

Species	DemersPelag	Length	Comments
Chaetodon auriga	reef-associated	23	May be seen in a variety of habitats ranging from rich coral reefs (Ref. 58652) to weedy and rubble covered areas (Ref. 1602). Benthopelagic (Ref. 58302). Maybe found singly, in pairs, and in aggregations that roam over large distances in search of food. Feed mainly by tearing pieces from polychaetes, sea anemones, coral polyps, and algae (Ref. 1602). Oviparous (Ref. 205). Form pairs during breeding (Ref. 205).
Siganus sutor	reef-associated	45	Inhabits inshore areas and inner reefs (Ref. 9710). Often occurs among seagrasses to browse on 'aufwuchs'. Forms schools. A food fish that is occasionally poisonous (Ref. 4537).
Parupeneus macronema	NA	NA	NA
Scarus rubroviolaceus	reef-associated	70	Occurs solitary or in pairs in seaward reefs (Ref. 90102). Usually over rocky or coral substrates, at boulder-strewn slopes at the base of high-island cliffs where it may occur in large schools. Large adult usually on upper parts of deep slopes, but seen to about 35 m depth (Ref. 48636). Benthopelagic (Ref. 58302). Feeds on benthic algae (Ref. 30573). A protogynous hermaphrodite (Ref. 55367). An uncommon species (Ref. 9338).
Chaetodon falcula	reef-associated	20	Found on the reef edge and upper slope. Usually in current-prone habitats; juveniles secretive in corals (Ref. 48636). Generally seen in pairs or in small aggregations (Ref. 4858). Feed mainly on invertebrates (Ref. 6113). Oviparous (Ref. 205). Form pairs during breeding (Ref. 205). Indian Ocean species counterpart of sibling <i>Chaetodon ulietensis</i> which is found in western and central Pacific (Ref. 90102).
Lethrinus harak	reef-associated	50	Found solitary or in small schools over shallow sandy, coral rubble, mangroves, lagoons, channel and seagrass areas inshore and adjacent to coral reefs. Feeds on polychaetes, crustaceans, mollusks, echinoderms and small fish. Reported to spawn throughout the year during the first five days of the lunar month in large aggregations in Palau. Caught mostly by shore seine, gill nets, traps, and handline. Marketed mostly fresh (Ref. 171, 68703); flesh spoils rapidly (Ref. 4369).
Synanceia verrucosa	reef-associated	40	Most widespread stonefish (Ref. 4313). Found on sandy or rubble areas of reef flats and shallow lagoons and in small pools during low tide well camouflaged among the substrate and sometimes even covered with algae (Ref. 5213, 5503). Solitary species (Ref. 37816). Feeds on fishes and crustaceans. The dorsal fin has 2 grooves serving as syringes of venom; their stings are excruciatingly painful and can occasionally be fatal. A serum exists which is effective if applied immediately after the infliction. World's most venomous fish (Ref. 37816). Uncommon in markets. In Hong Kong live fish markets (Ref. 27253). Also Ref. 57406.

Acanthurus triostegus	reef-associated	27	Adults occur in lagoon and seaward reefs with hard substrate; young abundant in tide pools (Ref. 3145, 48637). Benthopelagic (Ref. 58302). Often feeding near freshwater run-offs where certain algae grow on rocks that are grazed (Ref. 48637). Occasionally form schools; feed on filamentous algae in large aggregations. During spawning, clouds of eggs and sperm are preyed upon by eagle rays which are often present during spawning. Form spawning aggregations (Ref. 27825). Size of metamorphosis from post-larva stage to juvenile is 3.2 cm (Ref. 9267). Utilized as a food fish (Ref. 7364). Minimum depth reported taken from Ref. 27115.
Lutjanus fulviflamma	reef-associated	35	Adults inhabit coral reefs (Ref. 30573, 58652), usually in schools on coastal reefs and in deep lagoons (Ref. 48635). Often in large aggregations with <i>Lutjanus kasmira</i> and <i>Lutjanus lutjanus</i> (Ref. 9710). Juveniles are sometimes found in mangrove estuaries or in the lower reaches of freshwater streams. Feed mainly on fishes, shrimps, crabs and other crustaceans (Ref. 30573). Caught mainly with handlines, traps, and gill nets. A small species, commonly utilized in subsistence fisheries but also seen frequently in markets where it is sold usually fresh (Ref. 9821). Neither anterolateral glandular groove nor venom gland is present (Ref. 57406, information in the table as dangerous fish, does not match; needs verification). Juveniles inhabit shallow protected areas, while adults prefer coastal reefs with heavy coral growth providing ample hiding places. Generally solitary or in pairs. Feeds on sponges, tunicates, and algae (Ref. 30573). The young are excellent aquarium fish and suitable for a community tank.
Pomacanthus semicirculatus	reef-associated	40	Found in sheltered bays, harbors and lagoons (Ref. 48636). Inhabits seagrass areas or areas with hard substrates heavy with algal cover. Usually occur in small groups. Unlike other parrotfishes, males and females look very similar and do not change sex (Ref. 48636). Feeds on seagrasses and algae (Ref. 30573). Marketed fresh (Ref. 5284).
Leptoscarus vaigiensis	reef-associated	35	Inhabits reef flats and lagoon and seaward reefs to a depth of over 30 m. Occurs over coral (Ref. 58534), rock, pavement, or rubble substrates. May occur singly or in small to very large, often mixed-species aggregations (Ref. 48637). Feeds on surface film of blue-green algae and diatoms (making this species a key link in the ciguatera food chain) as well as on various small invertebrates.
Ctenochaetus striatus	reef-associated	26	
Ostracion cubicus	NA	NA	NA
Scarus russelli	NA	NA	NA

Arothron hispidus	reef-associated	<p>Inhabit outer reef slopes to depths of at least 50 m, inner reef flats and lagoons. Juveniles common in weedy areas of estuaries (Ref. 4919). Also found in coastal bays and estuaries, usually near rocky reef or on sand-stretches between reefs with low algae-rubble reef to about 20 meters depth, or in shallow with sparse seagrass growth (Ref. 48637). Benthopelagic (Ref. 58302). Usually solitary and territorial on sandy to rubble areas. Feed on fleshy, calcareous, or coralline algae, detritus, mollusks, tunicates, sponges, corals, zoanthid anemones, crabs, tube worms and echinoderms (Ref. 1602).</p>
Arothron nigropunctatus	reef-associated	<p>Inhabit coastal to outer reef crest and slopes with rich invertebrate growth. Sometimes solitary (Ref. 90102). Adults often in pairs (Ref. 48637). Feed on corals (usually <i>Acropora tips</i>), crustaceans, mollusks, sponges, tunicates and algae (Ref. 2334). Generally common (Ref. 9710).</p> <p>Found over reef areas and adjacent sandy and seagrass areas (Ref. 30573, 41878). Feeds mainly on echinoderms (most frequently sea urchins), crustaceans and fishes; mollusks, tunicates, sponges, polychaetes and other worms are consumed in lesser quantities. A protogynous hermaphrodite (Ref. 55367). In most areas of the Red Sea, it is considered an excellent food fish but in certain areas of the Indian Ocean it may have an unpleasant 'coral' smell and taste (Ref. 2295, 11888). Utilized fresh for broiling and baking (Ref. 9987).</p>
Lethrinus mahsena	reef-associated	<p>Inhabit coral reefs, coralline lagoons, seagrass beds, mangrove swamps, flat sand bottoms, and coastal rock areas. Adults solitary or in small schools; juveniles form large schools in shallow, sheltered sandy areas, also harbors where seagrasses, algae or sponge habitats are found at various depths. Feed on echinoderms, mollusks and crustaceans, and to some extent on polychaetes and fish. The reproductive nature of spangled emperors is uncertain, although they also may be protogynous hermaphrodites (Ref. 27260, 55367). However, recent study classified juvenile hermaphroditism for this species wherein transition from ovary to testis occurs before ovarian maturation, hence, no true sex-reversal in the sense of protogynous hermaphroditism is observed (Ref. 107020). May have a coppery or iodine taste or smell in the Indian Ocean (Ref. 2295, 11888). It has been shown that this species can survive for long periods in salinities as low as 10 parts per thousand and therefore it is a potential estuarine aquaculture species (Ref. 2295). Taken by handline, traps, trawls, seines, and gill nets. Marketed mostly fresh. Very important commercial and sport fish in some countries (Ref. 68703).</p>
Lethrinus nebulosus	reef-associated	

		Inhabit shallow reefs to open, soft bottoms. Also in areas with rocky substrata. Sometimes form groups (Ref. 9710, 48637). Occur on open muddy substrates as well as on rich soft-bottom and coral reefs. Juveniles often with floating <i>Sargassum</i> rafts. Young and sub-adults may form small groups (Ref. 48637). Benthopelagic (Ref. 58302). Juveniles pelagic to about 6-9 cm. Solitary. Feed on mollusks, sea urchins, hermit crabs, and crabs at night (Ref. 9680). Relatively poor swimmers (Ref. 9710). Used in Chinese medicine (Ref. 12166).
Diodon holocanthus	reef-associated	50 Captured at the surface using a hand net (Ref. 26165).
Lagocephalus inermis	demersal	Found in the shelf edge (Ref. 11230). Closely resembles the Atlantic species <i>L. laevigatus</i> Linnaeus which reaches southern Angola (Ref. 4919).
		Inhabits reef edges and slopes (Ref. 6113, 48637). Hides in caves and ledges during the day and forages at night (Ref. 9680). Also found below plate-corals during the day and often deep, ranging to at least 40 meters depth. Juveniles occur in lagoons and estuaries (Ref. 48637).
Diodon liturosus	reef-associated	65 Solitary. Feeds on crustaceans and mollusks. Not usually marketed (Ref. 9680).
		Inhabits sandy bottoms in coastal areas, deep lagoons and near coral reefs (Ref. 30573). Juveniles and small adults commonly in loose aggregations over seagrass beds, mangrove swamps and shallow sandy areas while adults are generally solitary in deeper waters. Feeds primarily on crustaceans and mollusks but echinoderms, polychaetes and fishes are also consumed in considerable quantities (Ref. 2295). A protogynous hermaphrodite (Ref. 55367). Caught primarily by handline, traps, trawls, beach seines, and gill nets. Marketed mostly fresh
Lethrinus lentjan	reef-associated	52 (Ref. 68703).
		Inhabits coral-rich areas of clear lagoons, channels, and outer reef slopes (Ref. 9710). Generally solitary (Ref. 1602). Juveniles in small groups on algae and coral reefs inshore (Ref. 48636). Feeds on benthic algae (Ref. 30573). Males maintain small harems and pair spawn
Scarus niger	reef-associated	40 (Ref. 1602). Minimum depth reported from Ref. 9710.
		Inhabit reef flats and lagoon and seaward reefs to at least 25 m depth (Ref. 1602). Found over corals (Ref. 5213, 58652). Benthopelagic (Ref. 58302). Initial-phase fish stage usually form small feeding schools (Ref. 2334). Graze on benthic algae (Ref. 3488). Secrete a mucus
Scarus psittacus	reef-associated	34 cocoon (Ref. 1602).

