Monterrico area, was declared protected area, under the Multiple Use Natural Reserve category by the (Consejo Nacional de Areas Protegidas –CONAP-) through a legislative agreement published in 1978 by El Diario de Centro América (CONAP Online 2008) It is administrated by the Conservationist Studies Center (Centro de Estudios Conservacionistas (CECON)). The reserve includes the estuary zone, where the mangrove forest prevails, associated with another plants described below. Also the reserve includes rivers and lagoons that constantly change the water salinity.

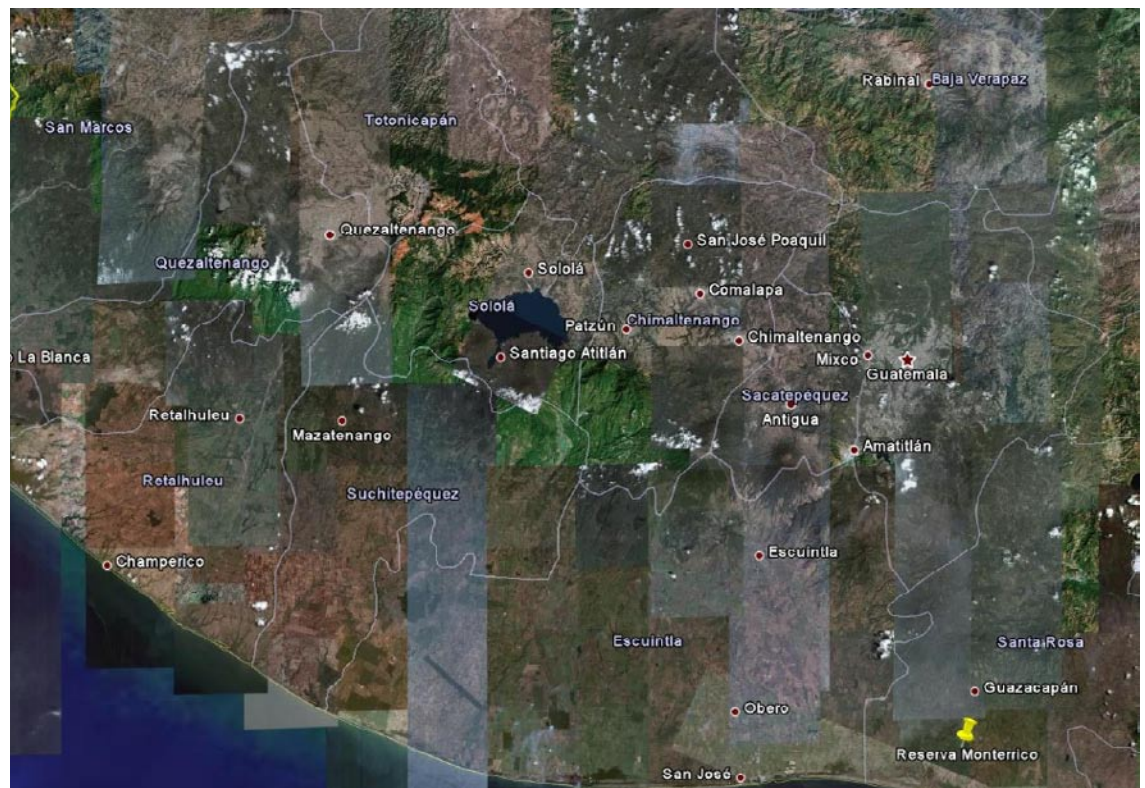


Fig. 1 Guatemalan pacific lands map, showing the Monterrico Natural reserve pointed in yellow.

Source: Google earth



Fig. 2. Satelital view of the Chiquimulilla Channel, Monterrico, Sta. Rosa, Guatemala, showing the enter of sea water and the river system. Source: google earth.com

The principal purpose of the reserve is to protect the wild diversity of flora and fauna from deforestation, water contamination, excessive hunting, mainly of wild reptiles such as *Crocodilus fuscus* (Caimán), *Iguana iguana* (Iguana verde) valued for its meet and leather, *Dermochelys coriacea* (Baule), *Lepidochelys olivaceae* (Parlama blanca) and *Chelonia sp.* (Parlama negra) valued for it's edible eggs.