Scarus ghobban	reef-associated	75	<p>Adults inhabit lagoon and seaward reefs (Ref. 1602), in slopes and drop-offs (Ref. 48636), often solitary but may sometimes occur in small groups (Ref. 9710, 48636). Males common in atolls where they live mainly around the inner and outer edges of barrier reefs at depths of about 30 ft; females prefer deeper habitat (Ref. 4821). Small juveniles in groups are found inshore on algae reef habitat (Ref. 9710, 48636) and sometimes enter silty, murky environments (Ref. 5490). Feed by scraping algae from rocks and corals (Ref. 5227). Are protogynous hermaphrodites (Ref. 55367). Caught with nets and other types of artisanal gear. Marketed fresh (Ref. 5284). In the Hong Kong live fish markets (Ref. 27253). Minimum depth reported from Ref. 90102.</p> <p>Occur in lagoon and seaward reefs, usually in pairs in coral rich areas (Ref. 1602). Benthopelagic (Ref. 58302). Feed mainly on coral polyps and anemones, but also on small invertebrates and algae (Ref. 1602). Largest species in the genus (Ref. 9710). Oviparous (Ref. 205). Form pairs during breeding (Ref. 205).</p>
Chaetodon lineolatus	reef-associated	30	<p>Common in coral reefs; juveniles enter weedy estuaries (Ref. 4407). Juveniles and subadults form schools, adults in pairs. Adults feed on benthic seaweeds (Ref. 9813). Anterolateral glandular grooves with venom gland (Ref. 57406).</p>
Siganus stellatus	reef-associated	40	<p>Inhabit lagoon and seaward reefs (Ref. 9710). Occasionally are seen under floating objects (Ref. 1602). Juveniles may travel with weed rafts in open ocean for a long time and reaching a large size. Adults are usually seen along deep coastal slopes or outer reef drop-offs in about 20 meters depth (Ref. 48637). Benthopelagic (Ref. 58302). Feed on algae, seagrass, hydrozoans, gorgonians, colonial anemones, and tunicates. Caught at the surface using a hand net (Ref. 26165).</p>
Aluterus scriptus	reef-associated	110	<p>Inhabits sandy and weedy areas near coral reefs, solitarily or in groups (Ref. 30573, 90102), where it is well camouflaged and usually swims in the cover of the substrate (Ref. 48635). Juveniles sometimes abundant in shallow, weedy areas (Ref. 4369). Solitary or in small groups (Ref. 90102). Feeds on small benthic invertebrates (Ref. 30573). A protogynous hermaphrodite (Ref. 55367). Flesh of large individuals is esteemed (Ref. 4369).</p>
Lethrinus variegatus	reef-associated	20	<p>Adults inhabit coral and rocky reefs, juveniles often commensal with large sea anemones, sea urchins, or small coral heads (Ref. 4391, 48636). They occur in small to large aggregations. Stomach contents include algae, copepods, and other planktonic crustaceans (Ref. 7247). Oviparous, distinct pairing during breeding (Ref. 205). Eggs are demersal and adhere to the substrate (Ref. 205). Males guard and aerate the eggs (Ref. 205). Diurnal species (Ref. 54980; 120737).</p>
Dascyllus trimaculatus	reef-associated	14	
Naso branchycentron	NA	NA	NA

Rhinecanthus aculeatus	reef-associated	<p>Commonly found in subtidal reef flats and shallow protected lagoons, Ref. 48637. Benthopelagic (Ref. 58302). Juveniles secretive with rubble patches, adults swim about openly but are usually shy (Ref. 48637). Territorial. Feed on algae, detritus, mollusks, crustaceans, worms, sea urchins, fishes, corals, tunicates, forams, and eggs (Ref. 3921). Oviparous (Ref. 205). Sleep on its side; makes a whirring noise when alarmed (Ref. 4420). Also caught with 30 drive-in nets and is considered a popular aquarium fish (Ref. 9770).</p>
Cephalopholis argus	reef-associated	<p>A generally common species (Ref. 9710). Adults are benthic and benthopelagic in a variety of coral habitats (Ref. 58534, 58302) from tide pools to depths of at least 40 m; preferring the 1 to 10 m reef zone. Juveniles prefer shallow, protected coral thickets (Ref. 37816). Mature adults are found in social units comprising up to 12 adults, including 1 dominant male and each group occupies a specific area (up to 2,000 sq. m.) that is defended by the territorial male and subdivided into secondary territories, each inhabited by a single female (Ref. 39231). At times, they may also be solitary (Ref. 90102). Adults feed mainly on fishes (75-95%) and to a lesser extent on crustaceans. In the Red Sea, they feed early in the morning and late afternoon (Ref. 6775) but in Madagascar, they appear to feed more at night (Ref. 6774). They are implicated in ciguatera at some of the islands in the Pacific region. They can be seen in Hong Kong live fish markets (Ref. 27253). They are important to artisanal fisheries throughout the Indo-West 60 Pacific region and often caught with hook-and-line, spear, and in traps (Ref. 39231).</p> <p>Adults are found in reef flats, lagoon and seaward reefs and sometimes in turbid waters subject to freshwater runoff swimming in pairs. They are omnivorous, feeding on algae, coral polyps, crustaceans and worms (Ref. 5503). They are oviparous (Ref. 205) and monogamous (Ref. 52884). Stable monogamous pairs with both pair members jointly defending a feeding territory against other pairs (Ref. 58331) occur, but often accompany other species without 23 being aggressive. They are easily maintained in tanks.</p>
Chaetodon vagabundus	reef-associated	<p>Found almost exclusively in the surge zone of outer reef flats, reef margins, and rocky coastlines, down to a depth of about 10 m (Ref. 5213). Benthopelagic (Ref. 58302). Occur in groups of females that are spread out over large reef sections and dominated by few males. Males grow much larger than females (Ref. 48636). Feed on small invertebrates (crabs, sea urchins, brittlestars, mollusks), small fishes, echinoids, ophiuroids and polychaetes (Ref. 37816). Protogynous (Ref. 55080).</p>
Thalassoma purpurum	reef-associated	<p>46</p>

Rhinecanthus rectangulus	reef-associated	<p>Occur in shallow outer reefs subject to surge (Ref. 9770, 48637). Commonly found over barren rock or the spur-and-groove zone where there is a mixture of bare rock, rubble, and coral. Juveniles on algae reef (Ref. 48637). Benthopelagic (Ref. 58302). Feed on algae, detritus, mollusks, crustaceans, worms, echinoderms, fishes, sponges, foraminiferans, and eggs.</p> <p>30 Territorial. Oviparous (Ref. 205). Also taken by drive-in nets (Ref. 9770).</p> <p>Nocturnal species that is usually in pairs or small groups in shallow reef flats of lagoon and seaward reefs to depths of over 30 m. Juvenile occurs among rocks of inner reef flats and in tide pools (Ref. 205). Benthopelagic (Ref. 58302). Adult feeds mainly on nudibranchs, tubeworm tentacles, and other benthic invertebrates, also feeds on algae and coral polyps.</p>
Chaetodon lunula	reef-associated	<p>20 Oviparous (Ref. 205). Forms pairs during breeding (Ref. 205).</p> <p>Adults inhabit lagoon and seaward reefs at depths of 1 to over 30 m, and relatively common along shallow reef margins with good coral cover (Ref. 9710). Usually solitary (Ref. 5213). Feed mainly on shelled benthic invertebrates such as mollusks and crustaceans, but occasionally take fishes (Ref. 1602). Oviparous, distinct pairing during breeding (Ref. 205). Difficult to approach (Ref. 9710). Juveniles secretive on algae reefs and usually around stinging</p>
Cheilinus trilobatus	reef-associated	<p>45 hydrozoans (Ref. 48636).</p> <p>Occur in lagoon and seaward reefs to at least 50 m. Commonly seen in caves and holes in shallow reefs (Ref. 26938, 48637). Juveniles to about 20 cm are pelagic. Adults benthic (Ref. 30573). Solitary and nocturnal that feed on hard shelled invertebrates like sea urchins, gastropods, and hermit crabs (Ref. 9680). Generally common (Ref. 9710). Not normally used as food (Ref. 3717). Reached a life-span of 10 years and a length of 69 cm in the McGinty</p>
Diodon hystrix	reef-associated	<p>91 Aquarium (E. Dashiell, pers. comm 2004), suggesting a preliminary K=0.12.</p> <p>Large adults live in sheltered bays as well as deep offshore. Commonly found around shipwrecks in small groups and occasionally forms large schools. Small juveniles with floating debris and form aggregations as they find each other. They can be pelagic to large sizes and form schools under large <i>Sargassum</i> rafts that usually form after the wet season (Ref. 48637). Juveniles inhabit shallow protected inner reefs while adults occur in lagoon and seaward reefs to a depth of 20 m or more. Edible but not esteemed (Ref. 12484). Not an</p>
Platax teira	reef-associated	<p>70 important game fish (Ref. 12484).</p>

Plectorhinchus flavomaculatus	reef-associated	<p>Inhabits coastal inshore waters near sheltered reefs, lagoons, sandbanks and seagrass areas, solitarily or in groups (Ref. 47695, 90102). Adults usually on silty reefs at moderate depths, or in current channels occasionally inshore; juveniles enter estuaries and harbors (Ref. 48635). Feeds on small fishes and crustaceans (Ref. 5213). Taken by handline and spear. A common species marketed fresh, a small quantity is salted, good food fish (Ref. 47695).</p> <p>Inhabits outer reef slopes or deep clear lagoons among rubble or clumps of algae; also in seagrass beds (Ref. 1602, 41878, 58302). Often in sheltered estuaries and harbors (Ref. 48636). Benthic and benthopelagic (Ref. 58302).</p>
Oxycheilinus bimaculatus	reef-associated	
Naso lituratus	reef-associated	<p>Found in areas of coral, rock, or rubble of lagoon and seaward reefs, Ref. 48637. Benthopelagic (Ref. 58302). Adults usually in small groups. Juveniles in shallow rocky reefs, sometimes in small aggregations mixed with other acanthurids of similar size (Ref. 48637). Feed mainly on leafy brown algae (<i>Sargassum</i> and <i>Dictyota</i>). Sometimes in large aggregations (Ref. 37792). Very seldom poisonous (Ref. 4795). Pair-spawning has been observed.</p> <p>A solitary fish, in coastal and offshore reefs usually in less than 20 m depth (Ref. 90102); also very common in shallow lagoon and semi-protected seaward reefs. Juveniles are common in thickets of staghorn <i>Acropora</i> corals. Feed on crustaceans and fishes. Increase of piscivory with age is observed in this species. Neither opercular spine nor anterolateral glandular grooves with venom gland is present (Ref. 57406). Current information in the table (dangerous fish) do not match; needs verification. Cultured under experimental conditions in the Philippines (Ref. 4757). In the Hong Kong live fish markets (Ref. 27253). It is important to artisanal fisheries because of its abundance in shallow water and caught with handlines, fish traps, and spear (Ref. 39231).</p>
Epinephelus merra	reef-associated	
Siganus lineatus	reef-associated	<p>Adults inhabit shallow areas, typically 5 m; juveniles common around estuarine areas including mangrove areas and seagrass flats; adults in protected waters such as lagoons and bays in the vicinity of rocky substrata or reefs (resting on rubble or sandy bottoms). Form schools that diminish with age, down to 10-25 fish by adult stage, although congregations may consist of several thousand fish during spawning period. Feed by scraping encrusting algae from beach rock or pavement areas of coral reefs or by browsing on larger coarse algae. Caught mainly with set nets and fixed traps; common in markets where it is sold fresh (Ref. 9813).</p>

Abudefduf sexfasciatus	reef-associated		<p>Adults inhabit inshore and offshore coral or rocky reefs. Also in shallow coastal reef flats or crests, usually where lots of tall soft corals or hydroid colonies are present (Ref. 48636). Often found in groups feeding at midwater or tending nests among rocks and coral ledges (Ref. 90102). Feed on zooplankton and algae and aggregates high in the water column (Ref. 9710). Oviparous, distinct pairing during breeding (Ref. 205). Eggs are demersal and adhere to the substrate (Ref. 205). Males guard and aerate the eggs (Ref. 205).</p> <p>One of the most abundant species of <i>Parupeneus</i> (Ref. 37816). Inhabits large sand patches as well as sand and rubble areas of reef flats, and lagoon and seaward reefs to a depth of about 100 m. Forages on sand-dwelling invertebrates like polychaete worms and crustaceans. Feeding is diurnal; from 19 adult specimens for food-habit study, the prey in order by volume in the stomachs: crabs (portunid, anomuran, xanthid, and raninid), worms (mainly polychaetes but also sipunculids and unidentified), small bivalve molluscs, brachiopods, shrimps, small gastropods, isopods, amphipods, foraminifera, and a small unidentified eel (Ref. 54393). Individuals from Palau and eastern Carolines often have a yellow band immediately above the broad black band extending behind the eye (Ref. 37816). Adults solitary or in small groups. Juveniles usually in small groups, often mixed with other species in sparse seagrass habitats (Ref. 48636).</p>
Parupeneus barberinus	reef-associated		60
Sargocentron tieroides	NA	NA	NA
Parupeneus rubescens	reef-associated		43 Found on sandy bottoms and murky areas of coastal waters (Ref. 5213).
Pomacanthus chrysurus	reef-associated		33 Inhabits coral-rich reefs (Ref. 9710). Seldom seen in the aquarium trade.
Lethrinus olivaceus	reef-associated		100 Largest and the longest-snouted lethrinid (Ref. 37816). Found in sandy coastal areas, lagoons, and reef slopes (Ref. 30573). Juveniles are found in shallow sandy areas. Often occurs in large schools. Adults deep along coastal slopes and drop-offs, usually solitary (Ref. 48635). Very active and swims fast (Ref. 90102). Feeds mainly on fish, crustaceans, and cephalopods. In Palau, it spawns throughout the year on the first few days of the lunar month along the edges of reefs. Large individuals often ciguatoxic in New Caledonia and possibly elsewhere in Oceania (Ref. 9775). Caught mostly with handline and traps, occasionally by trawls and gill nets (Ref. 68703). Ref. 48635 reports maximum depth of occurrence.
Parupenaeus indicus	NA	NA	NA

Lutjanus gibbus	reef-associated	50	<p>Adults mainly inhabit coral reefs, sometimes forming large aggregations, which are mostly stationary during the day. Juveniles occur in seagrass beds, also in mixed sand and coral habitats of shallow sheltered reefs (Ref. 1602). Sub-adults commonly form very large schools that are stationary or drift slowly along slopes during the day. Large individuals along coastal slopes at moderate depths (Ref. 48635). Benthopelagic (Ref. 58302). Feed on fishes, and a variety of invertebrates including shrimps, crabs, lobsters, stomatopods, cephalopods, echinoderms and ophiuroids (Ref. 55). Caught mainly with handlines, traps, and gill nets. Commonly sold fresh. Sometimes causes ciguatera poisoning, particularly around the Pacific islands (Ref. 9821).</p> <p>Inhabits subtidal reef flats, and lagoon and seaward reefs to a depths of at least 27 m (Ref. 1602). Found in coral, rubble, seagrass (Ref. 41878, 58302) and weedy areas (Ref. 9710). Benthopelagic (Ref. 58302). Found singly or in small groups (Ref. 9710). Feeds on a variety of benthic encrusting algae, e.g., <i>Padina</i> (Ref. 37816) and seagrasses. A protogynous hermaphrodite which may only have secondary males. Caught with nets and other types of</p>
Calotomus carolinus	reef-associated	54	<p>artisanal gear.</p> <p>An uncommon species found in coral and rocky reefs (Ref. 9710). Solitary or in small groups</p>
Naso fageni	reef-associated	80	<p>(Ref. 90102).</p>
Lethrinus borbonicus valenciennes	NA	NA	NA
Scorpaenopsis diabolus	reef-associated	30	<p>Relatively an uncommon inhabitant of rubble or weedy coralline-rock bottoms of reef flats and lagoon and seaward reefs (Ref. 9710). Benthic (Ref. 58302). Feeds on fishes (Ref. 89972). Flashes its inner pectoral fins when disturbed (Ref. 9710). Can inflict a painful injury with its venomous dorsal sting. Often partly buried (Ref. 48635). Solitary or in pairs (Ref 90102).</p> <p>Adults which are territorial in nature occur in coral-rich areas of deep lagoon and seaward reefs from the lower surge zone to at least 50 meters (Ref. 48637). They feed on a variety of benthic organisms such as algae, echinoderms, fishes, mollusks, tunicates, sponges, and hydrozoans. Eggs are laid as one cluster in a shallow excavation on sand or rubble along channels. (Ref. 1602). Marketed fresh and dried-salted (Ref. 9770).</p>
Balistapus undulatus	reef-associated	30	

Anampses caeruleopunctatus	reef-associated		<p>Adults are found on the surge zone of coral reefs or rocky coasts (Ref. 9710, 58534). They occur singly or in pairs (Ref. 9710). Tiny juveniles swim with head towards the bottom and slowly undulate the body, looking like a floating leaf in the current (Ref. 48636). Young feed primarily on small crustaceans and polychaetes, adults switch to larger crustaceans and mollusks as well as polychaetes (Ref. 1602). They bury at night (Ref. 9710). Oviparous, distinct pairing during breeding (Ref. 205). Occasionally trawled (Ref. 30573). Not common in fish markets.</p> <p>42 Minimum depth reported taken from Ref. 30874.</p>
Acanthurus leucosternon	reef-associated		<p>Inhabits shallow, clear coastal and island coral reefs (Ref. 9710). Usually found on reef flats and along upper seaward slopes (Ref. 9710). May occur singly or in large feeding aggregations. Monogamous (Ref. 52884). Feeds on benthic algae; on small, sparsely scattered algae and small growths in crevices (Ref. 28026). Caught with nets (Ref. 30573). Marketed fresh.</p> <p>54</p>
Scarus sordidus	NA	NA	NA
Papilloculiceps longiceps	reef-associated		<p>70 Found in the vicinity of coral reefs on sand or rubble bottoms.</p>
Scarus atrilunula	NA	NA	NA
Abudefduf vaigiensis	reef-associated		<p>Adults inhabit upper edge of outer reef slopes and inshore rocky reefs. Juveniles associated with drifting seaweed (Ref. 12114, 12115). Benthopelagic (Ref. 58302). Feed on zooplankton, benthic algae, and small invertebrates (Ref. 1602). Often in aggregations (Ref. 9710) feeding at midwater or tending nests among rocks and coral ledges (Ref. 90102). In large numbers at spawning sites that are timed with large tides that carry their pelagic offspring far offshore (Ref. 48636). Oviparous, distinct pairing during breeding (Ref. 205). Eggs are demersal and adhere to the substrate (Ref. 205). Males guard and aerate the eggs (Ref. 205).</p> <p>20</p>
Plectorhinchus gaterinus	reef-associated		<p>Occurs in coastal reefs, sand banks and near estuaries (Ref. 2871). Often in large groups under ledges or along coral slopes by day (Ref. 9710). Flesh with an iodoform taste (Ref. 2799).</p> <p>50</p>
Scarus scaber	reef-associated		<p>Inhabits shallow lagoon reefs, in areas with dense coral cover (Ref. 9710). Individuals in the initial phase form groups (Ref. 9710). Feeds on algae by incessant grazing in coral reefs (Ref. 5503). Marked sexual dimorphism.</p> <p>37</p>
Lethrinus rubrioperculatus	reef-associated		<p>Found over sand and rubble areas of outer reef slopes (Ref. 30573). Feeds mainly on crustaceans, fish, echinoderms and mollusks (Ref. 30573). In New Caledonia, spawning peaks are observed in December and a fairly high percentage of gonads in advanced stages of maturity occurs between October and February (Ref. 9775). Caught mostly by handline, trap, and trawl. Marketed mostly fresh. An excellent food fish (Ref. 114226).</p> <p>50</p>

Cephalopholis boenak	reef-associated		<p>Mainly a coastal species (Ref. 48635). Inhabits silty dead reefs in protected waters. May also be seen on live coral (Ref. 089707). Secretive (Ref. 37816). Feeds mainly on fish (Ref. 30531) and crustaceans (Ref. 089707). Courtship and pair spawning were observed by Donaldson 30 (1989, Ref. 6900). Diandric protogynous hermaphrodite (Ref. 45317).</p> <p>Inhabit seagrass beds and algal-covered flats, occasionally in lagoon and seaward reefs to a depth of at least 30 m (Ref. 1602, 41878, 48636). Benthopelagic (Ref. 58302). Usually solitary. Juveniles secretive in seagrasses or attached <i>Sargassum</i>; adults usually in small loose aggregations, but occasionally form large schools to spawn (Ref. 48636). Feed mainly on crustaceans, mollusks, sea urchins (Ref. 37816) and other hard-shelled prey. Oviparous, 50 distinct pairing during breeding (Ref. 205).</p>
Cheilio inermis	reef-associated		<p>Inhabits mud and silt sand bottoms (Ref. 11441, 48637). Adults on deep coastal slopes and usually seen swimming high above the bottom, sometimes found in estuaries. Juveniles in sheltered coastal bays and estuaries with outcrops of rubble or debris on open substrates (Ref. 60 48637).</p>
Abalistes stellatus	reef-associated		<p>Inhabit coastal to outer reefs. Habitats from silty lagoons to pristine outer reef walls (Ref. 48637). Occur in shallow lagoon and seaward reefs. Solitary and territorial. Feed on a wide variety of invertebrates. Also taken by drive-in nets (Ref. 9770). Oviparous (Ref. 205). 30 Monogamous (Ref. 52884).</p>
Sufflamen chrysopterygion	reef-associated		<p>Typically found solitary or in groups, often in turbid water. on open muddy, sandy or silty substrates in protected bays or estuaries, around rock outcrops, wreckage and debris (Ref. 48635, 90102). Also in shallow coastal areas and coral reefs (Ref. 30573). Juveniles are found in weedy areas (Ref. 2799). Feeds on benthic invertebrates and fishes (Ref. 30573). Reportedly ciguatoxic in some areas (Ref. 2799). Marketed fresh and frozen (Ref. 9987). Five subspecies recognized across Indo-Pacific region including <i>D. p. labiosum</i> and <i>D. p. pictum</i> (Ref. 90102) 100</p>
Diagramma pictum	reef-associated		NA
Monotaxis grandoculus	NA	NA	NA
Parupeneus heptacanthus	reef-associated		<p>Occurs singly or in small groups, over muddy, sandy, rubble, or seagrass bottoms of lagoon and seaward reefs, usually below 20 m. Flesh is fairly good for human consumption (Ref. 6023, 36 41878).</p>
Cetoscarus bicolor	reef-associated		50 Benthic grazer of algae (Ref. 3488). Caught with nets and other types of artisanal gear.
Thalassoma hebraicum	reef-associated		23 Occurs in lagoon and seaward reefs and is usually found on patch reefs or rocks (Ref. 9710).