Fig. 3. Green iguana (*Iguana iguana*) and Caiman (*Crocodilus fuscus*) at Centro de Estudios Conservacionistas CECON-USAC Monterrico Sta. Rosa. Photo by: Nicholas Hellmuth. FLAAR photo archive. Guatemala 2008.



Their habitat are been destroyed by humans, this produces interference between the biological live cycles reducing the probabilities of reproduction success, hence its extinction.

All the specimens mentioned above are included in the red list of endangered fauna under category III, which means that the trade is subject to regulation within its jurisdiction to prevent or restrict exploitation, and they need the cooperation of other parties for the effective control, (Red list CONAP –UICN 2001.)

Today CECON-CONAP has a reproduction programs for the reintroduction of these animals to their natural habitat. This program attracts a lot of tourists from all over the world that want to be in contact with nature, especially in August when the turtles arrive to the beach to lay their eggs. Some people sell the collected eggs to CECON where are incubated from approximately 48 to 60 days depending on the temperature, to be subsequently released to the sea, but many more are consummated as a subsistence media.

Talking with Don Alfredo, one of our guides, he said that these programs help to educate the entire village of Monterrico, to preserve their natural resources and contributes with the tourist development of the community.

The guides receive training in environmental education training as part of their job, and at the same time they educated their own families and visitors.

The nature reserve offers the birdwatcher tours, being more than 110 species represented between migratory and local (CECON online 2001).

Siguenza de Micheo (2006/2007) report a duck abundance of 4, 476 sightings during January to March of Cinnamon tea (*Anas cyanoptera*) blue-winged teal (*Anas discors*), black-bellied whistling-duck (*Dendrocygna autumnalis*) and fulvous whistling duck



Fig. 4 CECON-Monterrico information center.



(*Dendrocygna bicolor*) in the lagoons near to the reserve.

Eisermann, in Jones 2000:5b cited in Eisermann 2006, report the american white pelican (*Pelecanus erythrorhynchos*, also the snowy egret (*Egretta thula*), the green heron, (*Butorides virescens*) and wood stork (*Mycteria americana*).

A small mammal's diversity of the following families has been reported: opossum (Didelphidae), collared anteater (Myrmecophagidae), nine-banded armadillo (Dasypodidae), squirrel (Sciuridae), hairy porcupine (Erethizontidae), etc. (Siguenza de Micheo RR., Ruiz Ordoñez J.A.. 1999).

During the winter the amount of fish in the channel decreases as increases the water level, because these fish can migrate to the rivers or lagoons connected to the channel.

26 species has been reported by and Hernandez (2001), cited by Quintana (2007) such bagre (*Arius sp*) mojarra (*Cichlasoma sp*), róbalo (*Centropomus*), pululo (*Dorminator sp*) liseta (*Mugil*) Also Quintana (2007) reported: *Lile gracilis*, *Astyanas aeneus*, *Cathorops sp*, *Ramdia parryi*, *Gobionellus microdon*, *Poecilia butleri*, *Amphilopus macracanthus*,, *Parachromis managuense*, *Oreochromis aureus*, *Eleotris pictus*, and *Gobiomorus maculatus*.



Fig. 5. Dr. Nicholas Hellmuth photographing mangrove forest. Photo by Jaime Leonardo. FLAAR photo archive.

The floristic composition is based on trees, vines, aquatic grasses and epiphytes.

The genera: *Acacia*, *Crescentia*, *Bursera*, *Gliricidia*, *Enterolobium* and *Coccoloba* represent the ground native vegetation.



Fig. 6 Fruit of *Crescentia* sp



Fig. 7 *Bursera* tree, or palo jiote.