Naso brevirostris	reef-associated		Inhabit mid-waters along steep outer lagoon and seaward reef drop-offs. Also found along rocky shores (Ref. 30573, 48637). Benthopelagic (Ref. 58302). Usually in small groups but form large schools in oceanic locations or on reefs subject to strong currents (Ref. 48637). Juveniles and subadults feed on benthic algae; adults feed on zooplankton. Pair spawning has been observed. Caught with nets (Ref. 30573).
NA	NA	NA	NA
Taeniura lymma	reef-associated		Occurs around coral reefs (Ref. 6871, 58534). Migrates in groups into shallow sandy areas during the rising tide to feed on mollusks, worms, shrimps, and crabs; disperses on falling tide to seek shelter in caves and under ledges (Ref. 6871). Rarely found buried under the sand (Ref. 12951). Ovoviviparous (Ref. 50449). Small specimens are popular among marine aquarists (Ref. 5578). Does not do well in aquariums (Ref. 12951). Maximum length about 70 cm TL (Ref. 30573). Reports of specimens reaching 240 cm TL are probably inaccurate (Ref. 6871). Commonly caught by fisheries operating over shallow coral reefs and probably adversely affected by dynamite fishing. Utilized widely for its meat (Ref. 58048).
Acanthurus nigricauda	reef-associated		Occurs in clear lagoon and seaward reefs around isolated coral heads. Solitary or in small groups (Ref. 90102). Prefers sandy bottoms of bays and lagoons rather than the coral reefs like most other Acanthuridae. The species is sometimes poisonous (Ref. 4795). Caught with nets (Ref. 30573).
Scolopsis bimaculata	reef-associated		Found in inshore waters usually on coral reefs or sand or mud bottoms close to reefs (Ref. 30573). Feeds on crustaceans, mollusks, echinoderms and fishes (Ref. 30573).
Hipposcarus harid	reef-associated		Inhabits coastal regions associated with coral reefs and reef flats. Forms groups consisting of a terminal phased individual and numerous individuals in the initial phase (Ref. 9710). Feeds on benthic algae (Ref. 30573). Caught with nets and other artisanal gear. Mainly sold fresh.
Chromis atripectoralis	reef-associated		Adults inhabit clear lagoons, passages, and seaward reef slopes, in thickets of live or dead coral. They occur in large aggregations feeding above staghorn <i>Acropora</i> corals (Ref. 9710). Stomach contents of individuals examined included mainly copepods, amphipods, and zoea. Diurnal species (Ref. 54980; 113699). Oviparous, distinct pairing during breeding (Ref. 205). Eggs are demersal and adhere to the substrate (Ref. 205). Males guard and aerate the eggs (Ref. 205).

Zanclus cornutus	reef-associated		Inhabit turbid inner lagoons, reef flats, and clear seaward rocky and coral reefs (Ref. 1602, 48637). Benthopelagic (Ref. 58302). Generally encountered in small groups of 2 or 3 individuals (Ref. 9267). Adults occur singly, in pairs and occasionally are seen in large schools (Ref. 48637). Feed on small encrusting animals (Ref. 6113). Size of metamorphosis from postlarva to juvenile is 7.5 cm (Ref. 9267). The long pelagic larval stage is the reason for the wide distribution and strong colouration that shows no geographical variation (Ref. 48637). 23 Popular aquarium fish but rarely survives in tanks (Ref. 1602).
Plectorhinchus sordidus	reef-associated		Found over rocks and corals (Ref. 5213), as well as shallow weedy areas. Stomach contents of specimens collected from Iraq composed mainly of benthic organisms including crustaceans 60 (Ref. 97537). Solitary or in small groups close to shelter (Ref. 9710). Marketed fresh.
Epinephelus caeruleopunctatus	NA	NA	NA
Epinephelus coioides	reef-associated		Inhabit turbid coastal reefs (Ref. 9710) and are often found in brackish water (Ref. 27362) over mud and rubble (Ref. 6390). Solitary (Ref 90102). Juveniles are common in shallow waters of estuaries over sand, mud and gravel and among mangroves (Ref. 6390). Feed on small fishes, shrimps, and crabs. Probably spawn during restricted periods and form aggregations when doing so (Ref. 27352). Females mature at 25 to 30 cm (2 to 3 years old), and sexual transition occurs at 55 to 75 cm (Ref. 39231). Eggs and early larvae are probably pelagic (Ref. 6390). Has been tested in several countries as a potential species for mariculture (Ref. 43448). Caught with hook-and-line, traps, trawls, and lift nets. Common and expensive in markets of the region; sold fresh and kept alive at restaurants in Asian countries (e.g. Hong Kong and Taiwan 120 Province of China) (Ref. 39231).
Chaetodon trifasciatus	reef-associated		Occur in coral-rich lagoons and semi-protected seaward reefs. Territorial and aggressive to other <i>Chaetodon</i> . Small juveniles secretive in corals (Ref. 48636). Swim in pairs. Feed exclusively on coral polyps, particularly of the <i>Pocillopora</i> type (Ref. 5503, 48636). 15 Oviparous (Ref. 205), monogamous (Ref. 52884). Form pairs during breeding (Ref. 205).
Zebrasoma desjardini	reef-associated		Found in lagoon and seaward reefs to depths greater than 30 m; juveniles in sheltered inner reef areas (Ref. 9710, 48637). Adults usually occur in pairs. Juveniles solitary and commonly 40 among staghorn corals in lagoons or protected reefs (Ref. 48637).
Scolopsis ghanam	reef-associated		Benthic, found in inshore waters usually on shallow sandy bottoms close to coral reefs (Ref. 30573). Feeds on crustaceans, mollusks, echinoderms and fishes (Ref. 30573). 30

Epinephelus itajara	reef-associated	250	<p>A solitary species (Ref. 26340) occurring in shallow, inshore areas. Found on rock, coral, or mud bottoms (Ref. 5217). Juveniles found in mangrove areas and brackish estuaries (Ref. 5217). Large adults may be found in estuaries (Ref. 5217). Adults appear to occupy limited home ranges with little inter-reef movement. Feeds primarily on crustaceans, particularly spiny lobsters as well as turtles and fishes, including stingrays. Territorial near its refuge cave or wreck where it may show a threat display with open mouth and quivering body. Larger individuals have been known to stalk and attacks divers. Over-fished, primarily by spear fishing (Ref. 9710). Marketed fresh and salted. Meat is of excellent quality. Important game fish (Ref. 9342). Reported to reach weights of more than 315 kg (Ref. 26938).</p> <p>Inhabits sheltered coastal and offshore reefs, usually in turbid areas of bays and lagoons, in 3-40 m (Ref 90102). A nocturnal fish hiding in caves or beneath ledges by day, feeding on plankton such as crab larvae at night. Found in loose aggregations in caves, sometimes with other soldierfish (Ref. 9710).</p>
Myripristis hexagona	reef-associated	30	<p>Occur in deeper lagoons and channels, and seaward reefs (Ref. 1602). Benthopelagic (Ref. 58302). Depth 2-61 m, usually below 10 m (Ref. 90102). Occur singly or in pairs (Ref. 37816). Common, omnivorous individuals that feed mainly on soft coral polyps (mainly on <i>Sarcophyton tracheliophorum</i> and <i>Litophyton viridis</i>), algae and zooplankton.</p>
Chaetodon kleinii	reef-associated	15	<p>Oviparous (Ref. 205). Form pairs during breeding (Ref. 205).</p> <p>Inhabit coral reefs or rocky areas and occasionally on sandy bottom. Feed mainly on crustaceans, especially crabs and stomatopods, rarely on small fishes, squids, and pelecypod</p>
Epinephelus longispinis	reef-associated	55	<p>flesh. Used in Chinese medicine (Ref. 12166). Solitary (Ref 90102).</p> <p>A common species on reef flats among rocks, rubble, or debris and also occurs in lagoons and seaward reefs to depths of 26 m or more. Minimum depth of 1m (Ref. 81209). Cavernicolous (Ref. 8593, 58302). Benthic (Ref. 58302). Nocturnal species that feeds on fishes, octopi, and probably crustaceans. Reported to be an aggressive species and prone to bite. Used in Chinese</p>
Gymnothorax undulatus	reef-associated	150	<p>medicine (Ref. 12166).</p> <p>Adults inhabit lagoons, reef passages, and the outer reef slopes as solitary individuals or in small groups. Feed on copepods, amphipods, mysids, fish eggs, crustacean larvae, and a small portion of algae (Ref. 7247). Oviparous, distinct pairing during breeding (Ref. 205). Eggs are demersal and adhere to the substrate (Ref. 205). Males guard and aerate the eggs (Ref. 205).</p>
Amblyglyphidodon leucogaster	reef-associated	13	

Chaetodon xanthocephalus	reef-associated	<p>Hybrids with <i>C. ephippium</i> known. Usually solitary (Ref. 48636), but may form loose shoals of 5-6 individuals and usually found around isolated coral heads. Territorial and aggressive to other chaetodonts; omnivorous (Ref. 5503). Oviparous (Ref. 205), monogamous (Ref. 52884). Form pairs during breeding (Ref. 205).</p> <p>Inhabits reef flats and lagoon and seaward reefs to a depth of 40 m or more. Occurs singly or in small to large aggregations, taking shelter in dark crevices, branched coral, under ledges, and among the spines of <i>Diadema setosum</i>. Nocturnal species (Ref. 7300). Feeds on small crustaceans and gastropods, also on small fishes. Generally common (Ref. 9710). Has been reared in captivity (Ref. 35404).</p>
Cheilodipterus quinquelineatus	reef-associated	<p>Juveniles occur in clear, shallow lagoon reefs at depths as little as 1 m; adults rarely seen in less than 25 m, encountered off outer reef drop-offs in small schools (Ref. 30573, 48637). Benthopelagic (Ref. 58302). Feeds on large zooplankton during the day and shelter within the reef during the night; also benthic algae (Ref. 30573, 48637).</p>
Naso annulatus	reef-associated	<p>Benthopelagic on shelf and upper slope (Ref. 34024). Larvae found in the epipelagic far offshore (Ref. 34024). Found in shallow lagoon and seaward reefs and occurs at depths of at least 220 m. Adults (30-90 cm) move to depths of 100-650 m (Ref. 58472). A nocturnal species, rarely seen for it lives in caves and crevices during the day and periodically emerges from cover at night to feed on crustaceans, mainly crabs, and fishes. Oviparous, with oval pelagic eggs floating in a gelatinous mass (Ref. 205). Utilized fresh and eaten steamed, pan-fried and baked (Ref. 9987). Also Ref. 58302.</p>
Brotula multibarbata	reef-associated	<p>Occur in clear lagoon and sheltered seaward reefs (Ref. 9710). Solitary (Ref. 90102). Adults usually along deep drop-offs (Ref. 48637). Usually close to shelter. Occur singly (Ref. 9710).</p>
Arothron mappa	reef-associated	<p>Feed on algae, sponges, and benthic invertebrates.</p>

Lutjanus argentimaculatus	reef-associated	<p>A euryhaline species (Ref. 12743). Juveniles and young adults occur in mangrove estuaries, the lower reaches of freshwater streams (Ref. 30573, 48635, 44894) and tidal creeks (Ref. 44894). Adults are often found in groups around coral reefs (Ref. 9710). Eventually migrate offshore to deeper reef areas, sometimes penetrating to depths in excess of 100 m. Mainly nocturnal, this species feeds mostly on fishes and crustaceans. Excellent food fish (Ref. 5484, 44894). An important market species throughout the Indo-Pacific region, but never found in large quantities. A good aquaculture species because it doesn't get rancid easily when frozen (Ref. 47992). It commands a good export market price with no limit on body size (Ref. 47992). No reported damaging diseases (Ref. 47992). Found in Hong Kong live fish markets (Ref. 27253). Caught mainly with handlines, bottom longlines, and trawls; marketed mostly fresh and dried-salted (Ref. 9821). Maximum length is 104 cm, max weight 14.5 kg and max age 39 years for specimens from the east coast of Australia (pers. comm., Andrew McDougall, 2007).</p> <p>Usually solitary or in pairs in coral-rich areas of reef flats, lagoons, and seaward reefs to a depth of over 15 m. Juveniles inshore. In pairs or traveling in small groups (Ref. 48636). Feed on octocorallian and scleractinian coral polyps. Oviparous (Ref. 205). Form pairs during breeding (Ref. 205). Easy to maintain in the aquarium. Minimum depth reported taken from</p>
Chaetodon melannotus	reef-associated	<p>18 Ref. 30874.</p> <p>Adults inhabit steep slopes, often in turbid waters, generally in the vicinity of coral reefs (Ref. 58652) or rocky bottoms. They form resident spawning aggregations (Ref. 27825, 48637). Adults often seen in schools, feeding mid-water on plankton (Ref. 48637). Feed on</p>
Acanthurus mata	reef-associated	<p>50 zooplankton. Marketed fresh. Flesh is almost never poisonous (Ref. 4795).</p> <p>Inhabit deep, protected lagoons and channels, and the deeper parts of outer reef slopes. Juveniles are often solitary while adults occur in pairs (Ref. 1602, 48636). A planktivorous species that generally remains within a few meters of the reef. Juveniles may sometimes pick on parasites on the epidermis of other fish (Ref. 5503). Oviparous (Ref. 205). Form pairs</p>
Heniochus acuminatus	reef-associated	<p>25 during breeding (Ref. 205).</p> <p>Inhabits weedy areas, often in estuaries; seagrass beds (Ref. 41878) and mangrove areas in 1-1.5 m. Solitary (Ref. 90102). Specimens caught by trawling over silty bottoms in 17 m. (Ref.</p>
Arothron immaculatus	reef-associated	<p>37.5 9137).</p>

Epinephelus malabaricus	reef-associated	234	A common species found in a variety of habitats: coral and rocky reefs, tide pools, estuaries, mangrove swamps and sandy or mud bottom from shore to depths of 150 m. Solitary (Ref 90102). Juveniles found near shore and in estuaries; sex reversal probable; catch statistics poor being previously confused with <i>E. andersoni</i> (Ref. 4332). Feed primarily on fishes and crustaceans, and occasionally on cephalopods (Ref. 9710). Present in Hong Kong live fish markets (Ref. 27253). Widely used in mariculture mainly in the Far East (Ref. 43448).
Centropyge multispinis	reef-associated	14	Most abundant species of the genus <i>Centropyge</i> in the Indian Ocean (Ref. 90102). Inhabits coral rich and rubble areas of lagoon and seaward reefs. Occurs in sheltered bays and lagoon patch reefs from 5 to at least 20 m, forming small, loose aggregates in caves or just above branches of certain corals (Ref. 1602). Feeds on small fishes
Cheilodipterus artus	reef-associated	18.7000008	(Ref. 37816). Live in shallow protected coastal waters to deep, somewhat silty habitats. Often with deep shipwrecks (Ref. 48637). Adults are found singly or in small groups and occasionally in large schools in some areas. Juveniles occur singly or in small groups among mangroves and inner sheltered lagoons while adults move out to open waters over sandy areas of deep lagoons, channels, and seaward reefs to a depth of at least 30 m. Feed on algae, invertebrates and small fishes (Ref. 89972).
Platax orbicularis	reef-associated	60	Known to enter lower reaches of rivers. Usually found on sandy bottoms in nearshore areas; usually solitary (Ref. 68964). Forms small to moderately large aggregations at all sizes (Ref. 48636). Minimum depth from Ref. 3470.
Upeneus tragula	reef-associated	25	Occasionally schooling species inhabit shallow sandy areas of lagoon and seaward reefs (Ref. 9710). Large adults are often found solitary on sand slopes with other species following to feed on prey that are disturbed when the goatfish is feeding (Ref. 48636). Benthopelagic (Ref. 58302). Feed on crustaceans, mollusks, worms, heart urchins and foraminiferans. Consumed fresh or dried. Minimum depth reported taken from Ref. 30874.
Mulloidichthys flavolineatus	reef-associated	43	Inhabit clear outer lagoon and seaward reefs (Ref. 1602). Benthopelagic over rubble and sand at 5-132 m (Ref. 58302). Solitary (Ref. 90102). Males are highly territorial (Ref. 9710).
Lactoria fornasini	reef-associated	23	Poisonous in some parts of the tropics (Ref. 7364).

Kyphosus vaigiensis	reef-associated	70	Aggregate over hard, algal coated bottoms of exposed surf-swept outer reef flats, lagoons, and seaward reefs to a depth of at least 24 m. Found in exposed areas around rocky reefs (Ref. 559); adults usually close to the shore and the coastline, while juveniles are associated with flotsam and can be encountered in the open ocean close to the surface (Ref. 95491). Benthopelagic (Ref. 58302). Usually in groups (Ref. 90102). Young (up to 5 cm) found among floating seaweed; feeding on small crustaceans (Ref. 559). Adults are carnivorous during summer and autumn but feed on <i>Endarachne binghamiae</i> during winter (Ref. 559). Good food fish (Ref. 559). Minimum depth reported taken from Ref. 30573.
Carangoides ferdau	reef-associated	70	Adults are found in coastal waters adjacent to sandy beaches; also found to depths of 60 m, often near reefs (Ref. 30573). Pelagic (Ref. 58302). Singly or in small groups (Ref. 48635). They feed mainly on mollusks, benthic crustaceans, and occasionally on small fish (Ref. 90102) that are abundant in the lagoons. Excellent food fish (Ref. 12484), the flesh is rarely poisonous.
Lethrinus sanguineus	NA	NA	NA
Gymnothorax favagineus	reef-associated	300	Inhabits reef flats and outer reef slopes of continental reefs (Ref. 9710). One of the two largest of Indo-Pacific morays. Often in holes with cleaner wrasses or shrimps (Ref. 48635). Feeds on cephalopods and small fishes (Ref. 30573). Large adults may be aggressive (Ref. 9710). Minimum depth reported taken from Ref. 30573.
Aethaloperca rogaa	reef-associated	60	Adults are found in coastal reefs and lagoons, often on silty habitat (Ref. 48635), in or near caves and holes in the reef. They feed mainly on small fishes (including <i>Pempheris</i> sp.), also on stomatopods (<i>Pseudosquilla</i> sp.) (Ref. 6448); and crustaceans (Ref. 37816). Preliminary data indicate that mature individuals spawn at any time of the year and mature (females?) at about 35 cm SL (Ref. 6448). Small juveniles mimic <i>Centropyge vrolikii</i> (Ref. 8631), and <i>C. nox</i> until they outgrow their model in size (Ref. 48635). Taken as part of the live reef food fish trade centered in China and In Hong Kong and are occasionally found in markets (Ref. 89707). They are caught with hook-and-line, spear, and probably in traps (Ref. 39231).
Lutjanus bohar	reef-associated	90	Adults inhabit coral reefs, including sheltered lagoons and outer reefs (Ref. 30573). Usually found singly, often adjacent to steep outer reef slopes, but occasionally found in groups (Ref. 9710). Feeds mainly on fishes, but also take shrimps, crabs, amphipods, stomatopods, gastropods and urochordates. Large fish from oceanic areas in the western Pacific are often ciguatoxic, e.g., in Tuvalu (Ref. 9513). Caught mainly with handlines and bottom longlines (Ref. 9821). Utilized fresh and dried-salted (Ref. 9987). Juveniles mimic <i>Chromis</i> damselfishes (Ref. 90102).

Siganus argenteus	reef-associated	40	Inhabits coastal and inner reef slopes and lagoons. Usually occurs in large schools that swim fast and well above the substrate, occasionally all diving down to the bottom to feed (Ref. 48637). Juveniles and adults occur in small schools (2-100) around coral reefs, typically in surge zone at reef edge. Juveniles live near the surface in dense aggregations up to several km offshore, migrating to reef flats just prior to metamorphosis. Feeds on algae (Ref. 30573). Juveniles and adults not frequently found in markets; but prejuveniles form a brief but important fishery when migrating on to the reef flat, e.g. combined catch (with <i>Siganus spinus</i>) of 16 tonnes in one season in Guam. Prejuveniles eaten fresh, pickled in brine or made into fish paste (Ref. 9813). Consumed as food although it is known to be occasionally
Lutjanus russelli	NA	NA	poisonous (Ref. 4537). Used in Chinese medicine (Ref. 12166).
Lethrinus obsoletus	reef-associated	60	Found over seagrass beds (Ref. 41878), sand and rubble areas of lagoons and reefs (Ref. 30573). Found singly or in groups (Ref. 9710). Juveniles on weedy reefs (Ref. 48635). Feed on mollusks, crustaceans, and echinoderms (Ref. 30573). One of the commonest lethrinids along the coast of east Africa (Ref. 4369). Marketed fresh (Ref. 9775).
Scarus globiceps	reef-associated	45	Inhabits lagoons, seaward reefs, and reef flats (Ref. 90102). More common in outer reef habitats than in protected waters. Spawns in groups or in pairs. Feeds on benthic algae (Ref. 89972). Caught mainly with traps, nets and other types of artisanal gear.
Parupeneus cyclostomus	reef-associated	50	Found on coral (Ref. 58652), rocky, or rubble bottoms of reef flats, lagoons, and seaward reefs (Ref. 3921). Benthopelagic (Ref. 58302). Juveniles form schools, adults usually solitary. Feed primarily on small fishes, crustaceans, peanut worms, shrimps, crabs, octopi, and small gastropods during the day (Ref. 3921). Minimum depth reported taken from Ref. 30874.
Chaetodon selene	reef-associated	16	Inhabit coastal reefs, primarily on rubble slopes (Ref. 9710). Oviparous (Ref. 205). Adults usually swim in pairs in search of small benthic invertebrates (Ref. 48636).
Scarus frenatus	reef-associated	47	Usually found on exposed outer reefs, sometimes in very shallow water (Ref. 2334). Juveniles occur among coral and rubble of lagoon reefs. Grazes on benthic algae (Ref. 30573). Generally solitary (Ref. 1602). Often in schools of mixed species when feeding (Ref. 48636).
Gerres oyna	reef-associated	30	Found along the coast, saltwater lagoons, and estuaries (Ref. 5213). Also in sand bottoms in sheltered waters near reefs (Ref. 90102). Occurs singly or in groups (Ref. 9710). Feeds on small organisms living on sandy bottoms. Utilized as fish meal and duck food. Sold fresh in markets.

Acanthurus nigrofuscus	reef-associated		<p>Found on hard substrates of shallow lagoon and seaward reefs from the lower surge zone to a depth of more than 15 m (Ref. 27825). Benthopelagic (Ref. 58302). Feed on filamentous algae. Form spawning aggregations (Ref. 27825, 48637). Adults usually in small groups, but form large schools in some oceanic locations. Juveniles are often seen in mixed species aggregations (Ref. 48637). Species at the bottom of the 'pecking order' among surgeon fishes, and as a result employs the strategy of feeding in large schools that overwhelm the territorial defenses of other herbivores (Ref. 1602). Caught with nets (Ref. 30573). Can be eaten both raw and cooked (Ref. 7364). Maximum depth reported at 25m (Ref. 027115)</p>
Lutjanus sebae	reef-associated		<p>Adults occur in the vicinity of coral or rocky reefs (Ref. 5484), often over adjacent sand flats and gravel patches (Ref. 55). Also trawled in deeper water on relatively flat bottoms. Juveniles are frequently commensal with sea urchins (Ref. 55). Juveniles less than 20 cm long are common in near shore, turbid waters (Ref. 27260), in mangrove areas (Ref. 55), or among both coastal and deeper water offshore reefs (Ref. 27260). Juveniles can also be found swimming amongst the spines of urchins in shallow coastal bays (Ref. 48635). They move to deeper waters as they grow larger (Ref. 27264), with large fish often moving into shallower water during the winter months (Ref. 27260, 27264). They form schools of similar-sized individuals or are solitary (Ref. 6390). Feed on fishes, crabs, stomatopods, other benthic crustaceans and cephalopods. Marketed fresh, dried-salted and frozen (Ref. 9987). Commercially important but in certain regions of the Indian Ocean, large individuals are known to cause ciguatera poisoning (Ref. 11888).</p>
Epinephelus fuscoguttatus	reef-associated		<p>Occurs in lagoon pinnacles, channels, and outer reef slopes, in coral-rich (Ref. 1937) areas and with clear waters. Juveniles in seagrass beds (Ref. 30573, 41878). Feeds on fishes, crabs, and cephalopods. May be ciguatoxic in some areas (Ref. 1602). Mainly active at dusk (Ref. 48635). Palau fishers increase their drop-line and spear-gun catches through knowledge of reproductive cycle of remochel, one of most important species in the area (Ref. 2928). Cultured under experimental conditions in the Philippines; a candidate for aquaculture in Singapore. In Hong Kong live fish markets (Ref. 27253). Caught with hook-and-line, traps, and spear and occasionally seen in local markets (Ref. 39231).</p>
Chlorurus strongycephalus	NA	NA	NA