The channel native vegetation it's being determinate by tree species of mangrove: red, white and black mangrove (*Rhizophora mangle*, *Laguncularia racemosa*, and *Avicennia germinans*) plus botoncillo (*Conocarpus erectus*), guachimol (*Pithecolobium* sp.), reported by Gomez Cruz (1980) in association with *Pachira*, *Thypa*, *Eichornia*, *Pistia*, *Nimphaea* (CONAP-CECON 2008 online) *Luffa*, *Neptunia*, *Lentibularia*, and others. (Specimens determinated by Mario Véliz, Herbarium BIGU curator. USAC, 2008 collected by M. Cano)



Fig. 8. *Pithecolobium* sp. Guachimol tree



Fig. 9. White mangrove *Laguncularia racemosa*

The aquatic vegetation depends on a seasonal climate cycle that starts in June with the initialization of the rainy days, when Maria Linda, Rio Hondo, Coyolate and other small rivers that feed the channel starts to grow, as the flow becomes stronger than the flow of water produced by the falling tide.

Therefore the channel is filled with freshwaters, although there is a constant crash of flows, the flow from the river reduces the salinity levels in the channel.

This two-inlet system allows the growth of aquatic plants with low salinity tolerance: for example nape or balona (*Nymphaea ampla*), nympa (*Eichornia crassipes*), tul (*Thypha sp.*), Lechuguilla (*Pistia stratioides*), pashte (*Luffa sp.*) dormilón, (*Neptunia sp.*) cola de yegua, (*Lentibularia sp.*) balonilla, (*Nimpha sp.*) etc. (Pers. Observation)



Fig. 10. *Eichornia* flower, at the right red mangrove *Rizophora mangle* (Red mangrove). Down. Don Carlos holding a *Thypha* plant. Photos by Mirtha Cano. FLAAR photo archive.

From June to November the aquatic vegetation provides refuge and food for several animals. The flower of *Nymphaea* and *Eichornia* attract a lot of insects that constitute food for fish, amphibious, reptiles and birds. The big extension of *Thypha* called “tulares or reeds” provides refuge to alligators and is the turtle’s main source of food, according with the guides, the turtles used to rummage around the base of the plant looking for tuber roots rich in starch. Also many birds build their nest in the reeds such *Jacana spinosa*. The people use *Thypha* leaves to make hats, baskets, mats, etc.



Fig. 11. *Jacana spinosa* walking on floating leaves of *Nymphaea*, showing its spur on the bend of the wing as an aggressive sign to protect the nest from predators, flapping their wings accompanied by noisy calls. Photo by Jaime Leonardo. FLAAR photo archive

The Monterrico Natural Reserve supplies medicine to the local people as well; due to lack of economic resources, many of these people rely on natural sources.

The pashte vines (*Luffa* sp) grown over the mangrove, its fruit are called pashte or sponge (Fig.12), the local people used a seed infusion of this vine as nasal decongestant; one or two drops of this infusion is enough to relieve symptoms.(Com. Pers. Alfredo Avila, member of the Guatemalan Guard Resources Association. August 2008).

The four- eyed fish soup (*Anableps* sp) it is used to stimulated the production of milk in mothers with hipogalactia (lack of maternal milk), it is known that this kind of fish doesn't have a great flavor but is very good to medicinal purposes.

At the end of December the flow of the sea that enter to the channel becomes stronger than the freshwater flow, because the rainy season ends, changing drastically the water salinity, therefore all the vegetation that prevailed during winter dies, leaving only the mangrove forest.

The mangrove forest is important because is considered a living system of windbreaks because of their root system that are strongly ankle to the ground, this system protect the channel from storms (Fig. 13).



Fig. 12. *Jacana spinosa* baby about three days born. Photo by Jaime Leonardo FLAAR photo archive.



Fig. 13. Pashte vines . *Luffa* sp. The fruit is used as a moisturized sponge



Fig. 14. Red mangrove root system. Photo by Jaime Leonardo. FLAAR photo Archive

As is already known, the Ancient Mayans inhabited since the Yucatan peninsula (Mexico) throughout Guatemala, Honduras and El Salvador. The Guatemalan territory occupied by the Maya it is divided into three categories: upland, lowland and coastal Pacific. This last one was characterized for its great agricultural development on cacao cultivars (J. Bermmann 1969) and for the complex society interactions; it was a trade route between the gulf and Mexican highlands with Central America (Love 2005).

The archaeological vestiges on these lands are dated from the pre-classic period, it is worth to mention the Abaj Takalik site, in Retalhuleu department, where many archeologists are working with different sculpture manifestation that are still been studied (Orrego Corzo, 1991). Furthermore “La Blanca” located in Quetzaltenango just 10 kms from the sea was one of the biggest settlements during the pre-classic period in Mesoamerica (Love 2005).

According with the historical description of Monterrico Master Plan, the wetlands, mangrove forest, channels and lagoons, of Monterrico natural reserve, where inhabited by a Xinca settlement called “Atiquipaque” from the post-classic period, which lies in the farm known as “Santa Anita El Jobo” Taxisco, moreover it is known an Archaeological site inside the reserve called “El Pumpo” located at the same village with the same name, where zoological structures has been found in concordance with other sites near to the place. Separately there are sites called “Concheros”, that are monticules made of crushed shells pertaining to an early period. (IDAEH) cited by Siguenza de Micheo and J. Ruiz 1999).

Different economic activities take place in different localities; the people of Agua Dulce village are dedicated to the salt production and fishing. In El Pumpo, Monterrico, La Avellana and La Curvina maize is cultivated with other products like pashte, sesame, watermelon (in some places), also there is a strong demand on Parlama turtle eggs, fishing, tourism, and mangrove extractions.



Fig. 15 Boats in the shore of the Chiquimulilla channel. FLAAR photo archive.



Fig. 16 Fisherman of the Monterrico village. Photo by Jaime Leonardo. FLAAR photo archive.

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Familia Podicipedidae <i>Tachybaptus dominicus</i> <i>Podilymbus p. podiceps</i>	Zambullidor Menor Zambullidor Piquipinto
Familia Procellariidae <i>Puffinus opisthomelas</i>	Pardela Mexicana
Familia Hydrobatidae <i>Oceanodroma microsoma</i>	Paño Mínimo
Familia Sulidae <i>Sula dactylatra</i> <i>Sula leucogaster</i>	Bobo Enmascarado Bobo Ventre-blanco
Familia Pelecanidae <i>Pelecanus erythrorhynchos</i> <i>Pelecanus occidentalis</i>	Pelicano Blanco Americano Pelicano Café
Familia Phalacrocoracidae <i>Phalacrocorax brasilianus</i>	Cormorán Neotropical
Familia Anhingidae <i>Anhinga anhinga leucogaster</i>	Anhinga Americana
Familia Fregatidae <i>Fregata magnificens</i>	Fragata Magnífica
Familia Ardeidae <i>Ixobrychus exilis</i> <i>Tigrisoma mexicanum</i> <i>Ardea h. herodias</i> <i>Egretta alba egretta</i> <i>Egretta thula</i> <i>Egretta caerulea</i> <i>Egretta tricolor</i> <i>Egretta rufescens</i> <i>Bubulcus i. ibis</i> <i>Butorides virescens</i> <i>Nycticorax nycticorax hoactli</i> <i>Nycticorax violaceus</i> <i>Cochlearius cochlearius</i>	Avetorito Americano Garza-tigre Gorjinuda Garzón Cenizo Garza Grande Garza Nívea Garza Azul Garza Tricolor Garza Rojiza Garza Ganadera Garza Verde Garza-nocturna Coroninegra Garza-nocturna Cononclara Garza Cucharón
Familia Threskiornithidae <i>Eudocimus albus</i> <i>Platalea ajaja</i>	Ibis Blanco Espátula Rosada
Familia Ciconiidae <i>Mycteria americana</i>	Cigüeña Americana