Neoglyphidodon melas	reef-associated		Adults are found in coral-rich areas of lagoon and seaward reefs and usually associated with soft corals on which it feeds (Ref. 1602, 58652). Occur singly or in pairs (Ref. 1602). Juveniles are encountered in around staghorn <i>Acropora</i> corals (Ref. 1602). Adults often near <i>Tridacna</i> clams and may feed on their feces (Ref. 9710). Oviparous, distinct pairing during breeding (Ref. 205). Eggs are demersal and adhere to the substrate (Ref. 205). Males guard and aerate the eggs (Ref. 205). Diurnal species (Ref. 113699).
Cephalopholis spiloparaea	reef-associated		Perhaps the most common grouper on Indo-Pacific coral reefs found below 40 m. The species is only known from insular localities except those collected from Pinda, Mozambique. Feeds on crabs and other crustaceans (Ref. 89972). The small size (<22 cm TL) and deep-water habitat of this species makes it less vulnerable to fishing (Ref. 58472). Solitary (Ref 90102).
Bodianus axillaris	reef-associated		Adults inhabit clear lagoon and seaward reefs (Ref. 1602); common in clear shallow waters at 1-8 m; large individuals occasionally at greater depths below 27 m (Ref. 75973). Juveniles occur solitary in caves or under ledges and act as cleaners by picking at bodies of other fishes (adults occasionally do this) (Ref. 1602); occurring regularly at depths of 14-26 m (Ref. 75973). Feed mainly on benthic, hard-shelled, invertebrates such as mollusks and crustaceans (Ref. 9823). Oviparous, distinct pairing during breeding (Ref. 205). Not commonly marketed.
Acanthurus tennenti	NA	NA	Occasionally seen in the aquarium trade. NA
Tetrosomus gibbosus	reef-associated		Inhabits deep coastal slopes and sheltered muddy substrates, usually in deep water offshore, but occasionally shallow near seagrass beds with silty rubble substrates (Ref. 48637). Usually occurs in sandy bottoms in coastal waters. Solitary (Ref. 90102). Feeds on benthic invertebrates. Generally considered as trash fish; not consumed. Its flesh and organs are poisonous (IUCN, http://www.iucnredlist.org/details/154933/0) however,
Lethrinus	NA	NA	30 NA
Gymnothorax flavimarginatus	reef-associated		Along drop-offs (Ref. 48635). Benthic (Ref. 58302). Occurs in coral or rocky areas of reef flats and protected shorelines to seaward reefs. Feeds on cephalopods (Ref. 30573), fishes, and crustaceans (Ref. 89972). Most often appears on the reef after a fish has been speared during daylight. The regularity and promptness of such appearances make it clear that <i>G. flavimarginatus</i> is especially sensitive to stimuli emanating from an injured or stressed fish (Ref. 13550). Eaten in some parts of the Indo-Pacific (Ref. 12484). Minimum depth reported taken from (Ref. 30874). Solitary and curious, usually seen with head protruding (Ref 90102).
Scarus	NA	NA	240 NA

Paracanthurus hepatus	reef-associated	31	Occur in clear, current-swept terraces of seaward reefs. Observed in loose aggregations 1 or 2 meters above the bottom; juveniles and subadults typical in groups near isolated <i>Pocillopora eydouxi</i> coral heads and when alarmed hide themselves tightly among the branches (Ref. 9710). Benthopelagic (Ref. 58302). Feed on zooplankton and occasionally on algae (Ref. 9710, 48637, 27115, 83665). Relatively uncommon and highly localized (Ref. 1602, 9710). Very popular and hardy aquarium fish. Anterolateral glandular groove with venom gland (Ref. 57406).
Myripristis berndti	reef-associated	30	Inhabits caves and hides under ledges of subtidal reef flats, channels and margins to outer reef slopes (Ref. 9710, 58302). Benthopelagic (Ref. 58302). Occurs in loose aggregations (Ref. 9710). Feeds mainly on plankton such as crab larvae. Almost always caught at night (Ref. 9307). Marketed fresh (Ref. 9307). Minimum depth reported taken from Ref. 30874.
Naso hexacanthus	reef-associated	75	Inhabits clear lagoon and seaward reef slopes (Ref. 9710, 48637). Benthopelagic (Ref. 58302). Usually seen in large schools (Ref. 90102). Mainly diurnal, it feeds on zooplankton such as crab larvae, arrow worms, pelagic tunicates, and occasionally filamentous red algae. The species is never poisonous (Ref. 4795).
Gymnocranius grandoculus	NA	NA	NA
Coris formosa	reef-associated	60	Adults found in weed, rock and coral areas; juveniles in shallow tide pools (Ref. 30573). Generally solitary (Ref. 5213). Feeds mainly on hard-shelled prey, including crustaceans, mollusks and sea urchins (Ref. 5374). Young very different (Ref. 1623).
Naso thynnoides	reef-associated	40	Generally uncommon species found in steep outer lagoon and seaward reef slopes (Ref. 9710, 48637). Maximum depth reported at 40m (Ref. 37792) Occurs singly or in large schools (Ref. 9710, 48637). Usually seen swimming steadily along upper edges of drop-offs in pursuit of plankton (Ref. 48637). A semi-pelagic fish that feeds on zooplankton, but remains over or near reefs. Also feeds on algae (Ref. 30573). It is cleaned by <i>Labroides</i> and sleeps on reefs at night, taking on a disruptive mottled pattern (Ref. 10671). Caught with nets (Ref. 30573).
Scarus festivus	reef-associated	45	Found in clear lagoon and seaward reefs (Ref. 1602). Feeds on benthic algae (Ref. 3488). Uncommon (Ref. 90102).
Caesio xanthonota	reef-associated	40	Inhabits deep lagoons and along seaward reefs (Ref. 9710), primarily around coral reefs. Feeds on zooplankton in large midwater aggregations. Oviparous, with numerous, small pelagic eggs (Ref. 402).

Priacanthus hamrur	reef-associated	45	Uncommon species found in outer reef slopes and deep lagoon pinnacles from 8 to at least 80 m. In small aggregations, sometimes schools in oceanic locations (Ref. 48635). Also found under ledges or hovering next to coral heads during day (Ref 90102). Feeds on small fish, crustaceans, and other small invertebrates (Ref. 5213). Occasionally taken in moderate numbers in trawls and by hook-and-line (Ref. 68288). Generally marketed fresh, may be salted or dried (Ref. 5284).
Naso unicornis	reef-associated	70	Adults inhabit channels, moats, lagoon and seaward reefs with strong surge (Ref. 48637). Benthopelagic (Ref. 58302). Typically occurring in small groups. Sometimes solitary (Ref. 90102). Juveniles in shallow protected bays and harbours (Ref. 48637). Mainly diurnal, feed on coarse leafy brown algae like <i>Sargassum</i> . Pair-spawning has been observed.
Acanthurus dussumieri	reef-associated	54	Schooling species, usually occurring in seaward reefs at depths greater than 9 m (Ref. 1602). Adults mainly on deep coastal reef slopes and outer reef walls, often on deep shipwrecks. Juveniles found on algae-rocky reef (Ref. 48637). Benthopelagic (Ref. 58302). Occur singly or in groups (Ref. 37816). Feed on surface film of fine green and blue-green algae, diatoms, and detritus covering sand (Ref. 1602). Pair-spawner (Ref. 37816). Mainly diurnal. (Ref. 1602). Utilized as a food fish (Ref. 3146).
Cantherhines sandwichiensis	reef-associated	19.2999992	Benthopelagic over coral and rock (Ref. 58302). Feeds mainly on algae and detritus, but also takes tunicates, corals, sponges and other benthic animals (Ref. 3921). Young spotted (Ref. 1623).
Novaculichthys taeniourus	reef-associated	30	Inhabit semi-exposed reef flats and lagoon and seaward reefs (Ref. 1602). Common in areas of mixed sand, and rubble that are subject to mild surge (Ref. 1602, 58466). Benthopelagic (Ref. 58302). Juveniles shallow on rubble amongst large bommies or protected open patches on reef crests and swim as if were a leaf floating along the bottom; large adults move along over large reef section, usually in pairs and typically turn or shift large pieces of rubble or debris that they grab and pull with their mouth or push over with their snout. Often, while one works the piece, the other grabs exposed prey. They are sometimes called rock-mover wrasse, but they don't move real rocks (Ref. 48636). Highly territorial (Ref. 9823). Feed on mollusks, sea urchins, brittle stars, polychaetes, and crabs (Ref. 5213); feeding is done by overturning large rocks to expose target preys. The young imitate drifting masses of algae (Ref. 2334).
Naso tuberosus	reef-associated	60	Marketed fresh (Ref. 9311). Minimum depth reported from Ref. 30874.
Coris	NA	NA	Occurs in coral reefs. Diet consisted a high proportion of the green alga, <i>Caulerpa</i> .

			Inhabits shallow water close inshore on coral reefs and in the intertidal zone (reef flats), near reef drop-offs and close offshore (Ref. 244, 58302). Also found in mangrove areas, moving in and out with the tide (Ref. 6871) and even in fresh water, but not in tropical lakes and rivers far from the sea (Ref. 9997). Occurs singly or in small groups (Ref. 244, 54301). Prefers fishes but also feeds on crustaceans, cephalopods and other mollusks (Ref. 6871). Viviparous (Ref. 50449). May become aggressive to spear fishers and has been reported to bite people wading in shallow water (Ref. 6871). Reported to cause poisoning (Ref. 4690). 2 to 4 young of 46 to 52 cm are born per litter (Ref. 1602). Generally marketed fresh (as fillet), may be dried, salted, smoked (Ref. 5284) or frozen (Ref. 9987). Fins are valued for shark-fin soup (Ref. 9987); liver as source of oil (Ref. 9997). This species is commonly seen in public aquaria (Ref. 54301).
Carcharhinus melanopterus	reef-associated		200 Maximum reported weight from IGFA was 13.550 kg (Ref. 40637).
Myripristis	NA	NA	NA
Cantherhines	NA	NA	NA
			Adults are found in schools in deep lagoons and along seaward reefs in coastal areas (Ref. 9710), mixing with other species of fusiliers (Ref. 48636). Juveniles are used as tuna bait fish.
Caesio caerulea	reef-associated		35 They are oviparous, with small pelagic eggs (Ref. 402).
			Inhabit clear to turbid water in shallow as well as deep water (Ref. 4787). Juveniles are found in inshore coral reefs (Ref. 5222). They feed in water to more than 100 m depth (Ref. 27275). It has been suggested that juveniles mimic the herbivorous damselfish <i>Neopomacentrus sindensis</i> , presumably to get closer to their unsuspecting prey (Ref. 5222, 9710). Feed on small fishes and crabs. Probably spawn during restricted periods and form aggregations when doing so (Ref. 27352). Eggs and early larvae are probably pelagic (Ref. 6390). Solitary (Ref
Epinephelus multinotatus	reef-associated		100 90102).
			Inhabits clear lagoon and seaward reefs from the lower surge zone to at least 30 meters (Ref. 37816, 48637). Juveniles among rocky boulders, often with long spined urchins, and adults on reef crests and slopes. Males swim about more openly than females that are often in close vicinity to the males (Ref. 48637). Solitary. Feeds on didemnid tunicates, polychaetes,
Ostracion meleagris	reef-associated		25 sponges, mollusks, copepods, and algae (Ref. 37816).

Caranx sexfasciatus	reef-associated		120	Adults inhabit coastal and oceanic waters associated with reefs (Ref. 9283, 58302). Pelagic at 1-96 m (Ref. 58302). They are often seen in large daytime schools but solitary at night when feeding (Ref. 90102). During the day they are usually seen milling in stationary aggregations (Ref. 44894), forming slow-moving schools in the passes or outside the reef (Ref. 4795). Juveniles may be encountered in estuaries (Ref. 9283, 44894), occasionally entering rivers and penetrating well inland (Ref. 2847, 44894). Adults feed mainly on fishes, squids and crustaceans (Ref. 9283, Ref. 90102). They are caught mainly on hook-and-line; also with gill nets, purse seines, and other artisanal gear (Ref. 9894). Marketed fresh, dried or salted (Ref. 9283) and frozen (Ref. 9987). Consumed broiled and baked (Ref. 9987).
Chaetodon meyeri	reef-associated		20	Occur in coral rich areas of clear lagoon and seaward reefs, and feed exclusively on coral polyps (Ref. 9710). Juvenile usually solitary among branching corals, adults usually paired and home-ranging (Ref. 9710, 48636). Oviparous (Ref. 205). Form pairs during breeding (Ref. 205). Lives in coastal waters in muddy habitats (Ref. 48635). Minimum depth of 0m (Ref. 81209).
Pterois miles	reef-associated		35	Fin spines highly venomous, may cause human death (Ref. 30573).
Parupeneus	NA	NA		NA
Lutjanus bouton	reef-associated		35	Adults inhabit coral reefs. Often seen in schools near outcrops or drop-offs, often with other species (Ref. 9710), of up to about 30 to 40 individuals. Small juveniles on shallow algae reef, often near freshwater run-offs (Ref. 48635). Feed on fishes, shrimps, crabs, other crustaceans, cephalopods and some planktonic items.
Variola louti	reef-associated		83	Usually seen in clear-water areas at depths below 15 m, and prefers islands and offshore reefs rather than continental shores. Feeds mainly on fishes, and on crabs, shrimps and stomatopods. It is highly appreciated for the quality of its flesh. It may not be sold in Mauritius because of cases of ciguatera poisoning (Ref. 11888). In the Hong Kong live fish markets (Ref. 27253). This common and important food fish is caught with handlines, spear, and traps (Ref. 39231).
Acanthurus	NA	NA		NA
Gnathodentex aureolineatus	reef-associated		30	Inhabits subtidal reef flats, lagoons, and seaward reefs (Ref. 9710). May be solitary or in groups (Ref. 90102). Sometimes forms aggregations of about a hundred or more individuals. Feeds at night on benthic invertebrates like crabs and gastropods, occasionally on small fish. Usually marketed fresh.
Wetmorella	NA	NA		NA
Upeneus sulphureus	demersal		23	Found in coastal waters, entering estuaries (Ref. 30573). Sandy-muddy bottom (Ref. 43239). Forms schools (Ref. 5213). Has appearance of sillaginids when schooling (Ref. 48636).

Pomacanthus imperator	reef-associated		<p>Juveniles are encountered under ledges, or in holes of outer lagoon patch reefs or semi-protected areas of exposed channels and outer reef flats. Subadults move to reef front holes and surge channels. Large adults inhabit ledges and caves in areas of rich coral growth on clear lagoon, channel, or seaward reefs (Ref. 6113). Benthopelagic (Ref. 58302). Feed on sponges and other encrusting organisms (Ref. 6113); also on tunicates. Form pairs. Young and adults may clean much larger fishes such as sunfish (Ref. 48636). Frequently exported through the aquarium trade. Juveniles are distinguished by a white dorsal-fin margin (Ref. 48391).</p>
Nebrius ferrugineus	reef-associated		<p>Found on continental and insular shelves, from the intertidal down to at least 70 m (Ref. 247). Occurs on or near the bottom in lagoons or along the outer edges of coral and rocky reefs, sandy areas near reefs and off sandy beaches (Ref. 247, 43278). Primarily nocturnal, but may be active during the day (Ref. 247). Prefers crevices and caves on reefs but may be found hiding in more exposed areas (Ref. 247). Forms resting aggregations, and often seen piled across or on top of one another (Ref. 247). Feeds on a wide variety of bottom invertebrates, small fishes (Ref. 247), including cephalopods, crustaceans and sea urchins (Ref. 37816), corals (Ref. 68964). Docile and known to allow itself to be touched, but a few non-fatal attacks have been recorded (Ref. 247). Ovoviviparous (Ref. 43278). 4 or more young are born per litter (Ref. 37816). Survives in captivity (Ref. 247). Marketed fresh and dried-salted; fins dried for the oriental sharkfin trade; liver processed for vitamins and oil; offal processed for fishmeal; hide potentially valuable for leather (Ref. 247).</p>
Chaetodon nigropunctatus	reef-associated		<p>Found in coral reefs, solitary or paired. Home-ranging. Feed at least partially on coral polyps (Ref. 9710). Oviparous (Ref. 205). Form pairs during breeding (Ref. 205).</p>
Rhinoptera javanica	reef-associated		<p>Found in bays, estuaries, and near coral reefs (Ref. 12951), over sand and mud bottoms (Ref. 9710). Usually solitary or in small aggregations (Ref. 114953). However, large schools with up to 500 individuals have been reported (Ref. 12951). Feeds on clams, oysters and crustaceans (Ref. 12951). Lives to over 2 years in captivity (Ref. 12951). Ovoviviparous (Ref. 50449). Edible (Ref. 30573). Caught mainly by gill net fisheries (Ref. 114953), occasionally by bottom trawl, demersal inshore gillnet and tangle net fisheries. Utilized for its meat (Ref. 58048).</p>
Cephalopholis merra	NA	NA	NA

Lethrinus erythracanthus	reef-associated	70	Occurs in deep lagoons and channels, outer reef slopes and adjacent soft bottom areas (Ref. 30573). Solitary in or near ledges or caves by day (Ref. 9710). Feeds on echinoderms, crustaceans, mollusks (Ref. 171), echinoids, crinoids and starfish (Ref. 37816). May be ciguatoxic in some areas (Ref. 37816). Caught by handline, vertical longline, traps, and trawls. Marketed mostly fresh (Ref. 171, 68703).
Plectorhinchus gibbosus	reef-associated	75	Found in coastal reefs, sandbanks, and near estuaries (Ref. 30573). Enter freshwater (Ref. 7050). Small juveniles occur along sheltered sandy shorelines where they mimic a dead leaf by drifting on their sides (Ref. 37816). Adults mainly in protected inshore reefs to deep offshore, sometimes swims in small groups (Ref. 48635). Excellent food fish (Ref. 2799).
Scarus falcipinnis	reef-associated	60	Inhabits steep seaward reef slopes to at least 20 m depth (Ref. 9710). Feeds on benthic algae. Also caught with nets, and other kinds of artisanal gear. Sold mostly fresh in markets.
Macolor niger	reef-associated	75	Adults are found on steep outer walls of lagoon, channel and seaward slopes in large schools (Ref. 9710, 48635). Juveniles are solitary (Ref. 30573). Feeds largely on fishes and crustaceans. Caught with handlines, gill nets, and traps, but also speared by divers and are frequently seen in markets and sold mainly fresh (Ref. 9821).
Lutjanus rivulatus	reef-associated	80	Occasionally encountered in coral reefs or shallow inshore flats (Ref. 30573). Found singly or in small groups (up to 15 to 20 individuals). Adults on deep coastal slopes; juveniles on shallow algae-reef flats, often near freshwater run-offs (Ref. 48635). Feed on fishes, cephalopods and benthic crustaceans (Ref. 30573). An excellent food fish. In Hong Kong live fish markets (Ref. 27253). Caught with handlines, traps, and gill nets, occasionally trawled; important to artisanal fisheries and marketed mostly fresh (Ref. 9821). Minimum depth reported taken from Ref. 57178.
Acanthurus blochii	reef-associated	45	Adults occur in outer lagoon and seaward reefs, usually seen in small groups and school in some oceanic locations (Ref. 48637). Benthopelagic (Ref. 58302). They feed primarily on the algal film covering compacted sand, ingesting the usual component of sand which probably aids in the trituration of the algal food in the thick-walled stomach, also feed on diatoms and detritus (Ref. 3921).
Lutjanus carponatus	NA	NA	NA

Mugil cephalus	benthopelagic	100	<p>Adults are found in coastal waters (Ref. 2850, 44894, 57400), often entering estuaries and rivers (Ref. 2847, 3573, 11230, 44894, 57400), sometimes far-up-river, lagoons and hypersaline environments (Ref. 57400). They are usually in schools over sand or mud bottom (Ref. 2850), between 0 and 10 m, occurring equally in tropical, subtropical and temperate waters (Project MUGIL). They are mainly diurnal, feeding on detritus, micro-algae and benthic organisms (Ref. 56548, 74902, 74760). Juveniles feed on zooplankton until about 3.0 cm SL (Ref. 59043). Reproduction takes place at sea, at various times of the year depending on the location (Ref. 74907, Amour). Adults form schools and migrate offshore to spawn and developing larvae migrate back inshore (Ref. 81659). There is absence of an obligatory freshwater phase in the life cycle (Ref. 74752). Females spawn 0.8 to 2.6 million eggs which develop at sea (Ref. 74912, Chen & Su 1986). Sexually mature at 3 to 4 years (Ref. 74902). Maximum length reported as 120 cm SL (Ref. 7399, 57400, 81659) remains to be confirmed (Project MUGIL). Maximum weight reported as 12 kg (Ref. 56527) seems too high for the area and remains to be confirmed (Project MUGIL). Widely cultivated in freshwater and brackish ponds (Ref. 2847, Jackson 1984, Liao 1981). Marketed fresh, dried, salted, and frozen; roe sold fresh or smoked (Ref. 9321); also used in Chinese medicine (Ref. 12166).</p>
Rastrelliger kanagurta	pelagic-neritic	NA	<p>Adults occur in coastal bays, harbors and deep lagoons, usually in some turbid plankton-rich waters. Form schools. Feed on phytoplankton (diatoms) and small zooplankton (cladocerans, ostracods, larval polychaetes, etc.) (Ref. 9684). Small groups were seen eating eggs of <i>Cheilodactylus inermis</i> straight after spawning (Ref. 48637). Adult individuals feed on macroplankton such as larval shrimps and fish. Eggs and larvae are pelagic (Ref. 6769). Generally marketed fresh, frozen, canned, dried-salted, and smoked; also made into fish sauce (Ref. 9684).</p>
Lethrinus microdon	reef-associated	80	<p>Found over sandy areas near coral reefs (Ref. 30573). Feeds on fish, crustaceans, cephalopods, and polychaetes. Swims in small schools sometimes together with <i>L. olivaceus</i>. Utilized as a food fish.</p>
Pomadasys commersonnii	reef-associated	80	<p>Found in coastal waters, estuaries, and tidal fissures; can tolerate freshwater. It can jet a stream of water into the mud to expose crustaceans, worms and small bivalves which it feeds on (Ref. 11441); including fish (Ref. 5213). Tasty food fish (Ref. 2799). Maximum depth range from Ref. 122702.</p>
Plectorhinchus picus	reef-associated	84	<p>A solitary species (Ref. 9710) found in lagoon and seaward reefs. Adults usually under coral heads or in caves, while juveniles are found in shallow lagoons. Feeds on crustaceans and mollusks. Generally marketed fresh (Ref. 5284).</p>