**Familia Anatidae**

Dendrocygna bicolor
Dendrocygna a. autumnalis
Cairina moschata
Anas discors

Pijije Canelo
Pijije Aliblanco
Pato Real
Cerceta Aliazul

Familia Cathartidae

Coragyps atratus
Cathartes aura
Cathartes b. burrovianus

Zopilote Negro
Aura Cabecirroja
Aura Sabanera

Familia Accipitridae

Pandion haliaetus
Elanus leucurus majusculus
Rostrhamus sociabilis
Ictinea plumbea
Accipiter striatus
Buteogallus anthracinus
Buteogallus urubitinga
Buteo magnirostris
Buteo a. albonotatus

Gavilán Pescador
Milano Coliblanco
Milano Caracolero
Milano Plomizo
Gavilán Pajarero
Aguililla Negra Menor
Aguililla Negra Mayor
Aguililla Caminera
Aguililla Aura

Familia Falconidae

Caracara plancus
Herpethotes cachinnans
Falco sparverius
Falco peregrinus

Caracara Común
Halcón Guaco
Cernícalo Americano
Halcón Peregrino

Familia Cracidae

Ortalis leucogastra

Chachalaca Vientre-blanco

Familia Rallidae

Laterallus ruber
Aramides cajanea
Porphyryla martinica
Gallinula chloropus cachinnans
Fulica a. americana

Polluela Rojiza
Rascón Cuelligris
Gallineta Morada
Gallineta Común
Gallareta Americana

Familia Heliornithidae

Heliornis fulica

Pájaro-cantil

Familia Aramidae

Aramus guarauna dolosus

Carao

Familia Burhinidae

Burhinus b. striatus

Alcaraván Americano

Familia Charadriidae

Pluvialis squatarola
Charadrius semipalmatus
Charadrius v. vociferus

Chorlo Gris
Chorlito Semipalmado
Chorlito Tildío

Familia Haematopodidae

Haematopus palliatus

Ostrero Americano

Familia Recurvirostridae

Himantopus m. mexicanus

Candelerero Americano

**Familia Jacanidae***Jacana s. spinosa*

Jacana Mesoamericana

Familia Scolopacidae*Tringa melanoleuca*

Patamarilla Mayor

Catoptrophorus semipalmatus

Playero Pihuihui

Actitis macularia

Playerito Alzacolita

Numenius phaeopus hudsonicus

Zarapito Trinador

Numenius americanus

Zarapito Piquilargo

Arenaria interpres

Vuelvepiedras Rojizo

Calidris alba

Playero Blanco

Limnodromus scolopaceus

Costurero Piquilargo

Gallinago gallinago delicata

Agachona Común

Familia Laridae*Larus atricilla*

Gaviota Reidora

Larus pipixcan

Gaviota de Franklin

Sterna nilotica

Golondrina-marina Piquigruesa

Sterna caspia

Golondrina-marina Cásptica

Sterna m. maxima

Golondrina-marina Real

Sterna antillarum

Golondrina-marina Mínima

Chlidonias niger surinamensis

Golondrina-marina Negra

Rynchops n. niger

Rayador Americano

Familia Columbidae*Columba livia* spp

Paloma Doméstica

Columba flavirostris

Paloma Morada

Zenaida asiatica

Paloma Aliblanca

Zenaida macroura

Paloma Huilota

Columbina inca

Tórtola Colilarga

Columbina minuta interrupta

Tórtola Pechilisa

Columbina talpacoti

Tórtola Rojiza

Leptotila verreauxi

Paloma Arroyera

Familia Psittacidae*Aratinga holochlora*

Perico Verde Mexicano

Aratinga canicularis

Perico Frentinaranja

Brotogeris j. jugularis

Periquito Barbinaranja

Amazona autumnalis

Loro Cachete-amarillo

Amazona auropalliata

Loro Nuquiamarillo

Familia Cuculidae*Piaya cayana*

Cuco Ardilla

Crotophaga sulcirostris

Garrapatero Pijuy

Familia Strigidae*Glaucidium brasilianum*

Tocolotito Común

Asio clamator

Búho-cornado Cariblanco

Familia Caprimulgidae*Chordeiles acutipennis*

Chotacabras Menor

Nyctidromus albicollis

Tapacaminos Picuyo

Familia Apodidae*Streptoprocne zonaris*

Vencejo Cuelliblanco

**Familia Trochilidae***Chlorostilbon canivetti*
*Amazilia rutila*Esmeralda de Canivet
Colibrí Canelo**Familia Alcedinidae***Ceryle t. torquata*
Ceryle alcyon
Chloroceryle amazona mexicana
Chloroceryle americana
*Chloroceryle aenea stictoptera*Martín-pescador Collarejo
Martín-pescador Norteño
Martín-pescador Amazona
Martín-pescador Verde
Martín-pescador Enano**Familia Picidae***Centurus aurifrons*
Veniliornis fumigatus
Celeus castaneus
*Dryocopus lineatus*Carpintero Frentidorado
Carpintero Café
Carpintero Castaño
Carpintero Lineado**Familia Dendrocolaptidae***Lepidocolaptes souleyetti*

Trepatroncos Corona-rayada

Familia Formicariidae*Thamnophilus doliatus*

Batará Barrado

Familia Tyrannidae*Camptostoma imberbe*
Contopus cinereus
Pitangus sulphuratus
Megarynchus pitangua
Myiozetetes similis
Myiodynastes luteiventris
Tyrannus melancholicus
Tyrannus verticalis
*Tyrannus forficatus*Mosquerito Lampiño Norteño
Pibí Tropical
Luis Grande
Luis Piquigrueso
Luis Gregario
Papamoscas Ventre-amarillo
Tirano Tropical
Tirano Occidental
Tirano-tijereta Rosado**Familia Cotingidae***Pachyramphus major*
*Pachyramphus aglaiae*Cabezón Cuelligris
Cabezón Degollado**Familia Hirundinidae***Tachycineta a. albilinea*
Stelgidopteryx serripennis
Riparia r. riparia
Hirundo pyrrhonota
*Hirundo rustica erythrogaster*Golondrina Manglera
Golondrina-aliserrada Norteña
Golondrina Ribereña
Golondrina Risquera
Golondrina Ranchera**Familia Corvidae***Calocitta formosa*

Urraca-hermosa Cariblanca

Familia Troglodytidae*Campylorhynchus rufinucha*
*Thryothorus pleurostictus*Matraca Nuquirrufa
Saltapared Ventre-barrado**Familia Turdidae***Turdus plebejus*
*Turdus grayi*Zorzal Serrano
Zorzal Pardo