Lethrinus conchiliatus	reef-associated	<p>Solitarily inhabits sand, rubble, and weed areas near corals (Ref. 90102) in deep reefs. Feeds on crustaceans and small fishes. Gonads in spawning state have been observed in October. This species is not well represented in museums due to the relatively large capture size for 76 most specimens (Ref. 2295). Also caught with handlines (Ref. 9775).</p>
Plotosus lineatus	reef-associated	<p>Coastal benthic (Ref. 68964). The only catfish found in coral reefs. Also found in estuaries, tide pools and open coasts. Juveniles form dense ball-shaped schools of about 100 fish; adults are solitary or occur in smaller groups of around 20 and are known to hide under ledges during the day (Ref. 1602, 5503, 12693, 37816, 48635). Adults search and stir the sand incessantly for crustaceans, mollusks, worms, and sometimes fish (Ref. 5213). Oviparous, with demersal eggs and planktonic larvae (Ref. 205). The highly venomous serrate spine of the first dorsal and 32 each of the pectoral fins are dangerous, and even fatal in rare cases (Ref. 1602).</p> <p>This occasionally schooling species inhabits sandy bottoms of reef flats, lagoons, coastal and seaward reefs (Ref. 9710, 90102). Benthopelagic (Ref. 58302). In large inactive aggregations by day, dispersing to sand flats to feed at night (Ref. 9710). Sometimes mixes with blue-striped snapper <i>Lutjanus kasmira</i> and shows blue stripes (Ref. 48636). Feeds on small worms and crustaceans. Also caught using ringnets (Ref. 5213). Minimum depth reported 38 taken from Ref. 30874.</p>
Mulloidichthys vanicolensis	reef-associated	
Lutjanus kasmira	reef-associated	<p>Adults inhabit coral reefs, occurring in both shallow lagoons and on outer reef slopes. Frequently found in large aggregations around coral formation, caves or wrecks during the day. Juveniles inhabit seagrass beds around patch reefs (Ref. 9710). Benthopelagic (Ref. 58302). Feed on fishes, shrimps, crabs, stomatopods, cephalopods, and planktonic crustaceans. Also 40 take a variety of algae (Ref. 4821). Minimum depth reported taken from Ref. 30874.</p> <p>Inhabits coral reefs. Young are commonly found in mangrove areas. Feeds mainly on benthic algae (Ref. 3802). Known to have a home cave to which it retires at night or when danger 120 threatens; makes use of the sun as an aid to locating the cave.</p> <p>Found around rocks and corals from the surf zone to a depth of 80 m (Ref. 2799). Enters estuaries and rivers in Seychelles, Madagascar and South Africa (Ref. 2135). Juveniles occur in 80 tide pools (Ref. 9710).</p>
Scarus guacamaia	reef-associated	
Plectorhinchus schotaf	reef-associated	

Lutjanus campechanus	reef-associated	100	Adults are found over rocky bottoms. Juveniles inhabit shallow waters, common over sand or muddy bottoms. Feed mainly on fishes, shrimps, crabs, worms, cephalopods, and some planktonic items including urochordates and gastropods. Marketed fresh and eaten steamed, broiled and baked (Ref. 9988). Heavily exploited in American waters where it is now closely protected; shrimp fishing, accused of destroying young snappers, is currently restricted.
Lethrinus genivittatus	NA NA	NA	
Plectorhinchus lineatus	reef-associated	72	Found in deep inner to outer reef habitats (Ref. 48635). Occurs singly or in aggregations along coral slopes of clear lagoon and seaward reefs. Juveniles solitary on shallow protected reefs (Ref. 48635). Generally nocturnal, feeding on benthic invertebrates in open sand flats and seagrass beds at night and conspicuously rests during the day (Ref. 9710, 90102). At Palau, it aggregates to spawn around new moon (Ref. 37816). Taken by handline and spear. Marketed fresh, a small quantity is salted (Ref. 47695).
Plectorhinchus chubbi	reef-associated	75	A relatively rare species (Ref. 9710) found in coastal areas near reefs (Ref. 30573). Juveniles in shallow weedy areas. Omnivorous (Ref. 2799). Good to eat.
Mulloidichthys dentatus	reef-associated	31	Inhabits sand, mud and rock bottoms of shallow waters near the coast (Ref. 9322). Often occurs in small schools but may also be solitary. Feeds by digging in the sand with its barbels. Rests on the bottom at night, dramatically changing both color and daytime pattern to reddish blotches (Ref. 5227). Young are pelagic.
Scarus harid	NA NA	NA	
Acanthurus xanthopterus	reef-associated	70	Live in various reef habitats, sand slopes and lagoons (Ref. 48637). Juveniles inhabit shallow, protected, turbid inshore waters while adults prefer deeper areas of protected bays and lagoons. Also in outer reef areas (Ref. 1602). Benthopelagic (Ref. 58302). Schooling species, feed on diatoms, detritus film of sand, filamentous algae, hydroids, and pieces of fish (Ref. 1602, 48637). Probably the only surgeonfish that readily takes bait (Ref. 12484).
Monodactylus argenteus	pelagic-neritic	27	Found in bays, mangrove estuaries, tidal creeks, and lower reaches of freshwater streams (Ref. 2847, 44894, 48636); occasionally in silty coastal reefs (Ref. 9710). Feeds on plankton and detritus (Ref. 5213, 44894). Commonly seen in schools (Ref. 44894); small juveniles either solitary or in small aggregations (Ref. 48635). Highly territorial (Ref. 9710). Caught with throw nets (Ref. 30573).
Aphareus furca	reef-associated	70	Adults inhabit inshore coral and rocky reefs and in clear waters of lagoons (Ref. 9821). Pelagic and benthopelagic (Ref. 58302). Occur singly or in small groups. Feed mainly on fishes, but also eat crustaceans. Individuals with brilliant yellow on head may be nuptial males (Ref. 9821). Often curious and approachable (Ref. 9710). Marketed fresh.

Anampses lineatus	reef-associated	13	Adults inhabit lagoon and seaward reefs, usually deeper than 20 m to at least 42 m (Ref. 9710). Juveniles are solitary and adults form small groups, each with several females and a dominant male (Ref. 48636). Oviparous, distinct pairing during breeding (Ref. 205). Minimum depth reported from Ref. 27115.
Zebrasoma velifer	reef-associated	40	Occurs in lagoon and seaward reefs from the lower surge zone to a depth of at least 30 m. Solitary juveniles found among rocks or coral (Ref. 58534) of shallow protected, sometimes turbid reefs (Ref. 1602, 48637). Benthopelagic (Ref. 58302). Feeds on leafy macroalgae. It possesses, fewer and larger pharyngeal teeth, compared to the other <i>Zebrasoma</i> spp. (Ref. 33204). The species is never poisonous (Ref. 4795).
Chlorurus sordidus	reef-associated	40	One of the most widespread parrotfishes, but highly variable and some geographical forms that are probably subspecific (Ref. 48636). Inhabit both coral rich (Ref. 58652) and open pavement areas of shallow reef flats and lagoon and seaward reefs (Ref. 5213), as well as drop-offs, behaving differently in various areas (Ref. 48636). Benthopelagic (Ref. 58302). Juveniles found in coral rubble areas of reef flats and lagoons (Ref. 9710). Juveniles and individuals in the initial phase form large groups that migrate great distances between feeding and sleeping grounds (Ref. 9710). Feed on benthic algae (Ref. 30573). Minimum depth range reported taken from Ref. 30874. Protogynous (Ref. 55080). Minimum depth from Ref. 58018. Found in mud and sandy bottoms of the shelf and upper slope (Ref. 4780), 14–∞ to 15–∞ C (Ref. 36731). Feed on small shrimps, worms and other bottom invertebrates (Ref. 4780). Sold fresh and dried salted (Ref. 3490).
Umbrina canariensis	demersal	80	Found in coral-rich areas of lagoon and seaward reefs at depths of 1 to over 40 m (Ref. 1602, 48636, 58534). A secretive species (Ref. 8631, 48636), rarely ventures more than a few centimeters from shelter (Ref. 1602). A shy species, usually found in pairs when adult (Ref. 48636). Oviparous, distinct pairing during breeding (Ref. 205).
Cheilinus oxycephalus	reef-associated	17	Inhabit coastal reefs and enter estuaries. Often in silty habitat and usually on slopes with low rubble reef and rich invertebrate growth, ranging to moderate depths (Ref. 48637). Found on weedy and sandy areas of lagoon and seaward reefs (Ref. 9710). Often found in pairs (Ref. 9710). Sometimes solitary or in groups (Ref. 90102). Juveniles hide or shelter near seaweeds or seapens (Ref. 48637).
Pseudalutarius nasicornis	reef-associated	19	Inhabits reef flats, clear shallow lagoons, and seaward reefs (Ref. 9710). Benthic (Ref. 58302). Feeds mainly on small crustaceans during both day and night (Ref. 9710).
Echidna polyzona	reef-associated	72.3000031	

Siganus canaliculatus	reef-associated		40	Adults inhabit inshore, algae reefs, estuaries and in large lagoons with algae-rubble habitats. Mainly common on rocky substrates (Ref. 48637). In contrast to <i>S. fuscescens</i> , this species seems to tolerate more turbid waters, occurring within the vicinity of river mouths especially around seagrass beds. Adults also occur several kilometers offshore in deep, clear waters. Juveniles form very large schools in shallow bays and coral reef flats; school size reduces with size, with adults occurring in groups of 20 individuals or so. Herbivorous, feed on benthic algae and to some extent on seagrass. Fished by trawling and seine netting; bycatch in traps set in deep water and marketed fresh in very large numbers (Ref. 9813). Consumed as
Callistoctopus macropus	NA	NA	NA	food; and have poisonous spines (Ref. 4537).
Acanthopagrus berda	demersal		90	Feeds on invertebrates, including worms, mollusks, crustaceans and echinoderms (Ref. 5213), and small fish (Ref. 3670). Protandrous hermaphrodite (Ref. 55367). The flesh is excellent. Sold fresh in markets. It is parasitised by the monogenean <i>Anoplodiscus australis</i> on the fins and body surface (Ref. 124057).
Lethrinus elongatus	NA	NA	NA	
Siganus	NA	NA	NA	
Histiopertus typus	reef-associated		42	Inhabits deep rocky reefs (Ref. 9710, 11230).
Scarus tricolor	reef-associated	26.6000004	30	Inhabits lagoon and seaward reefs, in areas with dense coral growth (Ref. 9710) up to at least 30 m. Usually solitary, sometimes in groups (Ref. 9710). Feeds on benthic algae (Ref. 3488).
Pempheris adusta	reef-associated		17	This fish is common on coral reefs (Ref. 6645); forming aggregations in caves or crevices or under overhangs (Ref. 48636) by day, but a few may at times be seen in the open, close to the shelter of reefs. This species is also observed forming small groups with <i>Myripristis murdjan</i> at 0.5-1 m below the surface. At night, it is known to feed on zooplankton (Ref. 94773). Spawning occur during April to June, and is year-round in Okinawa I. (Koeda et al., in press - in Ref. 95675). Spawning occurred after sunset with individuals larger than 11 cm SL joining the spawning group (Ref. 95675). Flesh is edible (Ref. 12484).
Myripristis melanosticta	NA	NA	NA	
Lethrinus xanthochilus	reef-associated		70	Occurs in small groups over seagrass beds, sand and rubble areas of coral reefs, deep channels, and lagoons. Usually found in shallow water to depths of 150 m. Usually seen solitary but sometimes swims in small groups. Juveniles in seagrass beds (Ref. 48635). Feeds mainly on crustaceans, fishes, and echinoderms. Caught mostly with handline, traps, and trawl (Ref. 114226).

Lethrinus enigmaticus

reef-associated

Found over seagrass beds, coral reefs and adjacent sandy areas. Feeds mainly on echinoderms, crustaceans, and fish, and to a lesser degree on mollusks. Smaller, more numerous females than males have been confirmed for the Saya de Malta population (Ref. 2295). Marketed fresh 55 (Ref. 171).