**Familia Mimidae***Mimus gilvus*

Cenzontle Sureño

Familia Vireonidae*Vireo pallens*

Vireo Manglero

Subfamilia Parulinae*Parula americana*

Parula Norteña

Dendroica petechia

Chipe Amarillo

Dendroica magnolia

Chipe de Magnolia

Mniotilta varia

Chipe Trepador

Setophaga ruticilla

Pavito Migratorio

Protonaria citrea

Chipe Protonotario

Seiurus aurocapillus

Chipe-suelero Coronado

Seiurus noveboracensis

Chipe-suelero Charquero

Seiurus motacilla

Chipe-suelero Arroyero

Wilsonia canadensis

Chipe Collarejo

Subfamilia Thraupinae*Euphonia affinis*

Eufonia Gorjinegra

Piranga rubra

Tangara Roja

Subfamilia Cardinalinae*Saltator coerulescens*

Saltador Grisáceo

Pheucticus ludovicianus

Picogrueso Pechirrosado

Passerina caerulea

Picogrueso Azul

Passerina ciris

Colorín Sietecolores

Subfamilia Emberizinae*Volatinia jacarina spendens*

Semillero Brincador

Sporophila aurita corvina

Semillero Variable

Sporophila torqueola

Semillero Collarejo

Sporophila minuta parva

Semillero Pechicanelo

Aimophila ruficauda

Zacatonero Cabecirrayada

Familia Icteridae*Agelaius phoeniceus*

Tordo Sargento

Quiscalus mexicanus

Zanate Mayor

Molothrus aeneus

Vaquero Ojirrojo

Icterus spurius

Bolsero Castaño

Icterus chrysater

Bolsero Dorsidorado

Icterus pectoralis

Bolsero Pechimanchado

Icterus gularis

Bolsero de Altamira

Icterus galbula

Bolsero de Baltimore

Familia Passeridae*Passer d. domesticus*

Gorrion Doméstico



Fish		Reptiles		Mammals	
Common Name	Scientific name	Common Name	Scientific name	Common Name	Scientific name
Cuatro ojos	<i>Anableps dowi</i>	Parlama blanca	<i>Lepidochelis olivaceae</i>	Tacuazin blanco	<i>Didelphis marsupialis</i>
Bagre	<i>Arius semani</i>	Parlama verde	<i>Chelonia sp.</i>	Tacuazin negro	<i>D. Virginiana</i>
Olizante	<i>Arius guatemalensis</i>	Baule o laud	<i>Dermochelys coriacea</i>	Tacuazin Ratón	<i>Philander opossum</i>
Jurel	<i>Caranx hippos</i>	Casquito o Galapago	<i>Kinosternon cruentatum</i>	Oso colmenero	<i>Tamandúa mexicana</i>
Aleta	<i>Centromopus robalito</i>	Chamarro o tres quillas	<i>Staurotypus salvinii</i>	Armado	<i>Dasypus novemcinctus</i>
Róbalo	<i>Centromopus sp.</i>	Tortuga dde agua dulce	<i>Trachemys scripta</i>	Ardilla	<i>Sciurus deppei</i>
Mojarra negra	<i>Ciclasoma macrancatum</i>	Sabanera	<i>Rhinoclemmys pulcherrima</i>	Puerco espin	<i>Coendou mexicanus</i>
Guapote	<i>Ciclasoma magnaguense</i>	Caiman o chato	<i>Crocodilus fuscus</i>	Tepescuintle	<i>Auguti paca</i>
Mojarra colorada	<i>Ciclasoma trimaculatum</i>	Iguana verde	<i>Iguana iguana</i>	Conejo o liebre	<i>Sylvilagus sp.</i>
Tilapia	<i>Oreochromis sp.</i>	Iguana negra	<i>Ctenosaura similis</i>	Gato de monte	<i>Urocyon cinereoargenteus</i>
Pepesca	<i>Astianax fasciatus</i>	Cutete	<i>Basiliscus vittatus</i>	Mapache	<i>Procyon lotor</i>
Sardina	<i>Anchoa lucida</i>	Geko		Pizote	<i>Nasua narica</i>
Vieja	<i>Eleotris picta</i>	Chichicúa	<i>Spilotes pullatus</i>	Comadreja	<i>Mustela frenata</i>
Lucerna	<i>Gobienellus spp.</i>	Sabanera	<i>Conophid lineatus</i>	Tejon	<i>Galictis vittata</i>
Pululo	<i>Dormitator latifrons</i>	Bejuquillo	<i>Oxybelis aeneus</i>	Perico ligero	<i>Eira barbara</i>
Guavina	<i>Gobiomorus maculatus</i>	Falso coral	<i>Lampropeltis triangulum</i>	Zorrillo	<i>Mephitis macroura</i>
Armado	<i>Atracosteus tropicus</i>	Cascabel	<i>Crotalus durissus</i>	Perro de agua	<i>Lutra longicaudis</i>
Pargo	<i>Lutjanus sp.</i>	Vívora castellana	<i>Porthidium ophryomegas</i>	Onza o gato de monte	<i>Herpailurus yagorondi</i>
Lisa	<i>Mugil cephalus</i>	Mazacuata	<i>Boa constrictor</i>	Venado	<i>Odocoileus virginianus</i>
Lebranchia	<i>Mugil curema</i>	Zapatilla de mar	<i>Pelamis platurus</i>	Delfin	<i>Stenella longirostris</i>
Juilin	<i>Ramdia guatemalensis</i>	Coral	<i>Micrurus sp.</i>		
Bute	<i>Poecilia sphenops</i>				
Pejecaite o lenguado	<i>Achirus mazatlanus</i>				